Geotechnical Subsurface Data Report (GSDR Rev2)
I-526 Long Point Road Interchange
Charleston County, South Carolina
S&ME Project No. 200424A

PREPARED FOR:

CDM Smith
1441 Main Street, Suite 1000
Columbia, South Carolina 29201

PREPARED BY:

S&ME, Inc.
7410 Northside Drive
Suite 110
North Charleston, SC 29420

August 26, 2025

August 26, 2025

CDM Smith
1441 Main Street, Suite 1000
Columbia, South Carolina 29201

Attention: Mr. Thomas Evans, PE

Reference: **Geotechnical Subsurface Data Report (GSDR Rev2)**
I-526 Long Point Road Interchange
Charleston County, South Carolina
S&ME Project No. 200424A

Dear Mr. Evans:

The purpose of this report is to present geotechnical subsurface data collected for the referenced project. Our services were provided in general accordance with our Agreement Between Engineer and Subcontractor dated March 29, 2023. This Geotechnical Subsurface Data Report (GSDR) was revised based on comments from CDM Smith in an October 9, 2023 email and also includes results from additional exploration and laboratory testing services performed in 2025. This report supersedes our original GSDR dated August 4, 2023 and Rev1 dated October 20, 2023.

S&ME appreciates this opportunity to work with you as your geotechnical subcontractor on this project. Please contact us at (843) 884-0005 if you have any questions or need any additional information regarding this report.

Sincerely,

S&ME, Inc.

Hunter G. McKenzie, P.E.
Geotechnical Engineer

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION S&ME, INC. C00473

Aaron D. Goldberg, PE, D.GE
Technical Principal / Vice President

Andrew M. Fiehler, P.E.
Senior Geotechnical Engineer

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No.43402 ANDREW MICHAEL FIEHLER

Table of Contents

1.0 Introduction & Objective 1

2.0 Field Testing 1

2.1 Standard Penetration Test (SPT) Borings 2
2.2 Cone Penetrometer (CPT) and Seismic Cone Penetrometer (SCPT) Soundings 2
2.3 Dilatometer Test (DMT) Sounding 3
2.4 Hand Auger Boring and Dynamic Cone Penetration (DCP) Testing 3
2.5 Bulk Sampling 4
2.6 Undisturbed Samples (Shelby Tubes) 4
2.7 Soil Classification Methods 4

3.0 Laboratory Testing 4

4.0 Closing and Qualification of Report 5

Appendices

Appendix I – Figures

Appendix II – Field Data

Appendix III – Laboratory Data

1.0 Introduction & Objective

The SCDOT proposes to improve the existing interchange at S-97 (Long Point Road) and I-526 in Charleston County in order to improve interchange operation and safety. The general location of the proposed construction is shown on the *Site Vicinity Map* attached as Figure 1 in Appendix I. The project includes improving the interchange, entrance and exit ramps, and constructing a new flyover bridge. The objective of our exploration was to explore the subsurface conditions along the proposed interchange and bridge alignment to provide geotechnical site characterization data.

On August 4,2023 we submitted a Geotechnical Subsurface Data Report (GSDR) that included field exploration and laboratory test results for the project. On October 9, 2023 we issued a revised report (GSDR Rev1) that addressed comments from CDM Smith. The following report and appendices include the information from the 2023 reports as well as results from additional exploration and laboratory testing services performed in 2025.

This report supersedes our original GSDR dated August 4, 2023 and Rev1 dated October 20, 2023.

2.0 Field Testing

The 2023 field testing was conducted at or near the proposed locations provided in section 9 (Geotechnical Services) of the *Scope for Long Point Road / Wando Port Interchange, Charleston County,* dated May 16, 2022. The 2025 field testing was conducted at or near the proposed location provide in the Supplemental Exploration Scope dated January 3, 2025. Where necessary, test locations were modified to avoid conflicts with utilities, due to terrain/site conditions, to minimize traffic control impacts, and to facilitate safer working conditions.

Before equipment mobilization, S&ME representatives visited the site to observe existing conditions, access points, and hazards. The testing locations were initially established in the field by representatives of S&ME using our hand-held sub-meter GPS unit. As-built surveying of the completed testing locations was performed by CDM Smith. The approximate testing locations are shown on the *Test Location Plan (*Figures 1 through 5 in Appendix I). A summary of surveyed testing locations, coordinates, and elevations are presented in Table 1, *Test Location Summary*, in Appendix II. The GDM provided GeoScoping Form and Subsurface Investigation QA Checklist were completed and are also included in Appendix II.

S&ME provided cone penetration test services, certain laboratory testing services, and observation of field exploration activities. Soil Consultants, Inc., under contract to CDM Smith, provided soil test boring services and certain laboratory testing services in 2023. During the initial exploration, representatives of S&ME were present on-site during field activities between March 1, 2023, and May 9, 2023. An additional phase of exploration was performed between June 17, 2025 through June 24, 2025. In total the explorations included the following:

- Forty-six (46) SPT borings
- Thirty-five (35) CPT soundings including three Seismic Cone Penetrometer Tests (SCPT)
- Seven (7) Dilatometer Test (DMT) soundings
- Sixteen (16) hand auger borings with dynamic cone penetrometer (DCP) testing
- Pavement coring
- Collection of two (2) bulk samples for subsequent laboratory testing

- Collection of seven (7) undisturbed samples (UD tubes) for subsequent laboratory testing

Traffic control was required to safely perform the borings and soundings, as well as to load/offload equipment from the roadway. Traffic control consisted of nighttime lane closures on Long Point Road and advance warning signs for daytime median and shoulder closures on I-526, Wando Park Boulevard, and Shipping Lane. Traffic control configurations were set up in accordance with applicable SCDOT standard drawings. Prior to performing the borings located within existing pavements, the pavement was cored by Advanced Concrete Cutting under subcontract to Soil Consultants, Inc. Four-inch diameter holes were cut within the roadway using a diamond-tipped core barrel. The cores were performed to obtain pavement samples for thickness measurements and evaluation, and to provide access to the underlying base materials and soil. A *Pavement Core Photograph Log* is included in Appendix II.

2.1 Standard Penetration Test (SPT) Borings

Forty-six (46) soil test borings with SPT sampling denoted B01 through B18, EMB01 through EMB03, EMB05 through EMB14, R01 through R10, and R12 through R16. The borings performed between March 1, 2023, and May 9, 2023, were drilled using a CME-55 truck rig, a CME-550X ATV rig, and a CME-850 ATV rig. The additional exploration was performed between June 17, 2025 and June 24, 2025 with a Diedrich D-50 Marooka-mounted track drill rig. The SPT logs are included in Appendix II.

Soil sampling and penetration testing were performed in general accordance with ASTM D1586 *Standard Test Method for Penetration Test and Split Barrel Sampling of Soils*. SPT was performed in each boring continuously in the upper 10 feet, and at approximate 5-foot intervals thereafter. At B06, B07, EMB11, and EMB13, SPT was performed continuously in the upper 50 ft, and at 5-foot intervals thereafter. The split-barrel sampler was opened at the drill site and sloughed material was identified and separated from the recovered sample. The recovered sample was visually described and classified by S&ME's on-site geo-professional. A selected portion of the sample was placed in plastic, zipper sealed sample storage bags. Where materials changed over the sample drive length, a sample of each material was retained.

Water level measurements were attempted immediately after completion of drilling and, where feasible, were repeated after a period of 24 hours. We note that due to the use of drilling fluid additives, the water level readings recorded in the soil borings may not accurately reflect the ground water conditions at the site. Stabilized ground water readings were conducted in general accordance with ASTM D4750 *Standard Test Method for Determining Subsurface Liquid Levels in a Borehole or Monitoring Well (Observation Well)*.

After ground water measurements were complete, borings were backfilled with bentonite chips and grout. Borings performed within the existing roadway were grouted to within about 1 foot of the ground surface, and then patched with commercially available bagged asphalt or site-mixed concrete.

2.2 Cone Penetrometer (CPT) and Seismic Cone Penetrometer (SCPT) Soundings

Thirty-five (35) CPT soundings denoted CPT01 through CPT28, including seismic CPTs denoted SCPT04, SCPT11, and SCPT27, were performed between the dates of March 1 and 21, 2023, using truck-mounted and ATV-mounted rigs. Soundings CPT29 through CPT34 were performed between June 20, 2025 and June 24, 2025. The CPT logs and shear wave velocity profiles are included in Appendix II.

The CPT rig hydraulically pushes a conical pointed penetrometer into the soil at a slow, measured rate. Procedures for measurement of the tip resistance and side friction resistance to push generally follow those described by ASTM D-5778 *Standard Test Method for Performing Electronic Friction Cone and Piezocone Penetration Testing of Soils*.

CPT23 and CPT25 were terminated at a depth of approximately 50 and 49 ft, respectively, due to achieving the rig's maximum reaction force. CPT29, CPT30, CPT31, and CPT35 were terminated at depths of 93 to 99 feet upon encountering the rig's maximum reaction force.

Shear wave velocity measurements were performed using a cone penetrometer equipped with geophones, or a seismic cone penetrometer (SCPT), in sounding SCPT04. SCPT11, and SCPT27. The purpose of these tests was to generate a profile of measured shear wave velocity. The seismic cone penetrometer measures the travel times of surface generated vibrations to geophones mounted on the penetrometer at various incremental depths in the sounding. At a given depth, the travel time of the first arrival is measured and corrected for the horizontal offset of the source at the surface from the sounding. Interval velocities are calculated by dividing the difference in travel times by the vertical distance between successive measurement depths. Measurements were made at approximately 1-meter intervals. The resulting SCPT shear wave velocity profiles are included in Appendix II.

2.3 Dilatometer Test (DMT) Sounding

Seven DMT sounding denoted DMT01, DMT02, and DMT04 through DMT08 were performed between the dates of March 1 and 21, 2023, using truck and ATV-mounted rigs. The DMT logs are included in Appendix II.

DMTs consist of a series of individual dilatometer tests conducted on one-ft intervals. At each testing depth, a circular steel membrane located on one side of the blade was expanded horizontally into the soil using gas pressure. The pressure on the membrane was recorded before expansion, after expansion, and again after deflation. After appropriate corrections for membrane stiffness and gage pressure deviation from zero, the corrected readings were used to estimate soil constrained modulus, coefficient of lateral earth pressure, material classification, and pore pressure using the procedures described in FHWA Publication SA-91-044, *The Flat Dilatometer Test.*

2.4 Hand Auger Boring and Dynamic Cone Penetration (DCP) Testing

Sixteen manual auger borings were advanced using hand operated augers adjacent to the roadway borings denoted R01 through R16. The soils encountered were identified in the field by cuttings brought to the surface. Soil consistency was qualitatively estimated by the relative difficulty of advancing the augers. Hand auger boring logs are included in Appendix II.

Kessler DCP testing was performed at each hand auger boring. The DCP test involves driving a rod with a tip that is a 0.79-inch outside diameter, 60° cone into the ground using either a 10.1-pound hammer or a 17.6-pound hammer, free-falling through a drop of 22.6 inches, in general accordance with ASTM D6951 *Use of the Dynamic Cone Penetrometer for Shallow Pavement Applications*. The average depth (inch) driven by each hammer blow over each approximately 2-inch sampling interval is defined as the DCP Index. The DCP indices can be correlated to California Bearing Ratio (CBR) values based on extensive US Army Corps of Engineers research data. The results of the tests are summarized in the Kessler DCP logs included in Appendix II.

2.5 Bulk Sampling

Two bulk samples were obtained from auger cuttings from roadway boring nos. R01 and R05. Auger cuttings were placed in a 5-gallon bucket and shipped to our laboratory. A small portion of the sample was sealed in a glass jar to preserve its natural moisture content.

2.6 Undisturbed Samples (Shelby Tubes)

Six undisturbed samples (Shelby tubes) were obtained from companion borings offset adjacent to B01, B04, B08, B12, and B-14. A Shelby tube was also obtained from boring EMB14. Shelby Tubes were performed in general accordance with ASTM D1587 *Standard Practice for Thin-Walled Tube Sampling of Fine-Grained Soils for Geotechnical Purposes*. Shelby tube sample depths were selected by S&ME upon review of the SPT/CPT data and assigned accordingly.

Shelby Tubes provide sufficiently intact and relatively undisturbed samples for laboratory testing. Samples were obtained by pushing a 3-in. outer diameter, 16-guage, steel tube into the soil at the desired sampling intervals in mud-rotary drilled borehole adjacent to, or within, the original SPT location. The tube, together with the encased soil, was carefully removed from the ground and length of the recovered soil measured. The ends of the tube were sealed with microcrystalline wax and labeled with applicable project information before being transported to our laboratory. Shelby tube samples were transported and stored in general accordance with ASTM D4220-14 for Group C samples.

2.7 Soil Classification Methods

Recovered split spoon samples, hand auger cuttings, and bulk samples were initially classified in general accordance with ASTM D2488 *Standard Practice for Description and Identification of Soils (Visual-Manual Method)*. After laboratory testing was completed, provisional field classifications were revised as necessary to provide a soil description that generally follows the terminology given by ASTM D2487 *Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)* and AASHTO M145 *Recommended Practice for Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes*.

3.0 Laboratory Testing

Disturbed and undisturbed samples obtained from SPT, hand auger borings, and bulk samples were subjected to the proposed laboratory testing program. Index property testing consisting of Atterberg limits, particle-size distribution, and natural moisture content tests were performed on split-spoon soil samples to assist in classifying the soils. Additionally, corrosion series (pH, chloride, sulfate, and resistivity) tests were performed on split-spoon samples.

Bulk samples were subject to moisture-density (Standard proctor) and California Bearing Ratio (CBR) testing in addition to the index testing. Undisturbed samples were subject to consolidated undrained triaxial shear testing and one-dimensional consolidation testing in addition to the index tests.

The individual laboratory test data sheets are summarized in Appendix III. Tables summarizing the laboratory test results are provided in Appendix III as follows:

- Table 2: Laboratory Index Testing Summary
- Table 3: Laboratory Bulk Sample Testing Summary
- Table 4: Laboratory Undisturbed Sample Consolidation Testing Summary
- Table 5: Laboratory Undisturbed Sample Triaxial Testing Summary
- Table 6: Laboratory Corrosion Testing Summary

Testing was performed in general accordance with test procedures as follows:

- Atterberg limits – ASTM D4318
- Sieve Analysis – ASTM D6913
- Natural moisture content – ASTM D2216
- Corrosion series:
  - pH – ASTM G51
  - Chloride – ASTM D4327
  - Sulfate – ASTM D4327
  - Resistivity – ASTM G187
- Moisture-Density (Standard proctor) – ASTM D698
- California Bearing Ratio (CBR) – ASTM D1883
- Consolidated Undrained Triaxial Shear – ASTM D4767
- One-Dimensional Consolidation – ASTM D2435

4.0 Closing and Qualification of Report

This data report has been prepared with generally applicable standards of our practice in this geographic area at the time this report was prepared. No other warranty, express or implied, is made.

We relied on project information given to us to implement the field exploration program. If project information described in this report is not accurate, or if it changes during project development, we should be notified of the changes.

This report presents data from a limited field exploration program. Subsurface conditions will vary between explored areas. Some variations may not become evident until construction. If conditions are encountered which appear different than those described in our report, we should be notified. This report should not be construed to represent subsurface conditions for the entire site.

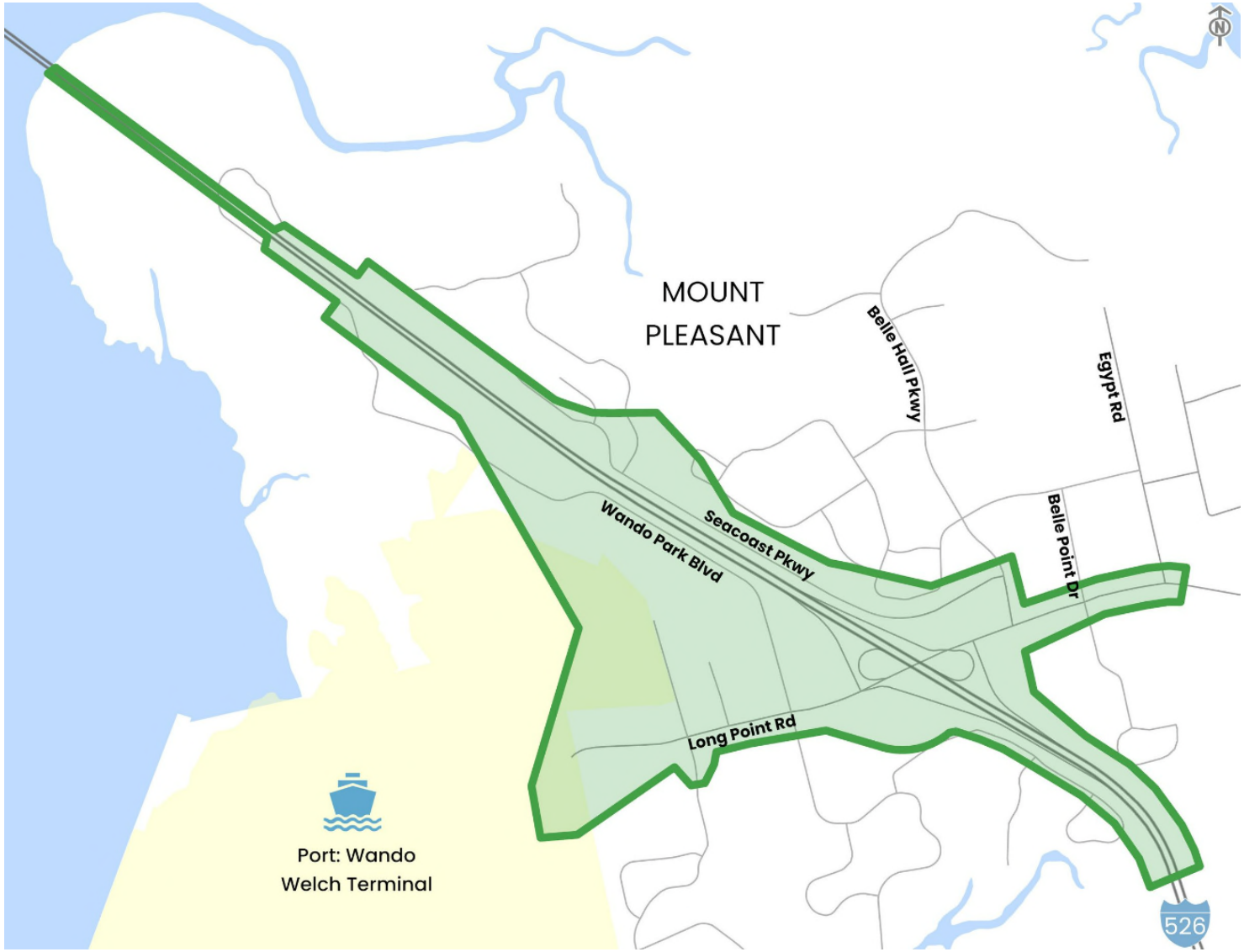
Unless specifically noted otherwise, our field exploration program did not include an assessment of regulatory compliance, environmental conditions or pollutants or presence of any biological materials (mold, fungi, bacteria). If there is a concern about these items, other studies should be performed.

Appendices

Appendix I – Figures

Figure 1: Site Vicinity Map

Figures 2 through 5: Test Location Plans

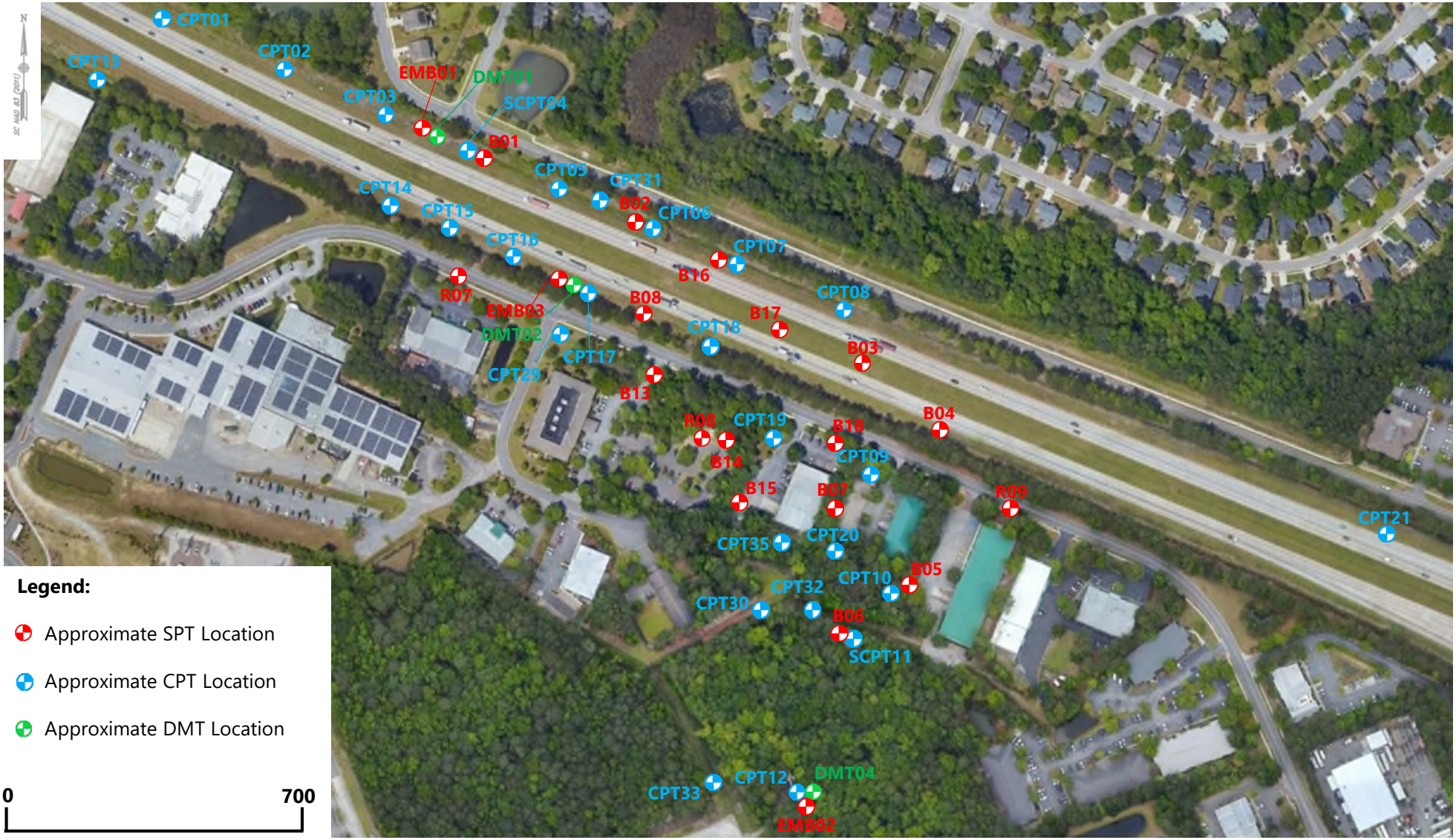


Source:
https://www.526lcclongpoint.com/

	Site Vicinity Map	SCALE: Not to Scale	FIGURE NO. 1
	I-526 Long Point Road Interchange Charleston County, South Carolina	DATE: 7/15/2025 PROJECT NUMBER: 200424A	



	Test Location Plan	SCALE: Not to Scale	FIGURE NO. 2
	I-526 Long Point Road Interchange Charleston County, South Carolina	DATE: 7/17/2025	
		PROJECT NUMBER: 200424A	

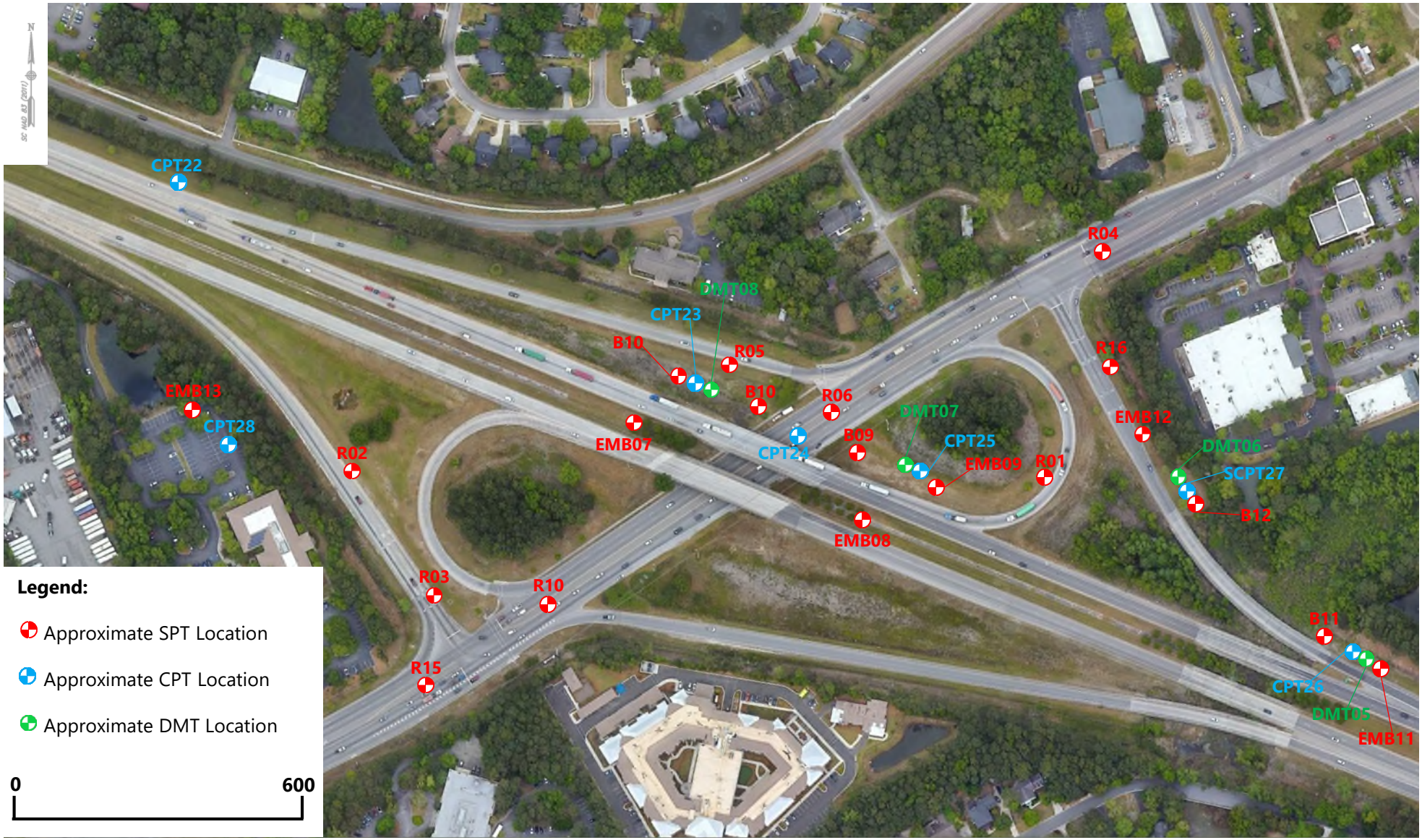


Test Location Plan

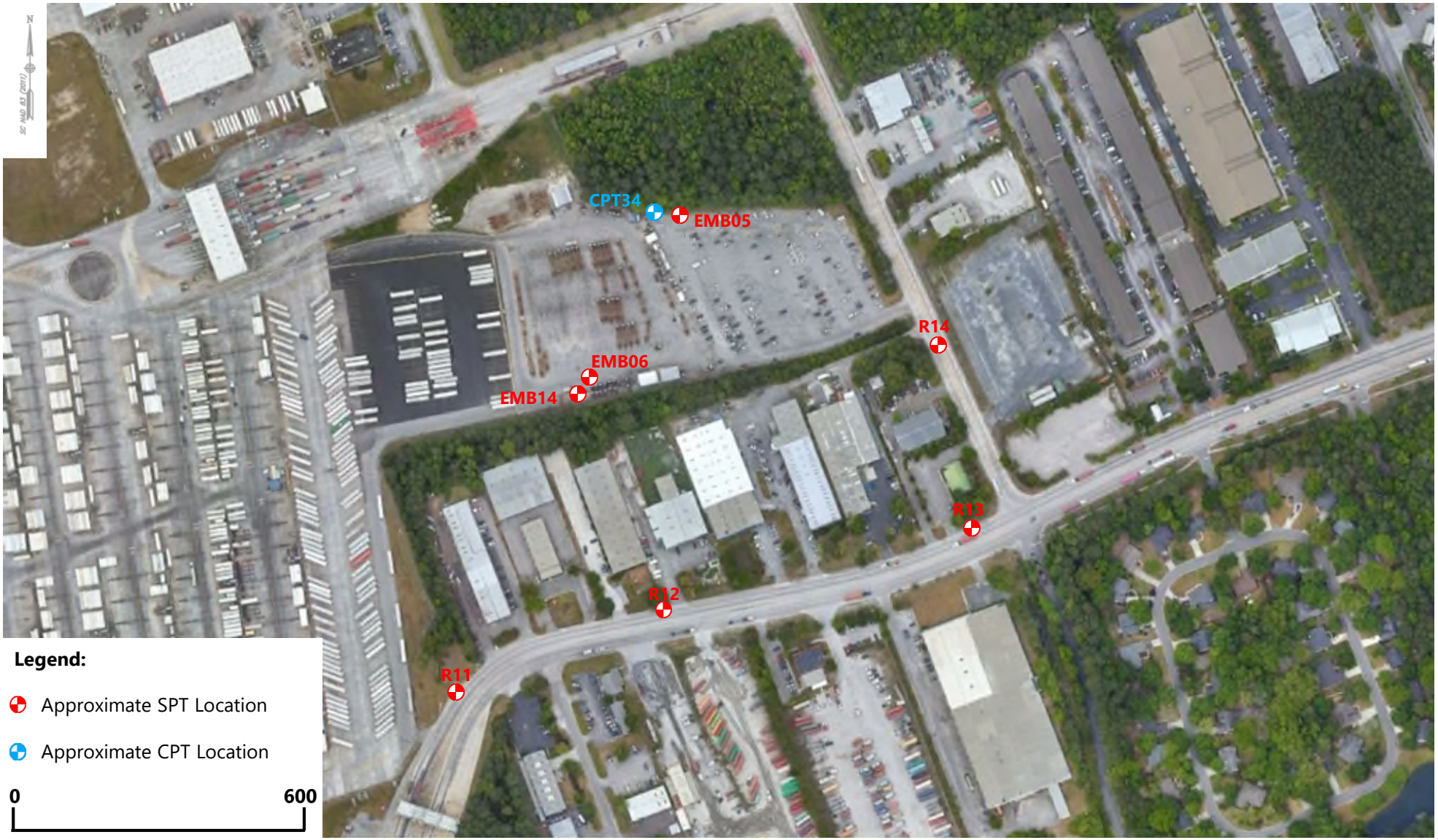
I-526 Long Point Road Interchange
Charleston County, South Carolina

SCALE: As Shown
DATE: 7/17/2025
PROJECT NUMBER: 200424A

FIGURE NO. 3



	Test Location Plan	SCALE: As Shown	FIGURE NO. 4
	I-526 Long Point Road Interchange Charleston County, South Carolina	DATE: 7/17/2025	
		PROJECT NUMBER: 200424A	



	Test Location Plan	SCALE: As Shown	FIGURE NO. 5
	I-526 Long Point Road Interchange Charleston County, South Carolina	DATE: 7/17/2025 PROJECT NUMBER: 200424A	

Appendix II – Field Data

SCDOT GeoScoping Form

SCDOT Subsurface Investigation QA Checklist

Table 1: Test Location Summary

Standard Penetration Test (SPT) Boring Logs

Cone Penetration Test Sounding Logs

Dilatometer Sounding Logs

Hand Auger Boring Logs

Dynamic Cone Penetrometer Logs

Pavement Core Photograph Log

GeoScoping Form

PROJECT INFORMATION	
Project ID: TBD	Date of Trip: 3/1/2023
County: Charleston	Location: Mount Pleasant, South Carolina
Rd/Route: I-526 / Long Point Road	Local Name: I-526 / Long Point Road Interchange
Attendees: Hunter G. McKenzie, PE (843-557-5430)	

EXISTING BRIDGE INFORMATION	
Bridge Length: Multiple existing bridges	Bridge Width: Multiple existing bridges
Superstructure Type: Multiple existing bridges	Substructure Type: Multiple existing bridges
Begin Bridge Sta.: Multiple existing bridges	End Bridge Sta.: Multiple existing bridges
Begin Bridge Embankment Sta.[1]:	End Bridge Embankment Sta.[1]: Multiple existing bridges
Structure Number: Multiple existing bridges	Posted Weight Limit: Multiple existing bridges
Crossing: Multiple existing bridges	Skew: Multiple existing bridges
Latitude: Multiple existing bridges	Longitude: Multiple existing bridges
Existing Fill Height: Multiple existing bridges	Approximate Existing Slope Angle: Multiple existing bridges

[1]Begin and End Bridge Embankment 100 feet down station or up station from bridge, respectively

EXISTING ROADWAY EMBANKMENT INFORMATION		
Begin Project Sta.: multiple roadway alignments	Begin Bridge Embankment Sta.[1]: multiple roadway alignments	
Accessibility Issues: slopes, underground utilities, existing drainage/wetlands		
Ground Cover: asphalt/concrete pavement and grassed shoulders		
Existing Fill Height: multiple roadway alignments	Approximate Existing Slope Angle:	
Local Development (undeveloped, developed residential, developed commercial, developed industrial, etc.):		
Topography (level, flat, rolling, steep, hillside, valley, swamp, gully, etc.): level with embankment slopes		
Traffic Control Necessary (Y/N):		
Yes		
Surface Soil: Topsoil and Embankment Fill	Muck (Y/N): Y	
Exposed Rock (Y/N): N	In Stream Bed (Y/N): N	In Banks (Y/N): N
Wetlands On-Site (Y/N): Y	Wetlands Adjacent (Y/N): Y	
Depth FG to Water: Varies depending on natural grade or top of embankment	Water Depth: varies	
Depth to Existing Ground: varies		
Scour Condition at EB: N/A	Scour Condition at IB: design flood	
End Bridge Embankment Sta.[1]:	End Project Sta.:	
Accessibility Issues: slopes, underground utilities, existing drainage/wetlands		
Ground Cover: asphalt/concrete pavement and grassed shoulders		
Existing Fill Height: varies	Approximate Existing Slope Angle:	
Local Development (undeveloped, developed residential, developed commercial, developed industrial, etc.):		
Topography (level, flat, rolling, steep, hillside, valley, swamp, gully, etc.): level with embankment slopes		
Traffic Control Necessary (Y/N): Y		
Surface Soil: Topsoil and Embankment Fill	Muck (Y/N): Y	
Exposed Rock (Y/N): N	In Stream Bed (Y/N): N	In Banks (Y/N): N
Wetlands On-Site (Y/N): Y	Wetlands Adjacent (Y/N): Y	
Depth FG to Water: varies depending on natural grade or top of embankment	Water Depth: varies	
Depth to Existing Ground: varies depending on natural grade or top of embankment		
Scour Condition at EB: N/A	Scour Condition at IB: design flood	

GeoScoping Form

UTILITIES INFORMATION
Attached:
Above Ground/ Overhead: Overhead power
Underground: Underground water, sewer, gas, and fiber

COMMENTS
See Test Location Plan (Appendix I)

Instructions:

1. Attach boring location plan for bridge and roadway.
2. Attach all photographs taken, photographs to be labeled as to direction looking in and what is being depicted.
3. Fill out GeoScoping Form as completely as possible, using additional sheets as necessary to describe site conditions.
4. If representative of GEC on site during GeoScoping, include GEC representative's name and contact number in Attendees block.

Subsurface Investigation QA

Project ID: TBD	**SCDOT**	
I-526 Long Point Road Interchange	**CDM Smith**	
I-526/Longpoint Road, Charleston County, SC	**S&ME**	**10/20/2023**

GDM requires experience and knowledge of the geological background of the project site and a detailed subsurface investigation plan that includes preliminary and final explorations prior to commencing field operations. All Consultants, regardless of contracting method shall submit the subsurface investigation plan to the respective PC/GDS, for review and acceptance. Refer to GDM Chapters 4 and 11 for guidance.

	Subsurface Investigation Items	Yes	No	NA	References	Variance	Waiver	Explanation
A	**Site Visit**							
	Was a Geotechnical Scoping form completed? See GDM Appendix A GDF 000.	yes			GDM Appendix A GDM 4.2.1 & 7.6			
B	**Investigation Preparation**							
	Was a Final Subsurface Investigation Plan completed and approved by appropriate PC/GDS?	yes			GDM 4.1			
C	**Investigation items**							
	Does testing locations meet the required number of tests and depth requirements for deep foundations?			na	GDM 4.3.1			Undefined at this time.
	Does testing locations meet the required number of tests and depth requirements for shallow foundations?			na	GDM 4.3.1			Undefined at this time.
	Any applicable items from the footnotes of Table 4-1 for testing locations ?		no		GDM 4.3.1			
	Does testing locations meet the required number of tests and depth requirements for rock cut excavations?		no		GDM 4.3.4			rock cut excavations not planned for Coastal Plain soils.
	Any artesian conditions found?		no		GDM 4.1			
D	**Field Testing**							
	N size core barrel (2") ASTM D2113/AASHTO T225 for rock coring			na	GDM 5.2.2			rock coring not performed.
E	**Lab Testing**							
	ASTM G51/AASHTO T289 for pH of soil	yes			GDM 5.4.13.1			
	ASTM D1293 for pH of brackish water (Coastal Areas)		no		GDM 5.4.13.1			
	AASHTO G57/AASHTO T288 for Soil resistivity	yes			GDM 5.4.13.2			
	ASTM D1125 for brackish water resistivity (Coastal Areas)		no		GDM 5.4.13.2			
	AASHTO T291 for Chloride in soil	yes			GDM 5.4.13.3			
	ASTM D512 for Chloride in brackish water (Coastal Areas)		no		GDM 5.4.13.3			
	ASTM C1580/AASHTO T290 for Sulfate in soil	yes			GDM 5.4.13.4			
	ASTM D516 for Sulfate in brackish water (Coastal)		no		GDM 5.4.13.4			
	ASTM D6032 for RQD			na	GDM 5.4.14			
	ASTM D4543 for Preparing rock core			na	GDM 5.4.14.1			
	ASTM D7012 for Compressive strength of rock core (method C or D)			na	GDM 5.4.14.1			
	ASTM D3740 for Minimum requirements (QC/QA) for Agencies performing soil/rock testing	yes			GDM 5.5.1			
F	**Material Description/Data Reporting**							
	Is IGM present?		no		GDM 6.1			Coastal Plain soils.
	Rock test log descriptions prepared and presented with GDM 6.3			na	GDM Figure 6-16 & 17			no rock coring/testing performed.
	Summary of laboratory data presented in template	yes			GDM Fig. 6-28			
	Index properties vs. depth presented in template	yes			GDM Fig. 6-29			
	Rock coring summary presented in template			na	GDM Fig. 6-41			no rock coring/testing performed.
	Rock core loading presented in template			na	GDM Fig. 6-42			no rock coring/testing performed.
	Rock core vs. strain presented in template			na	GDM Fig. 6-43			no rock coring/testing performed.

GeoScoping Form

PROJECT INFORMATION	
Project ID: P 041314	Date of Trip: 6/14/2025
County: Charleston	Location: Mount Pleasant, South Carolina
Rd/Route: I-526 / Long Point Road	Local Name: I-526 / Long Point Road Interchange
Attendees: Hunter G. McKenzie, PE (843-557-5430) Andrew M. Fiehler, PE (843-884-0005)	

EXISTING BRIDGE INFORMATION	
Bridge Length: Multiple existing bridges	Bridge Width: Multiple existing bridges
Superstructure Type: Multiple existing bridges	Substructure Type: Multiple existing bridges
Begin Bridge Sta.: Multiple existing bridges	End Bridge Sta.: Multiple existing bridges
Begin Bridge Embankment Sta.[1]: Multiple existing bridges	End Bridge Embankment Sta.[1]: Multiple existing bridges
Structure Number: Multiple existing bridges	Posted Weight Limit: Multiple existing bridges
Crossing: Multiple existing bridges	Skew: Multiple existing bridges
Latitude: Multiple existing bridges	Longitude: Multiple existing bridges
Existing Fill Height: Multiple existing bridges	Approximate Existing Slope Angle: Multiple existing bridges

[1]Begin and End Bridge Embankment 100 feet down station or up station from bridge, respectively

EXISTING ROADWAY EMBANKMENT INFORMATION		
Begin Project Sta.: multiple roadway alignments	Begin Bridge Embankment Sta.[1]: multiple roadway alignments	
Accessibility Issues: slopes, underground utilities, existing drainage/wetlands		
Ground Cover: asphalt/concrete pavement and grassed shoulders		
Existing Fill Height: multiple roadway alignments	Approximate Existing Slope Angle:	
Local Development (undeveloped, developed residential, developed commercial, developed industrial, etc.):developed commercial		
Topography (level, flat, rolling, steep, hillside, valley, swamp, gully, etc.): level with embankment slopes		
Traffic Control Necessary (Y/N): Yes		
Surface Soil: Topsoil and Embankment Fill	Muck (Y/N): Y	
Exposed Rock (Y/N): N	In Stream Bed (Y/N): N	In Banks (Y/N): N
Wetlands On-Site (Y/N): Y	Wetlands Adjacent (Y/N): Y	
Depth FG to Water: Varies depending on natural grade or top of embankment	Water Depth: varies	
Depth to Existing Ground: varies		
Scour Condition at EB: N/A	Scour Condition at IB: design flood	
End Bridge Embankment Sta.[1]:	End Project Sta.:	
Accessibility Issues: slopes, underground utilities, existing drainage/wetlands		
Ground Cover: asphalt/concrete pavement and grassed shoulders		
Existing Fill Height: varies	Approximate Existing Slope Angle: varies	
Local Development (undeveloped, developed residential, developed commercial, developed industrial, etc.): commercial		
Topography (level, flat, rolling, steep, hillside, valley, swamp, gully, etc.): level with embankment slopes		
Traffic Control Necessary (Y/N): Y		
Surface Soil: Topsoil and Embankment Fill	Muck (Y/N): Y	
Exposed Rock (Y/N): N	In Stream Bed (Y/N): N	In Banks (Y/N): N
Wetlands On-Site (Y/N): Y	Wetlands Adjacent (Y/N): Y	
Depth FG to Water: varies depending on natural grade or top of embankment	Water Depth: varies	
Depth to Existing Ground: varies depending on natural grade or top of embankment		
Scour Condition at EB: N/A	Scour Condition at IB: design flood	

GeoScoping Form

UTILITIES INFORMATION
Attached:
Above Ground/ Overhead: Overhead power
Underground: Underground water, sewer, gas, and fiber

COMMENTS
See Test Location Plan (Appendix I)

Instructions:

1. Attach boring location plan for bridge and roadway.
2. Attach all photographs taken, photographs to be labeled as to direction looking in and what is being depicted.
3. Fill out GeoScoping Form as completely as possible, using additional sheets as necessary to describe site conditions.
4. If representative of GEC on site during GeoScoping, include GEC representative's name and contact number in Attendees block.

Subsurface Investigation QA

Project ID: P041314	**SCDOT**	
I-526 Long Point Road Interchange	**CDM Smith**	
I-526/Longpoint Road, Charleston County, SC	**S&ME**	**8/26/2025**

GDM requires experience and knowledge of the geological background of the project site and a detailed subsurface investigation plan that includes preliminary and final explorations prior to commencing field operations. All Consultants, regardless of contracting method shall submit the subsurface investigation plan to the respective PC/GDS, for review and acceptance. Refer to GDM Chapters 4 and 11 for guidance.

	Subsurface Investigation Items	Yes	No	NA	References	Variance	Waiver	Explanation
A	**Site Visit**							
	Was a Geotechnical Scoping form completed? See GDM Appendix A GDF 000.	yes			GDM Appendix A GDM 4.2.1 & 7.6			
B	**Investigation Preparation**							
	Was a Final Subsurface Investigation Plan completed and approved by appropriate PC/GDS?	yes			GDM 4.1			
C	**Investigation items**							
	Does testing locations meet the required number of tests and depth requirements for deep foundations?			na	GDM 4.3.1			Undefined at this time.
	Does testing locations meet the required number of tests and depth requirements for shallow foundations?			na	GDM 4.3.1			Undefined at this time.
	Any applicable items from the footnotes of Table 4-1 for testing locations ?		no		GDM 4.3.1			
	Does testing locations meet the required number of tests and depth requirements for rock cut excavations?		no		GDM 4.3.4			rock cut excavations not planned for Coastal Plain soils.
	Any artesian conditions found?		no		GDM 4.1			
D	**Field Testing**							
	N size core barrel (2") ASTM D2113/AASHTO T225 for rock coring			na	GDM 5.2.2			rock coring not performed.
E	**Lab Testing**							
	ASTM G51/AASHTO T289 for pH of soil	yes			GDM 5.4.13.1			
	ASTM D1293 for pH of brackish water (Coastal Areas)		no		GDM 5.4.13.1			
	AASHTO G57/AASHTO T288 for Soil resistivity	yes			GDM 5.4.13.2			
	ASTM D1125 for brackish water resistivity (Coastal Areas)		no		GDM 5.4.13.2			
	AASHTO T291 for Chloride in soil	yes			GDM 5.4.13.3			
	ASTM D512 for Chloride in brackish water (Coastal Areas)		no		GDM 5.4.13.3			
	ASTM C1580/AASHTO T290 for Sulfate in soil	yes			GDM 5.4.13.4			
	ASTM D516 for Sulfate in brackish water (Coastal)		no		GDM 5.4.13.4			
	ASTM D6032 for RQD			na	GDM 5.4.14			
	ASTM D4543 for Preparing rock core			na	GDM 5.4.14.1			
	ASTM D7012 for Compressive strength of rock core (method C or D)			na	GDM 5.4.14.1			
	ASTM D3740 for Minimum requirements (QC/QA) for Agencies performing soil/rock testing	yes			GDM 5.5.1			
F	**Material Description/Data Reporting**							
	Is IGM present?		no		GDM 6.1			Coastal Plain soils.
	Rock test log descriptions prepared and presented with GDM 6.3			na	GDM Figure 6-16 & 17			no rock coring/testing performed.
	Summary of laboratory data presented in template	yes			GDM Fig. 6-28			
	Index properties vs. depth presented in template	yes			GDM Fig. 6-29			
	Rock coring summary presented in template			na	GDM Fig. 6-41			no rock coring/testing performed.
	Rock core loading presented in template			na	GDM Fig. 6-42			no rock coring/testing performed.
	Rock core vs. strain presented in template			na	GDM Fig. 6-43			no rock coring/testing performed.

Table 1: Test Location Summary

Test ID	Depth (ft)	Test / Sample Type	SC State Plane Northing[1] (ft)	SC State Plane Easting[1] (ft)	Latitude[1] (degrees)	Longitude[1] (degrees)	Elevation[2] (ft)
B01	100	SPT	370078.30	2346115.49	32.845269	-79.872959	9.7
B02	100	SPT	369854.82	2346478.42	32.844644	-79.871786	9.4
B03	100	SPT	369517.60	2346900.36	32.843705	-79.870424	13.4
B04	100	SPT	369365.92	2347016.00	32.843284	-79.870053	15.0
B05	100	SPT	368986.02	2346949.27	32.842242	-79.870283	14.4
B06	100	SPT	368914.73	2346786.10	32.842051	-79.870817	10.0
B07[2]	100	SPT	--	--	--	--	--
B08	100	SPT	369734.05	2346399.19	32.844315	-79.872048	11.1
B09	100	SPT	368026.02	2349637.89	32.839523	-79.861564	30.1
B10	100	SPT	368171.51	2349393.79	32.839930	-79.862354	19.3
B11	100	SPT	367526.44	2350490.09	32.838124	-79.858807	7.8
B12	100	SPT	367839.09	2350269.44	32.838990	-79.859515	10.1
B13	100	SPT	369544.07	2346443.70	32.843791	-79.871910	9.1
B14	100	SPT	369345.04	2346535.48	32.843242	-79.871618	8.1
B15	100	SPT	369210.89	2346573.38	32.842872	-79.871499	8.7
B16	100	SPT	369762.19	2346617.87	32.844386	-79.871335	11.2
B17	150	SPT	369584.98	2346779.76	32.843894	-79.870814	12.5
B18	100	SPT	369365.42	2346787.99	32.843290	-79.870795	10.5
EMB01	40	SPT	370156.31	2346011.94	32.845487	-79.873294	8.3
EMB02	40	SPT	368514.39	2346593.89	32.840957	-79.871457	11.5
EMB03	40	SPT	369788.47	2346307.92	32.844467	-79.872343	11.7
EMB05	40	SPT	368019.03	2346201.74	32.839607	-79.872752	17.9
EMB06	40	SPT	267683.92	2345975.46	32.563847	-79.877038	18.9
EMB07	40	SPT	368170.12	2349177.72	32.839933	-79.863057	42.7
EMB08	40	SPT	367907.24	2349574.91	32.839198	-79.861773	39.9

Table 1: Test Location Summary

Test ID	Depth (ft)	Test / Sample Type	SC State Plane Northing[1] (ft)	SC State Plane Easting[1] (ft)	Latitude[1] (degrees)	Longitude[1] (degrees)	Elevation[2] (ft)
EMB09	40	SPT	367957.50	2349732.99	32.839331	-79.861257	30.9
EMB10	40	SPT	368229.24	2349308.30	32.840091	-79.862630	19.4
EMB11	40	SPT	367455.75	2350559.12	32.837927	-79.858585	11.0
EMB12	40	SPT	367973.42	2350172.92	32.839362	-79.859824	11.6
EMB13	40	SPT	368320.55	2348301.84	32.840373	-79.865903	17.7
EMB14	60	SPT	367658.74	2345887.38	32.838626	-79.873788	17.3
R01	6.0	SPT / HAB / DCP	367893.31	2349845.56	32.839152	-79.860893	31.2
R02	6.8	SPT / HAB / DCP	368204.51	2348569.33	32.840046	-79.865037	20.0
R03	7.5	SPT / HAB / DCP	367891.47	2348723.89	32.839181	-79.864545	18.3
R04	6.7	SPT / HAB / DCP	368374.01	2350161.14	32.840463	-79.859848	18.8
R05	6.0	SPT / HAB / DCP	368236.45	2349413.16	32.840108	-79.862288	19.6
R06	6.5	SPT / HAB / DCP	368156.91	2349607.44	32.839883	-79.861658	18.8
R07	6.2	SPT / HAB / DCP	369828.35	2346065.65	32.844584	-79.873130	8.2
R08	6.0	SPT / HAB / DCP	369371.83	2346551.89	32.843315	-79.871564	8.3
R09	6.3	SPT / HAB / DCP	369155.03	2347174.65	32.842700	-79.869544	14.7
R10	7.0	SPT / HAB / DCP	367905.54	2349079.90	32.839208	-79.863385	19.9
R11	4.0	HAB / DCP	367029.03	2345527.70	32.836906	-79.874981	20.7
R12	6.8	SPT / HAB / DCP	367134.47	2346033.23	32.837181	-79.873332	21.5
R13	6.8	SPT / HAB / DCP	367202.19	2346686.79	32.837347	-79.871201	21.3
R14	6.9	SPT / HAB / DCP	367640.90	2346705.75	32.838553	-79.871124	19.2
R15	6.5	SPT / HAB / DCP	367704.12	2348651.85	32.838668	-79.864786	21.1
R16	6.0	SPT / HAB / DCP	368127.24	2350116.56	32.839786	-79.860002	12.8
CPT01	61.0	CPT	370571.06	2345376.50	32.846646	-79.875348	12.5
CPT02	60.1	CPT	370375.16	2345678.39	32.846099	-79.874372	9.3
CPT03	60.1	CPT	370224.07	2345901.99	32.845677	-79.873649	8.9

Table 1: Test Location Summary

Test ID	Depth (ft)	Test / Sample Type	SC State Plane Northing[1] (ft)	SC State Plane Easting[1] (ft)	Latitude[1] (degrees)	Longitude[1] (degrees)	Elevation[2] (ft)
SCPT04	60.0	SCPT	370091.50	2346107.11	32.845306	-79.872986	8.8
CPT05	60.3	CPT	369976.25	2346276.50	32.844984	-79.872439	9.7
CPT06	60.1	CPT	369873.58	2346464.04	32.844696	-79.871832	8.1
CPT07	60.1	CPT	369787.40	2346591.60	32.844456	-79.871419	9.5
CPT08	60.1	CPT	369657.72	2346800.11	32.844093	-79.870745	12.2
CPT09[2]	60.1	CPT	--	--	--	--	--
CPT10[2]	60.2	CPT	--	--	--	--	--
SCPT11	60.4	SCPT	368916.00	2346780.13	32.842055	-79.870837	9.4
CPT12	64.1	CPT	368518.19	2346591.29	32.840967	-79.871466	11.5
CPT13	60.1	CPT	370369.89	2345298.57	32.846095	-79.875609	12.2
CPT14	60.1	CPT	370110.22	2345794.63	32.845367	-79.874003	13.6
CPT15	59.8	CPT	369949.02	2346042.17	32.844916	-79.873203	12.8
CPT16	59.9	CPT	369832.64	2346232.55	32.844591	-79.872587	12.2
CPT17	60.0	CPT	369779.68	2346319.99	32.844443	-79.872304	11.4
CPT18	60.1	CPT	369606.49	2346594.32	32.843958	-79.871417	9.5
CPT19	60.3	CPT	369394.90	2346729.94	32.843373	-79.870983	10.3
CPT20[2]	60.2	CPT	--	--	--	--	--
CPT21	60.2	CPT	368947.65	2348024.92	32.842105	-79.866783	19.0
CPT22	60.1	CPT	368761.31	2348351.44	32.841583	-79.865726	19.6
CPT23	50.0	CPT	368208.81	2349354.97	32.840034	-79.862479	19.0
CPT24	60.1	CPT	368097.24	2349482.68	32.839723	-79.862067	19.2
CPT25	49.9	CPT	368017.81	2349681.31	32.839499	-79.861423	25.3
CPT26	60.1	CPT	367458.59	2350581.28	32.837935	-79.858513	8.3
SCPT27	60.0	SCPT	367855.70	2350262.15	32.839036	-79.859538	10.2
CPT28	60.1	CPT	368210.28	2348379.41	32.840067	-79.865655	18.8

Table 1: Test Location Summary

Test ID	Depth (ft)	Test / Sample Type	SC State Plane Northing[1] (ft)	SC State Plane Easting[1] (ft)	Latitude[1] (degrees)	Longitude[1] (degrees)	Elevation[2] (ft)
CPT29	98.9	CPT	369661.12	2346261.99	32.844118	-79.872497	7.8
CPT30	93.8	CPT	368976.54	2346612.72	32.842226	-79.871379	8.4
CPT31	96.3	CPT	369905.82	2346421.03	32.844786	-79.871971	7.2
CPT32	99.9	CPT	368971.59	2346701.38	32.842210	-79.871091	8.8
CPT33	61.1	CPT	368587.85	2346443.69	32.841163	-79.871944	13.1
CPT34	61.4	CPT	368036.09	2346111.97	32.839657	-79.873043	17.0
CPT35	92.8	CPT	369107.39	2346690.18	32.842584	-79.871123	10.0
DMT01	60	DMT	370143.21	2346023.93	32.845451	-79.873255	9.1
DMT02	60	DMT	369781.46	2346316.81	32.844448	-79.872314	11.3
DMT04	62	DMT	368520.75	2346587.91	32.840974	-79.871476	11.5
DMT05	60	DMT	367455.47	2350586.70	32.837926	-79.858495	8.1
DMT06	60	DMT	367860.86	2350258.74	32.839050	-79.859549	9.9
DMT07	48	DMT	368003.41	2349699.51	32.839459	-79.861364	25.8
DMT08	48	DMT	368213.72	2349348.09	32.840047	-79.862501	19.0

Notes:

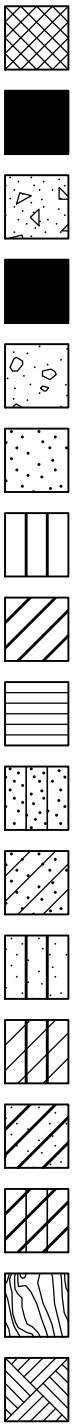
[1]South Carolina State Plane coordinates and elevations were surveyed and provided by CDM Smith

[2]Locations could not be surveyed due to property access

LEGEND TO SOIL CLASSIFICATION AND SYMBOLS

SOIL TYPES

(Shown in Graphic Log)



Fill

Asphalt

Concrete

Topsoil

Gravel

Sand

Silt

Clay

Organic

Silty Sand

Clayey Sand

Sandy Silt

Clayey Silt

Sandy Clay

Silty Clay

Partially Weathered Rock

Cored Rock

WATER LEVELS

(Shown in Water Level Column)

▽ = Water Level At Termination of Boring
▼ = Water Level Taken After 24 Hours
◄ = Loss of Drilling Water
HC = Hole Cave

CONSISTENCY OF COHESIVE SOILS

CONSISTENCY	STD. PENETRATION RESISTANCE BLOWS/FOOT
Very Soft	0 to 2
Soft	3 to 4
Firm	5 to 8
Stiff	9 to 15
Very Stiff	16 to 30
Hard	31 to 50
Very Hard	Over 50

RELATIVE DENSITY OF COHESIONLESS SOILS

RELATIVE DENSITY	STD. PENETRATION RESISTANCE BLOWS/FOOT
Very Loose	0 to 4
Loose	5 to 10
Medium Dense	11 to 30
Dense	31 to 50
Very Dense	Over 50

TERMS

Standard Penetration Resistance - The Number of Blows of 140 lb. Hammer Falling 30 in. Required to Drive 1.4 in. I.D. Split Spoon Sampler 1 Foot. As Specified in ASTM D-1586.

REC - Total Length of Rock Recovered in the Core Barrel Divided by the Total Length of the Core Run Times 100%.

RQD - Total Length of Sound Rock Segments Recovered that are Longer Than or Equal to 4" (mechanical breaks excluded) Divided by the Total Length of the Core Run Times 100%.

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B01
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	9.7 ft	**Latitude:**	32.845269	**Longitude:**	-79.872959	**Date Started:**	3/2/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/2/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.4	**TOPSOIL: 5"**		0.0	SS-1	2	1	2	5	3
		FILL - SILTY SAND (SM, A-2-4) - Very loose, very dark brown mottled with grey, moist, fine, few roots, organic odor, (10YR 2/2 with 10YR 5/1), [PI=NP, NMC=23%, #200=18.2%]		2.0						
	3.0				SS-2	3	6	4	6	10
		CLAYEY SAND (SC, A-2-4) - Loose, grey mottled with dark yellowish brown, moist, fine (2.5Y 5/1 with 10YR 4/6), [LL=22, PI=10, NMC=15.8%, #200=30.1%]		4.0						
4.7					SS-3	5	6	8	10	14
		@ 4 ft - Medium dense, grey mottled with red (2.5Y 5/1 with 2.5YR 4/6)		6.0						
	6.5				SS-4	6	8	12	10	20
		COASTAL PLAIN - FAT CLAY (CH) - Very stiff, grey, moist, trace brown staining (5Y 6/1)		8.0						
	8.0				SS-5	1	1	1	1	2
		SILTY SAND (SM, A-2-4) - Very loose, olive grey with strong brown, wet, fine (5Y 4/2 with 7.5YR 5/8), [PI=NP, NMC=33.9%, #200=19.8%]								
-0.3										
	12.0									
		FAT CLAY (CH, A-7-6) - Very soft, dark greenish grey, wet, trace fine sand (GLEY1 4/1), [LL=84, PI=59, NMC=73.1%, #200=72%]		13.5	SS-6	0	0	0		0
-5.3										
		@ 18.5 ft - Firm, trace wood, [LL=57, PI=41, NMC=53.2%, #200=63%]		18.5	SS-7	1	2	3		5
-10.3										
	22.0									
		POORLY GRADED SAND WITH SILT (SP-SM, A-2-4) - Loose, dark grey, wet, fine (5Y 4/1), [PI=NP, NMC=31%, #200=11.9%]		23.5	SS-8	2	3	3		6
-15.3										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B01
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	9.7 ft	**Latitude:**	32.845269	**Longitude:**	-79.872959	**Date Started:**	3/2/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/2/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	27.0	**CLAYEY SAND (SC, A-2-6)** - Very loose, dark greenish grey, wet, fine, few shell hash (GLEY1 4/10Y), [LL=32, PI=20, NMC=34.1%, #200=18.8%]	28.5	SS-9	0	1	1		2
-20.3	32.0	**SILTY SAND (SM, A-2-4)** - Medium dense, olive grey, wet, fine (5Y 4/2), [PI=NP, NMC=32%, #200=14.3%]	33.5	SS-10	2	8	9		17
-25.3									
		@ 38.5 ft - Dense	38.5	SS-11	9	17	21		38
-30.3	42.0	**MARL - FAT CLAY WITH SAND (CH, A-7-5)** - Stiff, olive brown, moist, organic odor, little fine sands, (2.5Y 4/3)	43.5	SS-12	3	5	6		11
-35.3									
		@ 48.5 ft - [LL=83, PI=53, NMC=64.8%, #200=75.1%]	48.5	SS-13	3	4	5		9
-40.3									

SPT N VALUE ● PL × MC ○ LL × ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B01
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	9.7 ft	**Latitude:**	32.845269	**Longitude:**	-79.872959	**Date Started:**	3/2/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/2/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				53.5						
					SS-14	3	5	6		11
-45.3										
				58.5						
					SS-15	2	6	7		13
-50.3										
	62.0	**ELASTIC SILT (MH)** - Stiff, olive brown, moist to wet, few fine sands (2.5Y 4/3)		63.5						
					SS-16	2	3	6		9
-55.3										
				68.5						
					SS-17	4	5	7		12
-60.3										
				73.5						
					SS-18	4	7	8		15
-65.3										
	77.0	**CLAYEY SAND (SC, A-7-6)** - Medium dense, dark greyish brown, wet, fine to								

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B01
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	9.7 ft	**Latitude:**	32.845269	**Longitude:**	-79.872959	**Date Started:**	3/2/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/2/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		medium (2.5Y 4/2), [LL=56, PI=28, NMC=52%, #200=37.6%]		78.5						
					SS-19	6	11	12		23
-70.3				83.5						
					SS-20	7	11	14		25
-75.3				88.5						
					SS-21	6	10	13		23
-80.3				93.5						
					SS-22	6	9	13		22
-85.3	97.0	**FAT CLAY (CH)** - Stiff, light olive brown, moist (2.5Y 5/4)		98.5						
					SS-23	8	5	7		12
-90.3	100.0									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B02
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	9.4 ft	**Latitude:**	32.844644	**Longitude:**	-79.871786	**Date Started:**	3/1/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/1/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0								
	0.3	**TOPSOIL: 4"**	0.0	SS-1	2	2	4	5	6
	2.0	**FILL - SILTY SAND (SM, A-2-4)** - Loose, dark greyish brown, moist, fine, trace roots (10YR 4/2), [PI=NP, NMC=16.8%, #200=16.4%]	2.0	SS-2	6	6	7	7	13
	4.0	**COASTAL PLAIN - POORLY GRADED SAND WITH SILT (SP-SM)** - Medium dense, olive grey, moist, fine, trace shell hash (5Y 4/2)	4.0	SS-3	5	8	10	11	18
4.4	6.3	**CLAYEY SAND (SC, A-6)** - Medium dense, grey, moist, fine, iron staining (5Y 6/1), [LL=38, PI=22, NMC=23.9%, #200=39.3%]	6.0	SS-4	5	7	10	19	17
		SILTY SAND (SM, A-2-4) - Medium dense, light olive brown, moist to wet, (2.5Y 5/4), [PI=NP, NMC=25.7%, #200=15.9%]	8.0	SS-5	1	4	3	2	7
-0.6		@ 8 ft - Loose, light yellowish brown, wet (2.5Y 6/4)							
	12.0	**FAT CLAY WITH SAND (CH, A-7-6)** - Very soft, very dark grey, wet, trace fine sands (2.5Y 3/1), [LL=71, PI=47, NMC=75.4%, #200=83.9%]	13.5	SS-6	0	0	0		0
-5.6									
		@ 18.5 ft - Soft, [LL=78, PI=59, NMC=66.6%, #200=87.1%]	18.5	SS-7	0	1	2		3
-10.6									
	22.0	**CLAYEY SAND (SC, A-6)** - Very loose, grey, wet, few shell hash (5Y 5/1), [LL=40, PI=27, NMC=39.2%, #200=38.2%]	23.5	SS-8	3	2	2		4
-15.6									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B02		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	9.4 ft	**Latitude:**	32.844644	**Longitude:**	-79.871786	**Date Started:**	3/1/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/1/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	27.0	**SANDY FAT CLAY (CH, A-7-6)** - Very soft, grey, wet, some fine sands, trace shell hash (5Y 5/1), [LL=56, PI=38, NMC=53.2%, #200=60.9%]		28.5	SS-9	1	1	1		2
-20.6		@ 33.5 - [LL=60, PI=41, NMC=61.4%, #200=76.5%]		33.5	SS-10	0	1	1		2
-25.6				38.5	SS-11	0	0	1		1
-30.6	42.0	**MARL - ELASTIC SILT WITH SAND (MH, A-7-5)** - Stiff, olive, moist to wet, few fine sands (5Y 4/3), [LL=56, PI=20, NMC=46.7%, #200=83.1%]		43.5	SS-12	3	4	6		10
-35.6		@ 48.5 ft - Firm		48.5	SS-13	2	4	4		8
-40.6										

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B02		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	9.4 ft	**Latitude:**	32.844644	**Longitude:**	-79.871786	**Date Started:**	3/1/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/1/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		@ 53.5 - Stiff		53.5						
					SS-14	3	5	6		11
-45.6										
				58.5						
					SS-15	4	7	6		13
-50.6										
		@ 63.5 - Trace fine sands and shell hash		63.5						
					SS-16	3	6	8		14
-55.6										
				68.5						
					SS-17	4	6	7		13
-60.6										
		@ 73.5 - Few fine sands, no shell hash		73.5						
					SS-18	4	7	8		15
-65.6										
	77.0	**SILTY SAND (SM, A-2-4)** - Medium dense, olive, wet, fine (5Y 4/4), [LL=21, PI=1,								

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B02		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	9.4 ft	**Latitude:**	32.844644	**Longitude:**	-79.871786	**Date Started:**	3/1/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/1/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		NMC=35.2%, #200=19.4%]		78.5						
					SS-19	8	11	13		24
-70.6				83.5						
					SS-20	8	11	14		25
-75.6				88.5						
					SS-21	7	9	14		23
-80.6				93.5						
					SS-22	5	8	12		20
-85.6										
	97.0	**FAT CLAY (CH)** - Very stiff, olive, moist to wet (5Y 4/4)		98.5						
					SS-23	2	10	10		20
-90.6	100.0									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B03
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	13.4 ft	**Latitude:**	32.843705	**Longitude:**	-79.870424	**Date Started:**	3/16/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/16/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 1 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0								
	0.3	**TOPSOIL: 4"**	0.0	SS-1	1	3	4	6	7
	2.0	**FILL - POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Loose, dark brown, moist, fine, trace roots (10YR 3/2), [PI=NP, NMC=25.5%, #200=11%]	2.0	SS-2	7	13	13	12	26
		POORLY GRADED SAND WITH CLAY (SP-SC) - Medium dense, greyish brown, moist, fine (10YR 4/2)	4.0	SS-3	10	8	10	11	18
8.4		@ 4 ft - Greyish brown (10YR 6/2)							
	6.0	**COASTAL PLAIN - CLAYEY SAND (SC, A-6)** - Medium dense, greyish brown, wet, fine (10YR 5/3), [LL=39, PI=22, NMC=26.1%, #200=42.4%]	6.0	SS-4	8	8	8	8	16
	8.0	**FAT CLAY WITH SAND (CH, A-7-6)** - Soft, grey, wet, little fine sands, (5Y 4/2), [LL=54, PI=37, NMC=45.3%, #200=82%]	8.0	SS-5	1	2	1	2	3
3.4									
	13.5	**CLAYEY SAND (SC, A-2-6)** - Very loose, yellow grey, wet, fine, little shells (5Y 5/3), [LL=38, PI=22, NMC=36.1%, #200=20.6%]	13.5	SS-6	0	1	1		2
-1.6									
	18.5	**FAT CLAY (CH, A-7-6)** - Very soft, grey, wet, little shells, few fine sands, (5Y 4/1), [LL=65, PI=45, NMC=81.6%, #200=88.9%]	18.5	SS-7	1	1	1		1
-6.6									
	23.5	**CLAYEY SAND (SC, A-6)** - Very loose, grey, wet, little shells, (5Y 4/1), [LL=38, PI=25, NMC=45.8%, #200=39.9%]	23.5	SS-8	4	2	1		3
-11.6									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B03
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	13.4 ft	**Latitude:**	32.843705	**Longitude:**	-79.870424	**Date Started:**	3/16/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/16/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 1 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	28.5	**POORLY GRADED SAND (SP, A-2-4)** - Medium dense, grey, wet, fine to medium (5Y 4/2), [PI=NP, NMC=24.4%, #200=4.8%]	28.5	SS-9	6	9	13		22
-16.6	33.5	**POORLY GRADED SAND WITH SILT (SP-SM)** - Medium dense, grey, wet, fine (5Y 5/1)	33.5	SS-10	4	7	8		15
-21.6	38.5	**CLAYEY SAND (SC, A-7-6)** - Very loose, dark grey, wet, large wood fragments and organics (5Y 4/1), [LL=68, PI=45, NMC=109.3%, #200=47%]	38.5	SS-11	0	0	0		0
-26.6	43.5	**POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Dense, grey, wet, fine to medium (5Y 5/1), [PI=NP, NMC=22.4%, #200=7.1%]	43.5	SS-12	7	17	18		35
-31.6	48.5	**MARL - FAT CLAY WITH SAND (CH, A-7-5)** - Firm, olive, moist, fine (5Y 5/4), [LL=69, PI=37, NMC=53.2%, #200=82.7%]	48.5	SS-13	3	3	5		8
-36.6									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

109

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B03		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	13.4 ft	**Latitude:**	32.843705	**Longitude:**	-79.870424	**Date Started:**	3/16/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/16/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 1 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		@ 53.5 ft - Stiff		53.5						
					SS-14	3	4	5		9
-41.6										
				58.5						
		@ 58.5 ft - Firm			SS-15	2	3	4		4
-46.6										
				63.5						
		@ 63.5 ft - [LL=77, PI=42, NMC=52%, #200=63.5%]			SS-16	3	6	5		11
-51.6										
	68.5			68.5						
		CLAYEY SAND (SC) - Medium dense, olive, moist to wet, fine (5Y 5/4)			SS-17	4	6	6		12
-56.6										
				73.5						
		@ 73.5 ft - Loose			SS-18	3	4	6		10
-61.6										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B03
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	13.4 ft	**Latitude:**	32.843705	**Longitude:**	-79.870424	**Date Started:**	3/16/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/16/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 1 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		@ 78.5 ft - Medium dense		78.5						
					SS-19	4	6	8		14
-66.6										
	83.5			83.5						
		SILTY SAND (SM, A-2-4) - Medium dense, olive and dark olive grey, moist to wet, fine (5Y 4/4 and 5Y 3/2)			SS-20	5	7	9		16
-71.6										
				88.5						
					SS-21	5	8	11		19
-76.6										
				93.5						
					SS-22	4	6	6		12
-81.6										
				98.5						
		@ 98.5 ft - [LL=21, PI=2 NMC=30.5%, #200=19.6%]			SS-23	4	4	7		11
-86.6	100.0									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B04
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	15.0 ft	**Latitude:**	32.843284	**Longitude:**	-79.870053	**Date Started:**	3/8/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/8/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 1 ft	**24HR**	3.5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.3	**TOPSOIL: 3"**		0.0	SS-1	2	3	4	6	7
		FILL - POORLY GRADED SAND WITH SILT (SP-SM, A-3) - Loose, greyish brown, moist, fine, trace silt (10YR 5/2), [PI=NP, NMC=19.3%, #200=7.8%]		2.0	SS-2	9	10	11	12	21
		@ 2 ft - Medium dense								
	4.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - Medium dense, yellowish brown, moist, fine, few silt (10YR 5/8)		4.0	SS-3	11	10	11	10	21
10.0	6.0	**CLAYEY SAND (SC, A-2-6)** - Medium dense, brownish yellow, moist, fine, little clay (10YR 6/8), [LL=34, PI=12, NMC=25.5%, #200=20.3%]		6.0	SS-4	8	10	11	12	21
	8.0	**COASTAL PLAIN - SILTY SAND (SM, A-2-4)** - Medium dense, brownish yellow, wet, fine, (10YR 6/8), [LL=29, PI=4, NMC=30.9%, #200=19.8%]		8.0	SS-5	3	3	1	1	4
5.0										
				13.5	SS-6	1	0	1		1
		13.5 ft - Very loose, dark greenish grey, trace shell hash (GLEY1 4/10Y), [PI=NP, NMC=32.9%, #200=13.1%]								
0.0										
	17.0	**FAT CLAY (CH, A-7-5)** - Very soft, dark greenish grey, wet, trace shell hash (GLEY1 4/10Y), [LL=77, PI=46, NMC=71.6%, #200=86.4%]		18.5	SS-7	1	0	1		1
-5.0										
				23.5	SS-8	0	0	1		1
		@ 23.5 ft - [LL=115, PI=76, NMC=88%, #200=86.2%]								
-10.0										

SPT N VALUE ●

PL ○ MC ○ LL

▲ FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

115

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B04
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	15.0 ft	**Latitude:**	32.843284	**Longitude:**	-79.870053	**Date Started:**	3/8/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/8/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 1 ft	**24HR**	3.5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		@ 28.5 ft - Absent shell hash, some fine sands, [LL=55, PI=38, NMC=51.8%, #200=51.2%]	28.5	SS-9	0	0	0		0
-15.0			33.5	SS-10	1	2	4		6
	34.5	**CLAYEY SAND (SC, A-2-4)** - Loose, olive grey, wet, fine to medium (5Y 4/2), [LL=32, PI=9, NMC=32.3%, #200=23.6%]							
-20.0			38.5	SS-11	2	3	4		7
		@ 38.5 ft - [LL=28, PI=9, NMC=28.7%, #200=20.6%]							
-25.0			43.5	SS-12	12	11	12		23
	42.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Medium dense, olive grey, wet, fine (5Y 4/2), [PI=NP, NMC=25.8%, #200=8.5%]							
-30.0			48.5	SS-13	0	0	3		3
	47.0	**CLAYEY SAND (SC, A-7-6)** - Very loose, dark grey, wet, fine (5Y 4/1), [LL=47, PI=23, NMC=43%, #200=36.4%]							
	49.5	**MARL - ELASTIC SILT (MH)** - Soft, olive, moist, trace fine sands (5Y 4/4)							
-35.0									
	52.0								

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B04
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	15.0 ft	**Latitude:**	32.843284	**Longitude:**	-79.870053	**Date Started:**	3/8/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/8/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 1 ft	**24HR**	3.5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		FAT CLAY (CH) - Stiff, olive, moist (5Y 4/4)		53.5						
					SS-14	3	4	5		9
-40.0				58.5						
					SS-15	3	5	6		11
-45.0		@ 62 ft - Very stiff		63.5						
					SS-16	5	9	9		18
-50.0										
	67.0									
		CLAYEY SAND (SC, A-7-6) - Medium dense, olive, moist, trace fine sands (5Y 4/4), [LL=51, PI=27, NMC=33.6%, #200=36.4%]		68.5						
					SS-17	3	4	6		10
-55.0		@ 72 ft - Trace shell hash		73.5						
					SS-18	3	4	6		10
-60.0										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B04
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	15.0 ft	**Latitude:**	32.843284	**Longitude:**	-79.870053	**Date Started:**	3/8/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/8/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 1 ft	**24HR**	3.5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				78.5						
					SS-19	4	5	6		11
-65.0										
		@ 82 ft - Absent shell hash		83.5						
					SS-20	4	5	7		12
-70.0										
	87.0									
		SILTY SAND (SM) - Medium dense, olive, wet, fine (5Y 4/4)		88.5						
					SS-21	6	7	9		16
-75.0										
				93.5						
					SS-22	6	8	8		16
-80.0										
				98.5						
					SS-23	5	7	10		17
-85.0	100.0									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B05
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	14.4 ft	**Latitude:**	32.842242	**Longitude:**	-79.870283	**Date Started:**	4/3/2023
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	4/3/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0	**FILL - SILTY SAND (SM)** - Loose, light brown, moist, fine, trace roots (10YR 5/6)	0.0	SS-1	1	3	3	4	6
			2.0	SS-2	3	4	4	6	8
	4.0	**COASTAL PLAIN - POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Medium dense, wet, grey, fine to medium, trace roots, (5YR 5/2), [PI=NP, NMC=24.7%, #200=10.3%]	4.0	SS-3	5	4	7	5	11
9.4	6.0	**CLAYEY SAND (SC)** - Loose, grey moist, fine to medium, little clay (5YR 5/2)	6.0	SS-4	3	3	3	4	6
	8.0	**SILTY SAND (SM, A-2-4)** - Very loose, wet, dark gray, fine, (5YR 2.5/2), [LL=26, PI=2, NMC=39.8%, #200=22.1%]	8.0	SS-5	1	2	2	1	4
4.4									
	12.0	**FAT CLAY (CH, A-7-6)** - Very soft, wet, dark gray, trace fine sands, (5YR 3/2)	13.5	SS-6	2	1	0		1
-0.6									
		@ 18.5 ft - [LL=62, PI=41, NMC=69.7%, #200=89.5%]	18.5	SS-7	0	0	0		0
-5.6									
			23.5	SS-8	0	1	1		2
-10.6									

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B05		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	14.4 ft	**Latitude:**	32.842242	**Longitude:**	-79.870283	**Date Started:**	4/3/2023
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	4/3/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		@ 28.5 ft - [LL=82, PI=54, NMC=82.6%, #200=98%]		28.5	SS-9	0	1	1		2
-15.6										
		@ 33.5 - Soft		33.5	SS-10	0	1	2		3
-20.6										
	37.0	**SILTY SAND (SM, A-2-4)** - Very loose, wet, gray, fine, (5YR 3/2), [LL=35, PI=8, NMC=43.7%, #200=25.6%]		38.5	SS-11	0	0	0		0
-25.6										
	42.0	**ELASTIC SILT (MH, A-7-5)** - Very soft, wet, gray, trace fine sands, (5YR 4/1), [LL=89, PI=38, NMC=110.4%, #200=90.4%]		43.5	SS-12	0	0	1		1
-30.6										
	47.0	**SILTY SAND (SM)** - Medium dense, wet, gray, fine, (5YR 4/2)		48.5	SS-13	4	8	13		21
-35.6										
	52.0									

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

110

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B05
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	14.4 ft	**Latitude:**	32.842242	**Longitude:**	-79.870283	**Date Started:**	4/3/2023
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	4/3/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		MARL - FAT CLAY WITH SAND (CH) - Stiff, moist, olive, little fine sands, (2.5Y 4/3)		53.5	SS-14	2	5	6		11
-40.6				58.5	SS-15	2	5	5		10
-45.6		63.5 ft - Very stiff		63.5	SS-16	5	8	8		16
-50.6				68.5	SS-17	3	6	7		13
-55.6		63.5 ft - Stiff		73.5	SS-18	4	6	8		14
-60.6										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

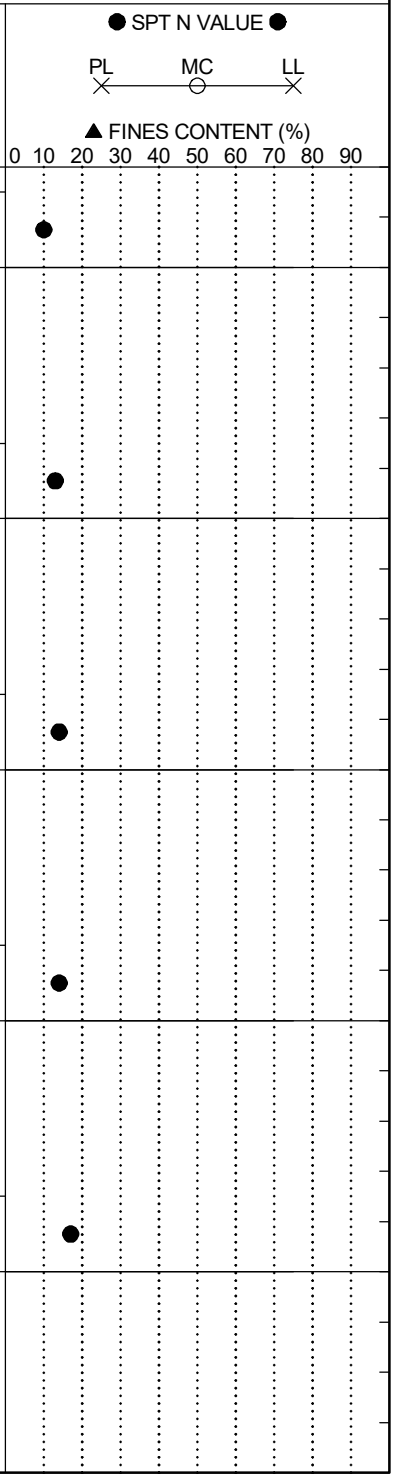
Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B05
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	14.4 ft	**Latitude:**	32.842242	**Longitude:**	-79.870283	**Date Started:**	4/3/2023
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	4/3/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				78.5						
					SS-19	3	5	5		10
-65.6										
				83.5						
					SS-20	4	6	7		13
-70.6										
				88.5						
					SS-21	4	6	8		14
-75.6										
				93.5						
					SS-22	5	7	7		14
-80.6										
				98.5						
					SS-23	6	7	10		17
-85.6	100.0									



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B06
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	10.0 ft	**Latitude:**	32.842051	**Longitude:**	-79.870817	**Date Started:**	3/31/2023
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/31/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 5 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0	**COASTAL PLAIN - SILTY SAND (SM)** - Loose, brownish-gray, dry, fine to medium, trace roots, (2.5Y 5/2)		0.0	SS-1	1	3	3	4	6
		@ 2 ft - Moist		2.0	SS-2	2	2	3	5	5
5.0		@ 4 ft - Medium dense, brown, gray, and reddish-brown (5YR 5/1, 5YR 4/3 and 10YR 5/3)		4.0	SS-3	5	7	7	7	14
	6.0	**SANDY LEAN CLAY (CL)** - Stiff, moist, brown and gray, little fine sands, (10YR 5/3 and 5YR 5/1)		6.0	SS-4	5	5	5	7	10
	8.0	**SILTY SAND (SM, A-4)** - Loose, moist to wet, gray, fine to medium, trace shell hash, (5YR 5/1), [LL=37, PI=7, NMC=45.3%, #200=45.1%]		8.0	SS-5	4	4	5	5	9
0.0		@ 10 ft - Very loose, moist to wet, [PI=NP, NMC=31%, #200=15.8%]		10.0	SS-6	3	3	0	1	3
				12.0	SS-7	0	1	1	1	2
	14.0	**SANDY LEAN CLAY (CL, A-6)** - Very soft, moist to wet, gray, some fine to medium sands, few shell hash, (5YR 5/1), [LL=40, PI=19, NMC=41.9%, #200=52.2%]		14.0	SS-8	0	1	0	1	1
-5.0				16.0	SS-9	0	0	1	1	1
	17.0	**FAT CLAY (CH, A-7-6)** - Very soft, wet, dark gray, trace fine sands, trace shell hash, (10YR 4/1), [LL=69, PI=38, NMC=81.5%, #200=93.6%]		18.0	SS-10	0	0	1	1	1
-10.0		@ 20 ft - [LL=78, PI=50, 88.7%, #200=92.8%]		20.0	SS-11	0	0	1	1	1
	23.0	**CLAYEY SAND (SC)** - Medium dense, dark gray, wet, fine to medium, (10YR 4/2)		22.0	SS-12	1	3	15	13	18
		@ 24 ft - Loose		24.0	SS-13	3	3	2	3	5
-15.0				26.0						

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B06
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	10.0 ft	**Latitude:**	32.842051	**Longitude:**	-79.870817	**Date Started:**	3/31/2023
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/31/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 5 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		@ 26 ft - Very loose		28.0	SS-14	1	2	2	2	4
				30.0	SS-15	0	1	1	2	2
-20.0					SS-16	0	0	1	2	1
		@ 32 ft - Loose, absent shell hash, few wood fragments		32.0	SS-17	0	2	3	2	5
	34.0			34.0						
		SILTY SAND (SM) - Loose, wet, gray, fine to coarse, little shell hash, (10YR 4/1)			SS-18	3	3	2	4	5
-25.0				36.0	SS-19	4	5	9	23	14
		@ 38 ft - Dense		38.0	SS-20	3	26	23	10	49
-30.0		@ 40 ft - Medium dense		40.0	SS-21	2	6	8	10	14
		@ 42 ft - Loose		42.0	SS-22	4	5	5	4	10
		@ 44 ft - Medium dense		44.0						
-35.0				46.0	SS-23	2	4	12	15	16
					SS-24	7	6	5	4	11
		@ 48 ft - Very loose		48.0	SS-25	0	0	0	0	0
-40.0										

SPT N VALUE ● PL × MC ○ LL × ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B06		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	10.0 ft	**Latitude:**	32.842051	**Longitude:**	-79.870817	**Date Started:**	3/31/2023
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/31/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 5 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		@ 53.5 ft - Loose		53.5						
					SS-26	4	4	6		10
-45.0										
	57.0									
		MARL - SILTY SAND (SM) - Medium dense, moist, olive brown, fine, (2.5Y 4/3)		58.5						
					SS-27	3	6	8		14
-50.0										
				63.5						
					SS-28	3	6	6		12
-55.0										
				68.5						
					SS-29	4	7	8		15
-60.0										
				73.5						
					SS-30	5	5	7		12
-65.0										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B06		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	10.0 ft	**Latitude:**	32.842051	**Longitude:**	-79.870817	**Date Started:**	3/31/2023
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/31/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 5 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
-70.0		@ 78.5 ft - Loose		78.5	SS-31	4	4	6		10
-75.0		@ 83.5 ft - Medium dense		83.5	SS-32	5	5	6		11
-80.0				88.5	SS-33	5	10	13		23
-85.0				93.5	SS-34	6	10	12		22
-90.0	100.0			98.5	SS-35	5	6	11		17

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B07		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	ft	**Latitude:**		**Longitude:**		**Date Started:**	3/23/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/23/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 3 ft	**24HR**	3.5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value	SPT N VALUE / PL MC LL / FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0			0.0							
	0.1	**CRUSHED STONE: 1"**									
		FILL - POORLY GRADED SAND WITH SILT (SP-SM, A-3) - Medium dense, black, moist, (5YR 2.5/1), [PI=NP, NMC=9.8%, #200=6.8%]			SS-1	12	7	9	7	16	
	2.0			2.0							
		▼**COASTAL PLAIN - CLAYEY SAND (SC, A-6)** - Medium dense, dark grey, moist, (10YR 4/1), [LL=36, PI=21, NMC=24.6%, #200=38.1%]			SS-2	5	5	7	7	12	
				4.0							
					SS-3	6	8	8	9	16	
		@ 4 ft - light brown (5Y 5/6), [LL=40, PI=26, NMC=27%, #200=33.2%]									
	6.0			6.0							
		FAT CLAY WITH SAND (CH, A-7-6) - Stiff, grey, moist, (2.5Y 6/1), [LL=53, PI=34, NMC=39.4%, #200=83.2%]			SS-4	4	4	5	6	9	
	8.0			8.0							
		CLAYEY SAND (SC, A-2-6) - Loose, dark greenish grey, wet, fine (GLEY1 4/10GY), [LL=33, PI=21 NMC=34.3%, #200=16.9%]			SS-5	1	2	4	5	6	
	10.0			10.0							
		SILTY SAND (SM, A-2-4) - Very loose, dark greenish grey, wet shell hash (GLEY1 4/5G/1), [PI=NP, NMC=30.8%, #200=12.7%]			SS-6	2	2	1	1	3	
	12.0			12.0							
		CLAYEY SAND (SC, A-2-6) - Very loose, dark greenish grey, wet, shell hash (GLEY1 4/5G/1), [LL=35, PI=20 NMC=33.4%, #200=19%]			SS-7	1	0	1	0	1	
	14.0			14.0							
		FAT CLAY (CH, A-7-6) - Very soft, dark grey, wet, shell hash (GLEY1 4/N), [LL=69, PI=47, NMC=65%, #200=82.8%]			SS-8	0	0	0	0	0	
				16.0							
		@ 16 ft - [LL=90, PI=67, NMC=74.9%, #200=88.3%]			SS-9	0	0	1	1	1	
				18.0							
		@ 18 ft - Soft, [LL=113, PI=84, NMC=90.3%, #200=96.5%]			SS-10	0	1	1	1	2	113
				20.0							
		@ 20 ft - Firm, greenish grey, moist, (GLEY1 5/5G/1), [LL=63, PI=44, NMC=39.7%, #200=63.6%]			SS-11	0	3	4	9	4	
	22.3			22.0							
		CLAYEY SAND (SC, A-2-6) - Medium dense, light grey, wet, (GLEY1 7/N), [LL=26, PI=14, NMC=29.2%, #200=25.1%]			SS-12	4	15	9	6	24	
	24.0			24.0							
		FAT CLAY (CH, A-7-6) - Soft, dark grey, moist to wet, trace roots (GLEY1 4/N), [LL=105, PI=78, NMC=89.3%, #200=94.8%]			SS-13	1	2	1	2	3	105
	26.0			26.0							

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B07		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	ft	**Latitude:**		**Longitude:**		**Date Started:**	3/23/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/23/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 3 ft	**24HR**	3.5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		SILTY SAND (SM, A-2-4) - Very loose, very dark greenish grey, wet, (GLEY1 3/5GY), [PI=NP, NMC=37.7%, #200=18.6%]			SS-14	1	1	0	1	1
	28.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Loose, dark greenish grey, wet, (GLEY1 4/10Y), [PI=NP, NMC=29.8%, #200=7.1%]		28.0	SS-15	1	3	4	2	7
		@ 30 ft - Medium dense, [PI=NP, NMC=26.7%, #200=8.4%]		30.0	SS-16	3	9	11	8	20
	32.0	**SILTY SAND (SM, A-2-4)** - Very loose, dark greenish grey, wet, (GLEY1 4/10GY), [LL=28, PI=5 NMC=34.5%, #200=21.6%]		32.0	SS-17	1	2	1	1	3
	34.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Medium dense, dark greenish grey, wet, (GLEY1 4/10Y), [PI=NP, NMC=29.8%, #200=9.6%]		34.0	SS-18	0	1	3	14	4
		@ 36 ft - Dark greenish grey (GLEY1 4/5GY), [PI=NP, NMC=25.4%, #200=8%]		36.0	SS-19	6	5	7	11	12
	38.0	**POORLY GRADED SAND(SP, A-3)** - Medium dense, dark greenish grey, wet, (GLEY1 4/10Y), [PI=NP, NMC=25.3%, #200=4.9%]		38.0	SS-20	4	6	5	13	11
	40.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Medium dense, dark greenish grey, wet, (GLEY1 4/10Y), [PI=NP, NMC=22.9%, #200=9.7%]		40.0	SS-21	6	8	9	10	17
	42.0	**CLAYEY SAND (SC, A-2-6)** - Loose, dark greenish grey, wet, wood fragments, shell hash (GLEY1 4/5GY), [LL=35, PI=13, NMC=37.3%, #200=24%]		42.0	SS-22	3	1	4	4	5
		@ 44 ft - shell hash (GLEY1 4/5GY), [LL=41, PI=29, NMC=27.2%, #200=18.5%]		44.0	SS-23	4	3	7	8	10
		@ 46 ft - Medium dense, [LL=33, PI=20, NMC=23.8%, #200=17%]		46.0	SS-24	4	11	8	4	19
	48.0	**SANDY FAT CLAY (CH, A-7-6)** - Soft, dark greenish grey, shell hash (GLEY1 4/10GY), [LL=51, PI=33, NMC=44.5%, #200=50.2%]		48.0	SS-25	0	0	3	6	3
	50.0	**MARL - FAT CLAY (CH)** - Stiff, olive, moist, (5Y 5/4)								

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B07		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	ft	**Latitude:**		**Longitude:**		**Date Started:**	3/23/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/23/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 3 ft	**24HR**	3.5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				53.5						
					SS-26	3	5	6		11
				58.5						
					SS-27	4	5	8		13
				63.5						
					SS-28	4	5	6		11
	67.0	**SILT (ML)** - Stiff, olive, moist, (5Y 5/3)		68.5						
					SS-29	4	6	9		15
	72.0	**FAT CLAY (CH)** - Stiff, olive, moist, (5Y 4/4)		73.5						
					SS-30	4	6	7		13
	77.0	**ELASTIC SILT (MH)** - Very stiff, olive, moist, (5Y 4/3)								

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B07		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	ft	**Latitude:**		**Longitude:**		**Date Started:**	3/23/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/23/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 3 ft	**24HR**	3.5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				78.5						
					SS-31	6	10	11		21
	82.0	**SILTY SAND (SM)** - Medium dense, olive, wet, (5Y 5/3)		83.5						
					SS-32	7	10	14		24
				88.5						
					SS-33	6	8	12		20
				93.5						
					SS-34	7	7	12		19
				98.5						
					SS-35	8	8	12		20
	100.0									

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B08
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.1 ft	**Latitude:**	32.844315	**Longitude:**	-79.872048	**Date Started:**	3/6/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/6/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 0 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.3	**TOPSOIL: 3"**		0.0	SS-1	4	8	11	12	19
	2.0	**FILL - POORLY GRADED SAND WITH CLAY (SP-SC, A-2-4)** - Medium dense, greyish brown, moist, fine, few coarse crushed stone, (2.5Y 5/2), [PI=NP, NMC=14.2%, #200=11.1%]		2.0	SS-2	9	11	9	10	20
	4.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - Medium dense, olive yellow and greyish brown, moist, fine (2.5Y 6/6 and 5/2)		4.0	SS-3	9	12	10	10	22
6.1		**SILTY CLAYEY SAND (SC-SM, A-2-4)** - Medium dense, olive grey, moist, fine (5Y 4/2), [LL=25, PI=4, NMC=17.9%, #200=26.5%]		6.0	SS-4	7	7	11	10	18
	8.0	@ 6 ft - Moist to wet, greenish grey (GLEY1 6/5GY)		8.0	SS-5	1	3	6	5	9
1.1		**FAT CLAY (CH, A-7-6)** - Stiff, greenish grey with veins of yellowish red, moist (GLEY1 6/5G/1 with 5YR 5/8), [LL=51, PI=35, NMC=44.1%, #200=88.8%]								
		@ 13.5 ft - Very soft, very dark grey, wet, trace shell hash (GLEY1 3/N), [LL=61, PI=39, NMC=62.5%, #200=71.4%]		13.5	SS-6	0	0	0		0
-3.9										
		@ 18.5 ft - Absent shell hash, [LL=74, PI=50, NMC=94.7%, #200=88.6%]		18.5	SS-7	0	0	0		0
-8.9										
		@ 23.5 ft - Firm, very dark greenish grey, moist (GLEY1 3/5G/1), [LL=62, PI=45, NMC=65.8%, #200=96%]		23.5	SS-8	1	3	3		6
-13.9										

SPT N VALUE ● PL × MC ○ LL × ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B08
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.1 ft	**Latitude:**	32.844315	**Longitude:**	-79.872048	**Date Started:**	3/6/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/6/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 0 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	27.0								
		CLAYEY SAND (SC, A-2-6) - Very loose, very dark greenish grey, wet, fine, few shell hash (GLEY1 3/10Y), [LL=33, PI=15, NMC=45.1%, #200=30.5%]	28.5	SS-9	0	0	0		0
-18.9									
	32.0								
		FAT CLAY (CH, A-7-6) - Very soft, dark greenish grey, moist to wet, trace fine sands and mica (GLEY1 4/10GY), [LL=62, PI=45, NMC=68.8%, #200=82.4%]	33.5	SS-10	1	1	1		2
-23.9									
	37.0								
		CLAYEY SAND (SC, A-6) - Medium dense, dark grey, moist to wet, fine, trace fines (5Y 4/1), [LL=39, PI=22, NMC=56.9%, #200=47.6%]	38.5	SS-11	1	0	1		1
-28.9									
		@ 43.5 ft - [LL=41, PI=22, NMC=40.8%, #200=35.3%]	43.5	SS-12	0	5	22		27
-33.9									
	47.0								
		<u>MARL</u> - FAT CLAY WITH SAND (CH, A-7-6) - Firm, olive, moist, trace fine sands (5Y 4/3), [LL=73, PI=47, NMC=54.6%, #200=85.7%]	48.5	SS-13	2	4	4		8
-38.9									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B08
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.1 ft	**Latitude:**	32.844315	**Longitude:**	-79.872048	**Date Started:**	3/6/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/6/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 0 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		@ 52 ft - Stiff		53.5						
					SS-14	3	3	6		9
-43.9										
				58.5						
					SS-15	3	6	8		14
-48.9										
	62.0	**ELASTIC SILT WITH SAND (MH)** - Stiff, olive, moist, little fine sands, trace shell hash (5Y 4/3)		63.5						
					SS-16	4	5	6		11
-53.9										
		@ 67 ft - Trace fine sands, no shell hash		68.5						
					SS-17	4	6	7		13
-58.9										
	72.0	**CLAYEY SAND (SC)** - Loose, olive grey, moist, fine (5Y 4/2)		73.5						
					SS-18	5	4	6		10
-63.9										
		@ 77 ft - Medium dense								

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B08
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.1 ft	**Latitude:**	32.844315	**Longitude:**	-79.872048	**Date Started:**	3/6/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/6/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 0 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				78.5						
					SS-19	5	5	9		14
-68.9										
	82.0	**SILTY SAND (SM, A-2-4)** - Medium dense, olive, wet, fine (5Y 4/4), [PI=NP, NMC=31.1%, #200=12.6%]		83.5						
					SS-20	7	8	8		16
-73.9										
				88.5						
					SS-21	6	9	11		20
-78.9										
				93.5						
					SS-22	5	7	10		17
-83.9										
				98.5						
					SS-23	4	6	10		16
-88.9	100.0									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B09
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	30.1 ft	**Latitude:**	32.839523	**Longitude:**	-79.861564	**Date Started:**	3/9/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/9/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 3.5 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0	**FILL - POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Medium dense, dark yellowish brown, moist, fine, trace shell hash (10YR 3/4), [PI=NP, NMC=16.7%, #200=10.8%]		0.0	SS-1	1	2	7	8	9
		▼@ 2 ft - Brown (10YR 4/3), black, fine (10YR ▽2/1)		2.0	SS-2	7	10	9	16	19
		@ 4 ft - Very dense, very dark grey, moist, fine, trace shell hash (10YR 3/1)		4.0	SS-3	15	24	26	36	50
25.1	6.0	**POORLY GRADED SAND (SP)** - Very dense, light olive brown, moist, fine, trace shell hash (2.5Y 5/4)		6.0	SS-4	17	29	46	48	75
	8.0	**SILTY SAND (SM, A-2-4)** - Dense, light olive brown, moist, fine, trace shell hash and mica (2.5Y 5/4), [PI=NP, NMC=17.3%, #200=23%]		8.0	SS-5	15	22	27	40	49
20.1	12.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Medium dense, dark grey, moist to wet, fine, trace shell hash and mica (GLEY1 4/1), [PI=NP, NMC=22.4%, #200=10%]		13.5	SS-6	10	13	4		17
15.1	17.0	**POORLY GRADED SAND (SP)** - Dense, light yellowish brown, wet, fine, trace mica (2.5Y 6/3)		18.5	SS-7	7	16	20		36
10.1	22.0	**COASTAL PLAIN - SILTY SAND (SM, A-4)** - Very loose, very dark greenish grey, wet, fine , trace mica (GLEY1 3/5GY), [LL=31, PI=6, NMC=45.8%, #200=49.3%]		23.5	SS-8	1	1	2		3
5.1										

SPT N VALUE ● PL × MC ○ LL × ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B09
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	30.1 ft	**Latitude:**	32.839523	**Longitude:**	-79.861564	**Date Started:**	3/9/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/9/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 3.5 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	27.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Very loose, very dark greenish grey, wet, fine, trace mica (GLEY1 3/5GY), [PI=NP, NMC=31.4%, #200=8.7%]		28.5	SS-9	0	1	2		3
0.1	32.0	**LEAN CLAY WITH SAND (CL, A-6)** - Very soft, dark greenish grey, wet, trace mica (GLEY1 4/5GY), [LL=40, PI=21, NMC=69.4%, #200=83.8%]		33.5	SS-10	0	1	1		2
-4.9		@ 37 ft - Stiff, dark greenish grey, moist few silt, trace mica (GLEY1 4/5G/1), [LL=30, PI=12, NMC=28.1%, #200=54.3%]		38.5	SS-11	6	7	6		13
-9.9	42.0	**FAT CLAY WITH SAND (CH, A-7-6)** - Stiff, dark greenish grey, wet, little fine sands, little broken shells (GLEY1 4/5GY), [LL=69, PI=50, NMC=66.8%, #200=80.8%]		43.5	SS-12	8	7	7		14
-14.9		@ 48.5 ft - Firm, very dark greenish grey, moist (GLEY1 3/10Y)		48.5	SS-13	0	2	3		5
-19.9	52.0									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B09		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	30.1 ft	**Latitude:**	32.839523	**Longitude:**	-79.861564	**Date Started:**	3/9/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/9/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 3.5 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		POORLY GRADED SAND WITH SILT (SP-SM) - Medium dense, dark greenish grey, moist, fine (GLEY1 4/10GY)		53.5						
					SS-14	4	12	11		23
-24.9	57.0	**POORLY GRADED SAND (SP)** - Very dense, grey, moist to wet, fine (2.5Y 5/1)		58.5						
					SS-15	17	32	28		60
-29.9		@ 62 ft - Fine to coarse sands, trace fines		63.5						
					SS-16	17	40	50		90
-34.9	67.0	**MARL - SANDY FAT CLAY (CH, A-7-6)** - Firm, olive, moist (5Y 4/3), [LL=85, PI=59, NMC=62.7%, #200=68.9%]		68.5						
					SS-17	3	4	6		10
-39.9				73.5						
					SS-18	3	3	4		7
-44.9		@ 77 ft - Stiff								

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B09		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	30.1 ft	**Latitude:**	32.839523	**Longitude:**	-79.861564	**Date Started:**	3/9/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/9/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 3.5 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				78.5						
					SS-19	4	4	5		9
-49.9		@ 82 ft - Very stiff								
				83.5						
					SS-20	6	8	8		16
-54.9										
	87.0	**ELASTIC SILT (MH)** - Very stiff, olive, moist (5Y 4/3)								
				88.5						
					SS-21	6	7	13		20
-59.9		@ 92 ft - Stiff								
				93.5						
					SS-22	5	4	7		11
-64.9										
				98.5						
					SS-23	3	5	10		15
-69.9	100.0									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B10
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.3 ft	**Latitude:**	32.83993	**Longitude:**	-79.862354	**Date Started:**	3/14/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/14/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0								
	0.3	**TOPSOIL - 4"**	0.0	SS-1	5	5	7	9	12
		FILL - POORLY GRADED SAND WITH SILT (SP-SM, A-3) - Medium dense, dark greyish brown, moist, fine (10YR 4/2) [LL = NP, PI = NP, #200 = 6, NMC = 17]	2.0	SS-2	11	10	9	10	19
	4.0 ▽		4.0						
14.3		**COASTAL PLAIN - POORLY GRADED SAND (SP, A-3)** - Medium dense, grey, moist to wet, fine to medium sands, trace organics (10YR 6/1) [LL = NP, PI = NP, #200 = 4, NMC = 22]		SS-3	7	10	15	16	25
			6.0	SS-4	6	10	12	12	22
		@ 8 ft - Greyish brown (10YR 5/2) [LL= NP, PI = NP, #200 = 4, NMC = 26]	8.0	SS-5	4	6	7	3	13
9.3									
	14.0	**LEAN CLAY (CL, A-7-6)** - Very soft, dark grey, moist to wet, some fine sands and shell hash (10YR 4/1) [LL = 49, PI = 23, #200 = 88, NMC = 88]	13.5	SS-6	0	1	1		2
4.3									
	19.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Very loose, dark grey, wet, fine to medium, some shell hash (10YR 4/1) [LL = NP, PI = NP, #200 = 10, NMC = 30]	18.5	SS-7	1	1	3		4
-0.7									
	24.0	**FAT CLAY WITH SAND (CH, A-7-6)** - Very soft, dark grey, moist to wet, some fine to medium sands and shell hash (10YR 4/1) [LL = 51, PI = 23, #200 = 83, NMC = 67]	23.5	SS-8	1	1	1		2
-5.7									

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B10
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.3 ft	**Latitude:**	32.83993	**Longitude:**	-79.862354	**Date Started:**	3/14/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/14/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	29.0	**SILTY CLAYEY SAND (SC-SM, A-2-4)** - Loose, blueish grey, wet, fine, some shell hash (GLEY2 6/1) [LL = 24, PI = 7, #200 = 27, NMC = 25]	28.5	SS-9	2	4	5		9
-10.7			33.5	SS-10	2	6	23		29
-15.7		@ 34 ft - Medium dense, dark grey, fine to medium sands (10YR 4/1)	38.5	SS-11	10	17	18		35
-20.7	39.0	**SILTY SAND (SM, A-2-4)** - Dense, grey, moist to wet, fine (10YR 6/1) [LL = NP, PI = NP, #200 = 14, NMC = 24]	43.5	SS-12	5	6	5		11
-25.7		@ 43.5 ft - [LL = NP, PI = NP, #200 = 19, NMC = 29]	48.5	SS-13	3050/6"				100
	47.0	**CLAYEY SAND (SC)** - Medium dense, dark grey, moist to wet, fine (10YR 4/1)							
	49.0	**SILTY SAND (SM)** - Very dense, light grey to dark grey, moist to wet, fine (10YR 7/2 to 10YR 4/1)							
-30.7									

SPT N VALUE ● PL × MC ○ LL × ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B10		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.3 ft	**Latitude:**	32.83993	**Longitude:**	-79.862354	**Date Started:**	3/14/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/14/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	54.0			53.5						
		ELASTIC SILT (MH, A-7-5) - Soft, dark grey, moist, little fine sands (10YR 4/1) [LL = 66, PI = 32, #200 = 89, NMC = 85]			SS-14	1	1	3		4
-35.7										
	58.0			58.5						
		MARL - ELASTIC SILT WITH SAND (MH, A-7-5) - Firm, olive green, moist, some fine sands (5Y 5/3) [LL = 62, PI = 29, #200 = 82, NMC = 58]			SS-15	0	4	4		8
-40.7		@ 62 ft - Stiff		63.5						
					SS-16	3	4	7		11
-45.7										
				68.5						
					SS-17	4	4	7		11
-50.7										
				73.5						
					SS-18	2	4	6		10
-55.7										
	77.0	**SILTY SAND (SM, A-7-5)** - Medium dense, olive, moist, fine (5Y 5/3) [LL = 47, PI = 17,								

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B10
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.3 ft	**Latitude:**	32.83993	**Longitude:**	-79.862354	**Date Started:**	3/14/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/14/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		#200 = 40, NMC = 44]		78.5						
					SS-19	3	5	7		12
-60.7				83.5						
					SS-20	4	5	6		11
-65.7				88.5						
					SS-21	5	6	9		15
-70.7				93.5						
					SS-22	4	5	7		12
-75.7				98.5						
					SS-23	5	8	10		18
-80.7	100.0									

SPT N VALUE
PL MC LL
FINES CONTENT (%)
0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B11
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	7.8 ft	**Latitude:**	32.838124	**Longitude:**	-79.858807	**Date Started:**	3/20/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/20/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.4	**TOPSOIL - 5"**		0.0	SS-1	1	4	3	4	7
	2.0	**FILL - SILTY SAND (SM, A-2-4)** - Loose, dark brown, moist, fine (10YR 3/3), [PI=NP, NMC=11.8%, #200=15.6%]		2.0	SS-2	2	5	6	7	11
		POORLY GRADED SAND WITH SILT (SP-SM, A-2-4) - Medium dense, yellowish brown, moist, fine, trace non plastic fines (10YR 5/8), [PI=NP, NMC=23.3%, #200=10.1%]		4.0	SS-3	6	7	7	8	14
2.8		@ 4 ft - Light yellowish brown, wet (2.5Y 6/4), [PI=NP, NMC=23.8%, #200=9.7%]		6.0	SS-4	6	5	6	7	11
	8.0	**COASTAL PLAIN - CLAYEY SAND (SC, A-2-6)** - Loose, yellowish brown and light yellowish brown, wet, fine, trace mica (10YR 5/6 & 2.5Y 6/4), [LL=29, PI=11, NMC=30.9%, #200=33.5%]		8.0	SS-5	5	4	3	3	7
-2.2										
	12.0	**SANDY FAT CLAY (CH, A-7-6)** - Very soft, greenish grey, wet, some fine sand and trace shell hash (GLEY1 510GY), [LL=63, PI=43, NMC=67.5%, #200=72.3%]		13.5	SS-6	0	0	0		0
-7.2										
	17.0	**CLAYEY SAND (SC, A-2-6)** - Very loose, very dark greenish grey, wet, fine, trace shell hash, (GLEY1 3/5G/1), [LL=29, PI=13, NMC=29.7%, #200=29.5%]		18.5	SS-7	3	2	2		4
-12.2										
	22.0	**SILTY SAND (SM, A-2-4)** - Loose, dark greenish grey, wet, fine, few shell hash, little non plastic fines (GLEY1 4/5GY), [PI=NP, NMC=23.4%, #200=12.1%]		23.5	SS-8	4	4	4		8
-17.2										

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B11		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	7.8 ft	**Latitude:**	32.838124	**Longitude:**	-79.858807	**Date Started:**	3/20/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/20/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	27.0	**SANDY FAT CLAY (CH, A-7-6)** - Soft, dark greenish grey, moist, trace mica & shell bits (GLEY1 4/10Y), [LL=64, PI=44, NMC=62.9%, #200=72.2%]		28.5	SS-9	1	1	2		3
-22.2				33.5	SS-10	0	1	1		2
-27.2		@ 33.5 ft - Very soft, [LL=51, PI=34, NMC=57.4%, #200=60.5%]								
	37.0	**MARL - CLAYEY SAND (SC, A-2-7)** - Loose, olive, moist, fine, (5Y 4/3), [LL=43, PI=29, NMC=44.5%, #200=27.8%]		38.5	SS-11	2	4	6		10
-32.2				43.5	SS-12	2	2	3		5
	42.0	**SILTY SAND (SM, A-2-4)** - Loose, olive, moist, fine (5Y 4/3), [LL=34, PI=9, NMC=37.5%, #200=21.6%]								
-37.2				48.5	SS-13	3	5	5		10
	47.0	**ELASTIC SILT (MH)** - Stiff, olive, moist, trace shell bits (5Y 4/4)								
-42.2										

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B11
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	7.8 ft	**Latitude:**	32.838124	**Longitude:**	-79.858807	**Date Started:**	3/20/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/20/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				53.5						
					SS-14	3	4	7		11
-47.2										
	57.0	**FAT CLAY WITH SAND (CH, A-7-6)** - Stiff, olive, moist, trace fine sand (5Y 4/3), [LL=71, PI=44, NMC=54.7%, #200=80.3%]		58.5						
					SS-15	2	4	5		9
-52.2		@ 62 ft - Very stiff								
				63.5						
					SS-16	5	8	14		22
-57.2										
	67.0	**ELASTIC SILT (MH)** - Very stiff, olive, moist, trace fine sand (5Y 4/3)		68.5						
					SS-17	4	7	12		19
-62.2		@ 72 ft - Stiff, trace shell hash								
				73.5						
					SS-18	4	5	6		11
-67.2		@ 77 ft - No shell hash								

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B11		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	7.8 ft	**Latitude:**	32.838124	**Longitude:**	-79.858807	**Date Started:**	3/20/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/20/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB**	2 ft	**24HR** 3 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				78.5						
					SS-19	3	4	4		8
-72.2										
				83.5						
					SS-20	5	6	7		13
-77.2										
	87.0	**SILTY SAND (SM)** - Medium dense, olive, moist, fine (5Y 4/3)		88.5						
					SS-21	5	6	7		13
-82.2										
		@ 92 ft - Wet		93.5						
					SS-22	7	8	7		15
-87.2										
				98.5						
					SS-23	7	8	9		17
-92.2	100.0									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B12
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	10.1 ft	**Latitude:**	32.83899	**Longitude:**	-79.859515	**Date Started:**	3/22/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/22/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0								
	0.3	**TOPSOIL - 3"**	0.0	SS-1	3	7	7	5	14
	2.0	**FILL - SILTY SAND (SM, A-2-4)** - Medium dense, light olive brown, moist, fine, trace brick fragments (2.5Y 5/6) [LL = NP, PI = NP, #200 = 15, NMC = 11]	2.0	SS-2	3	2	4	5	6
	4.0	**CLAYEY SAND** - Loose, yellowish brown, moist, fine (10YR 5/6)	4.0	SS-3	9	5	7	5	12
5.1	5.8	**COASTAL PLAIN - CLAYEY SAND (SC)** - Medium dense, strong brown, moist, fine (7.5YR 5/8)	6.0	SS-4	4	3	4	4	7
	7.5	**SILTY CLAYEY SAND (SC-SM, A-4)** - Loose, greenish grey, wet, fine (GLEY1 6/5GY) [LL = 23, PI = 4, #200 = 44, NMC = 34]	8.0	SS-5	0	0	0	2	0
0.1		**SANDY LEAN CLAY (CL, A-6)** - Firm, dark greenish grey, moist to wet (GLEY1 4/10Y) [LL = 40, PI = 12, #200 = 59, NMC = 70] @ 8 ft - Very soft, some shell hash, little brown staining in layers							
			13.5	SS-6	1	0	1		1
-4.9		@ 14.5 ft - Little shell hash, no staining [LL = 38, PI = 18, #200 = 68, NMC = 55]							
	17.0	**CLAYEY SAND (SC, A-6)** - Soft, greenish grey, wet, fine (GLEY 1 5/5G/1) [LL = 26, PI = 11, #200 = 38, NMC = 36]	18.5	SS-7	0	0	4		4
-9.9									
	22.0	**SILTY SAND (SM, A-2-4)** - Loose, dark greenish grey, wet, fine, little shell hash (GLEY1 4/10GY) [LL = NP, PI = NP, #200 = 12, NMC = 23]	23.5	SS-8	3	3	3		6
-14.9									

SPT N VALUE ● — PL × — MC ○ — LL × — ▲ FINES CONTENT (%) — 0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B12
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	10.1 ft	**Latitude:**	32.83899	**Longitude:**	-79.859515	**Date Started:**	3/22/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/22/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value	SPT N VALUE / PL MC LL / FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	27.0										
		FAT CLAY WITH SAND (CH, A-7-6) - Firm, very dark greenish grey, moist, trace shell hash/broken shells (GLEY1 3/5G/1) [LL = 58, PI = 36, #200 = 76, NMC = 43]		28.5	SS-9	1	2	3		5	
-19.9											
	32.0										
		CLAYEY SAND (SC, A-2-6) - Loose, dark greenish grey, moist, trace shell hash/broken shells (GLEY1 4/10GY) [LL = 33, PI = 13, #200 = 34, NMC = 32]		33.5	SS-10	1	3	3		6	
-24.9											
	37.0										
		SILTY CLAYEY SAND (SC-SM, A-1-b) - Loose, dark greenish grey, wet, some shell hash (GLEY1 4/10GY) [LL = 25, PI = 5, #200 = 15, NMC = 29]		38.5	SS-11	1	3	3		6	
-29.9											
				43.5	SS-12	5	3	5		8	
	44.5										
-34.9		**MARL - CLAYEY SAND (SC, A-2-4)** - Loose, olive, moist, fine, sulfur odor (5Y 4/4) [LL = 29, PI = 9, #200 = 25, NMC = 25]									
	47.0										
		FAT CLAY WITH SAND (CH, A-7-5) - Firm, olive, moist, fine, sulfur odor (5Y 5/3) [LL = 68, PI = 37, #200 = 82, NMC = 62]		48.5	SS-13	2	4	4		8	
-39.9											

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	B12		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	10.1 ft	**Latitude:**	32.83899	**Longitude:**	-79.859515	**Date Started:**	3/22/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/22/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		@ 52 ft - Stiff		53.5						
					SS-14	3	4	6		10
-44.9										
		@ 57 ft - Firm		58.5						
					SS-15	2	3	4		7
-49.9										
		@ 62 ft - Stiff		63.5						
					SS-16	5	8	7		15
-54.9										
	67.0	**FAT CLAY WITH SAND (CH)** - Very stiff, olive, moist, fine, (5Y 5/3)		68.5						
					SS-17	8	10	12		22
-59.9										
	72.0	**FAT CLAY (CH)** - Stiff, olive, moist, (5Y 5/3)		73.5						
					SS-18	4	5	7		12
-64.9										
	77.0	**ELASTIC SILT (MH)** - Stiff, olive, moist, (5Y 4/4)								

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B12
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	10.1 ft	**Latitude:**	32.83899	**Longitude:**	-79.859515	**Date Started:**	3/22/23
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/22/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 4 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				78.5						
					SS-19	3	4	6		10
-69.9										
		@ 82 ft - Trace fine sands								
				83.5						
					SS-20	6	6	8		14
-74.9										
	87.0									
		SILTY SAND (SM) - Medium dense, olive, wet, fine, (5Y 4/3)		88.5						
					SS-21	7	10	11		21
-79.9										
				93.5						
					SS-22	9	8	9		17
-84.9										
				98.5						
					SS-23	7	8	10		18
-89.9	100.0									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-13
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	9.1 ft	**Latitude:**	32.843791	**Longitude:**	-79.87191	**Date Started:**	6/18/2025
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/18/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.3	**ASPHALT**: 3 inches		1.0						
	1.0	**SUBBASE**: 9 inches		3.0	SS-1	2	3	4	4	7
		SANDY FAT CLAY (CH)- firm, moist, grayish brown, non-reactive (2.5Y 5/2)		3.0	SS-2	3	3	4	4	7
4.1		@6 ft- very soft, trace gravel		6.0						
	8.0			8.0	SS-3	0	0	2	2	2
		CLAYEY SAND (SC)- very loose, moist, fine to medium, olive, non-reactive, trace crushed shells (5Y 5/3)		8.0	SS-4	2	1	1	1	2
-0.9	12.0									
		FAT CLAY (CH)- very soft, moist, dark gray, non-reactive (5Y 4/1)		13.5	SS-5	0	1	0		1
-5.9										
		@18.5 ft- NMC=97%, %200=88, LL=64, PL=29, PI=35 (A-7-6)		18.5	SS-6	0	0	0		0
-10.9										
		@23.5 ft- soft		23.5	SS-7	0	2	1		3
-15.9	27.0									
		CLAYEY SAND (SC)- medium dense, moist, fine to medium, dark gray, non-reacitve (5Y 4/1)		28.5	SS-8	6	5	8		13
-20.9	32.0									
		SANDY FAT CLAY (CH)- very soft, moist, dark greenish gray, non-reactive (GLEY 4/5GY)		33.5	SS-9	1	1	1		2
-25.9										
		@38.5 ft- NMC=58%, %200=68, LL=53, PL=14, PI=39 (A-7-6)		38.5	SS-10	1	1	1		2
-30.9	42.0									
		SILTY SAND (SM)- dense, moist, fine to medium, dark gray, non-reactive (5Y 4/1)		43.5	SS-11	10	19	15		34
-35.9	47.0									
		MARL-FAT CLAY (CH)- firm, moist, olive brown, non-reactive (2.5Y 4/4), NMC=54%, %200=83, LL=68, PL=24, PI=44 (A-7-6)		48.5	SS-12	2	3	3		6
-40.9	52.0									
		SANDY LEAN CLAY (CL)- firm, moist, olive brown, non-reactive (2.5Y 4/4), NMC=61%, %200=78, LL=48, PL=24,		53.5	SS-13	2	3	3		6

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) ✿ RQD (%) ■ REC (%)

0 10 20 30 40 50 60 70 80 90

Continued Next Page

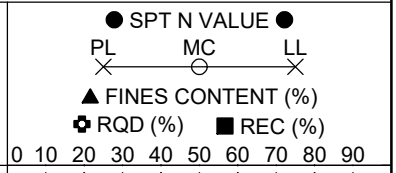
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-13
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	9.1 ft	**Latitude:**	32.843791	**Longitude:**	-79.87191	**Date Started:**	6/18/2025
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/18/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		PI=24 (A-7-6)		58.5	SS-14	3	4	7		11
-50.9	62.0	CLAYEY SAND (SC)- loose, moist, fine, light olive brown, non-reactive (2.5Y 5/3) NMC=54%, %200=44, LL=34, PL=17, PI=17 (A-7)		63.5	SS-15	3	3	5		8
-55.9		@68.5 ft- NMC=42%, %200=39, LL=34, PL=17, PI=17 (A-6)		68.5	SS-16	4	3	5		8
-60.9		@73.5 ft- NMC=36%, %200=32, LL=26, PL=11, PI=15 (A-2-6)		73.5	SS-17	4	4	5		9
-65.9		@78.5 ft- medium dense, NMC=34%, %200=24, LL=28, PL=13, PI=15 (A-2-6)		78.5	SS-18	4	5	6		11
-70.9		@83.5 ft- little recovery		83.5	SS-19	5	5	6		11
-75.9				88.5	SS-20	7	9	7		16
-80.9		@93.5 ft- loose, no recovery		93.5	SS-21	4	4	5		9
-85.9		@98.5 ft- medium dense, no recovery		98.5	SS-22	4	5	6		11
-90.9	100.0	Boring terminated at 100 ft bgs								
-95.9										



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-14
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	8.1 ft	**Latitude:**	32.843242	**Longitude:**	-79.871618	**Date Started:**	6/17/2025
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/17/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0	**<u>COASTAL PLAIN</u>-CLAYEY SAND (SC)**- very loose, wet, fine, very dark grayish brown, non-reactive (10YR 3/2),NMC=27%, %200=25, LL=27, PL=17, PI=11 (A-2-6)		0.0	SS-1	1	1	2	3	3
				2.0						
					SS-2	2	2	5	6	7
				4.0						
3.1		@2 ft- loose, moist, gray (10YR 5/1)			SS-3	3	3	3	3	6
				6.0						
		@ 6 ft- very loose, NMC=25%, %200=41, LL=35, PL=20, PI=16 (A-2-6)			SS-4	1	1	1	2	2
				8.0						
					SS-5	1	1	1	1	2
-1.9										
	12.0									
		ELASTIC SILT (MH)- very soft, moist, dark gray, REACTIVITY, trace crushed shells (GLEY 5/N)		13.5	SS-6	1	0	1		1
-6.9										
				18.5						
		@18.5 ft- firm			SS-7	4	3	4		7
-11.9										
	22.0									
		POORLY GRADED SAND WITH SILT (SP-SM)- medium dense, moist, fine, very dark grayish brown, non-reactive (10YR 3/2), NMC=49%, %200=9,non-plastic (A-3)		23.5	SS-8	3	6	6		12
-16.9										
				28.5						
		@28.5 ft- dense			SS-9	5	15	19		34
-21.9										
				33.5						
		@33.5 ft- medium dense, gray (2.5Y 5/1) NMC=26%, %200=6,non-plastic (A-3)			SS-10	11	15	15		30
-26.9										
	37.0									
		CLAYEY SAND (SC)- medium dense, moist, fine, gray, non-reactive (GLEY 5/N)		38.5	SS-11	3	10	17		27
-31.9										
				43.5						
		@43.5 ft- NMC=31%, %200=28, LL=29, PL=13, PI=16 (A-2-6)			SS-12	4	7	7		14
-36.9										
	47.0									
		<u>MARL</u>- FAT CLAY (CH)- firm, moist, light olive brown, non-reactive (2.5Y 5/4) NMC=49%, %200=72, LL=52, PL=21, PI=31 (A-7-6)		48.5	SS-13	2	3	3		6
-41.9										
				53.5						
					SS-14	3	3	4		7

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) ✿ RQD (%) ■ REC (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

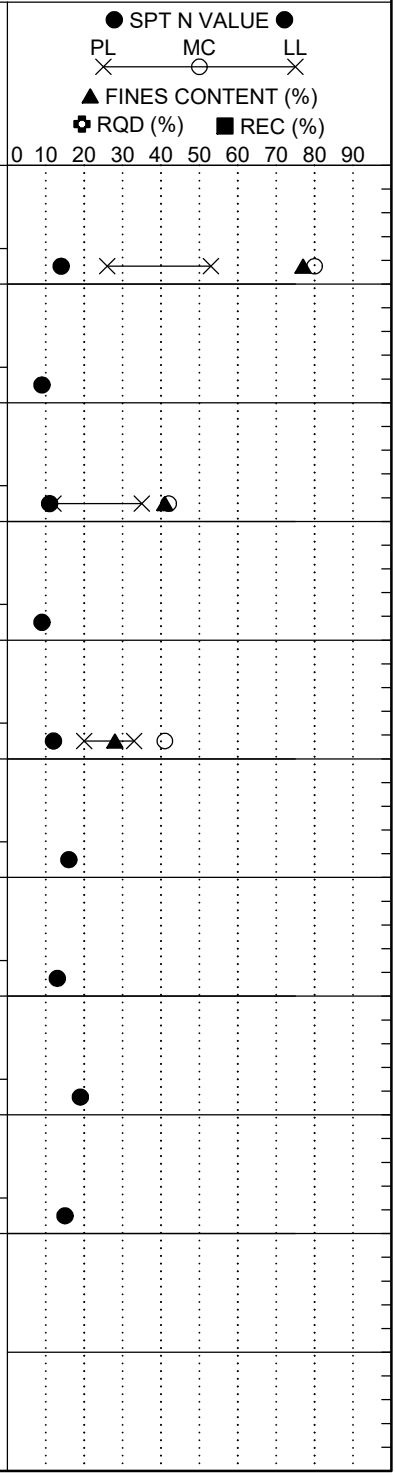
Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-14
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	8.1 ft	**Latitude:**	32.843242	**Longitude:**	-79.871618	**Date Started:**	6/17/2025
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/17/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
-51.9		@58.5 ft- stiff, NMC=80%, %200=77, LL=53, PL=26, PI=27 (A-7-6)		58.5	SS-15	4	6	8		14
-56.9				63.5	SS-16	3	4	5		9
	67.0									
-61.9		CLAYEY SAND (SC)- medium dense, moist, fine, olive brown, non-reactive (5Y 4/4), NMC=42%, %200=41, LL=35, PL=15, PI=20 (A-2-7)		68.5	SS-17	4	5	6		11
-66.9		@73.5 ft- loose		73.5	SS-18	3	4	5		9
-71.9		@78.5 ft- medium dense, NMC=41%, %200=28, LL=33, PL=20, PI=13 (A-2-6)		78.5	SS-19	5	5	7		12
-76.9				83.5	SS-20	6	7	9		16
-81.9				88.5	SS-21	5	6	7		13
-86.9				93.5	SS-22	5	7	12		19
-91.9	100.0	Boring terminated at 100 ft bgs		98.5	SS-23	5	6	9		15
-96.9										



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-15
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	8.7 ft	**Latitude:**	32.842872	**Longitude:**	-79.871499	**Date Started:**	6/20/2025
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/20/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.3	**ASPHALT**: 3 inches		1.0						
	1.0	**SUBBASE**: 9 inches		3.0	SS-1	6	7	7	5	14
	3.0	**FILL-POORLY GRADED SAND WITH SILT (SP-SM)**- medium dense, moist, fine, dark grayish brown, non-reactive (10YR 4/2), NMC=14%, %200=8, non-plastic (A-3)		5.0	SS-2	2	2	3	3	5
3.7				7.0	SS-3	1	1	1	2	2
					SS-4	1	1	1	2	2
-1.3		**COASTAL PLALIN- CLAYEY SAND (SC)**- loose, moist, fine, yellowish brown, non-reactive (10YR 5/4)								
	12.0	@5 ft- very loose, NMC=33%, %200=43, LL=36, PL=12, PI=24 (A-6)		13.5	SS-5	0	0	0		0
-6.3		**ELASTIC SILT WITH SAND (MH)**- very soft, moist, dark gray, non-reactive (GLEY 4/N),crushed shells								
		@18.5 ft- NMC=54%, %200=86, LL=62, PL=33, PI=29 (A-7-5)		18.5	SS-6	0	0	3		3
-11.3	22.0									
		POORLY GRADED SAND WITH SILT (SP-SM)- loose, moist, fine, dark grayish brown, non-reactive (10YR 4/2), trace wood fragments		23.5	SS-7	2	2	2		4
-16.3										
				28.5	SS-8	5	4	3		7
-21.3	32.0									
		FAT CLAY (CH)- firm, moist, grayish brown, non-reactive (2.5Y 5/2)		33.5	SS-9	1	1	6		7
-26.3		@34 ft- organic debris								
				38.5	SS-10	4	3	2		5
-31.3		@38.5 ft- little recovery, gray (2.5Y 4/1)								
				43.5	SS-11	1	1	1		2
-36.3		@43.5 ft- very soft, NMC=68%, %200=76, LL=63, PL=16, PI=47 (A-7-6)								
	47.0									
		MARL- SANDY FAT CLAY (CH)- soft, moist, light olive brown, non-reactive (2.5Y 5/4)		48.5	SS-12	2	1	2		3
-41.3										
		@53.5 ft- firm NMC=58%, %200=69,		53.5	SS-13	3	3	4		7

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) ✿ RQD (%) ■ REC (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT_DATATEMPLATE.GDT 8/25/25

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-15
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	8.7 ft	**Latitude:**	32.842872	**Longitude:**	-79.871499	**Date Started:**	6/20/2025
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/20/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		LL=51, PL=24, PI=27 (A-7-6)		58.5	SS-14	3	3	5		8
-51.3				63.5	SS-15	3	3	4		7
-56.3		@63.5 ft- NMC=48%, %200=61, LL=51, PL=26, PI=25 (A-7-6)								
	67.0	CLAYEY SAND (SC)- loose, moist, fine, light olive brown, non-reactive (2.5Y 5/4)		68.5	SS-16	3	3	4		7
-61.3				73.5	SS-17	4	3	5		8
-66.3		@73.5 ft- NMC=42%, %200=42, LL=33, PL=15, PI=18 (A-2-7)								
	77.0	SILTY SAND (SM)- medium dense, moist, fine, light olive, non-reactive (5Y 4/3)		78.5	SS-18	4	6	6		12
-71.3				83.5	SS-19	5	5	7		12
-76.3		@83.5 ft- NMC=29%, %200=16, non-plastic (A-2-4)								
				88.5	SS-20	6	5	7		12
-81.3				93.5	SS-21	5	6	7		13
-86.3		@93.5 ft- NMC=31%, %200=15, non-plastic (A-2-4)								
				98.5	SS-22	5	5	6		11
-91.3	100.0	Boring terminated at 100 ft bgs								
-96.3										

SPT N VALUE ● PL × MC ○ LL ×
▲ FINES CONTENT (%)
✿ RQD (%) ■ REC (%)
0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT_DATATEMPLATE.GDT 8/25/25

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-16
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	11.2 ft	**Latitude:**	32.844386	**Longitude:**	-79.871335	**Date Started:**	6/23/2025
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/23/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.5	**TOPSOIL**: 6 inches		0.0	SS-1	4	4	10	15	14
		FILL-SILTY SAND (SM)- medium dense, moist, fine, grayish brown, non-reactive (10YR 5/2), trace gravel		2.0						
				4.0	SS-2	10	17	19	19	36
6.2		@2 ft- dense		6.0	SS-3	13	19	20	19	39
		@4 ft- loose, NMC=17%, %200=13, non-plastic (A-2-4)			SS-4	8	11	16	17	27
	8.0			8.0						
1.2		@6 ft- medium dense			SS-5	2	4	8	9	12
	12.0	**COASTAL PLAIN- SILTY, CLAYEY SAND (SC-SM)**- medium dense, light yellowish brown, non-reactive (2.5Y 6/4), organics NMC=30%, %200=48, LL=27, PL=22, PI=5 (A-4)		13.5	SS-6	0	0	0		0
-3.8		**CLAYEY SAND (SC)**- very loose, moist, fine gray, non-reactive (10YR 5/1), crushed shells, NMC=46%, %200=41, LL=35, PL=16, PI=19 (A-6)		18.5	SS-7	0	0	0		0
-8.8	22.0									
		SANDY LEAN CLAY (CL)- firm, moist, gray, non-reactive (10YR 5/1), NMC=50%, %200=62, LL=39, PL=15, PI=24 (A-6)		23.5	SS-8	4	3	2		5
-13.8	27.0									
		LEAN CLAY WITH SAND (CL)- very soft, moist, gray, non-reactive (GLEY 5/N)		28.5	SS-9	1	1	1		2
-18.8										
		@33.5 ft- NMC=64%, %200=72, LL=49, PL=18, PI=31 (A-7-6)		33.5	SS-10	1	1	1		2
-23.8										
				38.5	SS-11	1	WOH	1		1
-28.8										
		@43.5 ft- no recovery		43.5	SS-12	0	0	0		0
-33.8	47.0									
		MARL- SANDY FAT CLAY (CH)- firm, moist, light olive brown, non-reactive (5Y 5/4)		48.5	SS-13	2	3	3		6
-38.8										
		@53.5 ft- NMC=54%, %200=68, LL=81,		53.5	SS-14	2	3	4		7

● SPT N VALUE ●
PL MC LL
▲ FINES CONTENT (%)
✿ RQD (%) ■ REC (%)
0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-16
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	11.2 ft	**Latitude:**	32.844386	**Longitude:**	-79.871335	**Date Started:**	6/23/2025
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/23/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		PL=30, PI=51 (A-7-5)		58.5	SS-15	3	3	5		8
-48.8				63.5	SS-16	3	3	5		8
-53.8		@58.5 ft- NMC=58%, %200=57, LL=69, PL=30, PI=39 (A-7-5)								
	67.0	**CLAYEY SAND (SC)**- medium dense, moist, fine, light olive brown, non-reactive (5Y 5/4)		68.5	SS-17	4	5	6		11
-58.8				73.5	SS-18	4	5	6		11
-63.8		@73.5 ft- NMC=41%, %200=35, LL=48, PL=21, PI=27 (A-2-7)								
				78.5	SS-19	4	5	6		11
-68.8	82.0									
		SILTY SAND (SM)- medium dense, moist, fine, olive brown, non-reactive (2.5Y 4/4), NMC=23%, %200=16, non-plastic (A-2-4)		83.5	SS-20	5	7	9		16
-73.8				88.5	SS-21	5	12	12		24
-78.8		@88.5 ft- trace phospohorus nodules								
				93.5	SS-22	8	11	11		22
-83.8		@93.5 ft- NMC=22%, %200=15, non-plastic (A-2-4)								
				98.5	SS-23	5	6	8		14
-88.8	100.0	Boring terminated at 100 ft bgs								
-93.8										

SPT N VALUE ● PL × MC ○ LL ×
▲ FINES CONTENT (%)
✿ RQD (%) ■ REC (%)
0 10 20 30 40 50 60 70 80 90

LEGEND

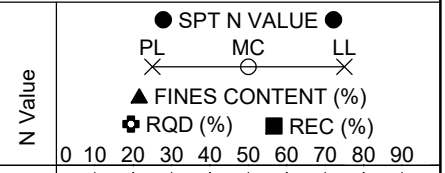
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT_DATATEMPLATE.GDT 8/18/25

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-17
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	12.5 ft	**Latitude:**	32.843894	**Longitude:**	-79.870814	**Date Started:**	6/21/2025
Total Depth:	150 ft	**Soil Depth:**	150 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/22/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0		0.0	SS-1	2	6	10	11	16
	0.7	**TOPSOIL**: 8 inches	2.0						
		FILL-POORLY GRADED SAND WITH SILT (SP-SM)- medium dense, moist, fine, light yellowish brown, non-reactive (10YR 6/4)	4.0	SS-2	8	14	19	20	33
7.5	6.0	@2 ft- dense, pale brown NMC=19%, %200=8, non-plastic (A-3)	6.0	SS-3	8	9	5	5	14
	8.0	@4 ft- medium dense	8.0	SS-4	3	3	3	3	6
2.5				SS-5	3	2	3	3	5
	12.0	**COASTAL PLAIN- SILTY SAND (SM)**- loose, moist, fine, pale brown, non-reactive (10YR 6/3), NMC=26%, %200=15, non-plastic (A-2-4)	13.5	SS-6	1	WOH	1		1
-2.5		**CLAYEY SAND (SC)**- loose, moist, gray, non-reactive (GLEY 5/N), trace wood fragments, NMC=30%, %200=50, LL=33, PL=16, PI=17 (A-6)	18.5	SS-7	0	0	0		0
-7.5		**FAT CLAY WITH SAND (CH)**-very soft, moist, gray, non-reactive (GLEY 5/N)							
	22.0	@18.5 ft- NMC=66%, %200=78, LL=56, PL=21, PI=35 (A-7-6)	23.5	SS-8	2	3	5		8
-12.5		**SILTY, CLAYEY SAND (SC-SM)**- loose, moist, fine, grayish brown, non-reactive (5Y 5/2), NMC=29%, %200=15, LL=25, PL=19, PI=6 (A-2-4)	28.5	SS-9	10	10	9		19
-17.5		@28.5 ft- medium dense							
			33.5	SS-10	4	4	7		11
-22.5	37.0								
		POORLY GRADED SAND (SP-SM)- loose, moist, fine, grayish brown, non-reactive (5Y 5/2), NMC=32%, %200=11, non-plastic (A-2-4)	38.5	SS-11	2	2	8		10
-27.5			43.5	SS-12	5	10	15		25
		@43.5 ft- medium dense, gray (2.5Y 5/1)							
-32.5	47.0								
		MARL-SANDY FAT CLAY (CH)- firm, moist, light olive brown, non-reactive (5Y 5/4), NMC=48%, %200=68, LL=58, PL=29, PI=29 (A-7-6)	48.5	SS-13	3	3	3		6
-37.5									
			53.5	SS-14	3	2	3		5



LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT_DATATEMPLATE.GDT 8/18/25

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-17
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	12.5 ft	**Latitude:**	32.843894	**Longitude:**	-79.870814	**Date Started:**	6/21/2025
Total Depth:	150 ft	**Soil Depth:**	150 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/22/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
-47.5		@58.5 ft- NMC=56%, %200=57, LL=66, PL=30, PI=36 (A-7-5)		58.5	SS-15	2	3	3		6
	62.0	**CLAYEY SAND (SC)**- loose, moist, light olive brown, non-reactive (5Y 5/4)		63.5	SS-16	4	4	6		10
-52.5				68.5	SS-17	4	4	6		10
-57.5		@68.5 ft- NMC=39%, %200=40, LL=48, PL=26, PI=22 (A-7-6)		73.5	SS-18	3	3	4		7
-62.5		@73.5 ft- olive brown (5Y 4/4)		78.5	SS-19	4	6	7		13
-67.5		@78.5 ft- NMC=40%, %200=24, LL=43, PL=22, PI=21 (A-2-7)		83.5	SS-20	5	6	8		14
	82.0	**SILTY SAND (SM)**- medium dense, moist, fine, olive brown, non-reactive (5Y 4/3)		88.5	SS-21	4	6	8		14
-72.5				93.5	SS-22	4	6	9		15
-77.5		@88.5 ft- NMC=25%, %200=15, non-plastic (A-2-4)		98.5	SS-23	4	5	6		11
-82.5				103.5	SS-24	3	3	5		8
-87.5		@98.5 ft- NMC=25%, %200=17, non-plastic (A-2-4)		108.5	SS-25	3	4	6		10
-92.5	102.0	**FAT CLAY WITH SAND (CH)**- firm, moist, light olive brown, non-reactive (2.5Y 5/4)								
		@108.5 ft- stiff, NMC=49%, %200=79,								

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) ✿ RQD (%) ■ REC (%)

0 10 20 30 40 50 60 70 80 90

Continued Next Page

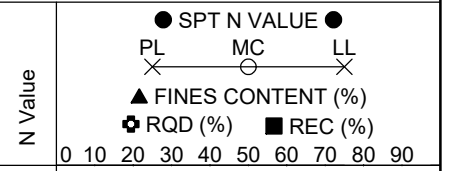
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-17
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	12.5 ft	**Latitude:**	32.843894	**Longitude:**	-79.870814	**Date Started:**	6/21/2025
Total Depth:	150 ft	**Soil Depth:**	150 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/22/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		LL=62, PL=28, PI=34 (A-7-6)								
		@113.5 ft- firm		113.5	SS-26	4	3	4		7
-102.5										
		@118.5 ft- hard, no recovery		118.5	SS-27	50/1"				50/1"
-107.5										
				123.5	SS-28	50/6"				50/6"
-112.5										
	127.0	**FAT CLAY (CH)**- stiff, moist, light olive brown, non-reactive (2.5Y 5/4), NMC=55%, %200=92, LL=85, PL=26, PI=59 (A-7-6)		128.5	SS-29	3	4	5		9
-117.5										
				133.5	SS-30	5	6	8		14
-122.5										
		@138.5 ft- NMC=75%, %200=89, LL=90, PL=25, PI=65 (A-7-6)		138.5	SS-31	4	4	5		9
-127.5										
	142.0	**LEAN CLAY WITH SAND (CL)**- hard, moist, olive brown, non-reactive (2.5Y 4/4)		143.5	SS-32	50/2"				50/2"
-132.5										
				148.5						
	150.0	@148.5 ft- NMC=47%, %200=83, LL=45, PL=27, PI=18 (A-7-6)			SS-33	5	35	30		65
-137.5		Boring terminated at 150 ft bgs								
-142.5										
-147.5										



LEGEND

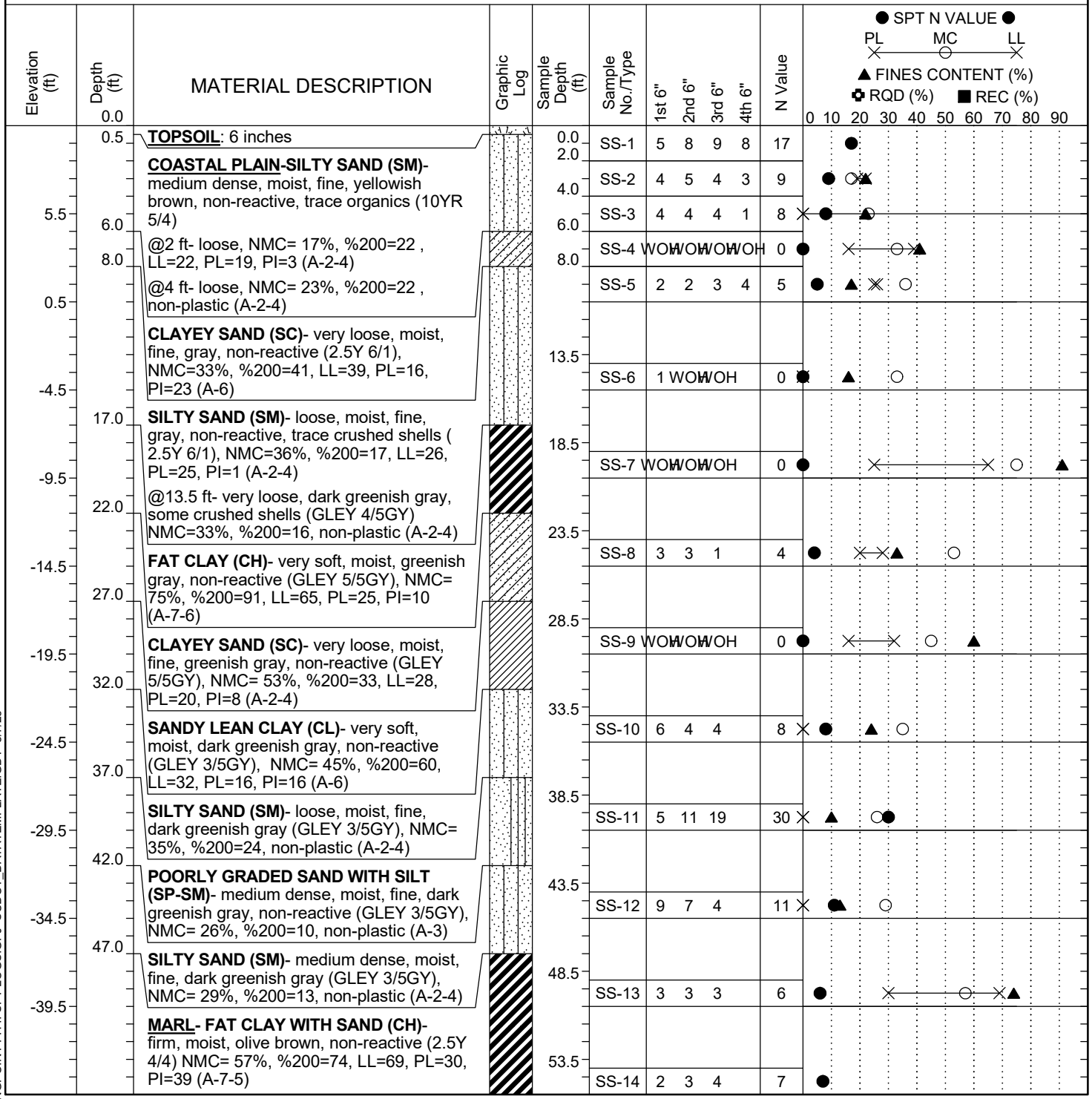
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_526 LONGPOINT PH II SPT LOGS.GPJ SCDOT_DATATEMPLATE.GDT 8/18/25

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-18
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	10.5 ft	**Latitude:**	32.84329	**Longitude:**	-79.870795	**Date Started:**	6/19/2025
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/19/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.5	**TOPSOIL**: 6 inches		0.0	SS-1	5	8	9	8	17
		COASTAL PLAIN-SILTY SAND (SM)- medium dense, moist, fine, yellowish brown, non-reactive, trace organics (10YR 5/4)		2.0						
				4.0	SS-2	4	5	4	3	9
5.5	6.0				SS-3	4	4	4	1	8
		@2 ft- loose, NMC= 17%, %200=22 , LL=22, PL=19, PI=3 (A-2-4)		6.0						
	8.0				SS-4	WOH	WOH	WOH	WOH	0
		@4 ft- loose, NMC= 23%, %200=22 , non-plastic (A-2-4)		8.0	SS-5	2	2	3	4	5
0.5		**CLAYEY SAND (SC)**- very loose, moist, fine, gray, non-reactive (2.5Y 6/1), NMC=33%, %200=41, LL=39, PL=16, PI=23 (A-6)								
				13.5	SS-6	1	WOH	WOH		0
-4.5	17.0	**SILTY SAND (SM)**- loose, moist, fine, gray, non-reactive, trace crushed shells (2.5Y 6/1), NMC=36%, %200=17, LL=26, PL=25, PI=1 (A-2-4)								
				18.5	SS-7	WOH	WOH	WOH		0
-9.5	22.0	@13.5 ft- very loose, dark greenish gray, some crushed shells (GLEY 4/5GY) NMC=33%, %200=16, non-plastic (A-2-4)								
				23.5	SS-8	3	3	1		4
-14.5	27.0	**FAT CLAY (CH)**- very soft, moist, greenish gray, non-reactive (GLEY 5/5GY), NMC= 75%, %200=91, LL=65, PL=25, PI=10 (A-7-6)								
				28.5	SS-9	WOH	WOH	WOH		0
-19.5	32.0	**CLAYEY SAND (SC)**- very loose, moist, fine, greenish gray, non-reactive (GLEY 5/5GY), NMC= 53%, %200=33, LL=28, PL=20, PI=8 (A-2-4)								
				33.5	SS-10	6	4	4		8
-24.5	37.0	**SANDY LEAN CLAY (CL)**- very soft, moist, dark greenish gray, non-reactive (GLEY 3/5GY), NMC= 45%, %200=60, LL=32, PL=16, PI=16 (A-6)								
				38.5	SS-11	5	11	19		30
-29.5	42.0	**SILTY SAND (SM)**- loose, moist, fine, dark greenish gray (GLEY 3/5GY), NMC= 35%, %200=24, non-plastic (A-2-4)								
				43.5	SS-12	9	7	4		11
-34.5	47.0	**POORLY GRADED SAND WITH SILT (SP-SM)**- medium dense, moist, fine, dark greenish gray, non-reactive (GLEY 3/5GY), NMC= 26%, %200=10, non-plastic (A-3)								
				48.5	SS-13	3	3	3		6
-39.5		**SILTY SAND (SM)**- medium dense, moist, fine, dark greenish gray (GLEY 3/5GY), NMC= 29%, %200=13, non-plastic (A-2-4)								
		MARL- FAT CLAY WITH SAND (CH)- firm, moist, olive brown, non-reactive (2.5Y 4/4) NMC= 57%, %200=74, LL=69, PL=30, PI=39 (A-7-5)		53.5	SS-14	2	3	4		7



LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT_DATATEMPLATE.GDT 8/7/25

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	B-18
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	10.5 ft	**Latitude:**	32.84329	**Longitude:**	-79.870795	**Date Started:**	6/19/2025
Total Depth:	100 ft	**Soil Depth:**	100 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/19/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	57.0			58.5	SS-15	3	4	6		10
-49.5		**SANDY FAT CLAY (CH)**- stiff, moist, olive, brown, non-reactive (2.5Y 4/4) NMC= 57%, %200=74, LL=69, PL=30, PI=39 (A-7-5)		63.5	SS-16	3	4	4		8
-54.5	67.0			68.5	SS-17	4	4	6		10
-59.5		**CLAYEY SAND (SC)**- loose, moist, fine, olive brown, non-reactive (2.5Y 4/4), NMC= 40%, %200=43, LL=50, PL=28, PI=22 (A-7-6)		73.5	SS-18	4	4	5		9
-64.5				78.5	SS-19	5	6	9		15
-69.5		@78.5 ft- medium dense, NMC= 35%, %200=27, LL=50, PL=24, PI=26 (A-2-7)		83.5	SS-20	5	5	7		12
-74.5				88.5	SS-21	5	6	7		13
-79.5		@88.5 ft- no recovery		93.5	SS-22	5	4	7		11
	92.0			98.5	SS-23	4	5	6		11
-84.5		**SILTY SAND (SM)**- medium dense, moist, fine, olive brown, non-reactive (2.5Y 4/4)								
-89.5	100.0	@98.5 ft- NMC= 27%, %200=19, non-plastic (A-2-4)								
		Boring terminated at 100 ft bgs								
-94.5										

SPT N VALUE ● PL × MC ○ LL ×
▲ FINES CONTENT (%)
✿ RQD (%) ■ REC (%)
0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB01
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	8.3 ft	**Latitude:**	32.845487	**Longitude:**	-79.873294	**Date Started:**	3/3/2023
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/3/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 6 ft	**24HR**	6 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0								
	0.4	**TOPSOIL: 5"**	0.0	SS-1	1	3	4	4	7
	2.0	**FILL - SILTY SAND (SM, A-2-4)** - Loose, very dark brown mottled with grey, moist, fine, few roots, (10YR 2/2 with 10YR 5/1), [PI=NP, NMC=20.8%, #200=27.3%]	2.0	SS-2	3	4	5	4	9
	4.0	**COASTAL PLAIN - SILTY CLAYEY SAND (SC-SM, A-2-4)** - Loose, very dark brown, moist, fine, (10YR 2/2), [LL=27, PI=5, NMC=24.2%, #200=30.7%]	4.0	SS-3	2	2	2	2	4
3.3	6.0	**SANDY LEAN CLAY (CL, A-7-6)** - Soft, brown, moist, some fine sands, (10YR 5/3), [LL=41, PI=22, NMC=39.3%, #200=69.6%]	6.0	SS-4	3	2	1	1	3
		SILTY SAND (SM, A-2-4) - Very loose, light brownish grey, moist to wet, fine, (10YR 6/2), [PI=NP, NMC=31.5%, #200=17.6%]	8.0	SS-5	3	2	3	3	5
		@ 8 ft - Loose, [LL=23, PI=2, NMC=36.4%, #200=21.6%]							
-1.7			13.5	SS-6	3	1	1		2
		@ 13.5 ft - Very loose, [PI=NP, NMC=52.7%, #200=46.7%]							
-6.7	17.0	**FAT CLAY WITH SAND (CH, A-7-6)** - Very soft, dark grey, wet, little fine sands, trace shell hash, (10YR 4/1), [LL=51, PI=29, NMC=61.5%, #200=73.6%]	18.5	SS-7	0	0	1		1
-11.7	22.0	**SILTY SAND (SM, A-2-4)** - Very loose, gray, wet, fine, (10YR 5/1), [PI=NP, NMC=34.8%, #200=13.7%]	23.5	SS-8	2	2	2		4
-16.7									

SPT N VALUE ● — PL × — MC ○ — LL × — ▲ FINES CONTENT (%) — 0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB01		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	8.3 ft	**Latitude:**	32.845487	**Longitude:**	-79.873294	**Date Started:**	3/3/2023
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/3/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 6 ft	**24HR**	6 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		@ 28.5 ft - Very loose, [PI=NP, NMC=36.4%, #200=28.2%]		28.5	SS-9	4	5	5		9
-21.7	32.0	**SANDY LEAN CLAY (CL, A-6)** - Soft, light gray, moist, some fine sands, (10YR 7/2), [LL=34, PI=16, NMC=53.5%, #200=59.5%]		33.5	SS-10	2	2	2		4
-26.7	37.0	**SILTY SAND (SM, A-2-4)** - Medium dense, gray, wet, fine, (10YR 5/1), [PI=NP, NMC=30.4%, #200=12.8%]		38.5	SS-11	5	5	10		15
-31.7	40.0									
-36.7										
-41.7										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

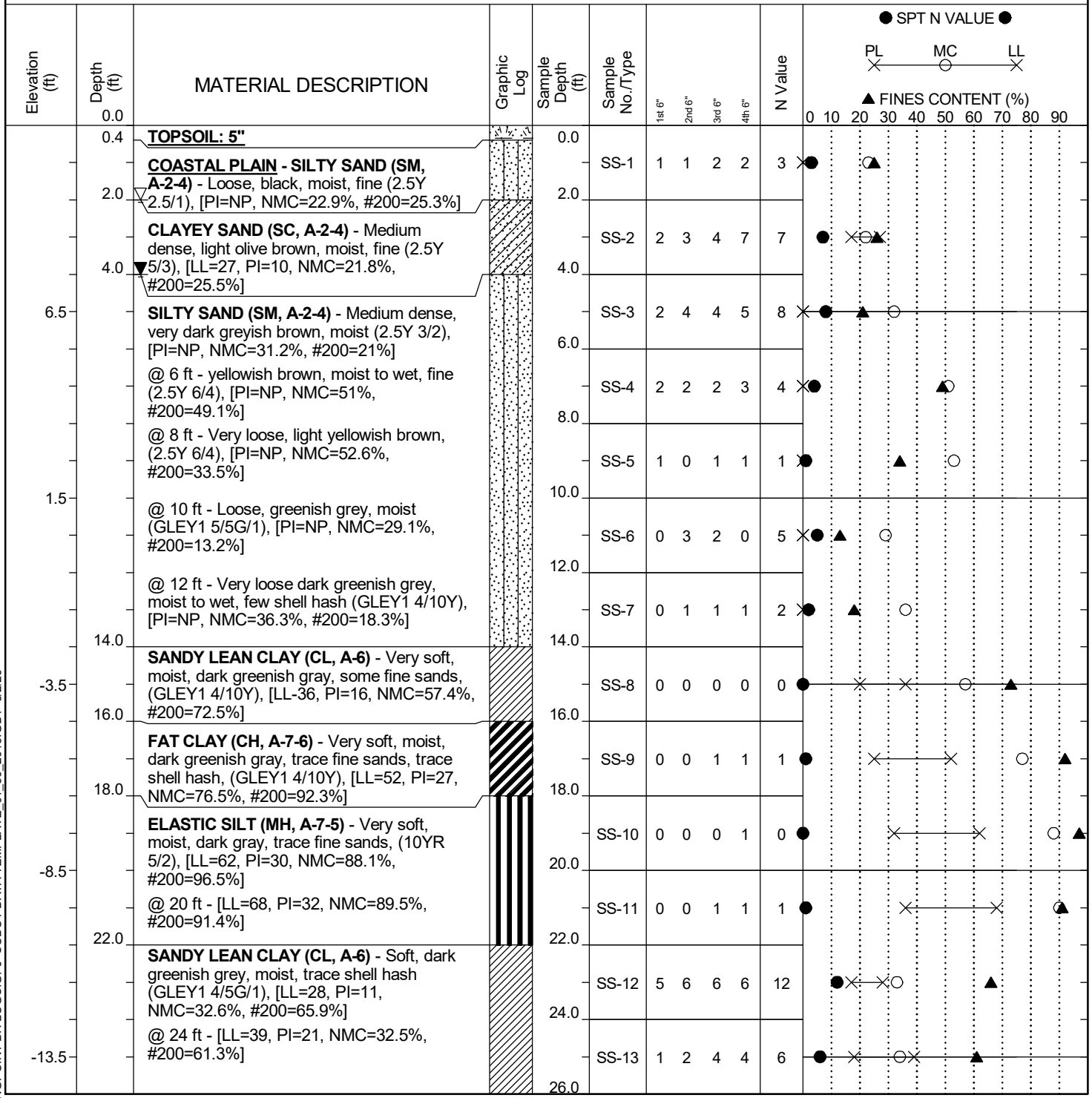
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB02
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.5 ft	**Latitude:**	32.840957	**Longitude:**	-79.871457	**Date Started:**	3/24/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/24/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.4	**TOPSOIL: 5"**		0.0	SS-1	1	1	2	2	3
	2.0	**COASTAL PLAIN - SILTY SAND (SM, A-2-4)** - Loose, black, moist, fine (2.5Y 2.5/1), [PI=NP, NMC=22.9%, #200=25.3%]		2.0	SS-2	2	3	4	7	7
	4.0	**CLAYEY SAND (SC, A-2-4)** - Medium dense, light olive brown, moist, fine (2.5Y 5/3), [LL=27, PI=10, NMC=21.8%, #200=25.5%]		4.0	SS-3	2	4	4	5	8
6.5		**SILTY SAND (SM, A-2-4)** - Medium dense, very dark greyish brown, moist (2.5Y 3/2), [PI=NP, NMC=31.2%, #200=21%]		6.0	SS-4	2	2	2	3	4
		@ 6 ft - yellowish brown, moist to wet, fine (2.5Y 6/4), [PI=NP, NMC=51%, #200=49.1%]		8.0	SS-5	1	0	1	1	1
		@ 8 ft - Very loose, light yellowish brown, (2.5Y 6/4), [PI=NP, NMC=52.6%, #200=33.5%]								
1.5		@ 10 ft - Loose, greenish grey, moist (GLEY1 5/5G/1), [PI=NP, NMC=29.1%, #200=13.2%]		10.0	SS-6	0	3	2	0	5
		@ 12 ft - Very loose dark greenish grey, moist to wet, few shell hash (GLEY1 4/10Y), [PI=NP, NMC=36.3%, #200=18.3%]		12.0	SS-7	0	1	1	1	2
	14.0			14.0						
-3.5		**SANDY LEAN CLAY (CL, A-6)** - Very soft, moist, dark greenish gray, some fine sands, (GLEY1 4/10Y), [LL-36, PI=16, NMC=57.4%, #200=72.5%]			SS-8	0	0	0	0	0
	16.0			16.0						
		FAT CLAY (CH, A-7-6) - Very soft, moist, dark greenish gray, trace fine sands, trace shell hash, (GLEY1 4/10Y), [LL=52, PI=27, NMC=76.5%, #200=92.3%]			SS-9	0	0	1	1	1
	18.0			18.0						
		ELASTIC SILT (MH, A-7-5) - Very soft, moist, dark gray, trace fine sands, (10YR 5/2), [LL=62, PI=30, NMC=88.1%, #200=96.5%]			SS-10	0	0	0	1	0
-8.5		@ 20 ft - [LL=68, PI=32, NMC=89.5%, #200=91.4%]		20.0	SS-11	0	0	1	1	1
	22.0			22.0						
		SANDY LEAN CLAY (CL, A-6) - Soft, dark greenish grey, moist, trace shell hash (GLEY1 4/5G/1), [LL=28, PI=11, NMC=32.6%, #200=65.9%]			SS-12	5	6	6	6	12
		@ 24 ft - [LL=39, PI=21, NMC=32.5%, #200=61.3%]		24.0	SS-13	1	2	4	4	6
-13.5				26.0						



LEGEND

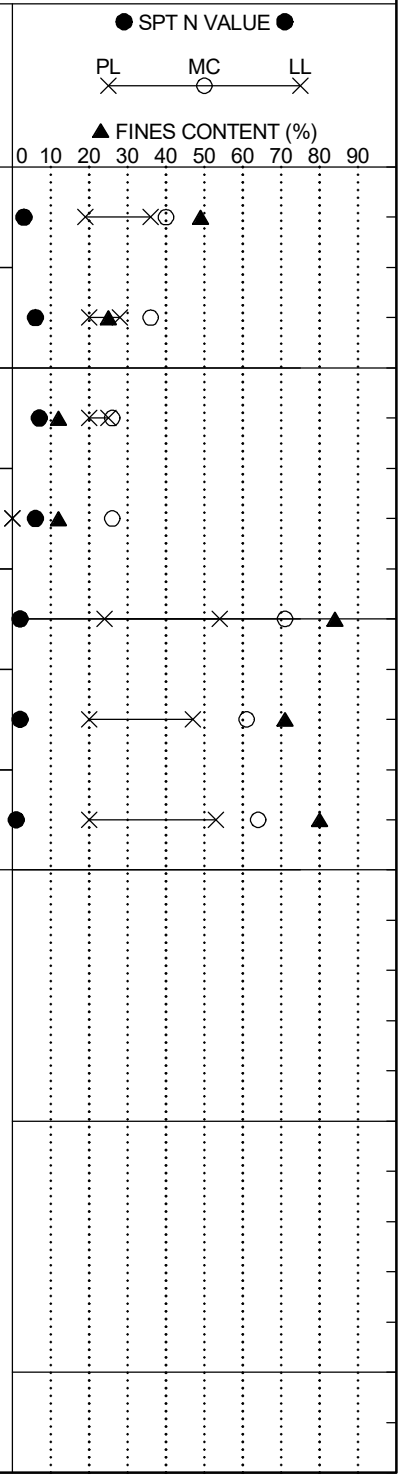
Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB02
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.5 ft	**Latitude:**	32.840957	**Longitude:**	-79.871457	**Date Started:**	3/24/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/24/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	27.0	**CLAYEY SAND (SC, A-6)** - Loose, greenish grey, wet, fine (GLEY1 5/10GY), [LL=36, PI=17, NMC=39.5%, #200=49.3%]		28.0	SS-14	1	1	2	2	3
		@ 28 ft - [LL=28, PI=8, NMC=36%, #200=25%]			SS-15	2	3	3	3	6
-18.5	30.0	**SILTY CLAYEY SAND (SC-SM, A-1-b)** - Loose, wet, grey, fine, (10YR 4/1), [LL=25, PI=5, NMC=25.7%, #200=12.1%]		30.0	SS-16	2	3	4	5	7
	32.0	**SILTY SAND (SM, A-1-b)** - Very loose, very dark greenish grey, wet, trace shell hash, (GLEY1 3/5G/1), [PI=NP, NMC=25.7%, #200=12.2%]		32.0	SS-17	4	3	3	4	6
-23.5	34.0	**FAT CLAY WITH SAND (CH, A-7-6)** - Very soft, wet, dark grey, little fine sands, (10YR 4/2), [LL=54, PI=30, NMC=71%, #200=83.8%]		34.0	SS-18	5	2	0	1	2
	36.0	**SANDY LEAN CLAY (CL, A-7-6)** - Very soft, wet, dark grey, some fine sands, (10YR 4/2), [LL=47, PI=27, NMC=60.7%, #200=70.5%]		36.0	SS-19	0	1	1	1	2
	38.0	**FAT CLAY WITH SAND (CH, A-7-6)** - Very soft, wet, dark grey, little fine sands, (10YR 4/2), [LL=53, PI=33, NMC=64.1%, #200=79.9%]		38.0	SS-20	0	0	1	3	1
-28.5	40.0									
-33.5										
-38.5										



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB03		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.7 ft	**Latitude:**	32.844467	**Longitude:**	-79.872343	**Date Started:**	3/7/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/7/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 5 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0								
	0.4	**TOPSOIL: 5"**	0.0	SS-1	2	3	2	3	5
		FILL - SILTY SAND, (SM, A-2-4) - Loose, dark grey brown, moist, fine to medium, trace roots (10YR 4/2), [PI=NP, NMC=16.4%, #200=17%]	2.0	SS-2	3	7	10	8	17
		@ 2 ft - Medium dense, grey and red brown (10YR 6/1 & 5YR 5/4)	4.0	SS-3	6	14	12	12	26
6.7		@ 4 ft - Dark grey brown (10YR 4/2)							
	6.0	**COASTAL PLAIN - CLAYEY SAND (SC, A-6)** - Medium dense, grey and red brown, moist, fine to medium (10YR 5/1 & 5YR 5/4), [LL=31, PI=13, NMC=25.3%, #200=38.3%]	6.0	SS-4	6	10	11	13	22
	8.0	**SANDY LEAN CLAY (CL, A-4)** - Firm, grey and red brown, moist (10YR 6/1 & 5YR 5/4), [LL=25, PI=8, NMC=35.3%, #200=66.7%]	8.0	SS-5	1	3	4	5	7
1.7									
	12.0	**CLAYEY SAND (SC, A-6)** - Very loose, grey and red brown, moist, fine to medium (10YR 6/1 & 5YR 5/4), [LL=31, PI=11, NMC=44%, #200=48.7%]	13.5	SS-6	0	0	1		1
-3.3									
	17.0	**FAT CLAY WITH SAND (CH, A-7-6)** - Very soft, dark grey, wet, trace shell (10YR 4/1), [LL=52, PI=26, NMC=93.6%, #200=92.2%]	18.5	SS-7	0	0	0		0
-8.3									
	22.0	**LEAN CLAY (CL)** - Soft, dark grey green with white, moist (10Y-5GY 4/2 with 5YR 8/1) NMC = 49	23.5	SS-8	1	2	2		4
		@ 23.5 ft - Soft, [LL=50, PI=31, NMC=48.6%, #200=70.1%]							
-13.3									

SPT N VALUE ● PL × MC ○ LL × ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB03		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.7 ft	**Latitude:**	32.844467	**Longitude:**	-79.872343	**Date Started:**	3/7/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/7/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 5 ft	**24HR**	5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	27.0	**CLAYEY SAND (SC, a-4)** - Loose, dark grey green, moist, trace shell (10Y-5GY 4/2), [LL=26, PI=9, NMC=36.5%, #200=38.9%]		28.5	SS-9	1	2	3		5
-18.3	32.0	**SANDY LEAN CLAY (CL, A-6)** - Very soft, dark grey green, moist to wet, some fine sands, trace shell (10Y-5GY 4/2), [LL=45, PI=23, NMC=55%, #200=65.7%]		33.5	SS-10	0	1	1		2
-23.3		@ 38.5 ft - [LL=32, PI=11, NMC=59.3%, #200=66.8%]		38.5	SS-11	0	0	1		1
-28.3	40.0									
-33.3										
-38.3										

● SPT N VALUE ●

PL MC LL

▲ FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB05		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	17.9 ft	**Latitude:**	32.839607	**Longitude:**	-79.872752	**Date Started:**	3/30/2023
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/30/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 8 ft	**24HR**	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0								
	0.2	**TOPSOIL: 2"**	0.0	SS-1	2	4	6	3	10
		FILL - POORLY GRADED SAND WITH CLAY (SP-SM, A-3) - Loose, reddish brown, moist, fine to medium, trace crushed stone, (5YR 5/4), [PI=NP, NMC=26%, #200=7.3%]	2.0	SS-2	2	4	4	5	8
	4.0		4.0						
12.9		**COASTAL PLAIN - POORLY GRADED SAND (SP)** - Medium dense, moist to wet, light brown, fine, (7.5YR 6/3)		SS-3	4	6	7	9	13
			6.0	SS-4	9	9	10	10	19
	8.0 ▽		8.0						
		SILTY SAND (SM, A-2-4) - Very loose, wet, brownish-gray, fine to meidum, (10YR 6/2)		SS-5	3	2	1	1	3
7.9									
			13.5						
		@ 13.5 ft - Loose, gray, little shell hash, (10YR 5/1)		SS-6	1	2	4		6
2.9									
			18.5						
		@ 18.5 ft - Very loose, wet, [LL=31, PI=6, NMC=37.4%, #200=21.2%]		SS-7	0	0	1		1
-2.1									
	22.0								
		FAT CLAY (CH, A-7-5) - Very soft, wet, gray to dark gray, little fine to medium sands, little shell hash, (10YR 5/1 and 10YR 4/1), [LL=68, PI=38, NMC=83%, #200=97%]	23.5	SS-8	1	0	1		1
-7.1									

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB05
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	17.9 ft	**Latitude:**	32.839607	**Longitude:**	-79.872752	**Date Started:**	3/30/2023
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/30/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 8 ft	**24HR**	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	27.0	**SILTY SAND (SM)** - Medium dense, wet, gray to light gray, fine, (10YR 5/1 and 10YR 7/2)		28.5	SS-9	8	8	9		17
-12.1	32.0	**FAT CLAY (CH, A-7-6)** - Very soft, wet, gray to dark gray, little fine to medium sands, little shell hash, (10YR 5/1 and 10YR 4/1), [LL=63, PI=38, NMC=44.6%, #200=56.7%]		33.5	SS-10	1	2	2		4
-17.1	36.0	**CLAYEY SAND (SC, A-2-7)** - Loose, wet, gray, fine to coarse, shell hash, (10YR 5/1), [LL=41, PI=26, NMC=38.3%, #200=29.9%]		38.5	SS-11	2	1	4		5
-22.1	40.0									
-27.1										
-32.1										

SPT N VALUE ● PL × MC ○ LL × ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB06
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	18.9 ft	**Latitude:**	32.563847	**Longitude:**	-79.877038	**Date Started:**	3/30/2023
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/30/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 5.5 ft	**24HR**	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0								
	0.8	**ASPHALT: 9"**	0.0						
		FILL - POORLY GRADED SAND WITH SILT (SP-SM) - Loose, dark grayish brown, moist, fine to medium, trace crushed stone, (10YR 4/2)	2.0	SS-1	8	12	14	14	26
			4.0	SS-2	8	10	15	24	25
	4.5								
13.9		**COASTAL PLAIN - POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Dense, moist to wet, brownish gray, wet, fine, (10YR 5/2)	6.0	SS-3	13	14	17	17	31
		@ 6 ft - Medium dense, fine to medium, [PI=NP, NMC=26%, #200=7.3%]	8.0	SS-4	2	5	7	5	12
	8.0								
		SILTY SAND (SM) - Loose, wet, dark brownish-gray, fine, (10 YR 3/2)		SS-5	2	3	2	3	5
8.9									
	12.0								
		FAT CLAY WITH SAND (CH, A-7-6) - Very soft, wet, gray, little fine sands, (10YR 5/1), [LL=63, PI=38, NMC=80.2%, #200=71%]	13.5	SS-6	0	0	0		0
3.9									
			18.5	SS-7	1	1	1		2
-1.1									
			23.5	SS-8	1	1	1		2
		@ 23.5 ft - [LL=55, PI=35, NMC=80.2%, #200=71%]							
-6.1									

SPT N VALUE ●

PL MC LL

▲ FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB06		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	18.9 ft	**Latitude:**	32.563847	**Longitude:**	-79.877038	**Date Started:**	3/30/2023
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/30/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 5.5 ft	**24HR**	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				28.5	SS-9	1	1	2		3
-11.1										
		@ 33.5 ft - Soft, [LL=75, PI=54, NMC=54.7%, #200=89.2%]		33.5	SS-10	1	1	2		3
-16.1										
		@ 38.5 ft - [LL=99, PI=71, NMC=70.2%, #200=94.4%]		38.5	SS-11	3	4	5		9
-21.1	40.0									
-26.1										
-31.1										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB07		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	42.7 ft	**Latitude:**	32.839933	**Longitude:**	-79.863057	**Date Started:**	3/15/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/15/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 12 ft	**24HR**	10 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0		0.0	SS-1	2	1	2	4	3
	0.3	**TOPSOIL: 3"**							
	2.0	<<B>FILL - POORLY GRADED SAND WITH SILT (SP-SM, A-3) **- Very loose, light brown/dark brown/yellow, fine (10YR 3/1 - 5/3 - 6/4) [LL = NP, PI = NP, #200 = 8, NMC = 10]**	2.0	SS-2	5	7	8	11	15
	4.0	**POORLY GRADED SAND (SP)** - Medium dense, dark yellow, moist, fine (5Y 6/4)	4.0	SS-3	8	16	22	25	38
37.7		**POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Dense, light brown, moist, fine (5Y 5/3) [LL = NP, PI = NP, #200 = 9, NMC = 11]	6.0	SS-4	17	22	29	32	51
		@ 6 ft - Very dense	8.0	SS-5	10	28	29	36	57
32.7									
		@ 12 ft - Dense, grey (GLEY 1 5/N)	13.5	SS-6	7	24	25		49
27.7									
		@ 17 ft - Very dense, light grey (GLEY1 7/N)	18.5	SS-7	10	22	29		51
22.7									
	22.0	**COASTAL PLAIN - SILTY SAND (SM, A-2-4)** - Dense, very pale brown and brown, moist, fine (10YR 7/3 & 10YR 4/3) [LL = NP, PI = NP, #200 = 14, NMC = 17]	23.5	SS-8	10	20	21		41
17.7									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB07		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	BJ	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	42.7 ft	**Latitude:**	32.839933	**Longitude:**	-79.863057	**Date Started:**	3/15/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/15/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 12 ft	**24HR**	10 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
				28.5	SS-9	4	11	20		31
12.7		@ 32 ft - Medium dense, light grey (GLEY1 7/N) [LL = NP, PI = NP, #200 = 28, NMC = 13]		33.5	SS-10	4	8	8		16
7.7	37.0	**LEAN CLAY (CL, A-7-6)** - Soft, grey, moist, fine (GLEY1 5/N) [LL = 44, PI = 18, #200 = 91, NMC = 64]		38.5	SS-11	0	1	2		3
2.7	40.0									
-2.3										
-7.3										

SPT N VALUE ●

PL ○ MC ○ LL

▲ FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB08
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	39.9 ft	**Latitude:**	32.839198	**Longitude:**	-79.861773	**Date Started:**	3/15/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/15/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 12 ft	**24HR**	10 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0		0.0	SS-1	2	5	7	8	12
	0.3	**TOPSOIL: 4"**							
	2.0	**FILL - SILTY SAND (SM, A-2-4)** - Medium dense, dark greyish brown, moist, fine, few shell hash (10YR 4/2) [LL = NP, PI = NP, #200 = 14, NMC = 14]	2.0	SS-2	8	9	8	11	17
		POORLY GRADED SAND WITH SILT (SP-SM) - Medium dense, very dark greyish brown, moist, fine (10YR 3/2)	4.0	SS-3	10	14	15	20	29
34.9		@ 4 ft - Brown (10YR 5/3)							
	6.0	**POORLY GRADED SAND (SP)** - Dense, brown, moist, fine, trace non plastic fines (10YR 5/3)	6.0	SS-4	10	20	21	23	41
	8.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Dense, very dark grey, moist, fine (10YR 3/1) [LL = NP, PI = NP, #200 = 8, NMC = 15]	8.0	SS-5	6	15	17	23	32
29.9		▼							
	12.0	▽							
		COASTAL PLAIN - SILTY SAND (SM, A-2-4) - Dense, dark grey, moist, fine, few shell hash (2.5Y 4/1) [LL = NP, PI = NP, #200 = 13, NMC = 14]	13.5	SS-6	6	17	23		40
24.9									
			18.5	SS-7	9	20	19		39
19.9									
			23.5	SS-8	12	27	28		55
	24.5								
14.9		**POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Very dense, olive brown, moist to wet, fine, trace non plastic fines							

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB08		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	39.9 ft	**Latitude:**	32.839198	**Longitude:**	-79.861773	**Date Started:**	3/15/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/15/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 12 ft	**24HR**	10 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		(2.5Y 4/4) @ 27 ft - Medium dense, wet; [LL = NP, PI = NP, #200 = 8, NMC = 20]		28.5	SS-9	6	11	10		21
9.9	32.0	**SILT WITH SAND (ML, A-4)** - Very soft, very dark greenish grey, wet, trace mica (GLEY1 3/5GY) [LL = 34, PI = 26, #200 = 78, NMC = 49]		33.5	SS-10	1	1	1		2
4.9	37.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Very loose, dark greenish grey, wet, fine, little shell hash (GLEY1 4/5GY) [LL = NP, PI = NP, #200 = 10, NMC = 33]		38.5	SS-11	1	2	1		3
-0.1	40.0									
-5.1										
-10.1										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB09
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	30.9 ft	**Latitude:**	32.839331	**Longitude:**	-79.861257	**Date Started:**	3/13/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/13/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 1 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0	**FILL - POORLY GRADED SAND WITH SILT (SP-SM)** - Loose, very dark greyish brown, dry to moist, fine (10YR 3/2)		0.0	SS-1	4	4	6	3	10
	2.0	**POORLY GRADED SAND (SP, A-2-4)** - Medium dense, brown, moist, fine, trace non plastic fines (10YR 4/3) [LL = NP, PI = NP, #200 = 4, NMC = 9]		2.0	SS-2	18	10	8	10	18
		@ 4 ft - Dense, trace shell hash		4.0	SS-3	15	17	22	37	39
25.9	6.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Very dense, yellowish brown, moist, fine to medium, few shell hash (10YR 5/4) [LL = NP, PI = NP, #200 = 11, NMC = 10]		6.0	SS-4	26	29	24	33	53
	8.0	**POORLY GRADED SAND (SP)** - Dense, brown, moist, fine, trace high plasticity fines and shell hash (10YR 4/3)		8.0	SS-5	10	19	19	30	38
20.9	10.0	**COASTAL PLAIN - POORLY GRADED SAND WITH CLAY (SP-SC)** - Dense, dark grey, moist to wet, fine, few shell hash (5Y 4/1)		13.5	SS-6	15	22	25		47
15.9	17.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Dense, light olive brown, wet, fine, trace mica (2.5Y 5/4) [LL = NP, PI = NP, #200 = 9, NMC = 23]		18.5	SS-7	14	15	19		34
10.9	22.0	**POORLY GRADED SAND (SP, A-2-4)** - Very loose, dark grey, wet, fine, trace non plastic fines and mica (5Y 4/1)[LL = NP, PI = NP, #200 = 4, NMC = 41]		23.5	SS-8	1	1	1		2
5.9										

SPT N VALUE ● PL × MC ○ LL × ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB09
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	30.9 ft	**Latitude:**	32.839331	**Longitude:**	-79.861257	**Date Started:**	3/13/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/13/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 1 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	27.0	**SANDY LEAN CLAY (CL, A-6)** - Stiff, dark greenish grey, moist (GLEY1 4/10Y) [LL = 37, PI = 22, #200 = 55, NMC = 40]		28.5	SS-9	0	1	1		2
0.9	32.0	**CLAYEY SAND (SC, A-7-6)** - Very loose, dark greenish grey, moist to wet, trace mica (GLEY1 4/10GY) [LL = 41, PI = 24, #200 = 50, NMC = 44]		33.5	SS-10	0	1	1		2
-4.1	37.0	**SANDY LEAN CLAY (CL, A-6)** - Stiff, dark greenish grey, moist (GLEY1 4/10Y) [LL = 29, PI = 16, #200 = 58, NMC = 46]		38.5	SS-11	2	6	9		15
-9.1	40.0									
-14.1										
-19.1										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB10
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.4 ft	**Latitude:**	32.840091	**Longitude:**	-79.86263	**Date Started:**	3/13/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/13/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 7 ft	**24HR**	9 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0	**FILL - SILTY SAND (SM, A-2-4)** - Loose, yellowish brown and very dark greyish brown, moist, fine (10YR 5/4 & 10YR 3/2) [LL = NP, PI = NP, #200 = 12, NMC = 20]		0.0	SS-1	2	3	3	8	6
	2.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Medium dense, dark yellowish brown, moist, fine (10YR 4/4) [LL = NP, PI = NP, #200 = 7, NMC = 20]		2.0	SS-2	6	7	7	9	14
14.4				4.0	SS-3	9	11	14	15	25
		@ 6 ft - Light yellowish brown (2.5Y 6/3) [LL = NP, PI = NP, #200 = 5, NMC = 21]		6.0	SS-4	8	10	12	13	22
	8.0	**POORLY GRADED SAND (SP, A-2-4)** - Medium dense, yellowish brown, moist, fine to medium (10YR 5/6) [LL = NP, PI = NP, #200 = 5, NMC = 20]		8.0	SS-5	4	7	8	9	15
9.4										
	12.0	**COASTAL PLAIN - FAT CLAY (CH, A-7-6)** - Very soft, dark greenish grey, wet, trace fine sands (GLEY1 4/10Y) [LL = 68, PI = 48, #200 = 87, NMC = 73]		13.5	SS-6	0	0	0		0
4.4										
	17.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Very loose, dark greenish grey, wet, fine, trace fines and shell hash (GLEY1 4/5GY) [LL = NP, PI = NP, #200 = 9, NMC = 33]		18.5	SS-7	0	1	2		3
-0.6										
	22.0	**FAT CLAY (CH, A-7-6)** - Soft, dark greenish grey, wet, trace shell hash/broken shells (GLEY1 4/5G/1) [LL = 81, PI = 58, #200 = 95, NMC = 66]		23.5	SS-8	2	2	1		3
-5.6										

SPT N VALUE ● PL × MC ○ LL ×
▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB10
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.4 ft	**Latitude:**	32.840091	**Longitude:**	-79.86263	**Date Started:**	3/13/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/13/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 7 ft	**24HR**	9 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	27.0	**POORLY GRADED SAND (SP)** - Medium dense, dark greenish grey, wet, fine, trace shell hash (GLEY1 4/5G/1)		28.5	SS-9	4	5	6		11
-10.6	32.0	**CLAYEY SAND (SC, A-6)** - Very loose, dark greenish grey, moist to wet, fine, trace shell hash (GLEY1 4/5GY) [LL = 31, PI = 16, #200 = 43, NMC = 43]		33.5	SS-10	2	2	1		3
-15.6		@ 38.5 ft - [LL = 30, PI = 15, #200 = 20, NMC = 32]		38.5	SS-11	1	2	2		4
-20.6	40.0									
-25.6										
-30.6										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB11
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.0 ft	**Latitude:**	32.837927	**Longitude:**	-79.858585	**Date Started:**	3/21/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/21/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	3.5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0								
	0.3	**TOPSOIL: 3"**	0.0	SS-1	2	5	5	6	10
	2.0	**FILL - POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Loose, yellowish brown, moist, fine (10YR 5/6) [LL = NP, PI = NP, #200 = 11, NMC = 24]	2.0	SS-2	5	7	10	8	17
		COASTAL PLAIN - SILTY SAND (SM, A-2-4) - Medium dense, dark greyish brown, moist, fine, trace wood (10YR 4/2) [LL = NP, PI = NP, #200 = 25, NMC = 17]	4.0	SS-3	5	6	9	12	15
6.0	6.0	@ 4 ft - Wet	6.0	SS-4	9	10	14	14	24
	8.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Medium dense, grey, wet, fine (5Y 6/1) [LL = NP, PI = NP, #200 = 11, NMC = 25]	8.0	SS-5	4	4	4	2	8
1.0		**SILTY SAND (SM, A-2-4)** - Loose, light brownish grey, wet, fine (10YR 6/2) [LL = NP, PI = NP, #200 = 19, NMC = 31]							
	12.0	**FAT CLAY (CH, A-7-6)** - Very soft, dark grey, wet, few shell hash (GLEY1 4/N) [LL = 52, PI = 25, #200 = 89, NMC = 68]	13.5	SS-6	2	1	1		2
-4.0									
	17.0	**SILTY SAND (SM, A-2-4)** - Medium dense, greenish grey, moist, fine (GLEY1 5/1) [LL = NP, PI = NP, #200 = 28, NMC = 26]	18.5	SS-7	4	6	6		12
-9.0									
	22.0	**FAT CLAY WITH SAND (CH, A-7-6)** - Firm, wet, greenish grey, some shell hash, little fine sands, (GLEY1 5/2), [LL = 61, PI = 36, #200 = 78, NMC = 26]	23.5	SS-8	2	3	5		8
-14.0									

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB11		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.0 ft	**Latitude:**	32.837927	**Longitude:**	-79.858585	**Date Started:**	3/21/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/21/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 2 ft	**24HR**	3.5 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	27.0	**SILTY SAND (SM, A-2-4)** - Very loose, dark grey, moist to wet, trace shell hash, fine (GLEY1 4/N) [LL = NP, PI = NP, #200 = 12, NMC = 62]		28.5	SS-9	0	0	2		2
-19.0	32.0	**CLAYEY SAND (SC, A-7-6)** - Very loose, dark grey, moist to wet, fine (GLEY1 4/N) [LL = 44, PI = 22, #200 = 49, NMC = 48]		33.5	SS-10	0	0	0		0
-24.0	37.0	**MARL - ELASTIC SILT (MH)** Stiff, olive, moist, trace fine sands (5Y 4/4)		38.5	SS-11	3	5	5		10
-29.0	40.0									
-34.0										
-39.0										

SPT N VALUE ● PL × MC ○ LL × ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB12		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.6 ft	**Latitude:**	32.839362	**Longitude:**	-79.859824	**Date Started:**	3/21/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/21/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 5 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.3	**TOPSOIL/ROOT: 3"**		0.0	SS-1	2	4	4	5	8
		COASTAL PLAIN - POORLY GRADED SAND WITH SILT (SP-SM, A-2-4) - Loose, olive brown, moist to wet, fine, little shell hash (2.5Y 4/4) [LL = NP, PI = NP, #200 = 12, NMC = 22]		2.0						
	3.5	**SILTY SAND (SM, A-2-4)** - Loose, grey, wet, fine, little non plastic fines (GLEY1 6/N) [LL = NP, PI = NP, #200 = 13, NMC = 28]			SS-2	3	3	4	4	7
				4.0						
6.6					SS-3	4	5	3	3	8
		@ 6 ft - Very loose, olive brown (2.5Y 4/4) [LL = NP, PI = NP, #200 = 16, NMC = 26]		6.0						
					SS-4	1	1	2	2	3
		@ 8 ft - greenish grey, wet, some fibrous organics/rootlets, trace shell hash (GLEY1 5G/1) [LL = 79, PI = 36, #200 = 46, NMC = 97]		8.0						
1.6					SS-5	0	0	0	0	0
	12.0	**CLAYEY SAND (SC, A-4)** - Very loose, dark greeinsh grey, wet, few shell hash (GLEY1 4/10GY) [LL = 31, PI = 10, #200 = 48, NMC = 51]		13.5	SS-6	1				1
-3.4										
		@ 18.5 ft - Loose, very dark greenish grey, (GLEY1 3/5GY) [LL = 34, PI = 16, #200 = 34, NMC = 26]		18.5	SS-7	0	2	5		7
-8.4										
	22.0	**SILTY SAND (SM, A-2-4)** - Loose, greenish grey, wet, fine, some shell hash (GLEY1 5/10GY) [LL = NP, PI = NP, #200 = 23, NMC = 34]		23.5	SS-8	2	4	4		8
-13.4										

SPT N VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

Continued Next Page

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB12		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	11.6 ft	**Latitude:**	32.839362	**Longitude:**	-79.859824	**Date Started:**	3/21/23
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/21/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** 5 ft	**24HR**	4 ft

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		@ 27 ft - Very loose		28.5	SS-9	1	1	2		3
-18.4	32.0	**SANDY LEAN CLAY (CL, A-7-6)** - Firm, greenish grey, wet, few shell hash (GLEY1 5/5G/1) [LL = 45, PI = 22, #200 = 57, NMC = 45]		33.5	SS-10	1	2	3		5
-23.4	37.0	**SILTY SAND (SM, A-2-4)** - Loose, greenish grey, wet, fine, trace non plastic fines (GLEY1 5/5GY) [LL = NP, PI = NP, #200 = 23, NMC = 38]		38.5	SS-11	2	4	5		9
-28.4	40.0									
-33.4										
-38.4										

SPT N VALUE ● PL ⨯ MC ○ LL ⨯ ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A	**County:**	Charleston	**Boring No.:**	EMB13		
Site Description:	I526 Long Point Road Interchange			**Route:**	I526		
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	17.7 ft	**Latitude:**	32.840373	**Longitude:**	-79.865903	**Date Started:**	3/31/2023
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/31/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.3	**TOPSOIL/ROOT: 3"**		0.0	SS-1	1	2	2	2	4
		FILL - SILTY SAND (SM, A-2-4) - Very loose, yellowish brown and very dark greyish brown, moist, fine to medium, (10YR 5/4 & 10YR 3/2), [PI = NP, #200=12, NMC=20]		2.0	SS-2	1	4	5	7	9
		@ 2 ft - Loose, moist, [PI=NP, #200=23, NMC=18]								
	4.0			4.0	SS-3	11	12	12	9	24
12.7		**COASTAL PLAIN - POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Medium dense, moist, brown and gray, fine to medium, (10YR 5/3 and 10YR 5/1), [PI = NP, #200=8, NMC=22]		6.0	SS-4	9	11	15	10	26
		@ 6 ft - [PI = NP, #200=6, NMC=24.6]								
		@ 8 ft - [PI = NP, #200=8, NMC=25.3]		8.0	SS-5	4	9	10	9	19
7.7		@ 10 ft - [PI = NP, #200=12, NMC=30.7]		10.0	SS-6	3	8	8	6	16
	12.0			12.0	SS-7	3	3	3	2	6
		SILTY SAND (SM, A-4) - Loose, moist to wet, gray, fine to medium, some non-plastic, (10YR 5/1), [PI = NP, #200=40, NMC=55.8]		14.0	SS-8	2	1	2	1	3
2.7		@ 14 ft - Very loose, [PI = NP, #200=26, NMC=43.1]								
	16.0			16.0	SS-9	0	0	0	0	0
		SANDY FAT CLAY (CH, A-7-5) - Very soft, wet, dark gray, some fine sands, (10YR 4/1), [LL=91, PI=55, #200=66, NMC=95.6]		18.0	SS-10	0	0	1	2	1
		@ 18 ft - [LL=100, PI=64, #200=56, NMC=62.2]								
-2.3	20.0			20.0	SS-11	2	4	5	6	9
		POORLY GRADED SAND WITH SILT (SP-SM, A-3) - Loose, wet, gray, fine to medium, (10YR 6/1), [PI = NP, #200=9, NMC=28.3]		22.0	SS-12	3	2	1	1	3
		@ 22 ft - Very loose, [PI = NP, #200=11, NMC=30.0]								
		@ 24 ft - [PI = NP, #200=10, NMC=34.1]		24.0	SS-13	1	2	2	1	4
-7.3	26.0			26.0						

SPT N VALUE ● PL × MC ○ LL × ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90

Continued Next Page

LEGEND

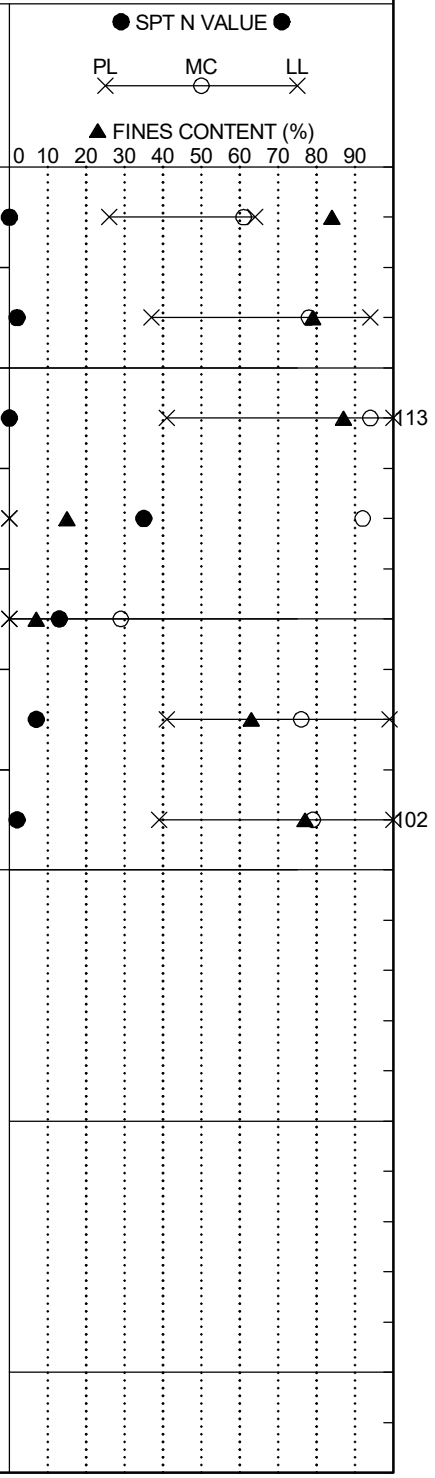
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB13
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	17.7 ft	**Latitude:**	32.840373	**Longitude:**	-79.865903	**Date Started:**	3/31/2023
Total Depth:	40 ft	**Soil Depth:**	40 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/31/2023
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Mud Rotary	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
		FAT CLAY WITH SAND (CH, A-7-6) - Very soft, wet, dark gray, little fine sands, (10YR 4/1), [LL=64, PI=38, #200=84, NMC=60.6]			SS-14	0	0	0	0	0
		@ 28 ft - [LL=94, PI=57, #200=79, NMC=78.3]		28.0	SS-15	1	1	1	1	2
-12.3		@ 30 ft - [LL=113, PI=72, #200=87, NMC=94.3]		30.0	SS-16	0	0	0	0	0
	32.0	**SILTY SAND (SM, A-2-4)** - Dense, wet, gray, fine to medium, trace shell hash, (10YR 5/1), [PI = NP, #200=15, NMC=91.8]		32.0	SS-17	1	6	29	16	35
	34.0	**POORLY GRADED SAND WITH SILT (SP-SM, A-3)** -Medium dense, moist to wet, grayish brown, fine to medium, (10YR 5/2), [PI = NP, #200=7, NMC=28.5]		34.0	SS-18	8	4	9	18	13
-17.3	36.0	**SANDY FAT CLAY (CH, A-7-5)** - Firm, moist, dark gray, some fine sands, little shell hash, (10YR 4/1), [LL=99, PI=58, #200=63, NMC=75.7]		36.0	SS-19	5	3	4	3	7
		@ 38 ft - Very soft, [LL=102, PI=63, #200=77, NMC=79]		38.0	SS-20	1	1	1	2	2
-22.3	40.0									
-27.3										
-32.3										



LEGEND

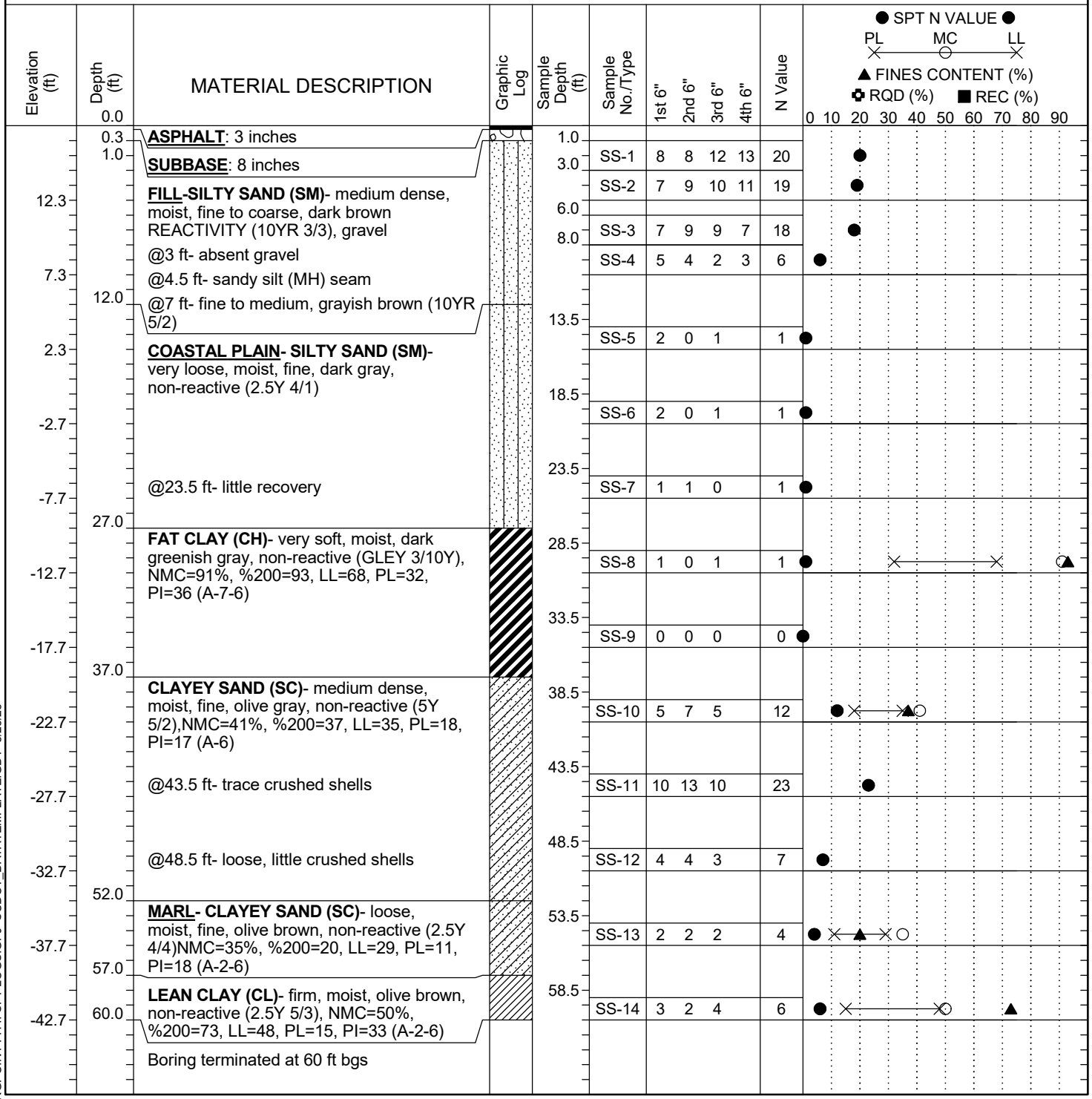
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	EMB-14
Site Description:	I-526 Long Point Road Interchange					**Route:**	
Eng./Geo.:	Pape, S.	**Boring Location:**		**Offset:**		**Alignment:**	
Elev.:	17.3 ft	**Latitude:**	32.838626	**Longitude:**	-79.873788	**Date Started:**	6/24/2025
Total Depth:	60 ft	**Soil Depth:**	60 ft	**Core Depth:**	N/A ft	**Date Completed:**	6/24/2025
Bore Hole Diameter (in):	4	**Sampler Configuration**		**Liner Required:**	Y N	**Liner Used:**	Y N
Drill Machine:	D-50	**Drill Method:**	RW	**Hammer Type:**	Automatic	**Energy Ratio:**	88.1%
Core Size:	N/A	**Driller:**	S&ME	**Groundwater:**	**TOB** NM	**24HR**	NM

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0		1.0						
	0.3	**ASPHALT**: 3 inches	3.0	SS-1	8	8	12	13	20
	1.0	**SUBBASE**: 8 inches		SS-2	7	9	10	11	19
12.3		**FILL-SILTY SAND (SM)**- medium dense, moist, fine to coarse, dark brown REACTIVITY (10YR 3/3), gravel	6.0						
		@3 ft- absent gravel	8.0	SS-3	7	9	9	7	18
7.3		@4.5 ft- sandy silt (MH) seam		SS-4	5	4	2	3	6
	12.0	@7 ft- fine to medium, grayish brown (10YR 5/2)	13.5						
2.3		**COASTAL PLAIN- SILTY SAND (SM)**- very loose, moist, fine, dark gray, non-reactive (2.5Y 4/1)		SS-5	2	0	1		1
			18.5						
-2.7				SS-6	2	0	1		1
			23.5						
		@23.5 ft- little recovery		SS-7	1	1	0		1
-7.7									
	27.0	**FAT CLAY (CH)**- very soft, moist, dark greenish gray, non-reactive (GLEY 3/10Y), NMC=91%, %200=93, LL=68, PL=32, PI=36 (A-7-6)	28.5	SS-8	1	0	1		1
-12.7									
			33.5						
				SS-9	0	0	0		0
-17.7									
	37.0	**CLAYEY SAND (SC)**- medium dense, moist, fine, olive gray, non-reactive (5Y 5/2),NMC=41%, %200=37, LL=35, PL=18, PI=17 (A-6)	38.5	SS-10	5	7	5		12
-22.7									
		@43.5 ft- trace crushed shells	43.5	SS-11	10	13	10		23
-27.7									
		@48.5 ft- loose, little crushed shells	48.5	SS-12	4	4	3		7
-32.7									
	52.0	**MARL- CLAYEY SAND (SC)**- loose, moist, fine, olive brown, non-reactive (2.5Y 4/4)NMC=35%, %200=20, LL=29, PL=11, PI=18 (A-2-6)	53.5	SS-13	2	2	2		4
-37.7	57.0								
		LEAN CLAY (CL)- firm, moist, olive brown, non-reactive (2.5Y 5/3), NMC=50%, %200=73, LL=48, PL=15, PI=33 (A-2-6)	58.5	SS-14	3	2	4		6
-42.7	60.0								
		Boring terminated at 60 ft bgs							



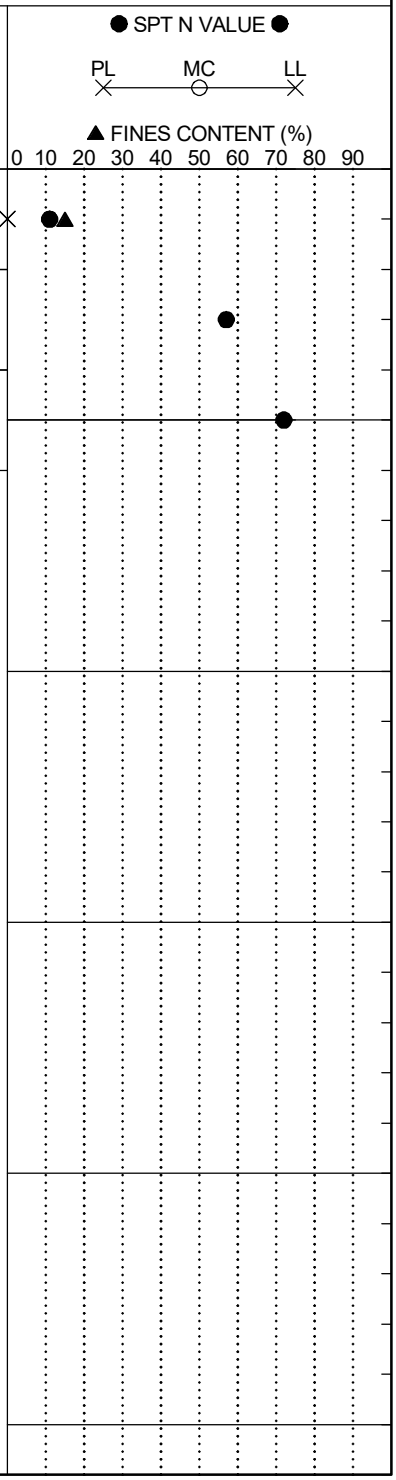
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R01
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	31.2 ft	**Latitude:**	32.839152	**Longitude:**	-79.860893	**Date Started:**	3/13/23
Total Depth:	6 ft	**Soil Depth:**	6 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/13/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-850	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0								
	0.5	**TOPSOIL: 6"**	0.0	SS-1	4	4	7	11	11
	2.0	**FILL - SILTY SAND (SM, A-2-4)** - Medium dense, brown, moist, fine, trace shell hash (2.5Y 4/4), [PI=NP, #200=14.7%, NMC=10.9%]	2.0	SS-2	10	22	35	26	57
	4.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - Very dense, brown, moist, fine, few shells/shell hash (10YR 4/3)	4.0	SS-3	29	33	39	46	72
26.2	6.0	**SILTY SAND (SM)** - Very dense, very dark greyish brown, moist, fine, trace shell hash (10YR 3/2)							
21.2									
16.2									
11.2									
6.2									



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R02
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	20.0 ft	**Latitude:**	32.840046	**Longitude:**	-79.865037	**Date Started:**	5/8/2023
Total Depth:	6.8 ft	**Soil Depth:**	6.8 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.8	**CONCRETE PAVEMENT: 10"**		0.8						
	1.0	**AGGREGATE BASE: 2"**			SS-1	17	11	11	8	22
		FILL - POORLY GRADED SAND WITH SILT (SP-SM) - Medium dense, moist, light brown, fine to medium, few non-plastic fines, (7.5YR 4/4)		2.8	SS-2	7	7	12	15	19
15.0		@ 4.8 ft - Dense		4.8	SS-3	6	14	19	16	34
	6.8									
10.0										
5.0										
0.0										
-5.0										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

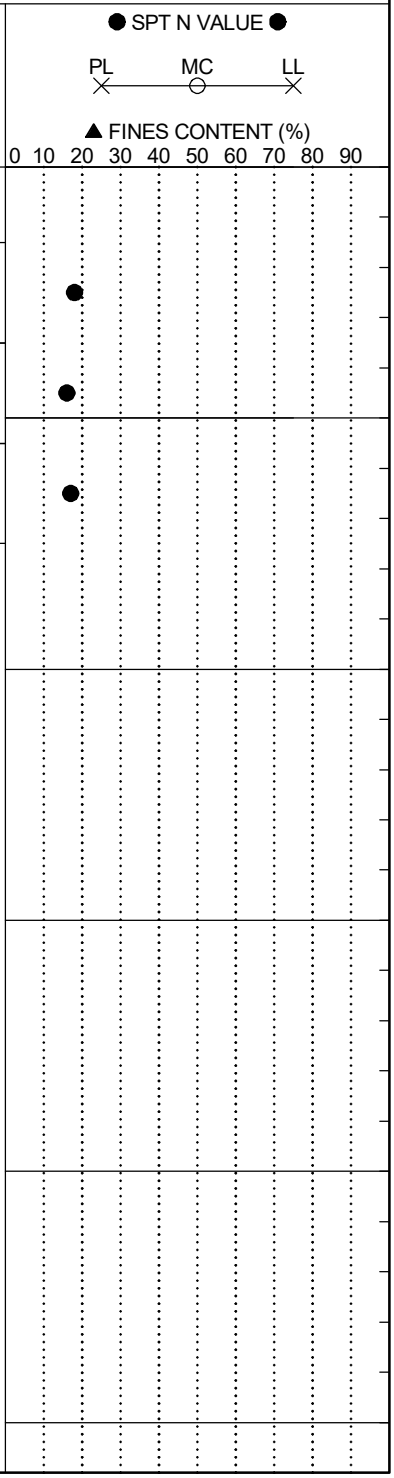
SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R03
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	18.3 ft	**Latitude:**	32.839181	**Longitude:**	-79.864545	**Date Started:**	5/8/2023
Total Depth:	7.5 ft	**Soil Depth:**	7.5 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0	**ASPHALT PAVEMENT: 18"**								
	1.5	**FILL - POORLY GRADED SAND WITH SILT (SP-SM)** - Medium dense, moist, reddish brown, fine to medium, few non-plastic fines, (5YR 4/4)		1.5	SS-1	8	9	9	11	18
				3.5	SS-2	9	7	9	12	16
13.3				5.5	SS-3	8	9	8	9	17
	7.5									
8.3										
3.3										
-1.7										
-6.7										



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R04
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	18.8 ft	**Latitude:**	32.840463	**Longitude:**	-79.859848	**Date Started:**	5/8/2023
Total Depth:	6.7 ft	**Soil Depth:**	6.7 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.7	**ASPHALT PAVEMENT: 9"**		0.7						
	1.2	**AGGREGATE BASE: 6"**								
		FILL - POORLY GRADED SAND WITH SILT (SP-SM) - Medium dense, moist, dark grayish brown, fine to medium, few non-plastic fines, trace crushed stone, (10YR 4/2)			SS-1	9	7	7	6	14
		@ 3 ft - Brown, absent stone, (10YR 5/3)		2.7	SS-2	5	5	8	10	13
		@ 5 ft - Gray, fine sands, (10YR 6/1)		4.7	SS-3	11	10	10	13	20
13.8	6.2									
8.8										
3.8										
-1.2										
-6.2										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R05
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.6 ft	**Latitude:**	32.840108	**Longitude:**	-79.862288	**Date Started:**	3/15/23
Total Depth:	6 ft	**Soil Depth:**	6 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/15/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0								
	0.2	**TOPSOIL: 2"**	0.0	SS-1	2	3	7	10	10
	2.0	**FILL - POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Loose, dark greyish brown, moist, fine, trace small roots (10YR 4/2), [PI=NP, #200=11%, NMC=11.8%]	2.0	SS-2	7	9	7	9	16
	4.0	**SILTY SAND (SM)** - Medium dense, dark yellowish brown, moist, fine (10YR 4/4)	4.0	SS-3	8	11	12	15	23
14.6	6.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - Medium dense, dark yellowish brown and black, wet, fine (10YR 3/4 and 10YR 2/1)							
9.6									
4.6									
-0.4									
-5.4									

● SPT N VALUE ●

PL MC LL

▲ FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R06
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	18.8 ft	**Latitude:**	32.839883	**Longitude:**	-79.861658	**Date Started:**	5/8/2023
Total Depth:	6.5 ft	**Soil Depth:**	6.5 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.5	**ASPHALT PAVEMENT: 6"**		0.5						
	1.0	**AGGREGATE BASE: 6"**			SS-1	12	12	11	9	23
		FILL - SILTY SAND (SM) - Medium dense, moist, dark grayish brown, fine to medium, few non-plastic fines, trace crushed stone, (10YR 4/2)		2.5	SS-2	8	9	11	9	20
		@ 3 ft - Brown, absent stone, (10YR 5/3)		4.5	SS-3	7	12	15	14	27
13.8	6.5									
8.8										
3.8										
-1.2										
-6.2										

● SPT N VALUE ●

PL MC LL

▲ FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R07
Site Description:	I526 Long Point Road Interchange					**Route:**	Wando Park
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	8.2 ft	**Latitude:**	32.844584	**Longitude:**	-79.87313	**Date Started:**	5/8/2023
Total Depth:	6.2 ft	**Soil Depth:**	6.2 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.3	**ASPHALT PAVEMENT: 3"**		0.2						
	0.8	**AGGREGATE BASE: 6"**			SS-1	24	16	11	11	27
	2.2	**FILL - SILTY SAND (SM)** - Medium dense, moist, dark brown, fine to medium, trace crushed stone, (10YR 3/3)		2.2	SS-2	6	5	8	8	13
		COASTAL PLAIN - POORLY GRADED SAND WITH SILT (SP-SM) - Medium dense, moist, reddish brown, fine to medium, (5YR 4/4)		4.2	SS-3	4	8	10	10	18
3.2	6.2									
-1.8										
-6.8										
-11.8										
-16.8										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R08
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	8.3 ft	**Latitude:**	32.843315	**Longitude:**	-79.871564	**Date Started:**	5/8/2023
Total Depth:	6 ft	**Soil Depth:**	6 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.2	**ASPHALT: 2"**		0.0	SS-1	3	4	7	5	11
		FILL - SILTY SAND (SM) - Medium dense, brown, moist, fine, trace shell hash (2.5Y 4/4)		2.0	SS-2	3	3	5	6	8
		@ 2 ft - Loose		4.0	SS-3	5	6	5	6	11
3.3		@ 4 ft - Medium dense								
	6.0									
-1.7										
-6.7										
-11.7										
-16.7										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R09
Site Description:	I526 Long Point Road Interchange					**Route:**	Wando Park
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	14.7 ft	**Latitude:**	32.8427	**Longitude:**	-79.869544	**Date Started:**	5/8/2023
Total Depth:	6.3 ft	**Soil Depth:**	6.3 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.3	**ASPHALT PAVEMENT: 4"**		0.2						
	0.8	**AGGREGATE BASE: 6"**			SS-1	16	11	11	11	22
		FILL - POORLY GRADED SAND (SP) - Medium dense, moist, light brown, fine to medium, trace non-plastic fines, (10YR 6/2)		2.2						
	3.0				SS-2	9	9	9	9	18
		COASTAL PLAIN - POORLY GRADED SAND (SP) - Medium dense, moist, brown, fine to medium, trace non-plastic fines, (10YR 5/3)		4.2						
9.7					SS-3	8	7	7	8	14
	6.3									
4.7										
-0.3										
-5.3										
-10.3										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R10
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.9 ft	**Latitude:**	32.839208	**Longitude:**	-79.863385	**Date Started:**	5/8/2023
Total Depth:	7 ft	**Soil Depth:**	7 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0	**ASPHALT PAVEMENT: 13"**								
	1.1			1.0						
	1.5	**AGGREGATE BASE: 5"**								
		FILL - POORLY GRADED SAND (SP) - Medium dense, moist, brown, fine, trace non-plastic fines, trace crushed stone, (10YR 5/3)			SS-1	6	9	8	8	17
				3.0	SS-2	5	8	9	10	17
14.9				5.0	SS-3	9	12	13	15	25
	7.0									
9.9										
4.9										
-0.1										
-5.1										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R12
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	21.5 ft	**Latitude:**	32.837181	**Longitude:**	-79.873332	**Date Started:**	5/8/2023
Total Depth:	6.8 ft	**Soil Depth:**	6.8 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.8	**CONCRETE PAVEMENT: 10"**		0.8						
	1.4	**AGGREGATE BASE: 6"**			SS-1	15	20	10	8	30
		FILL - POORLY GRADED SAND WITH SILT (SP-SM) - Medium dense, moist, dark brown, fine to medium, few non-plastic fines, (7.5YR 3/3)		2.8	SS-2	5	8	13	17	21
16.5		@ 4.8 ft - Dense		4.8	SS-3	12	19	17	19	36
	6.8									
11.5										
6.5										
1.5										
-3.5										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R13
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	21.3 ft	**Latitude:**	32.837347	**Longitude:**	-79.871201	**Date Started:**	5/8/2023
Total Depth:	6.8 ft	**Soil Depth:**	6.8 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.8	**CONCRETE PAVEMENT: 10"**		0.8						
	1.4	**AGGREGATE BASE: 6"**			SS-1	26	38	17	16	55
		FILL - POORLY GRADED SAND (SP) - Very dense, moist, dark brown, fine to medium, (7.5YR 3/3)		2.8	SS-2	10	9	15	16	24
		@ 2.8 ft - Medium dense		4.8	SS-3	9	16	18	15	34
16.3		@ 4.8 ft - Dense								
	6.8									
11.3										
6.3										
1.3										
-3.7										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R14
Site Description:	I526 Long Point Road Interchange					**Route:**	Shipping Ln
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.2 ft	**Latitude:**	32.838553	**Longitude:**	-79.871124	**Date Started:**	5/8/2023
Total Depth:	6.9 ft	**Soil Depth:**	6.9 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0	**CONCRETE PAVEMENT: 11.5"**		0.9						
	0.9	**AGGREGATE BASE: 2"**								
	1.1	**FILL - POORLY GRADED SAND WITH SILT (SP-SM)** - Medium dense, moist, dark brown, fine to medium, trace crushed stone, (7.5YR 3/3)		0.9	SS-1	7	12	10	11	22
	2.0			2.9	SS-2	8	8	8	12	16
14.2		**COASTAL PLAIN - SILTY SAND (SM)** - Medium dense, moist, brown, fine to medium, (7.5YR 4/3)		4.9	SS-3	12	14	15	20	29
	6.9									
9.2										
4.2										
-0.8										
-5.8										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R15
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Eng./Geo.:	HGM	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	21.1 ft	**Latitude:**	32.838668	**Longitude:**	-79.864786	**Date Started:**	5/8/2023
Total Depth:	6.5 ft	**Soil Depth:**	6.5 ft	**Core Depth:**	n/a ft	**Date Completed:**	5/8/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-55	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.5	**ASPHALT PAVEMENT: 6"**								
	1.0	**AGGREGATE BASE: 6"**		0.9						
		FILL - SILTY SAND (SM) - Medium dense, moist, dark brown, fine to medium, (10YR 3/3)			SS-1	15	9	7	7	16
				2.9						
					SS-2	10	10	10	10	21
16.1				4.9						
	6.5				SS-3	6	10	14	11	24
11.1										
6.1										
1.1										
-3.9										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Soil Test Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R16
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Eng./Geo.:	RKD	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	12.8 ft	**Latitude:**	32.839786	**Longitude:**	-79.860002	**Date Started:**	3/21/23
Total Depth:	6 ft	**Soil Depth:**	6 ft	**Core Depth:**	n/a ft	**Date Completed:**	3/21/2023
Bore Hole Diameter (in):	2.25	**Sampler Configuration**		**Liner Required:**	Y (N)	**Liner Used:**	Y (N)
Drill Machine:	CME-550X	**Drill Method:**	Split Spoon	**Hammer Type:**	Auto	**Energy Ratio:**	86%
Core Size:	n/a	**Driller:**	SCI	**Groundwater:**	**TOB** NE	**24HR**	NE

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	4th 6"	N Value
	0.0									
	0.3	**TOPSOIL: 4"**		0.0	SS-1	3	3	6	6	9
	2.0	**FILL - POORLY GRADED SAND WITH SILT (SP-SM, A-2-4)** - Loose, dark yellowish brown, moist, fine, few shell hash (10YR 3/4), [PI=NP, #200=10.7%, NMC=17.7%]		2.0	SS-2	5	6	5	4	11
	4.5	**COASTAL PLAIN - POORLY GRADED SAND WITH SILT (SP-SM, A-3)** - Medium dense, brown, moist to wet, fine, some shell hash (10YR 5/3), [PI=NP, #200=5.8%, NMC=24.3%]		4.0	SS-3	3	4	3	4	7
7.8	6.0	**SILTY SAND (SM, A-2-4)** - Loose, black, wet, fine, trace wood chunks (10YR 2/1), [PI=NP, #200=13.6%, NMC=35.2%]								
2.8										
-2.2										
-7.2										
-12.2										

SPT N VALUE

PL MC LL

FINES CONTENT (%)

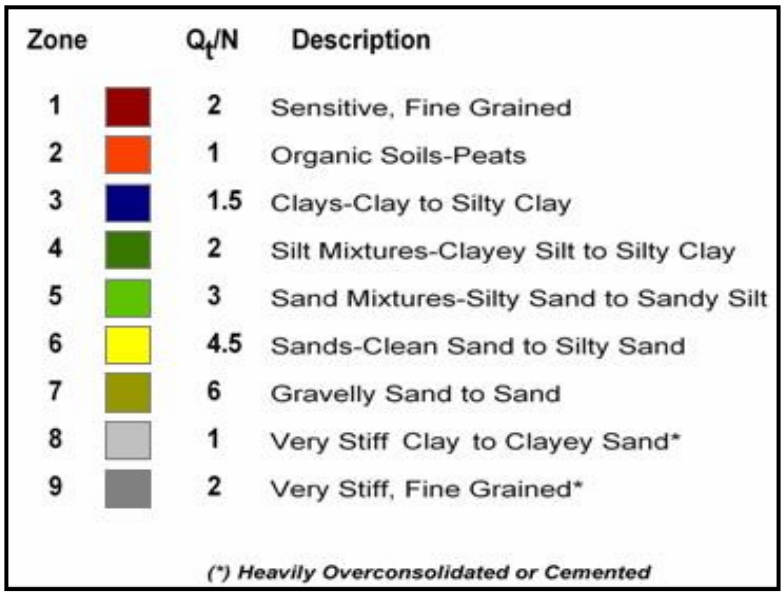
0 10 20 30 40 50 60 70 80 90

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

CPT Soil Classification Legend



Robertson's Soil Behavior Type (SBT), 1990			
Group #	**Description**	**Ic**	
		Min	**Max**
1	Sensitive, fine grained	N/A	
2	Organic soils - peats	3.60	N/A
3	Clays - silty clay to clay	2.95	3.60
4	Silt mixtures - clayey silt to silty clay	2.60	2.95
5	Sand mixtures - silty sand to sandy silt	2.05	2.60
6	Sands - clean sand to silty sand	1.31	2.05
7	Gravelly sand to dense sand	N/A	1.31
8	Very stiff clay to clayey sand (High OCR or cemented)	N/A	
9	Very stiff, fine grained (High OCR or cemented)	N/A	

Soil behavior type is based on empirical data and may not be representative of soil classification based on plasticity and grain size distribution.

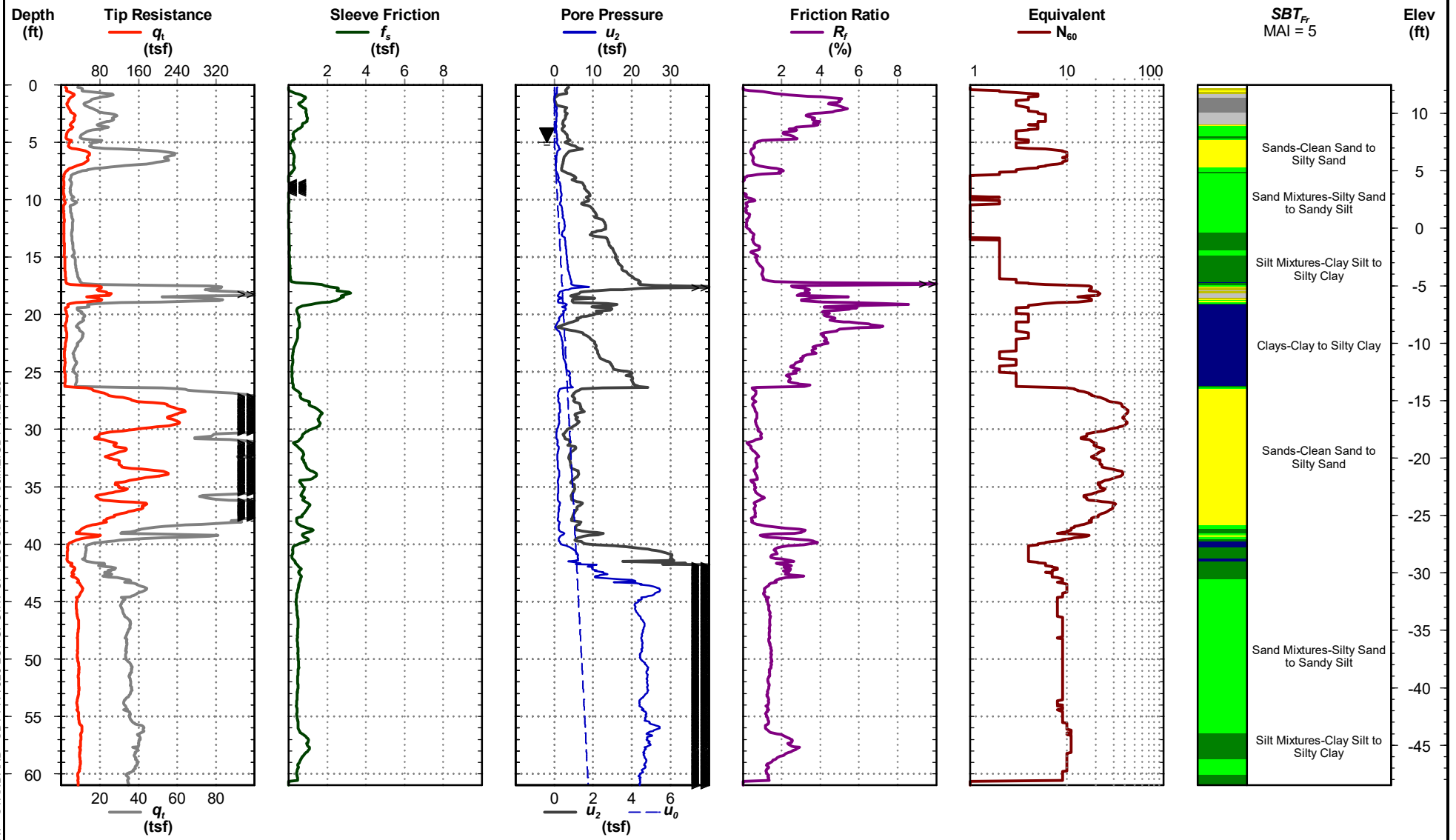
Relative Density and Consistency Table			
SANDS		SILTS and CLAYS	
Cone Tip Stress, qt (tsf)	Relative Density	Cone Tip Stress, qt (tsf)	Consistency
Less than 20	Very Loose	Less than 5	Very Soft
20 - 40	Loose	5 - 15	Soft to Firm
40 - 120	Medium Dense	15 - 30	Stiff
120 - 200	Dense	30 - 60	Very Stiff
Greater than 200	Very Dense	Greater than 60	Hard

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.846646
Longitude: -79.875348
Elevation: 12.5 ft
Date: Mar. 2, 2023
Estimated Water Depth: 5 ft
Rig/Operator: Gyrotrack/T. Chew

Sounding ID: CPT01

Total Depth: 61.0 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: CPT-01.DAT

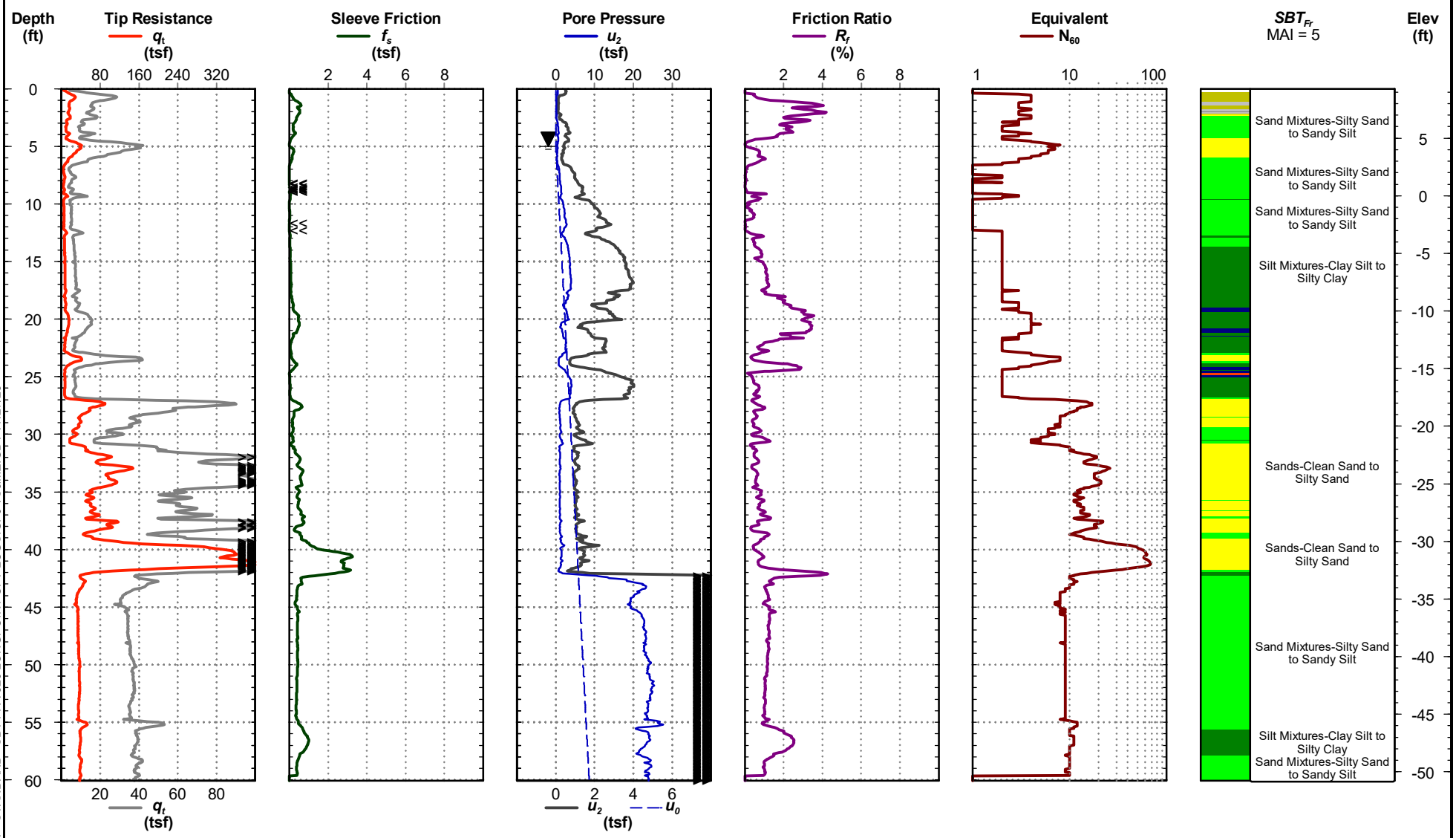
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.846099
Longitude: -79.874372
Elevation: 9.3 ft
Date: Mar. 2, 2023
Estimated Water Depth: 5 ft
Rig/Operator: Gyrotrack/T. Chew

Sounding ID: CPT02

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: CPT-02.DAT

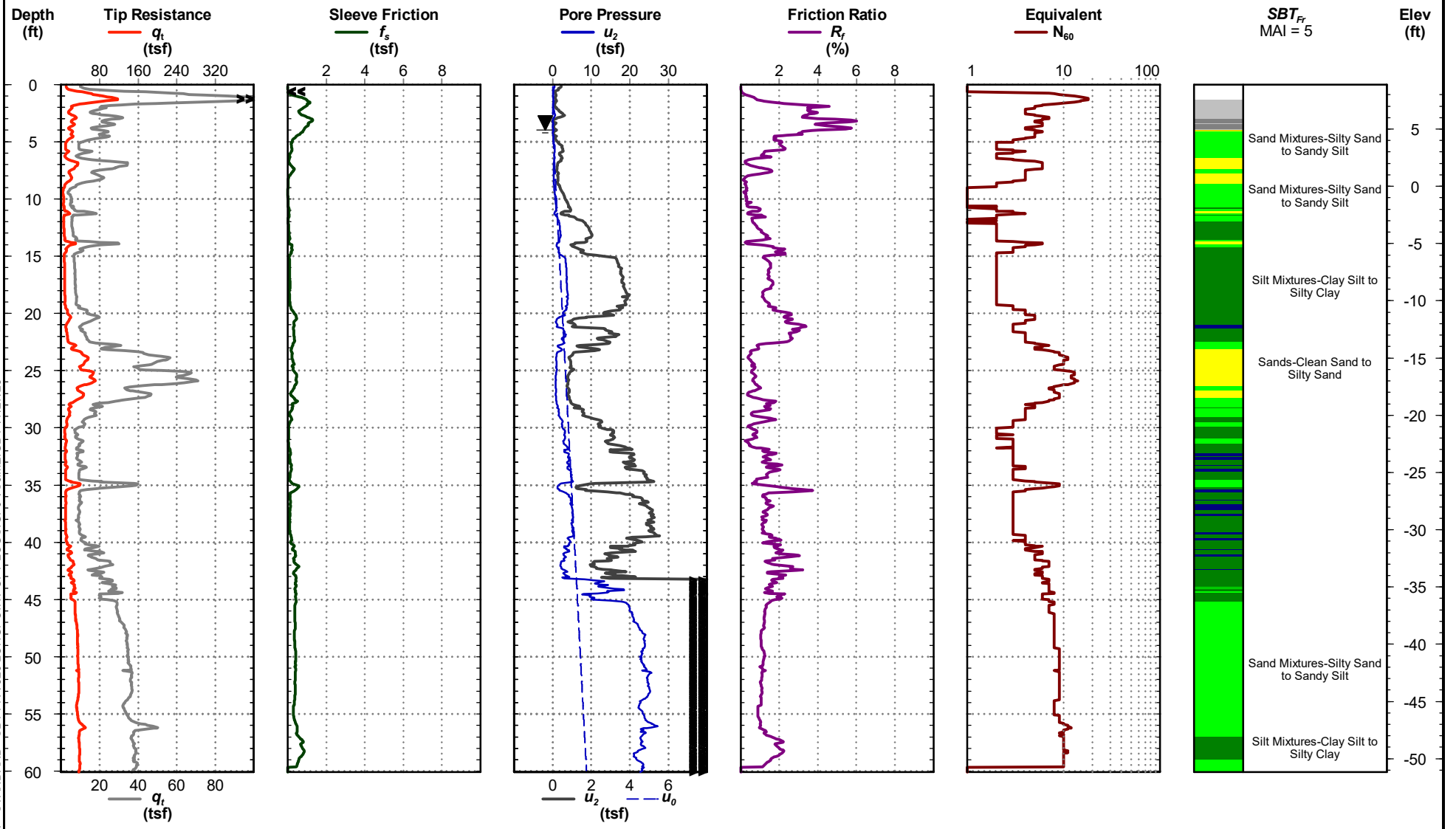
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.845677
Longitude: -79.873649
Elevation: 8.9 ft
Date: Mar. 2, 2023
Estimated Water Depth: 4 ft
Rig/Operator: Gyrotrack/T. Chew

Sounding ID: CPT03

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: CPT-03.DAT

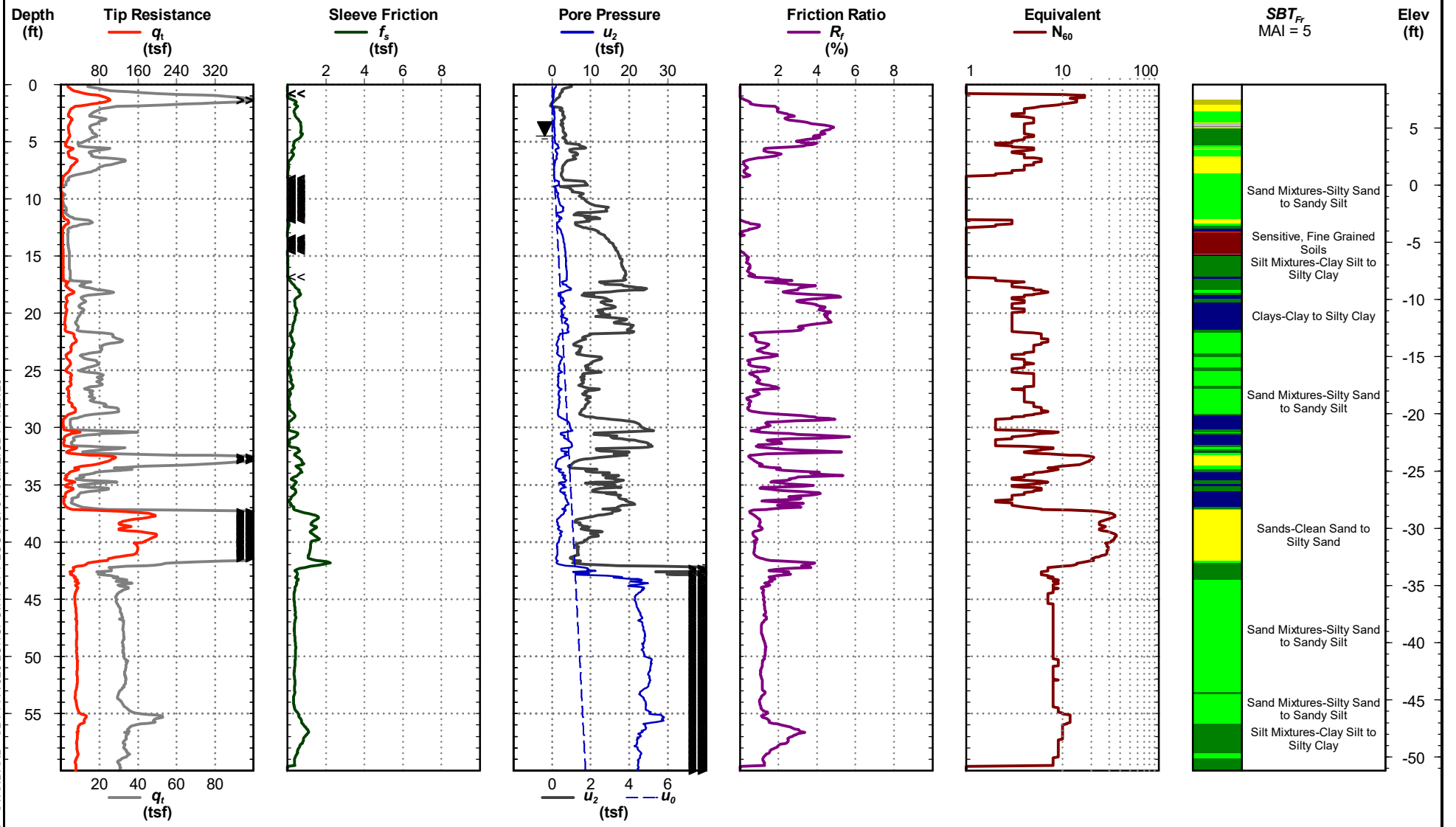
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.845306
Longitude: -79.872986
Elevation: 8.8 ft
Date: Mar. 1, 2023
Estimated Water Depth: 4.5 ft
Rig/Operator: Gyrotrack/T. Chew

Sounding ID: SCPT04

Total Depth: 60.0 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: SCPT-04.DAT

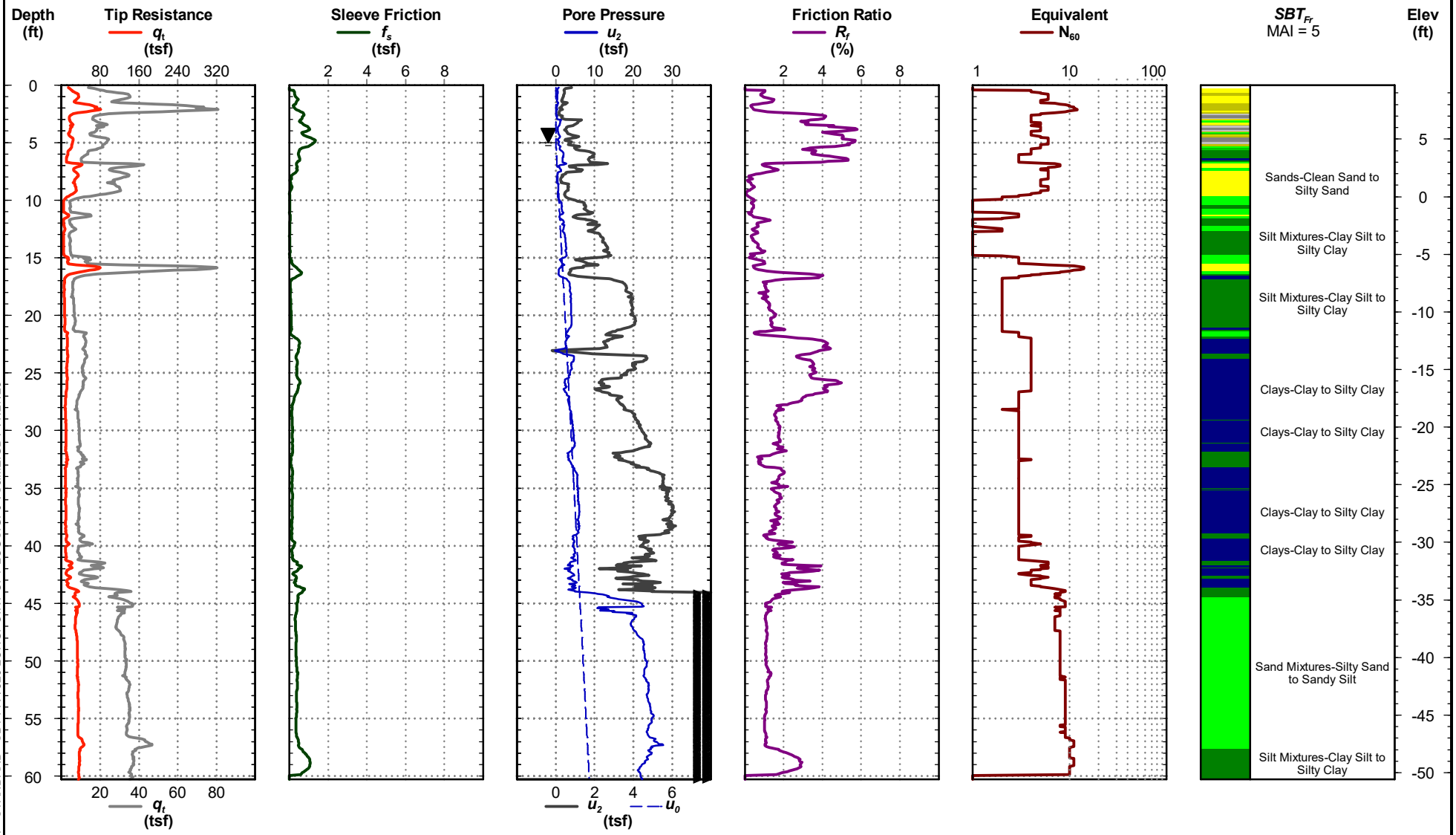
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.844984
Longitude: -79.872439
Elevation: 9.7 ft
Date: Mar. 1, 2023
Estimated Water Depth: 5 ft
Rig/Operator: Gyrotrack/T. Chew

Sounding ID: CPT05

Total Depth: 60.3 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

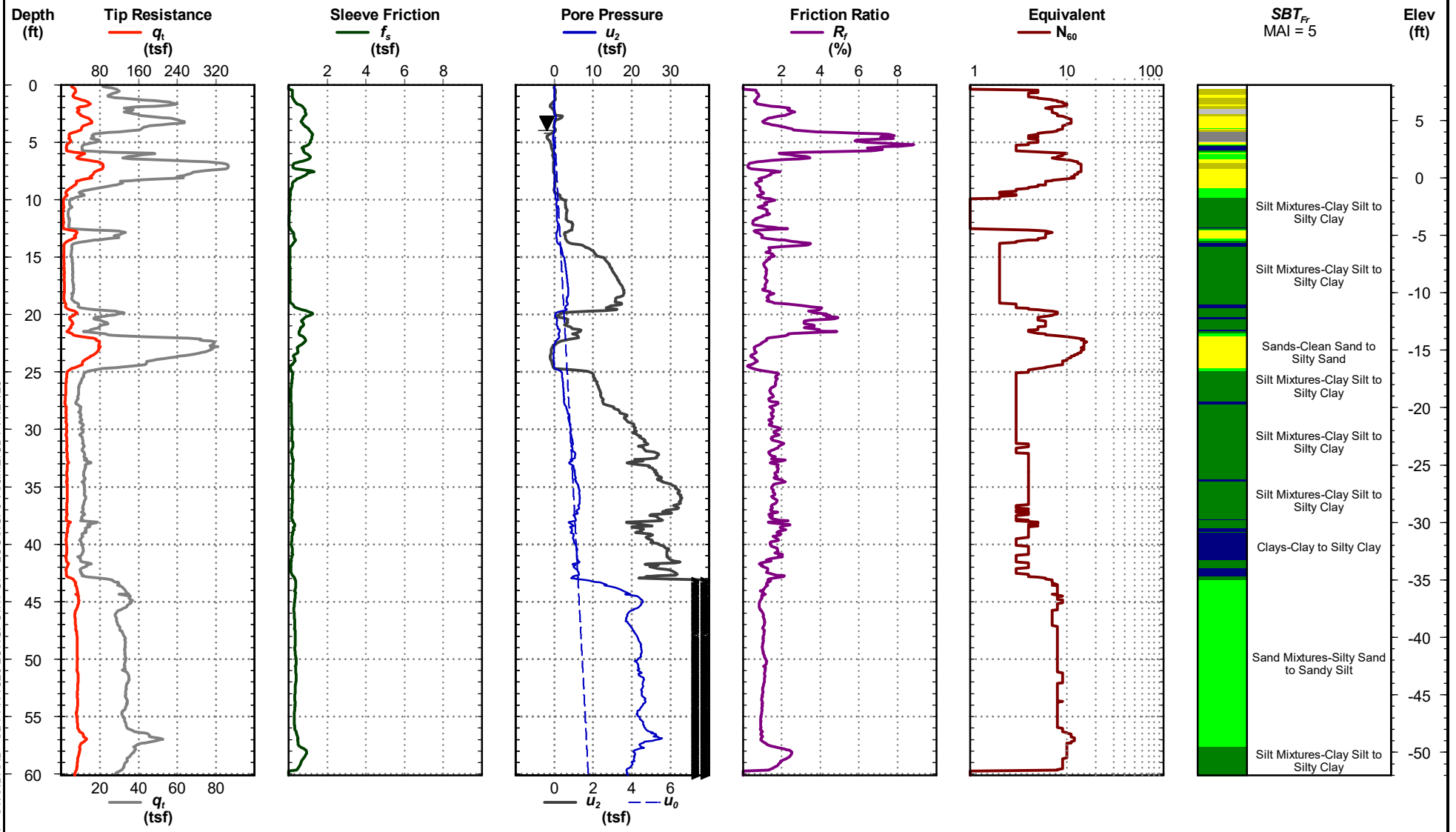
Electronic Filename: CPT-05.DAT

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.844696
Longitude: -79.871832
Elevation: 8.1 ft
Date: Mar. 2, 2023
Estimated Water Depth: 4 ft
Rig/Operator: Gyrotrack/T. Chew

Sounding ID: CPT06

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: CPT-06.DAT

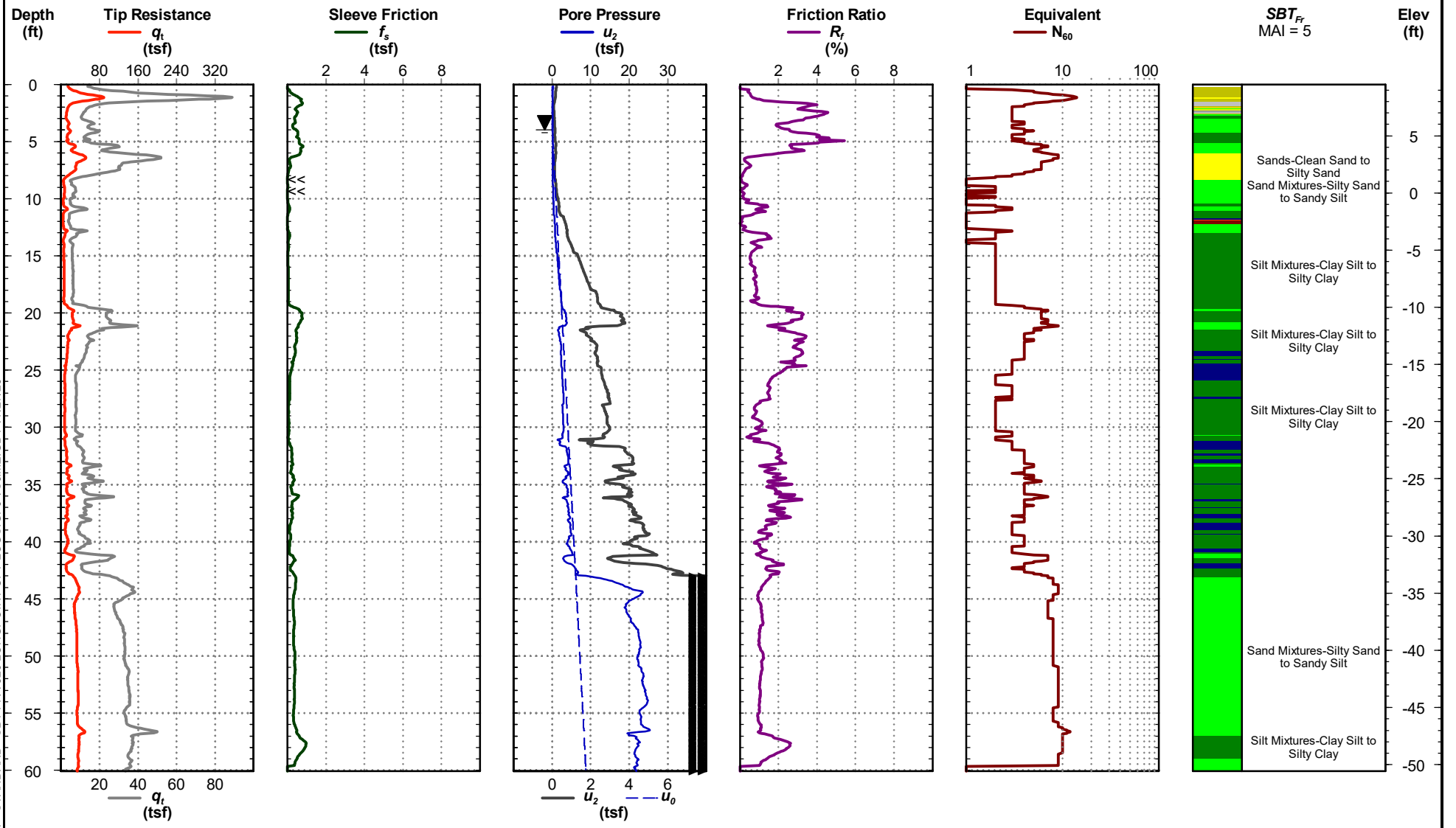
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.844456
Longitude: -79.871419
Elevation: 9.5 ft
Date: Mar. 1, 2023
Estimated Water Depth: 4 ft
Rig/Operator: Gyrotrack/T. Chew

Sounding ID: CPT07

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

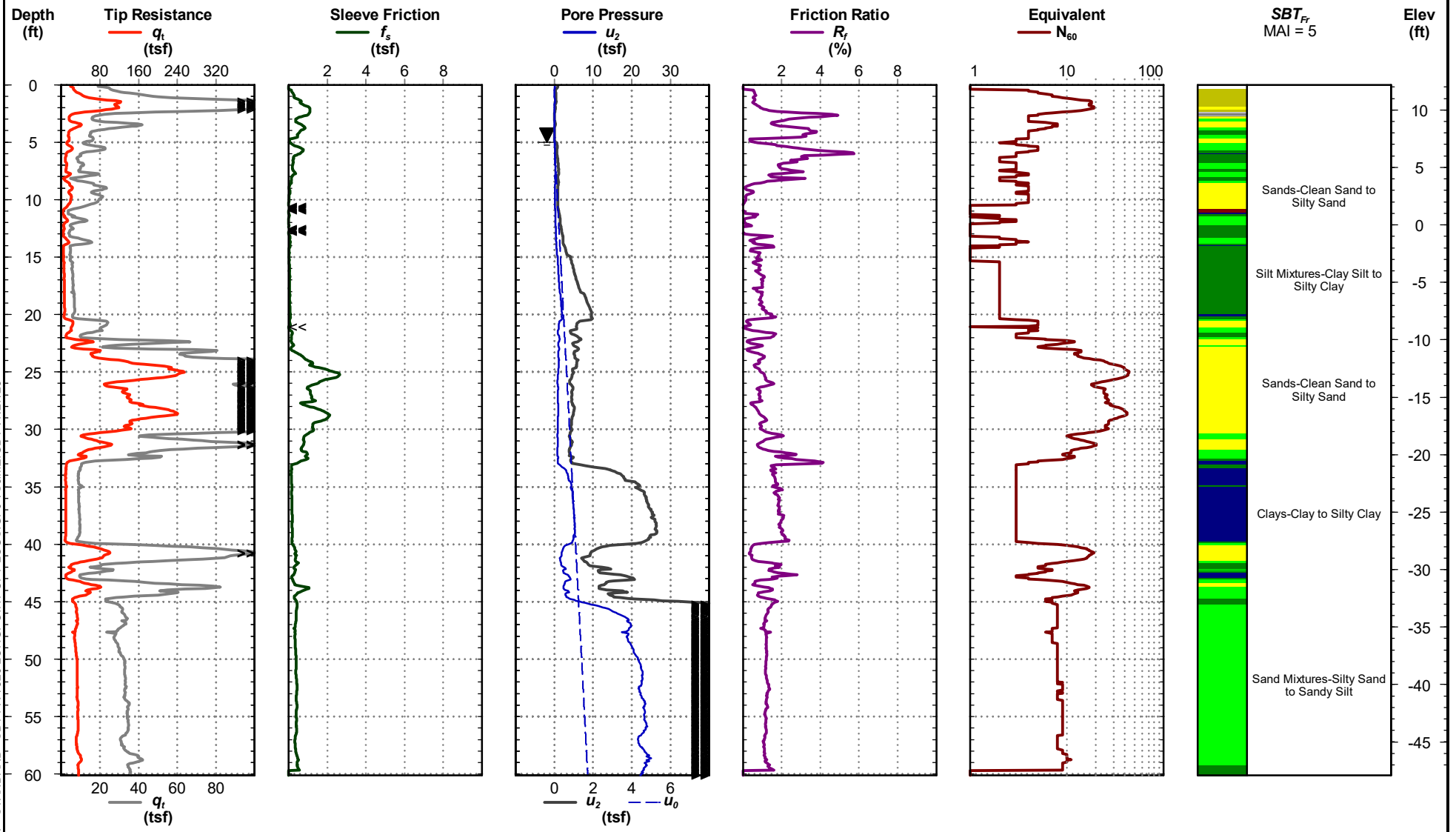
Electronic Filename: CPT-07.DAT

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.844093
Longitude: -79.870745
Elevation: 12.2 ft
Date: Mar. 1, 2023
Estimated Water Depth: 5 ft
Rig/Operator: Gyrotrack/T. Chew

Sounding ID: CPT08

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: CPT-08.DAT

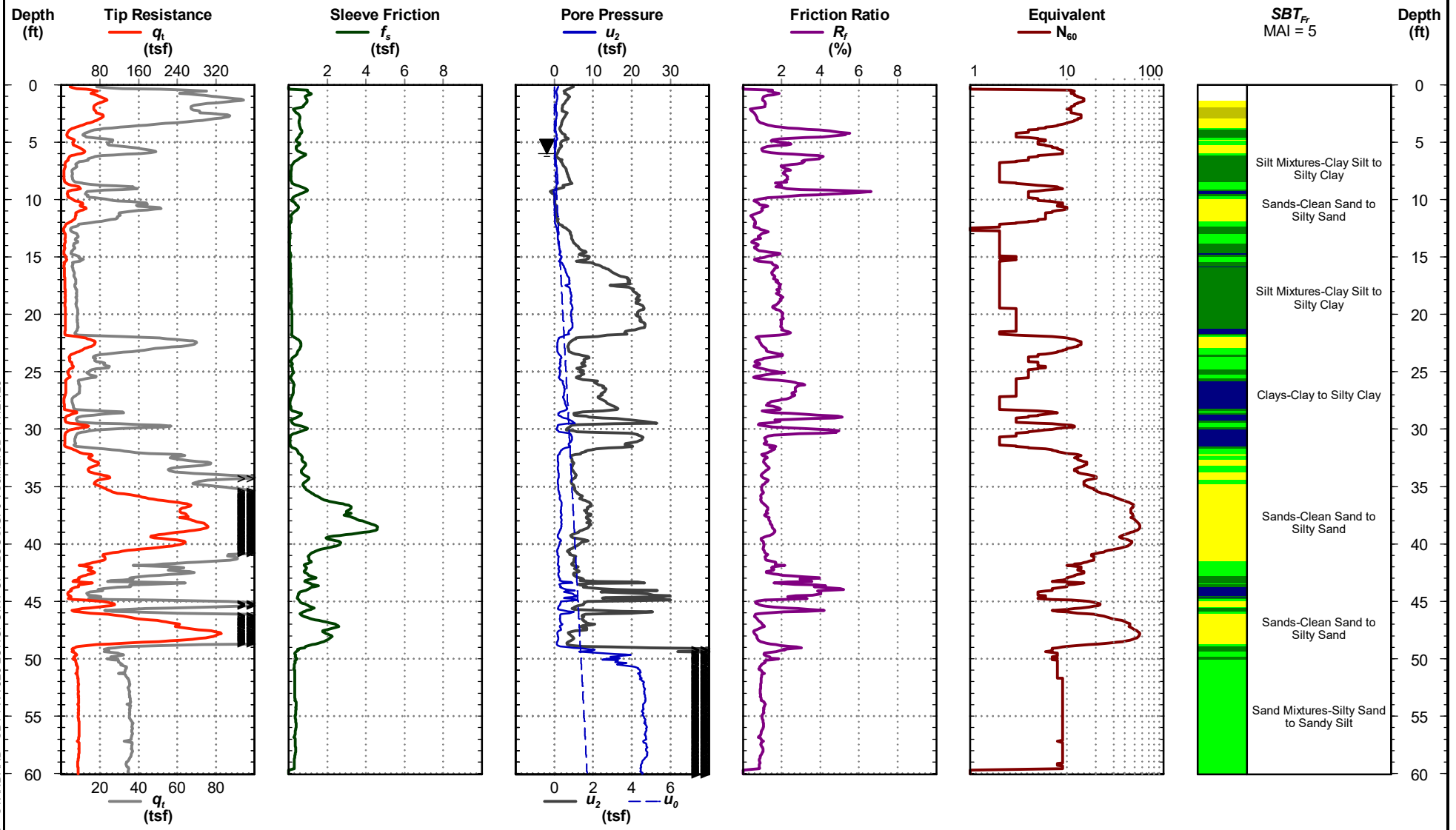
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude:
Longitude:
Elevation: ft
Date: Mar. 7, 2023
Estimated Water Depth: 6 ft
Rig/Operator: CPT Truck/M. Wright

Sounding ID: CPT09

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-09.DAT

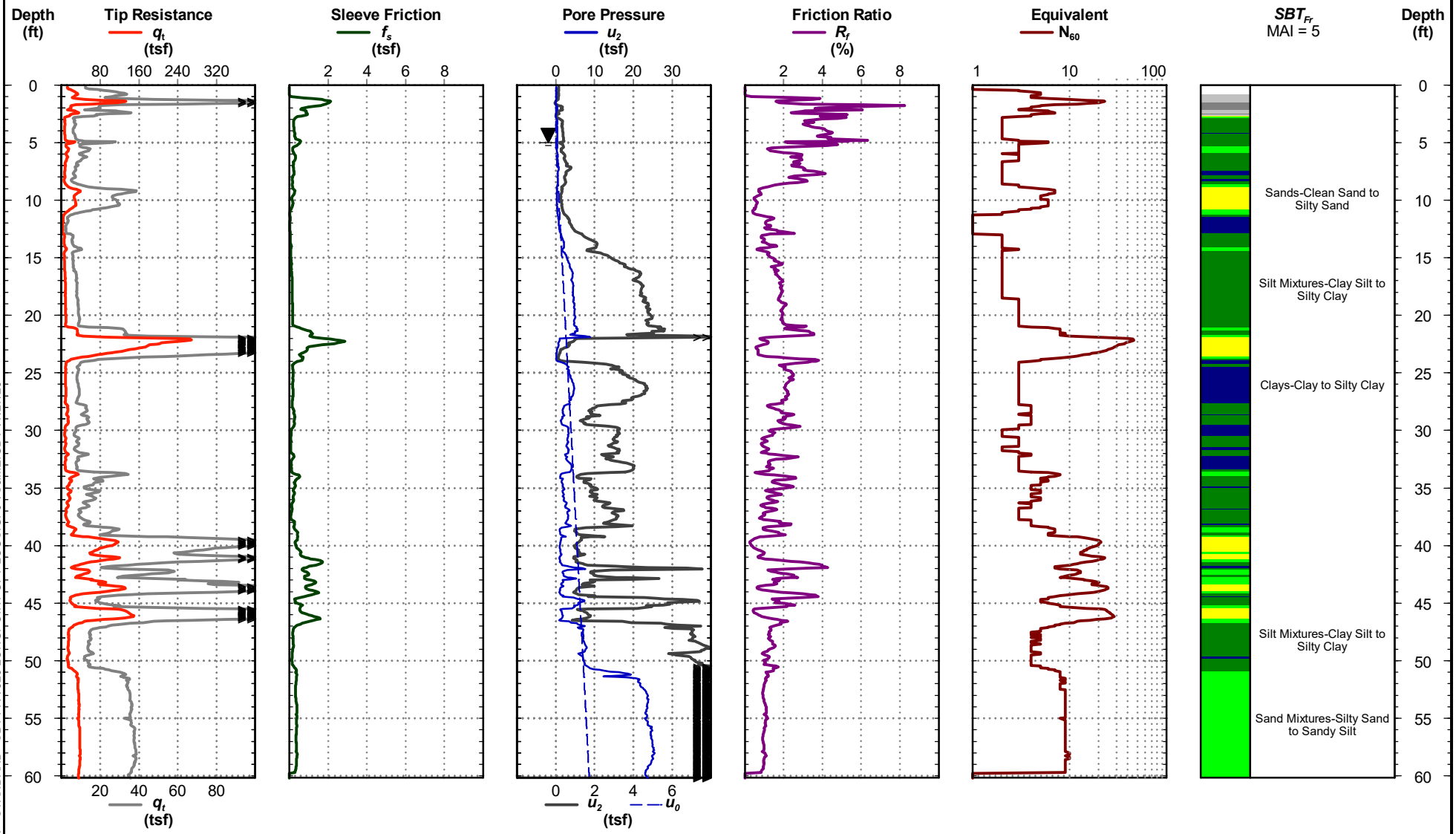
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude:
Longitude:
Elevation: ft
Date: Mar. 7, 2023
Estimated Water Depth: 5 ft
Rig/Operator: CPT Truck/M. Wright

Sounding ID: CPT10

Total Depth: 60.2 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-10.DAT

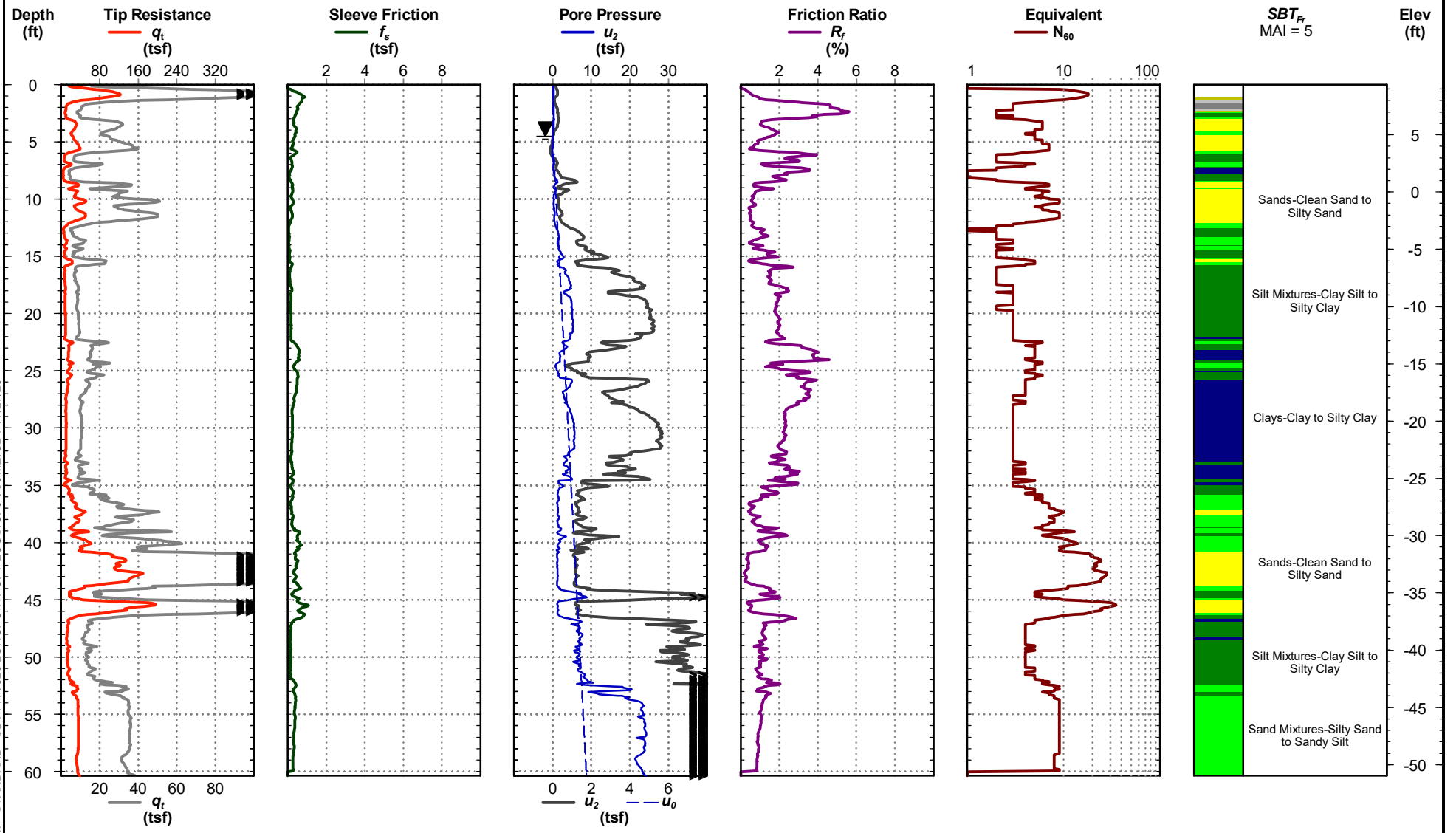
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.842055
Longitude: -79.870837
Elevation: 9.4 ft
Date: Mar. 9, 2023
Estimated Water Depth: 4.5 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: SCPT11

Total Depth: 60.4 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-11.DAT

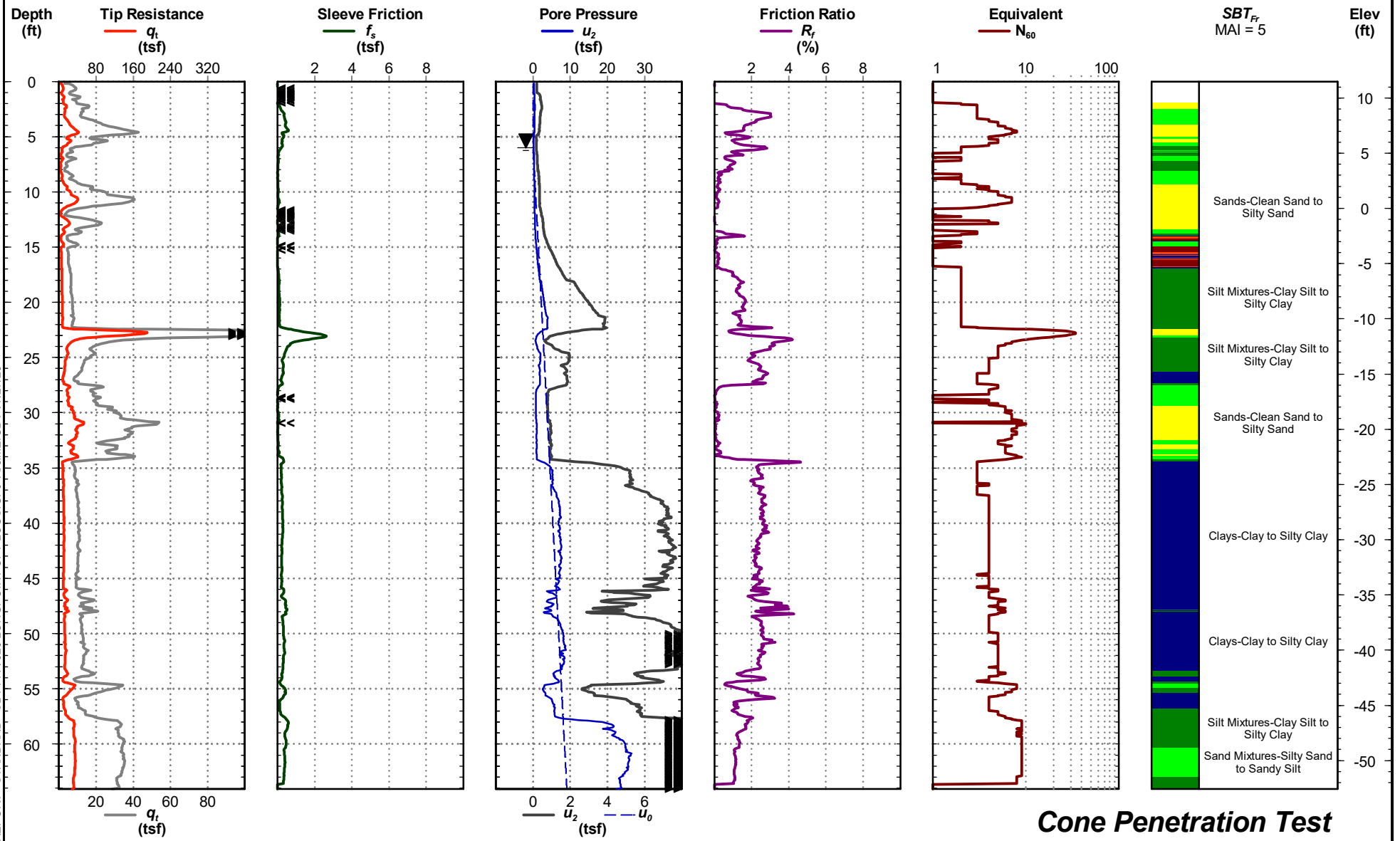
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.840967
Longitude: -79.871466
Elevation: 11.5 ft
Date: Mar. 2, 2023
Estimated Water Depth: 6 ft
Rig/Operator: Gyrotrack/T. Chew

Sounding ID: CPT12

Total Depth: 64.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

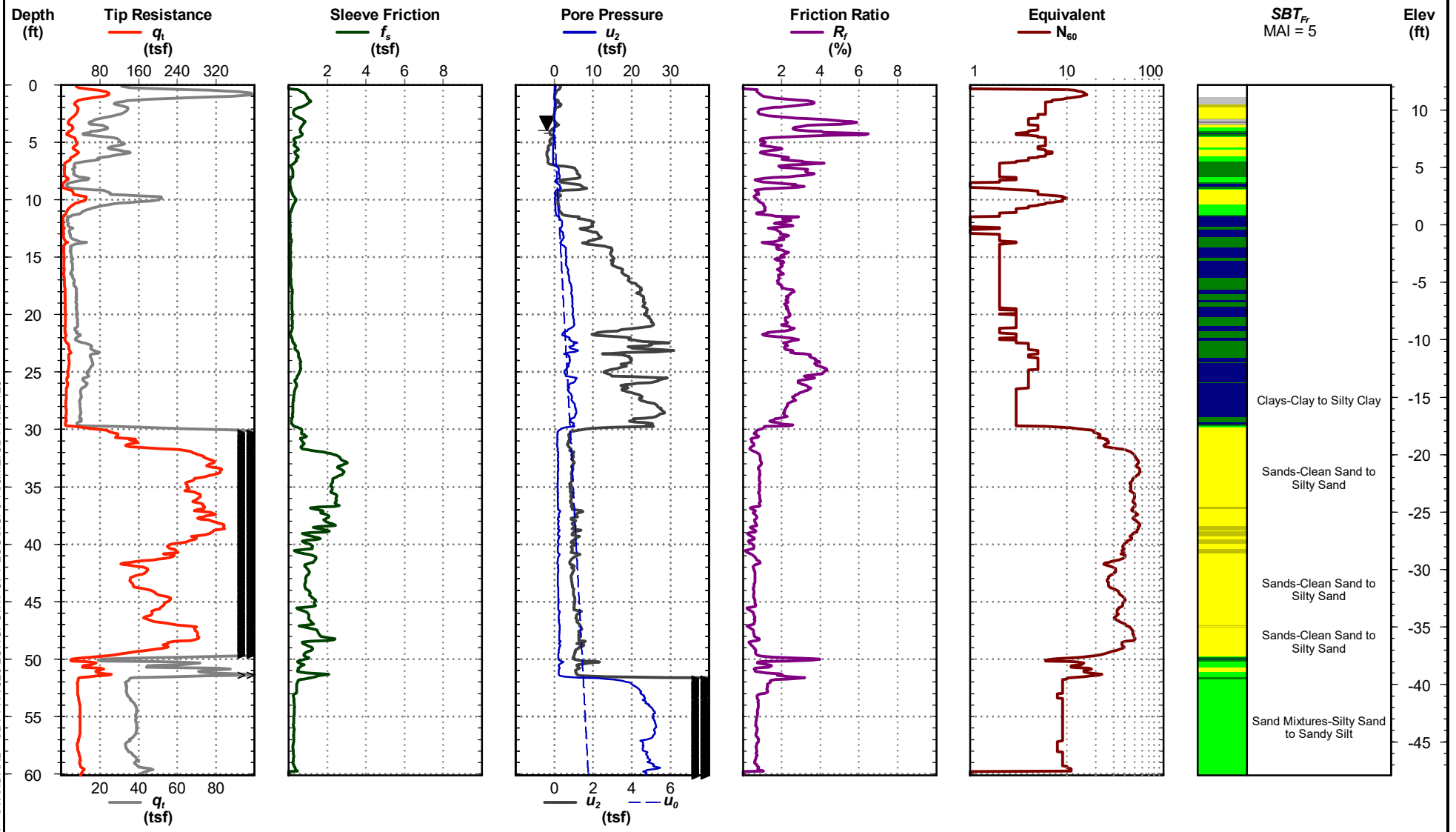
Electronic Filename: CPT-12.DAT

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.846095
Longitude: -79.875609
Elevation: 12.2 ft
Date: Mar. 9, 2023
Estimated Water Depth: 4 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: CPT13

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

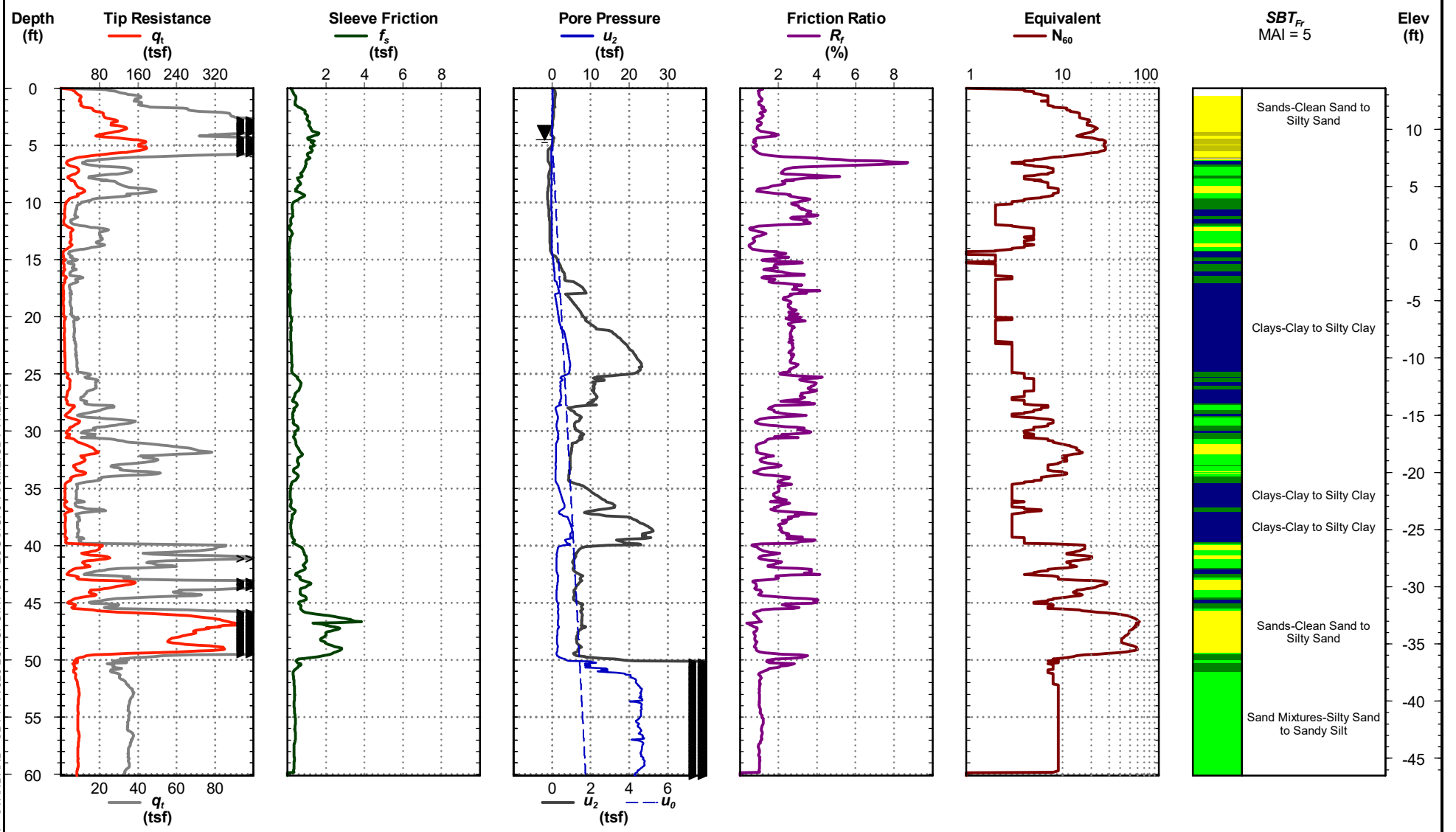
Electronic Filename: C-13.DAT

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.845367
Longitude: -79.874003
Elevation: 13.6 ft
Date: Mar. 6, 2023
Estimated Water Depth: 4.5 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: CPT14

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: SCPT-04.DAT

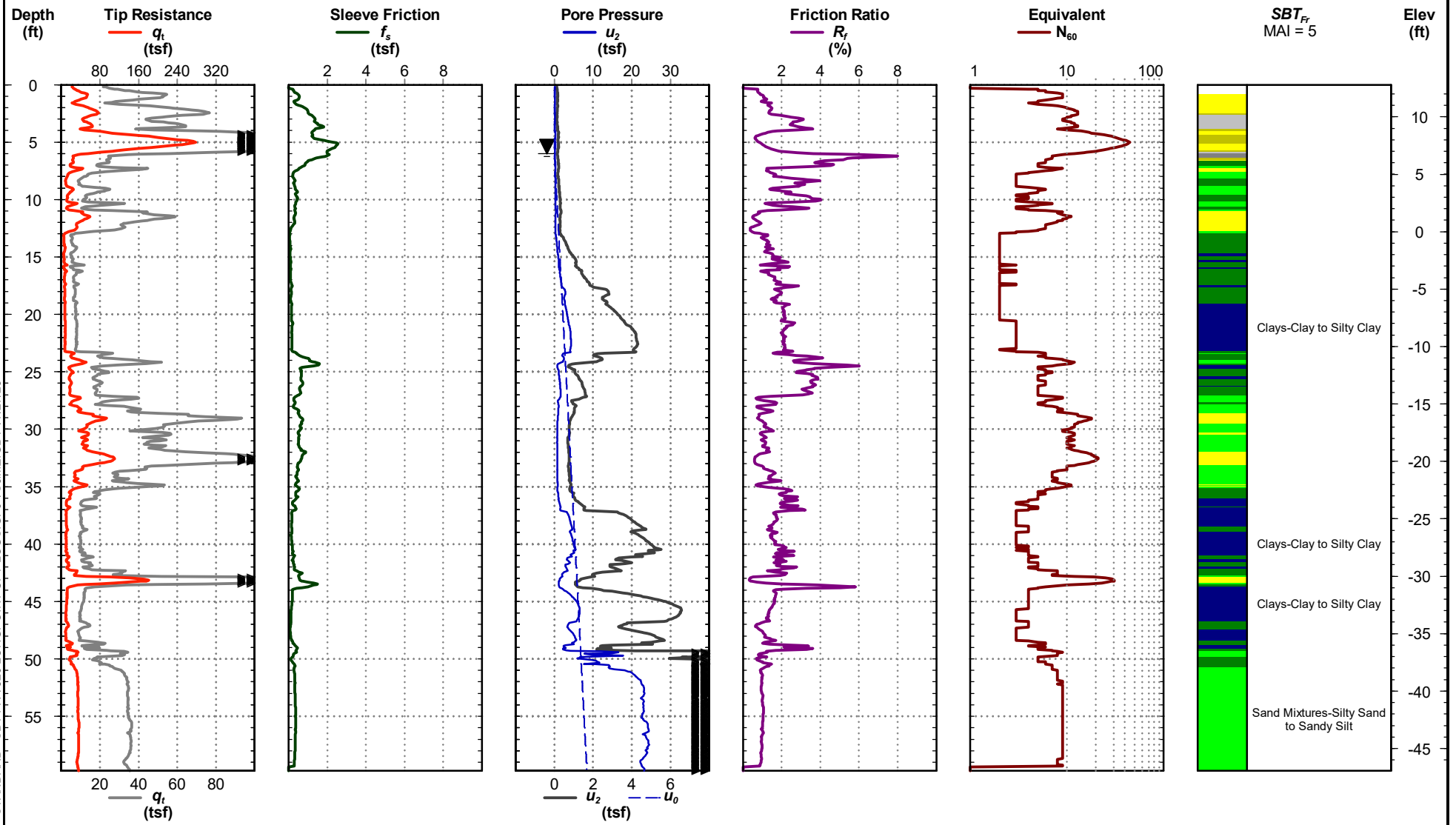
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.844916
Longitude: -79.873203
Elevation: 12.8 ft
Date: Mar. 6, 2023
Estimated Water Depth: 6 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: CPT15

Total Depth: 59.8 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-15.DAT

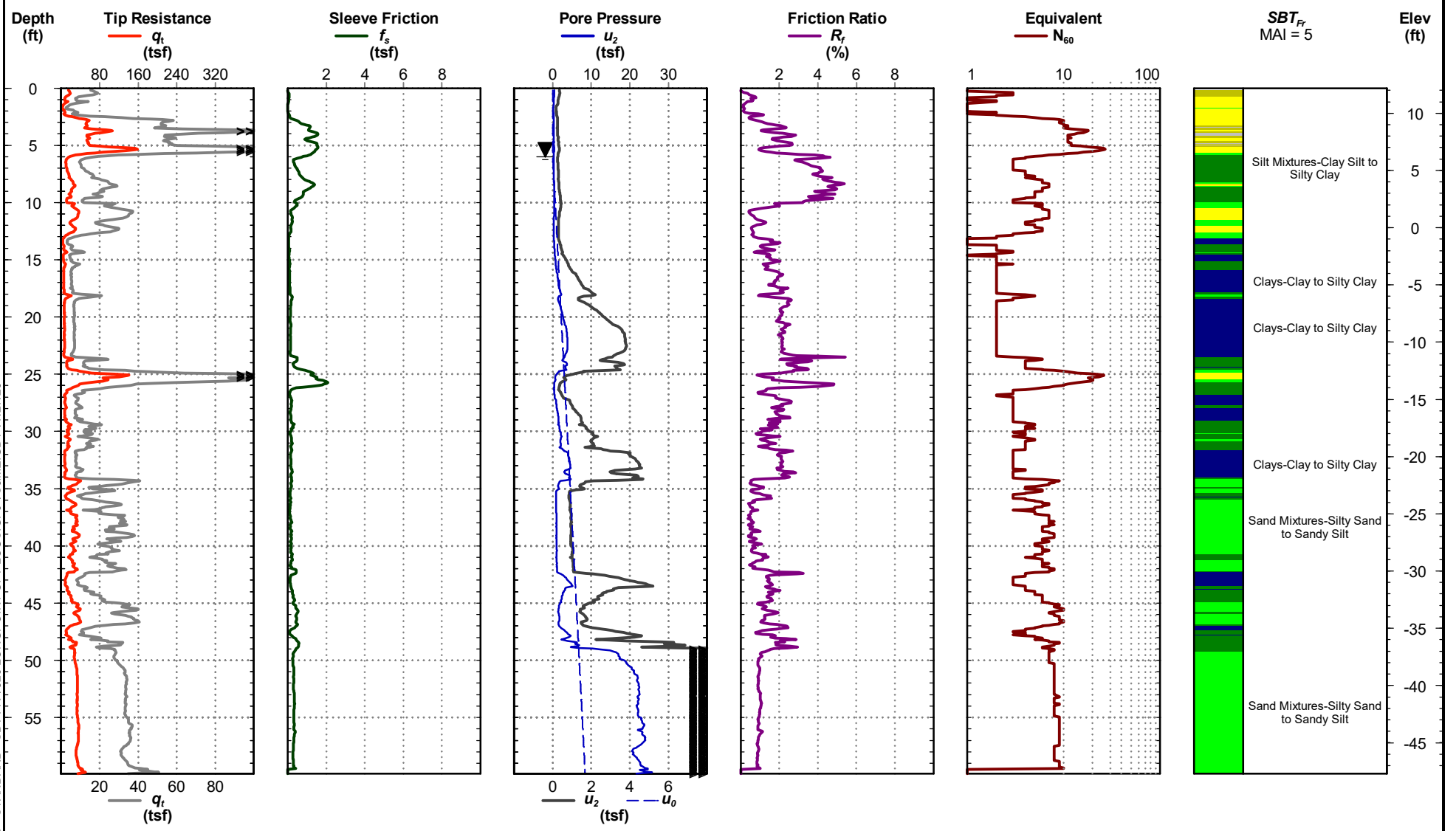
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.844591
Longitude: -79.872587
Elevation: 12.2 ft
Date: Mar. 6, 2023
Estimated Water Depth: 6 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: CPT16

Total Depth: 59.9 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-16.DAT

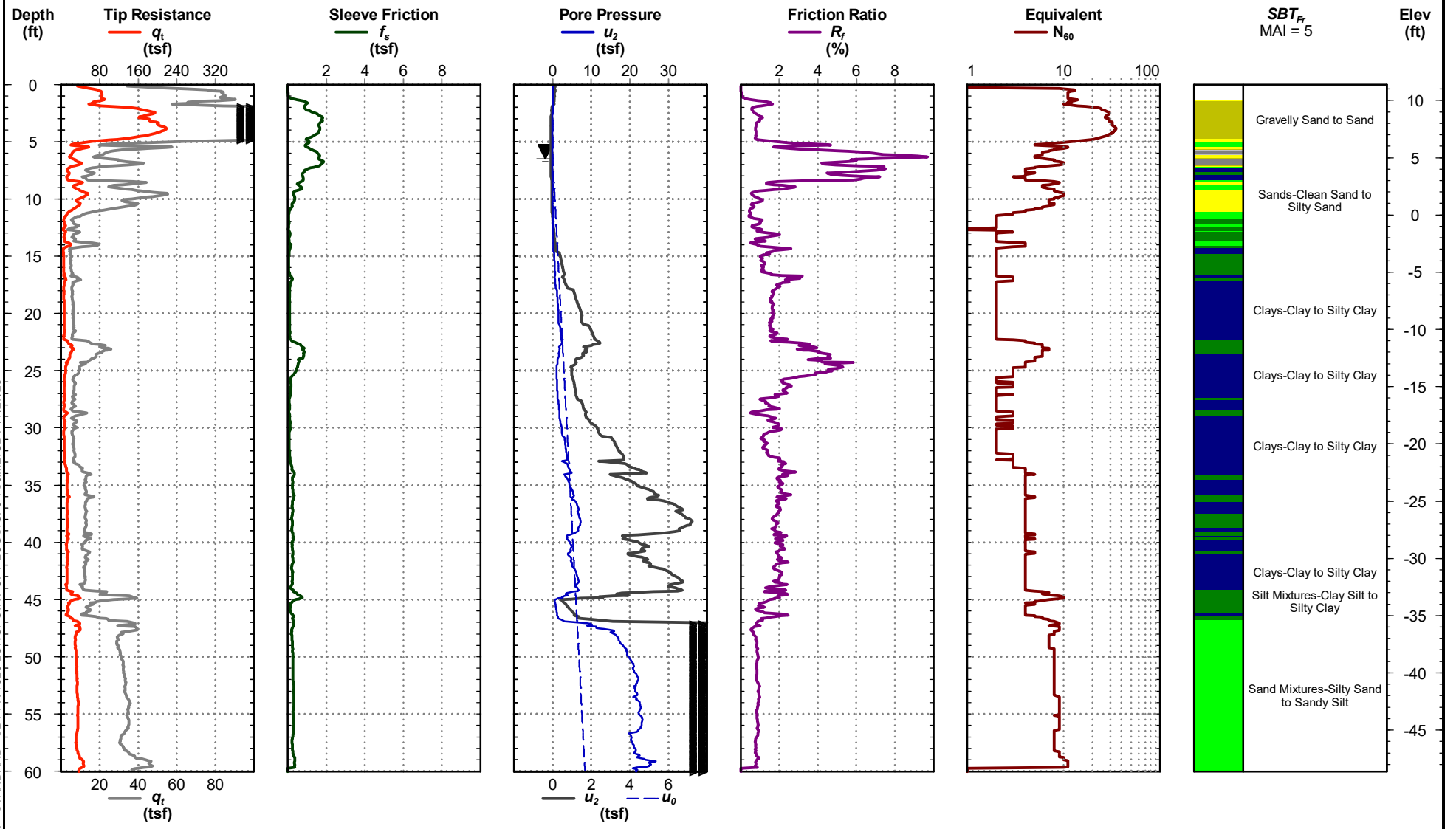
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.844443
Longitude: -79.872304
Elevation: 11.4 ft
Date: Mar. 6, 2023
Estimated Water Depth: 6.5 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: CPT17

Total Depth: 60.0 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-17.DAT

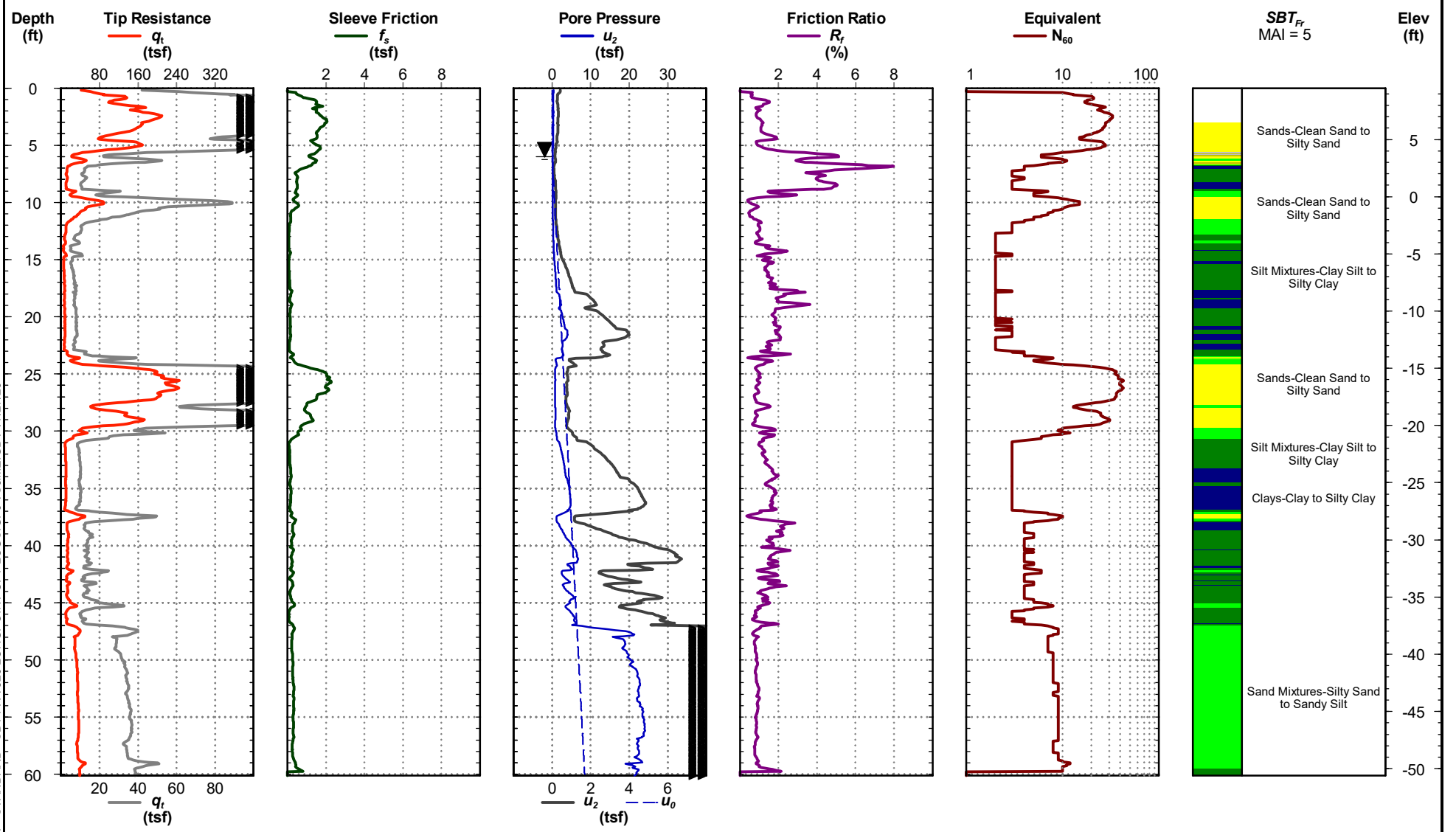
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude:	32.843958
Longitude:	-79.871417
Elevation:	9.5 ft
Date:	Mar. 6, 2023
Estimated Water Depth:	6 ft
Rig/Operator:	Gyrotrack/M. Wright

Sounding ID: CPT18

Total Depth:	60.1 ft
Termination Criteria:	Target Depth
Cone Size:	1.75



Cone Penetration Test

CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

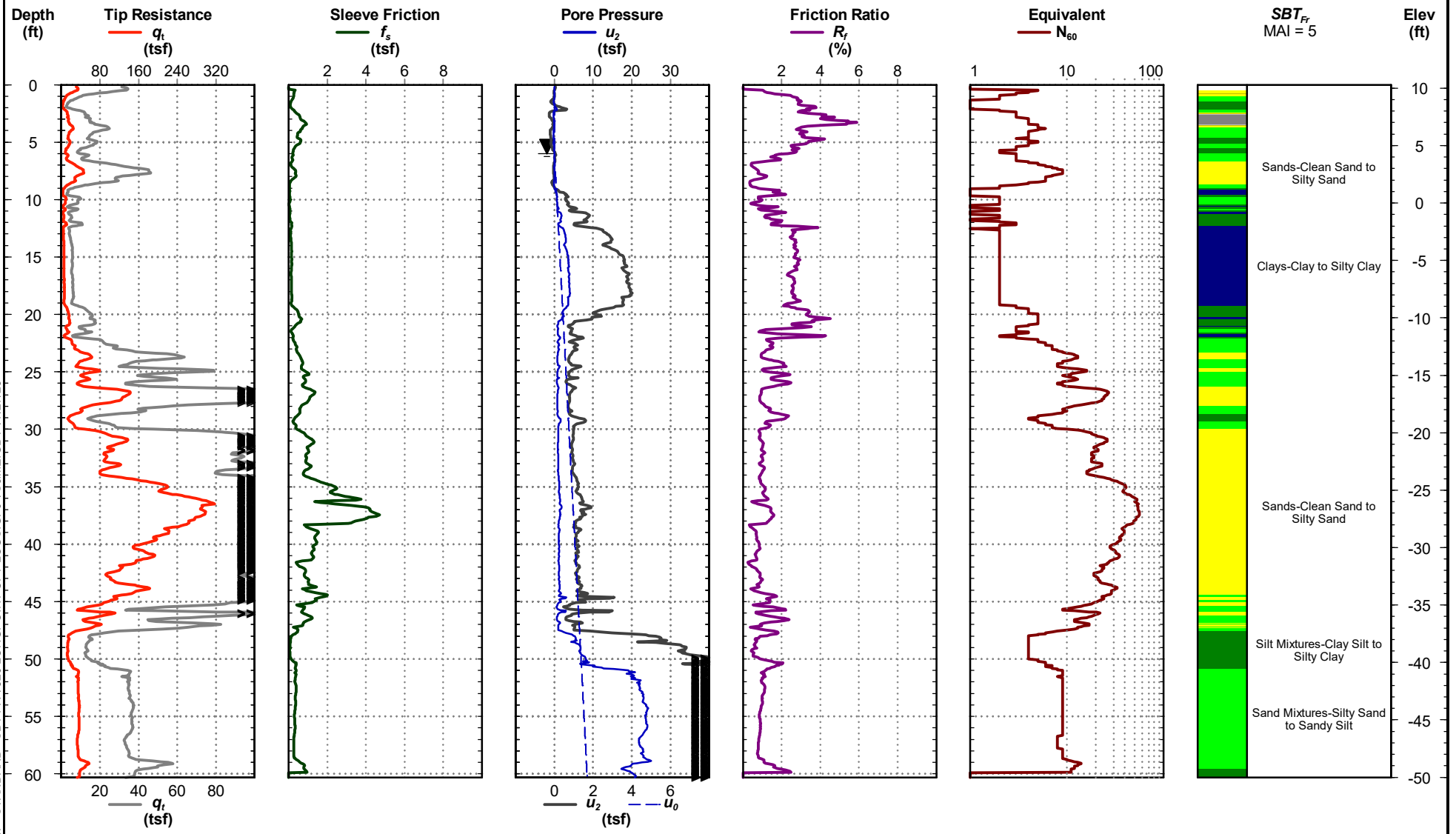
Electronic Filename: C-18.DAT

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.843373
Longitude: -79.870983
Elevation: 10.3 ft
Date: Mar. 7, 2023
Estimated Water Depth: 6 ft
Rig/Operator: CPT Truck/M. Wright

Sounding ID: CPT19

Total Depth: 60.3 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-19.DAT

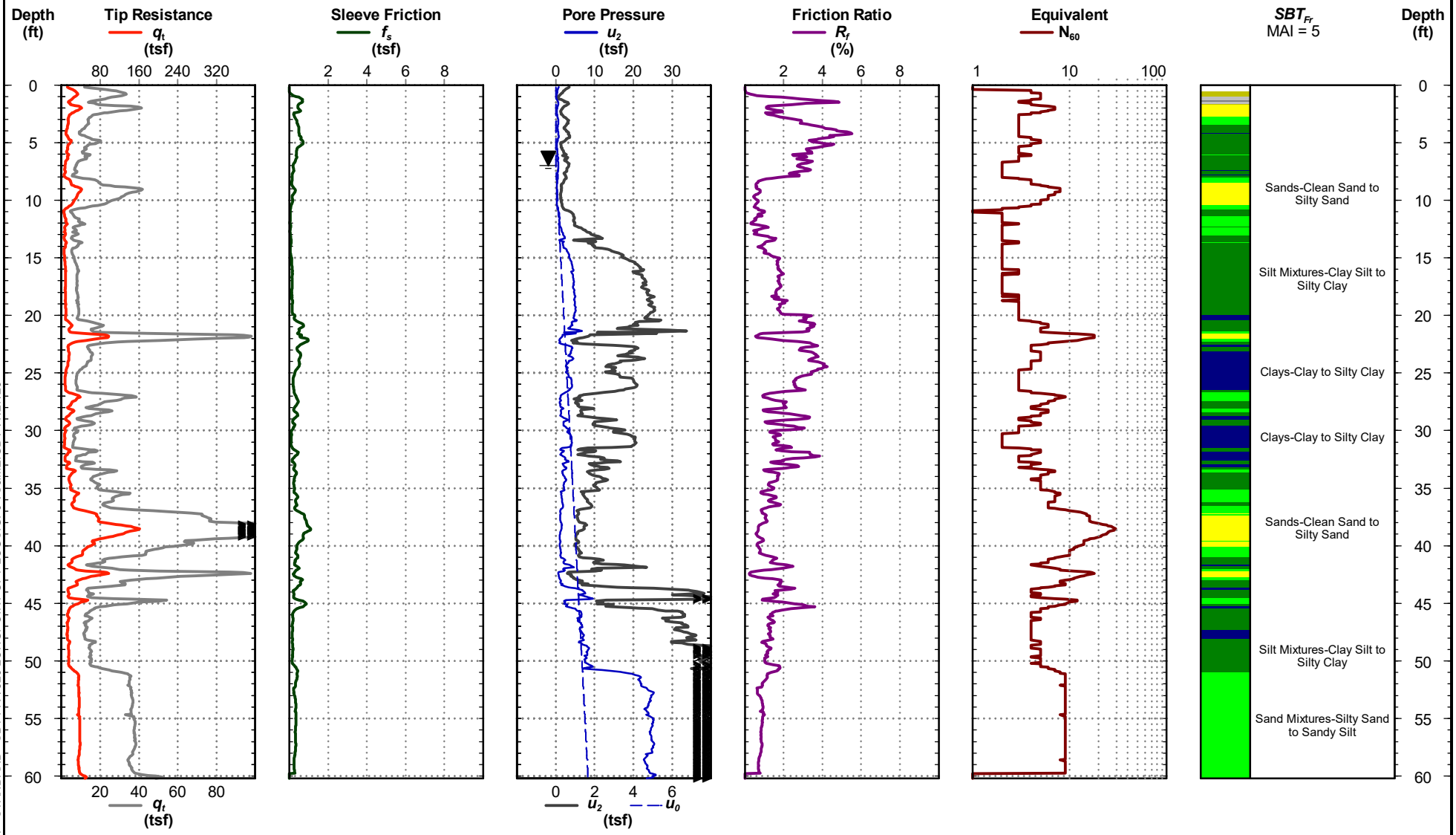
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.842105
Longitude: -79.866783
Elevation: ft
Date: Mar. 7, 2023
Estimated Water Depth: 7 ft
Rig/Operator: CPT Truck/M. Wright

Sounding ID: CPT20

Total Depth: 60.2 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-20.DAT

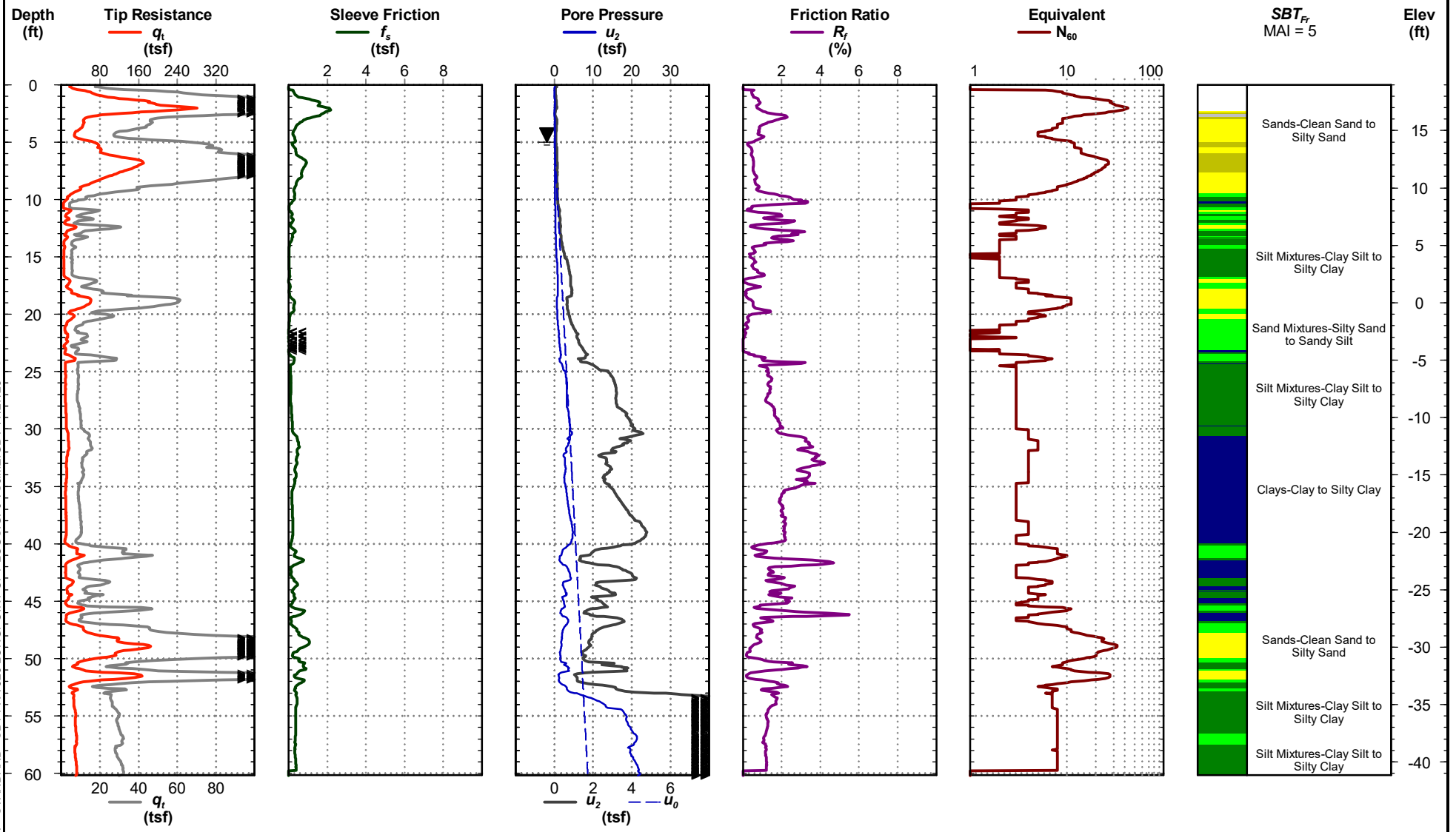
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.842105
Longitude: -79.866783
Elevation: 19 ft
Date: Mar. 1, 2023
Estimated Water Depth: 5 ft
Rig/Operator: Gyrotrack/T. Chew

Sounding ID: CPT21

Total Depth: 60.2 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: CPT-21.DAT

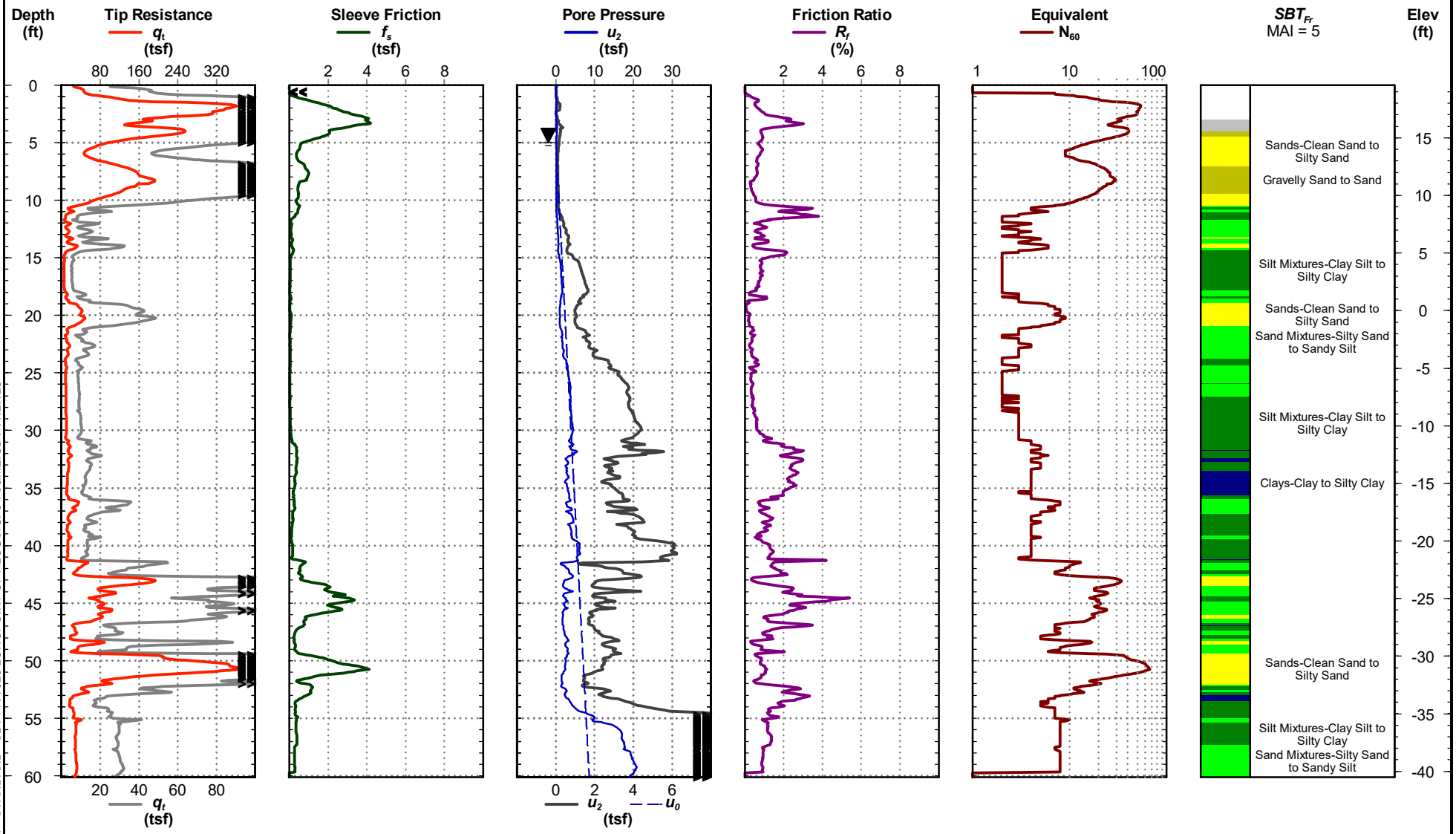
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.841583
Longitude: -79.865726
Elevation: 19.6 ft
Date: Mar. 1, 2023
Estimated Water Depth: 5 ft
Rig/Operator: Gyrotrack/T. Chew

Sounding ID: CPT22

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: CPT-22.DAT

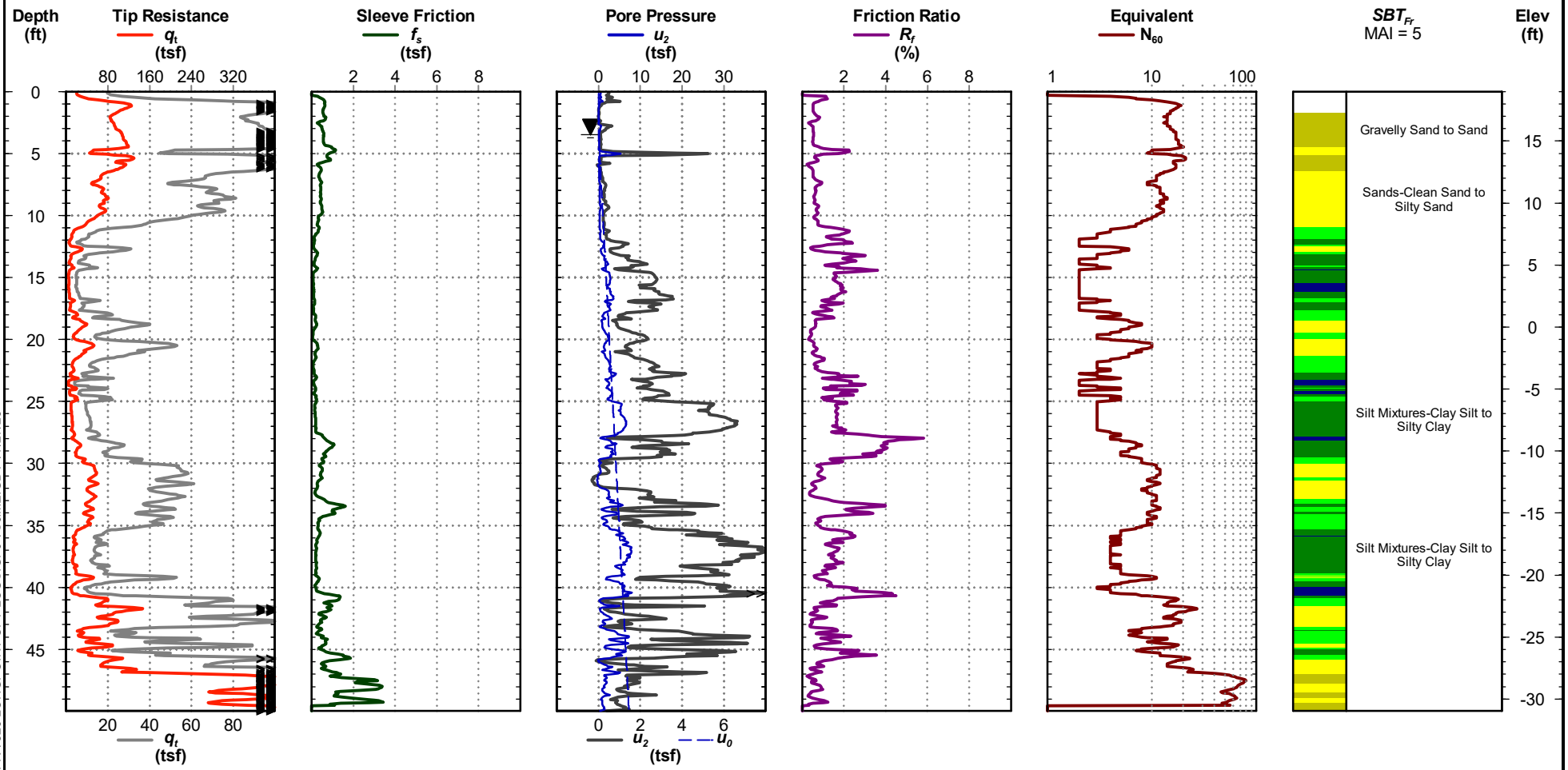
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.840034
Longitude: -79.862479
Elevation: 19 ft
Date: Mar. 13, 2023
Estimated Water Depth: 3.5 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: CPT23

Total Depth: 50.0 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-23.DAT

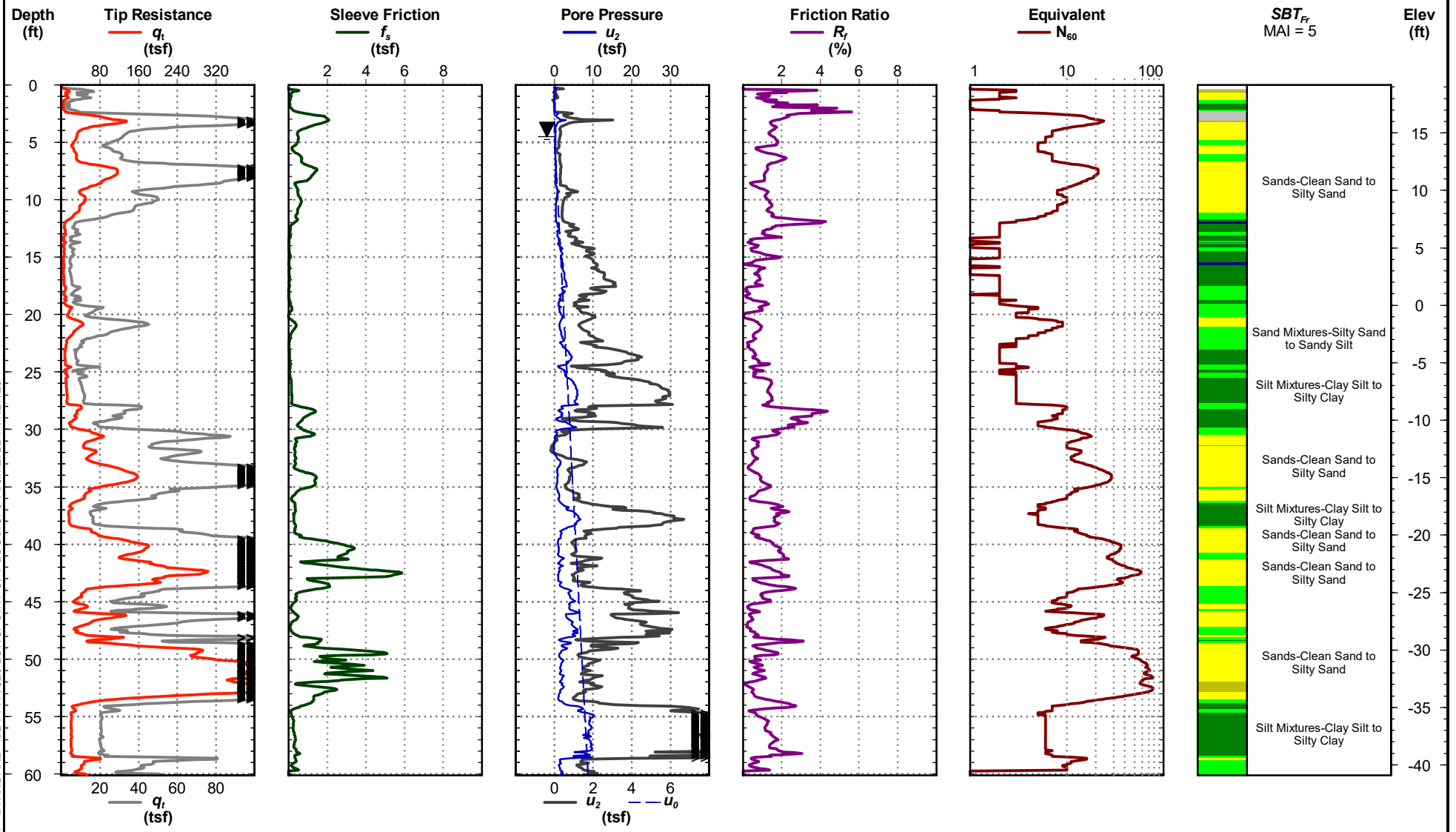
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.839723
Longitude: -79.862067
Elevation: 19.2 ft
Date: Mar. 20, 2023
Estimated Water Depth: 4.5 ft
Rig/Operator: CPT Truck/M. Wright

Sounding ID: CPT24

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-24.DAT

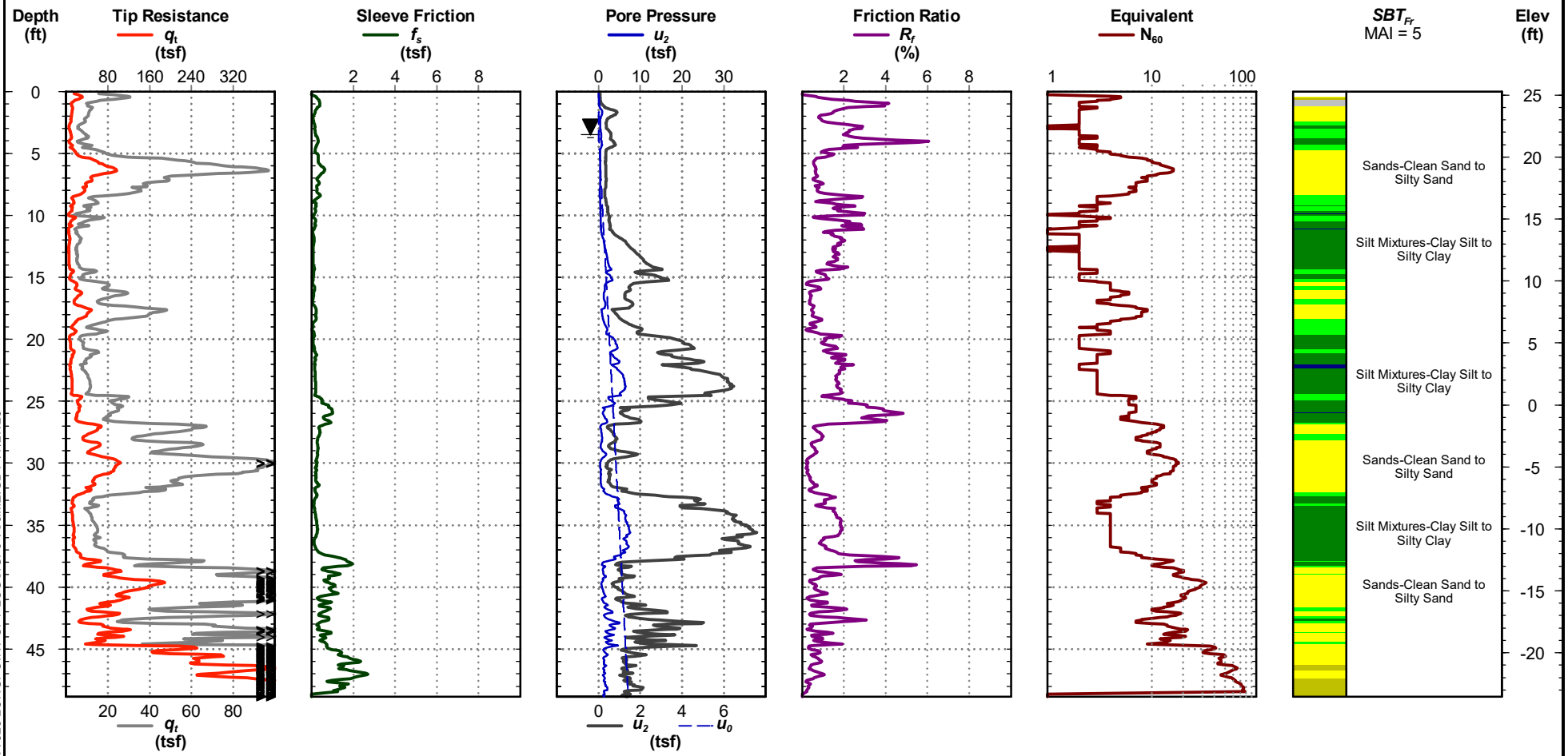
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.839499
Longitude: -79.861423
Elevation: 25.3 ft
Date: Mar. 9, 2023
Estimated Water Depth: 3.5 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: CPT25

Total Depth: 48.9 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-25.DAT

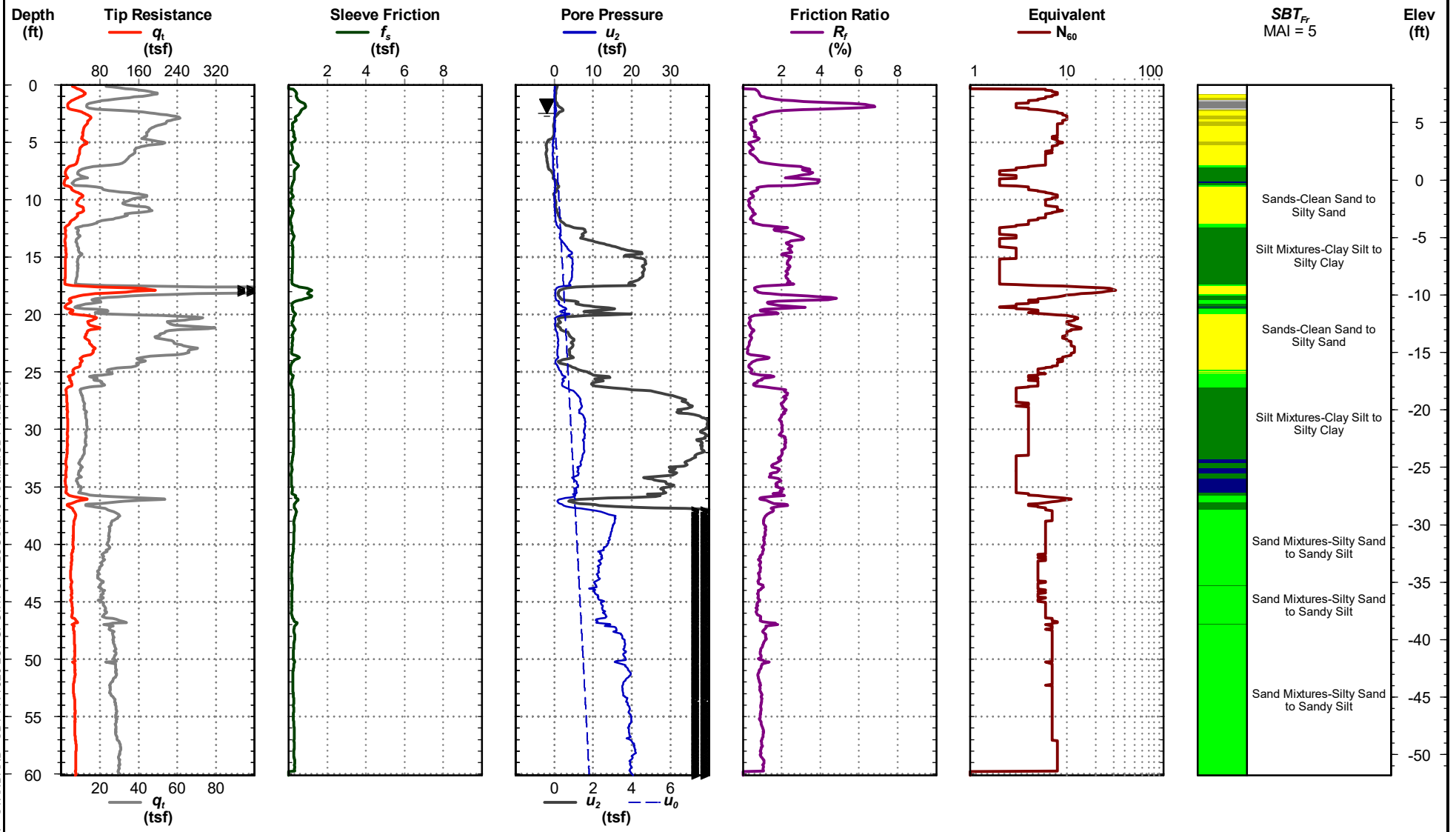
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.837935
Longitude: -79.858513
Elevation: 8.3 ft
Date: Mar. 21, 2023
Estimated Water Depth: 2.5 ft
Rig/Operator: CPT Truck/P. Saner

Sounding ID: CPT26

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-26.DAT

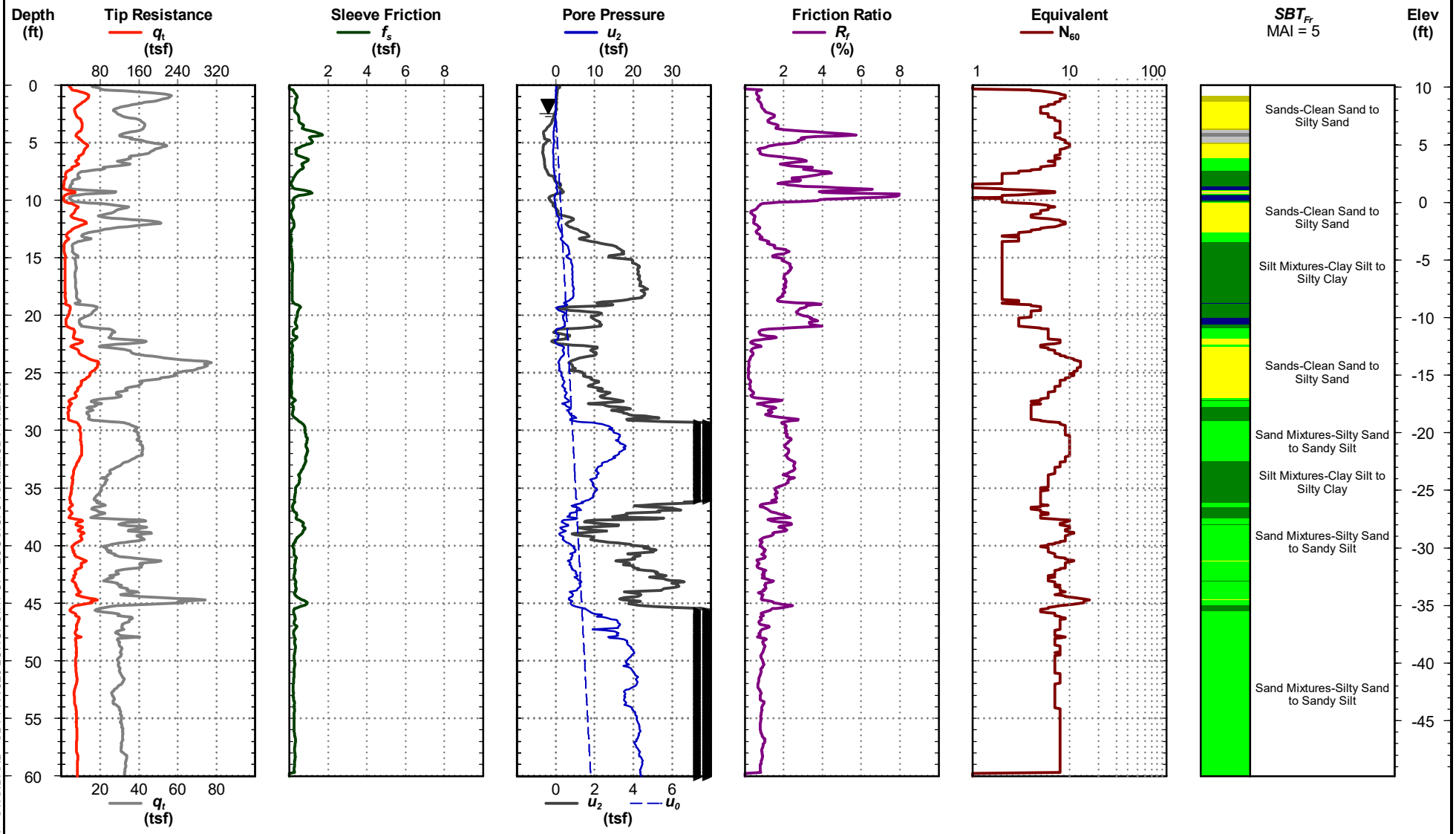
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.839036
Longitude: -79.859538
Elevation: 10.2 ft
Date: Mar. 21, 2023
Estimated Water Depth: 2.5 ft
Rig/Operator: CPT Truck/P. Saner

Sounding ID: SCPT27

Total Depth: 60.0 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: SCPT-27.DAT

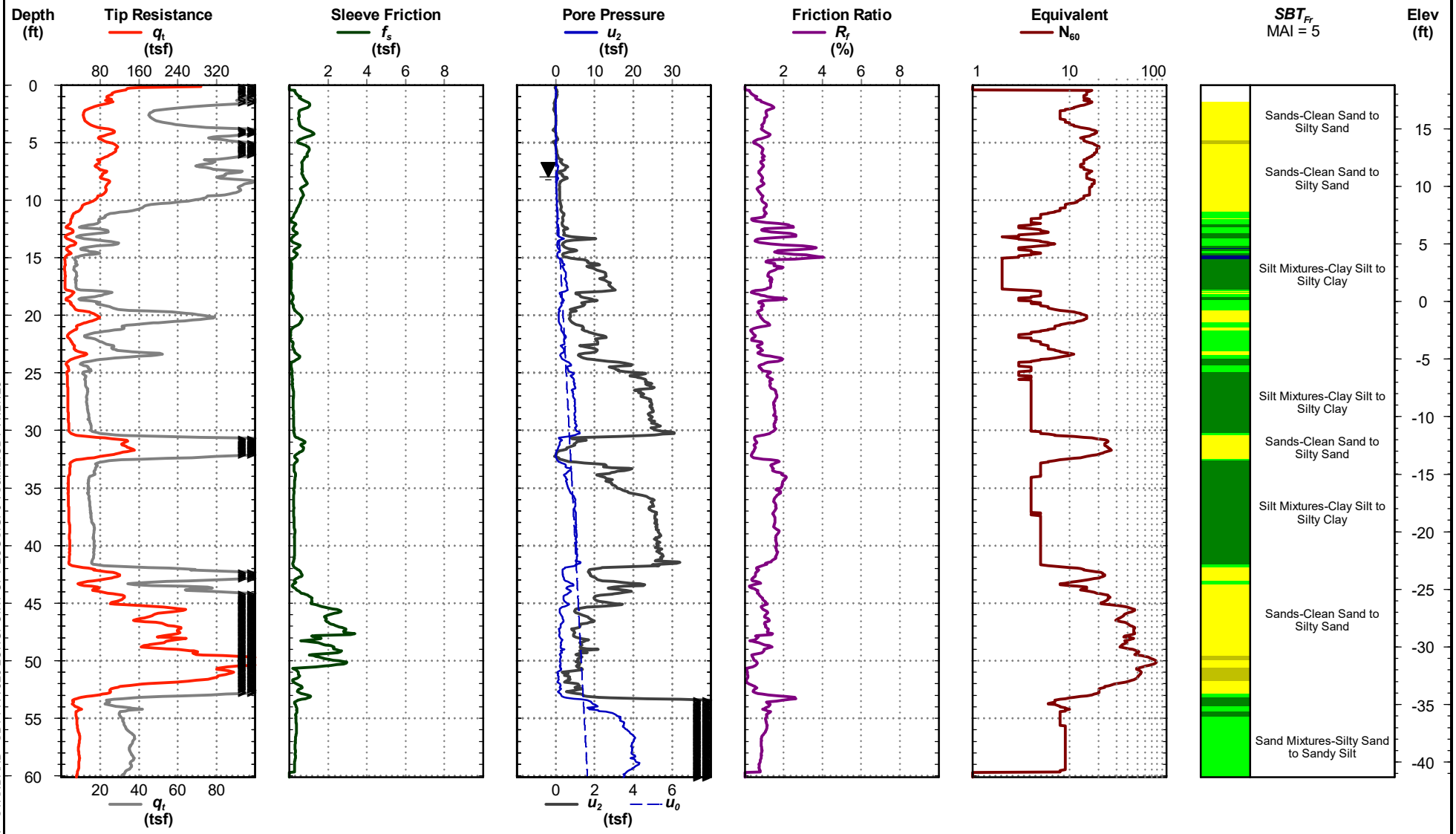
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.840067
Longitude: -79.865655
Elevation: 18.8 ft
Date: Mar. 20, 2023
Estimated Water Depth: 8 ft
Rig/Operator: CPT Truck/M. Wright

Sounding ID: CPT28

Total Depth: 60.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

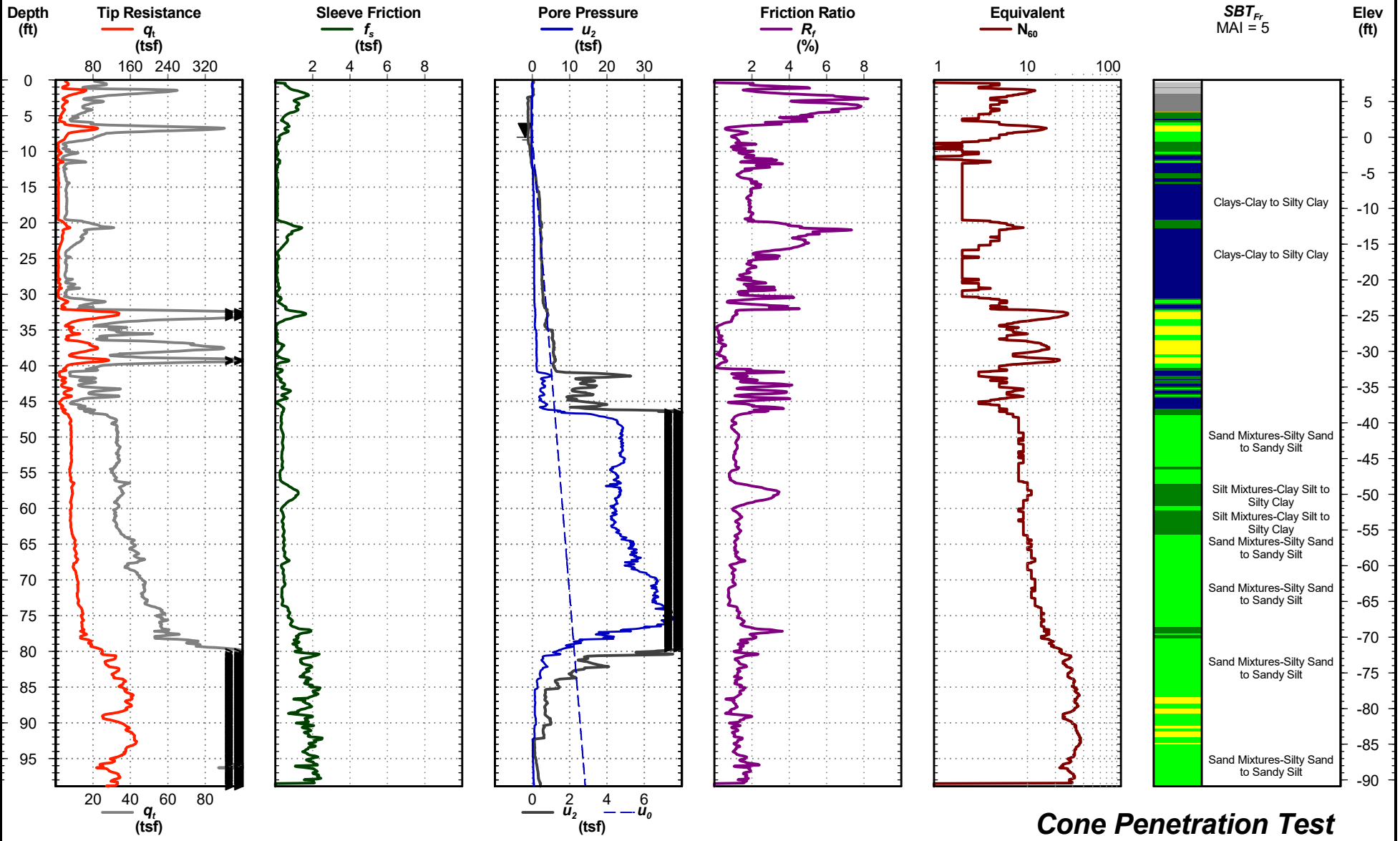
Electronic Filename: C-28A.DAT

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.844118
Longitude: -79.872497
Elevation: 8 ft
Date: Jun. 24, 2025
Estimated Water Depth: 8 ft
Rig/Operator: Marooka/MC|LG

Sounding ID: CPT29

Total Depth: 98.9 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-29.DAT

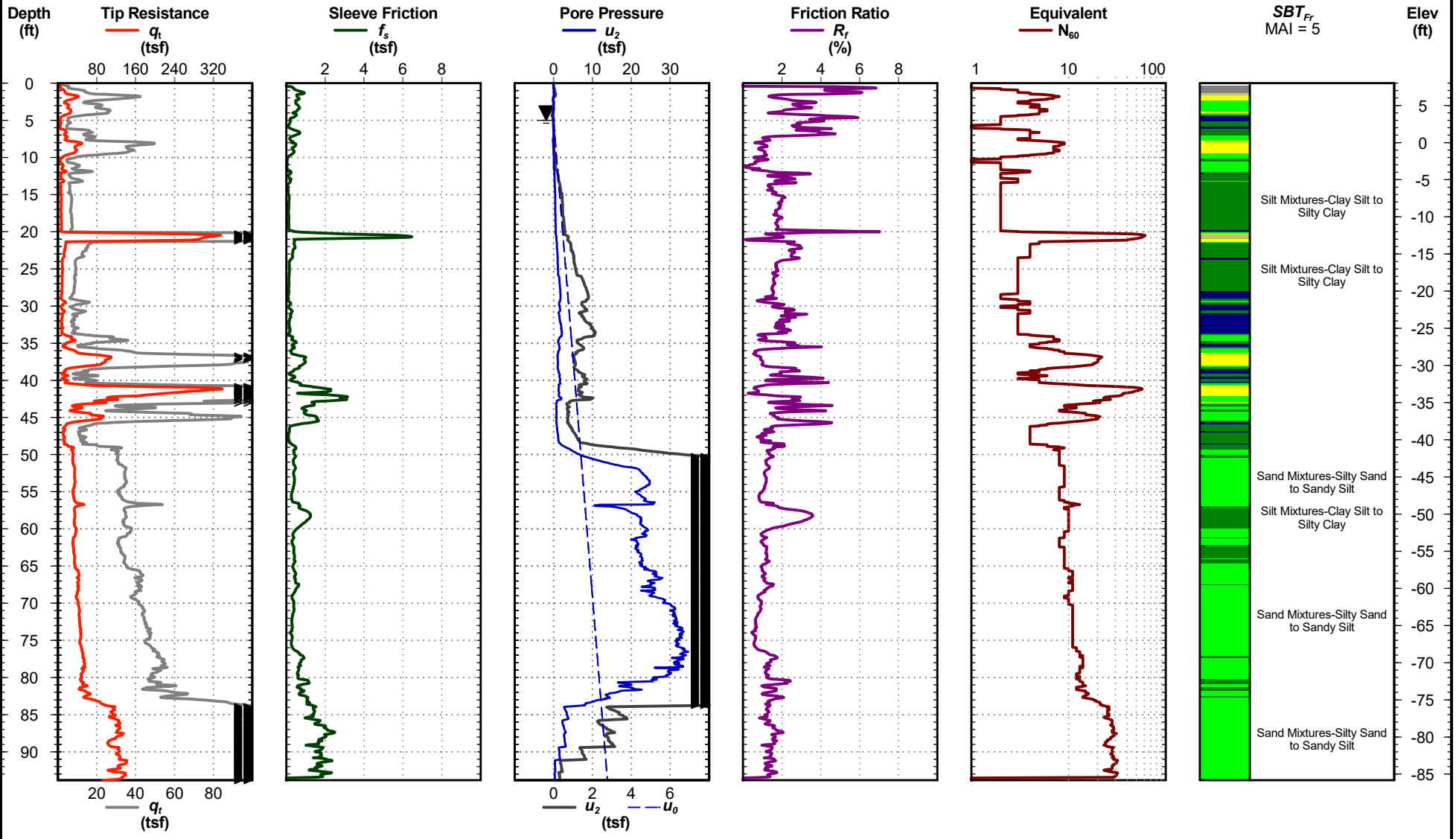
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT PH II CPT LOGS.GPJ \ S&ME 2015_09_04 (CONFLICT COPY FROM ACOX@SMEINC.COM).GDT \ 7/17/25

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.842226
Longitude: -79.871379
Elevation: 8 ft
Date: Jun. 24, 2025
Estimated Water Depth: 5 ft
Rig/Operator: Marooka/MC|LG

Sounding ID: CPT30

Total Depth: 93.8 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-30.DAT

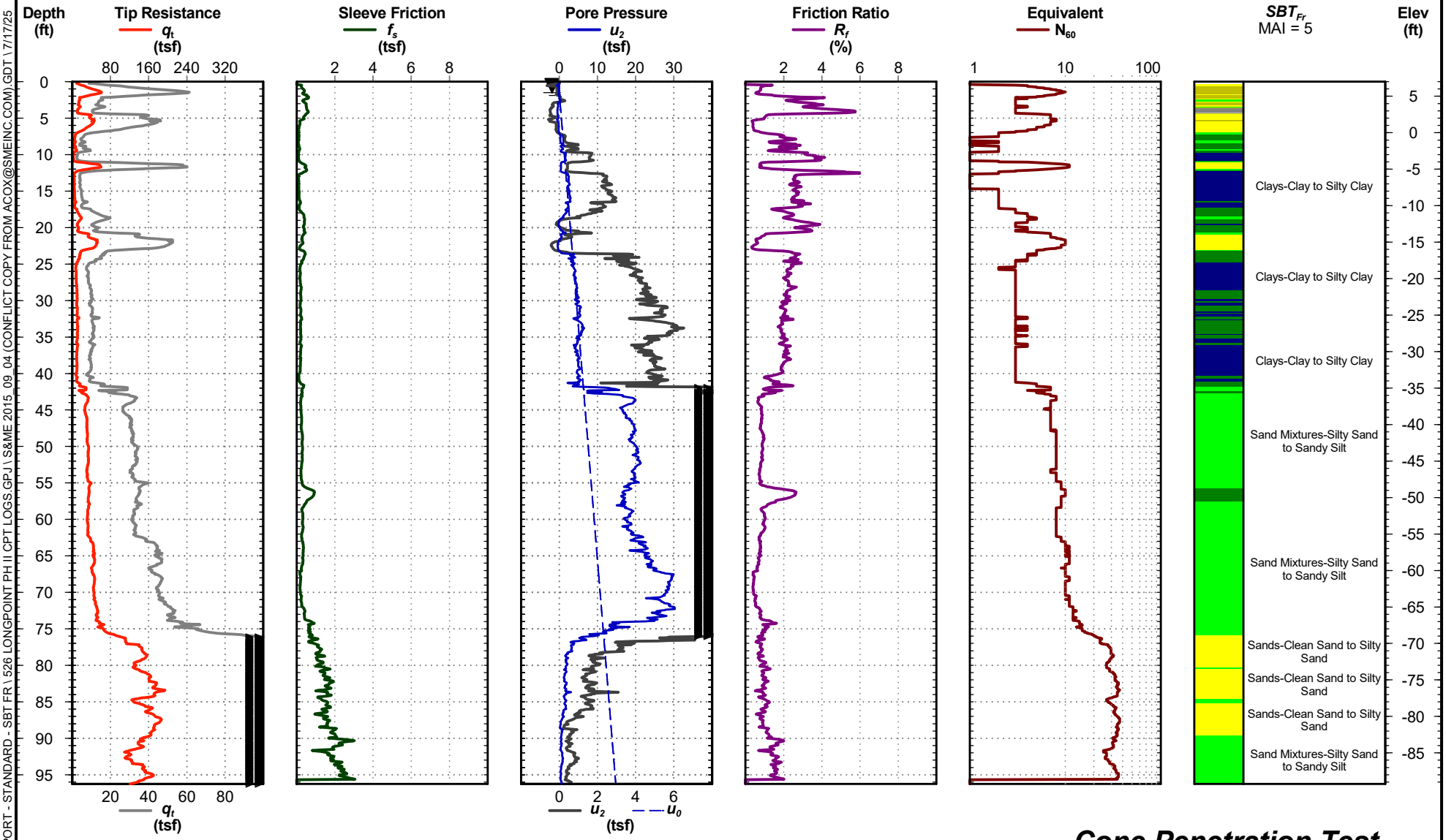
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT PH II CPT LOGS.GPJ \ S&ME 2015_09_04 (CONFLICT COPY FROM ACOX@SMEINC.COM).GDT \ 7/17/25

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.844786
Longitude: -79.871971
Elevation: 7 ft
Date: Jun. 20, 2025
Estimated Water Depth: 1.5 ft
Rig/Operator: Marooka/MC|LG

Sounding ID: CPT31

Total Depth: 96.3 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-31.DAT

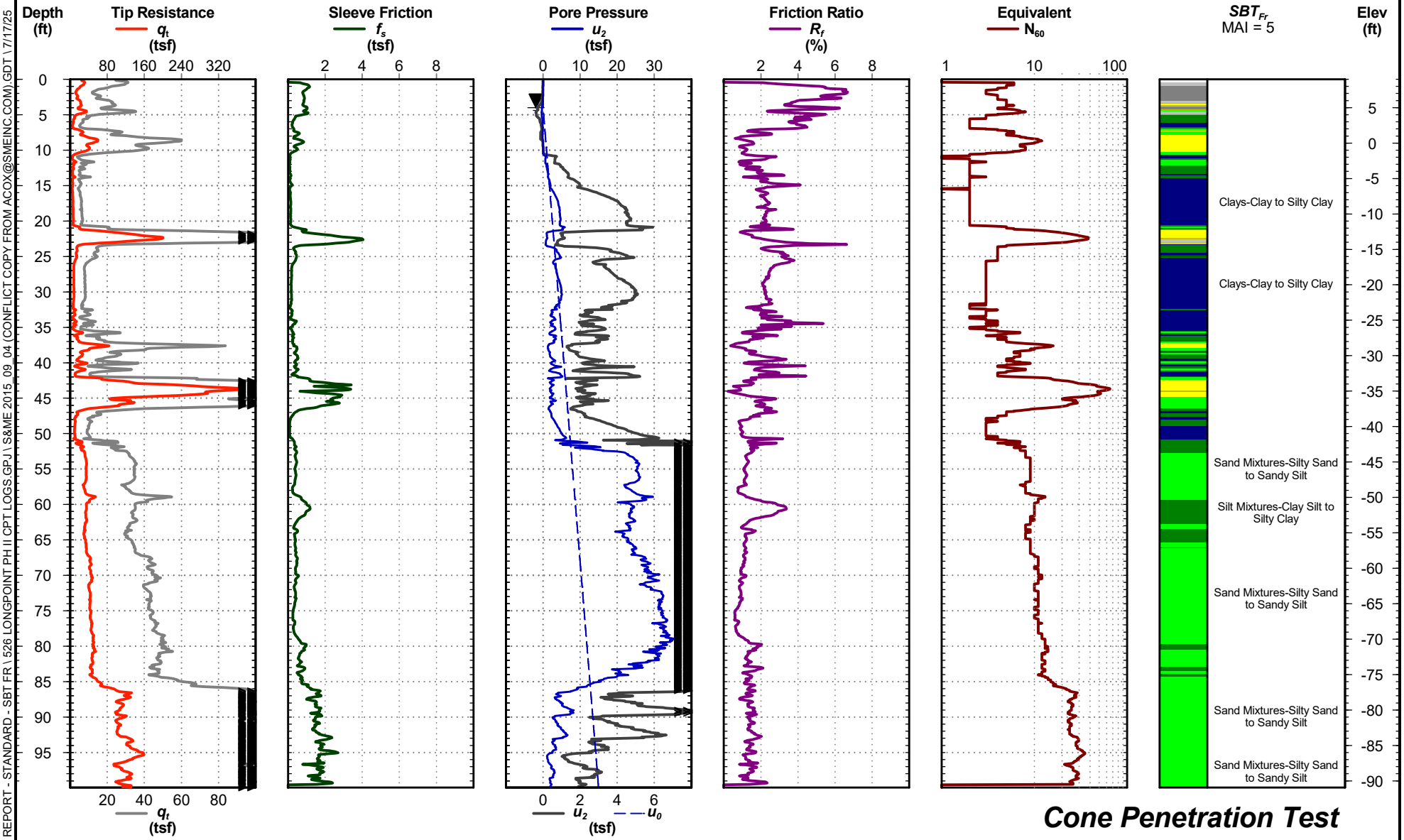
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT PH II CPT LOGS.GPJ \ S&ME 2015_09_04 (CONFLICT COPY FROM ACOX@SMEINC.COM).GDT \ 7/17/25

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.84221
Longitude: -79.871091
Elevation: 9 ft
Date: Jun. 24, 2025
Estimated Water Depth: 4 ft
Rig/Operator: Marooka/MC|LG

Sounding ID: CPT32

Total Depth: 99.9 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-32.DAT

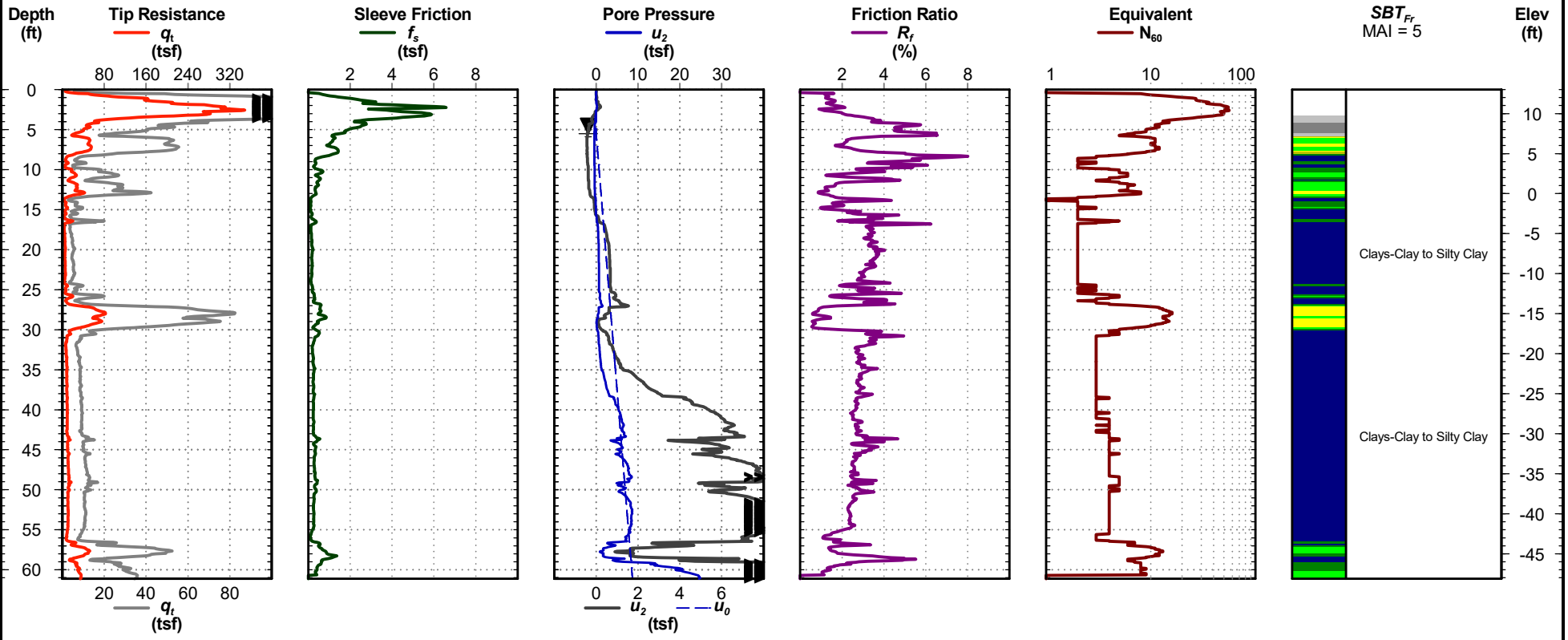
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT PH II CPT LOGS.GPJ \ S&ME 2015_09_04 (CONFLICT COPY FROM ACOX@SMEINC.COM).GDT \ 7/17/25

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.841163
Longitude: -79.871944
Elevation: 13 ft
Date: Jun. 20, 2025
Estimated Water Depth: 5.5 ft
Rig/Operator: Marooka/MC|LG

Sounding ID: CPT33

Total Depth: 61.1 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-33.DAT

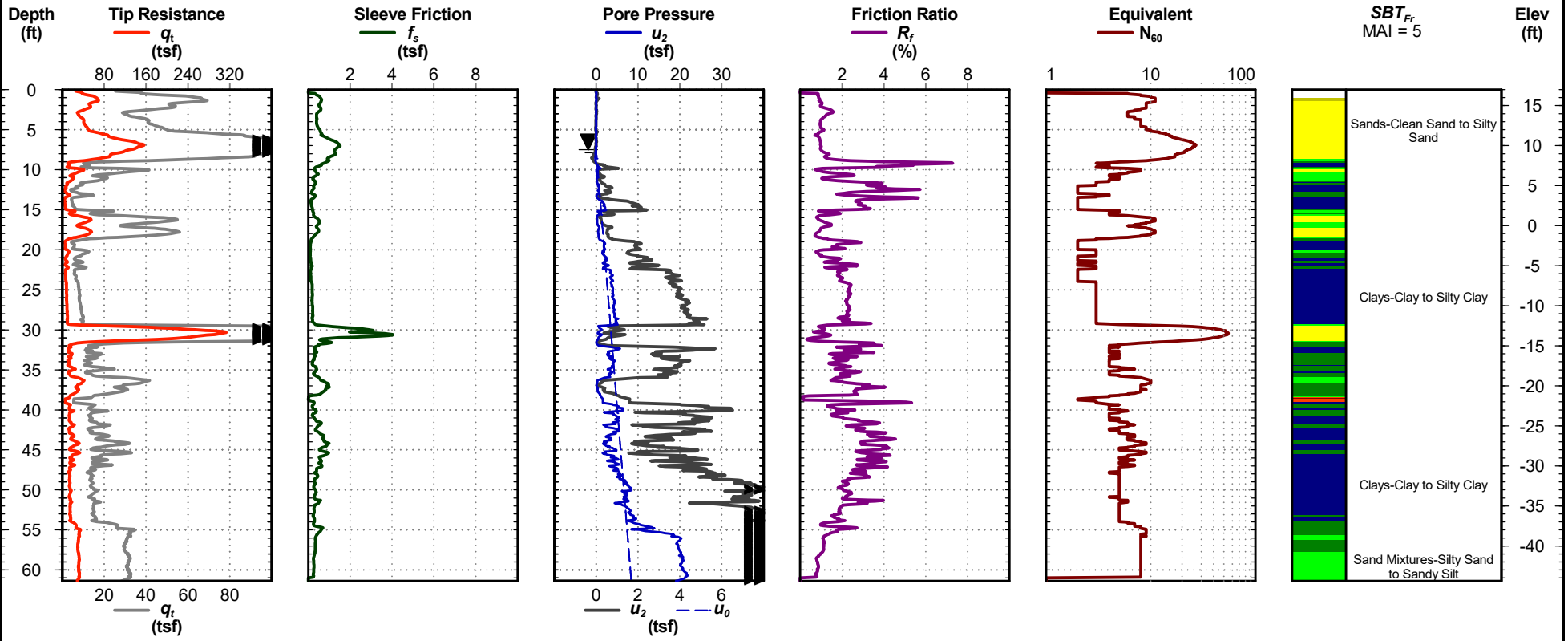
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT PH II CPT LOGS.GPJ \ S&ME 2015_09_04 (CONFLICT COPY FROM ACOX@SMEINC.COM).GDT \ 7/17/25

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.839657
Longitude: -79.873043
Elevation: 17 ft
Date: Jun. 24, 2025
Estimated Water Depth: 7.5 ft
Rig/Operator: Marooka/MC|LG

Sounding ID: CPT34

Total Depth: 61.4 ft
Termination Criteria: Target Depth
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: C-34.DAT

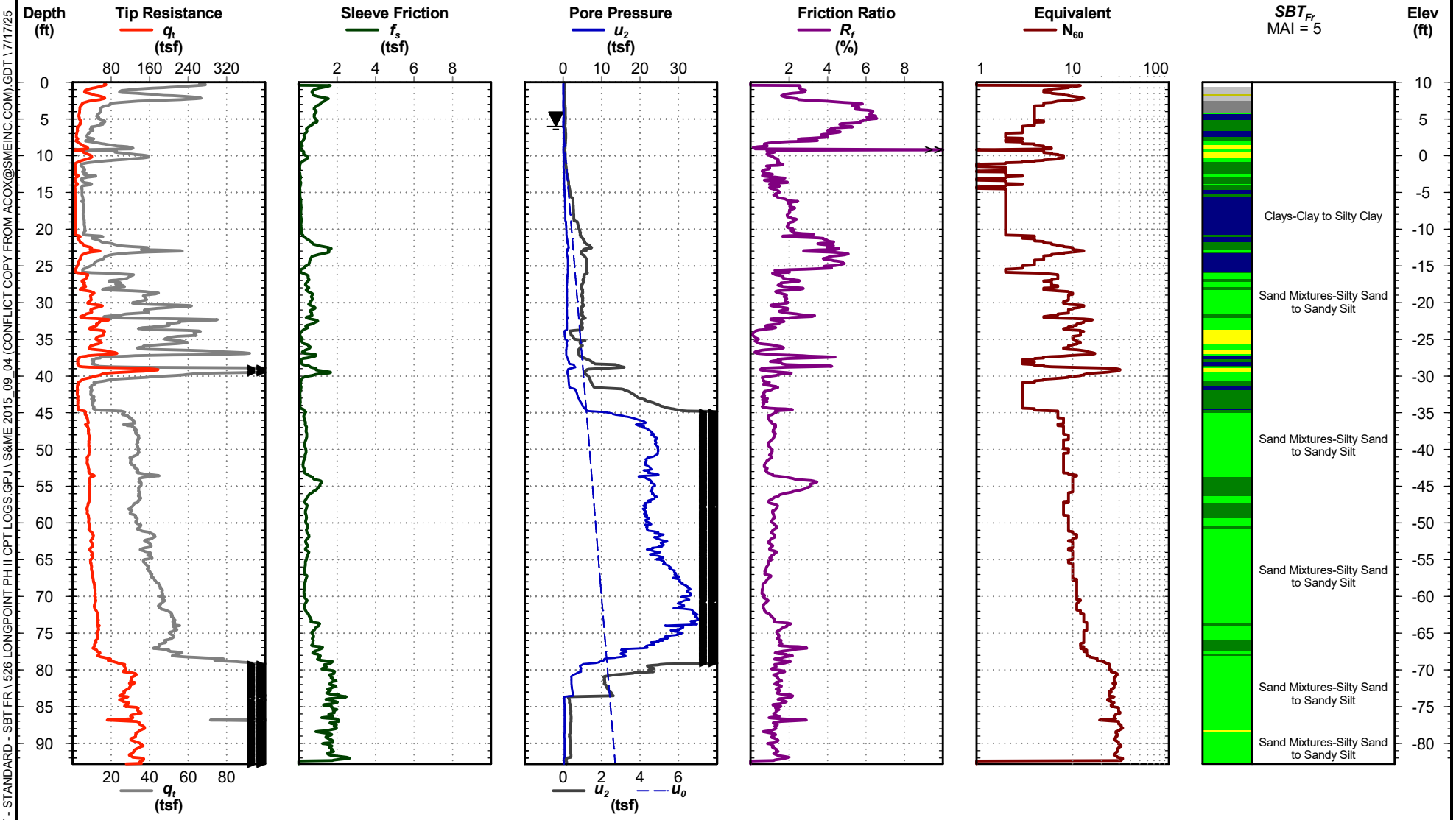
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT PH II CPT LOGS.GPJ \ S&ME 2015_09_04 (CONFLICT COPY FROM ACOX@SMEINC.COM).GDT \ 7/17/25

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.842584
Longitude: -79.871123
Elevation: 10 ft
Date: Jun. 24, 2025
Estimated Water Depth: 6 ft
Rig/Operator: Marooka/MC|LG

Sounding ID: CPT35

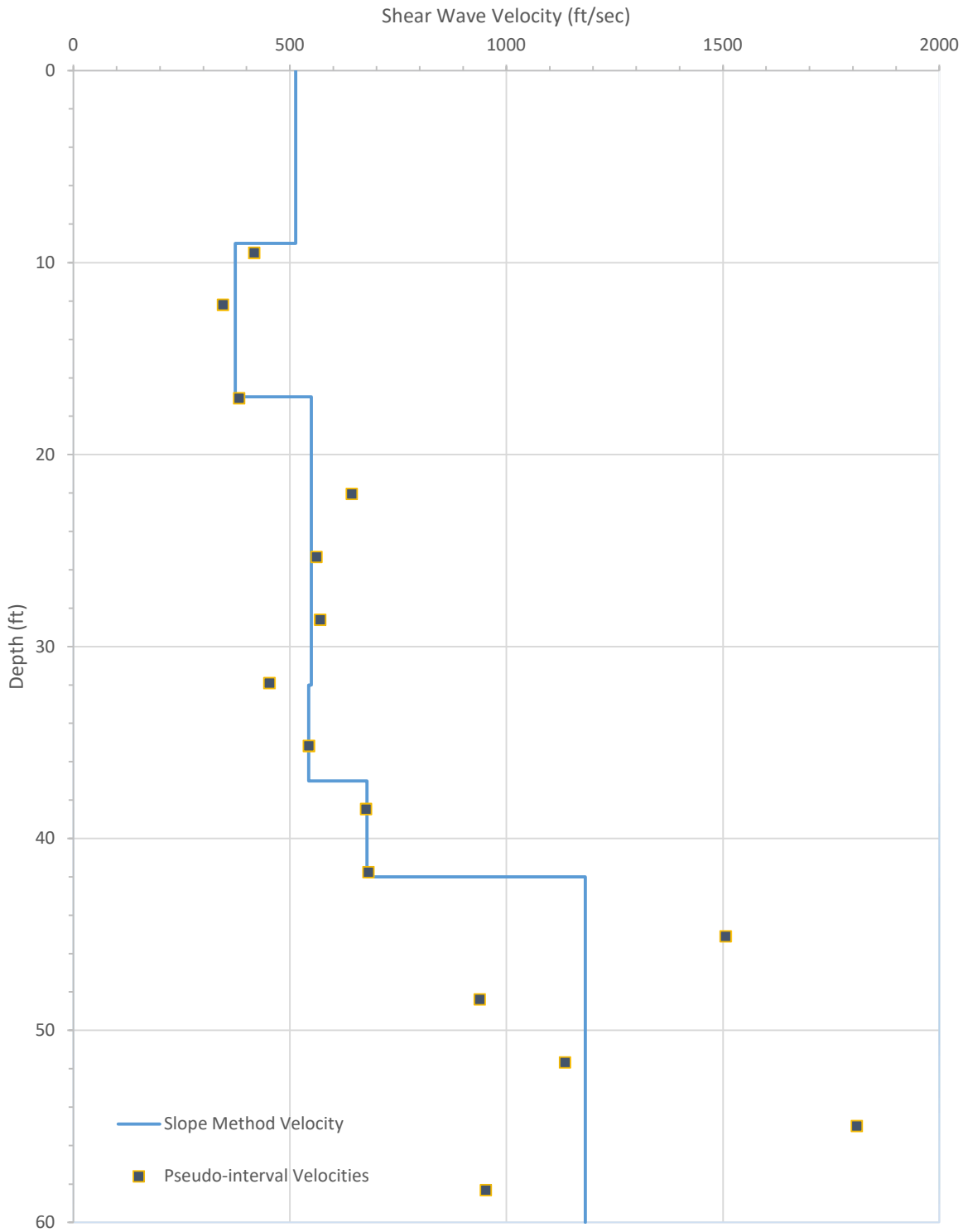
Total Depth: 92.8 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



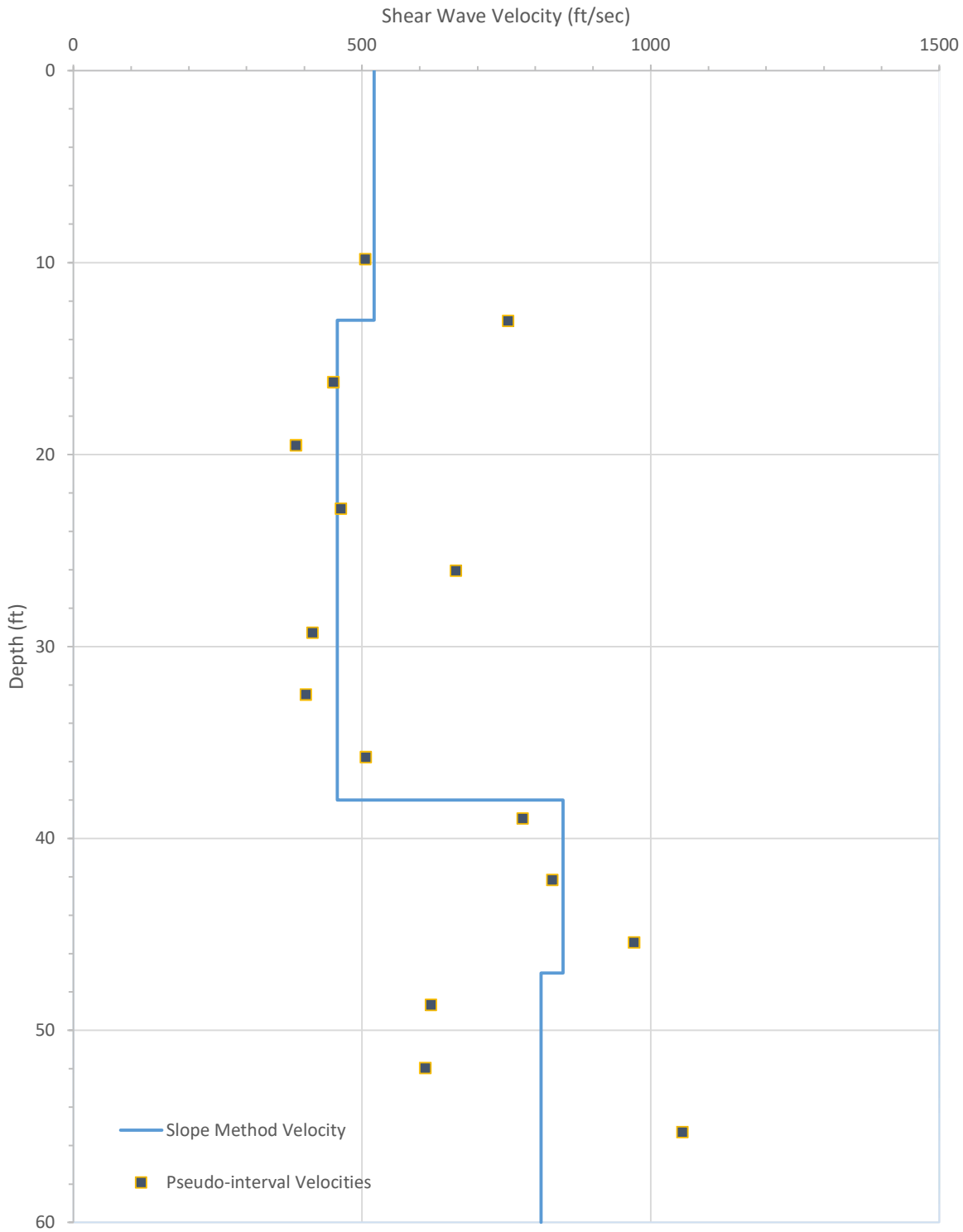
Cone Penetration Test

Electronic Filename: C-35.DAT

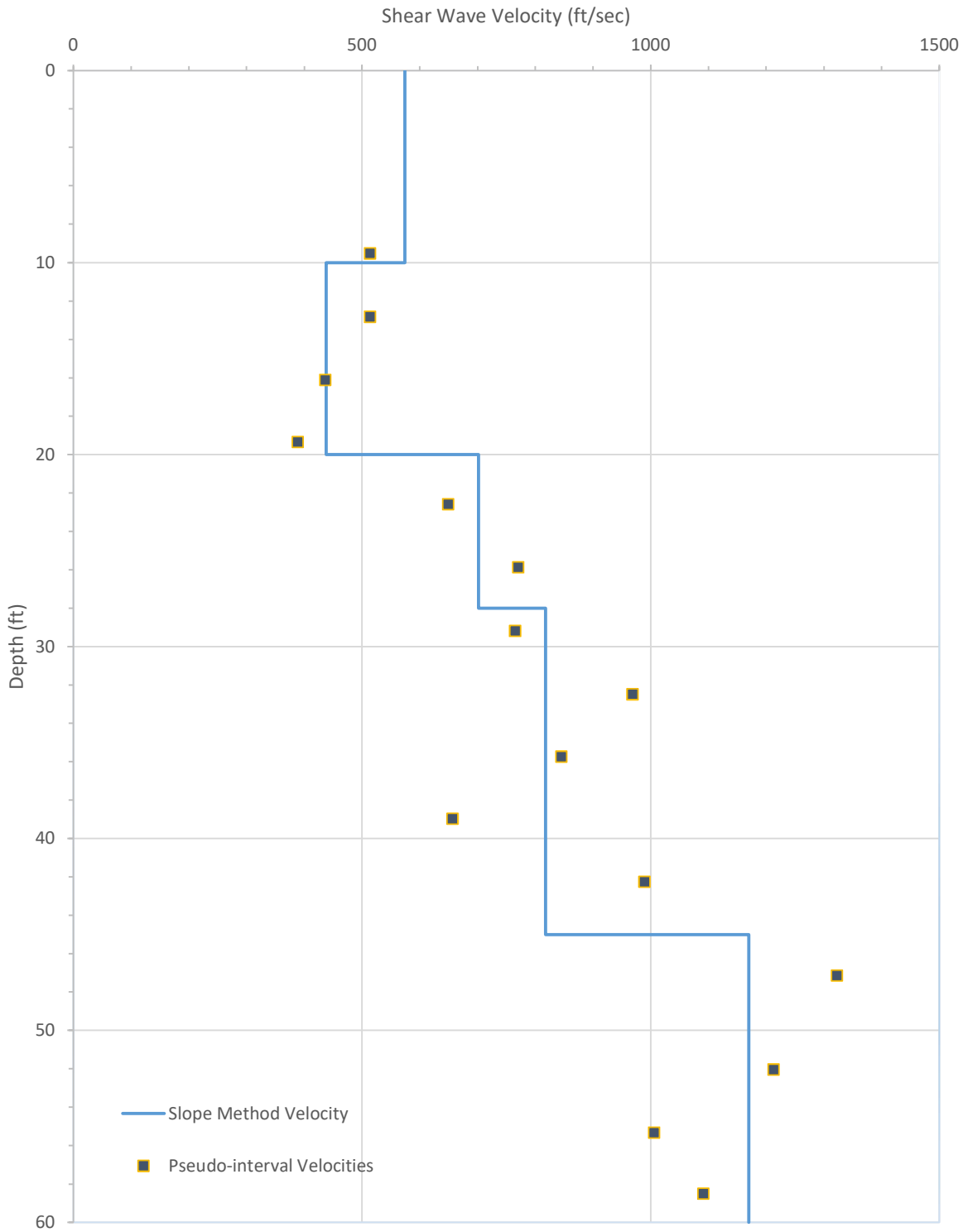
CPT REPORT - STANDARD - SBT FR \ 526 LONGPOINT PH II CPT LOGS.GPJ \ S&ME 2015_09_04 (CONFLICT COPY FROM ACOX@SMEINC.COM).GDT \ 7/17/25



Drawn by: S.Folmar		**Shear Wave Velocity Profile (SCPT-04)**	Fig. No.
Checked by: H. McKenzie		I-526 Longpoint Road Interchange Mount Pleasant, SC	**6**
6/8/2023		Proj. No. 200424A SCPT-04	



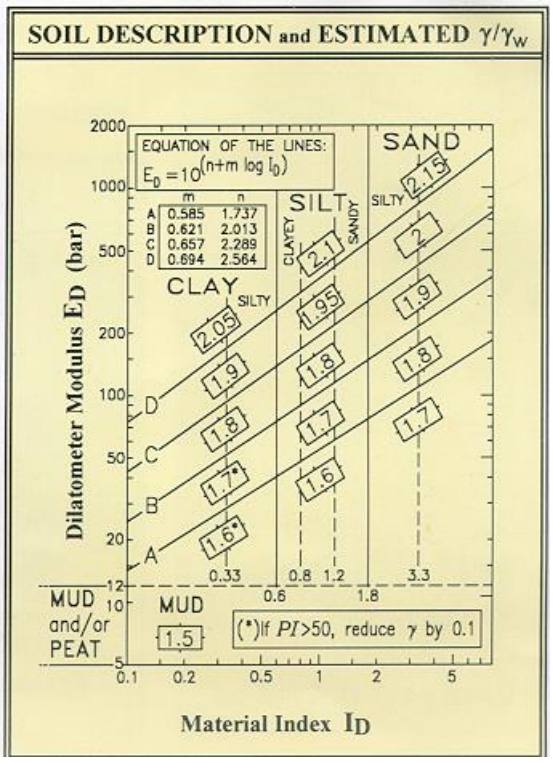
Drawn by: S.Folmar		**Shear Wave Velocity Profile (SCPT-11)**	Fig. No.
Checked by: H. McKenzie		I-526 Longpoint Road Interchange Mount Pleasant, SC	**7**
6/8/2023		Proj. No. 200424A SCPT-11	



Drawn by: S.Folmar		**Shear Wave Velocity Profile (SCPT-27)**	Fig. No.
Checked by: H. McKenzie		I-526 Longpoint Road Interchange Mount Pleasant, SC	**8**
6/8/2023		Proj. No. 200424A SCPT-27	

DMT Formulas & Soil Classification Legend

SYMB	DESCRIPTION	BASIC DMT REDUCTION FORMULAE	
p_0	Corrected First Reading	$p_0 = 1.05(A - Z_M + \Delta A) - 0.05(B - Z_M - \Delta B)$	Z_M = Gage reading when vented to atm.
p_1	Corrected Second Reading	$p_1 = B - Z_M - \Delta B$	However, if ΔA & ΔB are measured with the same gage used for current readings A & B, set Z_M=0 (Z_M is compensated)
I_D	Material Index	$I_D = (p_1 - p_0) / (p_0 - u_0)$	u_0 = pre-insertion pore pressure
K_D	Horizontal Stress Index	$K_D = (p_0 - u_0) / \sigma'_{vo}$	σ'_{vo} = pre-insertion overburden stress
E_D	Dilatometer Modulus	$E_D = 34.7\ (p_1 - p_0)$	E_D is NOT a Young's modulus E. E_D should be used only AFTER combining it with Kd (Stress History). First obtain $M_{DMT} = R_M E_D$, then e.g. $E \approx 0.8\ M_{DMT}$
K_0	Coeff. Earth Pressure in Situ	$K_{0,DMT} = (K_D / 1.5)^{0.47} - 0.6$	for $I_D < 1.2$
OCR	Overconsolidation Ratio	$OCR_{DMT} = (0.5\ K_D)^{1.56}$	for $I_D < 1.2$
c_u	Undrained Shear Strength	$c_{u,DMT} = 0.22\ \sigma'_{vo}\ (0.5\ K_D)^{1.25}$	for $I_D < 1.2$
φ	Friction Angle	$\varphi_{safe,DMT} = 28 + 14.6 \log K_D - 2.1 \log^2 K_D$	for $I_D > 1.8$
c_h	Coefficient of Consolidation	$c_{h,DMTA} \approx 7 cm^2 / T_{flex}$	T_{flex} from A-log t DMTA-decay curve
k_h	Coefficient of permeability	$k_h = c_h \gamma_w / M_h$ ($M_h \approx K_D M_{DMT}$)	
γ	Unit Weight and Description	(see chart)	
M	Vertical Drained Constrained Modulus	$M_{DMT} = R_M E_D$ if $I_D \le 0.6$ $R_M = 0.14 + 2.36 \log K_D$ if $I_D \ge 3$ $R_M = 0.5 + 2 \log K_D$ if $0.6 < I_D < 3$ $R_M = R_{M,0} + (2.5 - R_{M,0}) \log K_D$ where $R_{M,0} = 0.14 + 0.15(I_D - 0.6)$ If $K_D > 10$ $R_M = 0.32 + 2.18 \log K_D$ If $R_M < 0.85$ set $R_M = 0.85$	
U_o	Equilibrium pore pressure	$U_o = p_2 \approx C - Z_M + \Delta A$	In freely draining soils

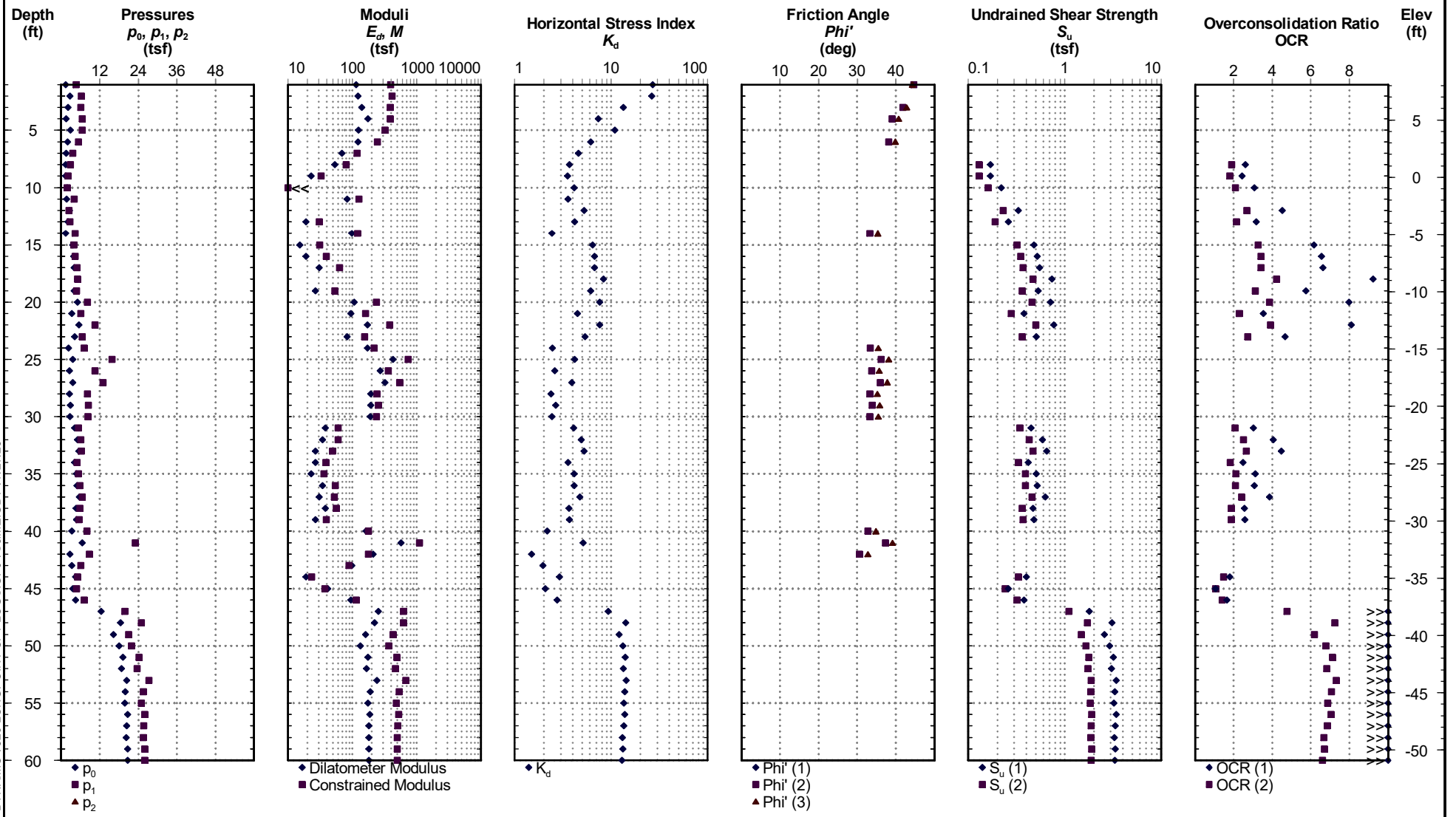


I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.845451
Longitude: -79.873255
Elevation: 9.1 ft
Date: Mar. 1, 2023
Estimated Water Depth: 6 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: DMT01

Total Depth: 60.0 ft
Termination Criteria: Target Depth
Membrane Type: H-25

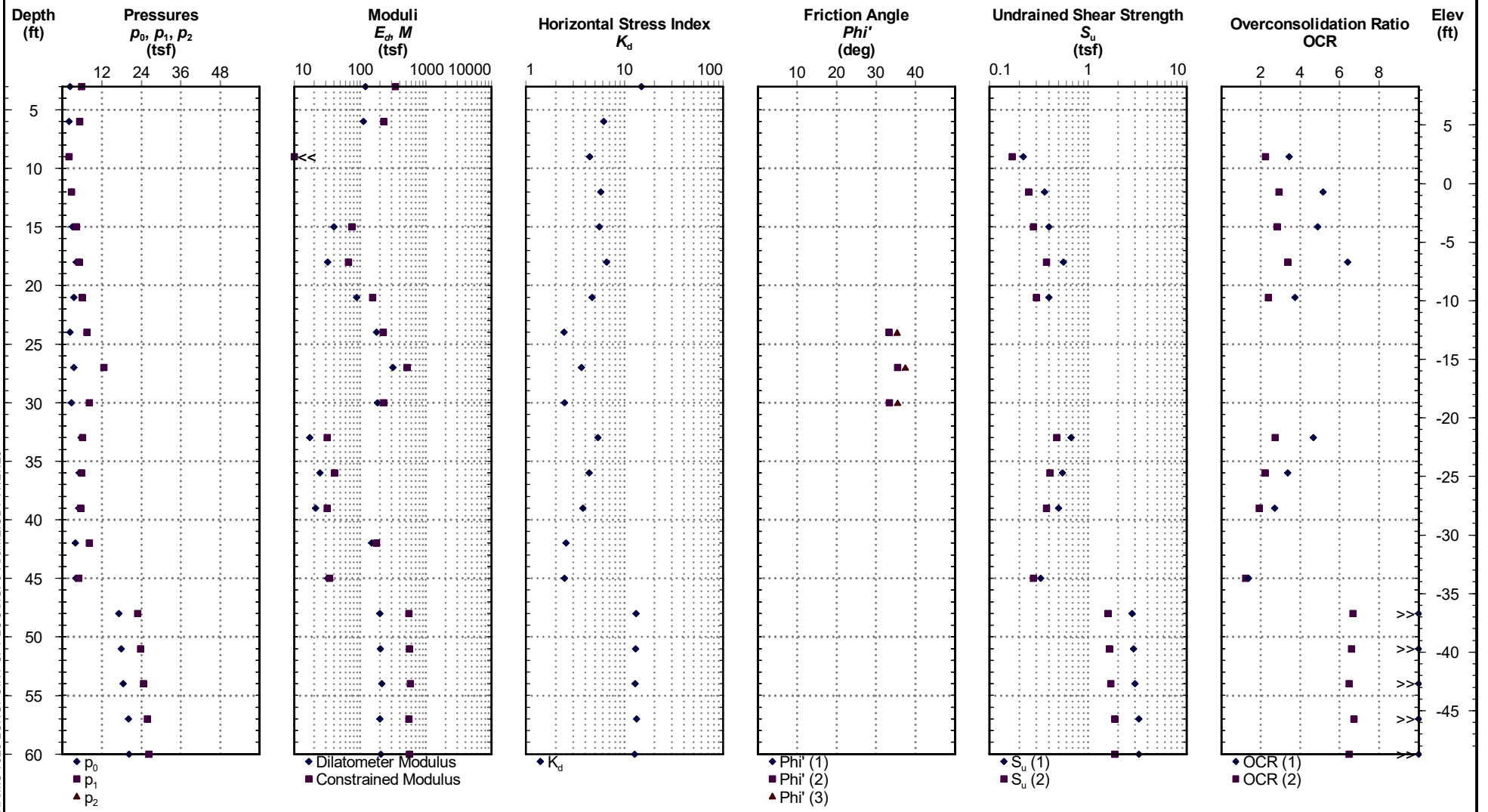


I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.844448
Longitude: -79.872314
Elevation: 11.3 ft
Date: Mar. 3, 2023
Estimated Water Depth: 6 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: DMT02

Total Depth: 60.0 ft
Termination Criteria: Target Depth
Membrane Type: H-25



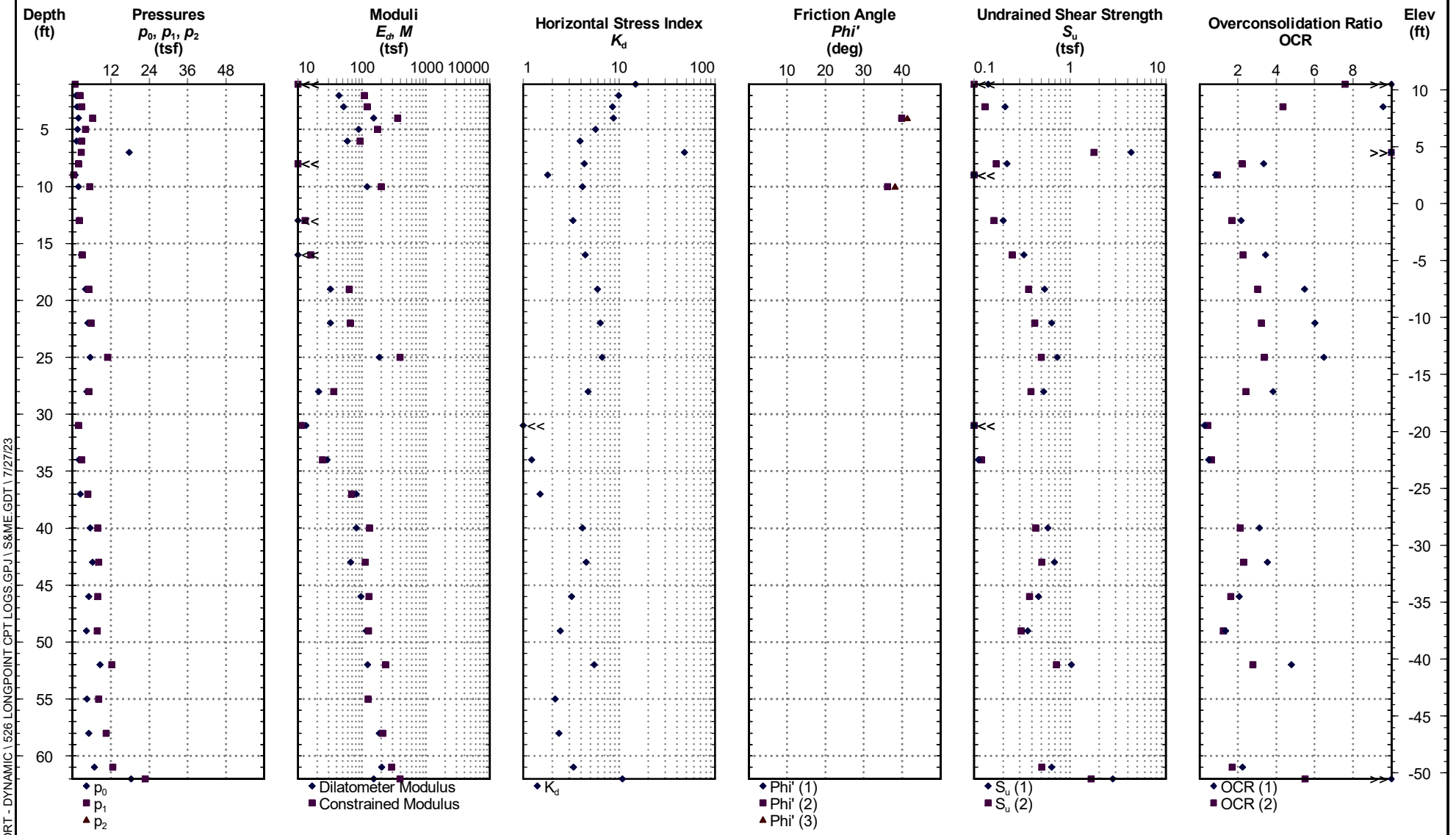
DMT REPORT - DYNAMIC \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.840974
Longitude: -79.871476
Elevation: 11.5 ft
Date: Mar. 2, 2023
Estimated Water Depth: 7 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: DMT04

Total Depth: 62.0 ft
Termination Criteria: Target Depth
Membrane Type: H-25



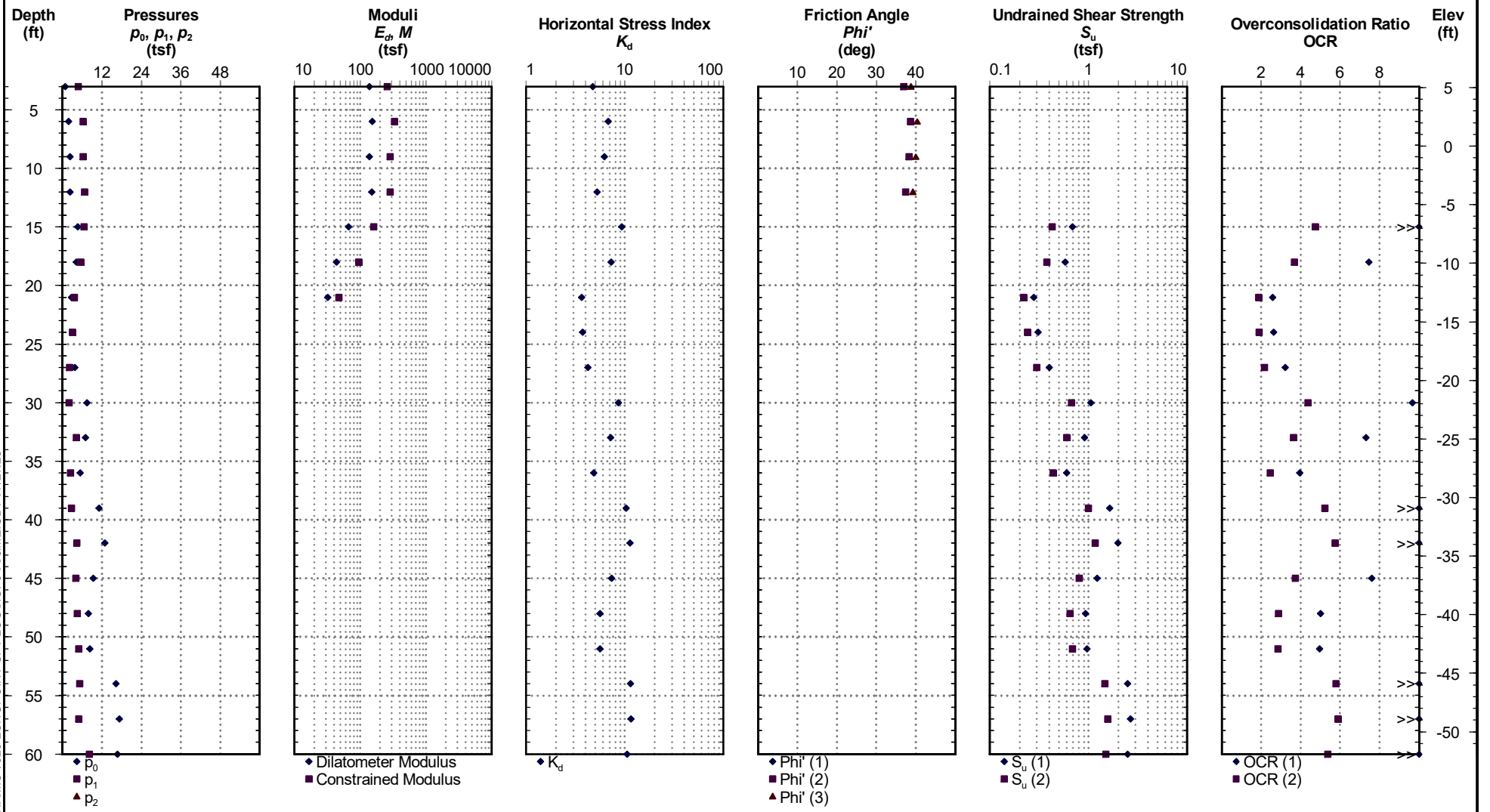
DMT REPORT - DYNAMIC \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.837926
Longitude: -79.858495
Elevation: 8.1 ft
Date: Mar. 1, 2023
Estimated Water Depth: 4.5 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: DMT05

Total Depth: 60.0 ft
Termination Criteria: Target Depth
Membrane Type: H-25



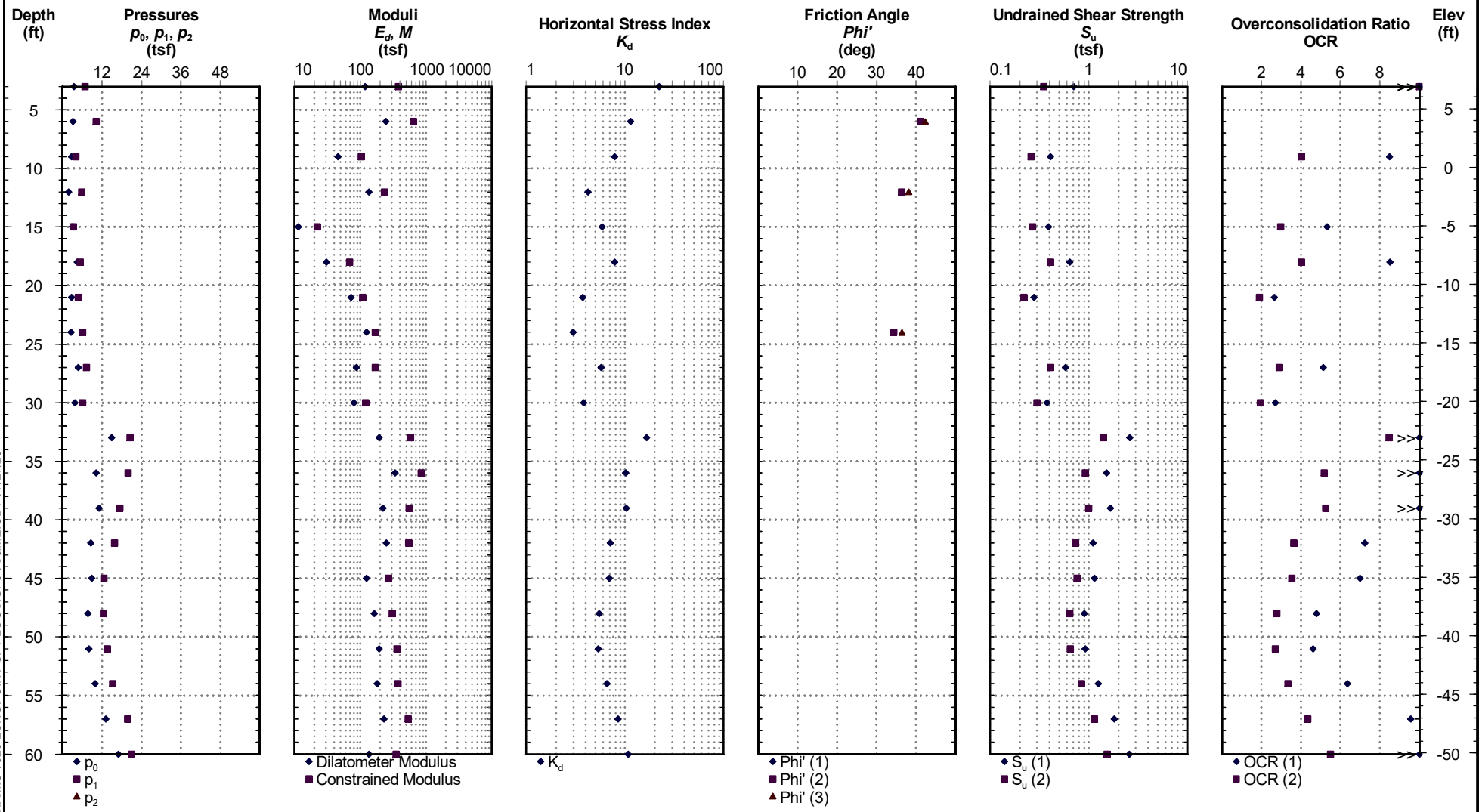
DMT REPORT - DYNAMIC \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.83905
Longitude: -79.859549
Elevation: 9.9 ft
Date: Mar. 21, 2023
Estimated Water Depth: 4.5 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: DMT06

Total Depth: 60.0 ft
Termination Criteria: Target Depth
Membrane Type: H-25



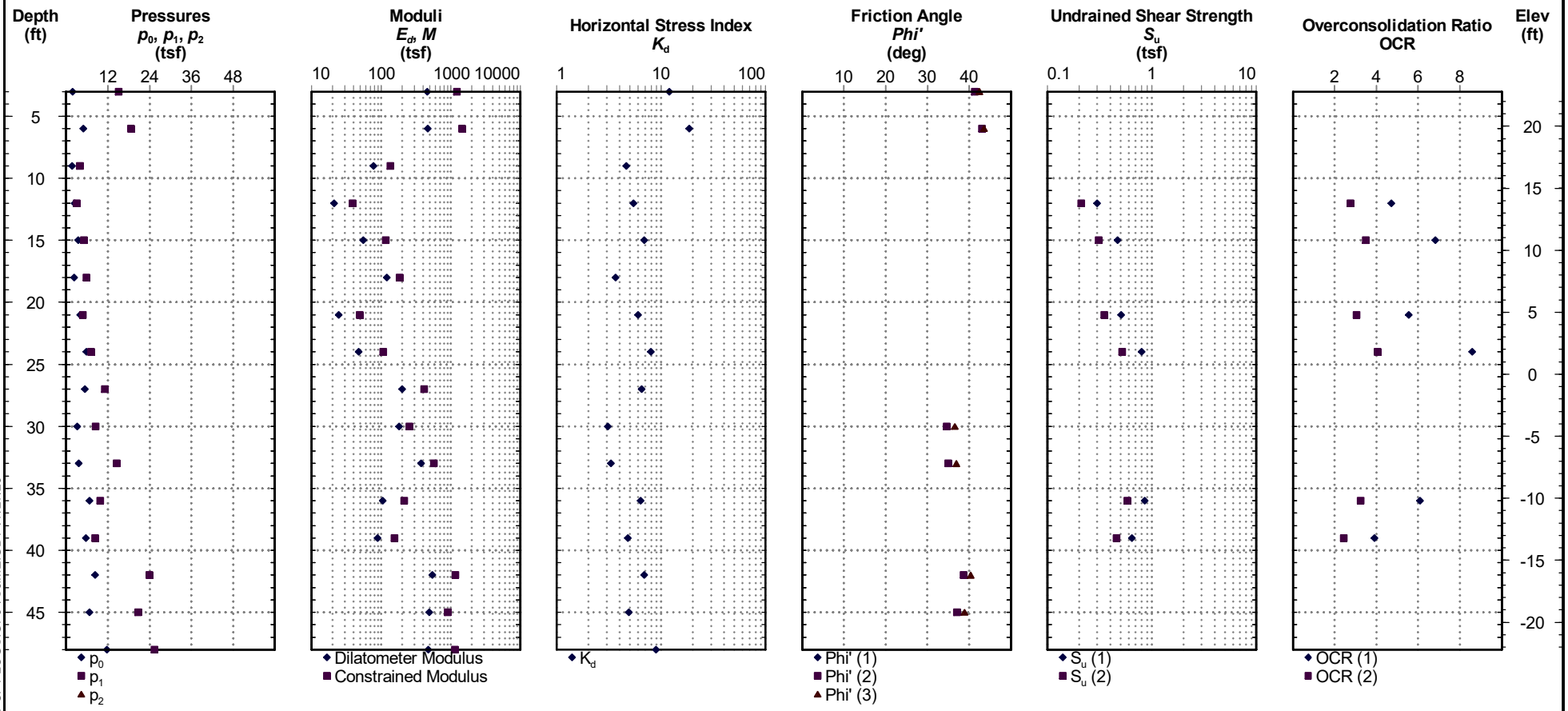
DMT REPORT - DYNAMIC \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.839459
Longitude: -79.861364
Elevation: 25.8 ft
Date: Mar. 21, 2023
Estimated Water Depth: 4.5 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: DMT07

Total Depth: 48.0 ft
Termination Criteria: Target Depth
Membrane Type: H-25



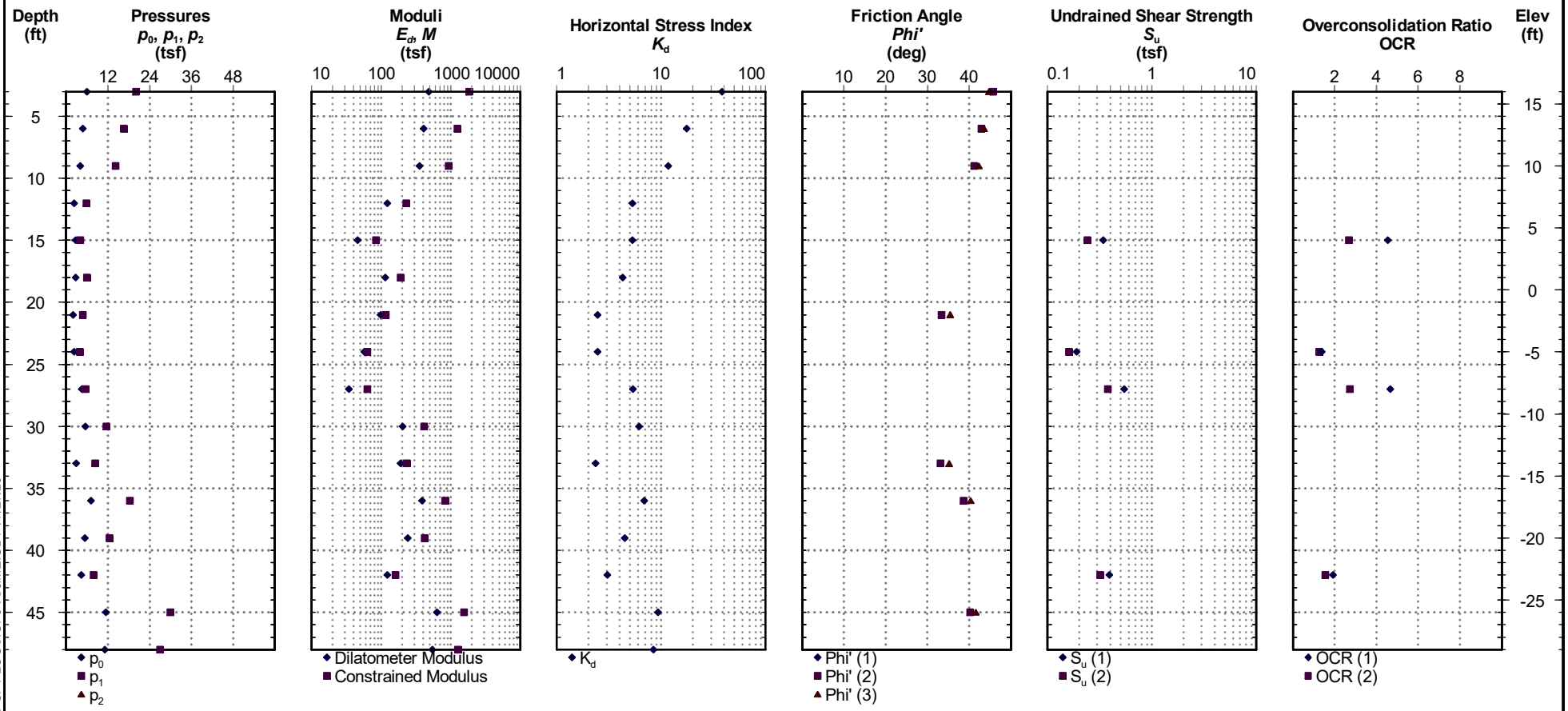
DMT REPORT - DYNAMIC \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

I-526 Longpoint Road Interchange
Charleston County, South Carolina
S&ME Project No: 200424A

Latitude: 32.840047
Longitude: -79.862501
Elevation: 19 ft
Date: Mar. 13, 2023
Estimated Water Depth: 4.5 ft
Rig/Operator: Gyrotrack/M. Wright

Sounding ID: DMT08

Total Depth: 48.0 ft
Termination Criteria: Maximum Reaction Force
Membrane Type: H-25



DMT REPORT - DYNAMIC \ 526 LONGPOINT CPT LOGS.GPJ \ S&ME.GDT \ 7/27/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R01
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	31.2 ft	**Latitude:**	32.839152	**Longitude:**	-79.860893	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - fine to medium sands, few non-plastic fines, brown and tan.								
		2 ft - shell hash								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R02
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	20.0 ft	**Latitude:**	32.840046	**Longitude:**	-79.865037	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - fine to medium sands, few non-plastic fines, trace organics and roots, brown.								
		1 ft - light brown								
		2 ft - dark brown								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R03
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	18.3 ft	**Latitude:**	32.839181	**Longitude:**	-79.864545	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - fine to medium sands, few non-plastic fines, trace organics and roots, brown.								
		2 ft - light brown								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R04
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	18.8 ft	**Latitude:**	32.840463	**Longitude:**	-79.859848	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - fine to medium sands, few non-plastic fines, trace organics and roots, brown.								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R05
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.6 ft	**Latitude:**	32.840108	**Longitude:**	-79.862288	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - fine to medium sands, few non-plastic fines, trace organics and roots, brown.								
		2 ft - light brown								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R06
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	18.8 ft	**Latitude:**	32.839883	**Longitude:**	-79.861658	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED SAND WITH CLAY (SP-SC)** - fine to medium sands, few low plasticity fines, dark brown.								
		1 ft - light brown								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R07
Site Description:	I526 Long Point Road Interchange					**Route:**	Wando Park
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	8.2 ft	**Latitude:**	32.844584	**Longitude:**	-79.87313	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**SANDY LEAN CLAY (CL)** - mostly low plasticity fines, some fine sands, light brown.								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R08
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	8.3 ft	**Latitude:**	32.843315	**Longitude:**	-79.871564	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**FAT CLAY WITH SAND (CH)** - mostly high plasticity fines, some fine sands, brown.								
	1.0	**SANDY LEAN CLAY (CL)** - mostly low plasticity fines, some fine sands, light to dark brown.								
	2.0	**FAT CLAY WITH SAND (CH)** - mostly high plasticity fines, some fine sands, light brown.								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R09
Site Description:	I526 Long Point Road Interchange					**Route:**	Wando Park
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	14.7 ft	**Latitude:**	32.8427	**Longitude:**	-79.869544	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**FAT CLAY WITH SAND (CH)** - mostly high plasticity fines, some fine sands, brown.								
	1.0	**CLAYEY SAND (SC)** - mostly fine to medium sands, some high plasticity fines, dark brown.								
	2.0	**POORLY GRADED SAND WITH CLAY (SP-SC)** - mostly fine to medium sands, few low plasticity fines, dark brown.								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R10
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.9 ft	**Latitude:**	32.839208	**Longitude:**	-79.863385	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**SANDY LEAN CLAY (CL)** - mostly low plasticity fines, some fine sands, light brown.								
	1.0	**CLAYEY SAND (SC)** - mostly fine to medium sands, some low plasticity fines, dark brown.								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R11
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	20.7 ft	**Latitude:**	32.836906	**Longitude:**	-79.874981	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED SAND WITH CLAY (SP-SC)** - fine to medium sands, few low plasticity fines, dark brown.								
	1.0	**CLAYEY SAND (SC)** - mostly fine to medium sands, little low plasticity fines, dark brown.								
	2.0	**POORLY GRADED SAND WITH CLAY (SP-SC)** - fine to medium sands, few low plasticity fines, dark brown.								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R12
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	21.5 ft	**Latitude:**	32.837181	**Longitude:**	-79.873332	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED SAND WITH CLAY (SP-SC)** - fine to medium sands, few low plasticity fines, dark brown.								
	2.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - fine to medium sands, few non-plastic fines, light brown.								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R13
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	21.3 ft	**Latitude:**	32.837347	**Longitude:**	-79.871201	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED GRAVEL WITH SAND (GP)** - mostly fine to coarse crushed stone, little fine sands, trace non-plastic fines, brown.								
	1.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - fine to medium sands, few non-plastic fines, light brown.								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R14
Site Description:	I526 Long Point Road Interchange					**Route:**	Shipping Ln
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	19.2 ft	**Latitude:**	32.838553	**Longitude:**	-79.871124	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - fine to medium sands, few non-plastic fines, light brown.								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R15
Site Description:	I526 Long Point Road Interchange					**Route:**	S-10-97
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	21.1 ft	**Latitude:**	32.838668	**Longitude:**	-79.864786	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED SAND WITH CLAY (SP-SC)** - fine to medium sands, few low plasticity fines, dark brown.								
	1.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - fine to medium sands, few non-plastic fines, light brown.								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

SCDOT Manual Auger Log

Project ID:	200424A			**County:**	Charleston	**Boring No.:**	R16
Site Description:	I526 Long Point Road Interchange					**Route:**	I526
Driller:	SCI	**Boring Location:**		**Offset:**		**Alignment:**	Existing
Elev.:	12.8 ft	**Latitude:**	32.839786	**Longitude:**	-79.860002	**Date Started:**	7/13/2023
Total Depth:	3 ft	**Groundwater:**	**TOB** Dry	**24 hr** Dry		**Date Completed:**	7/13/2023
Dynamic Cone Penetrometer Test Procedure:		ASTM D6951					

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	DCP-Value	● DCP-VALUE ● PL MC LL ▲ FINES CONTENT (%) 0 10 20 30 40 50 60 70 80 90
	0.0	**POORLY GRADED SAND WITH SILT (SP-SM)** - fine to medium sands, few non-plastic fines, light brown.								
	3.0									

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

MANUAL AUGER LOG 526 LONGPOINT HAB LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/2/23

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R01

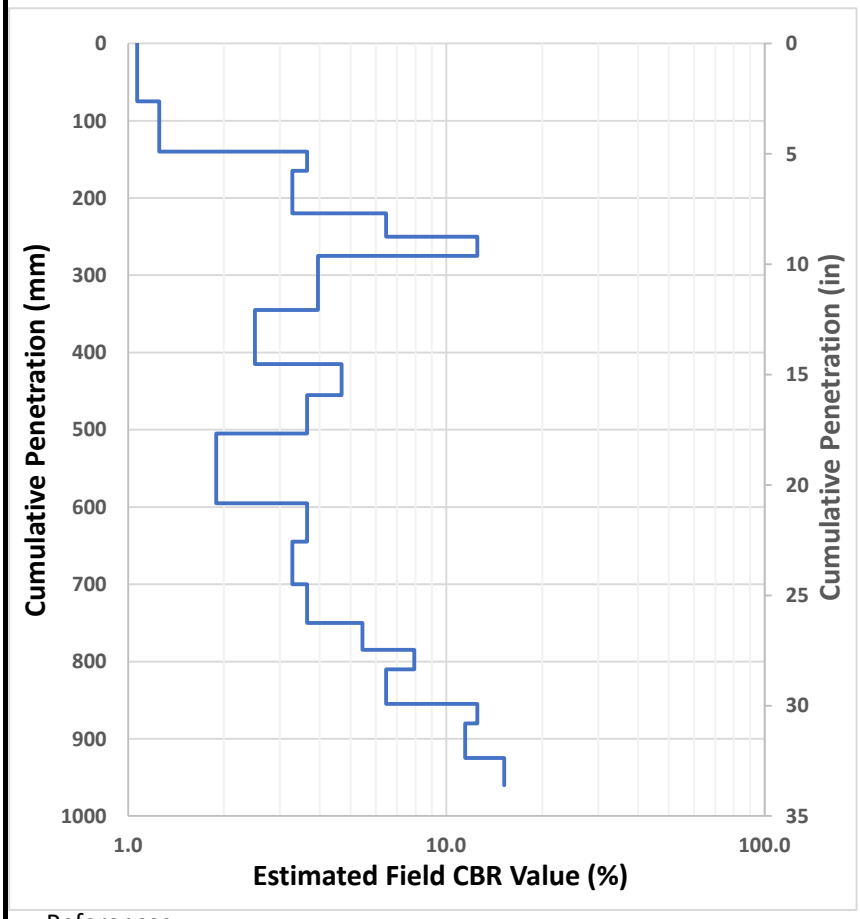
Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data

Number of Blows	Cumulative Penetration (mm)	Cumulative Penetration (in)	Hammer Type
0	0	0	2
1	75	2.95	2
1	140	5.51	2
1	165	6.50	2
2	220	8.66	2
2	250	9.84	2
3	275	10.83	2
3	345	13.58	2
2	415	16.34	2
2	455	17.91	2
2	505	19.88	2
2	595	23.43	2
2	645	25.39	2
2	700	27.56	2
2	750	29.53	2
2	785	30.91	2
2	810	31.89	2
3	855	33.66	2
3	880	34.65	2
5	925	36.42	2
5	960	37.80	2

Subgrade	
No. of Values:	20
Average CBR:	5.7
Max CBR:	15.2
Min CBR:	1.1



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R02

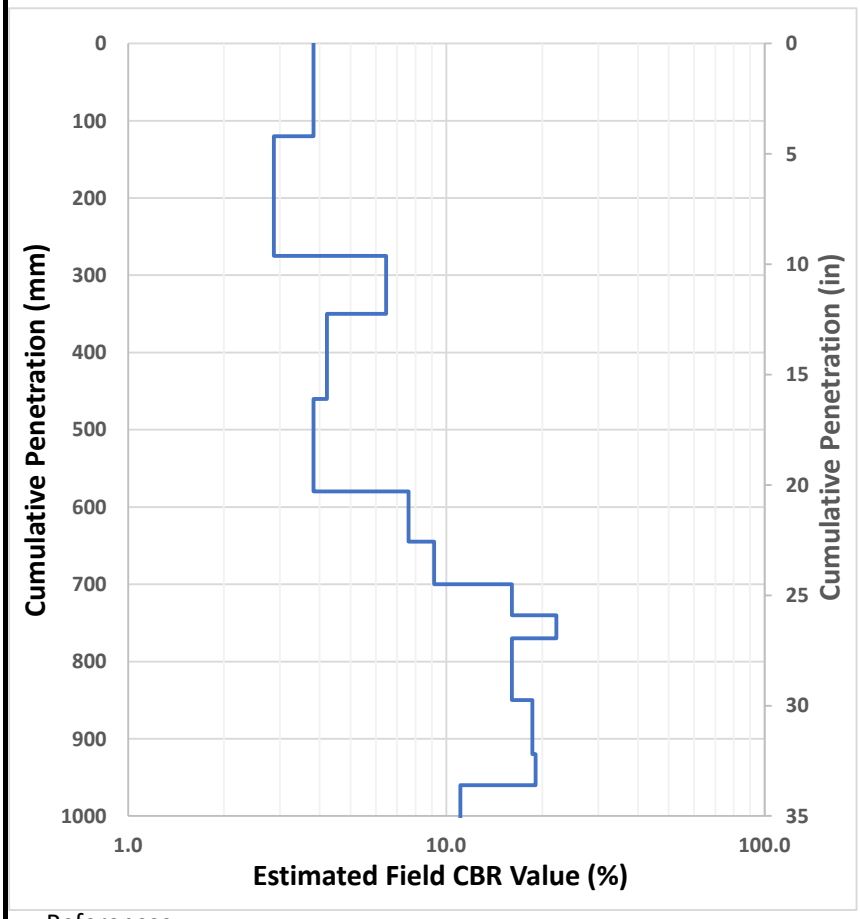
Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data

Number of Blows	Cumulative Penetration (mm)	Cumulative Penetration (in)	Hammer Type
0	0	0	2
5	120	4.72	2
5	275	10.83	2
5	350	13.78	2
5	460	18.11	2
5	580	22.83	2
5	645	25.39	2
5	700	27.56	2
6	740	29.13	2
6	770	30.31	2
6	810	31.89	2
6	850	33.46	2
6	885	34.84	2
6	920	36.22	2
7	960	37.80	2
7	1025	40.35	2

Subgrade	
No. of Values:	15
Average CBR:	11.7
Max CBR:	22.2
Min CBR:	2.9



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R03

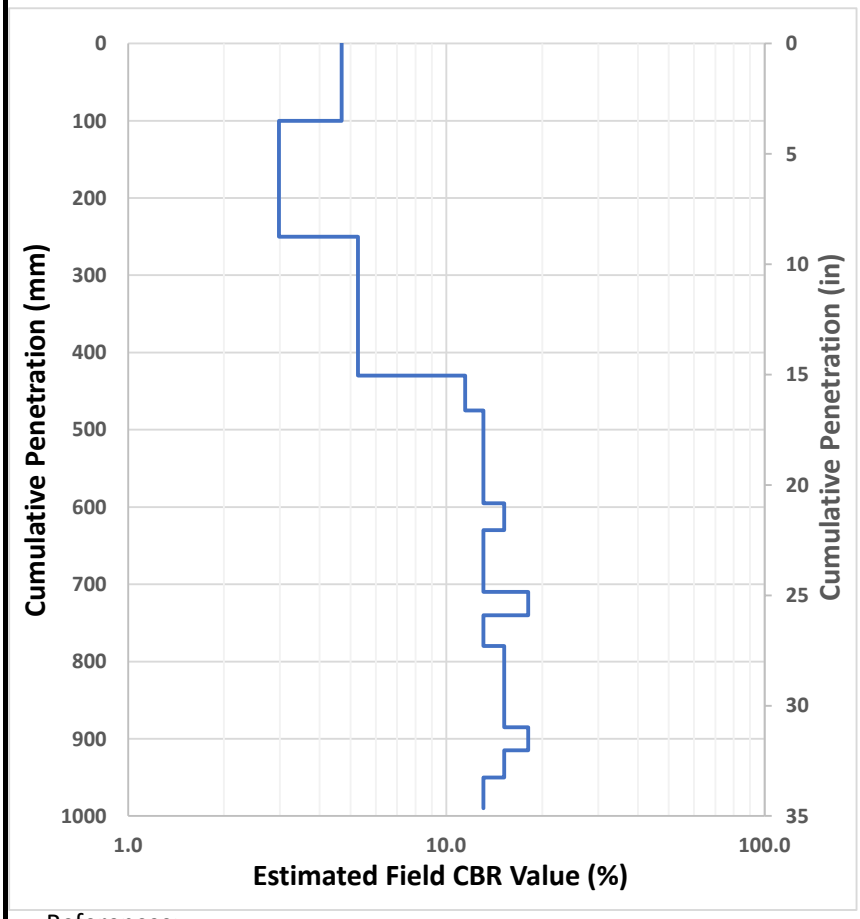
Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data

Number of Blows	Cumulative Penetration (mm)	Cumulative Penetration (in)	Hammer Type
0	0	0	2
5	100	3.94	2
5	250	9.84	2
5	340	13.39	2
5	430	16.93	2
5	475	18.70	2
5	515	20.28	2
5	555	21.85	2
5	595	23.43	2
5	630	24.80	2
5	670	26.38	2
5	710	27.95	2
5	740	29.13	2
5	780	30.71	2
5	815	32.09	2
5	850	33.46	2
5	885	34.84	2
5	915	36.02	2
5	950	37.40	2
5	990	38.98	2

Subgrade	
No. of Values:	19
Average CBR:	12.3
Max CBR:	18.1
Min CBR:	3.0



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

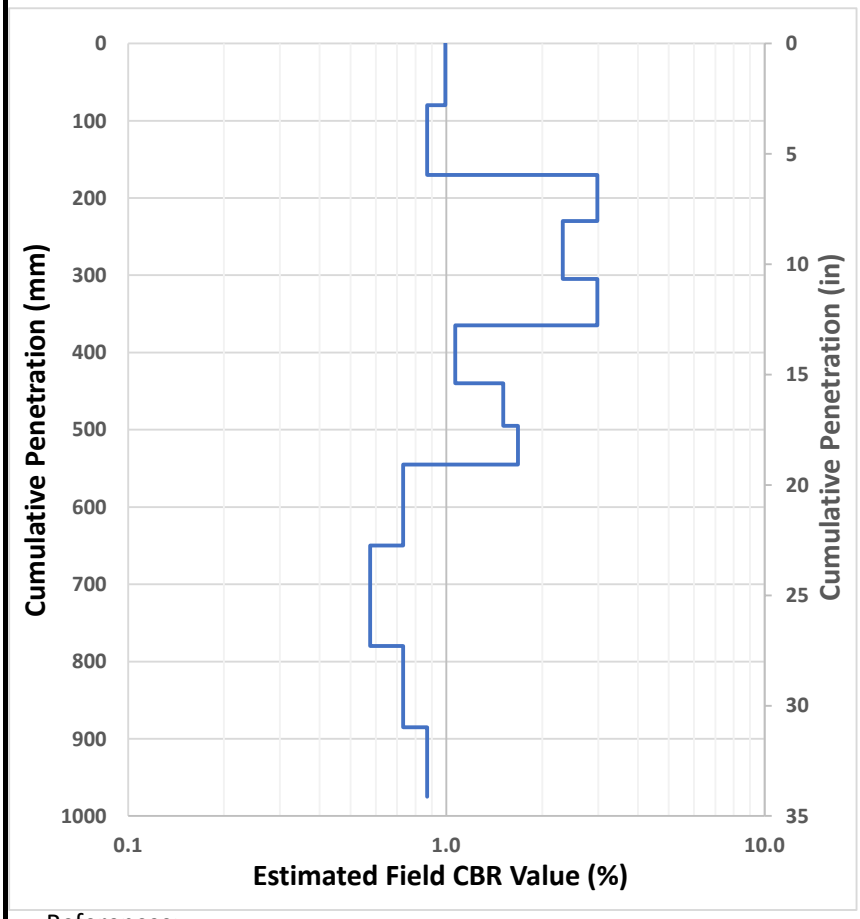
Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R04

Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data			
Number of Blows	Cumulative Penetration		Hammer Type
	(mm)	(in)	
0	0	0	2
1	80	3.15	2
1	170	6.69	2
2	230	9.06	2
2	305	12.01	2
2	365	14.37	2
1	440	17.32	2
1	495	19.49	2
1	545	21.46	2
1	650	25.59	2
1	780	30.71	2
1	885	34.84	2
1	975	38.39	2

Subgrade	
No. of Values:	12
Average CBR:	1.4
Max CBR:	3.0
Min CBR:	0.6



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R05

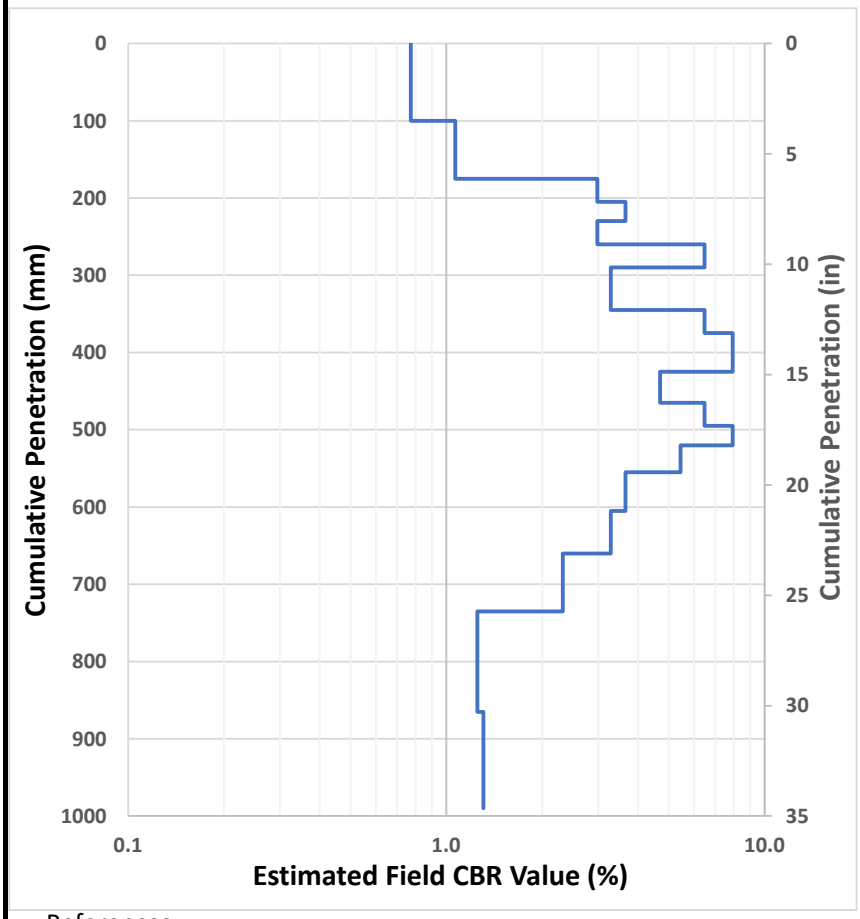
Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data

Number of Blows	Cumulative Penetration (mm)	Cumulative Penetration (in)	Hammer Type
0	0	0	2
1	100	3.94	2
1	175	6.89	2
1	205	8.07	2
1	230	9.06	2
1	260	10.24	2
2	290	11.42	2
2	345	13.58	2
2	375	14.76	2
2	400	15.75	2
2	425	16.73	2
2	465	18.31	2
2	495	19.49	2
2	520	20.47	2
2	555	21.85	2
2	605	23.82	2
2	660	25.98	2
2	735	28.94	2
2	865	34.06	2
2	990	38.98	2

Subgrade	
No. of Values:	19
Average CBR:	4.2
Max CBR:	7.9
Min CBR:	0.8



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R06

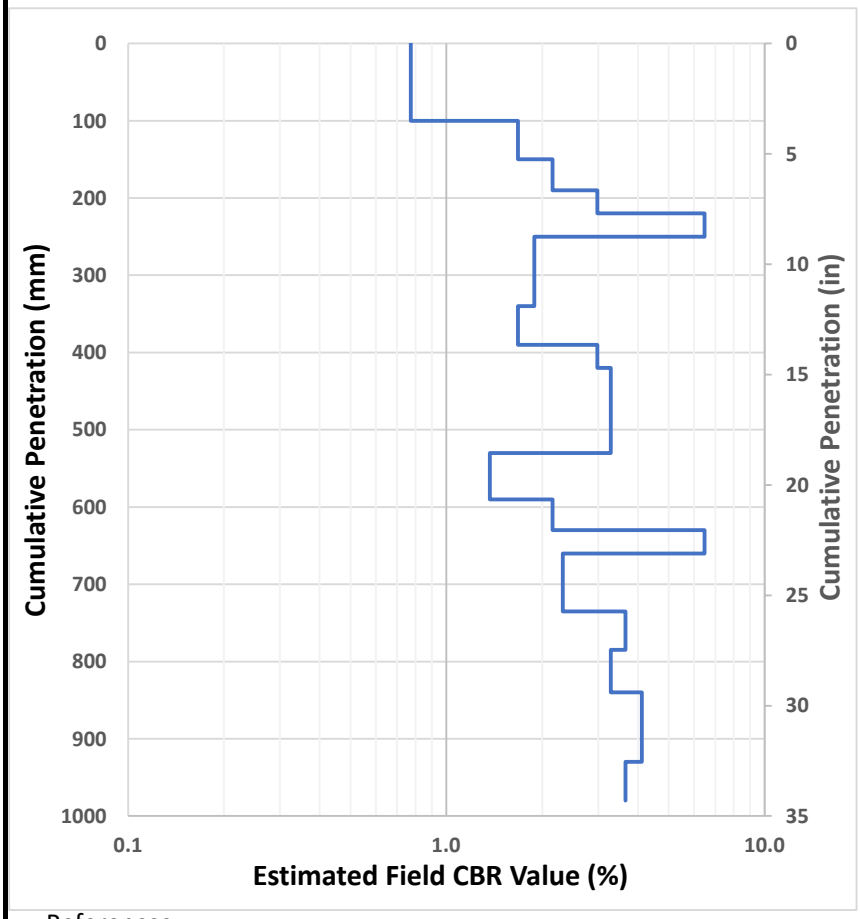
Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data

Number of Blows	Cumulative Penetration (mm)	Cumulative Penetration (in)	Hammer Type
0	0	0	2
1	100	3.94	2
1	150	5.91	2
1	190	7.48	2
1	220	8.66	2
2	250	9.84	2
1	295	11.61	2
1	340	13.39	2
1	390	15.35	2
1	420	16.54	2
2	475	18.70	2
2	530	20.87	2
1	590	23.23	2
1	630	24.80	2
2	660	25.98	2
2	735	28.94	2
2	785	30.91	2
2	840	33.07	2
2	885	34.84	2
2	930	36.61	2
2	980	38.58	2

Subgrade	
No. of Values:	20
Average CBR:	3.0
Max CBR:	6.5
Min CBR:	0.8



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

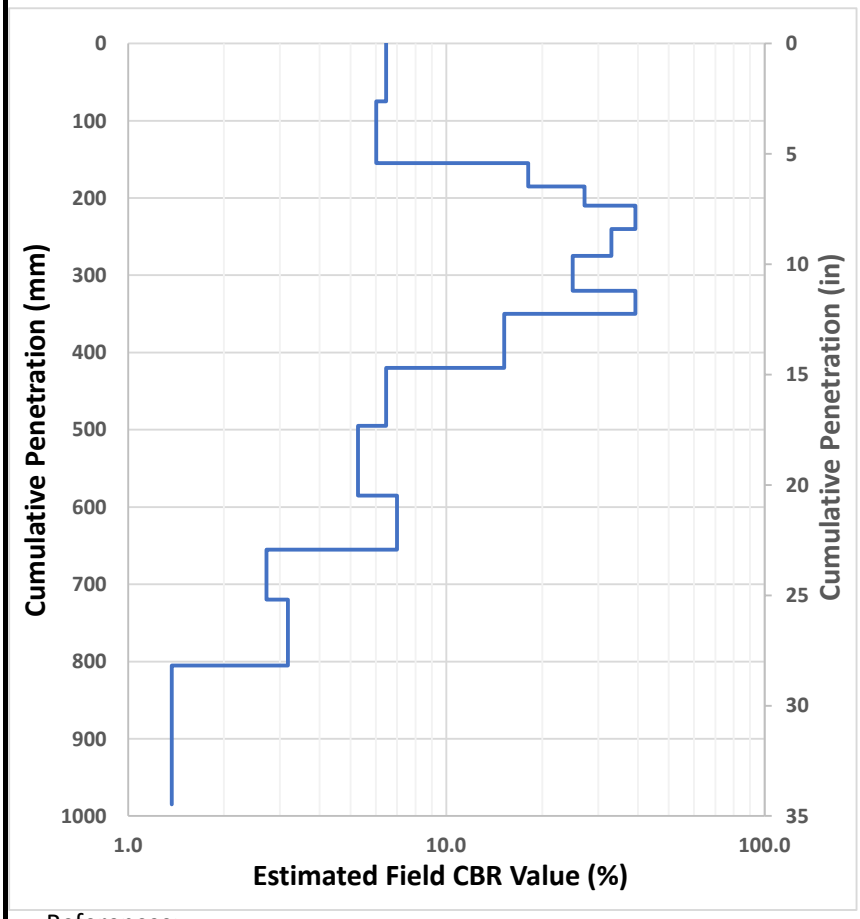
Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R07

Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data			
Number of Blows	Cumulative Penetration		Hammer Type
	(mm)	(in)	
0	0	0	2
5	75	2.95	2
5	155	6.10	2
5	185	7.28	2
6	210	8.27	2
10	240	9.45	2
10	275	10.83	2
10	320	12.60	2
10	350	13.78	2
10	420	16.54	2
5	495	19.49	2
5	585	23.03	2
5	655	25.79	2
2	720	28.35	2
3	805	31.69	2
3	985	38.78	2

Subgrade	
No. of Values:	15
Average CBR:	15.7
Max CBR:	39.3
Min CBR:	1.4



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R08

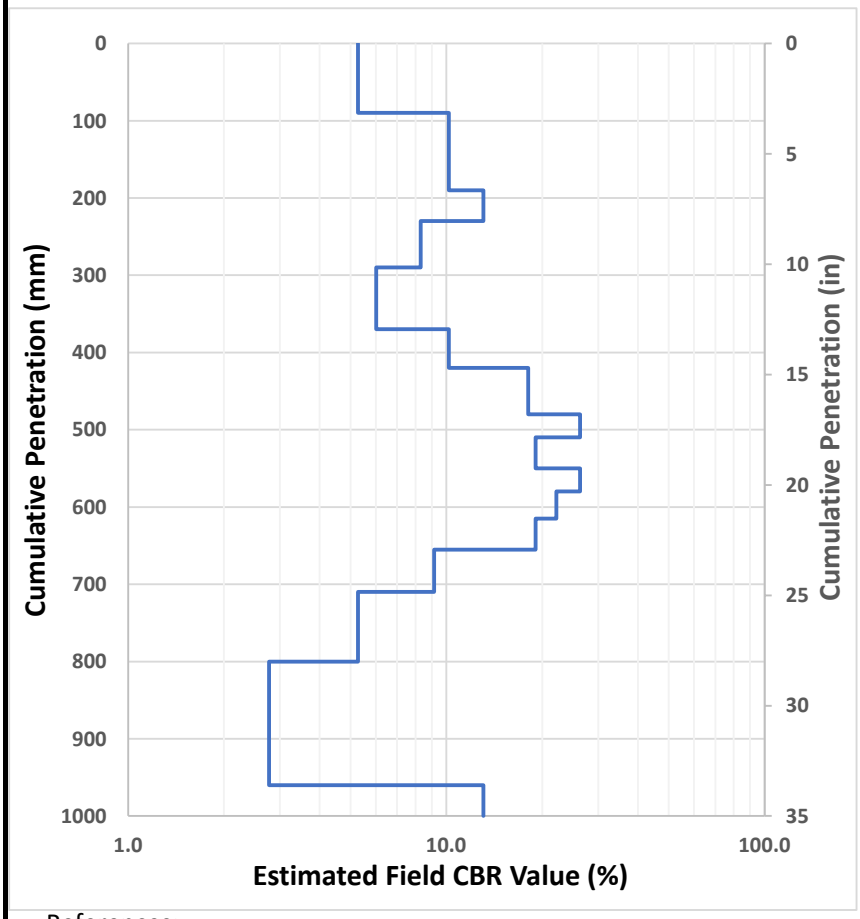
Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data

Number of Blows	Cumulative Penetration (mm)	Cumulative Penetration (in)	Hammer Type
0	0	0	2
5	90	3.54	2
5	140	5.51	2
5	190	7.48	2
5	230	9.06	2
5	290	11.42	2
5	370	14.57	2
5	420	16.54	2
5	450	17.72	2
5	480	18.90	2
7	510	20.08	2
7	550	21.65	2
7	580	22.83	2
7	615	24.21	2
7	655	25.79	2
5	710	27.95	2
5	800	31.50	2
5	960	37.80	2
5	1000	39.37	2

Subgrade	
No. of Values:	18
Average CBR:	13.5
Max CBR:	26.3
Min CBR:	2.8



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R09

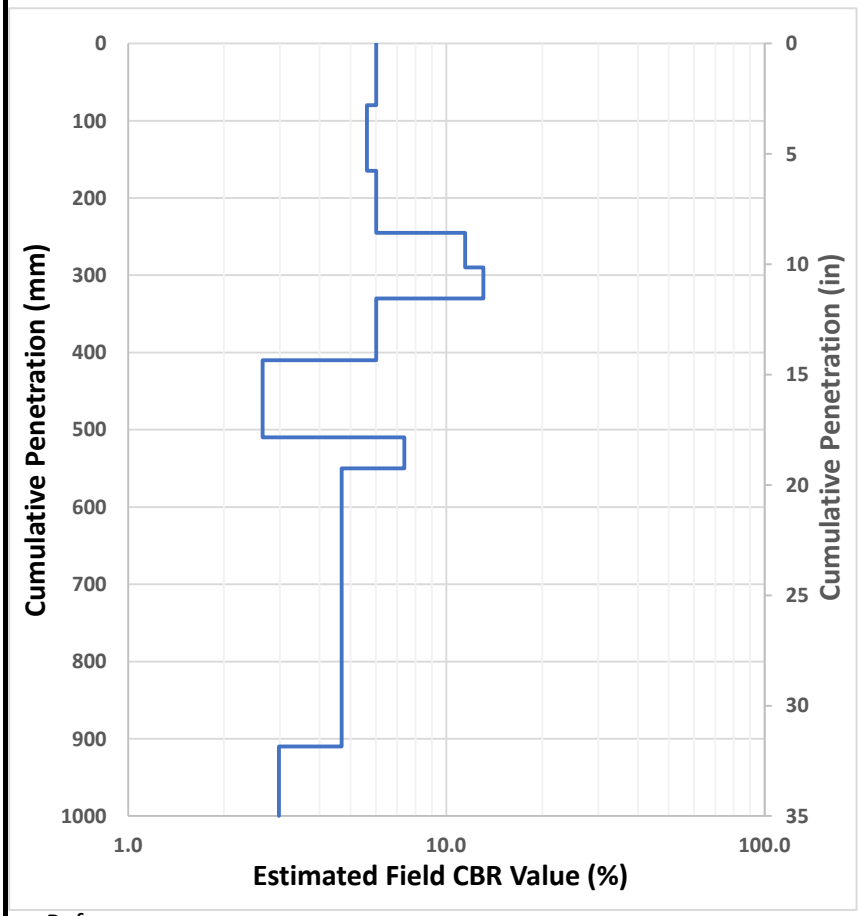
Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data

Number of Blows	Cumulative Penetration (mm)	Cumulative Penetration (in)	Hammer Type
0	0	0	2
5	80	3.15	2
5	165	6.50	2
5	245	9.65	2
5	290	11.42	2
5	330	12.99	2
5	410	16.14	2
3	510	20.08	2
3	550	21.65	2
3	610	24.02	2
3	670	26.38	2
3	730	28.74	2
3	790	31.10	2
3	850	33.46	2
3	910	35.83	2
3	1000	39.37	2

Subgrade	
No. of Values:	15
Average CBR:	6.0
Max CBR:	13.1
Min CBR:	2.6



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

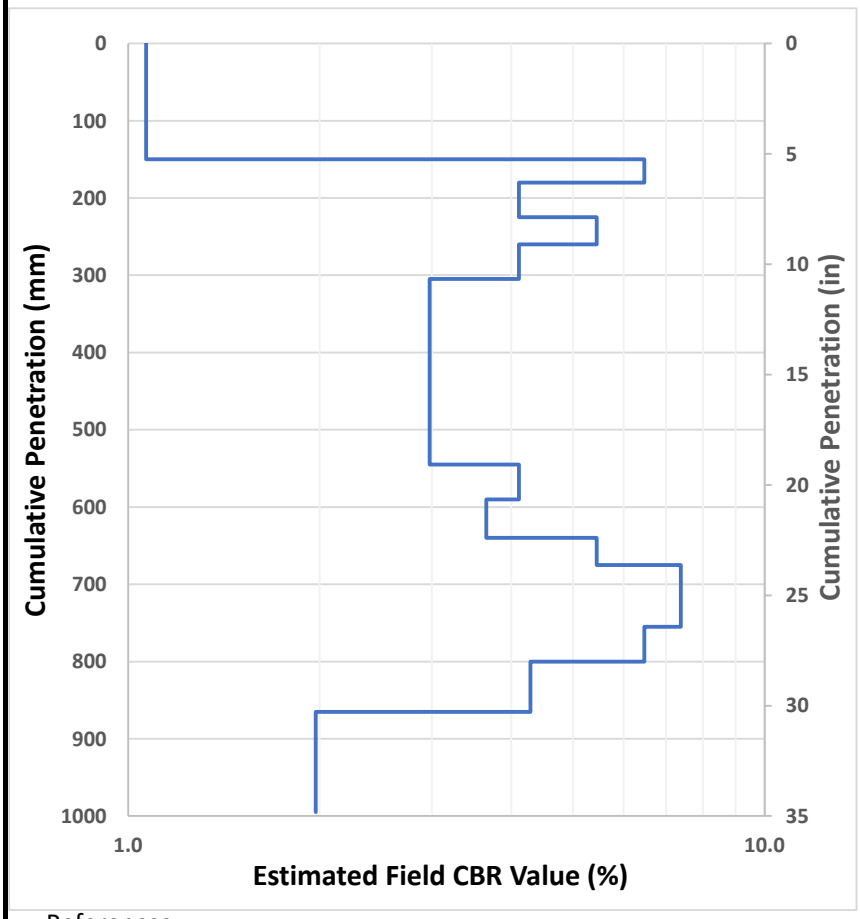
Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R10

Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data			
Number of Blows	Cumulative Penetration		Hammer Type
	(mm)	(in)	
0	0	0	2
1	75	2.95	2
1	150	5.91	2
2	180	7.09	2
2	225	8.86	2
2	260	10.24	2
2	305	12.01	2
2	365	14.37	2
2	425	16.73	2
2	485	19.09	2
2	545	21.46	2
2	590	23.23	2
2	640	25.20	2
2	675	26.57	2
3	715	28.15	2
3	755	29.72	2
3	800	31.50	2
3	865	34.06	2
3	995	39.17	2

Subgrade	
No. of Values:	18
Average CBR:	4.2
Max CBR:	7.4
Min CBR:	1.1



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R11

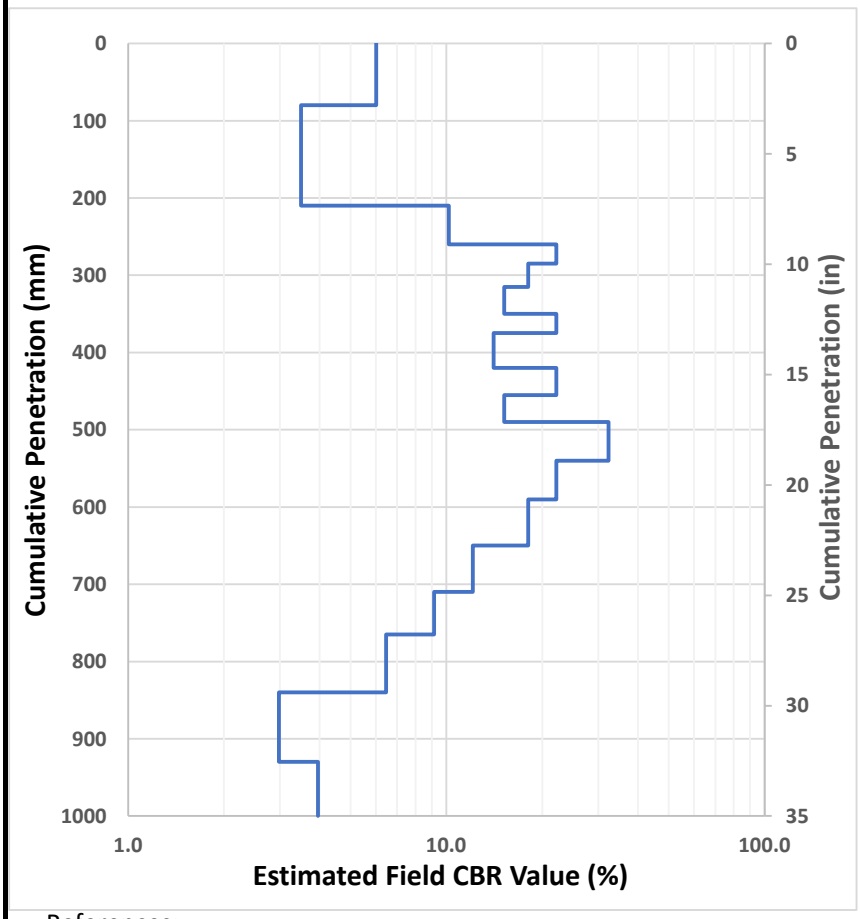
Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data

Number of Blows	Cumulative Penetration (mm)	Cumulative Penetration (in)	Hammer Type
0	0	0	2
5	80	3.15	2
5	210	8.27	2
5	260	10.24	2
5	285	11.22	2
5	315	12.40	2
5	350	13.78	2
5	375	14.76	2
6	420	16.54	2
7	455	17.91	2
5	490	19.29	2
7	515	20.28	2
7	540	21.26	2
10	590	23.23	2
10	650	25.59	2
7	710	27.95	2
5	765	30.12	2
5	840	33.07	2
3	930	36.61	2
3	1000	39.37	2

Subgrade	
No. of Values:	19
Average CBR:	15.2
Max CBR:	32.3
Min CBR:	3.0



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

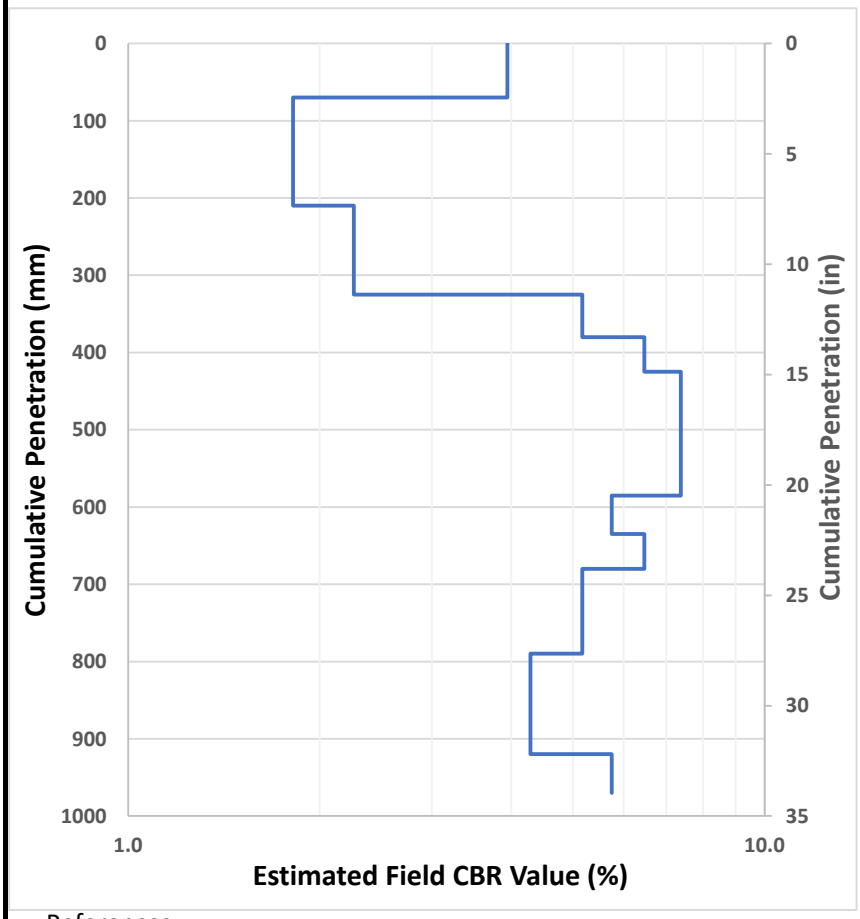
Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R12

Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data			
Number of Blows	Cumulative Penetration		Hammer Type
	(mm)	(in)	
0	0	0	2
3	70	2.76	2
3	210	8.27	2
3	325	12.80	2
3	380	14.96	2
3	425	16.73	2
3	465	18.31	2
3	505	19.88	2
3	545	21.46	2
3	585	23.03	2
3	635	25.00	2
3	680	26.77	2
3	735	28.94	2
3	790	31.10	2
3	855	33.66	2
3	920	36.22	2
3	970	38.19	2

Subgrade	
No. of Values:	16
Average CBR:	5.4
Max CBR:	7.4
Min CBR:	1.8



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

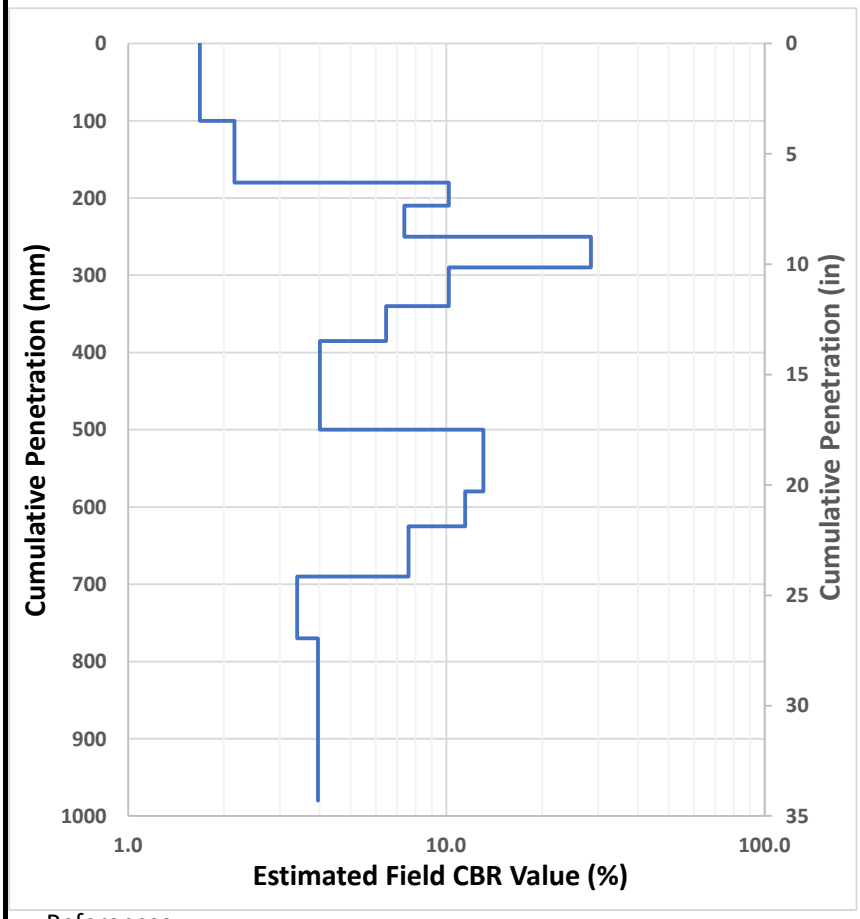
Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R13

Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data			
Number of Blows	Cumulative Penetration		Hammer Type
	(mm)	(in)	
0	0	0	2
2	100	3.94	2
2	180	7.09	2
3	210	8.27	2
3	250	9.84	2
10	290	11.42	2
5	340	13.39	2
3	385	15.16	2
5	500	19.69	2
5	540	21.26	2
5	580	22.83	2
5	625	24.61	2
5	690	27.17	2
3	770	30.31	2
3	840	33.07	2
3	910	35.83	2
3	980	38.58	2

Subgrade	
No. of Values:	16
Average CBR:	8.2
Max CBR:	28.4
Min CBR:	1.7



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

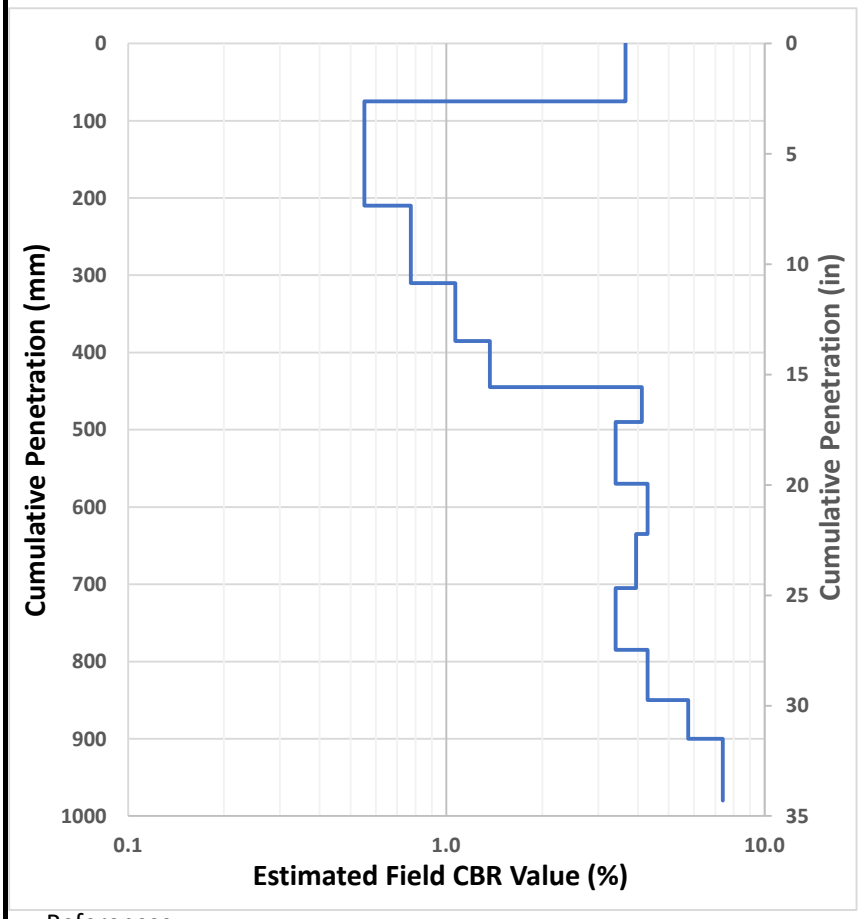
Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R14

Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data			
Number of Blows	Cumulative Penetration		Hammer Type
	(mm)	(in)	
0	0	0	2
3	75	2.95	2
1	210	8.27	2
1	310	12.20	2
1	385	15.16	2
1	445	17.52	2
2	490	19.29	2
3	570	22.44	2
3	635	25.00	2
3	705	27.76	2
3	785	30.91	2
3	850	33.46	2
3	900	35.43	2
3	940	37.01	2
3	980	38.58	2

Subgrade	
No. of Values:	14
Average CBR:	3.7
Max CBR:	7.4
Min CBR:	0.6



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

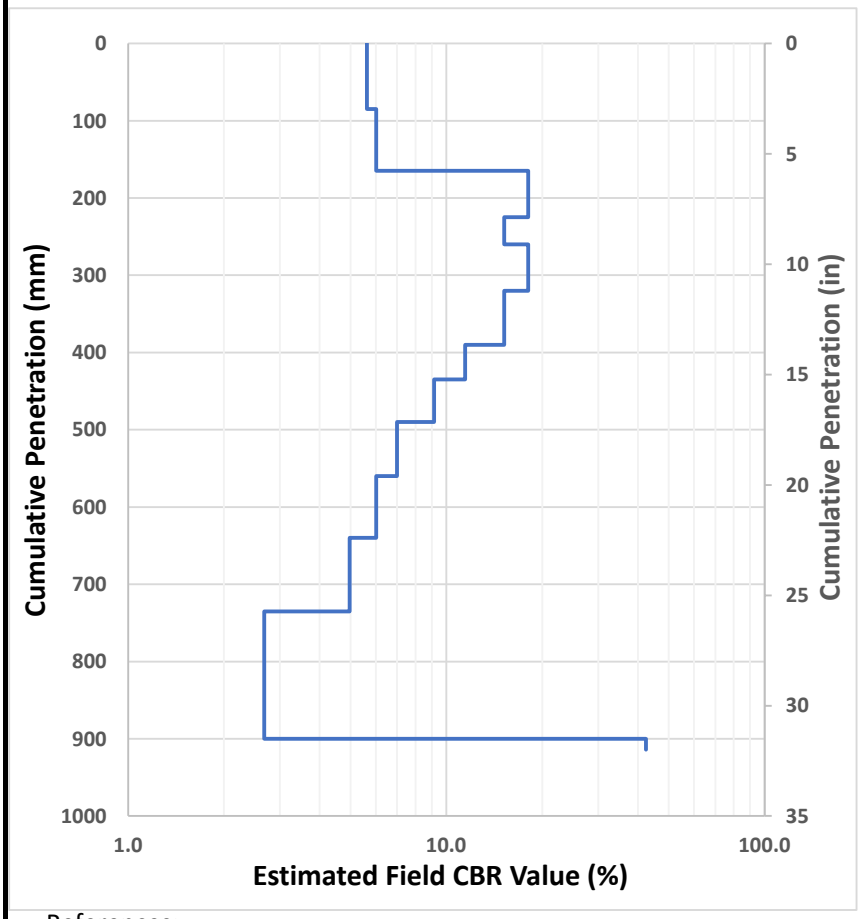
Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R15

Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data			
Number of Blows	Cumulative Penetration		Hammer Type
	(mm)	(in)	
0	0	0	2
5	85	3.35	2
5	165	6.50	2
5	195	7.68	2
5	225	8.86	2
5	260	10.24	2
5	290	11.42	2
5	320	12.60	2
5	355	13.98	2
5	390	15.35	2
5	435	17.13	2
5	490	19.29	2
5	560	22.05	2
5	640	25.20	2
5	735	28.94	2
5	900	35.43	2
5	914	35.98	2

Subgrade	
No. of Values:	16
Average CBR:	13.3
Max CBR:	42.4
Min CBR:	2.7



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

Kessler DCP Test Results

ASTM D6951/ACOE GL-92-3/ACOE GL-94-17

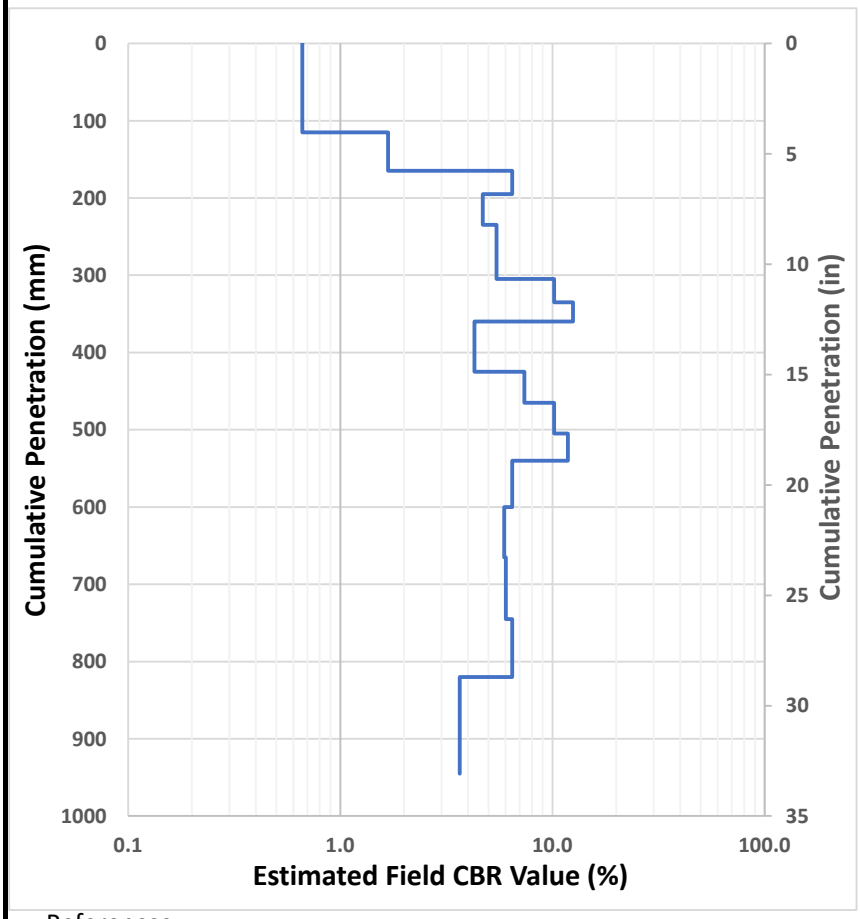
Project: I526 Long Point Road Interchange
Date: 7/13/2023
Project Number: 200424A
Personel: Soil Consultants, Inc.
Test Location: R16

Soil Type
- (●) All Other Soils
- ( ) CH
- ( ) CL (estimated CBR <10)

Hammer Type
- ( ) Dual 17.6 lb
- (●) Single 10.1 lb

Test Data			
Number of Blows	Cumulative Penetration		Hammer Type
	(mm)	(in)	
0	0	0	2
1	115	4.53	2
1	165	6.50	2
2	195	7.68	2
2	235	9.25	2
2	270	10.63	2
2	305	12.01	2
3	335	13.19	2
3	360	14.17	2
3	425	16.73	2
3	465	18.31	2
4	505	19.88	2
4	540	21.26	2
4	600	23.62	2
4	665	26.18	2
5	745	29.33	2
5	820	32.28	2
5	945	37.20	2

Subgrade	
No. of Values:	17
Average CBR:	6.4
Max CBR:	12.5
Min CBR:	0.7



References:

1) ASTM D6951 *Standard Test Method for Use of Dynamic Cone Penetrometer in Shallow Pavement Applications*

2) ACOE Instruction Report GL-92-3 *Description and Application of Dual Mass Dynamic Cone Penetrometer*

3) ACOE Technical Report GL-94-17 *Force Protection Site Evaluation Using the Electronic Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP)*

PAVEMENT CORE PHOTOGRAPH LOG

S&ME Project Number:	**200424A**	**Project Name:**	**I-526 Long Point Road Interchange**
Site Location:	**Charleston County, South Carolina**		



From Left to Right:	R02 & R03

PAVEMENT CORE PHOTOGRAPH LOG

S&ME Project Number: 200424A **Project Name:** I-526 Long Point Road Interchange

Site Location: Charleston County, South Carolina

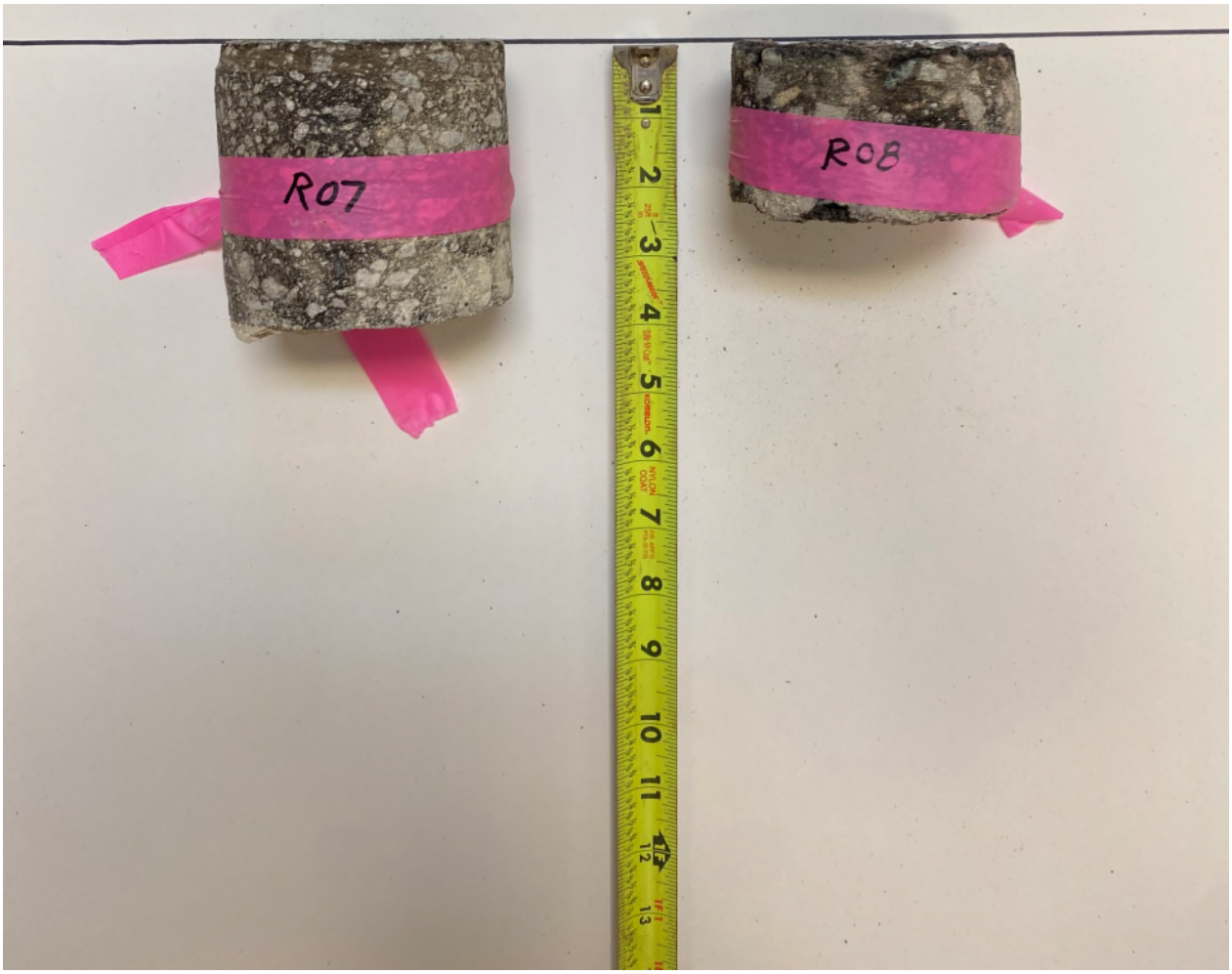


From Left to Right:	R04 & R06

PAVEMENT CORE PHOTOGRAPH LOG

S&ME Project Number: 200424A **Project Name:** I-526 Long Point Road Interchange

Site Location: Charleston County, South Carolina

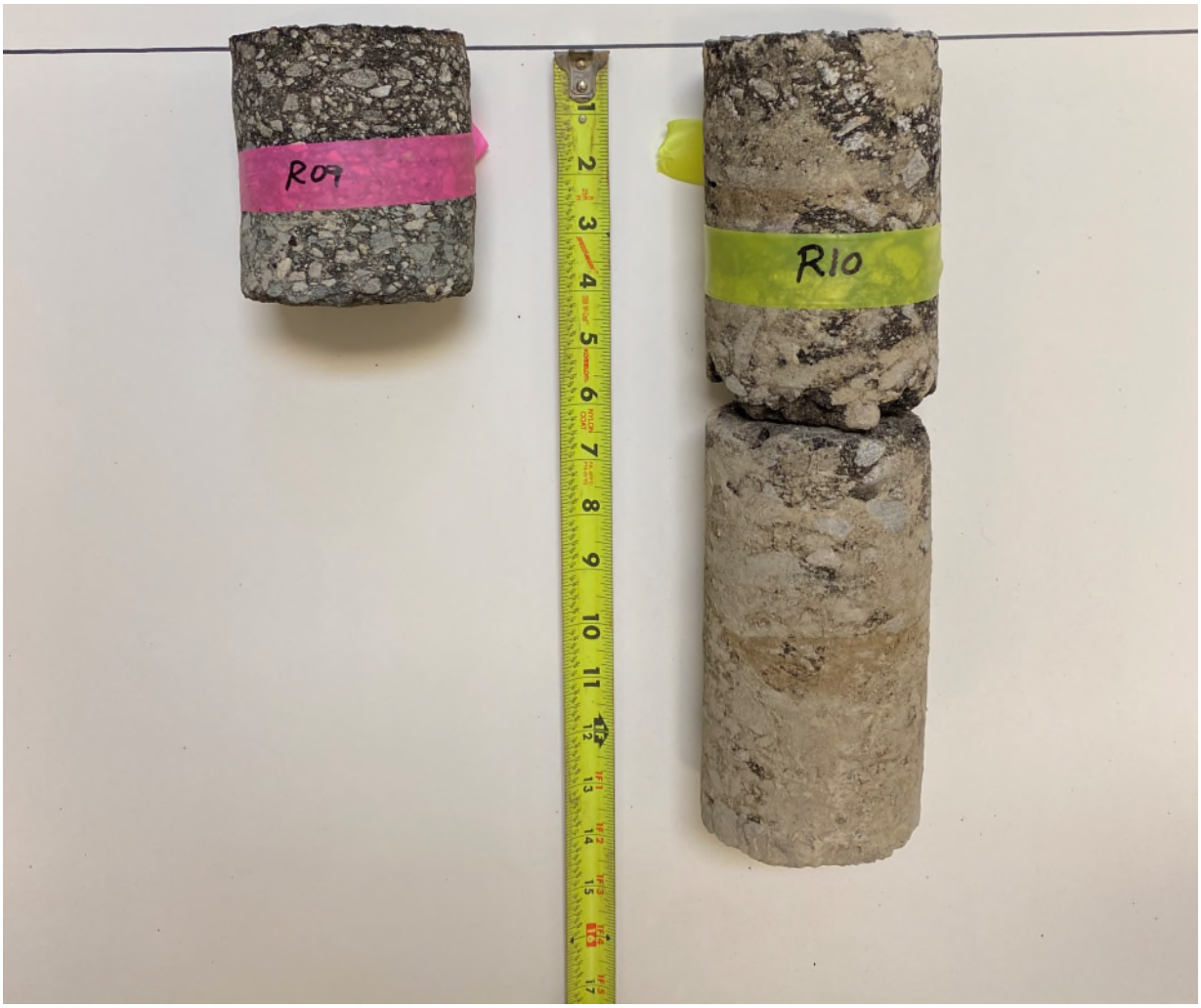


From Left to Right:	R07 & R08

PAVEMENT CORE PHOTOGRAPH LOG

S&ME Project Number: 200424A **Project Name:** I-526 Long Point Road Interchange

Site Location: Charleston County, South Carolina



From Left to Right:	R09 & R10

PAVEMENT CORE PHOTOGRAPH LOG

S&ME Project Number:	**200424A**	**Project Name:**	**I-526 Long Point Road Interchange**
Site Location:	**Charleston County, South Carolina**		



From Left to Right	R11 & R12

PAVEMENT CORE PHOTOGRAPH LOG

S&ME Project Number:	**200424A**	**Project Name:**	**I-526 Long Point Road Interchange**
Site Location:	**Charleston County, South Carolina**		



From Left to Right	R13 & R14

PAVEMENT CORE PHOTOGRAPH LOG

S&ME Project Number: 200424A **Project Name:** I-526 Long Point Road Interchange

Site Location: Charleston County, South Carolina



Core No. Pictured:	R15

Appendix III – Laboratory Data

Table 2: Laboratory Index Testing Summary

Laboratory Index Test Data Sheets

Atterberg Limits Results vs. Depth

Table 3: Laboratory Bulk Sample Testing Summary

Laboratory Bulk Sample Test Data Sheets

Table 4: Laboratory Undisturbed Sample Consolidation Testing Summary

Laboratory Consolidation Test Data Sheets

Table 5: Laboratory Undisturbed Sample Triaxial Testing Summary

Laboratory Triaxial Test Data Sheets

Table 6: Laboratory Corrosion Testing Summary

Laboratory Corrosion Test Data Sheets

Table 2: Laboratory Index Testing Summary									
Boring Number	Sample Number	Sample Depth (ft)	Natural Moisture (%)	Atterberg Limits*			Percent Finer #200 (%)	Soil Classification	
				LL	PL	PI		AASHTO	USCS
B01	SS-1	0 - 2	23.0	NP	NP	NP	18.2	A-2-4	SM
	SS-2	2 - 4	15.8	22	12	10	30.1	A-2-4	SC
	SS-5	8 - 10	33.9	NP	NP	NP	19.8	A-2-4	SM
	SS-6	13.5 - 15	73.1	84	25	59	72.0	A-7-6	CH
	SS-7	18.5 - 20	53.2	57	16	41	63.0	A-7-6	CH
	SS-8	23.5 - 25	31.0	NP	NP	NP	11.9	A-2-4	SP-SM
	SS-9	28.5 - 30	34.1	32	12	20	18.8	A-2-6	SC
	SS-10	33.5 - 35	32.0	NP	NP	NP	14.3	A-2-4	SM
	SS-13	48.5 - 50	64.8	83	30	53	75.1	A-7-5	CH
	SS-16	63.5 - 65	52.0	56	28	28	37.6	A-7-6	SC
B02	SS-1	0 - 2	16.8	NP	NP	NP	16.4	A-2-4	SM
	SS-3	4 - 6	23.9	38	16	22	39.3	A-6	SC
	SS-5	8 - 10	25.7	NP	NP	NP	15.9	A-2-4	SM
	SS-6	13.5 - 15	75.4	71	24	47	83.9	A-7-6	CH
	SS-7	18.5 - 20	66.6	78	19	59	87.1	A-7-6	CH
	SS-8	23.5 - 25	39.2	40	13	27	38.2	A-6	SC
	SS-9	28.5 - 30	53.2	56	18	38	60.9	A-7-6	CH
	SS-10	33.5 - 35	61.4	60	19	41	76.5	A-7-6	CH
	SS-11	38.5 - 40	50.5	57	21	36	60.3	A-7-6	CH
	SS-12	43.5 - 45	46.7	56	36	20	83.1	A-7-5	MH
	SS-22	93.5 - 95	35.2	21	20	1	19.4	A-2-4	SM
B03	SS-1	0 - 2	25.5	NP	NP	NP	11.0	A-2-4	SP-SM
	SS-4	6 - 8	26.1	39	17	22	42.4	A-6	SC
	SS-5	8 - 10	45.3	54	17	37	82.0	A-7-6	CH
	SS-6	13.5 - 15	36.1	38	16	22	20.6	A-2-6	SC
	SS-7	18.5 - 20	81.6	65	20	45	88.9	A-7-6	CH
	SS-8	23.5 - 25	45.8	38	13	25	39.9	A-6	SC
	SS-10	33.5 - 35	24.4	NP	NP	NP	4.8	A-2-4	SP
	SS-11	38.5 - 40	109.3	68	23	45	47.0	A-7-6	SC
	SS-12	43.5 - 45	22.4	NP	NP	NP	7.1	A-3	SP-SM
	SS-13	48.5 - 50	53.2	69	32	37	82.7	A-7-5	CH
	SS-16	63.5 - 65	52.0	77	35	42	63.5	A-7-5	CH
	SS-23	98.5 - 100	30.5	21	19	2	19.6	A-2-4	SM

Table 2: Laboratory Index Testing Summary									
Boring Number	Sample Number	Sample Depth (ft)	Natural Moisture (%)	Atterberg Limits*			Percent Finer #200 (%)	Soil Classification	
				LL	PL	PI		AASHTO	USCS
B04	SS-1	0 - 2	19.3	NP	NP	NP	7.8	A-3	SP-SM
	SS-4	6 - 8	25.5	34	22	12	20.3	A-2-6	SC
	SS-5	8 - 10	30.9	29	25	4	19.8	A-2-4	SM
	SS-6	13.5 - 15	32.9	NP	NP	NP	13.1	A-2-4	SM
	SS-7	18.5 - 20	71.6	77	31	46	86.4	A-7-5	CH
	SS-8	23.5 - 25	88.0	115	39	76	86.2	A-7-5	CH
	SS-9	28.5 - 30	51.8	55	17	38	51.2	A-7-6	CH
	SS-10	33.5 - 35	32.3	32	23	9	23.6	A-2-4	SC
	SS-11	38.5 - 40	28.7	28	19	9	20.6	A-2-4	SC
	SS-12	43.5 - 45	25.8	NP	NP	NP	8.5	A-3	SP-SM
	SS-13	48.5 - 50	43.0	47	24	23	36.4	A-7-6	SC
	SS-19	78.5 - 80	33.6	51	24	27	36.4	A-7-6	SC
B05	SS-3	4 - 6	24.7	NP	NP	NP	10.3	A-2-4	SP-SM
	SS-5	8 - 10	39.8	26	24	2	22.1	A-2-4	SM
	SS-7	18.5 - 20	69.7	62	21	41	89.5	A-7-6	CH
	SS-9	28.5 - 30	82.6	82	28	54	98.0	A-7-6	CH
	SS-11	38.5 - 40	43.7	35	27	8	25.6	A-2-4	SM
	SS-12	43.5 - 45	110.4	89	51	38	90.4	A-7-5	MH
B06	SS-5	8 - 10	45.3	37	30	7	45.1	A-4	SM
	SS-6	10 - 12	31.0	NP	NP	NP	15.8	A-2-4	SM
	SS-8	14 - 16	41.9	40	21	19	52.2	A-6	CL
	SS-10	18 - 20	81.5	69	31	38	93.6	A-7-5	CH
	SS-11	20 - 22	88.7	78	28	50	92.8	A-7-6	CH
B07	SS-1	0 - 2	9.8	NP	NP	NP	6.8	A-3	SP-SM
	SS-2	2 - 4	24.6	36	15	21	38.1	A-6	SC
	SS-3	4 - 6	27.0	40	14	26	33.2	A-2-6	SC
	SS-4	6 - 8	39.4	53	19	34	83.2	A-7-6	CH
	SS-5	8 - 10	34.3	33	12	21	16.9	A-2-6	SC
	SS-6	10 - 12	30.8	NP	NP	NP	12.7	A-2-4	SM
	SS-7	12 - 14	33.4	35	15	20	19.0	A-2-6	SC
	SS-8	14 - 16	65.0	69	22	47	82.8	A-7-6	CH
	SS-9	16 - 18	74.9	90	23	67	88.3	A-7-6	CH
	SS-10	18 - 20	90.3	113	29	84	96.5	A-7-6	CH
	SS-11	20 - 22	39.7	63	19	44	63.6	A-7-6	CH
	SS-12	22 - 24	29.2	26	12	14	25.1	A-2-6	SC
	SS-13	24 - 26	89.3	105	27	78	94.8	A-7-6	CH
	SS-14	26 - 28	37.7	NP	NP	NP	18.6	A-2-4	SM
	SS-15	28 - 30	29.8	NP	NP	NP	7.1	A-3	SP-SM
	SS-16	30 - 32	26.7	NP	NP	NP	8.4	A-3	SP-SM
	SS-17	32 - 34	34.5	28	23	5	21.6	A-2-4	SM
	SS-18	34 - 36	29.8	NP	NP	NP	9.6	A-3	SP-SM

Table 2: Laboratory Index Testing Summary									
Boring Number	Sample Number	Sample Depth (ft)	Natural Moisture (%)	Atterberg Limits*			Percent Finer #200 (%)	Soil Classification	
				LL	PL	PI		AASHTO	USCS
B07	SS-19	36 - 38	25.4	NP	NP	NP	8.0	A-3	SP-SM
	SS-20	38 - 40	25.3	NP	NP	NP	4.9	A-3	SP
	SS-21	40 - 42	22.9	NP	NP	NP	9.7	A-3	SP-SM
	SS-22	42 - 44	37.3	35	22	13	24.0	A-2-6	SC
	SS-23	44 - 46	27.2	41	12	29	18.5	A-2-7	SC
	SS-24	46 - 48	23.8	33	13	20	17.0	A-2-6	SC
	SS-25	48 - 50	44.5	51	18	33	50.2	A-7-6	CH
B08	SS-1	0 - 2	14.2	NP	NP	NP	11.1	A-2-4	SP-SC
	SS-3	4 - 6	17.9	25	21	4	26.5	A-2-4	SC-SM
	SS-5	8 - 10	44.1	51	16	35	88.8	A-7-6	CH
	SS-6	13.5 - 15	62.5	61	22	39	71.4	A-7-6	CH
	SS-7	18.5 - 20	94.7	74	24	50	88.6	A-7-6	CH
	SS-8	23.5 - 25	65.8	62	17	45	96.0	A-7-6	CH
	SS-9	28.5 - 30	45.1	33	18	15	30.5	A-2-6	SC
	SS-10	33.5 - 35	68.8	62	17	45	82.4	A-7-6	CH
	SS-11	38.5 - 40	56.9	39	17	22	47.6	A-6	SC
	SS-12	43.5 - 45	40.8	41	19	22	35.3	A-2-7	SC
	SS-13	48.5 - 50	54.6	73	26	47	85.7	A-7-6	CH
	SS-20	83.5 - 85	31.1	NP	NP	NP	12.6	A-2-4	SM
B09	SS-2	2 - 4	16.7	NP	NP	NP	10.8	A-2-4	SP-SM
	SS-5	8 - 10	17.3	NP	NP	NP	23.0	A-2-4	SM
	SS-6	13.5 - 15	22.4	NP	NP	NP	10.0	A-2-4	SP-SM
	SS-8	23.5 - 25	45.8	31	25	6	49.3	A-4	SM
	SS-9	28.5 - 30	31.4	NP	NP	NP	8.7	A-2-4	SP-SM
	SS-10	33.5 - 35	69.4	40	19	21	83.8	A-6	CL
	SS-11	38.5 - 40	28.1	30	18	12	54.3	A-6	CL
	SS-13	48.5 - 50	66.8	69	19	50	80.8	A-7-6	CH
	SS-18	73.5 - 75	62.7	85	26	59	68.9	A-7-6	CH
B10	SS-2	2 - 4	17.2	NP	NP	NP	6.0	A-3	SP-SM
	SS-3	4 - 6	22.0	NP	NP	NP	4.1	A-3	SP
	SS-5	8 - 10	25.9	NP	NP	NP	3.8	A-3	SP
	SS-6	13.5 - 15	88.1	49	26	23	88.0	A-7-6	CL
	SS-7	18.5 - 20	29.6	NP	NP	NP	9.6	A-3	SP-SM
	SS-8	23.5 - 25	66.8	51	28	23	82.5	A-7-6	CH
	SS-9	28.5 - 30	25.1	24	17	7	26.9	A-2-4	SC-SM
	SS-11	38.5 - 40	23.9	NP	NP	NP	13.9	A-2-4	SM
	SS-12	43.5 - 45	28.7	NP	NP	NP	18.5	A-2-4	SM
	SS-14	53.5 - 55	84.7	66	34	32	89.0	A-7-5	MH
	SS-15	58.5 - 60	58.0	62	33	29	82.1	A-7-5	MH
	SS-19	78.5 - 80	43.9	47	30	17	40.4	A-7-5	SM

Table 2: Laboratory Index Testing Summary									
Boring Number	Sample Number	Sample Depth (ft)	Natural Moisture (%)	Atterberg Limits*			Percent Finer #200 (%)	Soil Classification	
				LL	PL	PI		AASHTO	USCS
B11	SS-1	0 - 2	11.8	NP	NP	NP	15.6	A-2-4	SM
	SS-3	4 - 6	23.3	NP	NP	NP	10.1	A-2-4	SP-SM
	SS-4	6 - 8	23.8	NP	NP	NP	9.7	A-2-4	SP-SM
	SS-5	8 - 10	30.9	29	18	11	33.5	A-2-6	SC
	SS-6	13.5 - 15	67.5	63	20	43	72.3	A-7-6	CH
	SS-7	18.5 - 20	29.7	29	16	13	29.5	A-2-6	SC
	SS-8	23.5 - 25	23.4	NP	NP	NP	12.1	A-2-4	SM
	SS-9	28.5 - 30	62.9	64	20	44	72.2	A-7-6	CH
	SS-10	33.5 - 35	57.4	51	17	34	60.5	A-7-6	CH
	SS-11	38.5 - 40	44.5	43	24	29	27.8	A-2-7	SC
	SS-12	43.5 - 45	37.5	34	25	9	21.6	A-2-4	SM
	SS-13	48.5 - 50	54.7	71	27	44	80.3	A-7-6	CH
B12	SS-1	0 - 2	10.5	NP	NP	NP	14.6	A-2-4	SM
	SS-4	6 - 8	34.3	23	19	4	43.7	A-4	SC-SM
	SS-5	8 - 10	69.5	40	28	12	58.9	A-6	ML
	SS-6	13.5 - 15	54.6	38	20	18	68.1	A-6	CL
	SS-7	18.5 - 20	35.7	26	15	11	37.6	A-6	SC
	SS-8	23.5 - 25	23.2	NP	NP	NP	12.2	A-2-4	SM
	SS-9	28.5 - 30	42.6	58	22	36	76.1	A-7-6	CH
	SS-10	33.5 - 35	32.2	33	20	13	34.3	A-2-6	SC
	SS-11	38.5 - 40	28.6	25	20	5	14.8	A-1-b	SC-SM
	SS-12	43.5 - 45	25.0	29	20	9	25.1	A-2-4	SC
	SS-14	53.5 - 55	61.8	68	31	37	81.9	A-7-5	CH
B13	SS-6	18.5 - 20	96.8	64	29	35	88.0	A-7-6	CH
	SS-10	38.5 - 40	58.2	53	14	39	68.0	A-7-6	CH
	SS-12	48.5 - 50	53.6	68	24	44	83.0	A-7-6	CH
	SS-13	53.5 - 55	60.8	48	24	24	70.0	A-7-6	CL
	SS-15	63.5 - 65	53.6	34	17	17	44.0	A-7	SC
	SS-16	68.5 -70	41.7	28	12	16	39.0	A-6	SC
	SS-17	73.5 - 75	36.3	26	11	15	32.0	A-2-6	SC
	SS-18	78.5 - 80	33.9	28	13	15	24.0	A-2-6	SC
B14	SS-1	0 - 2	26.7	27	17	11	25.0	A-2-6	SC
	SS-3	4 - 6	25.1	36	20	16	41.0	A-2-6	SC
	SS-8	23.5 - 25	49.4	NP	NP	NP	9.0	A-3	SP-SM
	SS-10	33.5 - 35	26.1	NP	NP	NP	6.0	A-3	SP-SM
	SS-12	43.5 - 45	30.7	29	13	16	28.0	A-2-6	SC
	SS-13	48.5 - 50	49.1	52	21	31	72.0	A-7-6	CH
	SS-15	58.5 - 60	79.5	53	26	27	77.0	A-7-6	CH
	SS-17	68.5-70	42.3	35	15	20	41.0	A-2-7	SC
	SS-19	78.5-80	40.8	33	20	13	28.0	A-2-6	SC

Table 2: Laboratory Index Testing Summary									
Boring Number	Sample Number	Sample Depth (ft)	Natural Moisture (%)	Atterberg Limits*			Percent Finer #200 (%)	Soil Classification	
				LL	PL	PI		AASHTO	USCS
B15	SS-1	1 - 3	14.4	NP	NP	NP	8.0	A-3	SP-SM
	SS-3	5 - 7	32.6	36	12	24	43.0	A-6	SC
	SS-6	18.5 - 20	54.3	62	33	29	86.0	A-7-5	MH
	SS-11	43.5 - 45	68.3	63	16	47	76.0	A-7-6	CH
	SS-13	53.5 - 55	57.9	51	24	27	69.0	A-7-6	CH
	SS-15	63.5 - 65	48.3	51	26	25	61.0	A-7-6	CH
	SS-17	73.5 - 75	42.3	33	15	18	42.0	A-2-7	SC
	SS-19	83.5 - 85	29.3	NP	NP	NP	16.0	A-2-4	SM
	SS-21	93.5 - 95	30.6	NP	NP	NP	15.0	A-2-4	SM
B16	SS-3	4-6	17.2	NP	NP	NP	12.6	A-2-4	SM
	SS-5	8-10	29.5	27	22	5	47.6	A-4	SC-SM
	SS-6	13.5-15	46.0	35	16	19	41.0	A-6	SC
	SS-8	23.5-25	49.5	39	15	24	61.5	A-6	CL
	SS-10	33.5-35	64.1	49	18	31	71.6	A-7-6	CL
	SS-14	53.5-55	54.4	81	30	51	67.7	A-7-5	CH
	SS-16	63.5-65	57.5	69	30	39	57.1	A-7-5	CH
	SS-18	73.5-75	40.5	48	21	27	35.1	A-2-7	SC
	SS-20	83.5-85	22.6	NP	NP	NP	15.9	A-2-4	SM
	SS-22	93.5-95	21.6	NP	NP	NP	15.2	A-2-4	SM
B17	SS-2	2-4	19.4	NP	NP	NP	7.9	A-3	SP-SM
	SS-4	6-8	26.2	NP	NP	NP	14.5	A-2-4	SM
	SS-5	8-10	29.9	33	16	17	49.8	A-6	SC
	SS-7	18.5-20	66.1	56	21	35	78.3	A-7-6	CH
	SS-8	23.5-25	28.8	25	19	6	14.9	A-2-4	SC-SM
	SS-11	38.5-40	31.9	NP	NP	NP	11.2	A-2-4	SP-SM
	SS-13	48.5-50	47.6	58	29	29	67.7	A-7-6	CH
	SS-15	58.5-60	56.2	66	30	36	57.3	A-7-5	CH
	SS-17	68.5-70	39.2	48	26	22	40.1	A-7-6	SC
	SS-19	78.5-80	40.1	43	22	21	23.5	A-2-7	SC
	SS-21	88.5-90	25.1	NP	NP	NP	15.2	A-2-4	SM
	SS-23	98.5-100	24.7	NP	NP	NP	17.1	A-2-4	SM
	SS-25	108.5-110	48.6	62	28	34	79.0	A-7-6	CH
	SS-29	128.5-130	55.3	85	26	59	92.4	A-7-6	CH
	SS-31	138.5-140	74.5	90	25	65	89.3	A-7-6	CH
	SS-33	148.5-150	47.3	45	27	18	82.7	A-7-6	CL

Table 2: Laboratory Index Testing Summary									
Boring Number	Sample Number	Sample Depth (ft)	Natural Moisture (%)	Atterberg Limits*			Percent Finer #200 (%)	Soil Classification	
				LL	PL	PI		AASHTO	USCS
B18	SS-2	2-4	17.4	22	19	3	22.1	A-2-4	SM
	SS-3	4-6	22.6	NP	NP	NP	21.6	A-2-4	SM
	SS-4	6-8	32.8	39	16	23	40.5	A-6	SC
	SS-5	8-10	35.6	26	25	1	16.6	A-2-4	SM
	SS-6	13.5-15	32.7	NP	NP	NP	15.7	A-2-4	SM
	SS-7	18.5-20	75.3	65	25	40	91.3	A-7-6	CH
	SS-8	23.5-25	53.4	28	20	8	33.4	A-2-4	SC
	SS-9	28.5-30	44.6	32	16	16	60.3	A-6	CL
	SS-10	33.5-35	34.8	NP	NP	NP	23.6	A-2-4	SM
	SS-11	38.5-40	26.0	NP	NP	NP	9.9	A-3	SP-SM
	SS-12	43.5-45	28.7	NP	NP	NP	13.1	A-2-4	SM
	SS-13	48.5-50	57.1	69	30	39	74.0	A-7-5	CH
	SS-15	58.5-60	47.7	61	29	32	52.5	A-7-6	CH
	SS-17	68.5-70	40.0	50	28	22	42.7	A-7-6	SC
	SS-19	78.5-80	35.4	50	24	26	27.0	A-2-7	SC
	SS-23	98.5-100	27.3	NP	NP	NP	18.9	A-2-4	SM
EMB01	SS-1	0 - 2	20.8	NP	NP	NP	27.3	A-2-4	SM
	SS-2	2 - 4	24.2	27	22	5	30.7	A-2-4	SC-SM
	SS-3	4 - 6	39.3	41	19	22	70	A-7-6	CL
	SS-4	6 - 8	31.5	NP	NP	NP	18	A-2-4	SM
	SS-5	8 - 10	36.4	23	21	2	22	A-2-4	SM
	SS-6	13.5 - 15	52.7	NP	NP	NP	47	A-4	SM
	SS-7	18.5 - 20	61.5	51	22	29	74	A-7-6	CH
	SS-8	23.5 - 25	34.8	NP	NP	NP	14	A-2-4	SM
	SS-9	28.5 - 30	36.4	NP	NP	NP	28	A-2-4	SM
	SS-10	33.5 - 35	53.5	34	18	16	60	A-6	CL
	SS-11	38.5 - 40	30.4	NP	NP	NP	13	A-2-4	SM
EMB02	SS-1	0 - 2	22.9	NP	NP	NP	25	A-2-4	SM
	SS-2	2 - 4	21.8	27	17	10	26	A-2-4	SC
	SS-3	4 - 6	31.2	NP	NP	NP	21	A-2-4	SM
	SS-4	6 - 8	51.0	NP	NP	NP	49	A-4	SM
	SS-5	8 - 10	52.6	NP	NP	NP	34	A-2-4	SM
	SS-6	10 - 12	29.1	NP	NP	NP	13	A-2-4	SM
	SS-7	12 - 14	36.3	NP	NP	NP	18	A-2-4	SM
	SS-8	14 - 16	57.4	36	20	16	73	A-6	CL
	SS-9	16 - 18	76.5	52	25	27	92	A-7-6	CH
	SS-10	18 - 20	88.1	62	32	30	96	A-7-5	MH

Table 2: Laboratory Index Testing Summary									
Boring Number	Sample Number	Sample Depth (ft)	Natural Moisture (%)	Atterberg Limits*			Percent Finer #200 (%)	Soil Classification	
				LL	PL	PI		AASHTO	USCS
EMB03	SS-11	20 - 22	89.5	68	36	32	91	A-7-5	MH
	SS-12	22 - 24	32.6	28	17	11	66	A-6	CL
	SS-13	24 - 26	32.5	39	18	21	61	A-6	CL
	SS-14	26 - 28	39.5	36	19	17	49	A-6	SC
	SS-15	28 - 30	36.0	28	20	8	25	A-2-4	SC
	SS-16	30 - 32	25.7	25	20	5	12	A-1-b	SC-SM
	SS-17	32 - 34	25.7	NP	NP	NP	12	A-1-b	SM
	SS-18	34 - 36	71.0	54	24	30	84	A-7-6	CH
	SS-19	36 - 38	60.7	47	20	27	71	A-7-6	CL
	SS-20	38 - 40	64.1	53	20	33	80	A-7-6	CH
	SS-1	0 - 2	16.4	NP	NP	NP	17	A-2-4	SM
	SS-4	6 - 8	25.3	31	18	13	38	A-6	SC
	SS-5	8 - 10	35.3	25	17	8	67	A-4	CL
	SS-6	13.5 - 15	44.0	31	20	11	49	A-6	SC
	SS-7	18.5 - 20	93.6	52	26	26	92	A-7-6	CH
	SS-8	23.5 - 25	48.6	50	19	31	70	A-7-6	CH
	SS-9	28.5 - 30	36.5	26	17	9	39	A-4	SC
	SS-10	33.5 - 35	55.0	45	22	23	66	A-7-6	CL
	SS-11	38.5 - 40	59.3	32	21	11	67	A-6	CL
EMB05	SS-5	8 - 10	26.0	NP	NP	NP	7	A-3	SP-SM
	SS-7	18.5 - 20	37.4	31	25	6	21.2	A-2-4	SM
	SS-8	23.5 - 25	83.0	68	30	38	97.0	A-7-5	CH
	SS-10	33.5 - 35	44.6	63	25	38	56.7	A-7-6	CH
	SS-11	38.5 - 40	38.3	41	15	26	29.9	A-2-7	SC
EMB06	SS-4	6 - 8	24.6	NP	NP	NP	7.2	A-3	SP-SM
	SS-6	13.5 - 15	80.2	63	25	38	71	A-7-6	CH
	SS-8	23.5 - 25	56.3	55	20	35	83.9	A-7-6	CH
	SS-10	33.5 -35	45.7	74	20	54	89.2	A-7-6	CH
	SS-11	38.5 - 40	70.2	99	28	71	94.4	A-7-6	CH
EMB07	SS-1	0 - 2	9.6	NP	NP	NP	7.8	A-3	SP-SM
	SS-3	4 - 6	10.8	NP	NP	NP	9.1	A-3	SP-SM
	SS-8	23.5 - 25	17.1	NP	NP	NP	14	A-2-4	SM
	SS-10	33.5 - 35	27.8	NP	NP	NP	12.9	A-2-4	SM
	SS-11	38.5 - 40	64.3	44	26	18	90.8	A-7-6	CL
EMB08	SS-1	0 - 2	13.5	NP	NP	NP	14	A-2-4	SM
	SS-5	8 - 10	14.5	NP	NP	NP	7.9	A-3	SP-SM
	SS-6	13.5 - 15	14.1	NP	NP	NP	13.2	A-2-4	SM
	SS-9	28.5 - 30	20	NP	NP	NP	7.9	A-3	SP-SM
	SS-10	33.5 - 35	48.8	34	26	8	77.7	A-4	ML
	SS-11	38.5 - 40	32.7	NP	NP	NP	9.6	A-3	SP-SM

Table 2: Laboratory Index Testing Summary									
Boring Number	Sample Number	Sample Depth (ft)	Natural Moisture (%)	Atterberg Limits*			Percent Finer #200 (%)	Soil Classification	
				LL	PL	PI		AASHTO	USCS
EMB09	SS-2	2 - 4	8.5	NP	NP	NP	3.9	A-2-4	SP
	SS-4	6 - 8	10.4	NP	NP	NP	10.9	A-2-4	SP-SM
	SS-7	18.5 - 20	22.7	NP	NP	NP	9.7	A-2-4	SP-SM
	SS-8	23.5 - 25	41.3	NP	NP	NP	4.2	A-2-4	SP
	SS-9	28.5 - 30	39.5	37	15	22	55	A-6	CL
	SS-10	33.5 - 35	44	41	17	24	49.8	A-7-6	SC
	SS-11	38.5 - 40	45.6	29	13	16	57.6	A-6	CL
EMB10	SS-1	0 - 2	19.7	NP	NP	NP	12	A-2-4	SM
	SS-2	2 - 4	19.6	NP	NP	NP	6.9	A-2-4	SP-SM
	SS-4	6 - 8	20.7	NP	NP	NP	5	A-2-4	SP-SM
	SS-5	8 - 10	19.6	NP	NP	NP	4.5	A-2-4	SP
	SS-6	13.5 - 15	72.9	68	20	48	86.5	A-7-6	CH
	SS-7	18.5 - 20	32.5	NP	NP	NP	8.5	A-2-4	SP-SM
	SS-8	23.5 - 25	66	81	23	58	95.1	A-7-6	CH
	SS-10	33.5 - 35	43.4	31	15	16	43	A-6	SC
	SS-11	38.5 - 40	31.6	30	15	15	19.9	A-2-6	SC
EMB11	SS-1	0 - 2	23.5	NP	NP	NP	11	A-2-4	SP-SM
	SS-2	2 - 4	16.8	NP	NP	NP	25	A-2-4	SM
	SS-4	6 - 8	25.2	NP	NP	NP	11	A-2-4	SP-SM
	SS-5	8 - 10	30.8	NP	NP	NP	19	A-2-4	SM
	SS-6	13.5 - 15	67.7	52	27	25	89	A-7-6	CH
	SS-7	18.5 - 20	26.3	NP	NP	NP	28	A-2-4	SM
	SS-8	23.5 - 25	25.6	61	25	36	78	A-7-6	CH
	SS-9	28.5 - 30	61.6	NP	NP	NP	12	A-2-4	SM
	SS-10	33.5 - 35	47.6	44	22	22	49	A-7-6	SC
EMB12	SS-2	2 - 4	21.8	NP	NP	NP	12	A-2-4	SP-SM
	SS-3	4 - 6	27.6	NP	NP	NP	13	A-2-4	SM
	SS-4	6 - 8	26.2	NP	NP	NP	16	A-2-4	SM
	SS-5	8 - 10	97.2	79	43	36	46	A-7-5	SM
	SS-6	13.5 - 15	50.8	31	21	10	48	A-4	SC
	SS-7	18.5 - 20	26.4	34	18	16	34	A-6	SC
	SS-8	23.5 - 25	33.6	NP	NP	NP	23	A-2-4	SM
	SS-9	28.5 - 30	32.1	--	--	--	--	--	SM
	SS-10	33.5 - 35	44.5	45	23	22	57	A-7-6	CL
	SS-11	38.5 - 40	37.6	NP	NP	NP	23	A-2-4	SM

Table 2: Laboratory Index Testing Summary									
Boring Number	Sample Number	Sample Depth (ft)	Natural Moisture (%)	Atterberg Limits*			Percent Finer #200 (%)	Soil Classification	
				LL	PL	PI		AASHTO	USCS
EMB13	SS-1	0 - 2	17.1	NP	NP	NP	22	A-2-4	SM
	SS-2	2 - 4	18	NP	NP	NP	23	A-2-4	SM
	SS-3	4 - 6	22	NP	NP	NP	8	A-3	SP-SM
	SS-4	6 - 8	24.6	NP	NP	NP	6	A-3	SP-SM
	SS-5	8 - 10	25.3	NP	NP	NP	8	A-3	SP-SM
	SS-6	10 - 12	30.7	NP	NP	NP	12	A-2-4	SP-SM
	SS-7	12 - 14	55.8	NP	NP	NP	40	A-4	SM
	SS-8	14 - 16	43.1	NP	NP	NP	26	A-2-4	SM
	SS-9	16 - 18	95.6	91	36	55	66	A-7-5	CH
	SS-10	18 - 20	62.2	100	36	64	56	A-7-5	CH
	SS-11	20 - 22	28.3	NP	NP	NP	9	A-3	SP-SM
	SS-12	22 - 24	30.2	NP	NP	NP	11	A-2-4	SP-SM
	SS-13	24 - 26	34.1	NP	NP	NP	10	A-3	SP-SM
	SS-14	26 - 28	60.6	64	26	38	84	A-7-6	CH
	SS-15	28 - 30	78.3	94	37	57	79	A-7-5	CH
	SS-16	30 - 32	94.3	113	41	72	87	A-7-5	CH
	SS-17	32 - 34	91.8	NP	NP	NP	15	A-2-4	SM
	SS-18	34 - 36	28.5	NP	NP	NP	7	A-3	SP-SM
	SS-19	36 - 38	75.7	99	41	58	63	A-7-5	CH
	SS-20	38 - 40	79	102	39	63	77	A-7-5	CH
EMB14	SS-8	28.5 - 30	90.9	68	32	36	93	A-7-6	CH
	SS-10	38.5 - 40	40.6	35	18	17	37	A-6	SC
	SS-13	53.5 - 55	35.3	29	11	18	20	A-2-6	SC
	SS-14	58.5 - 60	49.9	48	15	33	73	A-7-6	CL
R01	SS-1	0 - 2	10.9	NP	NP	NP	14.7	A-2-4	SM
R05	SS-1	0 - 2	11.8	NP	NP	NP	11.0	A-2-4	SP-SM
R16	SS-1	0 - 2	17.7	NP	NP	NP	10.7	A-2-4	SP-SM
	SS-2	2 - 4	24.3	NP	NP	NP	5.8	A-3	SP-SM
	SS-3	4 - 6	35.2	NP	NP	NP	13.6	A-2-4	SM

Notes: NP = non-plastic

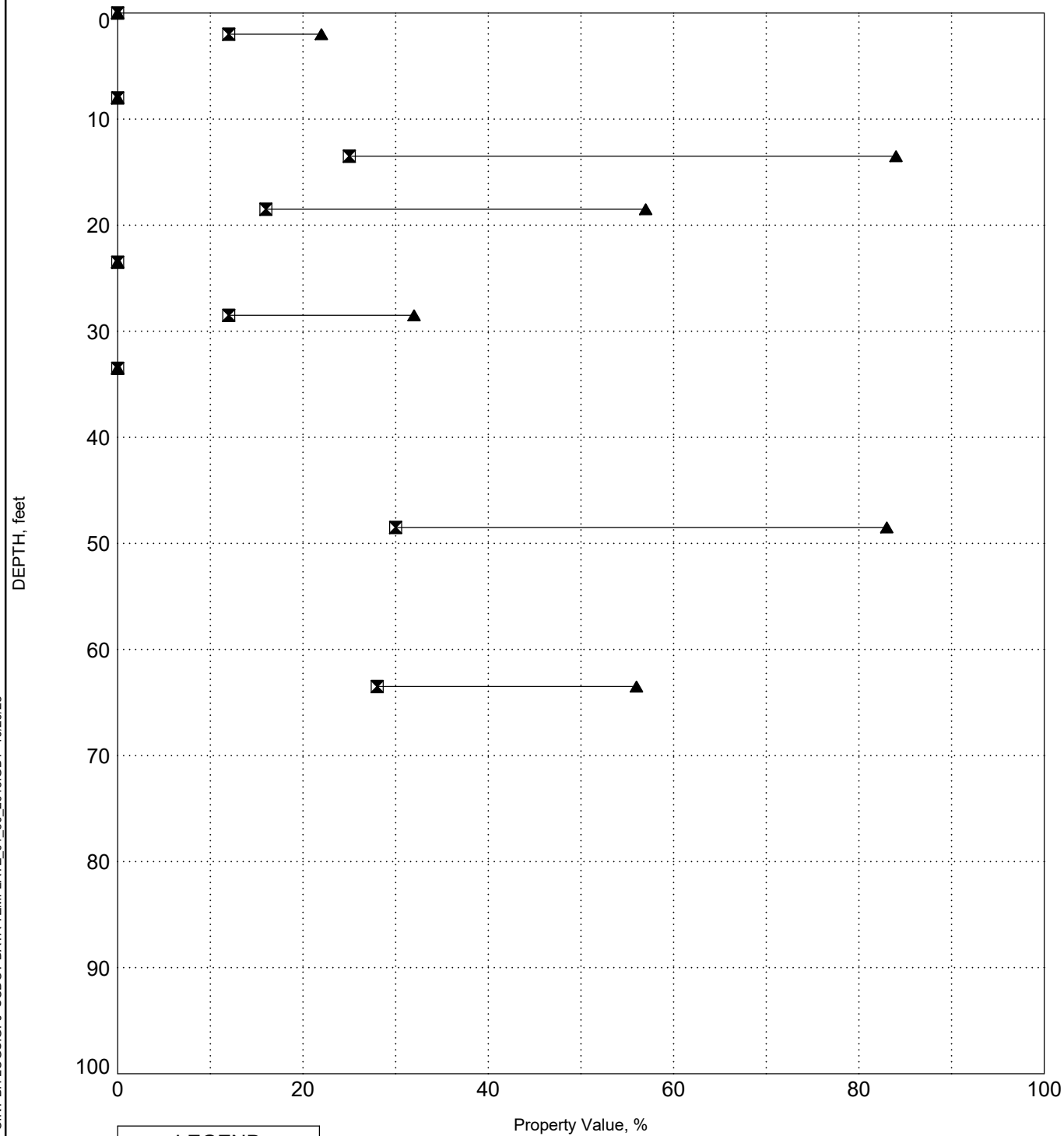
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B01

SURFACE ELEVATION: 9.7



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

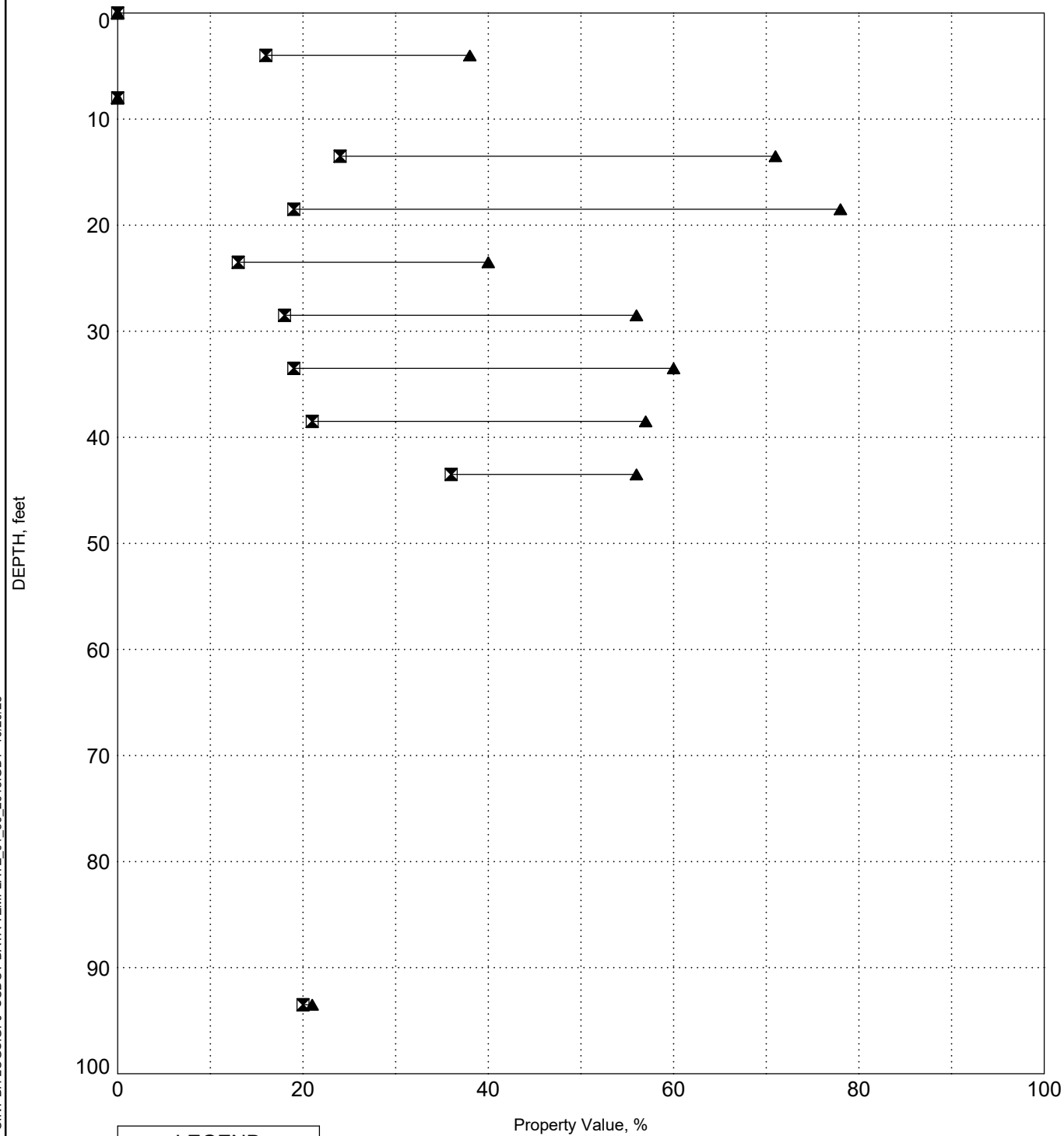
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B02

SURFACE ELEVATION: 9.4



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

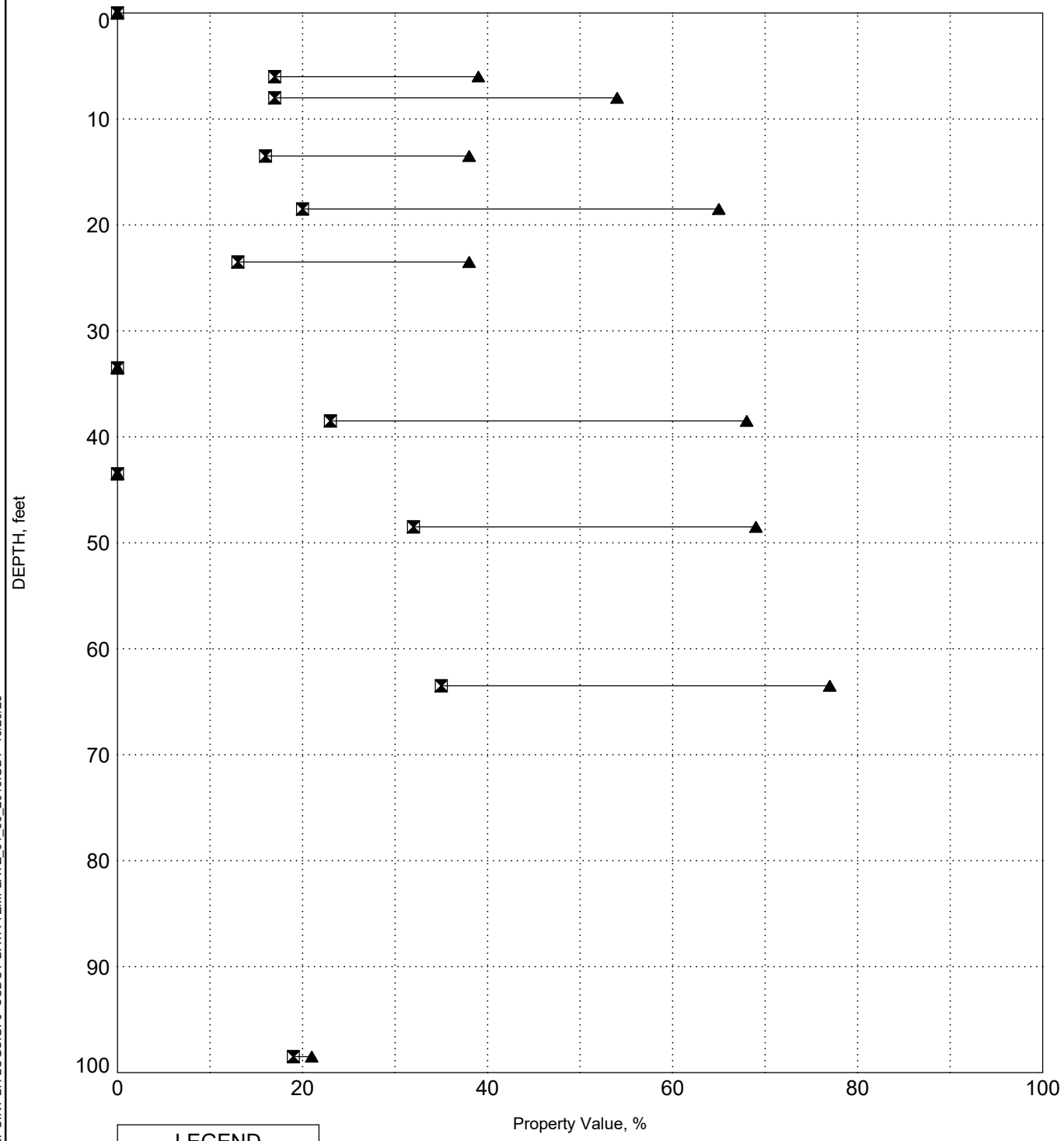
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B03

SURFACE ELEVATION: 13.4



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

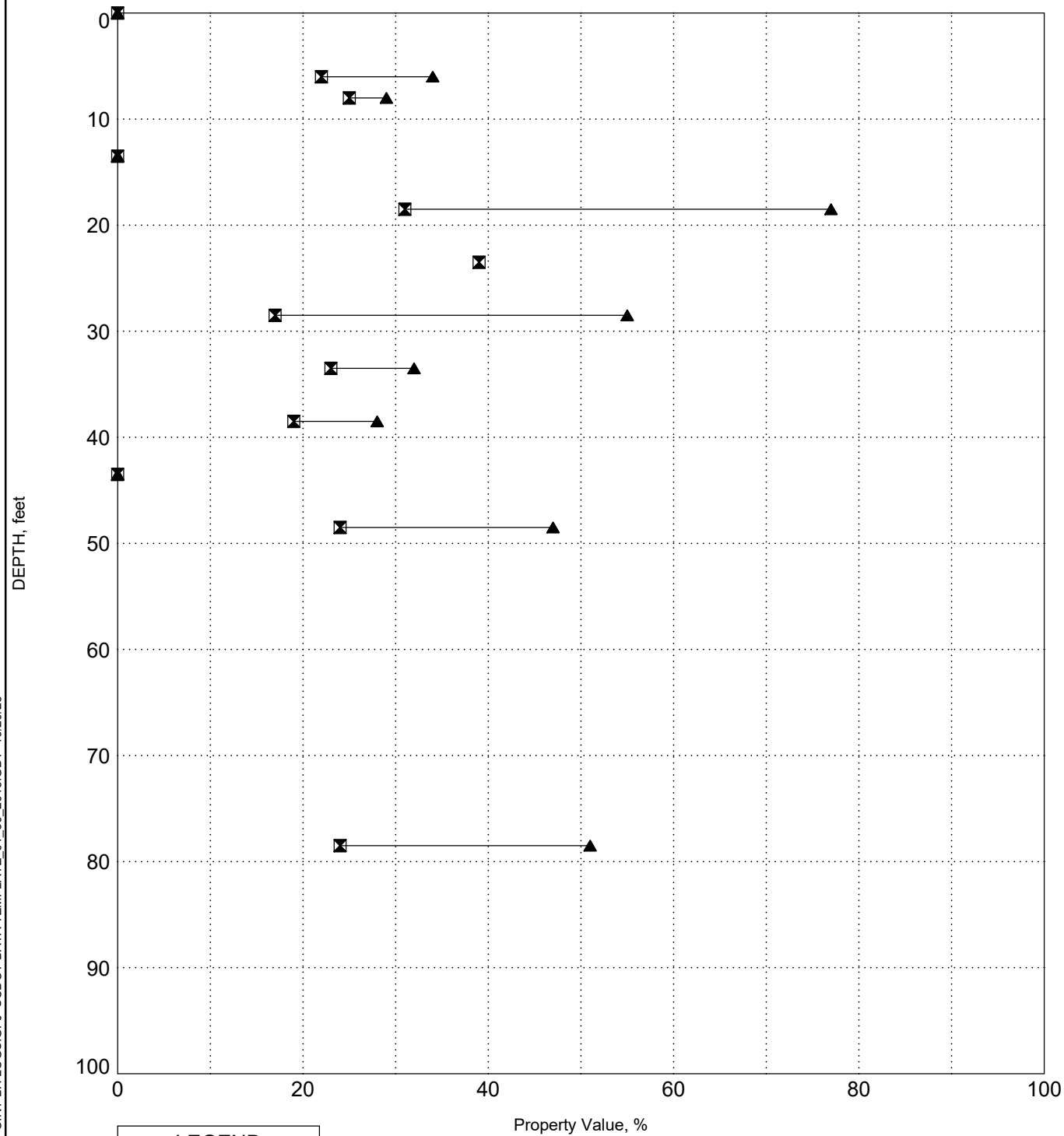
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B04

SURFACE ELEVATION: 15.0



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

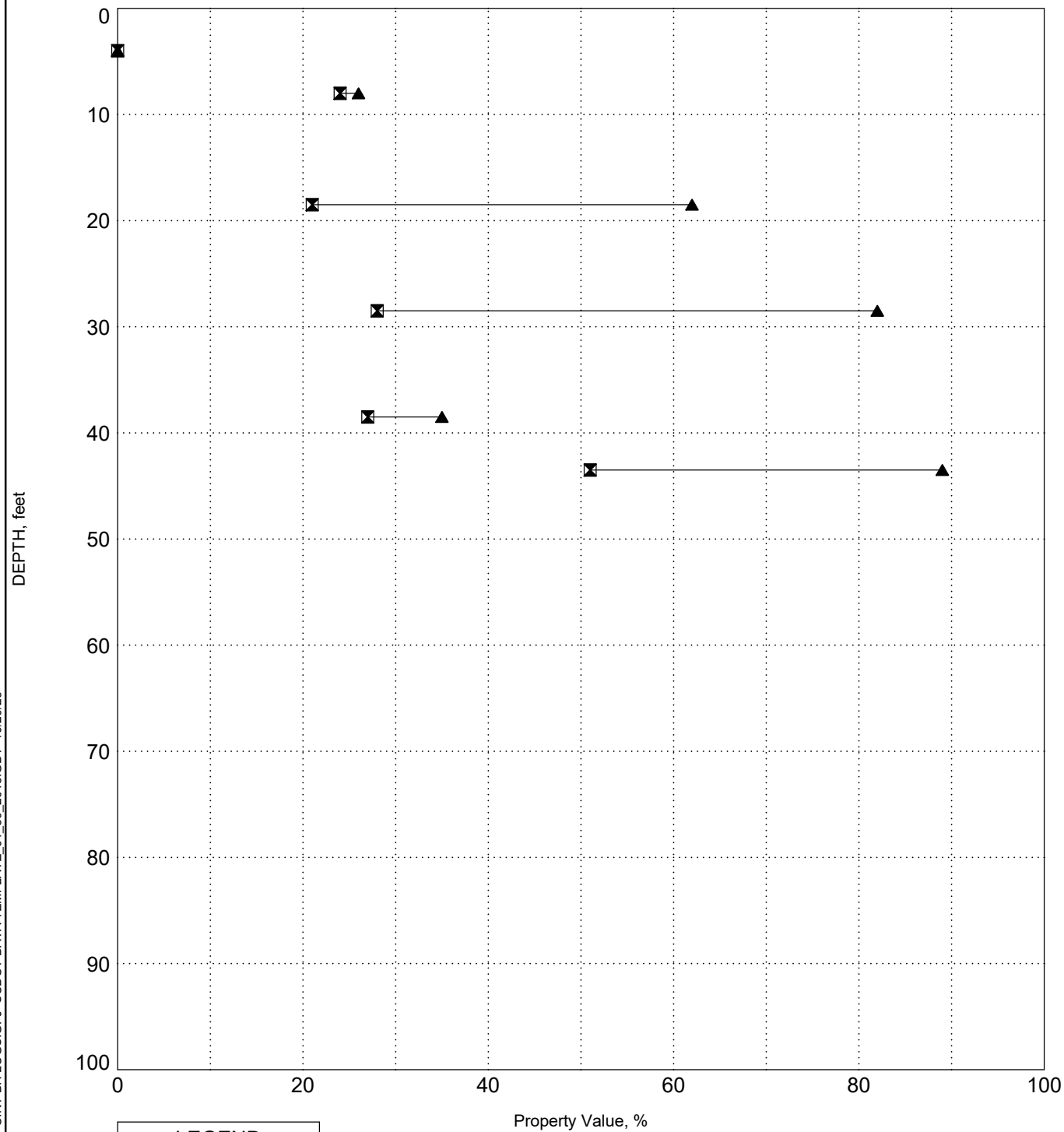
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B05

SURFACE ELEVATION: 14.4



LEGEND
● Water Content
⊠ Plastic Limit
▲ Liquid Limit
★ Fines

INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

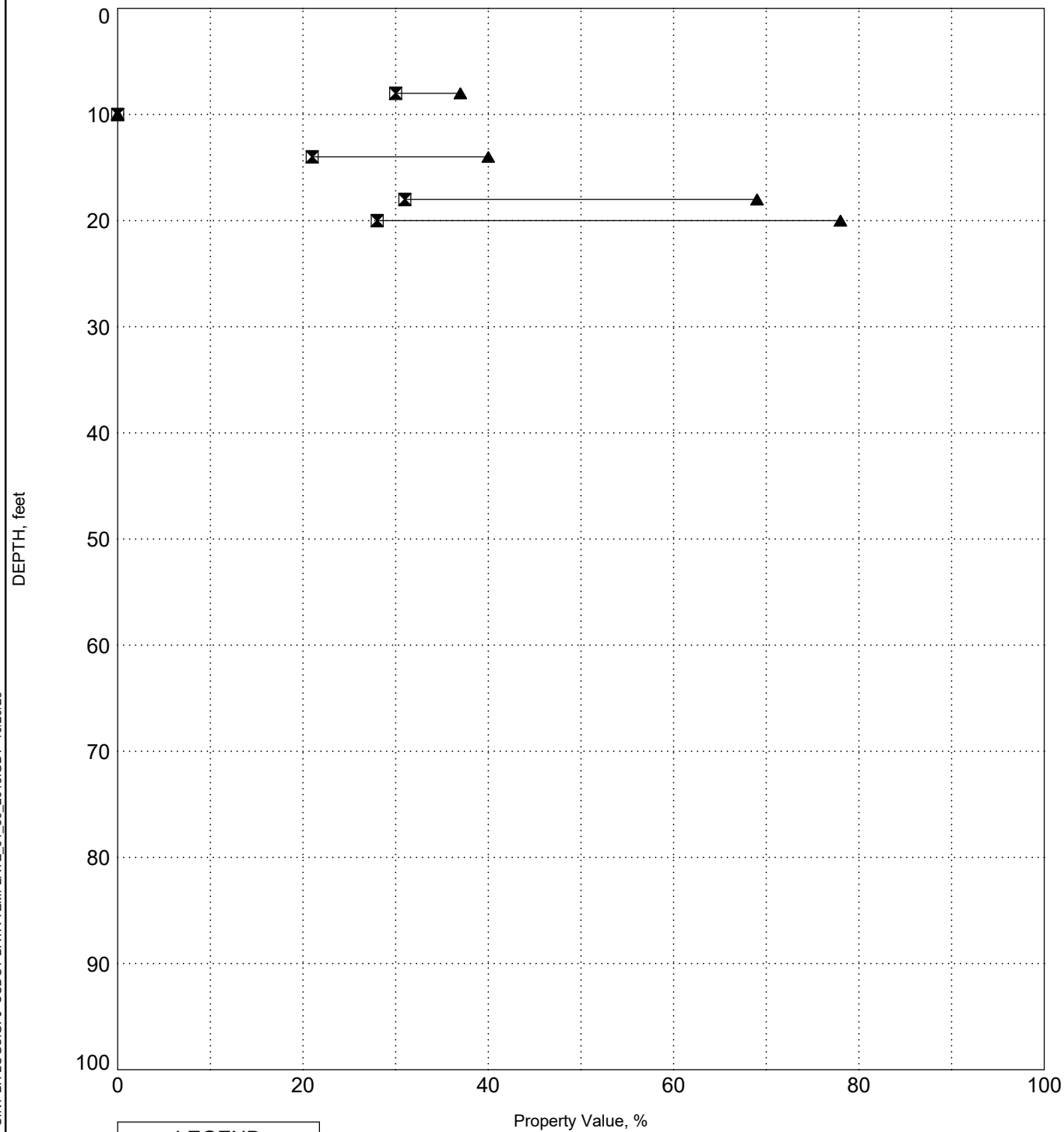
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B06

SURFACE ELEVATION: 10.0



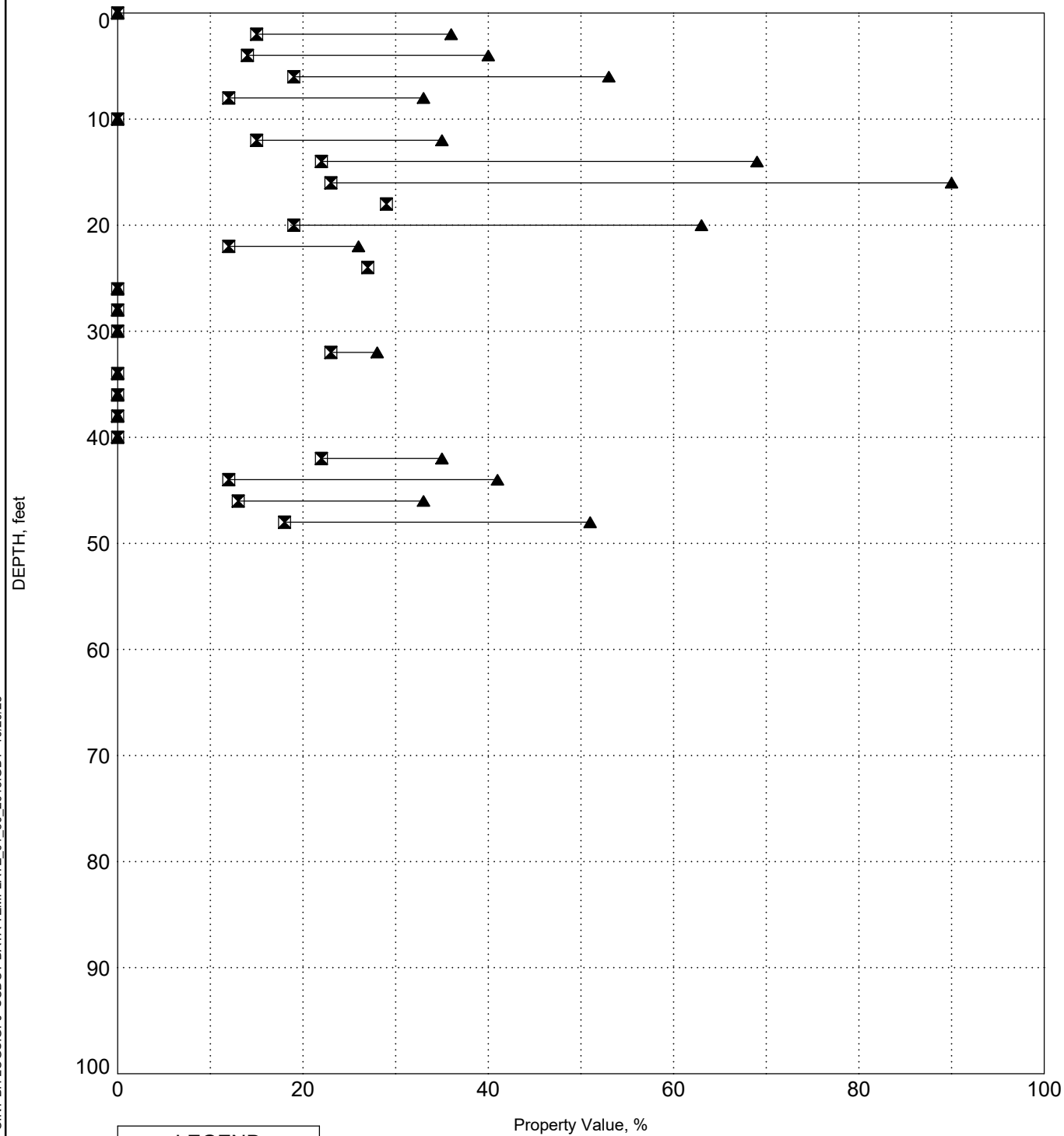
INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B07



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

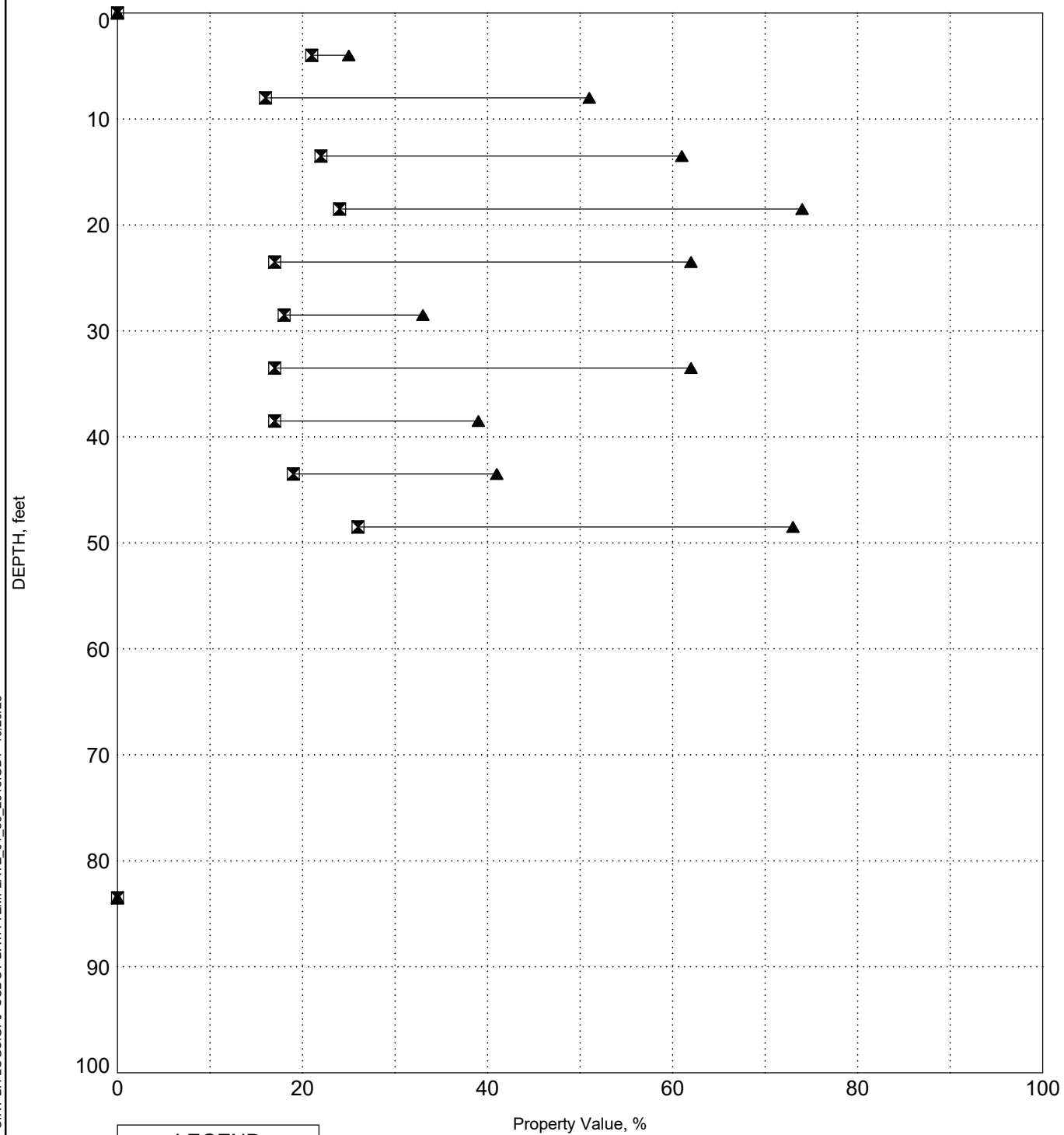
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B08

SURFACE ELEVATION: 11.1



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

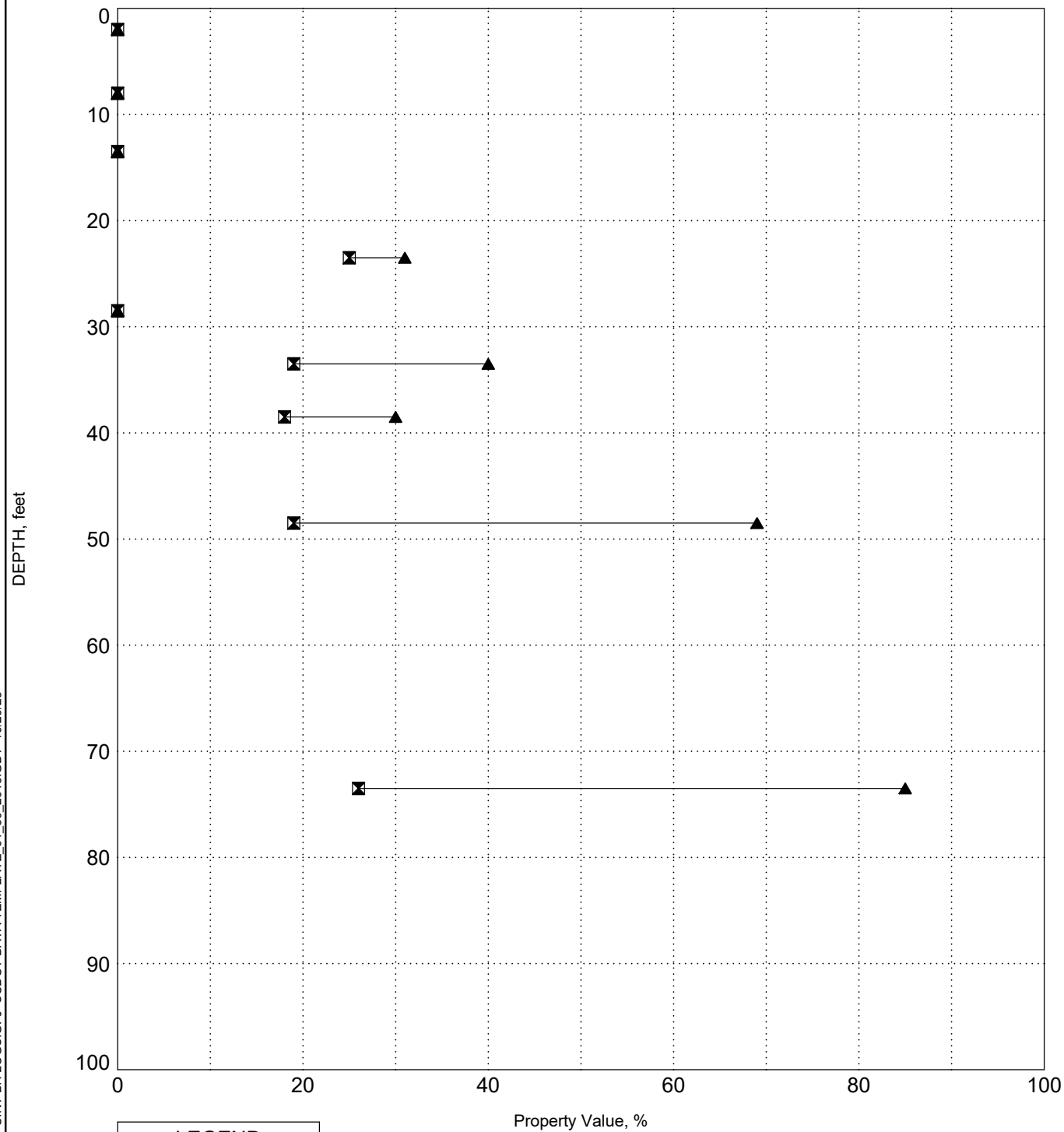
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B09

SURFACE ELEVATION: 30.1



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

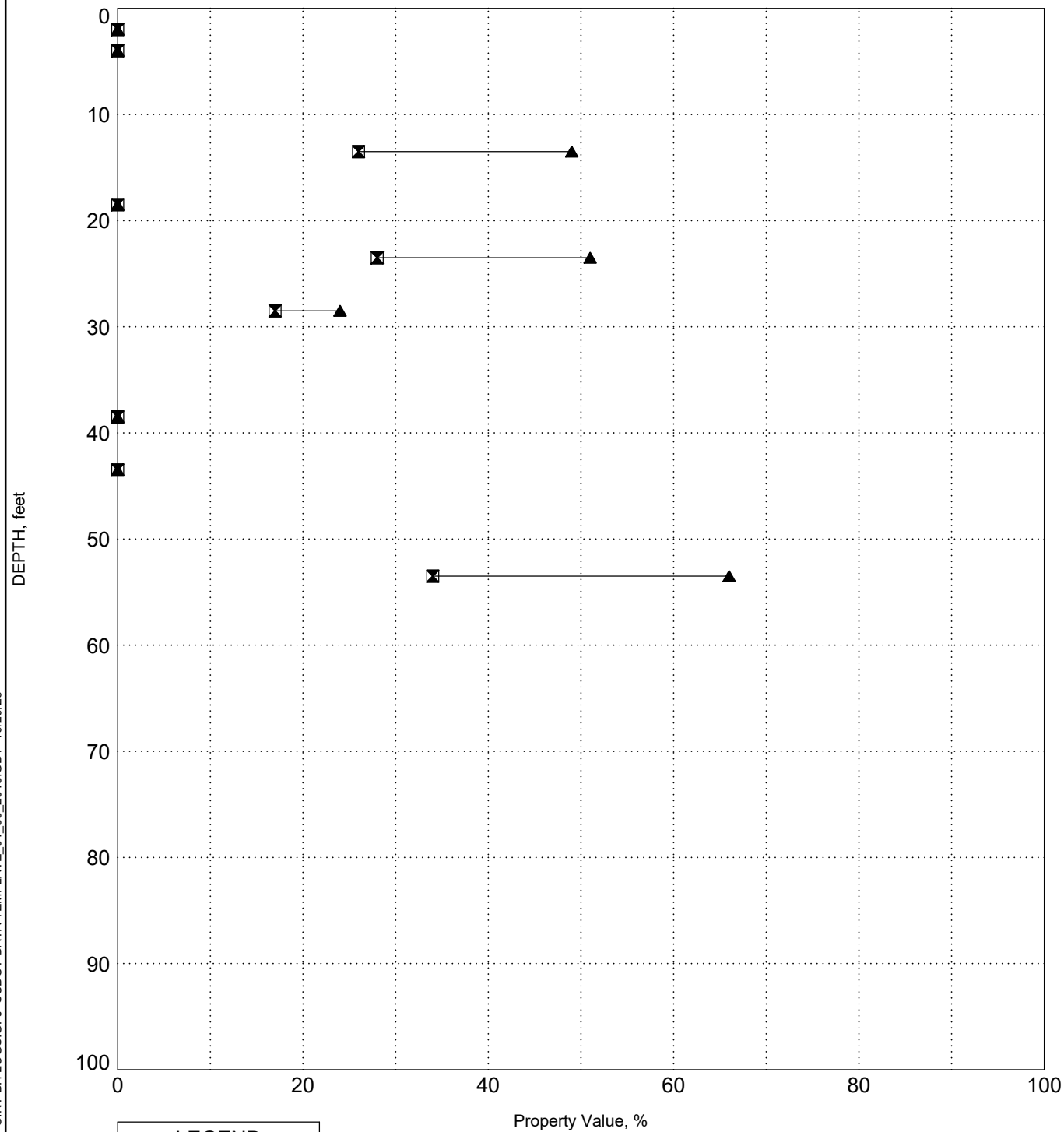
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B10

SURFACE ELEVATION: 19.3



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

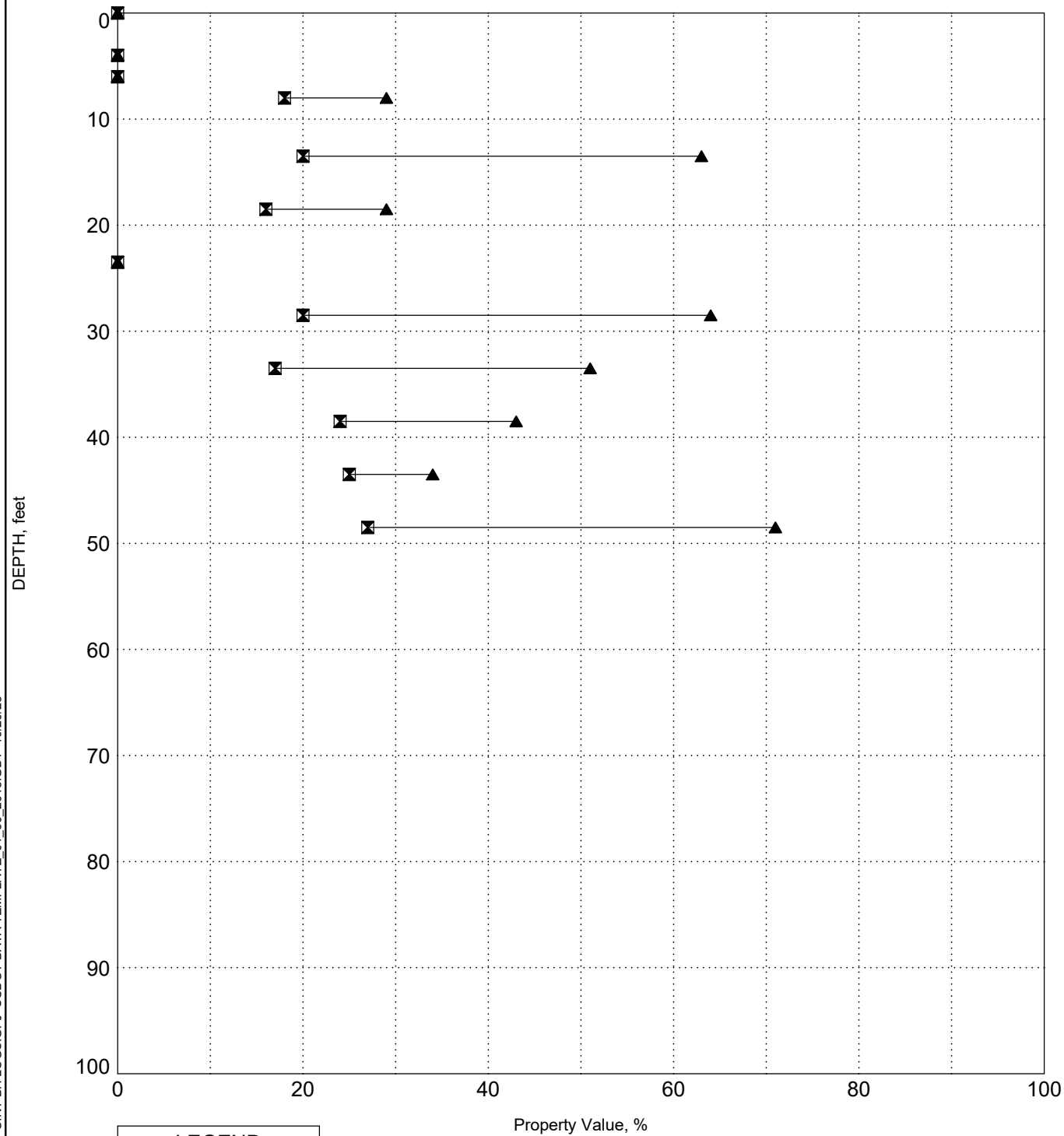
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B11

SURFACE ELEVATION: 7.8



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

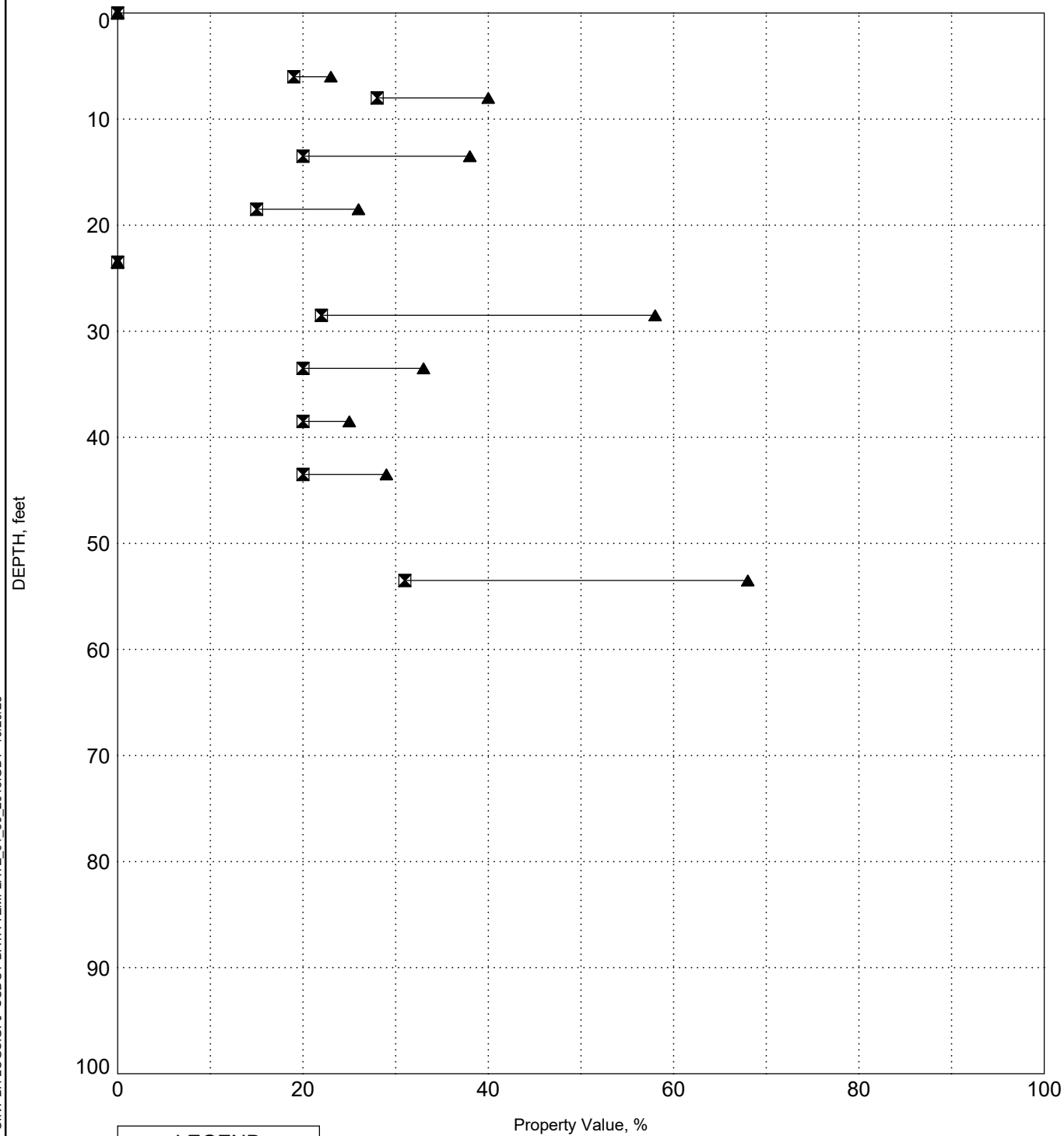
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B12

SURFACE ELEVATION: 10.1



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

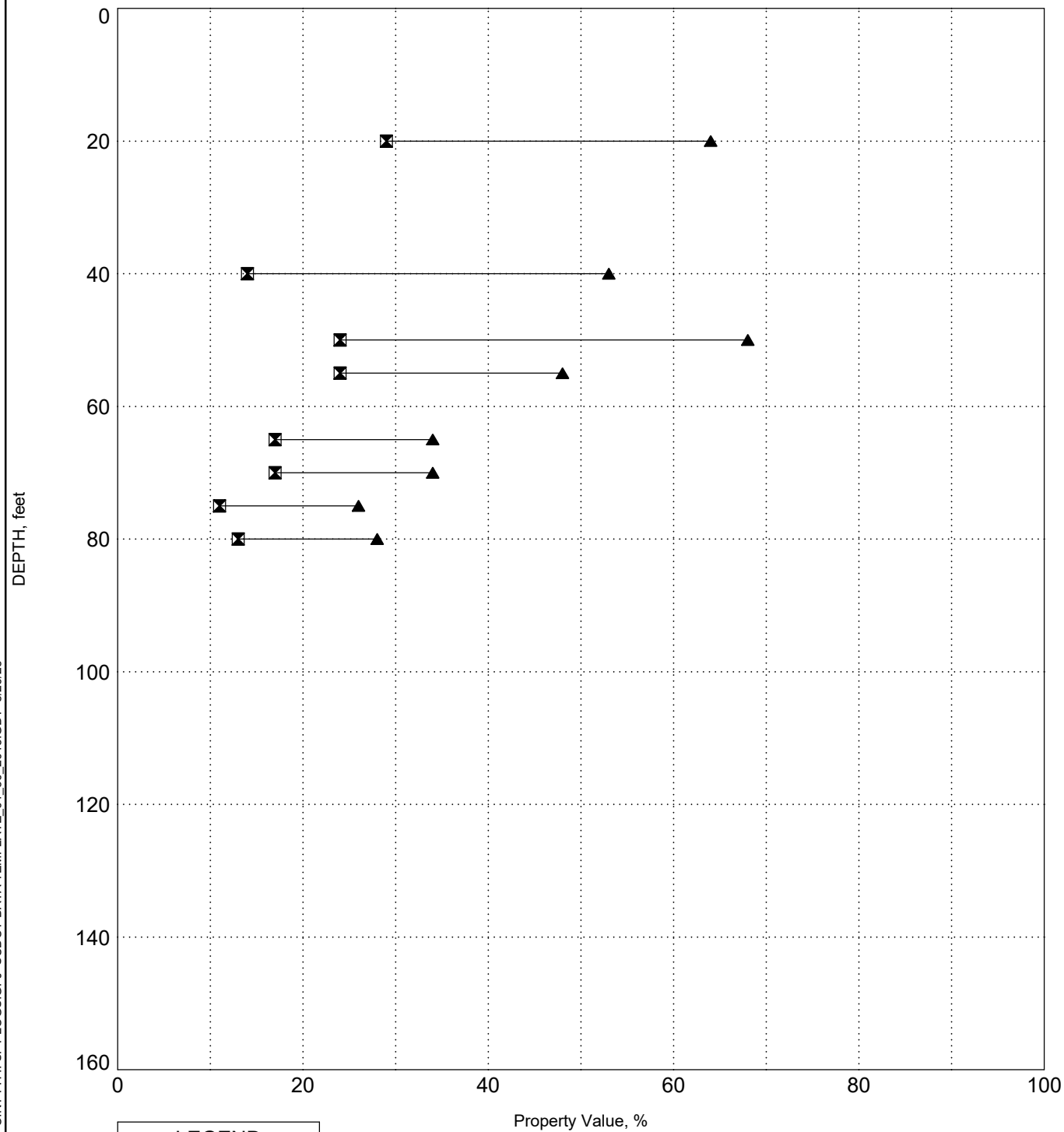
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B-13

SURFACE ELEVATION: 9.1



INDEX PROPS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/26/25

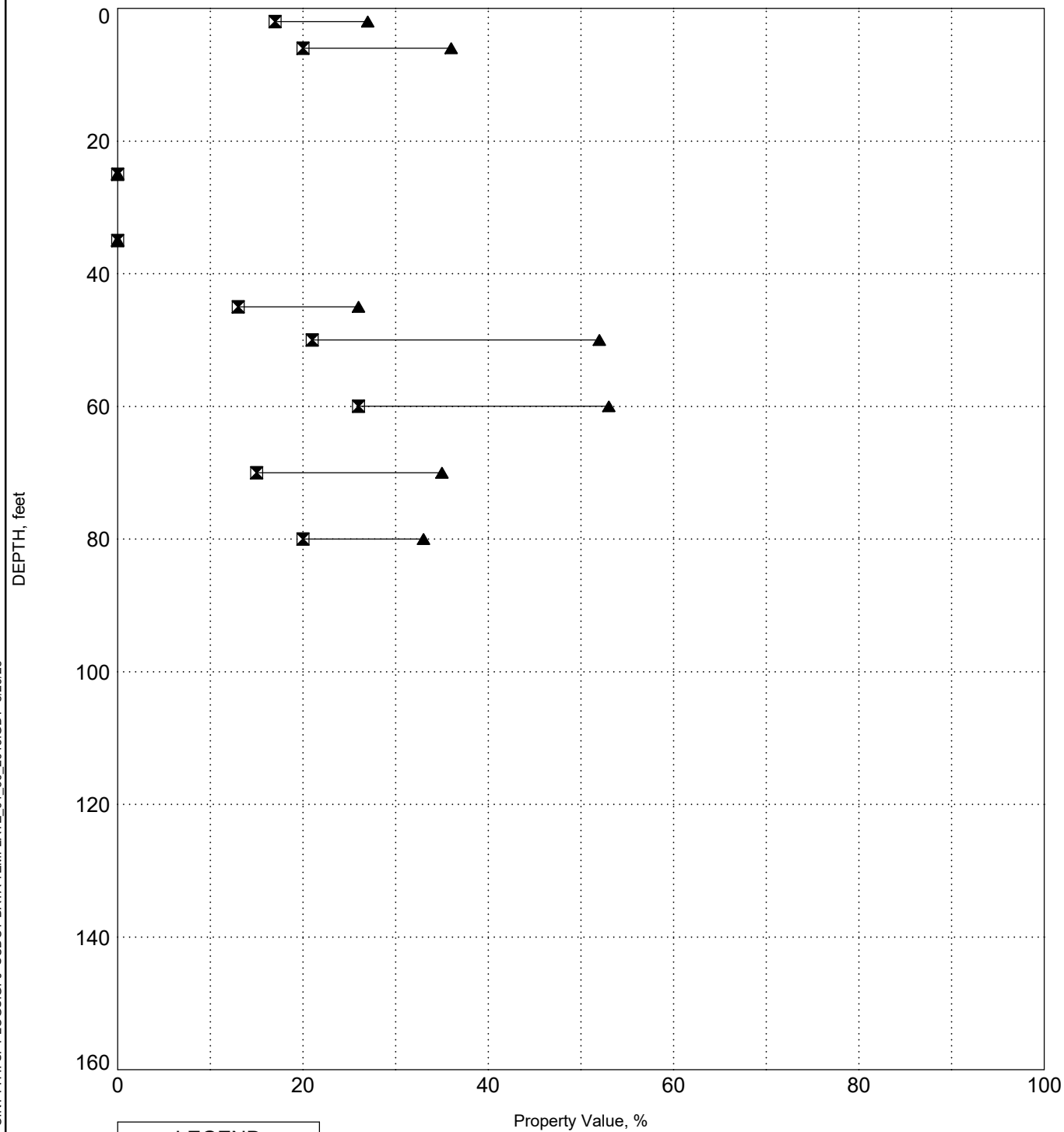
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B-14

SURFACE ELEVATION: 8.1



LEGEND
● Water Content
⊠ Plastic Limit
▲ Liquid Limit
★ Fines

INDEX PROPS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/26/25

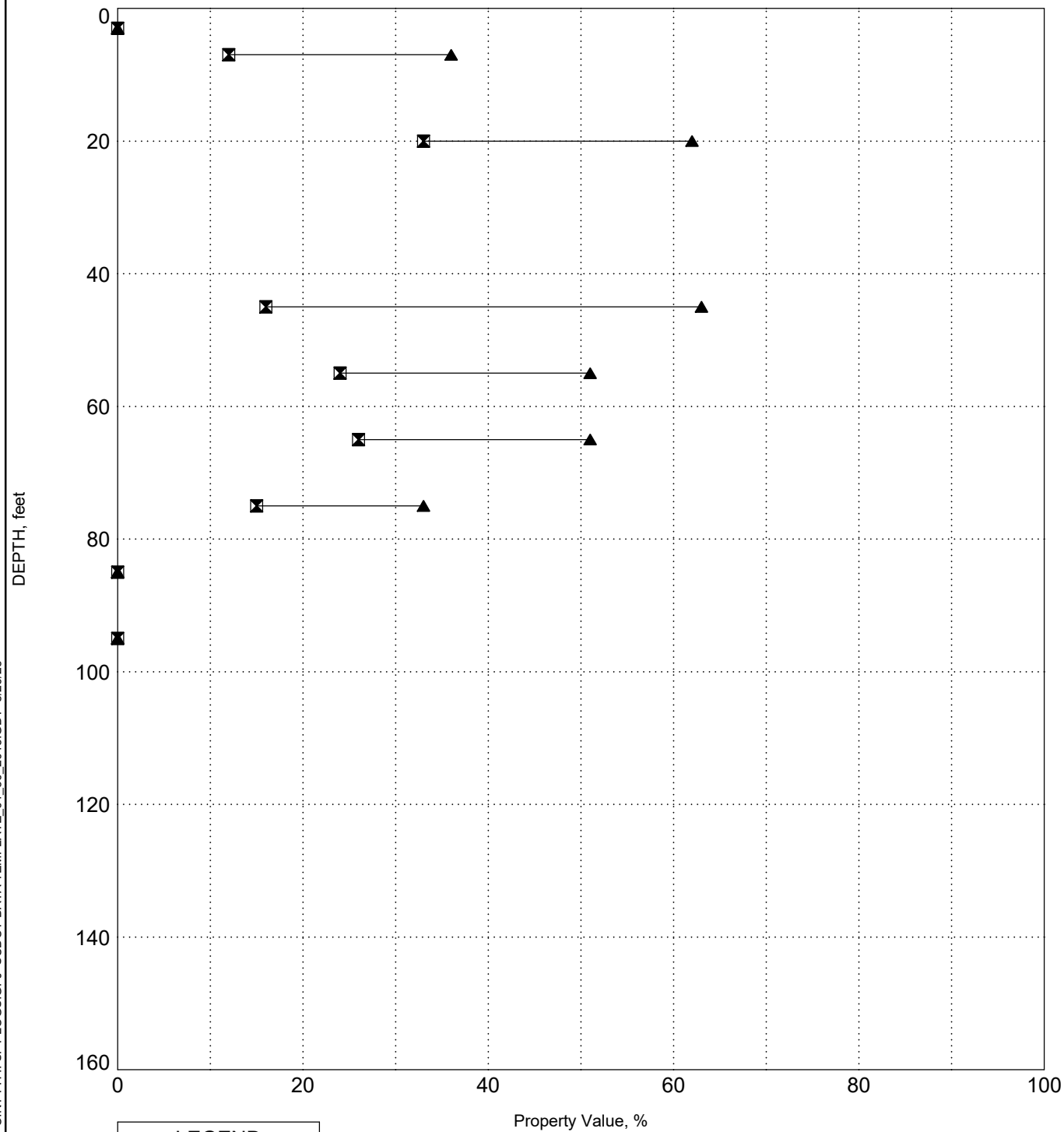
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B-15

SURFACE ELEVATION: 8.7



INDEX PROPS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/26/25

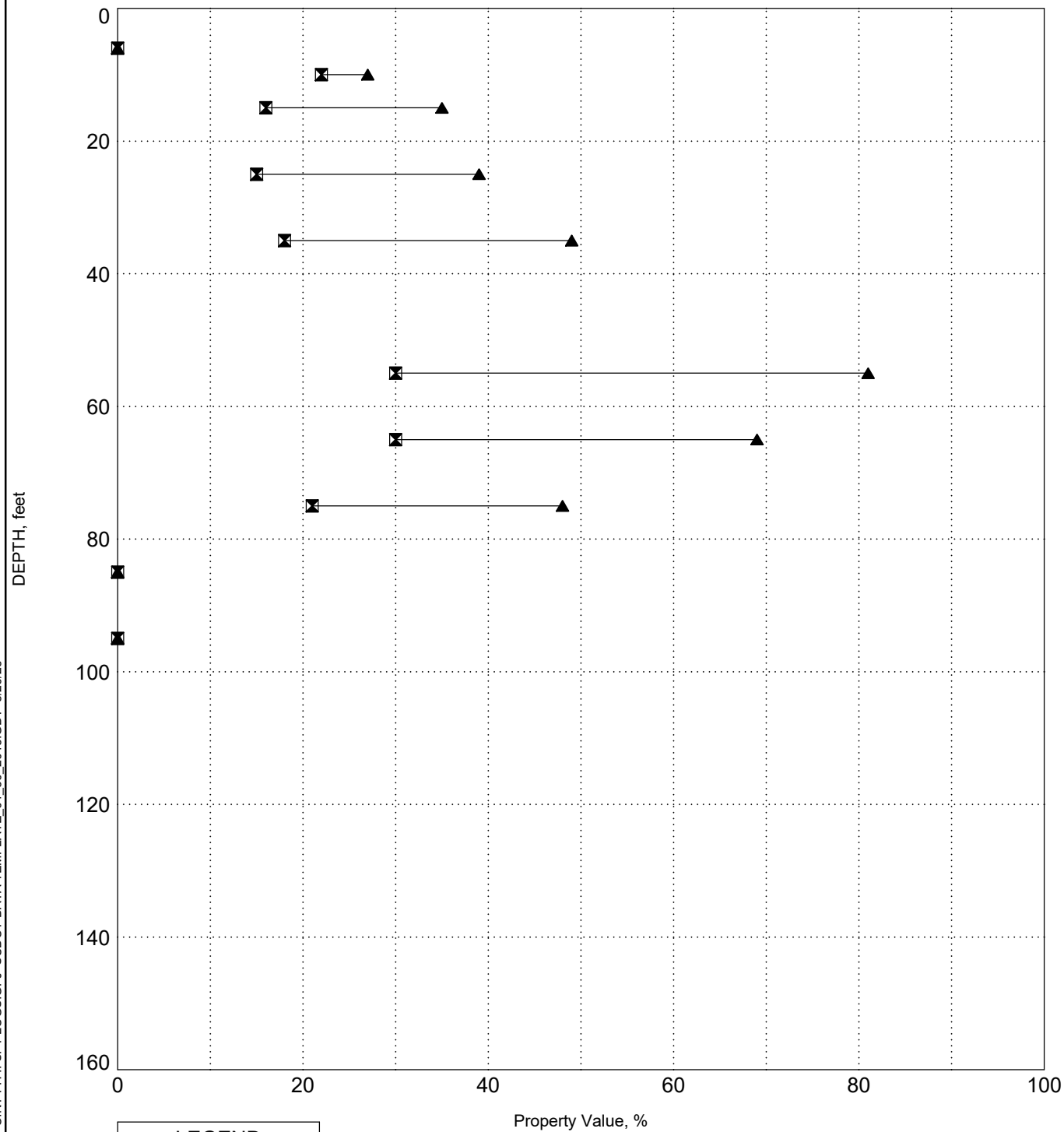
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B-16

SURFACE ELEVATION: 11.2



LEGEND
● Water Content
⊠ Plastic Limit
▲ Liquid Limit
★ Fines

INDEX PROPS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/26/25

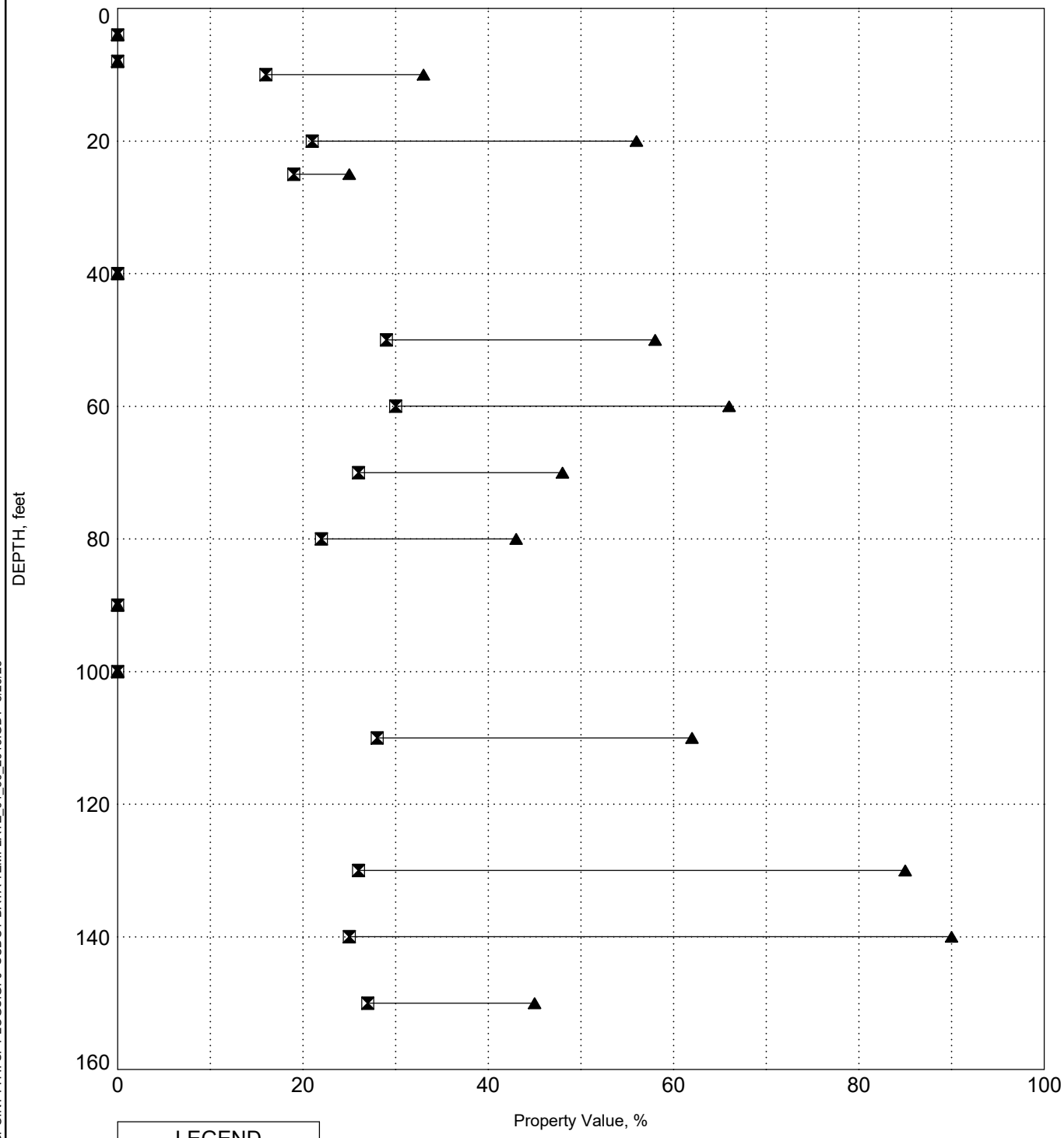
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B-17

SURFACE ELEVATION: 12.5



INDEX PROPS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/26/25

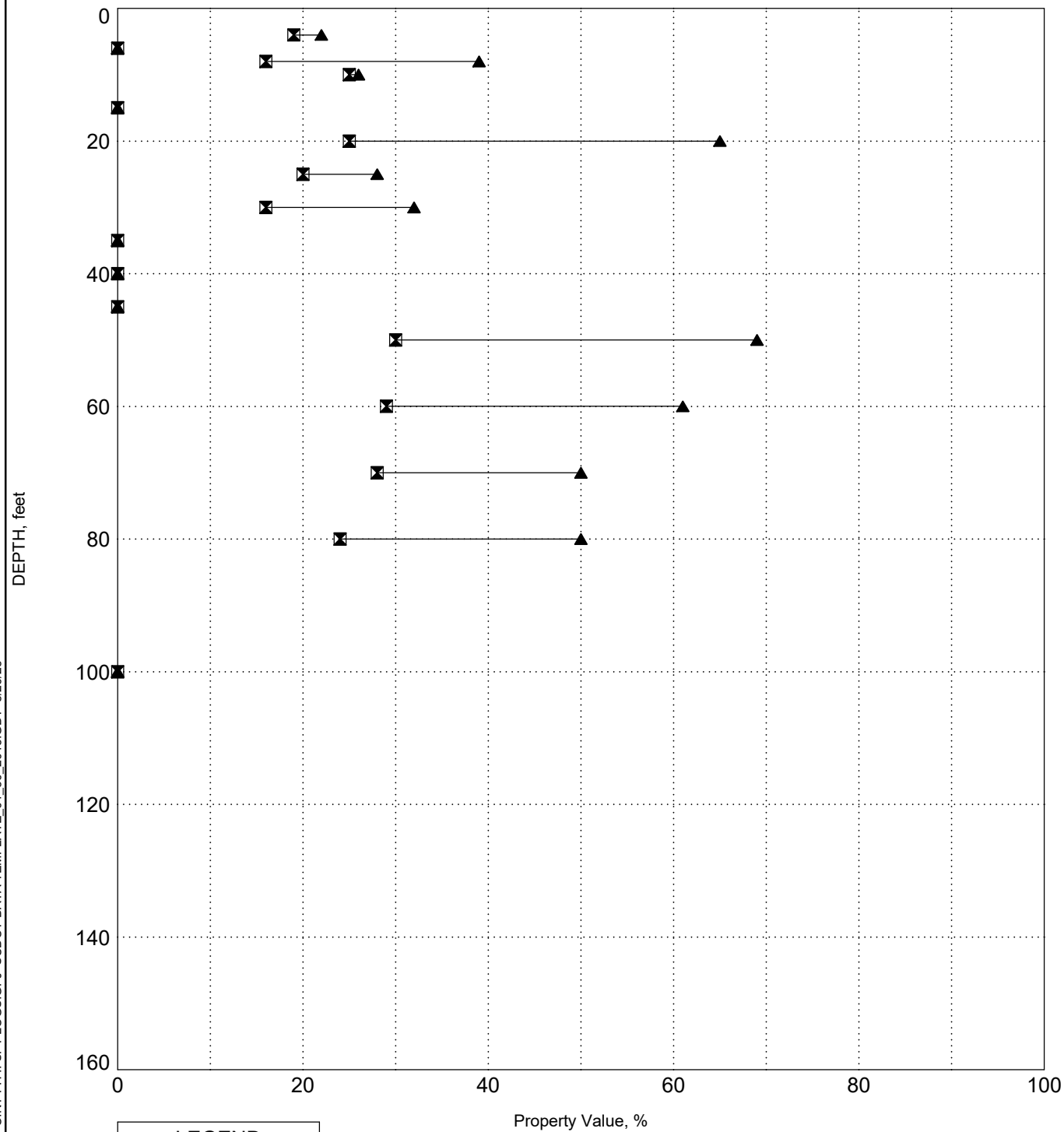
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING B-18

SURFACE ELEVATION: 10.5



INDEX PROPS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/26/25

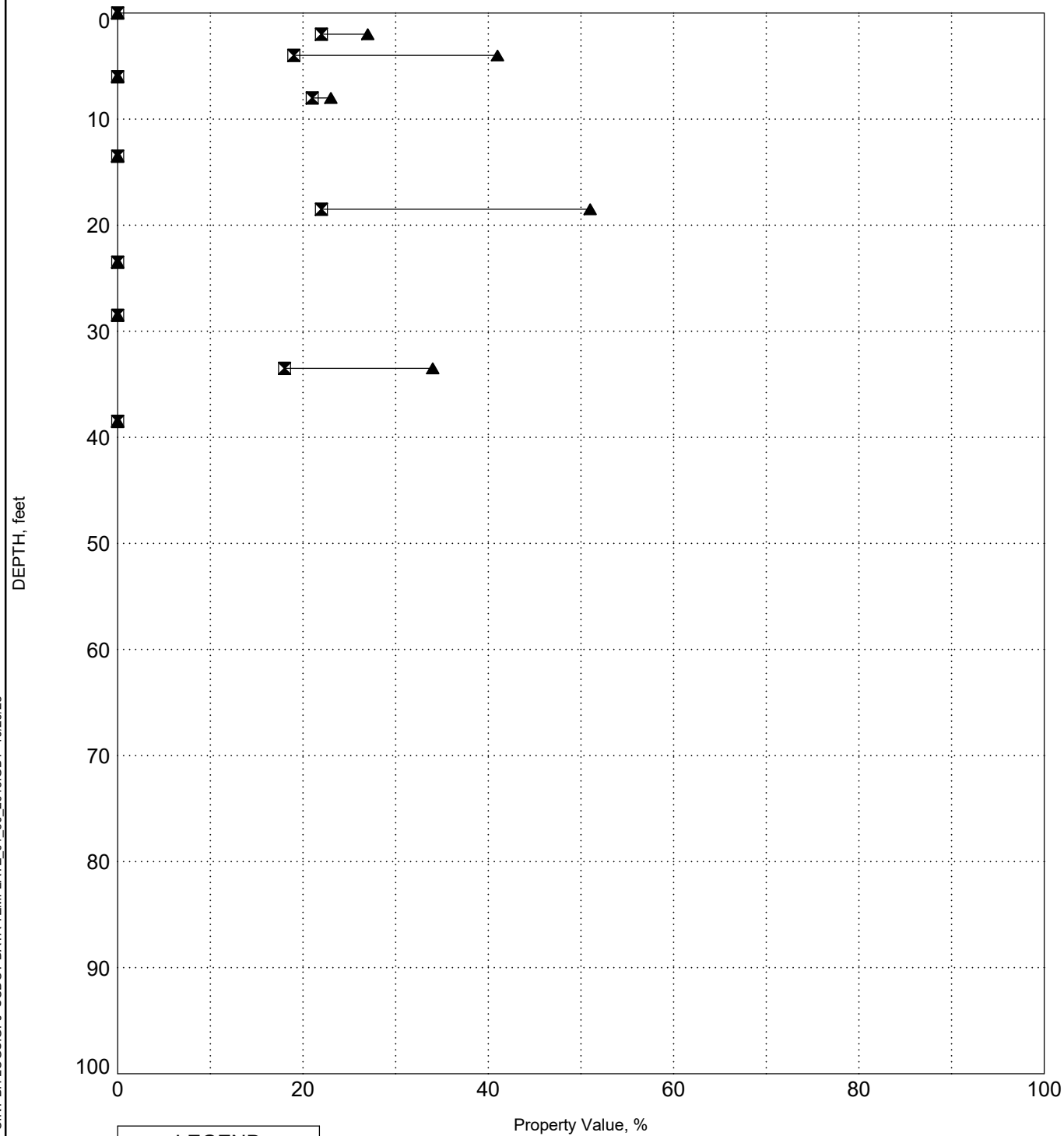
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB01

SURFACE ELEVATION: 8.3



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

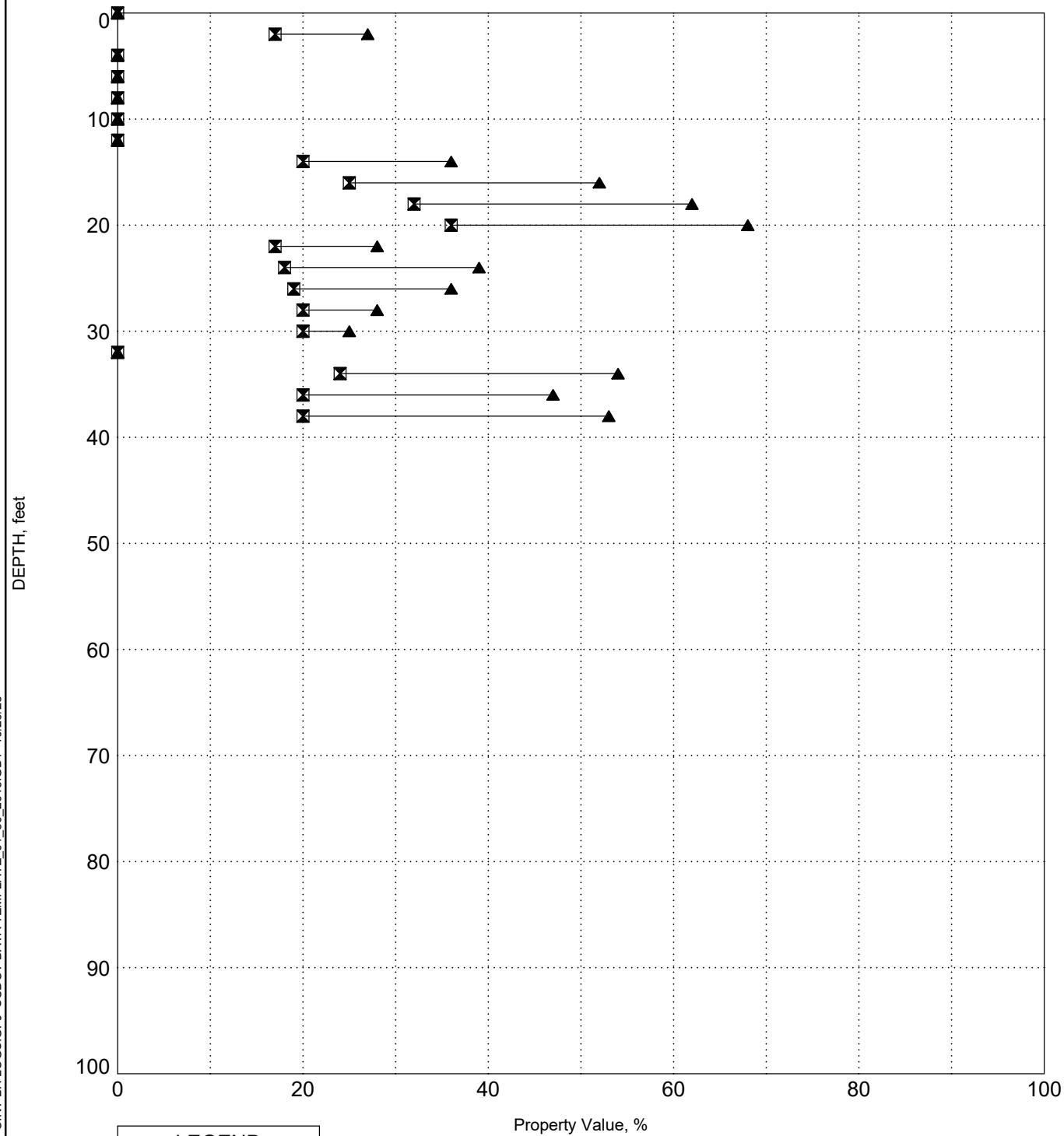
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB02

SURFACE ELEVATION: 11.5



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

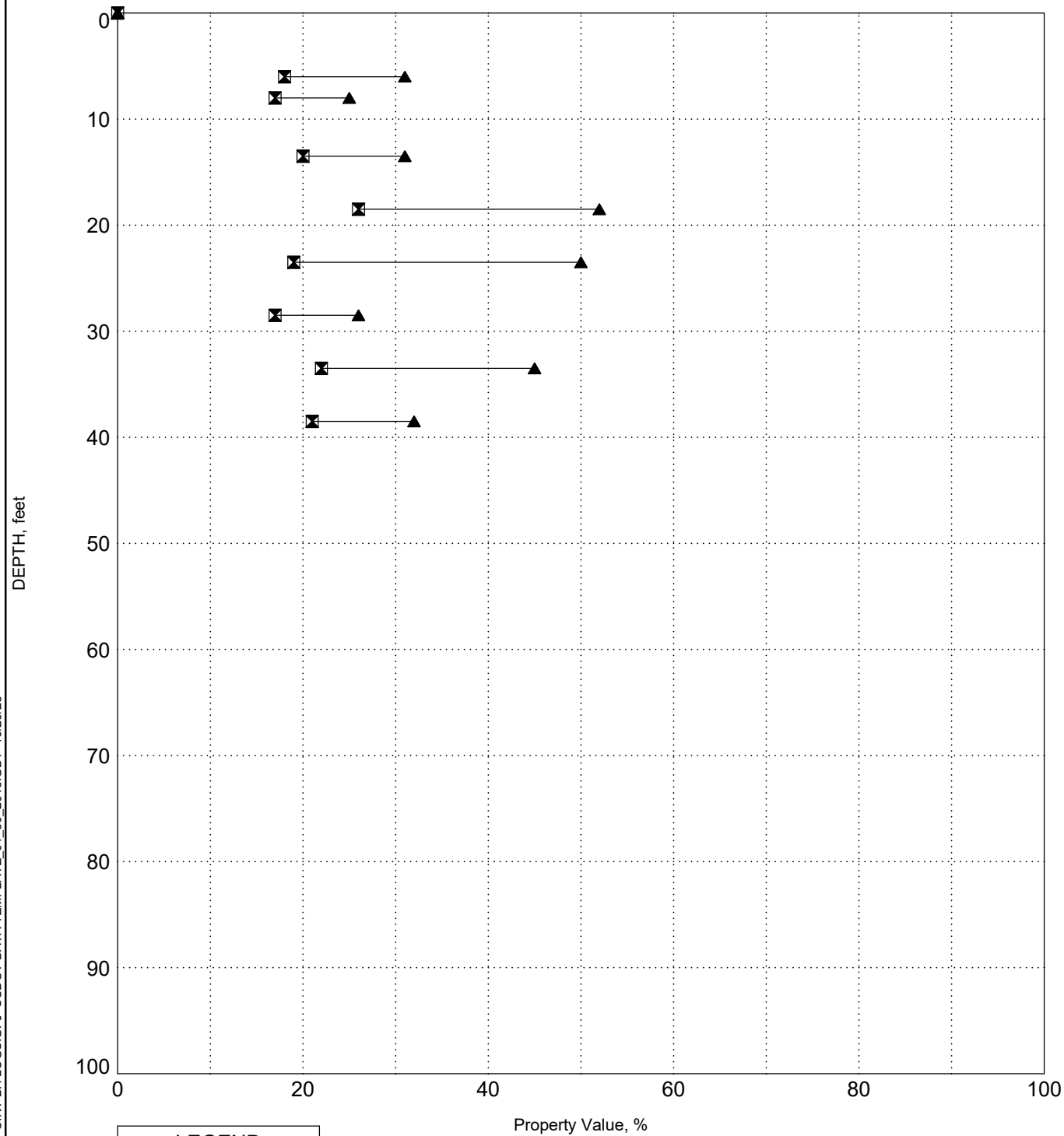
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB03

SURFACE ELEVATION: 11.7



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

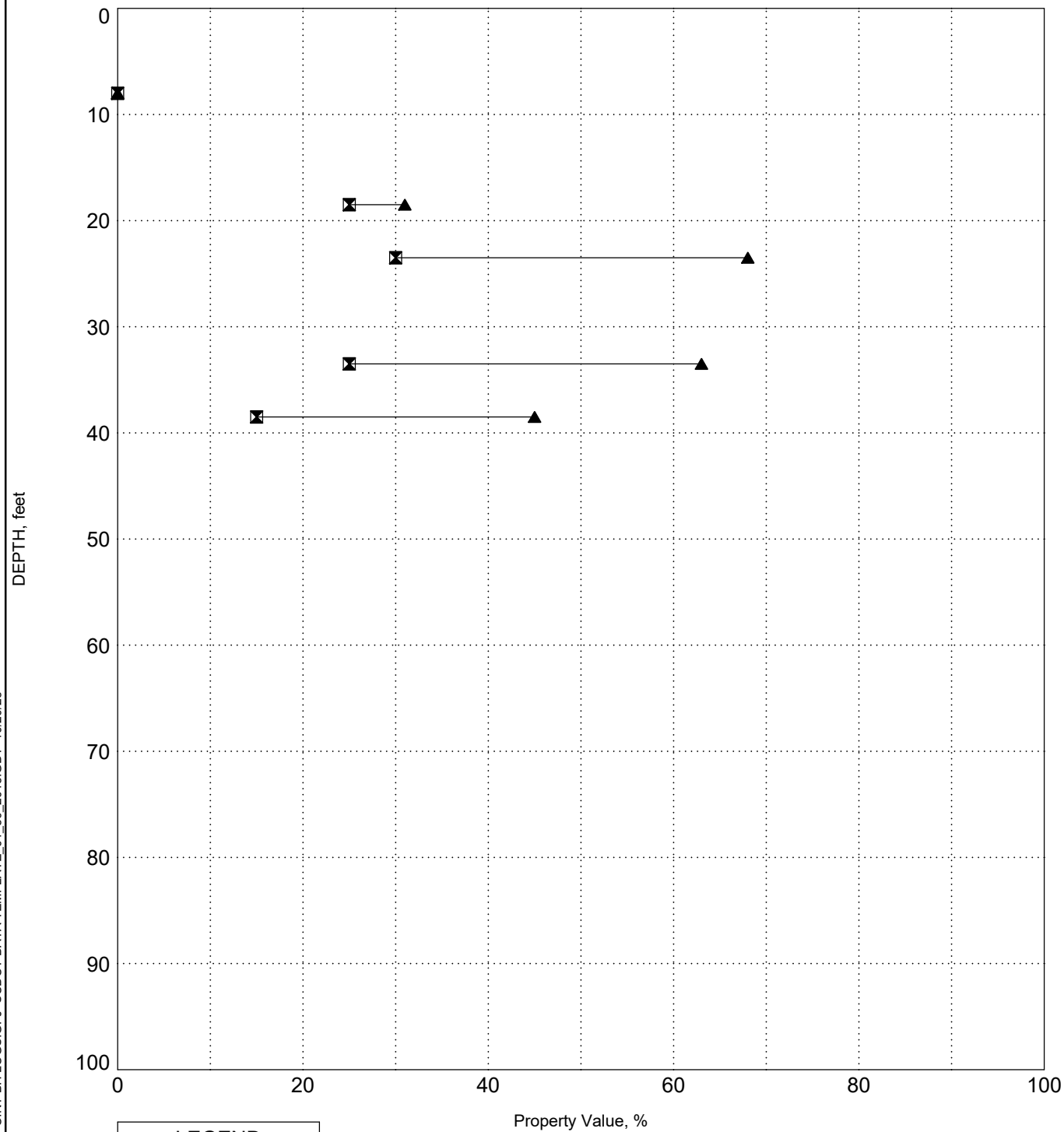
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB05

SURFACE ELEVATION: 17.9



LEGEND
● Water Content
⊠ Plastic Limit
▲ Liquid Limit
★ Fines

INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

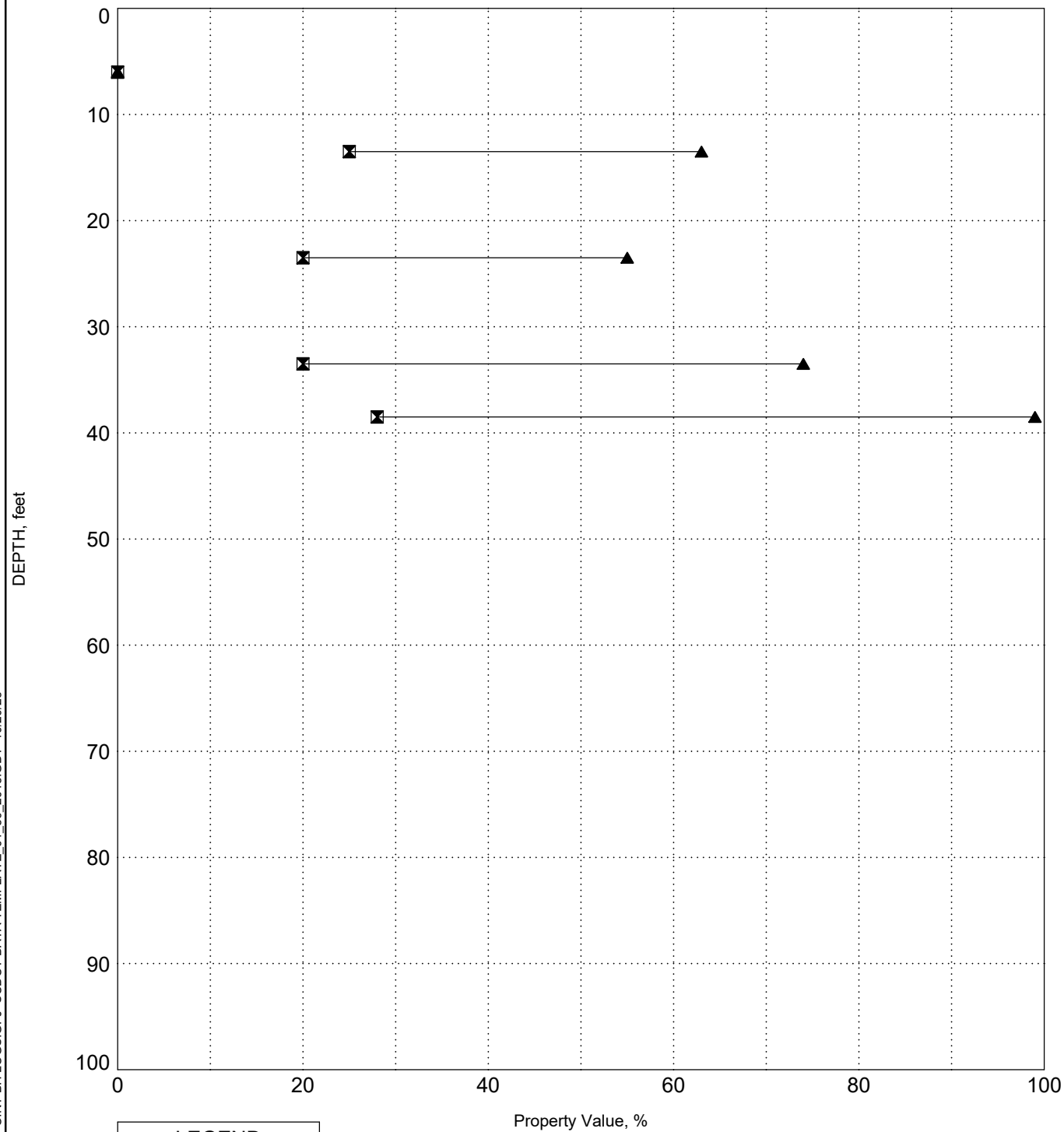
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB06

SURFACE ELEVATION: 18.9



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

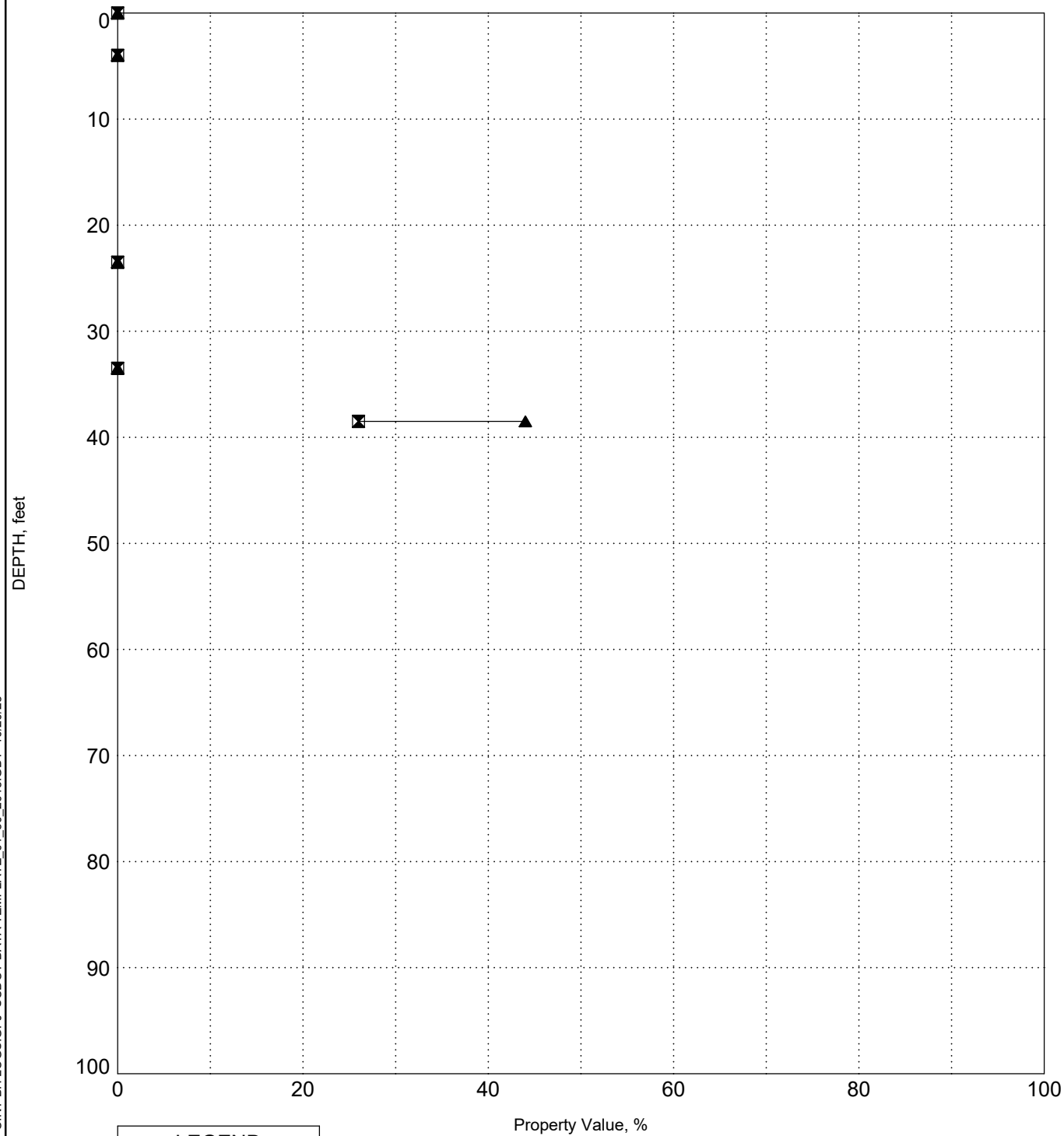
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB07

SURFACE ELEVATION: 42.7



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

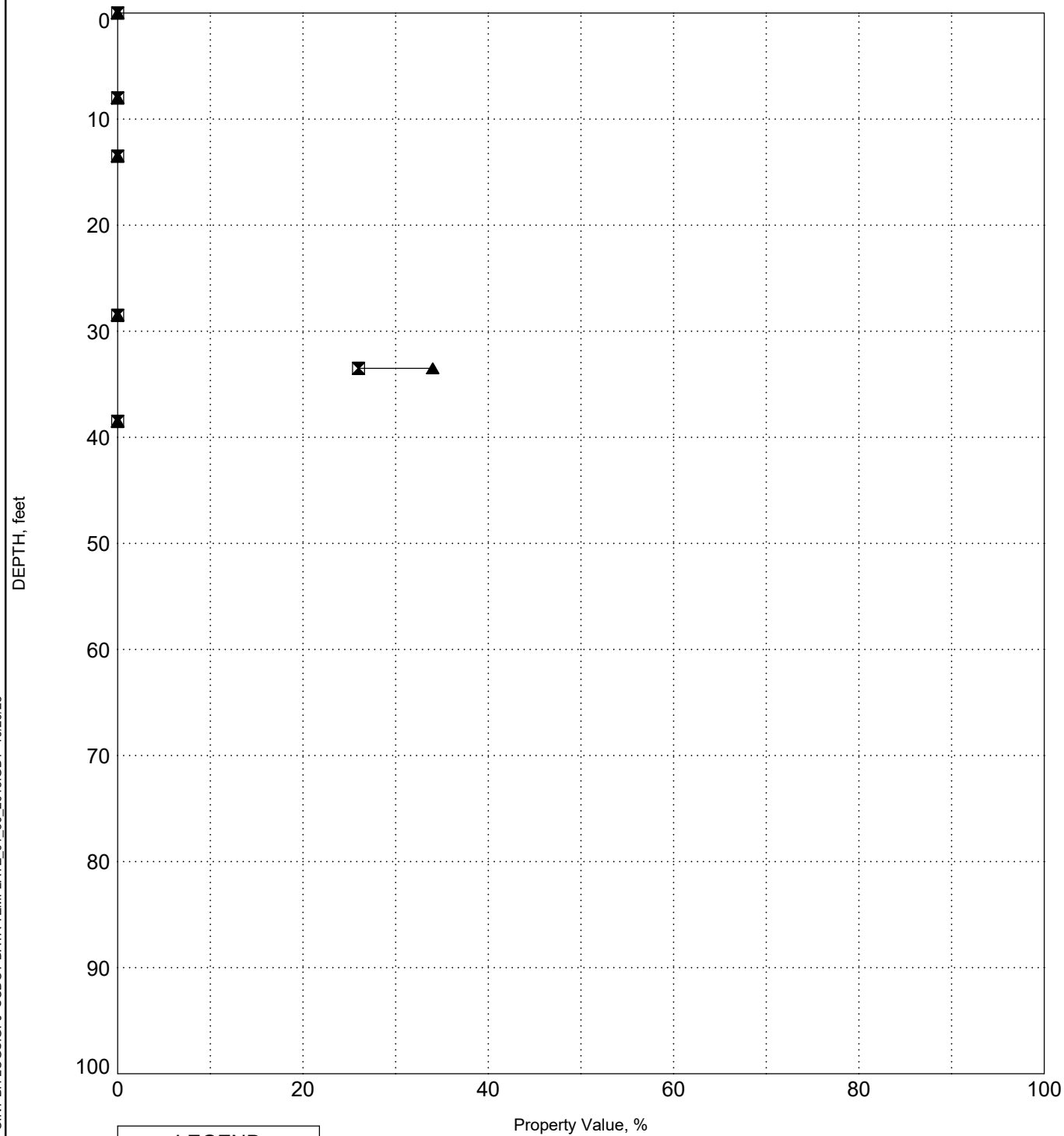
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB08

SURFACE ELEVATION: 39.9



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

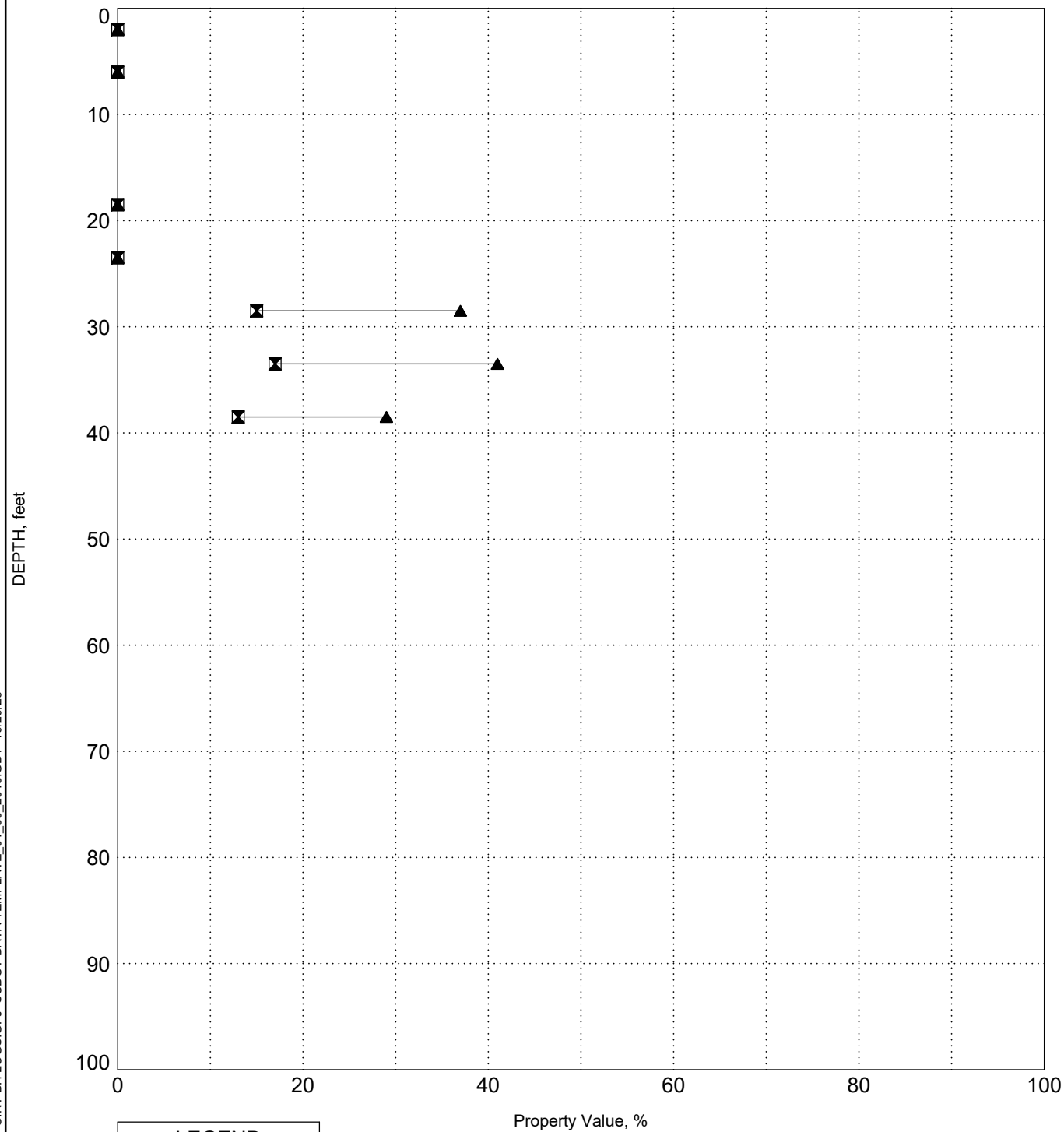
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB09

SURFACE ELEVATION: 30.9



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

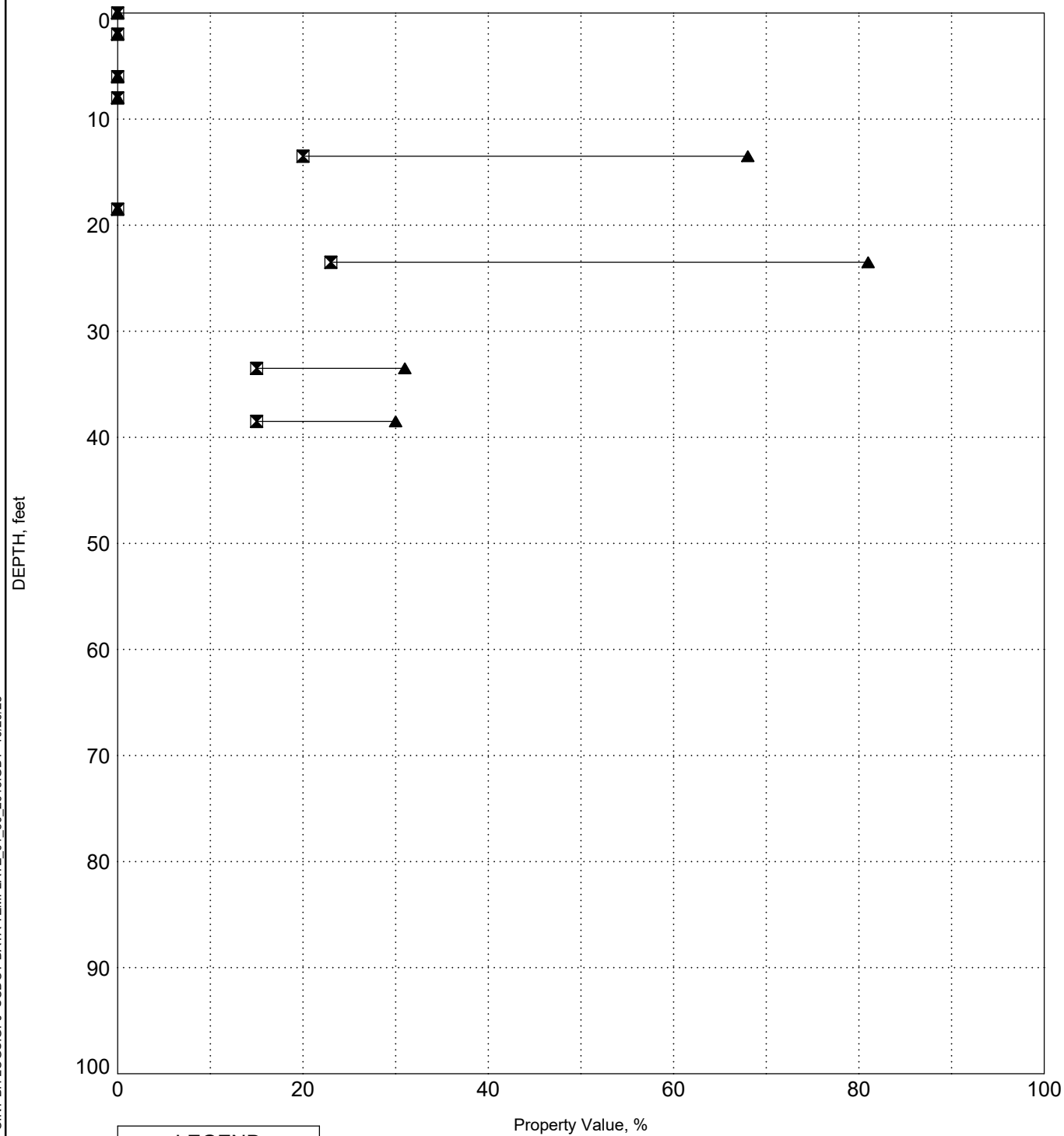
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB10

SURFACE ELEVATION: 19.4



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

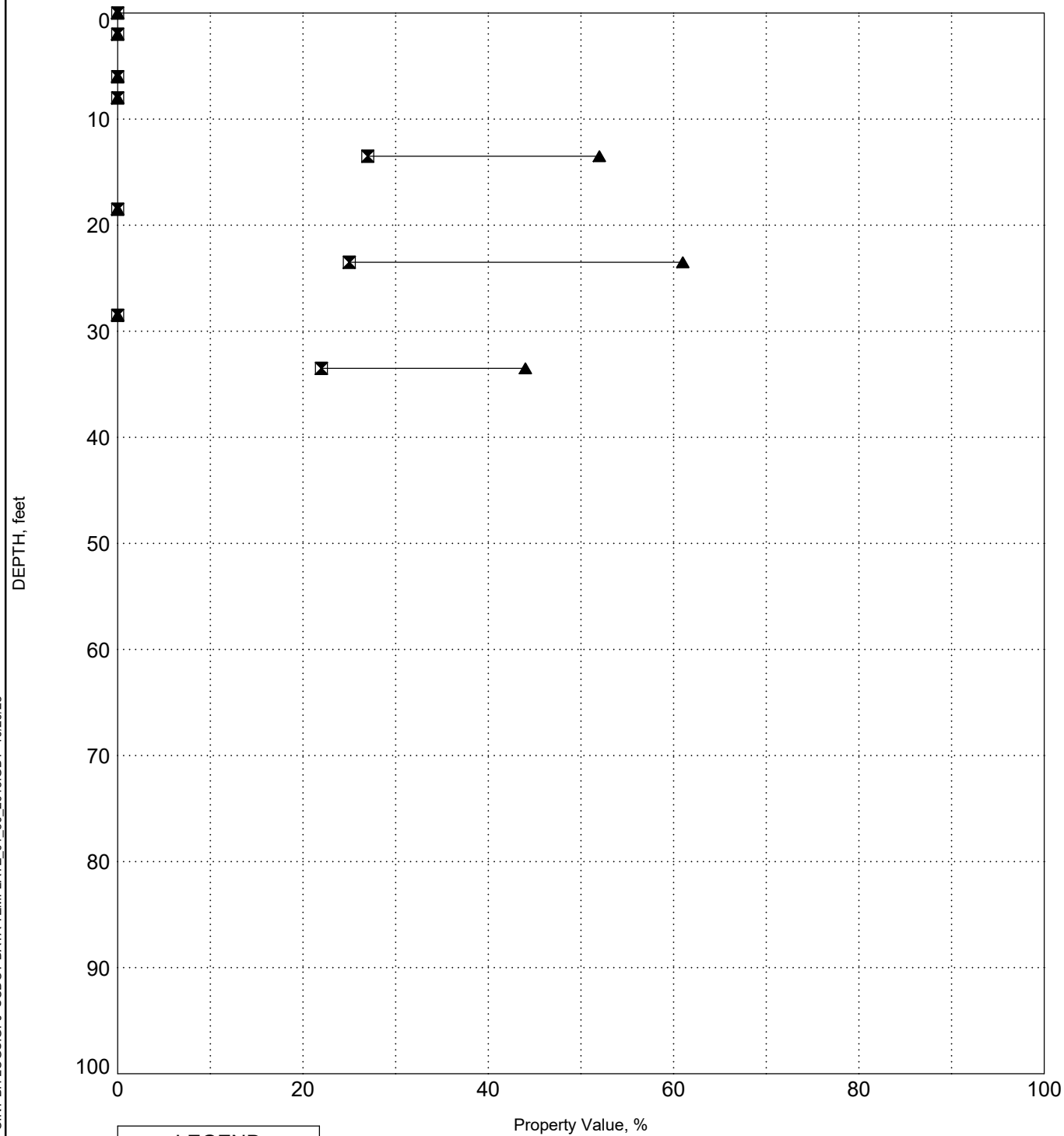
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB11

SURFACE ELEVATION: 11.0



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

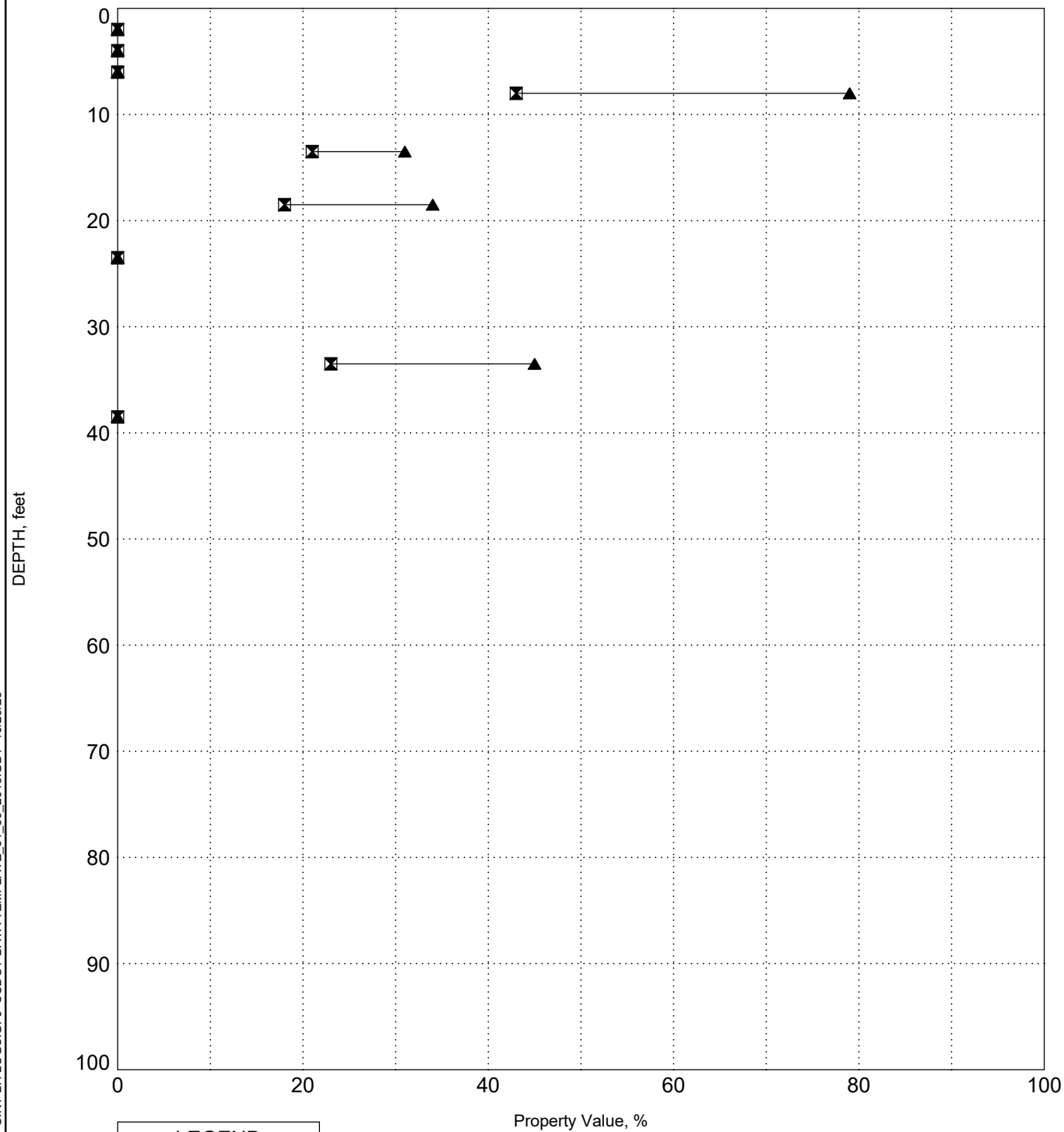
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB12

SURFACE ELEVATION: 11.6



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

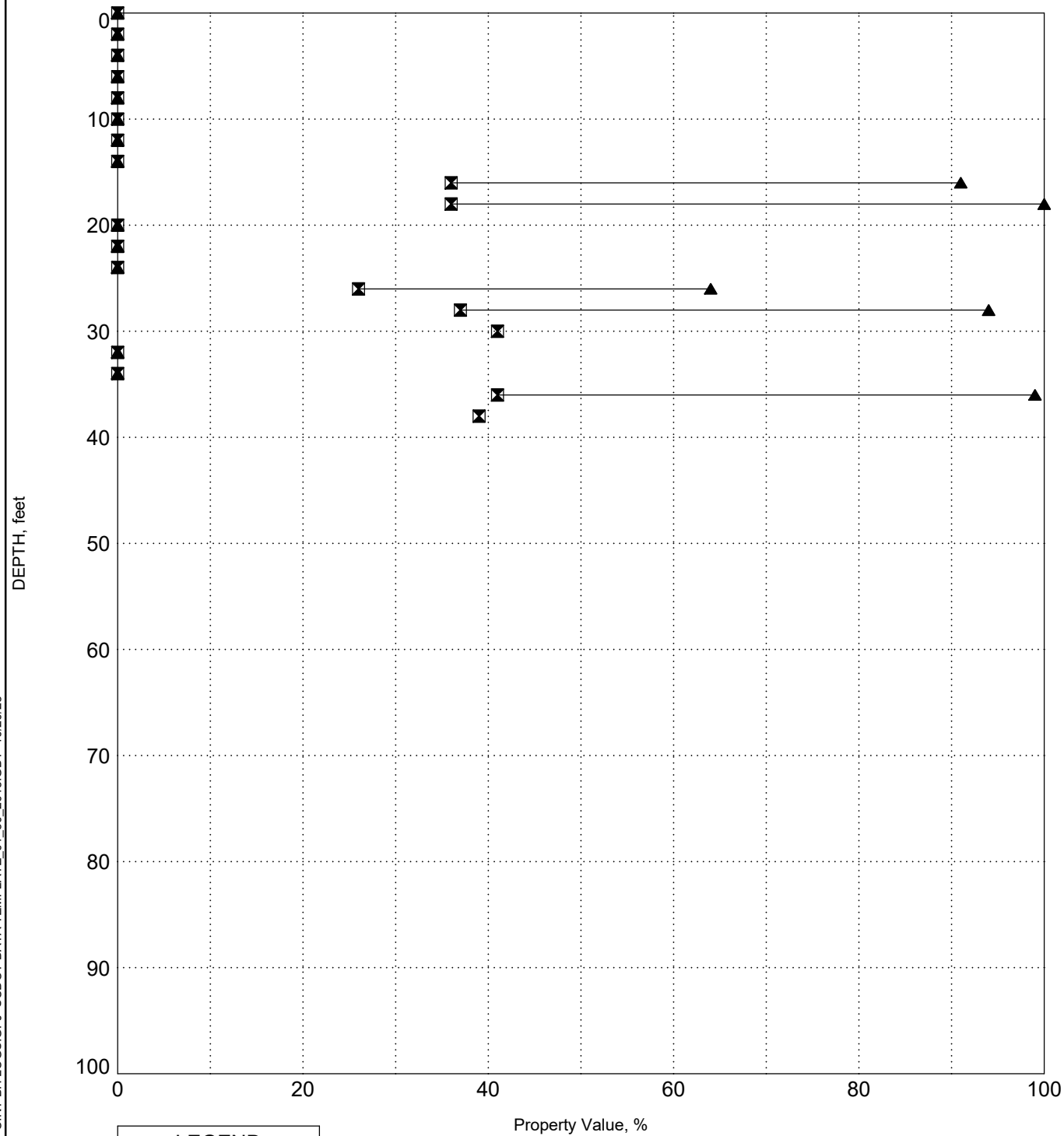
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB13

SURFACE ELEVATION: 17.7



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

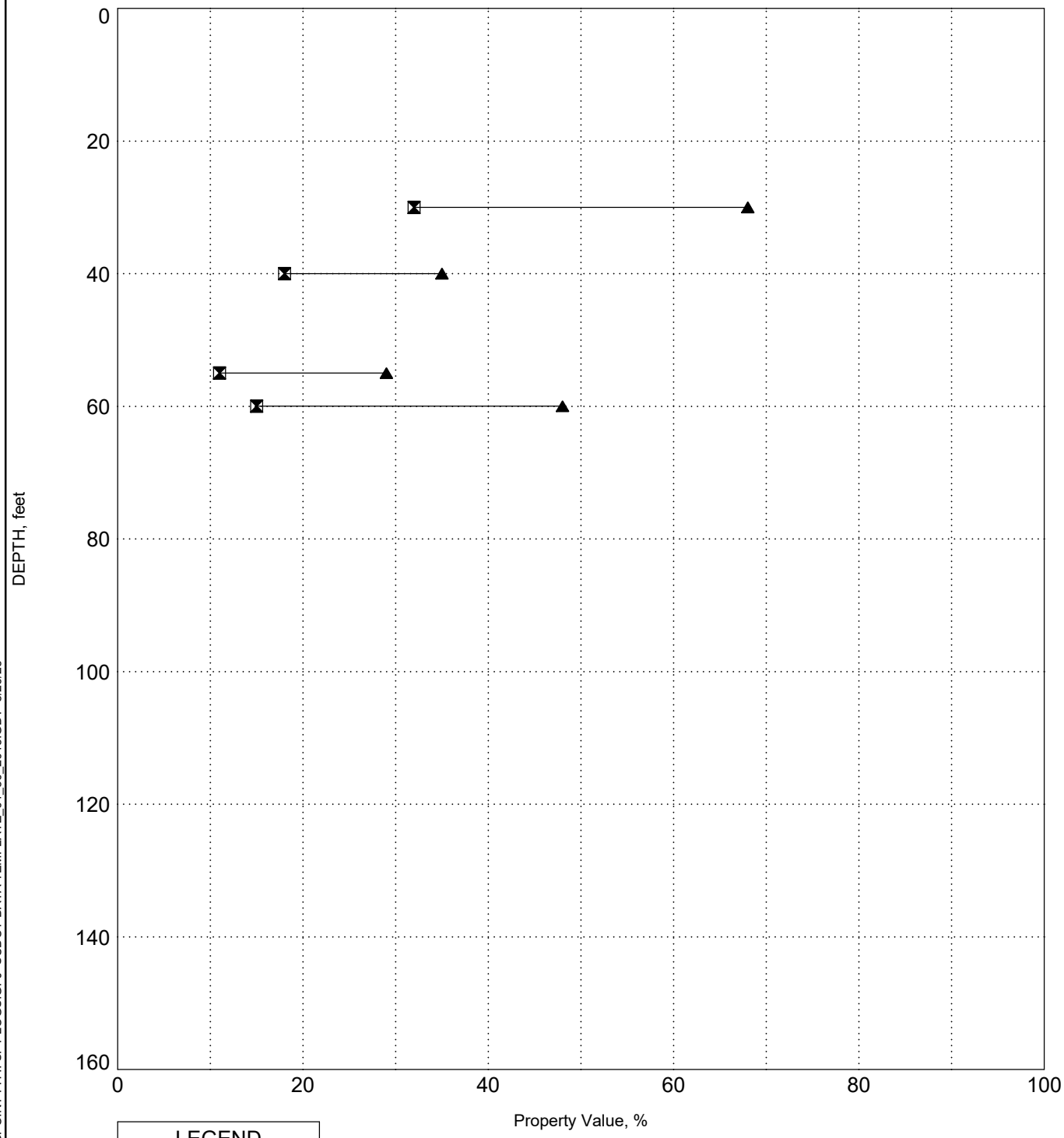
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING EMB-14

SURFACE ELEVATION: 17.3



INDEX PROPS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/26/25

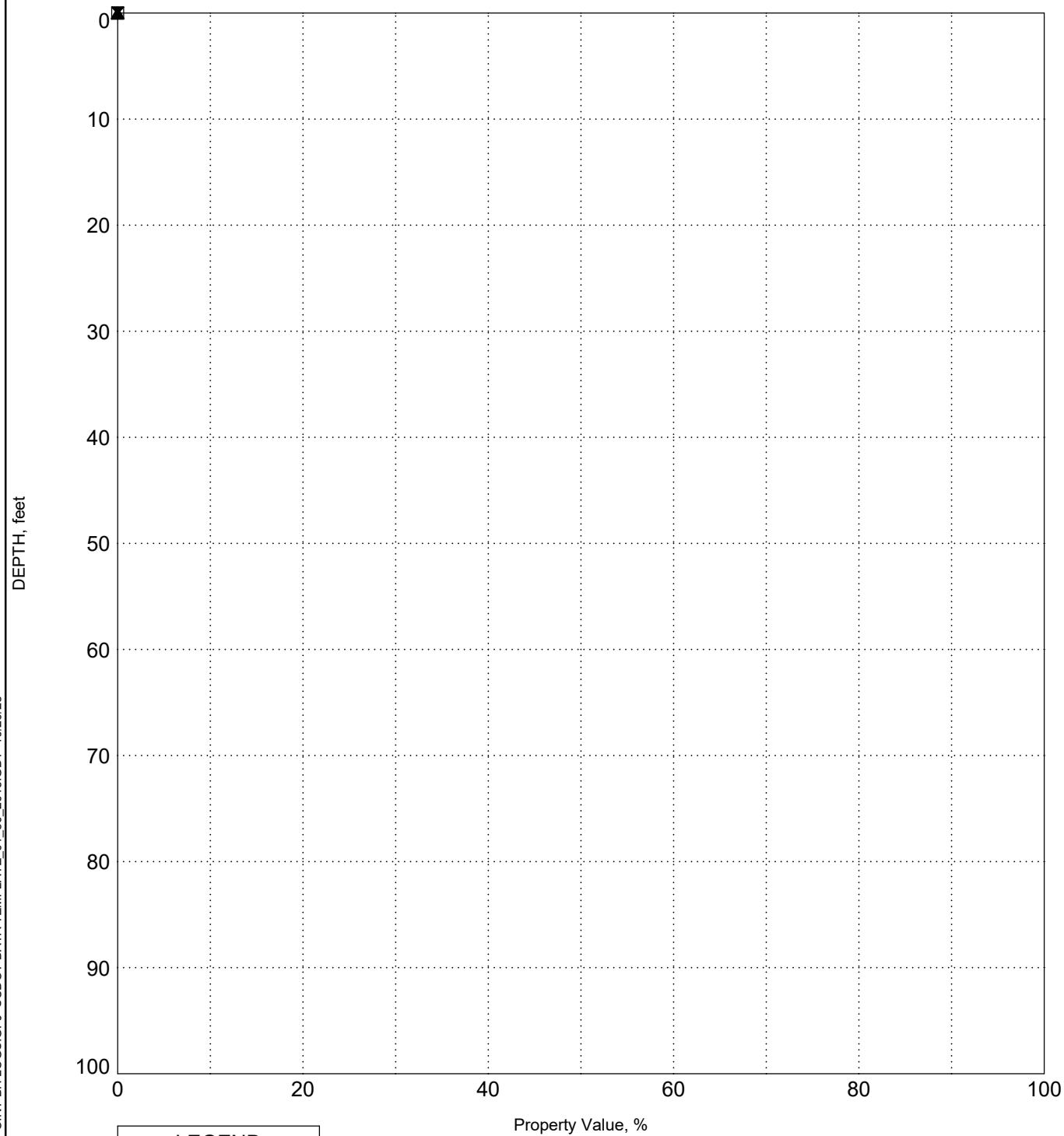
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING R01

SURFACE ELEVATION: 31.2



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

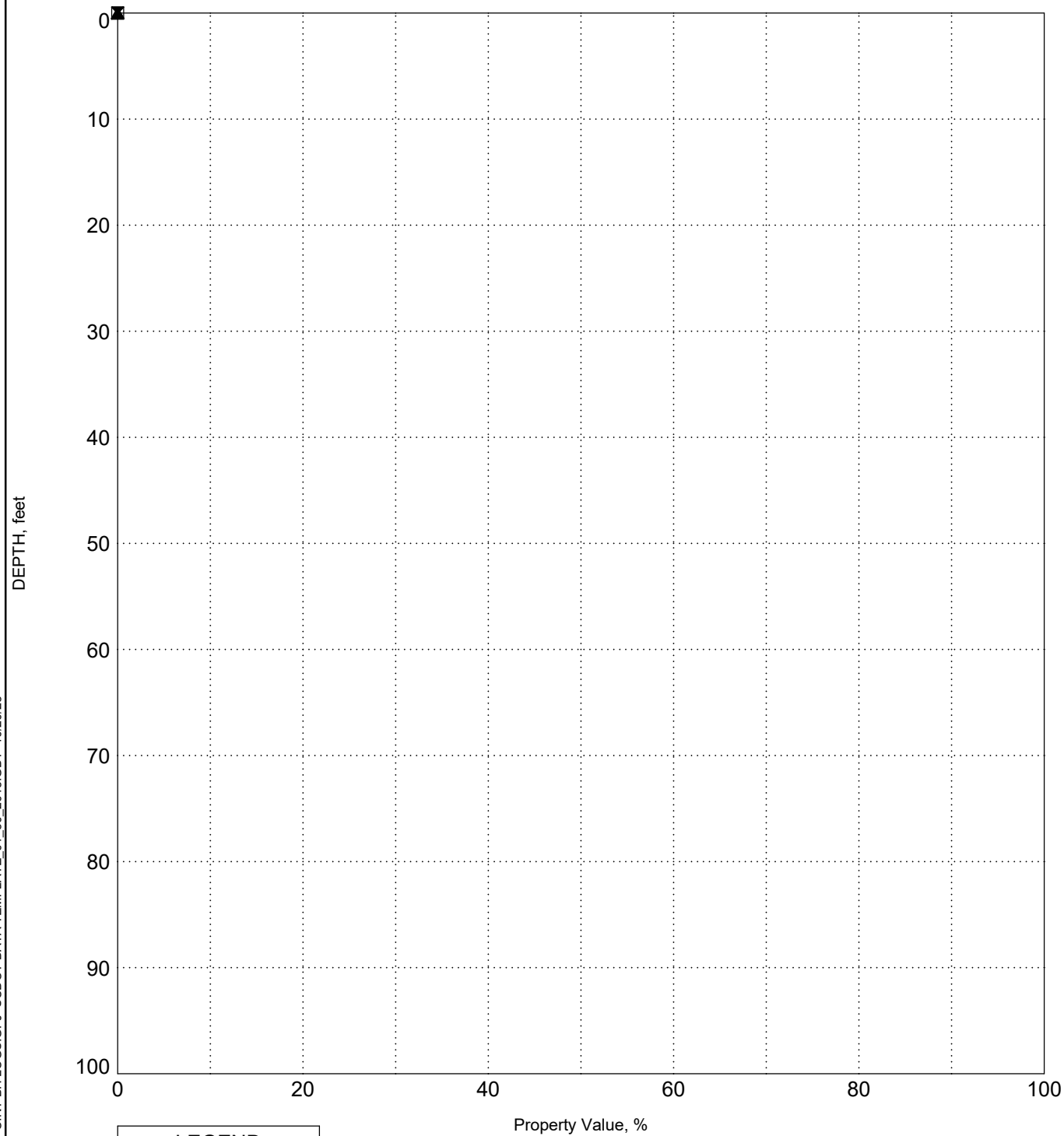
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING R05

SURFACE ELEVATION: 19.6



INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

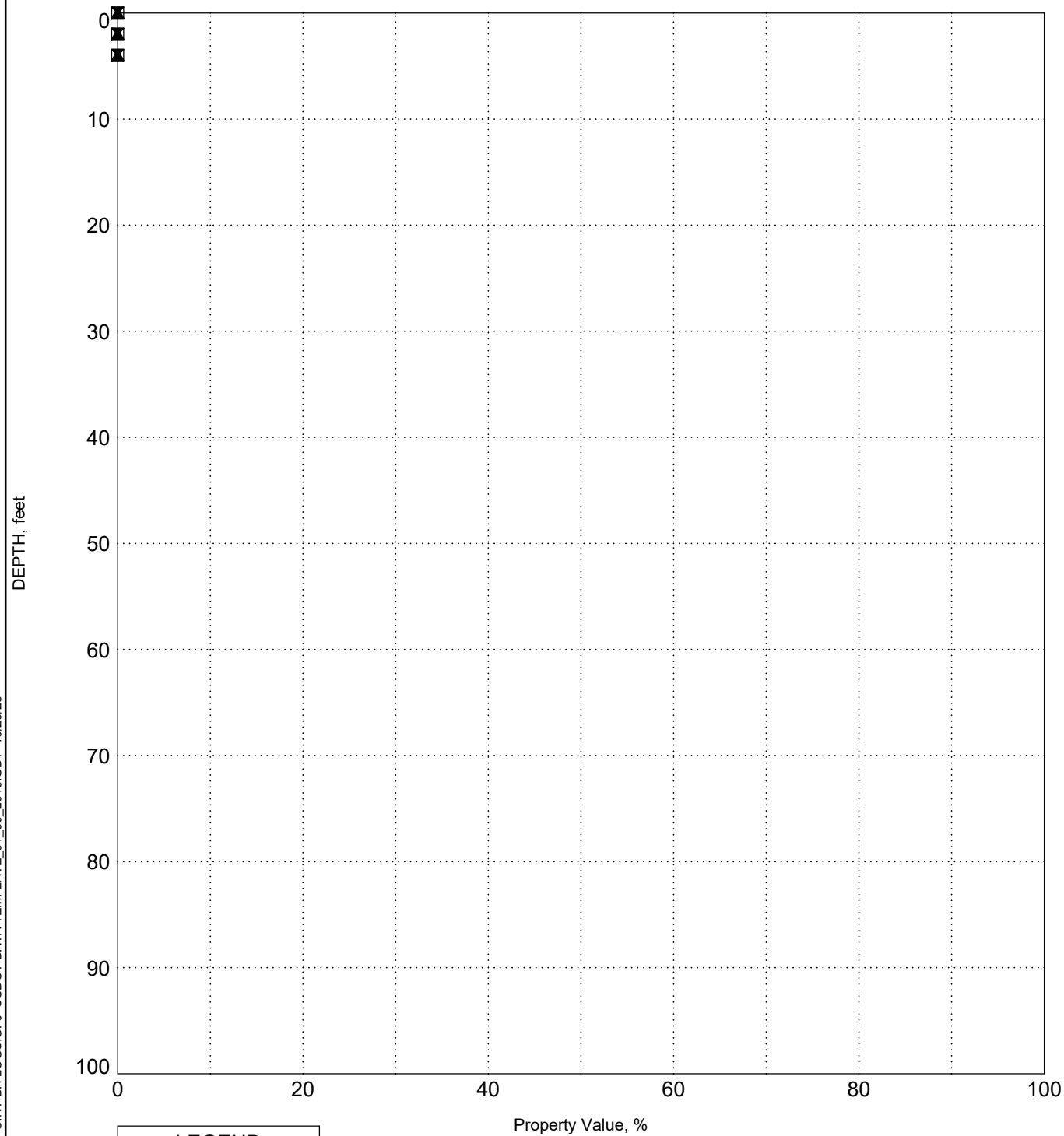
INDEX PROPERTIES VERSUS DEPTH

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

BORING R16

SURFACE ELEVATION: 12.8

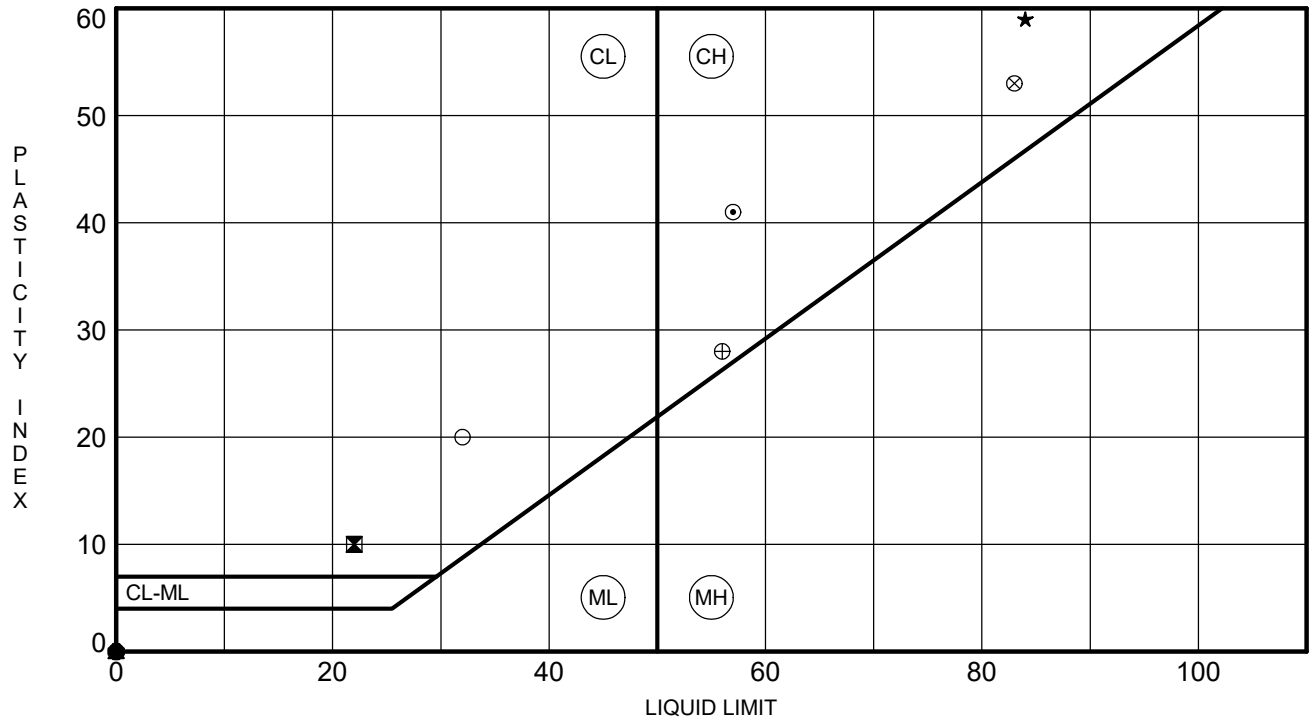


INDEX PROPS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



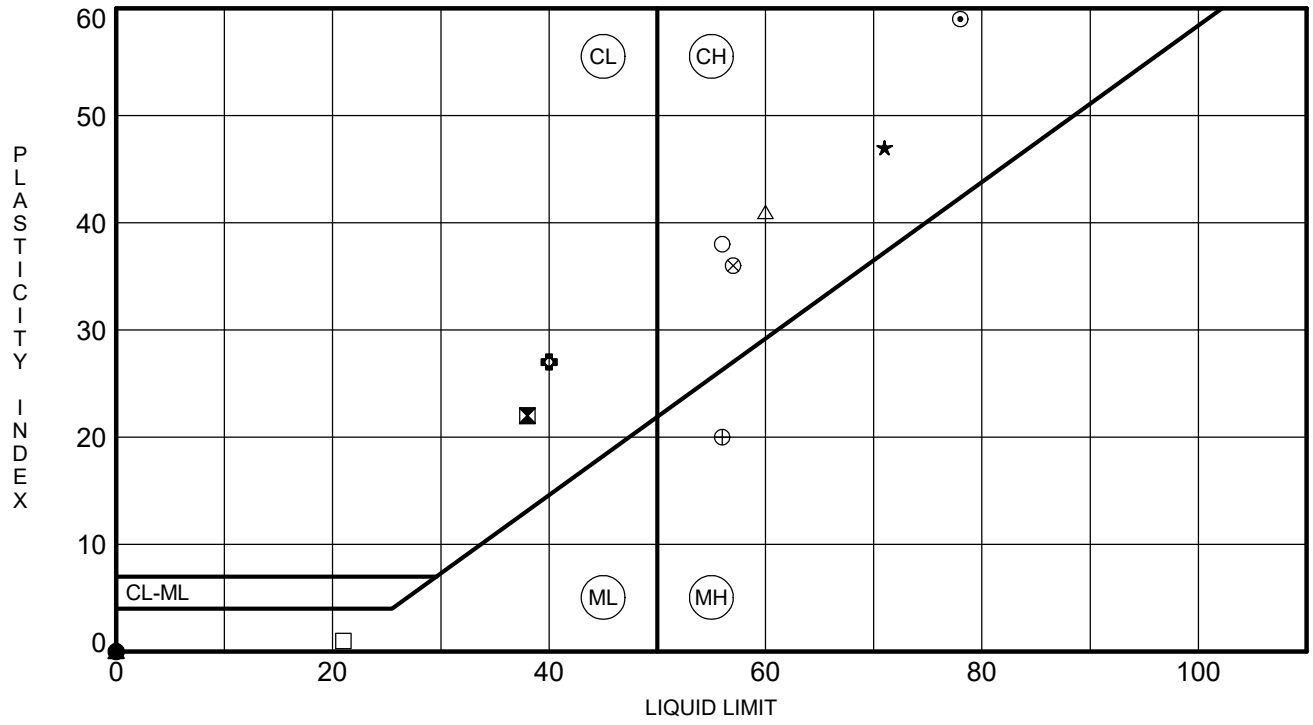
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B01**	**0.0**	**NP**	**NP**	**NP**		
⧓	**B01**	**2.0**	**22**	**12**	**10**		
▲	**B01**	**8.0**	**NP**	**NP**	**NP**		
★	**B01**	**13.5**	**84**	**25**	**59**		
⊙	**B01**	**18.5**	**57**	**16**	**41**		
✿	**B01**	**23.5**	**NP**	**NP**	**NP**		
○	**B01**	**28.5**	**32**	**12**	**20**		
△	**B01**	**33.5**	**NP**	**NP**	**NP**		
⊗	**B01**	**48.5**	**83**	**30**	**53**		
⊕	**B01**	**63.5**	**56**	**28**	**28**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



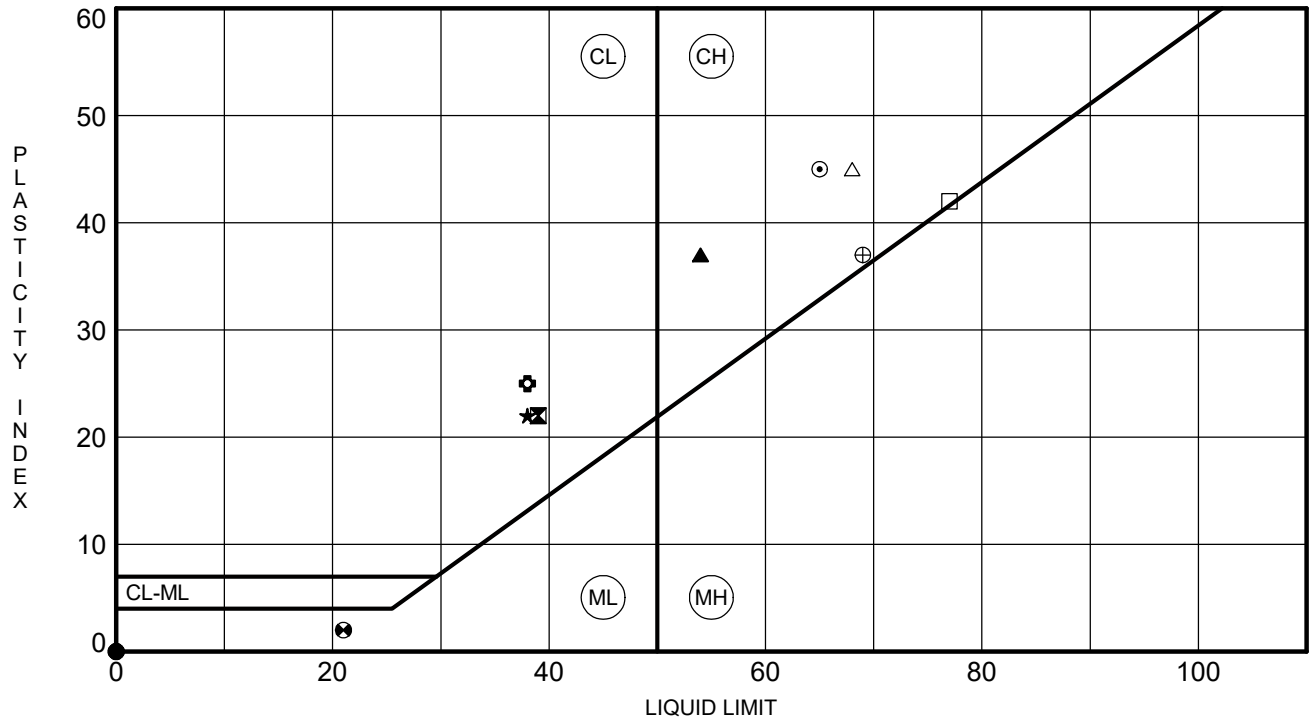
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B02	0.0	NP	NP	NP		
⊠	B02	4.0	38	16	22		
▲	B02	8.0	NP	NP	NP		
★	B02	13.5	71	24	47		
⊙	B02	18.5	78	19	59		
✿	B02	23.5	40	13	27		
○	B02	28.5	56	18	38		
△	B02	33.5	60	19	41		
⊗	B02	38.5	57	21	36		
⊕	B02	43.5	56	36	20		
□	B02	93.5	21	20	1		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



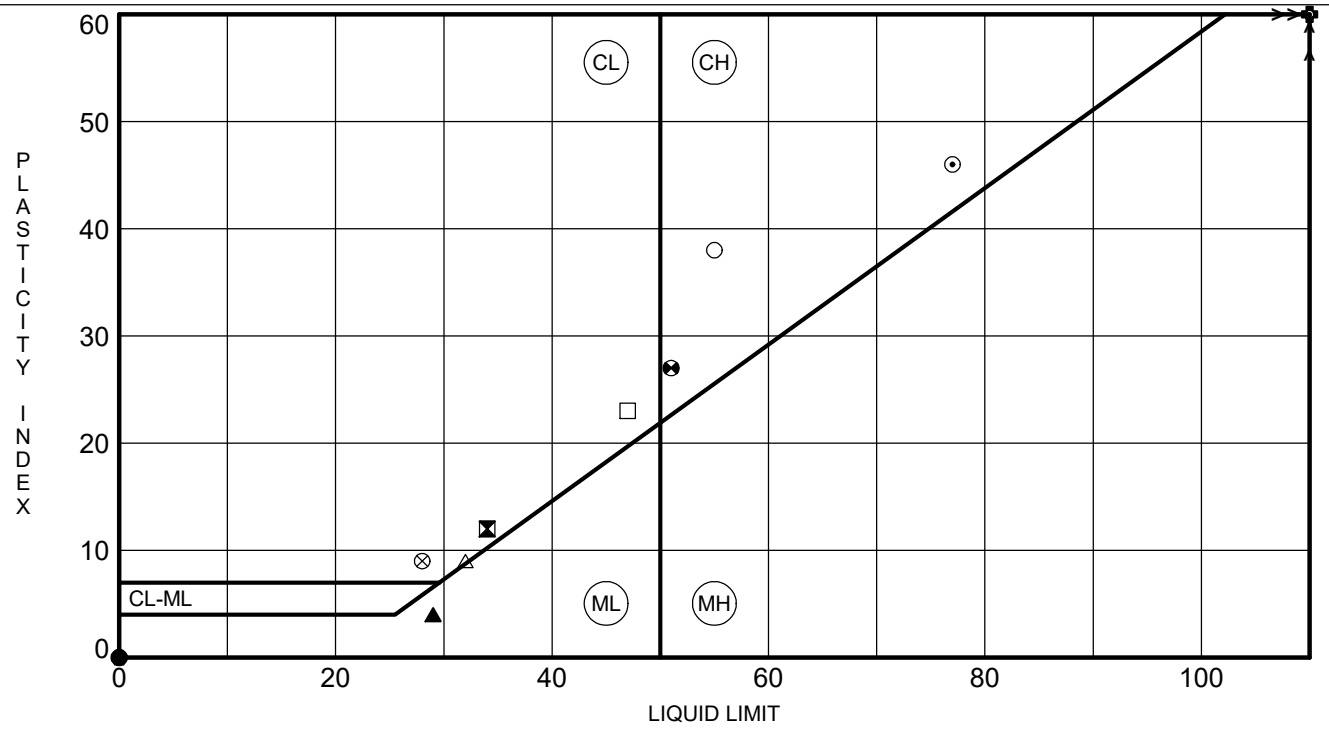
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B03	0.0	NP	NP	NP		
⊠	B03	6.0	39	17	22		
▲	B03	8.0	54	17	37		
★	B03	13.5	38	16	22		
⊙	B03	18.5	65	20	45		
✿	B03	23.5	38	13	25		
○	B03	33.5	NP	NP	NP		
△	B03	38.5	68	23	45		
⊗	B03	43.5	NP	NP	NP		
⊕	B03	48.5	69	32	37		
□	B03	63.5	77	35	42		
⊛	B03	98.5	21	19	2		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



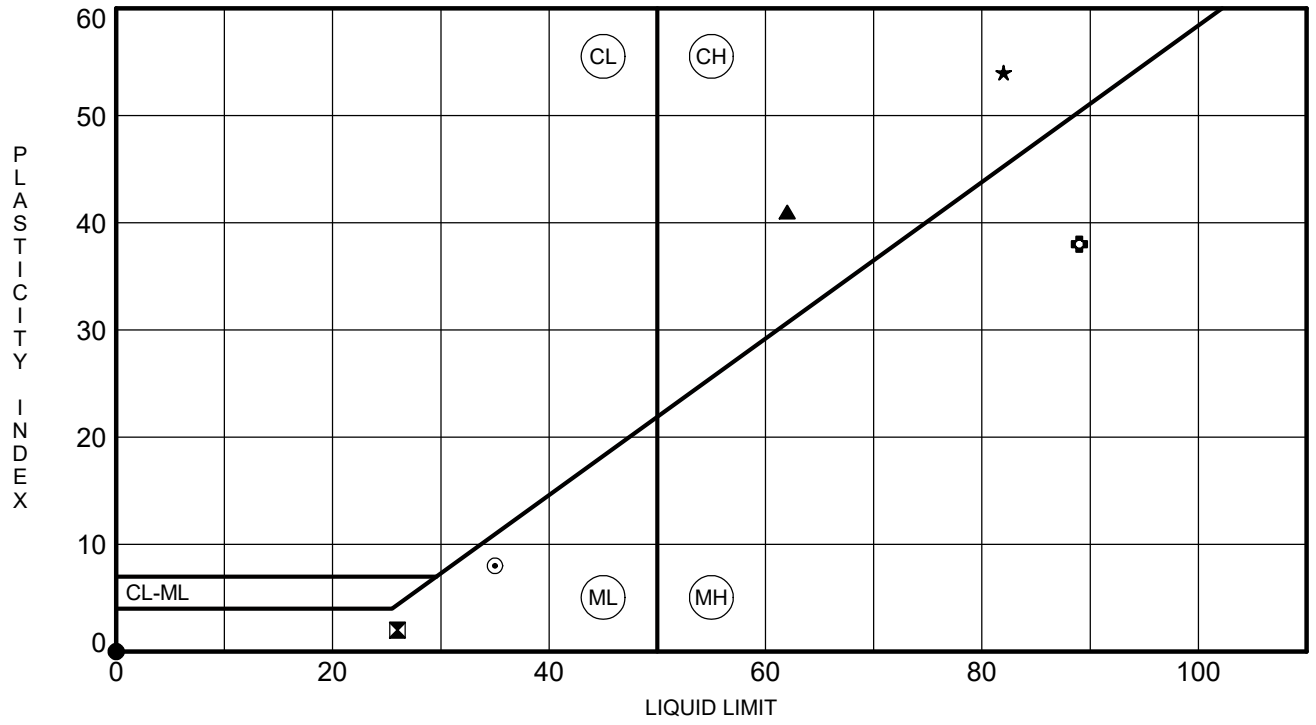
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B04	0.0	NP	NP	NP		
⊠	B04	6.0	34	22	12		
▲	B04	8.0	29	25	4		
★	B04	13.5	NP	NP	NP		
⊙	B04	18.5	77	31	46		
✿	B04	23.5	115	39	76		
○	B04	28.5	55	17	38		
△	B04	33.5	32	23	9		
⊗	B04	38.5	28	19	9		
⊕	B04	43.5	NP	NP	NP		
□	B04	48.5	47	24	23		
⊛	B04	78.5	51	24	27		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



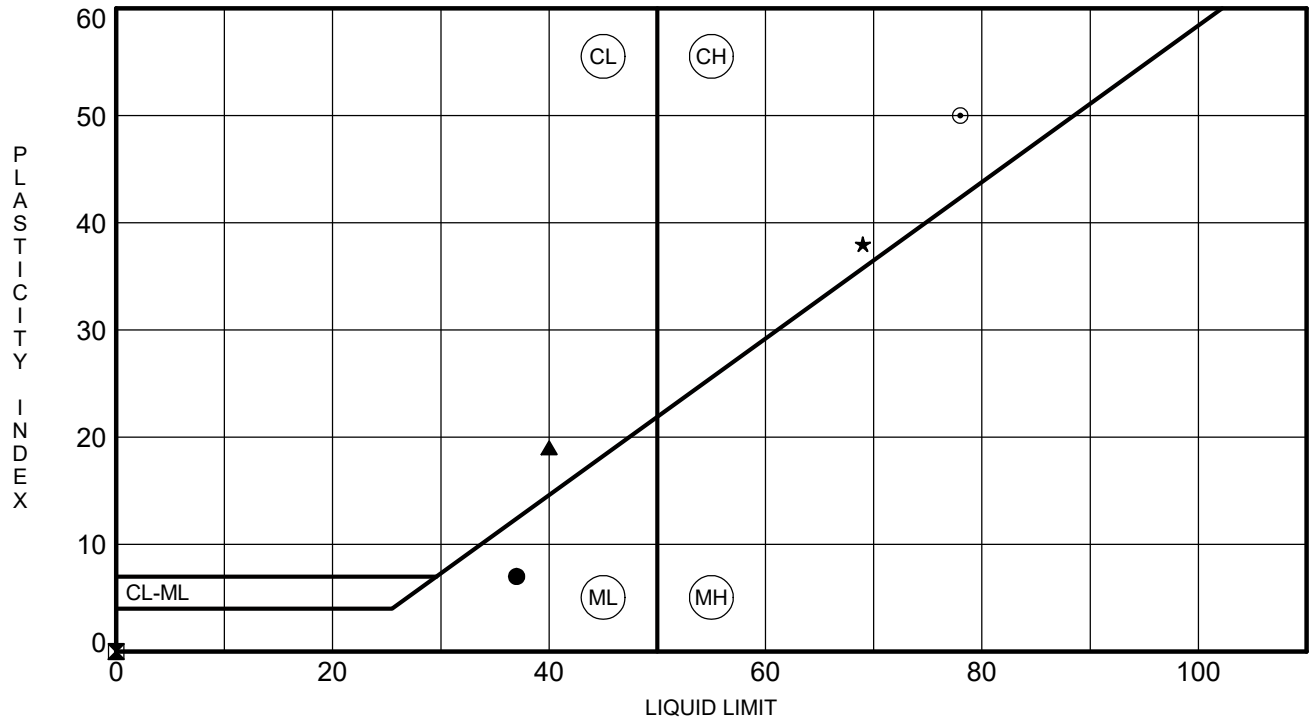
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B05**	**4.0**	**NP**	**NP**	**NP**		
⊠	**B05**	**8.0**	**26**	**24**	**2**		
▲	**B05**	**18.5**	**62**	**21**	**41**		
★	**B05**	**28.5**	**82**	**28**	**54**		
⊙	**B05**	**38.5**	**35**	**27**	**8**		
✿	**B05**	**43.5**	**89**	**51**	**38**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



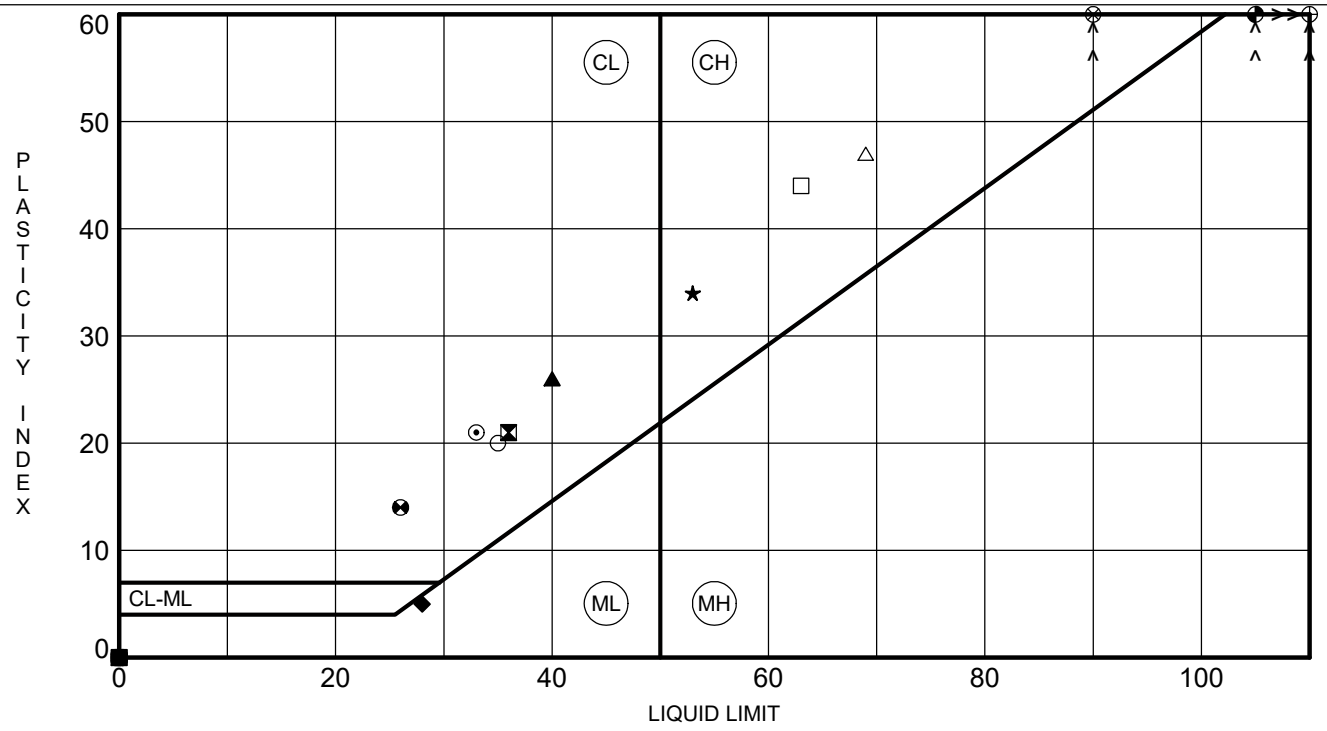
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B06**	**8.0**	**37**	**30**	**7**		
⧓	**B06**	**10.0**	**NP**	**NP**	**NP**		
▲	**B06**	**14.0**	**40**	**21**	**19**		
★	**B06**	**18.0**	**69**	**31**	**38**		
⊙	**B06**	**20.0**	**78**	**28**	**50**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



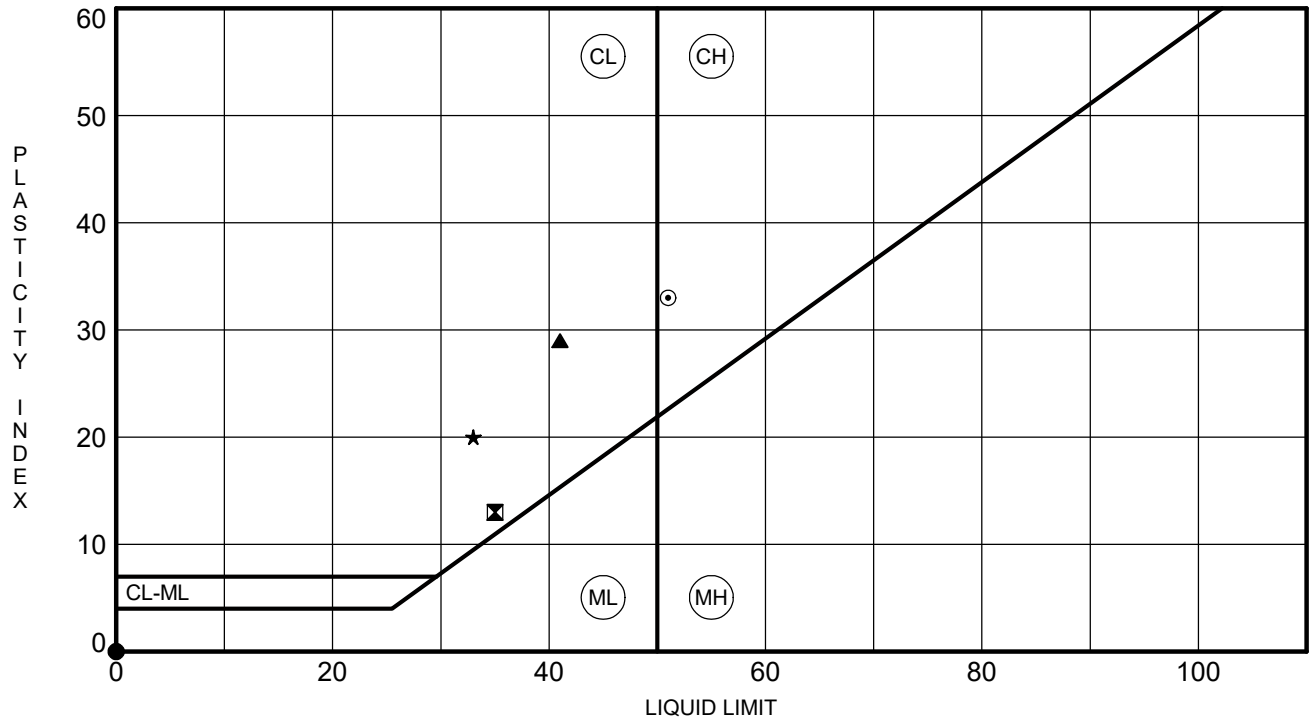
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B07**	**0.0**	**NP**	**NP**	**NP**		
⊠	**B07**	**2.0**	**36**	**15**	**21**		
▲	**B07**	**4.0**	**40**	**14**	**26**		
★	**B07**	**6.0**	**53**	**19**	**34**		
⊙	**B07**	**8.0**	**33**	**12**	**21**		
✿	**B07**	**10.0**	**NP**	**NP**	**NP**		
○	**B07**	**12.0**	**35**	**15**	**20**		
△	**B07**	**14.0**	**69**	**22**	**47**		
⊗	**B07**	**16.0**	**90**	**23**	**67**		
⊕	**B07**	**18.0**	**113**	**29**	**84**		
□	**B07**	**20.0**	**63**	**19**	**44**		
⊛	**B07**	**22.0**	**26**	**12**	**14**		
◕	**B07**	**24.0**	**105**	**27**	**78**		
☆	**B07**	**26.0**	**NP**	**NP**	**NP**		
⊠	**B07**	**28.0**	**NP**	**NP**	**NP**		
■	**B07**	**30.0**	**NP**	**NP**	**NP**		
◆	**B07**	**32.0**	**28**	**23**	**5**		
◇	**B07**	**34.0**	**NP**	**NP**	**NP**		
×	**B07**	**36.0**	**NP**	**NP**	**NP**		
✖	**B07**	**38.0**	**NP**	**NP**	**NP**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



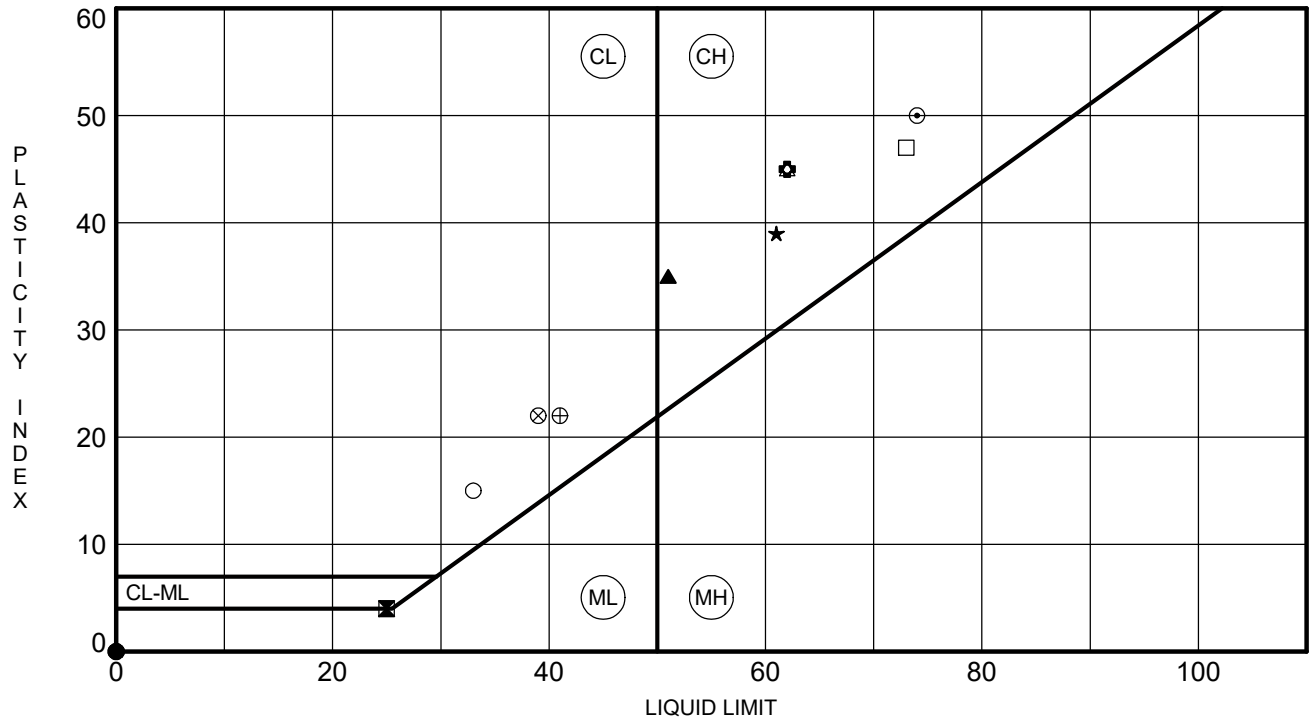
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B07**	**40.0**	**NP**	**NP**	**NP**		
⊠	**B07**	**42.0**	**35**	**22**	**13**		
▲	**B07**	**44.0**	**41**	**12**	**29**		
★	**B07**	**46.0**	**33**	**13**	**20**		
⊙	**B07**	**48.0**	**51**	**18**	**33**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



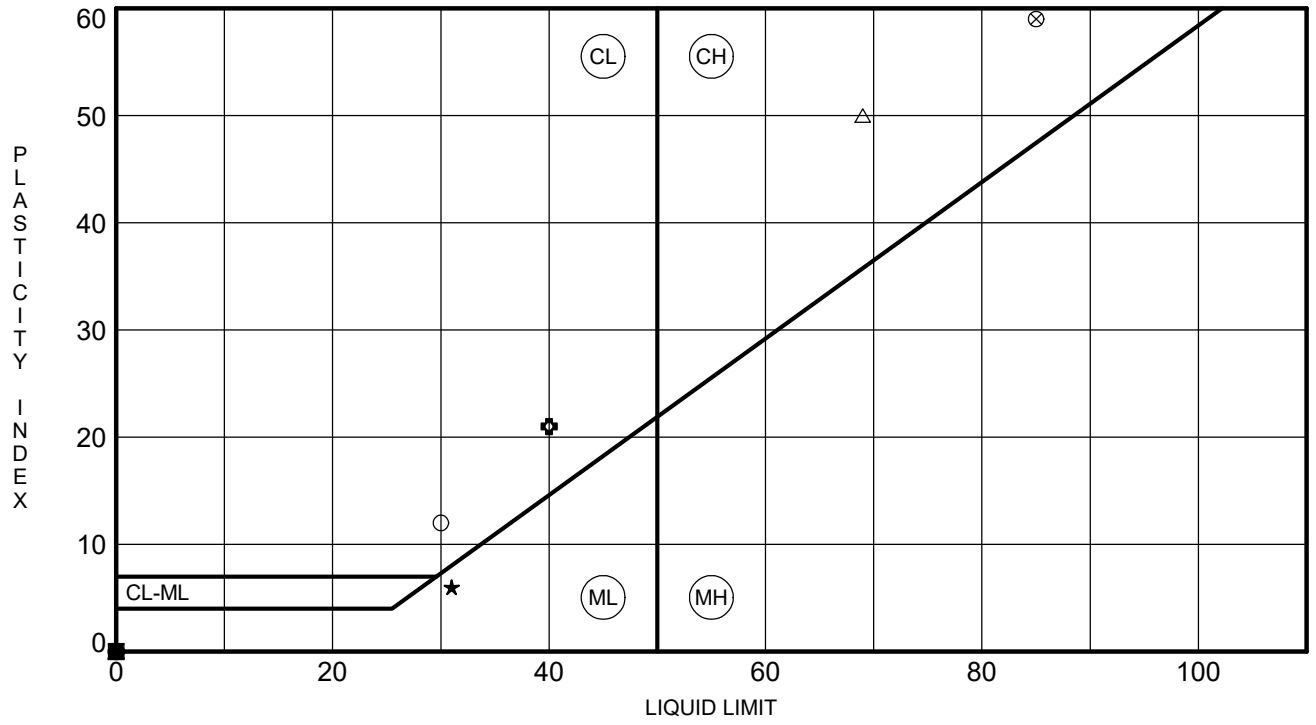
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B08	0.0	NP	NP	NP		
⧓	B08	4.0	25	21	4		
▲	B08	8.0	51	16	35		
★	B08	13.5	61	22	39		
⊙	B08	18.5	74	24	50		
✿	B08	23.5	62	17	45		
○	B08	28.5	33	18	15		
△	B08	33.5	62	17	45		
⊗	B08	38.5	39	17	22		
⊕	B08	43.5	41	19	22		
□	B08	48.5	73	26	47		
⧁	B08	83.5	NP	NP	NP		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



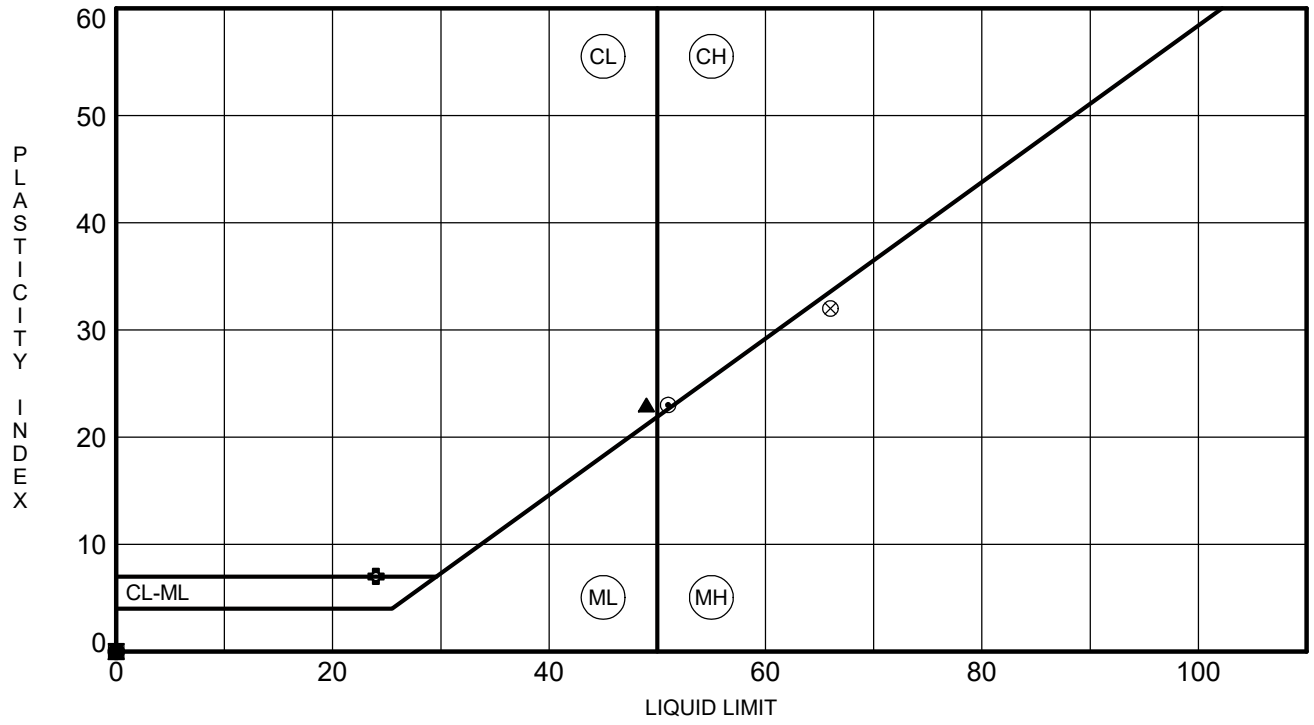
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B09**	**2.0**	**NP**	**NP**	**NP**		
⊠	**B09**	**8.0**	**NP**	**NP**	**NP**		
▲	**B09**	**13.5**	**NP**	**NP**	**NP**		
★	**B09**	**23.5**	**31**	**25**	**6**		
⊙	**B09**	**28.5**	**NP**	**NP**	**NP**		
✿	**B09**	**33.5**	**40**	**19**	**21**		
○	**B09**	**38.5**	**30**	**18**	**12**		
△	**B09**	**48.5**	**69**	**19**	**50**		
⊗	**B09**	**73.5**	**85**	**26**	**59**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



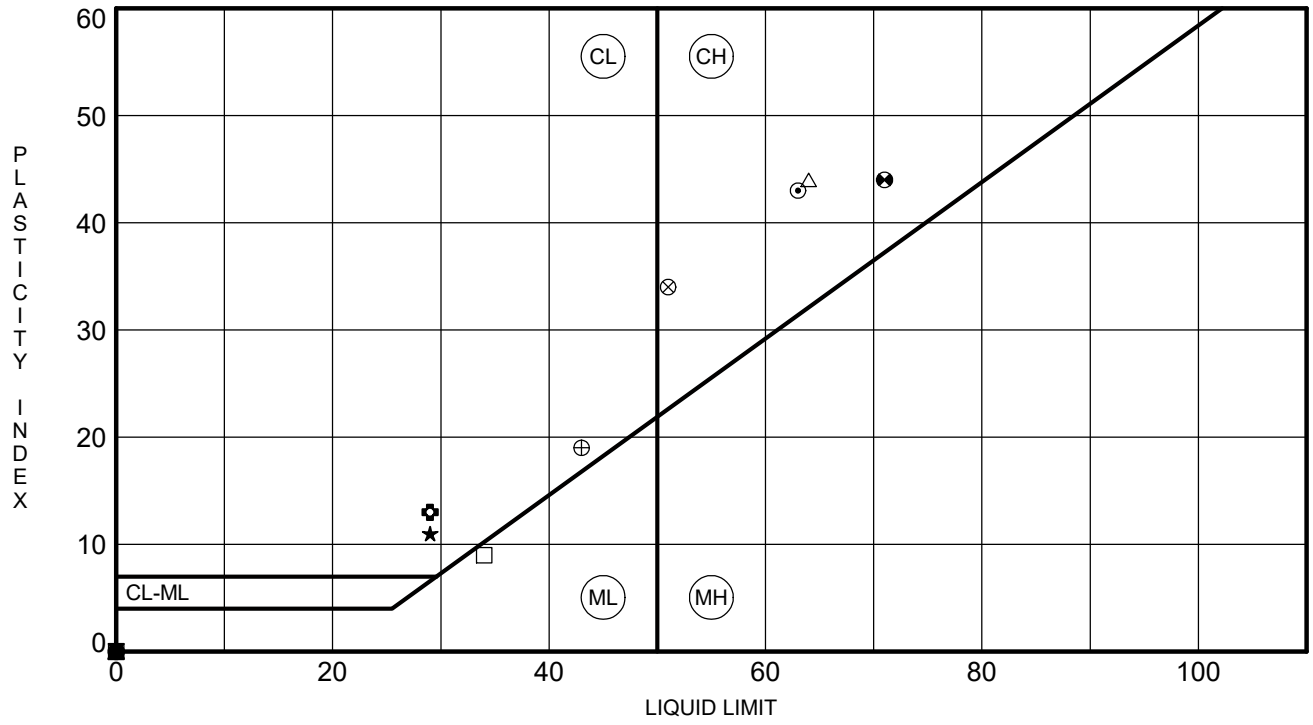
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B10**	**2.0**	**NP**	**NP**	**NP**		
⊠	**B10**	**4.0**	**NP**	**NP**	**NP**		
▲	**B10**	**13.5**	**49**	**26**	**23**		
★	**B10**	**18.5**	**NP**	**NP**	**NP**		
⊙	**B10**	**23.5**	**51**	**28**	**23**		
✿	**B10**	**28.5**	**24**	**17**	**7**		
○	**B10**	**38.5**	**NP**	**NP**	**NP**		
△	**B10**	**43.5**	**NP**	**NP**	**NP**		
⊗	**B10**	**53.5**	**66**	**34**	**32**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



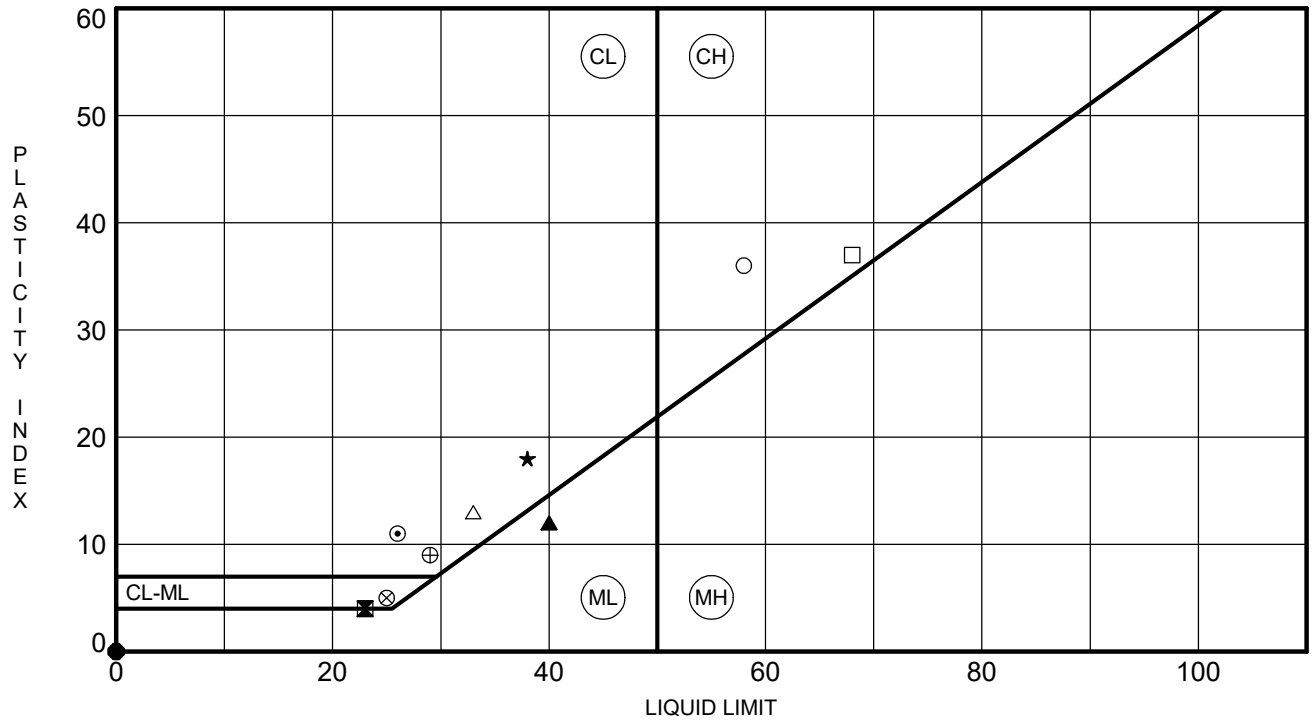
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B11**	**0.0**	**NP**	**NP**	**NP**		
⊠	**B11**	**4.0**	**NP**	**NP**	**NP**		
▲	**B11**	**6.0**	**NP**	**NP**	**NP**		
★	**B11**	**8.0**	**29**	**18**	**11**		
⊙	**B11**	**13.5**	**63**	**20**	**43**		
✿	**B11**	**18.5**	**29**	**16**	**13**		
○	**B11**	**23.5**	**NP**	**NP**	**NP**		
△	**B11**	**28.5**	**64**	**20**	**44**		
⊗	**B11**	**33.5**	**51**	**17**	**34**		
⊕	**B11**	**38.5**	**43**	**24**	**19**		
□	**B11**	**43.5**	**34**	**25**	**9**		
⊛	**B11**	**48.5**	**71**	**27**	**44**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



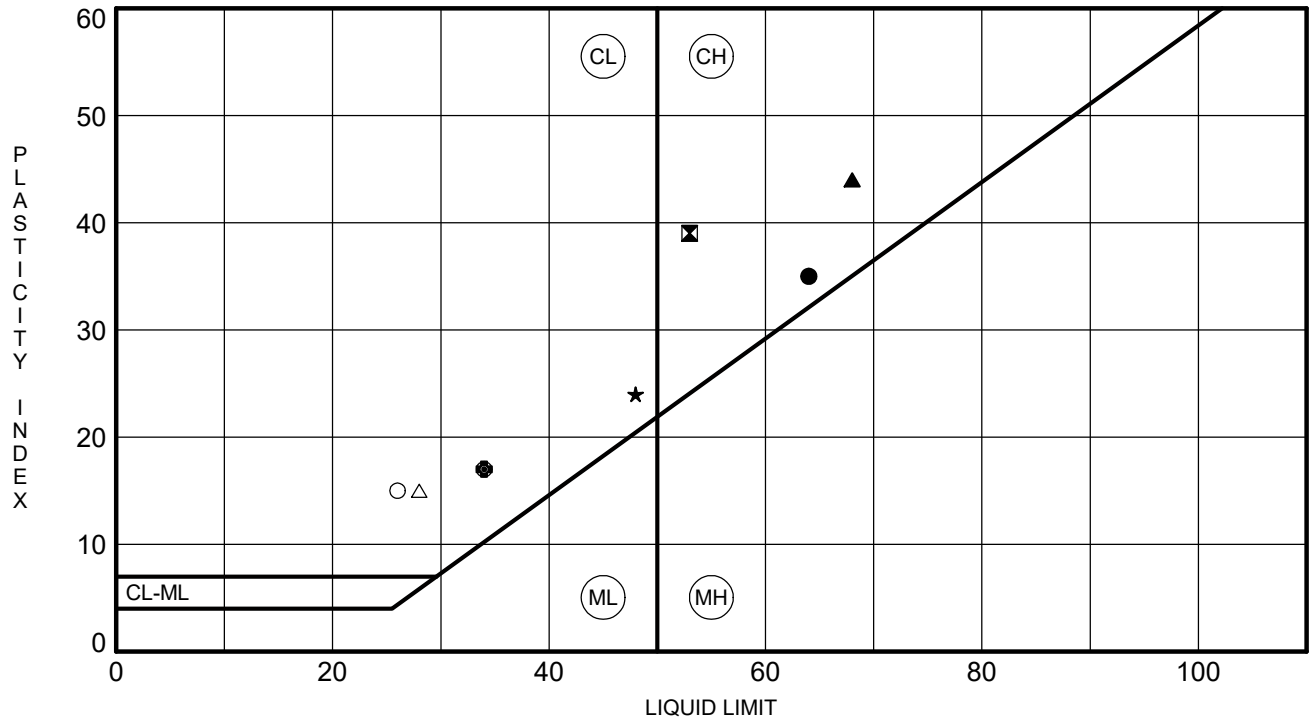
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B12**	**0.0**	**NP**	**NP**	**NP**		
⊠	**B12**	**6.0**	**23**	**19**	**4**		
▲	**B12**	**8.0**	**40**	**28**	**12**		
★	**B12**	**13.5**	**38**	**20**	**18**		
⊙	**B12**	**18.5**	**26**	**15**	**11**		
✿	**B12**	**23.5**	**NP**	**NP**	**NP**		
○	**B12**	**28.5**	**58**	**22**	**36**		
△	**B12**	**33.5**	**33**	**20**	**13**		
⊗	**B12**	**38.5**	**25**	**20**	**5**		
⊕	**B12**	**43.5**	**29**	**20**	**9**		
□	**B12**	**53.5**	**68**	**31**	**37**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston



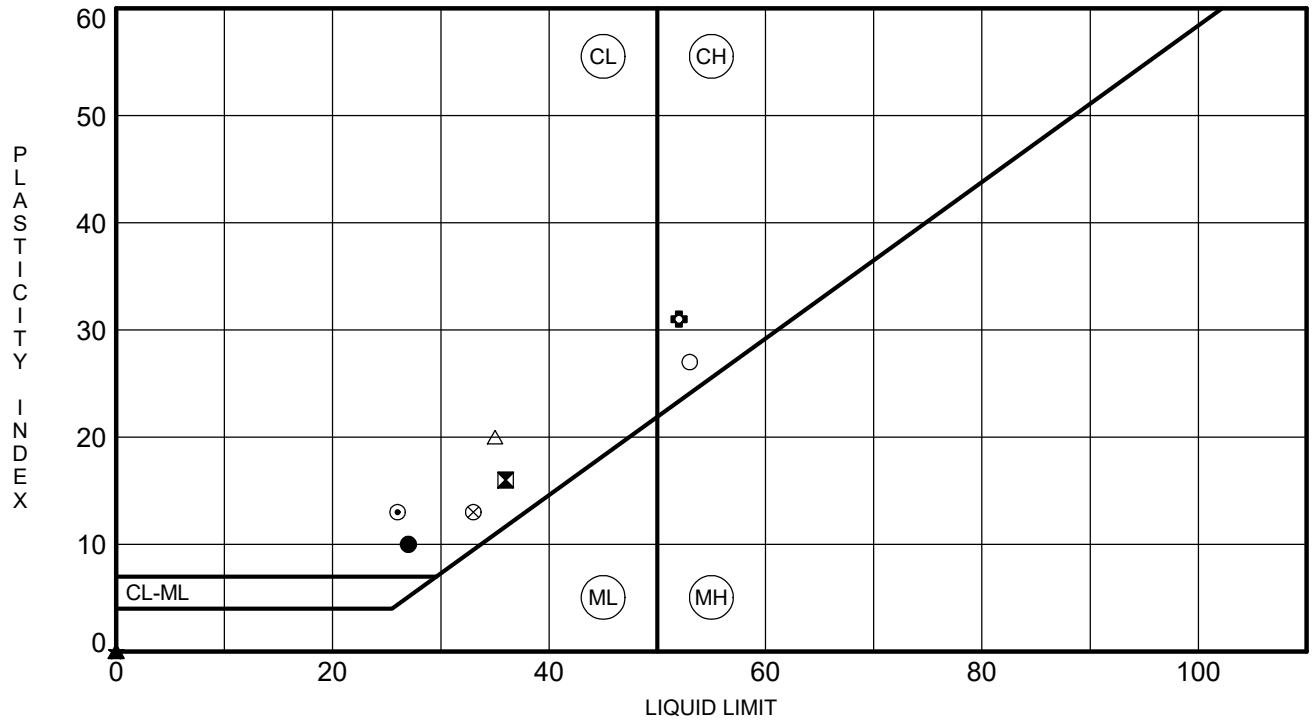
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B-13**	**20.0**	**64**	**29**	**35**	**88**	**Fat Clay (CH/ A-7-6)**
⊠	**B-13**	**40.0**	**53**	**14**	**39**	**68**	**Sandy Fat Clay (CH/ A-7-6)**
▲	**B-13**	**50.0**	**68**	**24**	**44**	**83**	**Fat Clay (CH/ A-7-6)**
★	**B-13**	**55.0**	**48**	**24**	**24**	**70**	**Sandy Lean Clay (CL/A-7-6)**
⊙	**B-13**	**65.0**	**34**	**17**	**17**	**44**	**Clayey Sand (SC/ A-7)**
✿	**B-13**	**70.0**	**34**	**17**	**17**	**39**	**Clayey Sand (SC/ A-6)**
○	**B-13**	**75.0**	**26**	**11**	**15**	**32**	**Clayey Sand (SC/ A-2-6)**
△	**B-13**	**80.0**	**28**	**13**	**15**	**24**	**Clayey Sand (SC/ A-2-6)**

ATTERBERG LIMITS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/25/25

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston



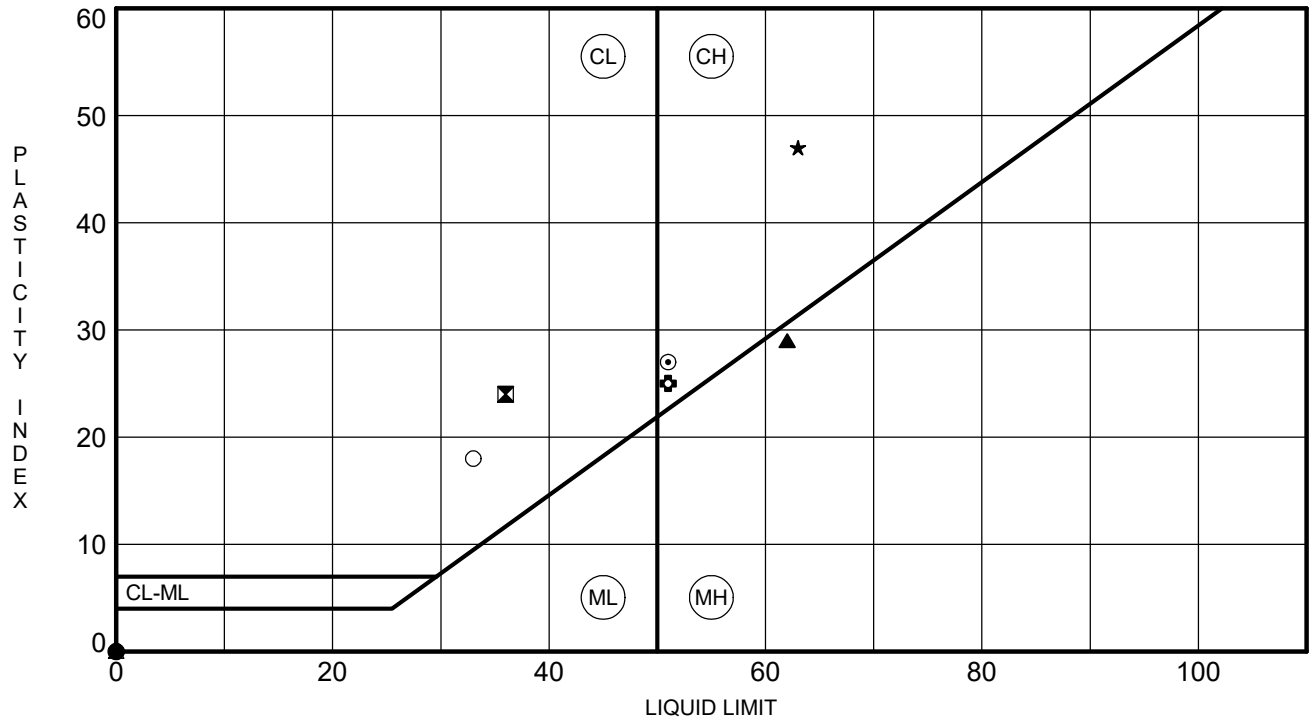
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B-14**	**2.0**	**27**	**17**	**10**	**25**	**Clayey Sand (SC/ A-2-6)**
⊠	**B-14**	**6.0**	**36**	**20**	**16**	**41**	**Clayey Sand (SC/ A-2-6)**
▲	**B-14**	**25.0**	**NP**	**NP**	**NP**	**9**	**Poorly Grade Sand with Sand (SP-SM/ A-3)**
★	**B-14**	**35.0**	**NP**	**NP**	**NP**	**6**	**Poorly Grade Sand with Sand (SP-SM/ A-3)**
⊙	**B-14**	**45.0**	**26**	**13**	**13**	**28**	**Clayey Sand (SC/ A-2-6)**
✿	**B-14**	**50.0**	**52**	**21**	**31**	**72**	**Fat Clay (CH/ A-7-6)**
○	**B-14**	**60.0**	**53**	**26**	**27**	**77**	**Fat Clay (CH/ A-7-6)**
△	**B-14**	**70.0**	**35**	**15**	**20**	**41**	**Clayey Sand (SC/ A-2-7)**
⊗	**B-14**	**80.0**	**33**	**20**	**13**	**28**	**Clayey Sand (SC/ A-2-6)**

ATTERBERG LIMITS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/25/25

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston



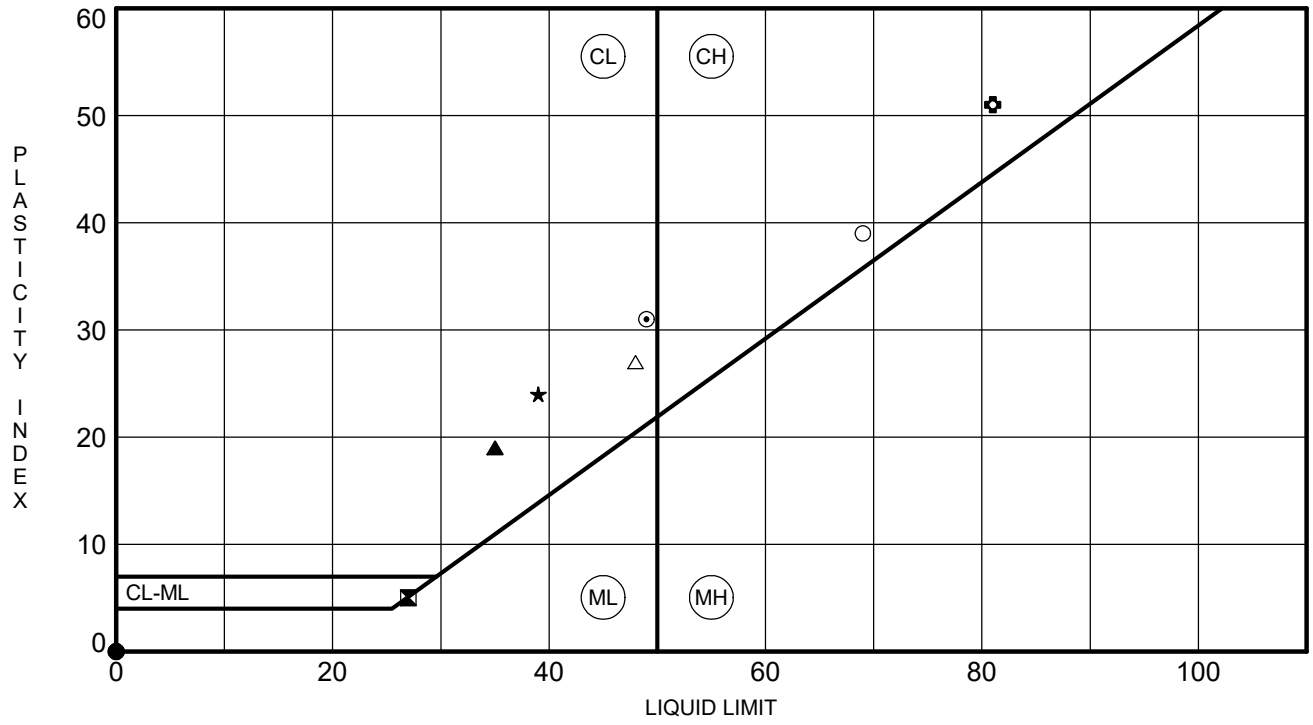
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B-15**	**3.0**	**NP**	**NP**	**NP**	**8**	**Poorly Graded Sand with Silt (SP-SM/ A-3)**
⊠	**B-15**	**7.0**	**36**	**12**	**24**	**43**	**Clayey Sand (SC/ A-6)**
▲	**B-15**	**20.0**	**62**	**33**	**29**	**86**	**Elastic Silt with Sand (MH/ A-7-5)**
★	**B-15**	**45.0**	**63**	**16**	**47**	**76**	**Fat Clay (CH A-7-6)**
⊙	**B-15**	**55.0**	**51**	**24**	**27**	**69**	**Sandy Fat Clay (CH A-7-6)**
✿	**B-15**	**65.0**	**51**	**26**	**25**	**61**	**Sandy Fat Clay (CH A-7-6)**
○	**B-15**	**75.0**	**33**	**15**	**18**	**42**	**Clayey Sand (SC/ A-2-7)**
△	**B-15**	**85.0**	**NP**	**NP**	**NP**	**16**	**Silty Sand (SM/ A-2-4)**
⊗	**B-15**	**95.0**	**NP**	**NP**	**NP**	**15**	**Silty Sand (SM/ A-2-4)**

ATTERBERG LIMITS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/25/25

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston



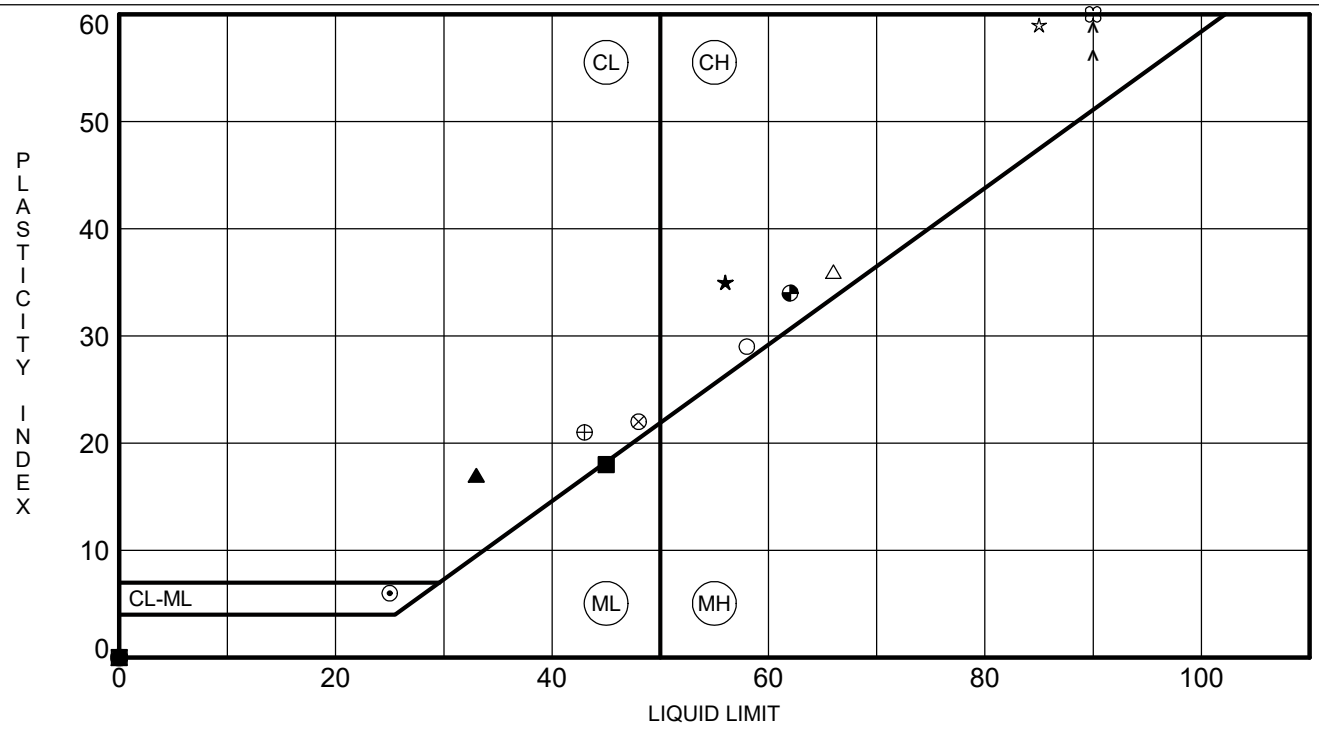
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**B-16**	**6.0**	**NP**	**NP**	**NP**	**13**	**Silty Sand (SM/ A-2-4)**
⊠	**B-16**	**10.0**	**27**	**22**	**5**	**48**	**Silty, Clayey Sand (SC-SM/ A-4)**
▲	**B-16**	**15.0**	**35**	**16**	**19**	**41**	**Clayey Sand (SC/ A-6)**
★	**B-16**	**25.0**	**39**	**15**	**24**	**62**	**Sandy Lean Clay (CL/ A-6)**
⊙	**B-16**	**35.0**	**49**	**18**	**31**	**72**	**Lean Clay with Sand (CL/ A-7-6)**
✿	**B-16**	**55.0**	**81**	**30**	**51**	**68**	**Sandy Fat Clay (CH/ A-7-5)**
○	**B-16**	**65.0**	**69**	**30**	**39**	**57**	**Sandy Fat Clay (CH/ A-7-5)**
△	**B-16**	**75.0**	**48**	**21**	**27**	**35**	**Clayey Sand (SC/ A-2-7)**
⊗	**B-16**	**85.0**	**NP**	**NP**	**NP**	**16**	**Silty Sand (SM/ A-2-4)**
⊕	**B-16**	**95.0**	**NP**	**NP**	**NP**	**15**	**Silty Sand (SM/ A-2-4)**

ATTERBERG LIMITS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/17/25

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston



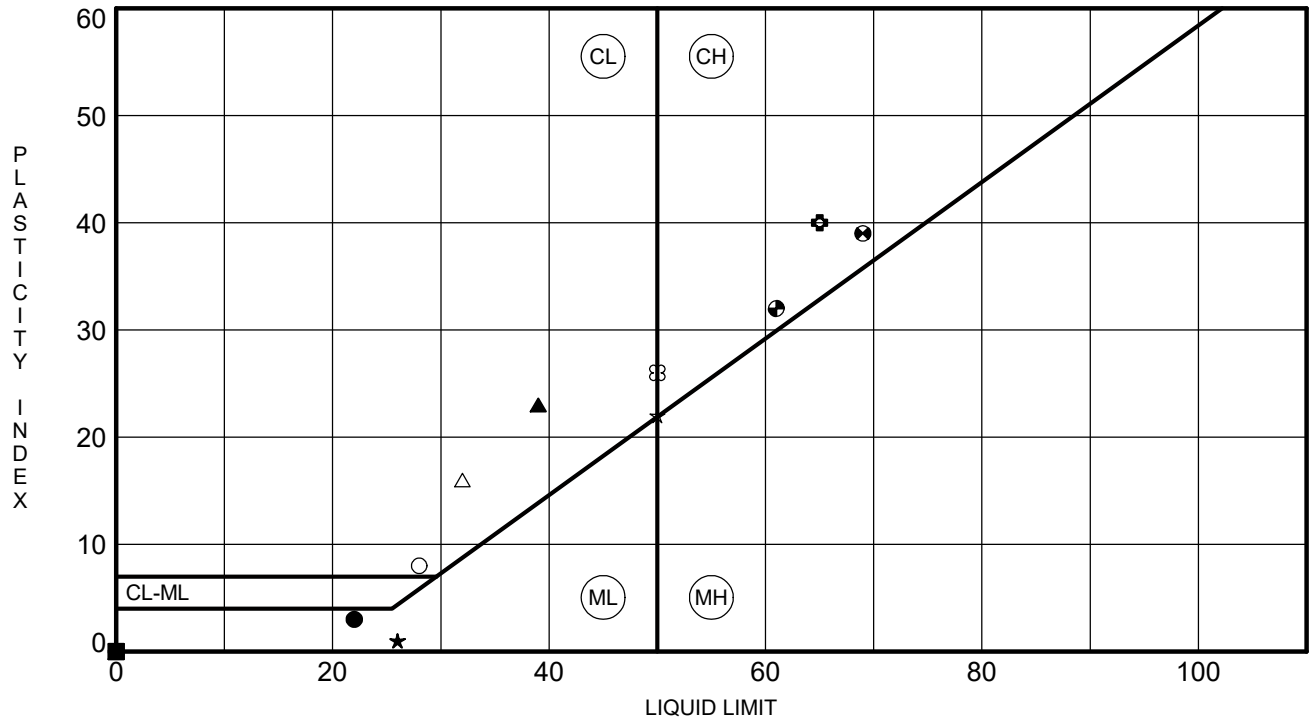
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-17	4.0	NP	NP	NP	8	Poorly Graded Sand with Silt (SP-SM/ A-3)
⊠	B-17	8.0	NP	NP	NP	15	Silty Sand (SM/ A-2-4)
▲	B-17	10.0	33	16	17	50	Clayey Sand (SC/ A-6)
★	B-17	20.0	56	21	35	78	Fat Clay with Sand (CH/ A-7-6)
⊙	B-17	25.0	25	19	6	15	Silty, Clayey Sand (SC-SM/ A-2-4)
✿	B-17	40.0	NP	NP	NP	11	Poorly Graded Sand with Silt (SP-SM/ A-2-4)
○	B-17	50.0	58	29	29	68	Sandy Fat Clay (CH/ A-7-6)
△	B-17	60.0	66	30	36	57	Sandy Fat Clay (CH/ A-7-6)
⊗	B-17	70.0	48	26	22	40	Clayey Sand (SC/ A-7-6)
⊕	B-17	80.0	43	22	21	24	Clayey Sand (SC/ A-2-7)
□	B-17	90.0	NP	NP	NP	15	Silty Sand (SM/ A-2-4)
⊛	B-17	100.0	NP	NP	NP	17	Silty Sand (SM/ A-2-4)
◕	B-17	110.0	62	28	34	79	Fat Clay with Sand (CH/ A-7-6)
☆	B-17	130.0	85	26	59	92	Fat Clay (CH/ A-7-6)
⊠	B-17	140.0	90	25	65	89	Fat Clay (CH/ A-7-6)
■	B-17	150.0	45	27	18	83	Lean Clay with Sand (CL/ A-7-6)

ATTERBERG LIMITS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/17/25

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston



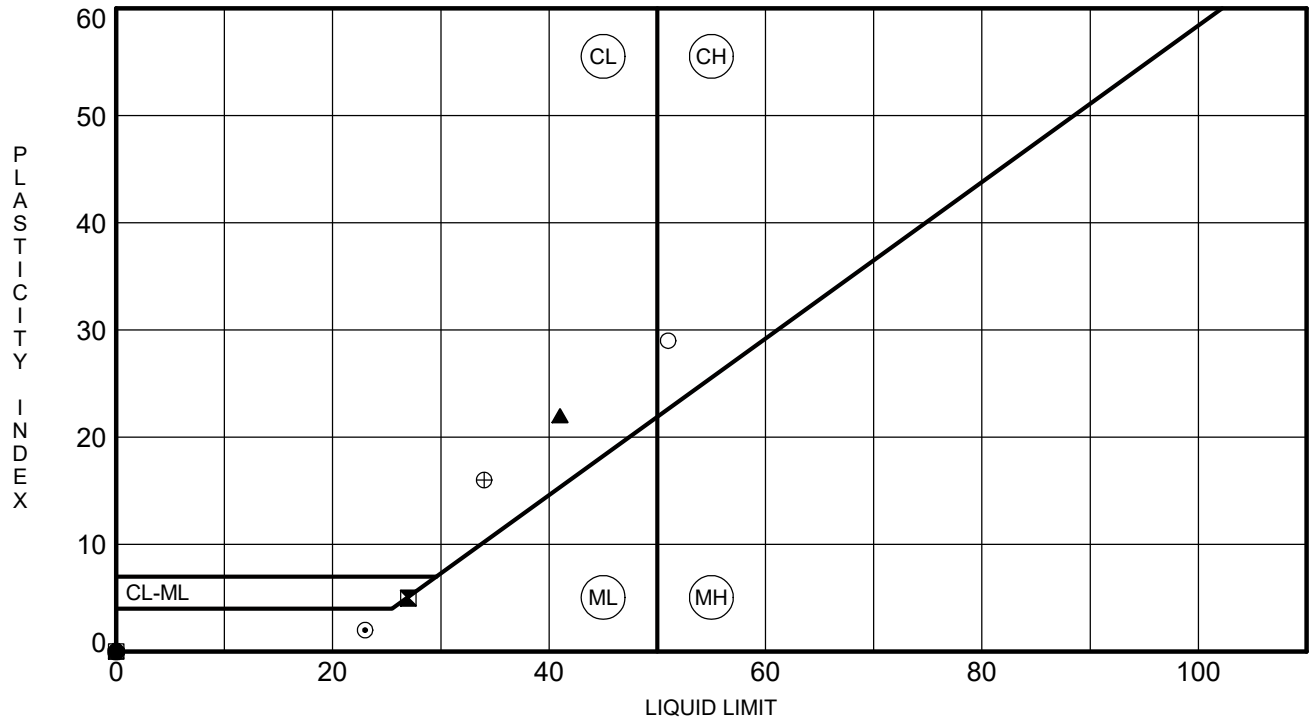
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	B-18	4.0	22	19	3	22	Silty Sand (SM/ A-2-4)
⊠	B-18	6.0	NP	NP	NP	22	Silty Sand (SM/ A-2-4)
▲	B-18	8.0	39	16	23	41	Clayey Sand (SC/ A-6)
★	B-18	10.0	26	25	1	17	Silty Sand (SM/ A-2-4)
⊙	B-18	15.0	NP	NP	NP	16	Silty Sand (SM/ A-2-4)
✿	B-18	20.0	65	25	40	91	Fat Clay (CH/ A-7-6)
○	B-18	25.0	28	20	8	33	Clayey Sand (SC/ A-2-4)
△	B-18	30.0	32	16	16	60	Sandy Lean Clay (CL/ A-6)
⊗	B-18	35.0	NP	NP	NP	24	Silty Sand (SM/ A-2-4)
⊕	B-18	40.0	NP	NP	NP	10	Poorly Graded Sand with Silt (SP-SM/A-3)
□	B-18	45.0	NP	NP	NP	13	Silty Sand (SM/ A-2-4)
⊛	B-18	50.0	69	30	39	74	Fat Clay with Sand (CH/ A-7-5)
◕	B-18	60.0	61	29	32	53	Sandy Fat Clay (CH/ A-7-6)
☆	B-18	70.0	50	28	22	43	Clayey Sand (SC/ A-7-6)
⊠	B-18	80.0	50	24	26	27	Clayey Sand (SC/ A-2-7)
■	B-18	100.0	NP	NP	NP	19	Silty Sand (SM/ A-2-4)

ATTERBERG LIMITS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/17/25

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



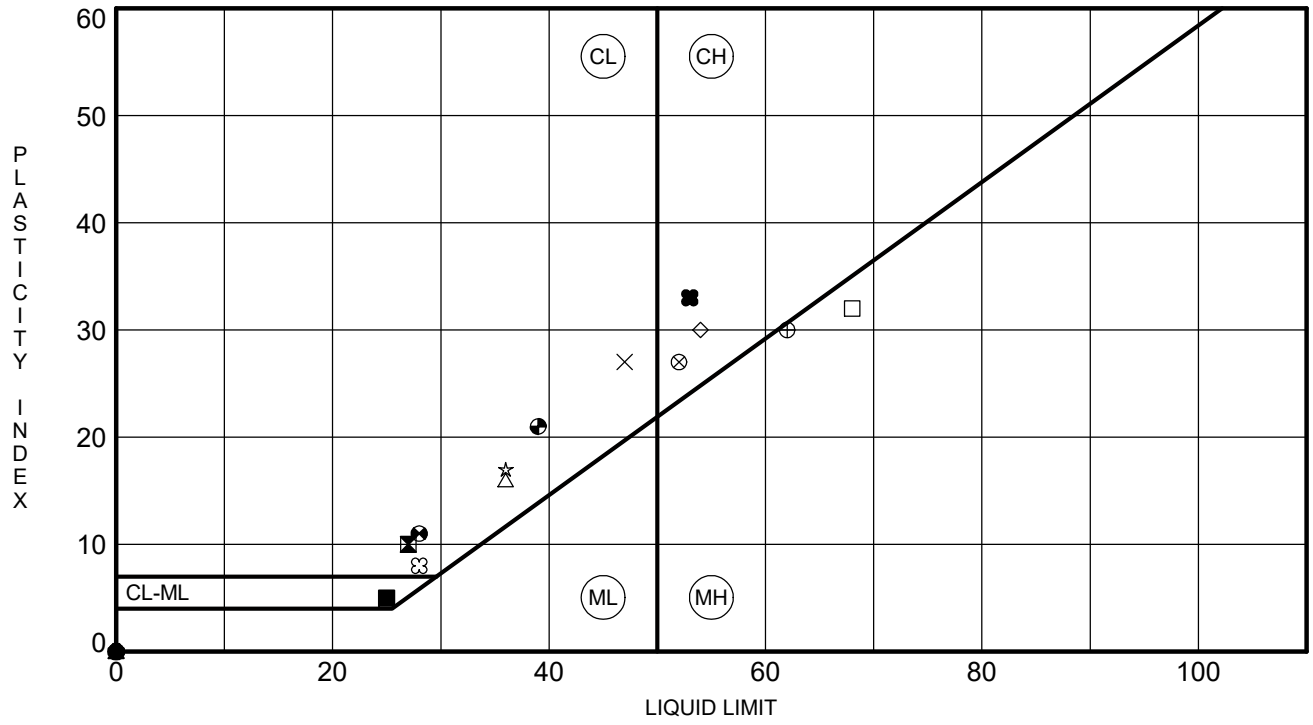
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**EMB01**	**0.0**	**NP**	**NP**	**NP**		
⊠	**EMB01**	**2.0**	**27**	**22**	**5**		
▲	**EMB01**	**4.0**	**41**	**19**	**22**		
★	**EMB01**	**6.0**	**NP**	**NP**	**NP**		
⊙	**EMB01**	**8.0**	**23**	**21**	**2**		
✿	**EMB01**	**13.5**	**NP**	**NP**	**NP**		
○	**EMB01**	**18.5**	**51**	**22**	**29**		
△	**EMB01**	**23.5**	**NP**	**NP**	**NP**		
⊗	**EMB01**	**28.5**	**NP**	**NP**	**NP**		
⊕	**EMB01**	**33.5**	**34**	**18**	**16**		
□	**EMB01**	**38.5**	**NP**	**NP**	**NP**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



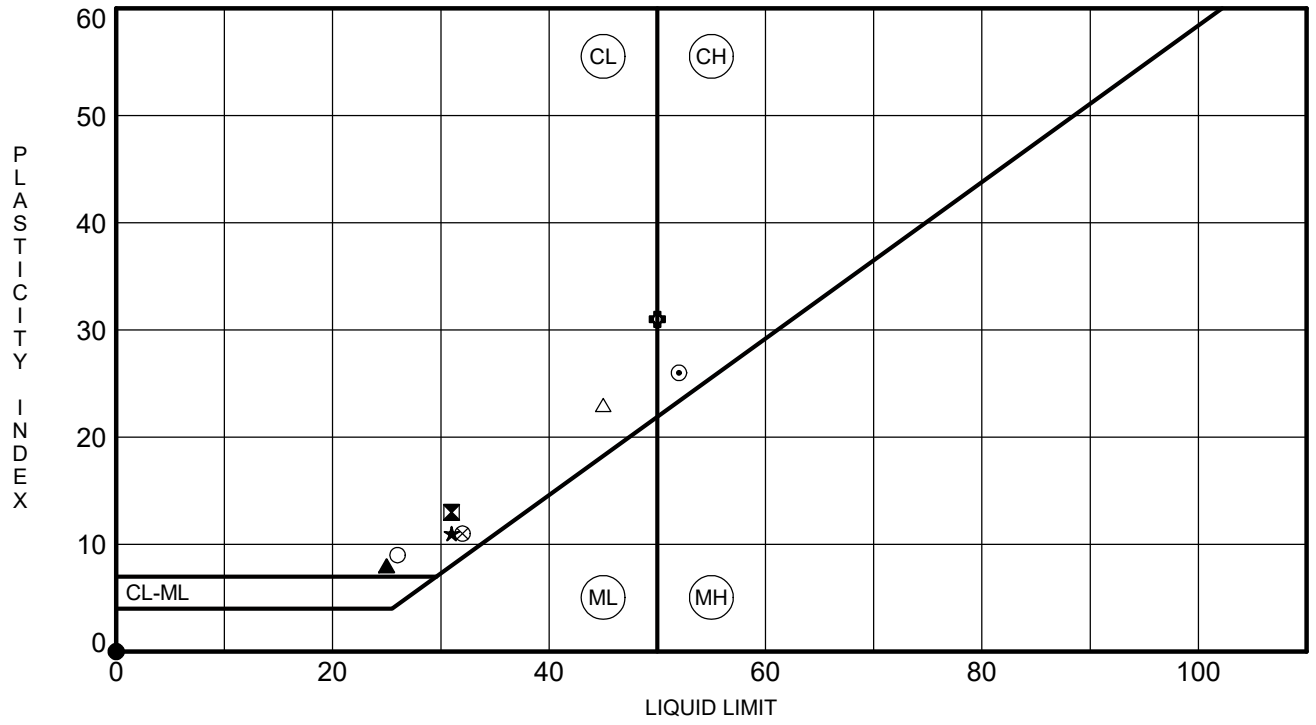
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	EMB02	0.0	NP	NP	NP		
⊠	EMB02	2.0	27	17	10		
▲	EMB02	4.0	NP	NP	NP		
★	EMB02	6.0	NP	NP	NP		
⊙	EMB02	8.0	NP	NP	NP		
✿	EMB02	10.0	NP	NP	NP		
○	EMB02	12.0	NP	NP	NP		
△	EMB02	14.0	36	20	16		
⊗	EMB02	16.0	52	25	27		
⊕	EMB02	18.0	62	32	30		
□	EMB02	20.0	68	36	32		
⊛	EMB02	22.0	28	17	11		
◕	EMB02	24.0	39	18	21		
☆	EMB02	26.0	36	19	17		
⊠	EMB02	28.0	28	20	8		
■	EMB02	30.0	25	20	5		
◆	EMB02	32.0	NP	NP	NP		
◇	EMB02	34.0	54	24	30		
×	EMB02	36.0	47	20	27		
✖	EMB02	38.0	53	20	33		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



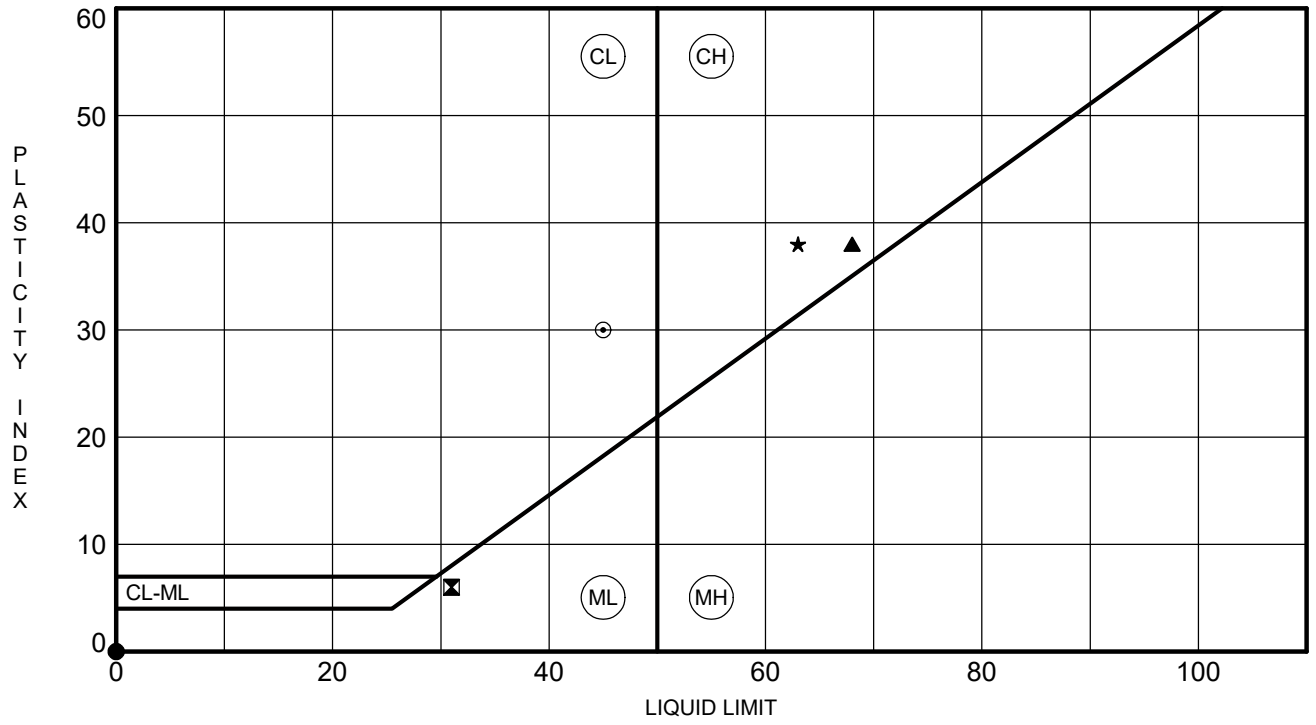
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**EMB03**	**0.0**	**NP**	**NP**	**NP**		
⧓	**EMB03**	**6.0**	**31**	**18**	**13**		
▲	**EMB03**	**8.0**	**25**	**17**	**8**		
★	**EMB03**	**13.5**	**31**	**20**	**11**		
⊙	**EMB03**	**18.5**	**52**	**26**	**26**		
✿	**EMB03**	**23.5**	**50**	**19**	**31**		
○	**EMB03**	**28.5**	**26**	**17**	**9**		
△	**EMB03**	**33.5**	**45**	**22**	**23**		
⊗	**EMB03**	**38.5**	**32**	**21**	**11**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



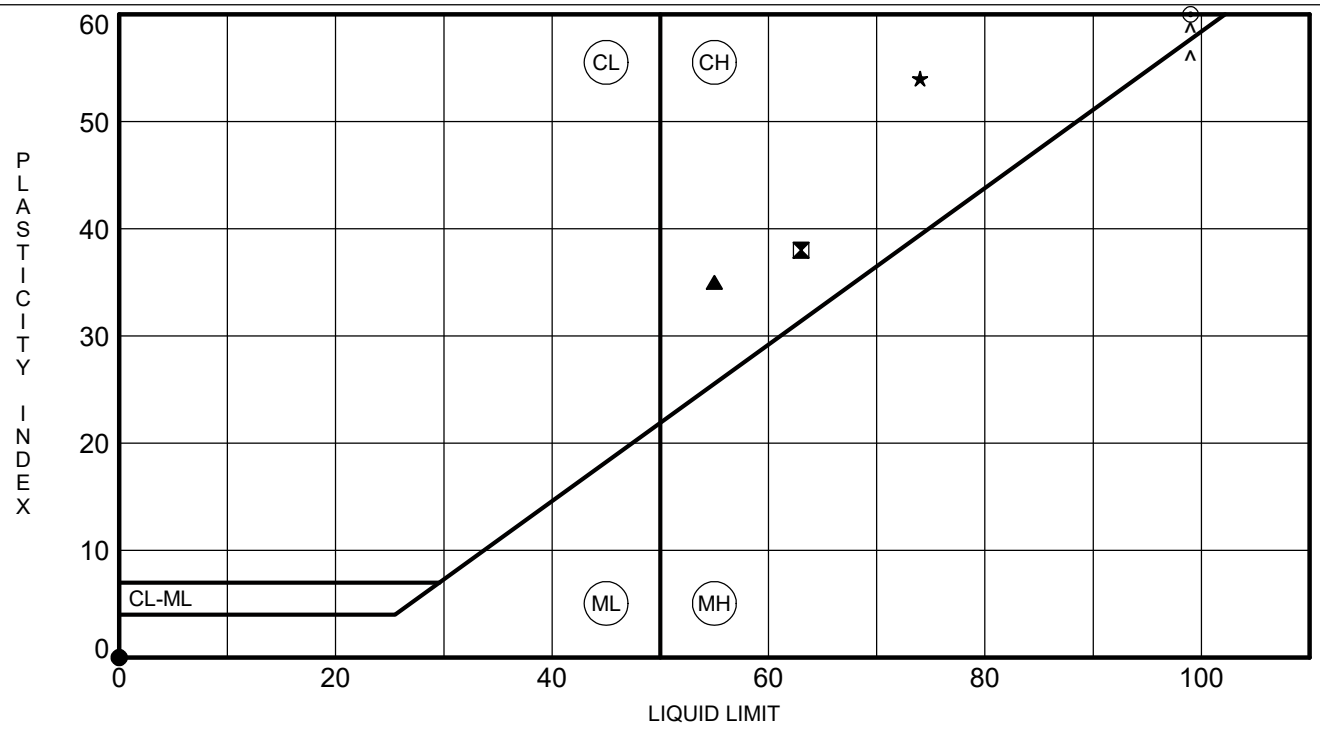
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**EMB05**	**8.0**	**NP**	**NP**	**NP**		
⧓	**EMB05**	**18.5**	**31**	**25**	**6**		
▲	**EMB05**	**23.5**	**68**	**30**	**38**		
★	**EMB05**	**33.5**	**63**	**25**	**38**		
⊙	**EMB05**	**38.5**	**45**	**15**	**30**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



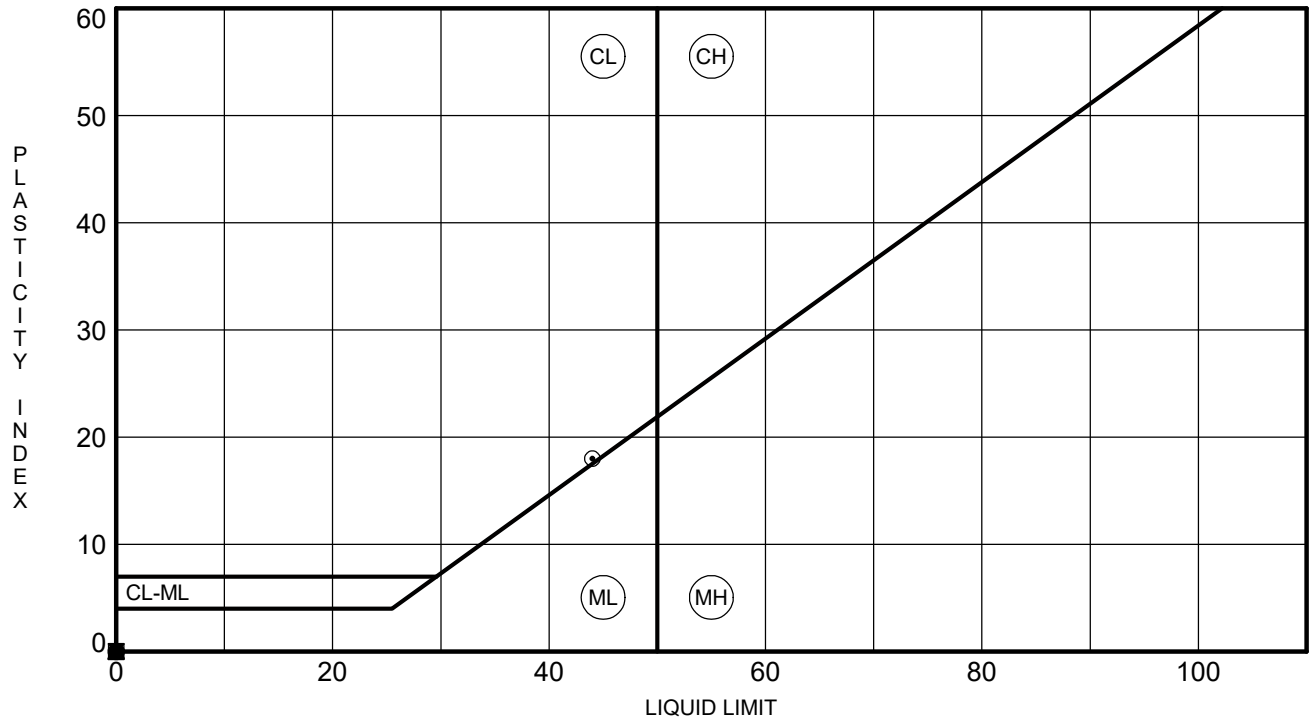
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**EMB06**	**6.0**	**NP**	**NP**	**NP**		
⊠	**EMB06**	**13.5**	**63**	**25**	**38**		
▲	**EMB06**	**23.5**	**55**	**20**	**35**		
★	**EMB06**	**33.5**	**74**	**20**	**54**		
⊙	**EMB06**	**38.5**	**99**	**28**	**71**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

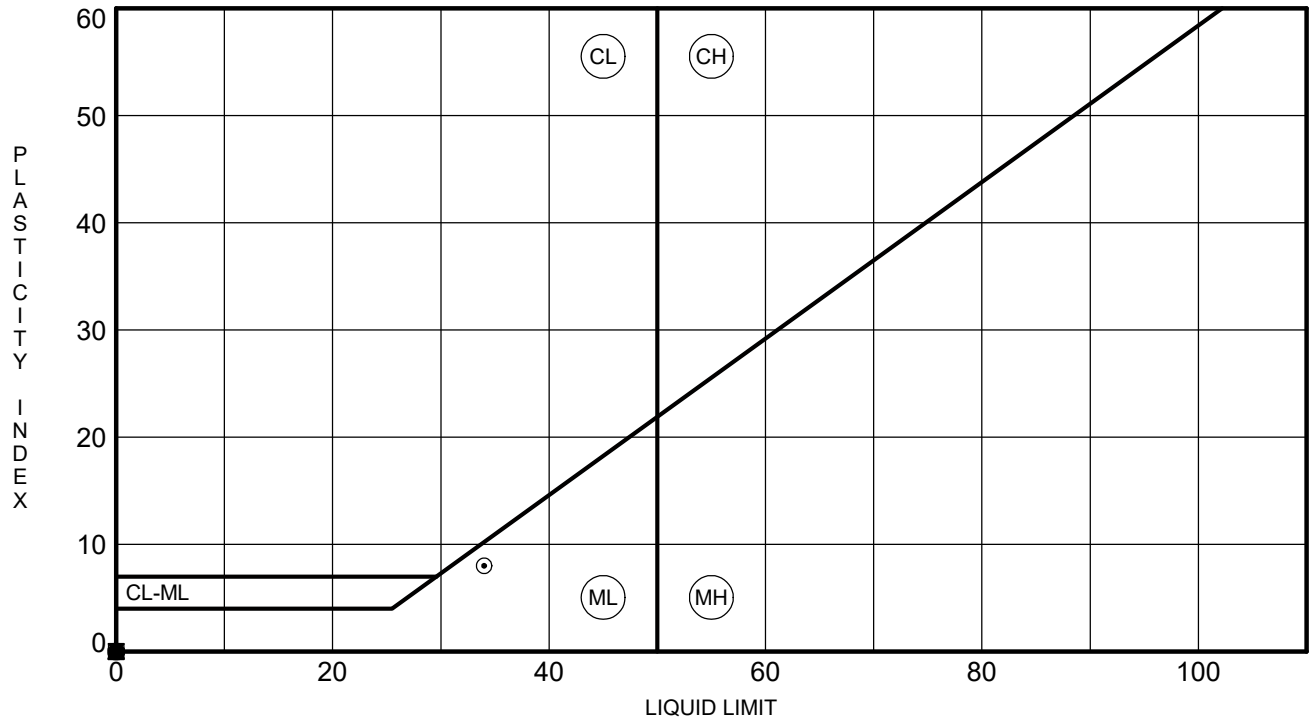


	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**EMB07**	**0.0**	**NP**	**NP**	**NP**		
⊠	**EMB07**	**4.0**	**NP**	**NP**	**NP**		
▲	**EMB07**	**23.5**	**NP**	**NP**	**NP**		
★	**EMB07**	**33.5**	**NP**	**NP**	**NP**		
⊙	**EMB07**	**38.5**	**44**	**26**	**18**		

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

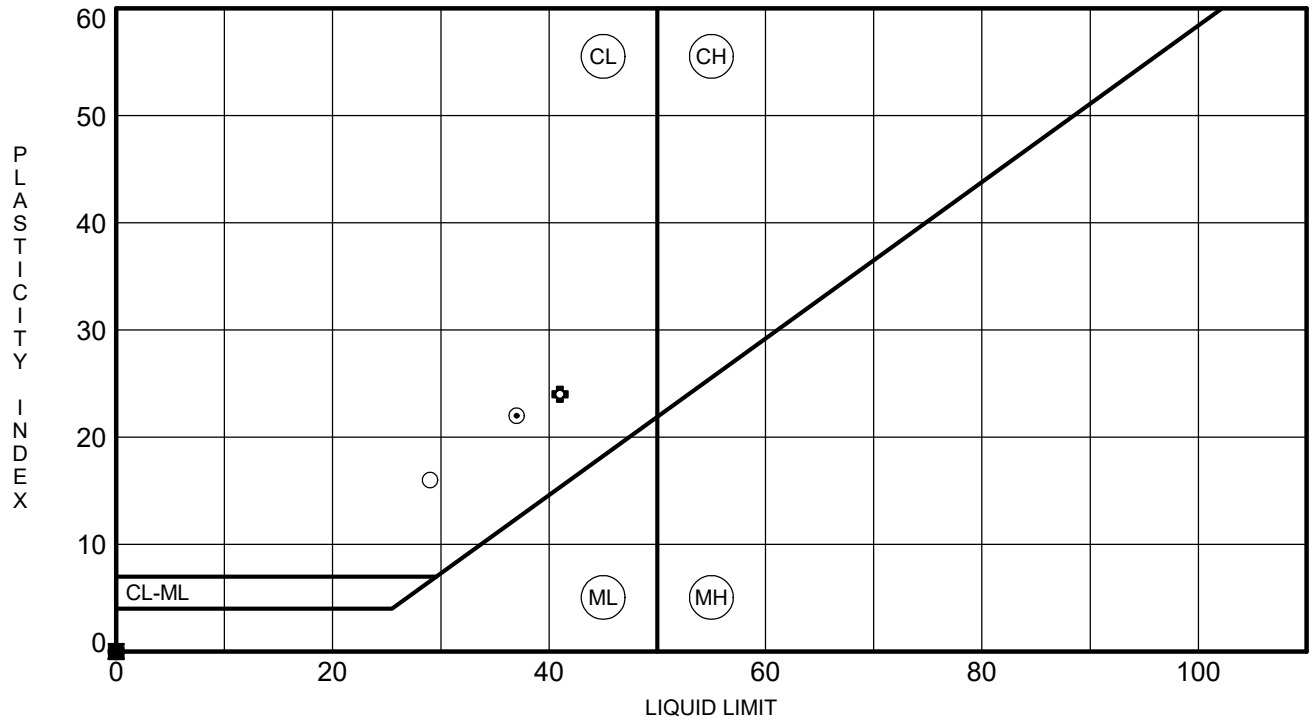


	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**EMB08**	**0.0**	**NP**	**NP**	**NP**		
⊠	**EMB08**	**8.0**	**NP**	**NP**	**NP**		
▲	**EMB08**	**13.5**	**NP**	**NP**	**NP**		
★	**EMB08**	**28.5**	**NP**	**NP**	**NP**		
⊙	**EMB08**	**33.5**	**34**	**26**	**8**		
✿	**EMB08**	**38.5**	**NP**	**NP**	**NP**		

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



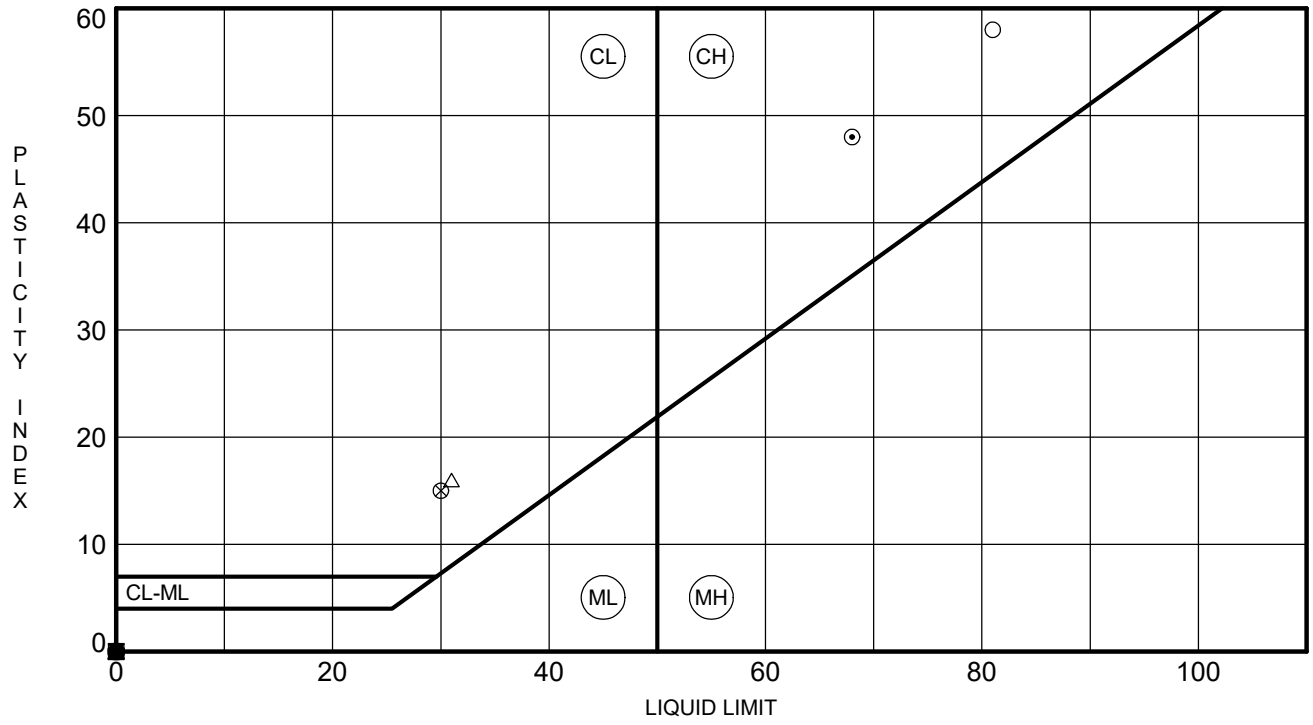
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**EMB09**	**2.0**	**NP**	**NP**	**NP**		
⊠	**EMB09**	**6.0**	**NP**	**NP**	**NP**		
▲	**EMB09**	**18.5**	**NP**	**NP**	**NP**		
★	**EMB09**	**23.5**	**NP**	**NP**	**NP**		
⊙	**EMB09**	**28.5**	**37**	**15**	**22**		
✿	**EMB09**	**33.5**	**41**	**17**	**24**		
○	**EMB09**	**38.5**	**29**	**13**	**16**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



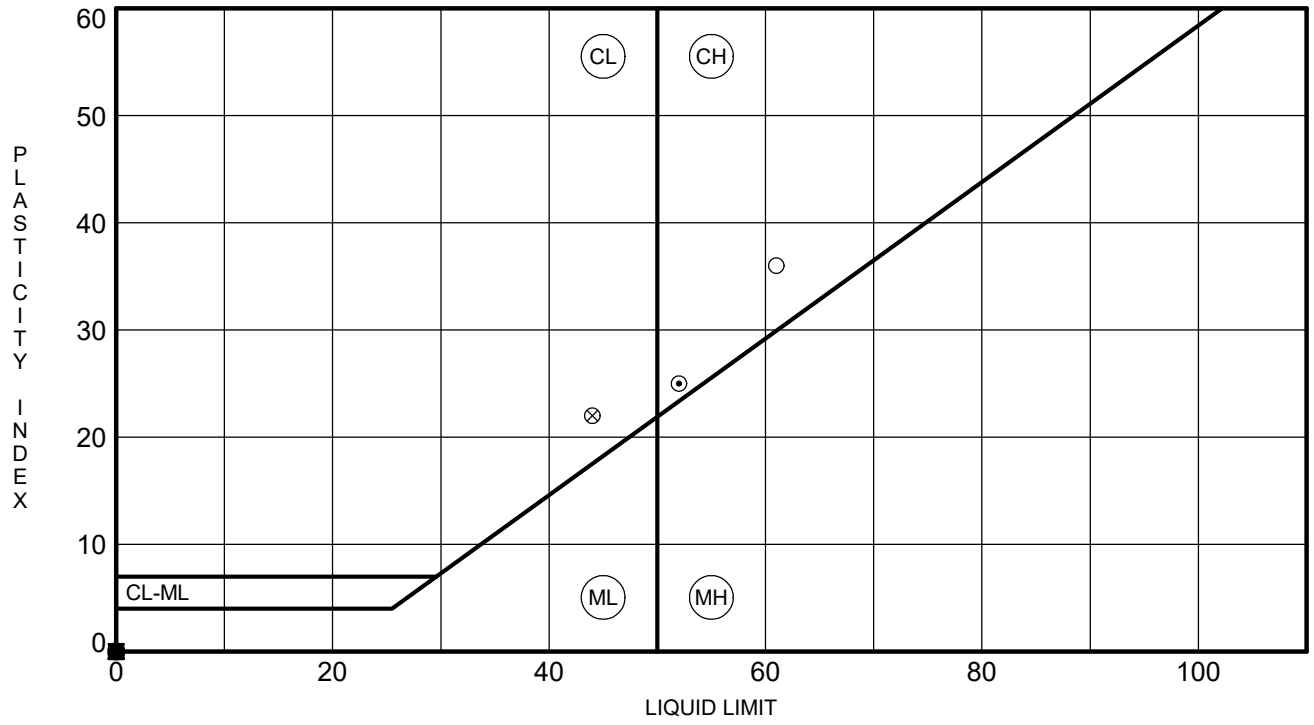
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**EMB10**	**0.0**	**NP**	**NP**	**NP**		
⊠	**EMB10**	**2.0**	**NP**	**NP**	**NP**		
▲	**EMB10**	**6.0**	**NP**	**NP**	**NP**		
★	**EMB10**	**8.0**	**NP**	**NP**	**NP**		
⊙	**EMB10**	**13.5**	**68**	**20**	**48**		
✿	**EMB10**	**18.5**	**NP**	**NP**	**NP**		
○	**EMB10**	**23.5**	**81**	**23**	**58**		
△	**EMB10**	**33.5**	**31**	**15**	**16**		
⊗	**EMB10**	**38.5**	**30**	**15**	**15**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



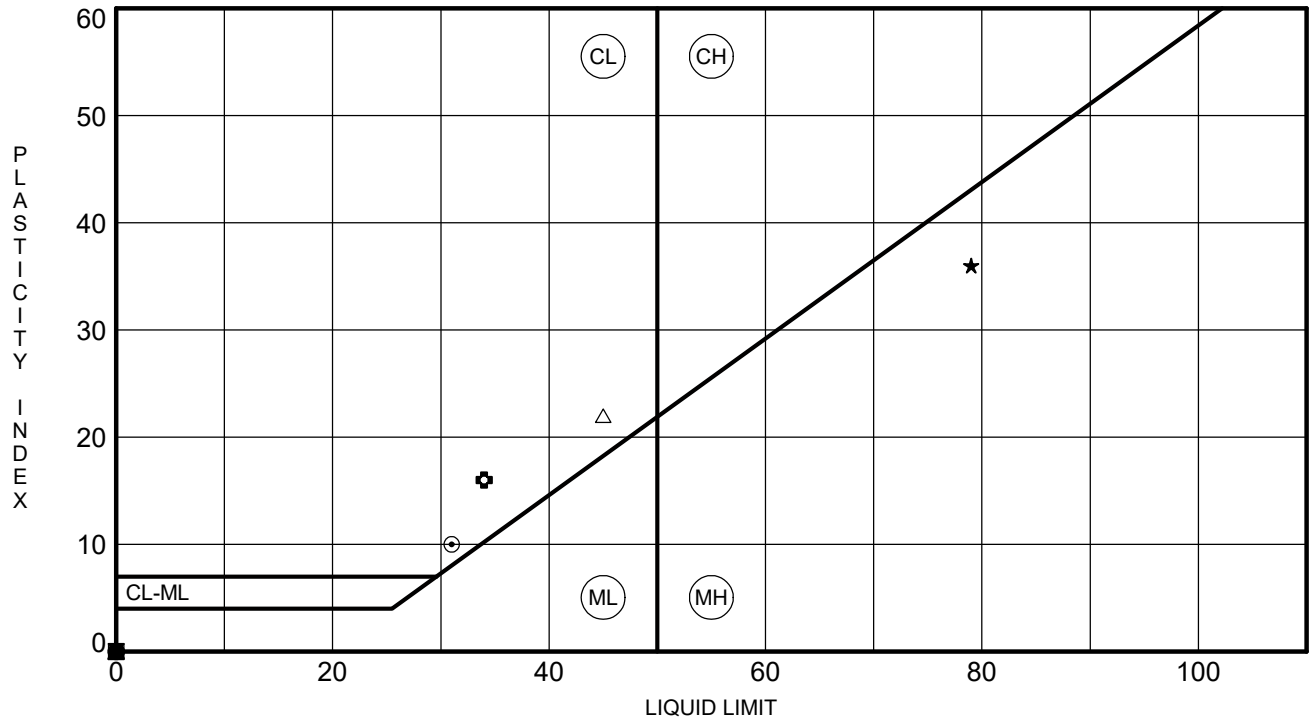
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**EMB11**	**0.0**	**NP**	**NP**	**NP**		
⊠	**EMB11**	**2.0**	**NP**	**NP**	**NP**		
▲	**EMB11**	**6.0**	**NP**	**NP**	**NP**		
★	**EMB11**	**8.0**	**NP**	**NP**	**NP**		
⊙	**EMB11**	**13.5**	**52**	**27**	**25**		
✿	**EMB11**	**18.5**	**NP**	**NP**	**NP**		
○	**EMB11**	**23.5**	**61**	**25**	**36**		
△	**EMB11**	**28.5**	**NP**	**NP**	**NP**		
⊗	**EMB11**	**33.5**	**44**	**22**	**22**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



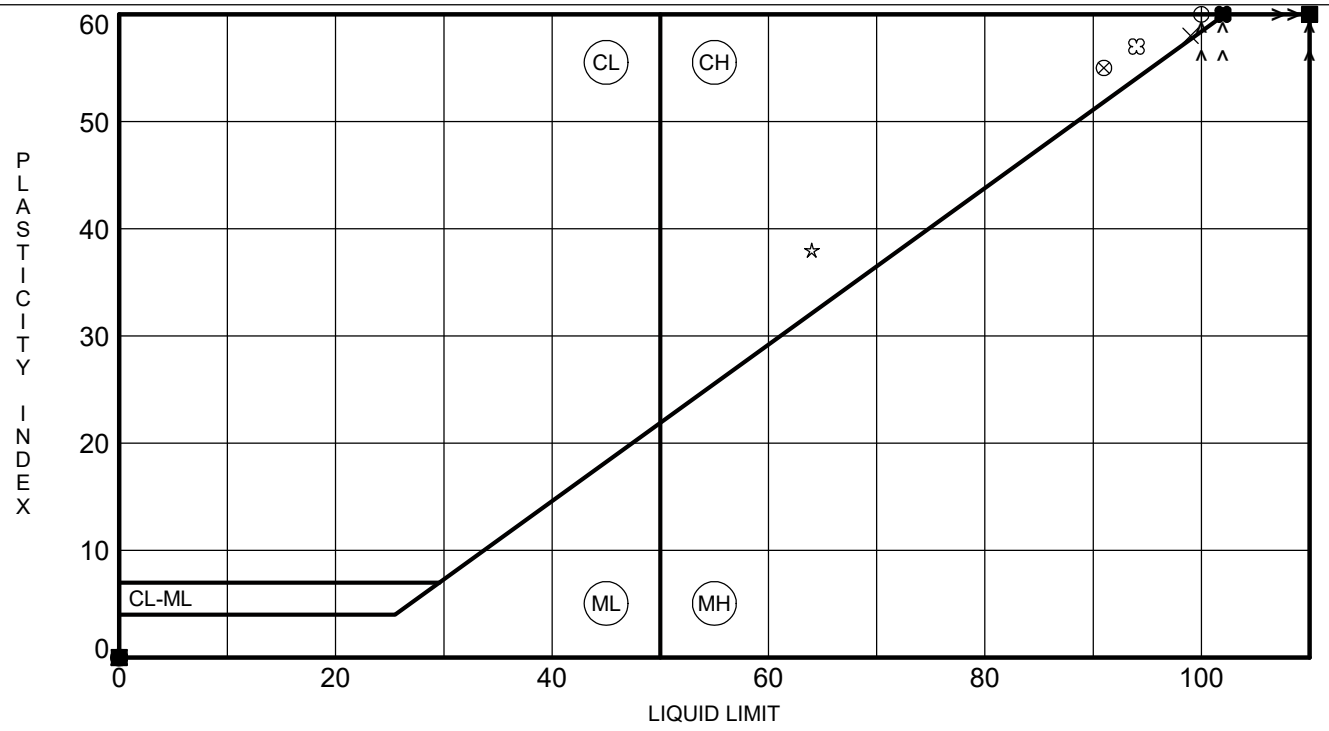
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**EMB12**	**2.0**	**NP**	**NP**	**NP**		
⊠	**EMB12**	**4.0**	**NP**	**NP**	**NP**		
▲	**EMB12**	**6.0**	**NP**	**NP**	**NP**		
★	**EMB12**	**8.0**	**79**	**43**	**36**		
⊙	**EMB12**	**13.5**	**31**	**21**	**10**		
✿	**EMB12**	**18.5**	**34**	**18**	**16**		
○	**EMB12**	**23.5**	**NP**	**NP**	**NP**		
△	**EMB12**	**33.5**	**45**	**23**	**22**		
⊗	**EMB12**	**38.5**	**NP**	**NP**	**NP**		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



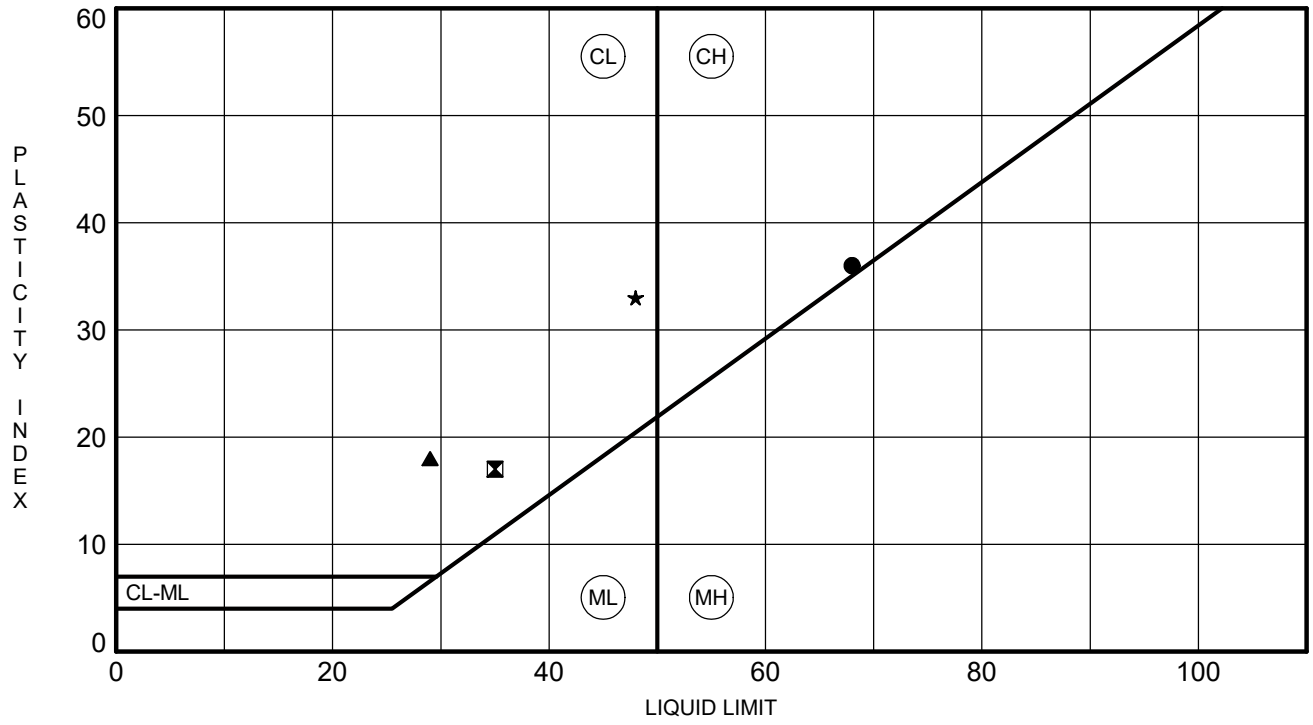
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	EMB13	0.0	NP	NP	NP		
⊠	EMB13	2.0	NP	NP	NP		
▲	EMB13	4.0	NP	NP	NP		
★	EMB13	6.0	NP	NP	NP		
⊙	EMB13	8.0	NP	NP	NP		
✿	EMB13	10.0	NP	NP	NP		
○	EMB13	12.0	NP	NP	NP		
△	EMB13	14.0	NP	NP	NP		
⊗	EMB13	16.0	91	36	55		
⊕	EMB13	18.0	100	36	64		
□	EMB13	20.0	NP	NP	NP		
❀	EMB13	22.0	NP	NP	NP		
◕	EMB13	24.0	NP	NP	NP		
☆	EMB13	26.0	64	26	38		
⚄	EMB13	28.0	94	37	57		
■	EMB13	30.0	113	41	72		
◆	EMB13	32.0	NP	NP	NP		
◇	EMB13	34.0	NP	NP	NP		
×	EMB13	36.0	99	41	58		
✖	EMB13	38.0	102	39	63		

ATTERBERG LIMITS 526 LONGPOINT BH LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 10/20/23

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I-526 Long Point Road Interchange

PROJECT COUNTY Charleston



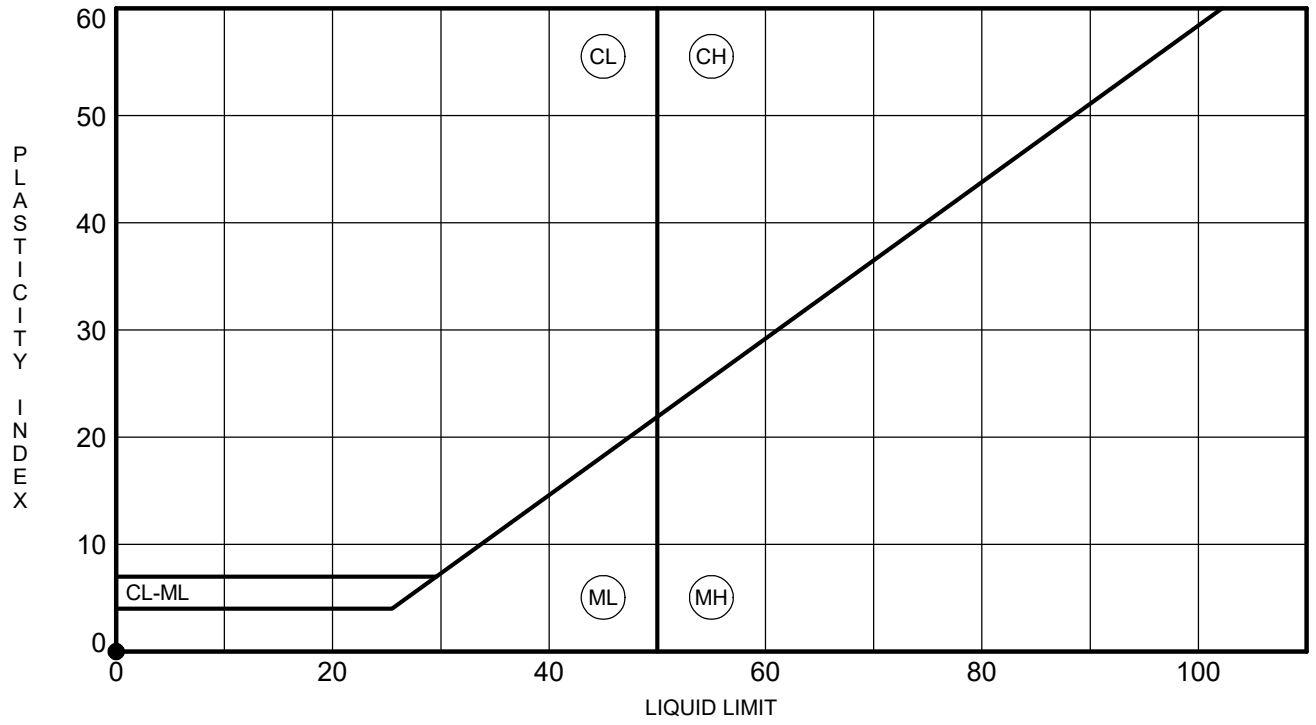
	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**EMB-14**	**30.0**	**68**	**32**	**36**	**93**	**Fat Clay (CH/ A-7-6)**
⊠	**EMB-14**	**40.0**	**35**	**18**	**17**	**37**	**Clayey Sand (SC/ A-6)**
▲	**EMB-14**	**55.0**	**29**	**11**	**18**	**20**	**Clayey Sand (SC/ A-2-6)**
★	**EMB-14**	**60.0**	**48**	**15**	**33**	**73**	**Lean Clay (CL/ A-7-6)**

ATTERBERG LIMITS 526 LONGPOINT PH II SPT LOGS.GPJ SCDOT DATA TEMPLATE_01_30_2015.GDT 8/25/25

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

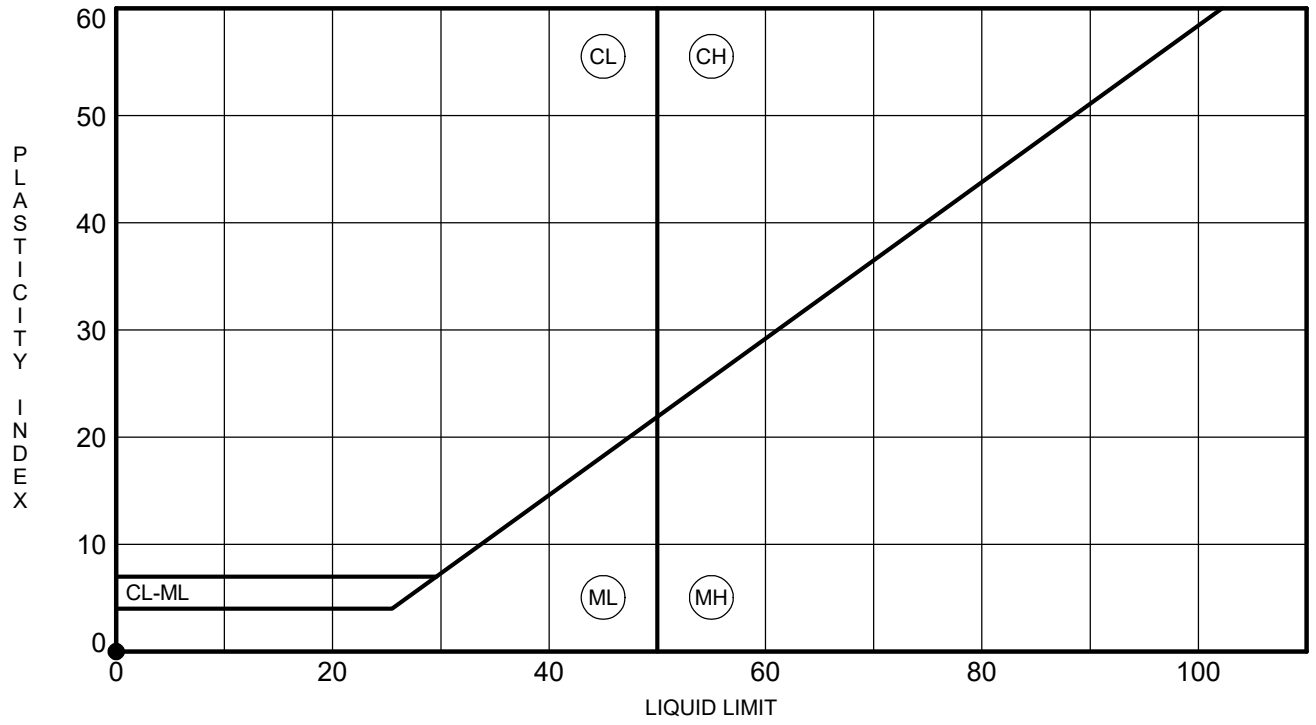


	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**R01**	**0.0**	**NP**	**NP**	**NP**		

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston

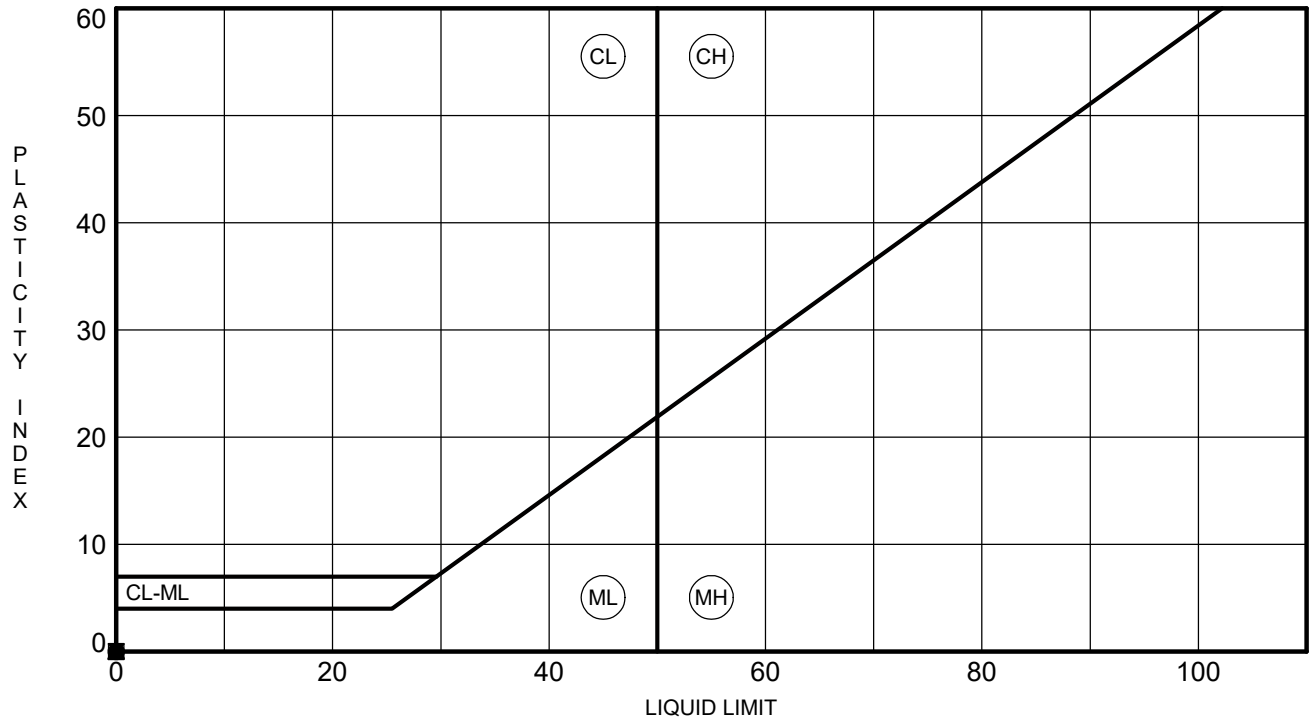


	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**R05**	**0.0**	**NP**	**NP**	**NP**		

ATTERBERG LIMITS' RESULTS

PROJECT ID 200424A **PROJECT NAME** I526 Long Point Road Interchange

PROJECT COUNTY Charleston



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
●	**R16**	**0.0**	**NP**	**NP**	**NP**		
⧓	**R16**	**2.0**	**NP**	**NP**	**NP**		
▲	**R16**	**4.0**	**NP**	**NP**	**NP**		

SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B01 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82517-1

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B01
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
B01	SS-1	0.0	23.0		18.2	NP	NP	NP	SM	A-2-4
B01	SS-2	2.0	15.8		30.1	22	12	10	SC	A-2-4
B01	SS-5	8.0	33.9		19.8	NP	NP	NP	SM	A-2-4
B01	SS-6	13.5	73.1		72.0	84	25	59	CH	A-7-6
B01	SS-7	18.5	53.2		63.0	57	16	41	CH	A-7-6
B01	SS-8	23.5	32.0		11.9	NP	NP	NP	SP-SM	A-2-4
B01	SS-9	28.5	34.1		18.8	32	12	20	SC	A-2-6
B01	SS-10	33.5	32.0		14.3	NP	NP	NP	SM	A-2-4
B01	SS-13	48.5	64.8		75.1	83	30	53	CH	A-7-5
B01	SS-16	63.5	52.0		37.6	56	28	28	SC	A-7-6
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B01**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-1**

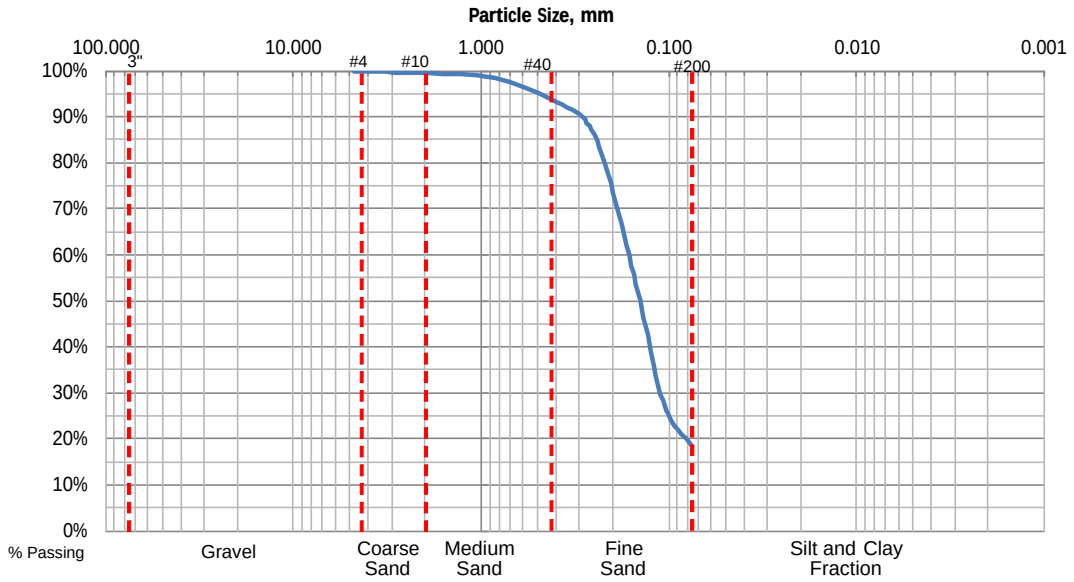
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B01, SS-01**
Page 1 of 1

Sample Identification
B01, SS-1, 0 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	98
No. 40	0.425	94
No. 60	0.25	86
No. 100	0.18	54
No. 140	0.106	27
No. 200	0.075	18.2

Material	%
Gravel	0.0
Total Sand	81.8
Coarse Sand	0.3
Medium Sand	5.8
Fine Sand	75.7
Silt and Clay	18.2

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B01**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-1**

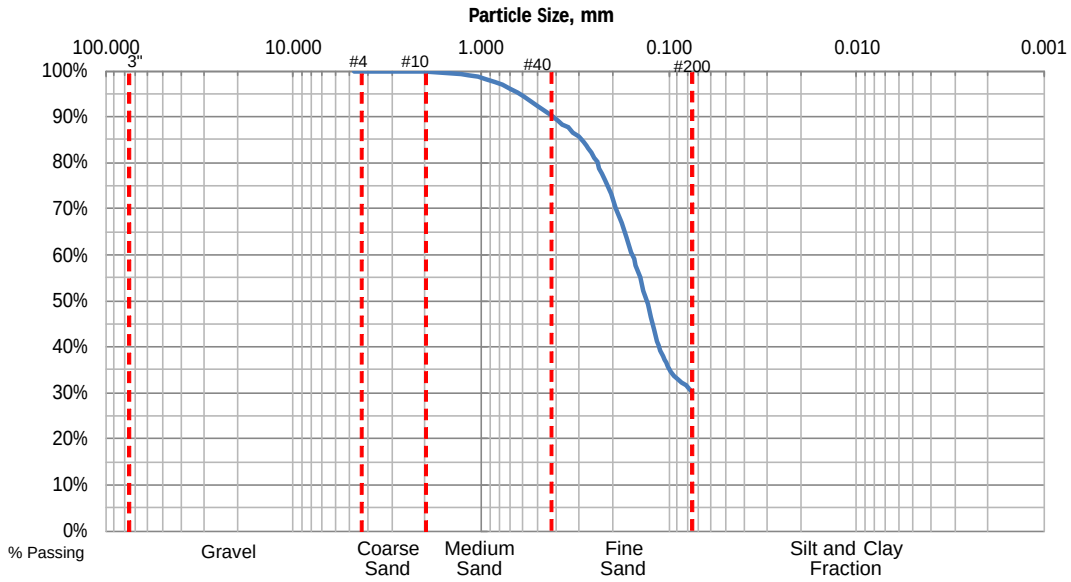
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B01, SS-02**
Page 1 of 1

Sample Identification
B01, SS-2, 2 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	98
No. 40	0.425	90
No. 60	0.25	81
No. 100	0.18	58
No. 140	0.106	37
No. 200	0.075	30.1

Material	%
Gravel	0.0
Total Sand	69.9
Coarse Sand	0.1
Medium Sand	9.5
Fine Sand	60.3
Silt and Clay	30.1

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
22	12	10



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B01**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-1**

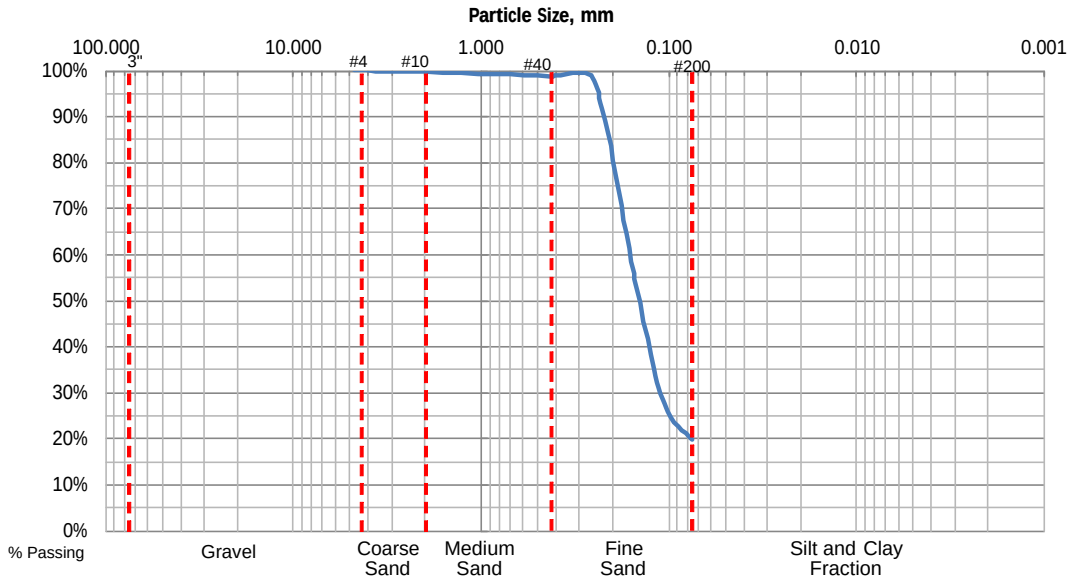
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B01, SS-05**
Page 1 of 1

Sample Identification
B01, SS-5, 8 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	99
No. 60	0.25	98
No. 100	0.18	54
No. 140	0.106	27
No. 200	0.075	19.8

Material	%
Gravel	0.0
Total Sand	80.2
Coarse Sand	0.2
Medium Sand	1.0
Fine Sand	79.0
Silt and Clay	19.8

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B01**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-1**

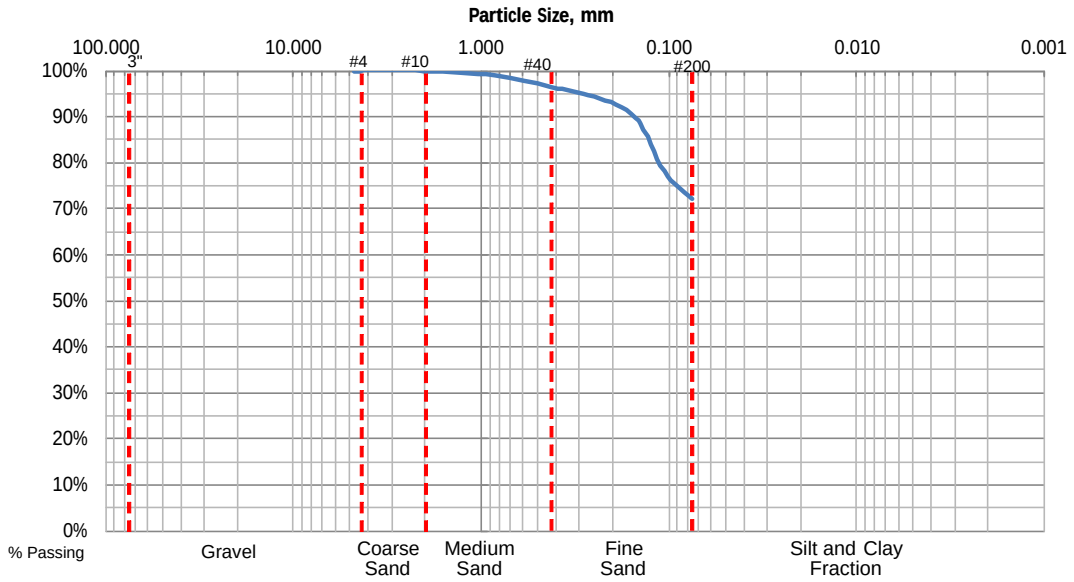
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B01, SS-06**
Page 1 of 1

Sample Identification
B01, SS-6, 13.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	96
No. 60	0.25	94
No. 100	0.18	90
No. 140	0.106	78
No. 200	0.075	72.0

Material	%
Gravel	0.0
Total Sand	28.0
Coarse Sand	0.0
Medium Sand	3.5
Fine Sand	24.5
Silt and Clay	72.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
84	25	59



Classification	
ASTM	Fat Clay with Sand (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B01**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-1**

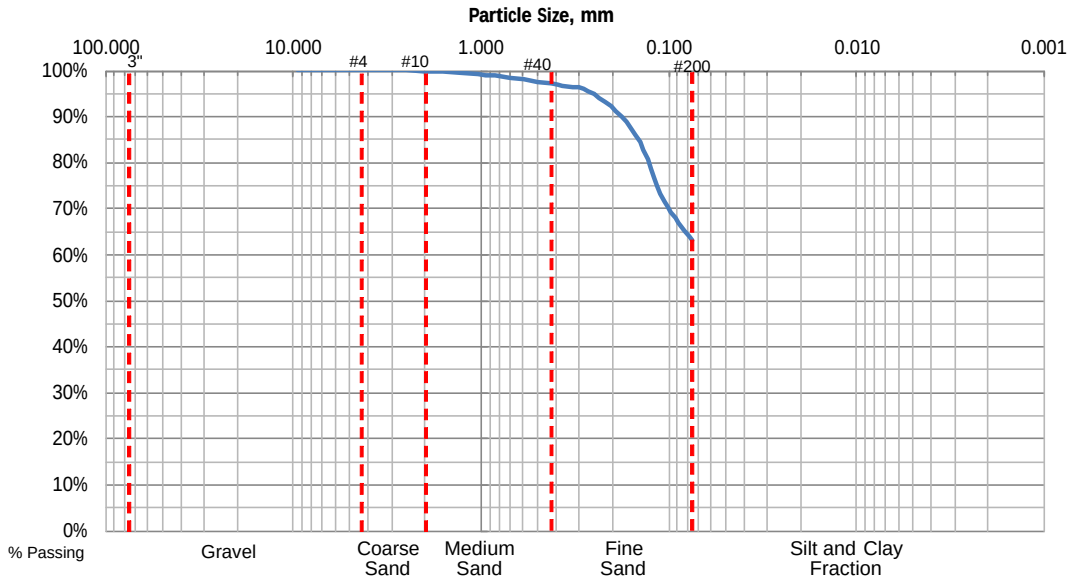
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B01, SS-07**
Page 1 of 1

Sample Identification
B01, SS-7, 18.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	97
No. 60	0.25	95
No. 100	0.18	86
No. 140	0.106	72
No. 200	0.075	63.0

Material	%
Gravel	0.1
Total Sand	36.9
Coarse Sand	0.1
Medium Sand	2.8
Fine Sand	34.0
Silt and Clay	63.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
57	16	41



Classification	
ASTM	Sandy Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B01 **Order Number:**

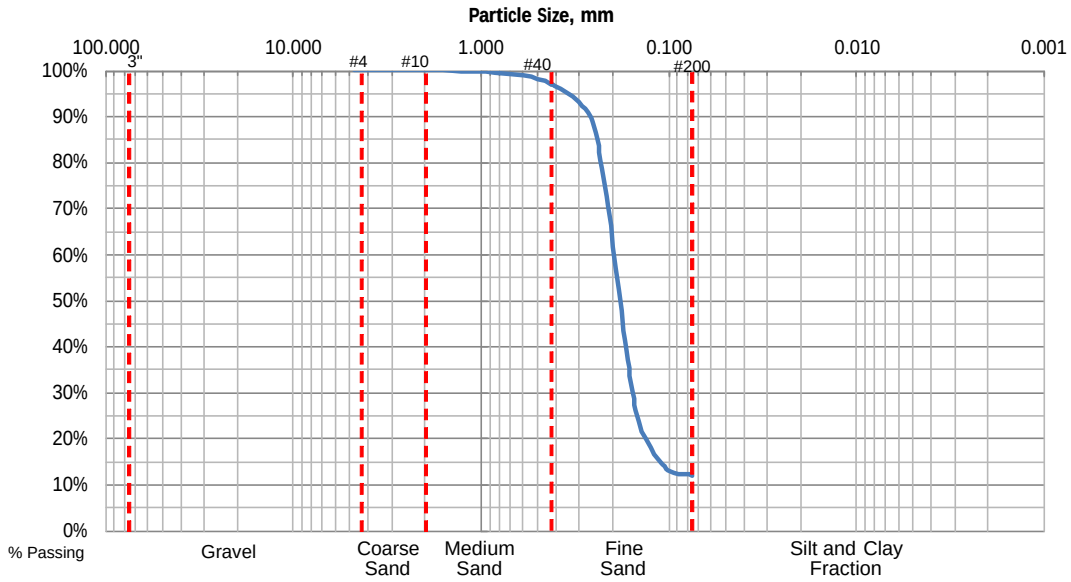
Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-1

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B01, SS-08
Page 1 of 1

Sample Identification
B01, SS-8, 23.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	97
No. 60	0.25	88
No. 100	0.18	26
No. 140	0.106	14
No. 200	0.075	11.9
Coefficient of curvature, Cc		2.9
Coefficient of uniformity, Cu		1.7
Material		**%**
Gravel		0.0
Total Sand		88.1
Coarse Sand		0.0
Medium Sand		3.0
Fine Sand		85.1
Silt and Clay		11.9
Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B01**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-1**

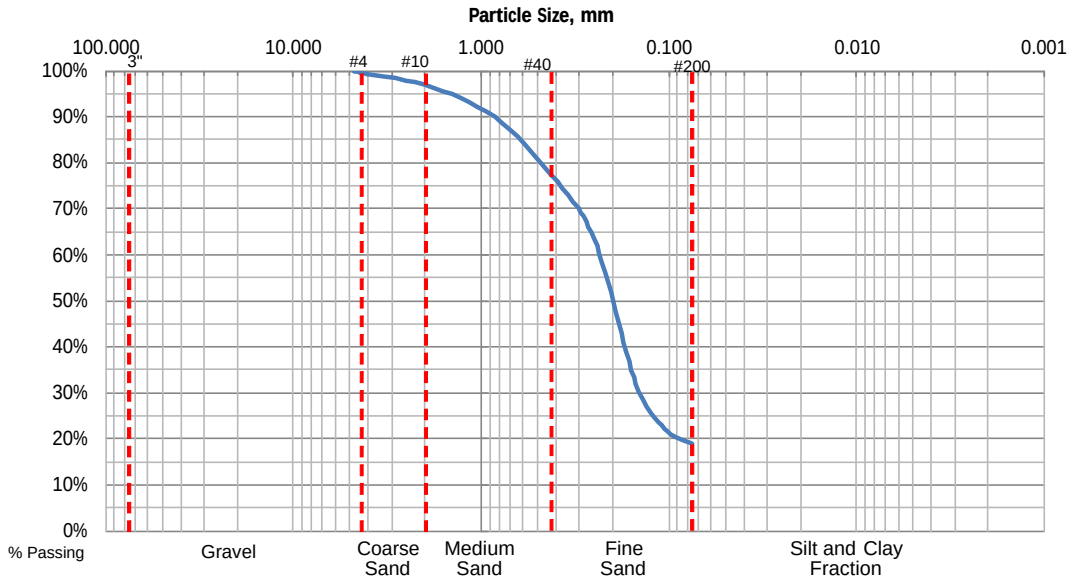
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B01, SS-09**
Page 1 of 1

Sample Identification
B01, SS-9, 28.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	97
No. 20	0.85	90
No. 40	0.425	78
No. 60	0.25	64
No. 100	0.18	32
No. 140	0.106	22
No. 200	0.075	18.8

Material	%
Gravel	0.0
Total Sand	81.2
Coarse Sand	3.0
Medium Sand	19.5
Fine Sand	58.7
Silt and Clay	18.8

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
32	12	20



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B01**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-1**

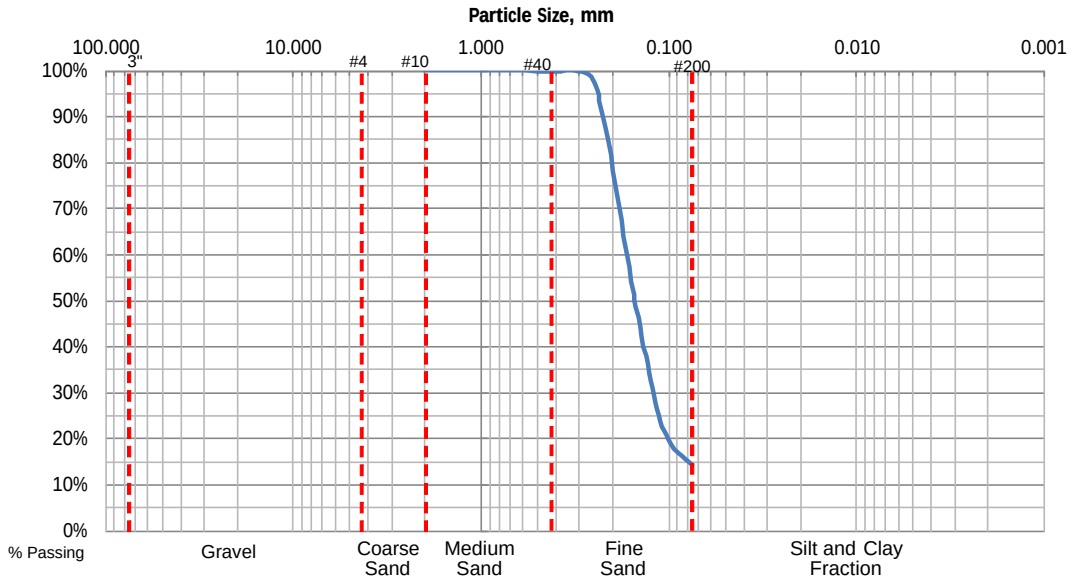
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B01, SS-10**
Page 1 of 1

Sample Identification
B01, SS-10, 33.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4		
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	97
No. 100	0.18	49
No. 140	0.106	22
No. 200	0.075	14.3

Material	%
Gravel	0.0
Total Sand	85.7
Coarse Sand	0.0
Medium Sand	0.3
Fine Sand	85.4
Silt and Clay	14.3

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B01**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-1**

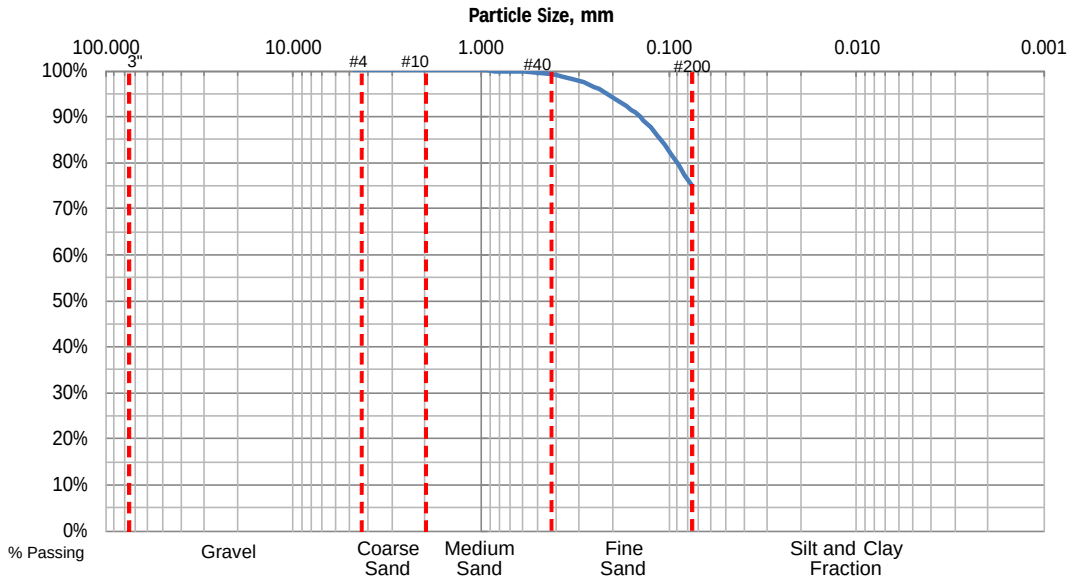
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B01, SS-13**
Page 1 of 1

Sample Identification
B01, SS-13, 48.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	99
No. 60	0.25	96
No. 100	0.18	91
No. 140	0.106	84
No. 200	0.075	75.1

Material	%
Gravel	0.0
Total Sand	24.9
Coarse Sand	0.0
Medium Sand	0.8
Fine Sand	24.1
Silt and Clay	75.1

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
83	30	53



Classification	
ASTM	Fat Clay with Sand (CH)
AASHTO	A-7-5

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B01**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-1**

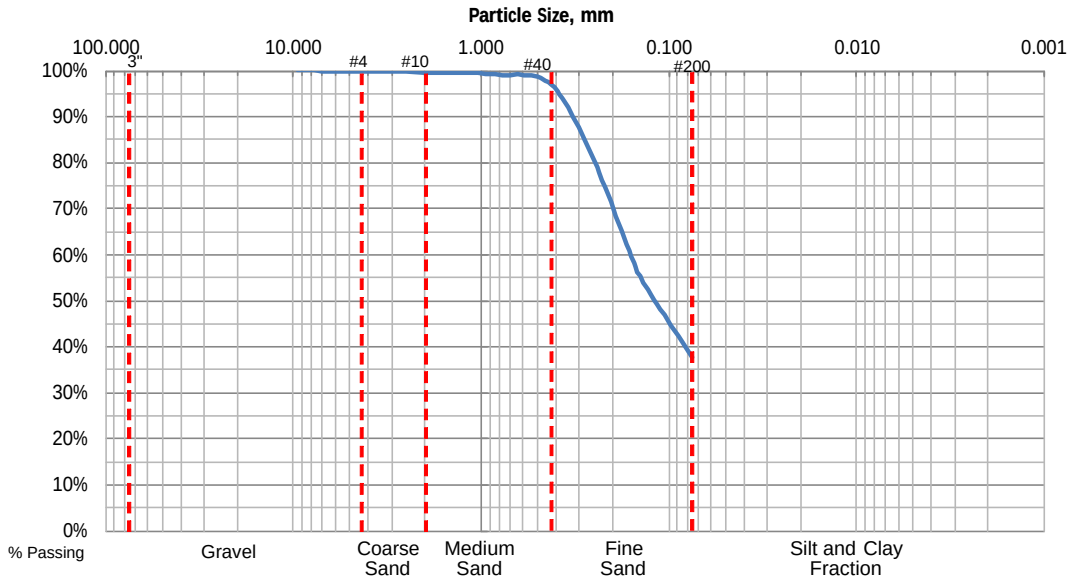
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B01, SS-16**
Page 1 of 1

Sample Identification
B01, SS-16, 63.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	97
No. 60	0.25	80
No. 100	0.18	57
No. 140	0.106	47
No. 200	0.075	37.6

Material	%
Gravel	0.2
Total Sand	62.2
Coarse Sand	0.2
Medium Sand	2.7
Fine Sand	59.3
Silt and Clay	37.6

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
56	28	28



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/23/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B02 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82517-2

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B02
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
B02	SS-1	0.0	16.8		16.4	NP	NP	NP	SM	A-2-4
B02	SS-3	4.0	23.9		39.3	38	16	22	SC	A-6
B02	SS-5	8.0	25.7		15.9	NP	NP	NP	SM	A-2-4
B02	SS-6	13.5	75.4		83.9	71	24	47	CH	A-7-6
B02	SS-7	18.5	66.6		87.1	78	19	59	CH	A-7-6
B02	SS-8	23.5	39.2		38.2	40	13	27	SC	A-6
B02	SS-9	28.5	53.2		60.9	56	18	38	CH	A-7-6
B02	SS-10	33.5	61.4		76.5	60	19	41	CH	A-7-6
B02	SS-11	38.5	50.5		60.3	57	21	36	CH	A-7-6
B02	SS-12	43.5	46.7		83.1	56	36	20	MH	A-7-5
B02	SS-22	93.5	35.2		19.4	21	20	1	SM	A-2-4
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/23/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B02**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-2**

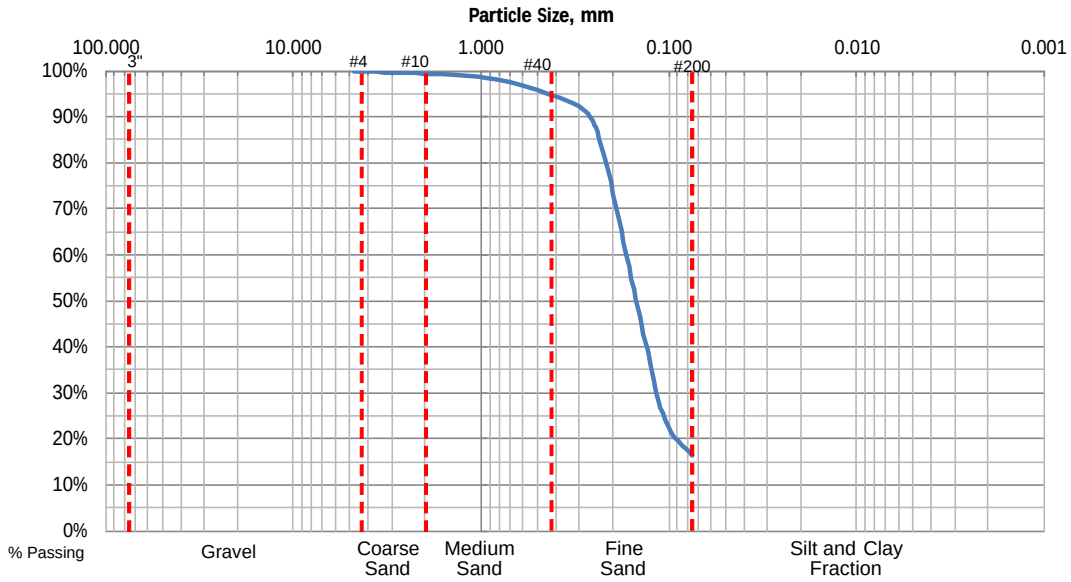
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B02, SS-01**
Page 1 of 1

Sample Identification
B02, SS-1, 0 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	98
No. 40	0.425	95
No. 60	0.25	88
No. 100	0.18	50
No. 140	0.106	25
No. 200	0.075	16.4

Material	%
Gravel	0.0
Total Sand	83.6
Coarse Sand	0.4
Medium Sand	4.7
Fine Sand	78.5
Silt and Clay	16.4

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/23/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B02**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-2**

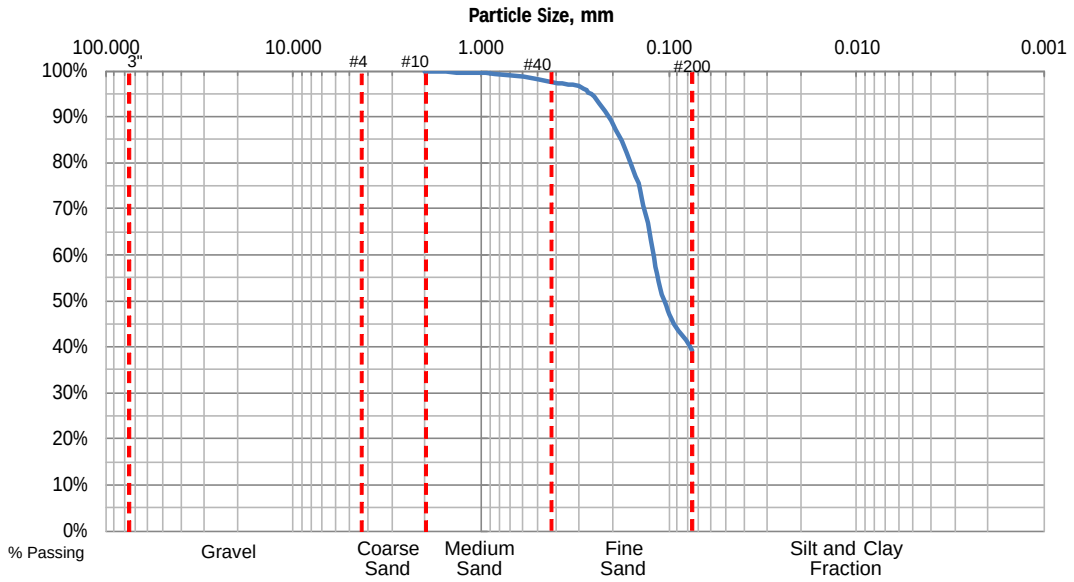
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B02, SS-03**
Page 1 of 1

Sample Identification
B02, SS-3, 4 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4		
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	98
No. 60	0.25	94
No. 100	0.18	77
No. 140	0.106	50
No. 200	0.075	39.3

Material	%
Gravel	0.0
Total Sand	60.7
Coarse Sand	0.0
Medium Sand	2.3
Fine Sand	58.4
Silt and Clay	39.3

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
38	16	22



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/23/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B02**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-2**

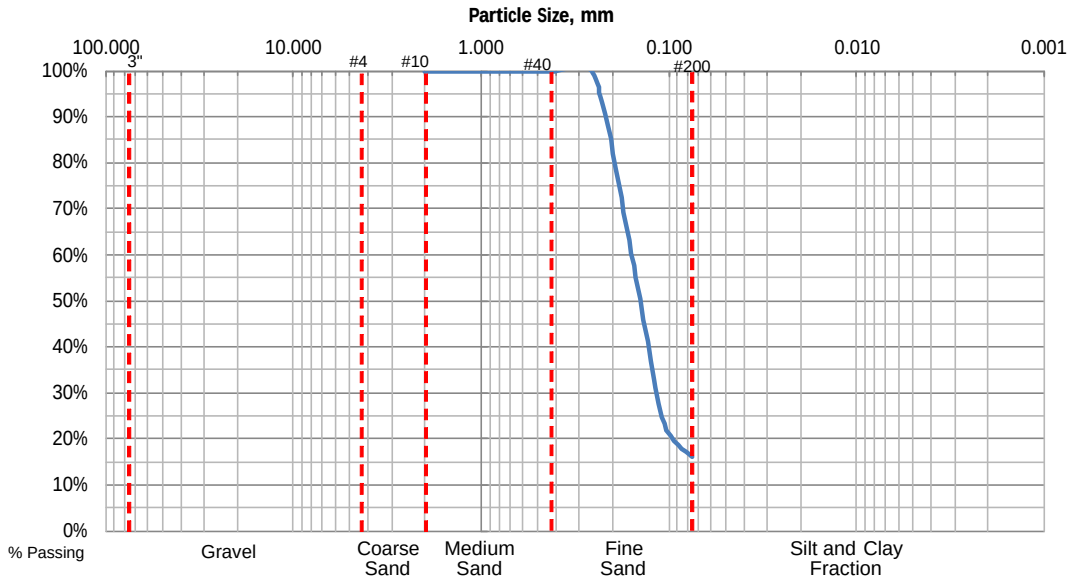
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B02, SS-05**
Page 1 of 1

Sample Identification
B02, SS-5, 8 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4		
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	99
No. 100	0.18	55
No. 140	0.106	23
No. 200	0.075	15.9

Material	%
Gravel	0.0
Total Sand	84.1
Coarse Sand	0.0
Medium Sand	0.1
Fine Sand	84.0
Silt and Clay	15.9

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/23/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B02**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-2**

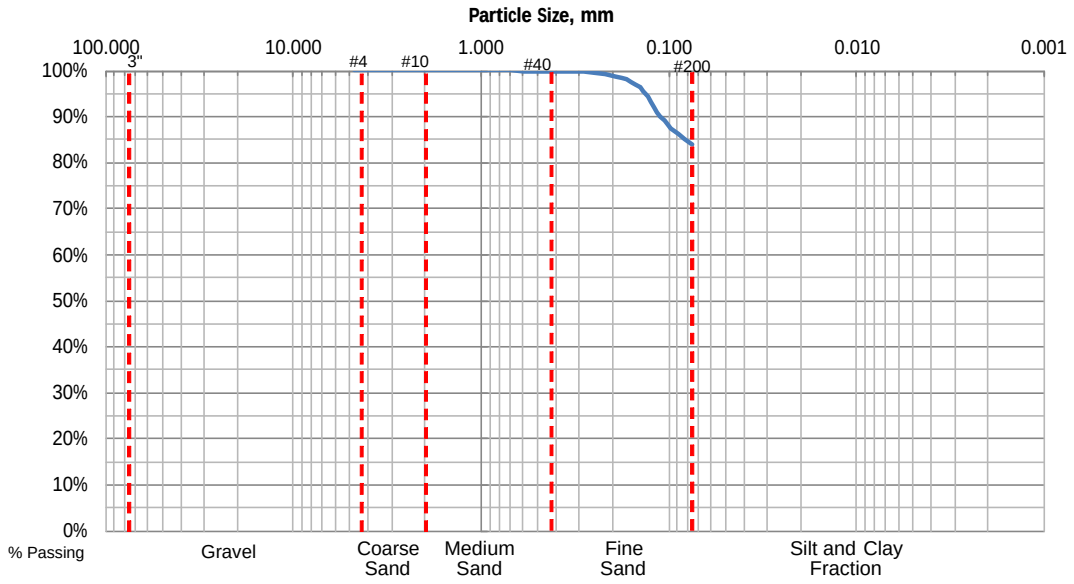
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B02, SS-06**
Page 1 of 1

Sample Identification
B02, SS-6, 13.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	99
No. 100	0.18	97
No. 140	0.106	89
No. 200	0.075	83.9

Material	%
Gravel	0.0
Total Sand	16.1
Coarse Sand	0.0
Medium Sand	0.3
Fine Sand	15.8
Silt and Clay	83.9

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
71	24	47



Classification	
ASTM	Fat Clay with Sand (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/23/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B02**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-2**

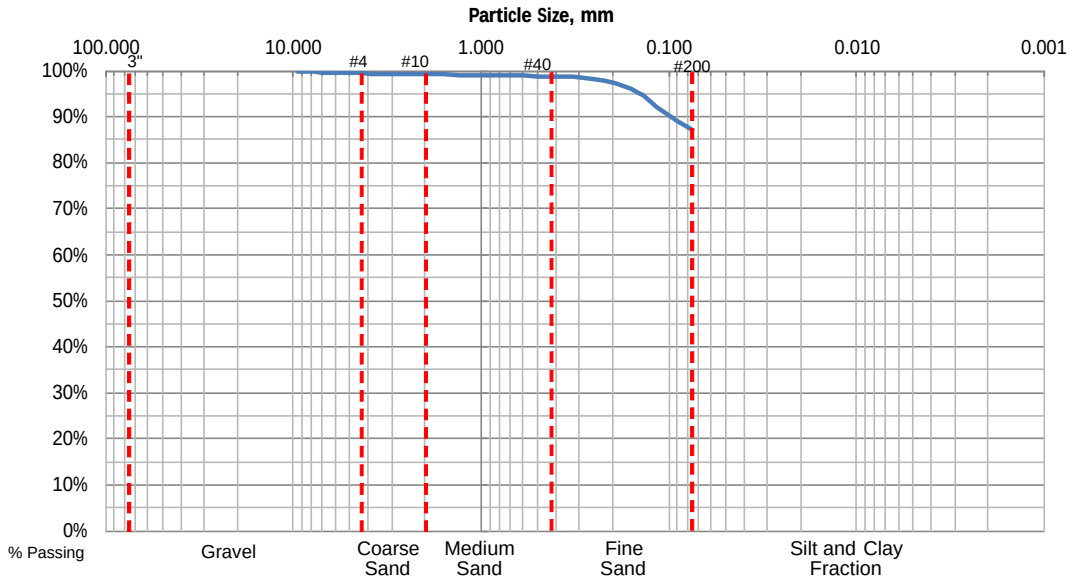
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B02, SS-07**
Page 1 of 1

Sample Identification
B02, SS-7, 18.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	100
No. 10	2.00	99
No. 20	0.85	99
No. 40	0.425	99
No. 60	0.25	98
No. 100	0.18	96
No. 140	0.106	91
No. 200	0.075	87.1

Material	%
Gravel	0.3
Total Sand	12.5
Coarse Sand	0.3
Medium Sand	0.5
Fine Sand	11.8
Silt and Clay	87.1

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
78	19	59



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/23/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B02**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-2**

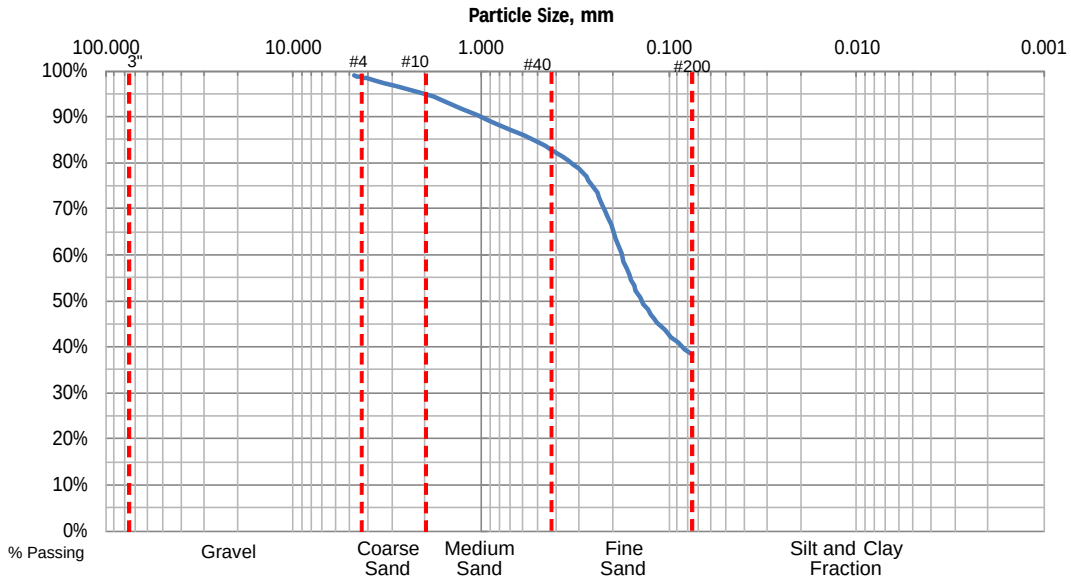
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B02, SS-08**
Page 1 of 1

Sample Identification
B02, SS-8, 23.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	99
No. 10	2.00	95
No. 20	0.85	89
No. 40	0.425	83
No. 60	0.25	74
No. 100	0.18	52
No. 140	0.106	44
No. 200	0.075	38.2

Material	%
Gravel	1.1
Total Sand	60.7
Coarse Sand	4.1
Medium Sand	12.1
Fine Sand	44.5
Silt and Clay	38.2

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
40	13	27



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/23/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B02**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-2**

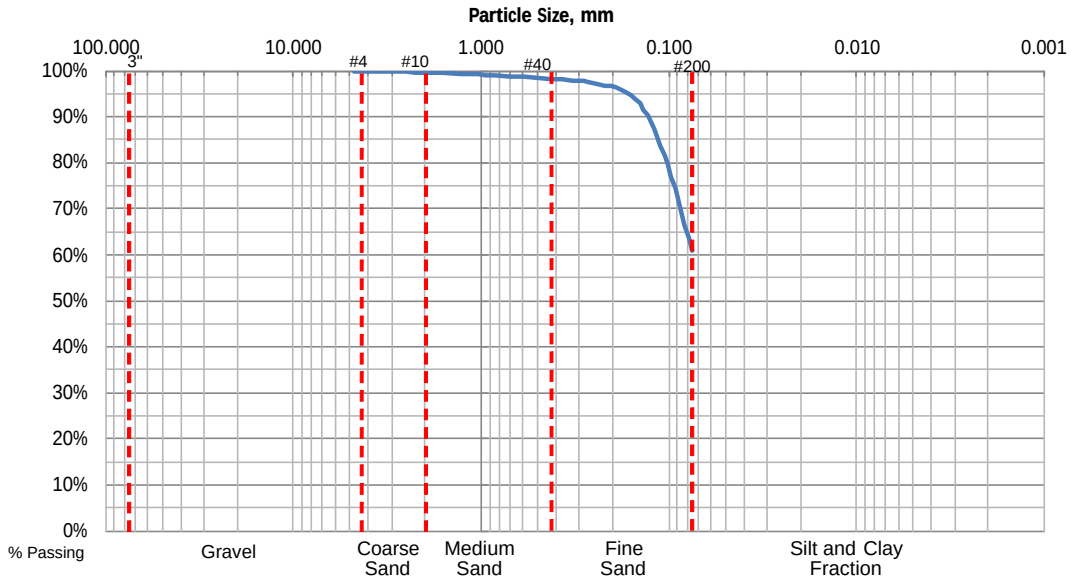
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B02, SS-09**
Page 1 of 1

Sample Identification
B02, SS-9, 28.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	98
No. 60	0.25	97
No. 100	0.18	94
No. 140	0.106	82
No. 200	0.075	60.9

Material	%
Gravel	0.1
Total Sand	39.1
Coarse Sand	0.2
Medium Sand	1.5
Fine Sand	37.4
Silt and Clay	60.9

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
56	18	38



Classification	
ASTM	Sandy Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/23/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B02**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-2**

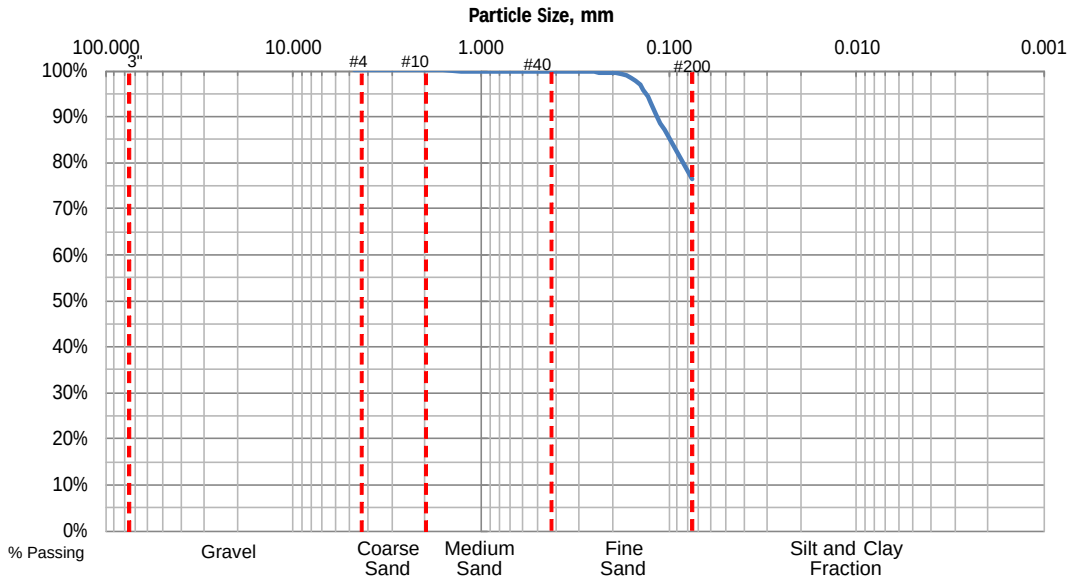
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B02, SS-10**
Page 1 of 1

Sample Identification
B02, SS-10, 33.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	100
No. 100	0.18	98
No. 140	0.106	87
No. 200	0.075	76.5

Material	%
Gravel	0.0
Total Sand	23.5
Coarse Sand	0.0
Medium Sand	0.1
Fine Sand	23.3
Silt and Clay	76.5

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
60	19	41



Classification	
ASTM	Fat Clay with Sand (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/23/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B02 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-2

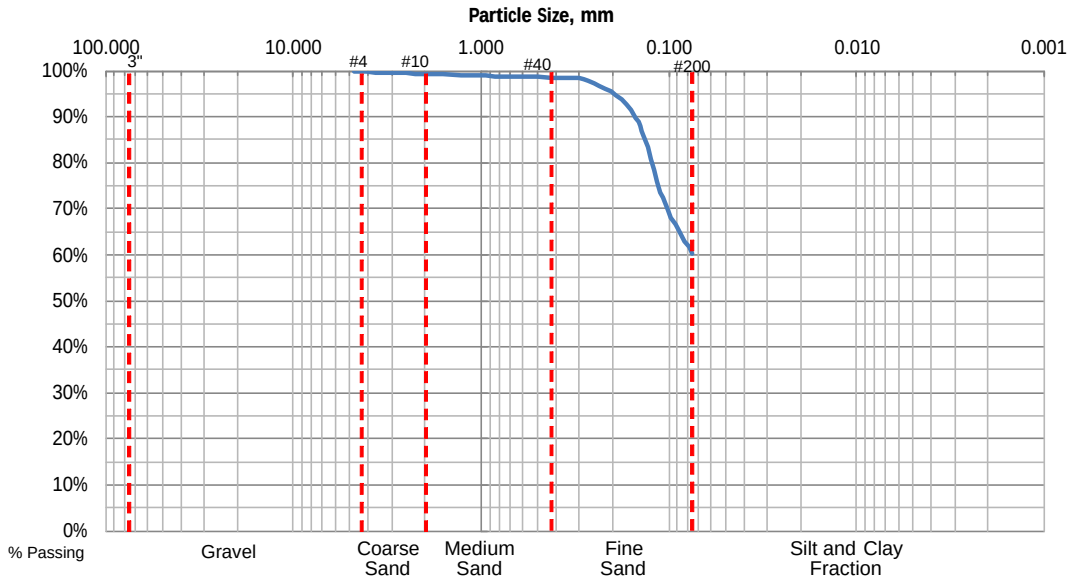
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B02, SS-11
Page 1 of 1

Sample Identification
B02, SS-11, 38.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	99
No. 20	0.85	99
No. 40	0.425	99
No. 60	0.25	98
No. 100	0.18	90
No. 140	0.106	72
No. 200	0.075	60.3

Material	%
Gravel	0.0
Total Sand	39.7
Coarse Sand	0.5
Medium Sand	0.8
Fine Sand	38.3
Silt and Clay	60.3

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
57	21	36



Classification	
ASTM	Sandy Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/23/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B02**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-2**

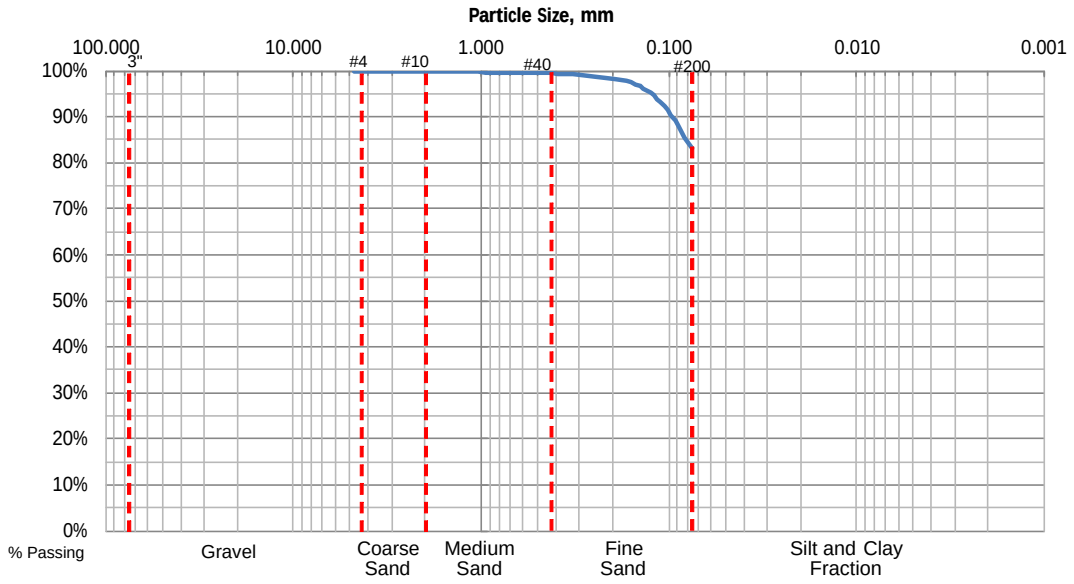
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B02, SS-12**
Page 1 of 1

Sample Identification
B02, SS-12, 43.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	99
No. 100	0.18	97
No. 140	0.106	92
No. 200	0.075	83.1

Material	%
Gravel	0.0
Total Sand	16.9
Coarse Sand	0.0
Medium Sand	0.4
Fine Sand	16.5
Silt and Clay	83.1

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
56	36	20



Classification	
ASTM	Elastic Silt with Sand (MH)
AASHTO	A-7-5

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/23/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B02 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-2

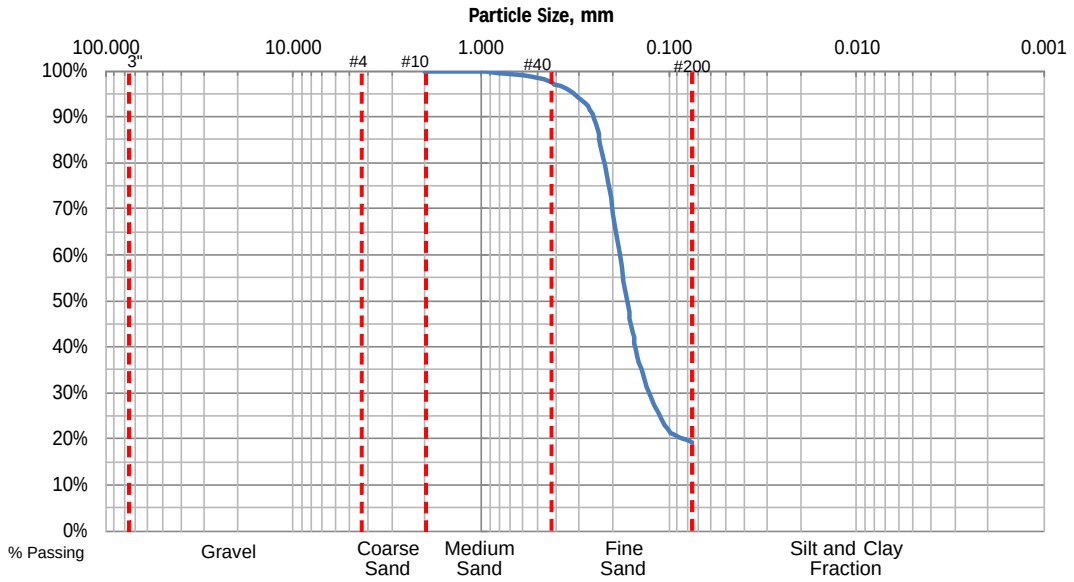
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B02, SS-22
Page 1 of 1

Sample Identification
B02, SS-22, 93.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4		
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	98
No. 60	0.25	90
No. 100	0.18	40
No. 140	0.106	23
No. 200	0.075	19.4

Material	%
Gravel	0.0
Total Sand	80.6
Coarse Sand	0.0
Medium Sand	2.5
Fine Sand	78.1
Silt and Clay	19.4

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
21	20	1



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/23/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/24/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B03 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82517-3

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B03
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
B03	SS-1	0.0	25.5		11.0	NP	NP	NP	SP-SM	A-2-4
B03	SS-4	6.0	26.1		42.4	39	17	22	SC	A-6
B03	SS-5	8.0	45.3		82.0	54	17	37	CH	A-7-6
B03	SS-6	13.5	36.1		20.6	38	16	22	SC	A-2-6
B03	SS-7	18.5	81.6		88.9	65	20	45	CH	A-7-6
B03	SS-8	23.5	45.8		39.9	38	13	25	SC	A-6
B03	SS-10	33.5	24.4		4.8				SP	
B03	SS-11	38.5	109.3		47.0	68	23	45	SC	A-7-6
B03	SS-12	43.5	22.4		7.1	NP	NP	NP	SP-SC	A-3
B03	SS-13	48.5	53.2		82.7	69	32	37	CH	A-7-5
B03	SS-16	63.5	52.0		63.5	77	35	42	CH	A-7-5
B03	SS-23	98.5	30.5		19.6	21	19	2	SM	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/24/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B03 **Order Number:**

Client: CDM SMITH

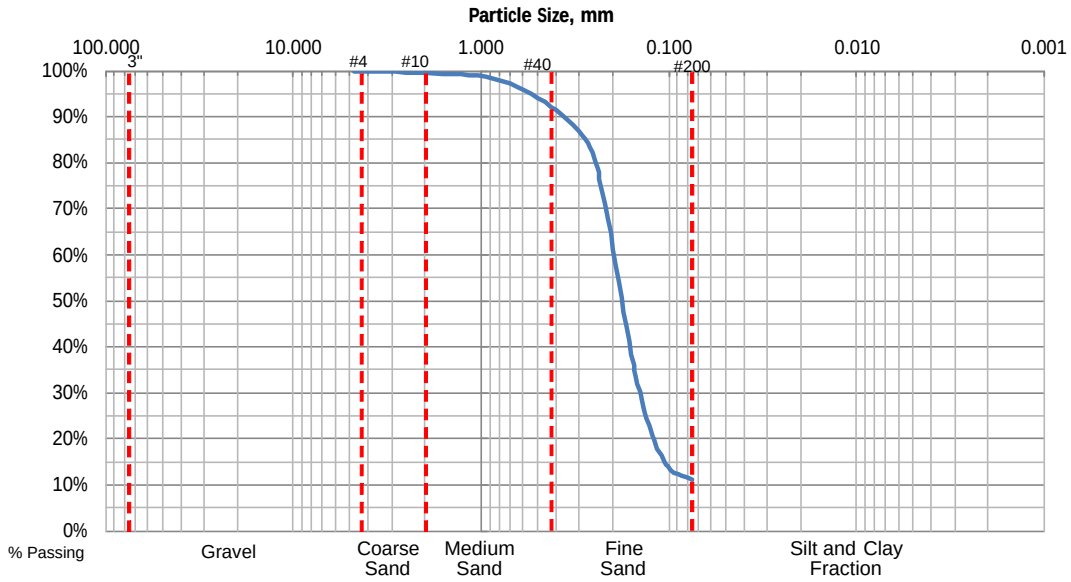
REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-3

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B03, SS-01
Page 1 of 1

Sample Identification
B03, SS-1, 0 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	98
No. 40	0.425	92
No. 60	0.25	81
No. 100	0.18	34
No. 140	0.106	15
No. 200	0.075	11.0
Coefficient of curvature, Cc		2.9
Coefficient of uniformity, Cu		1.4
Material		**%**
Gravel		0.0
Total Sand		89.0
Coarse Sand		0.3
Medium Sand		7.4
Fine Sand		81.3
Silt and Clay		11.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B03**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-3**

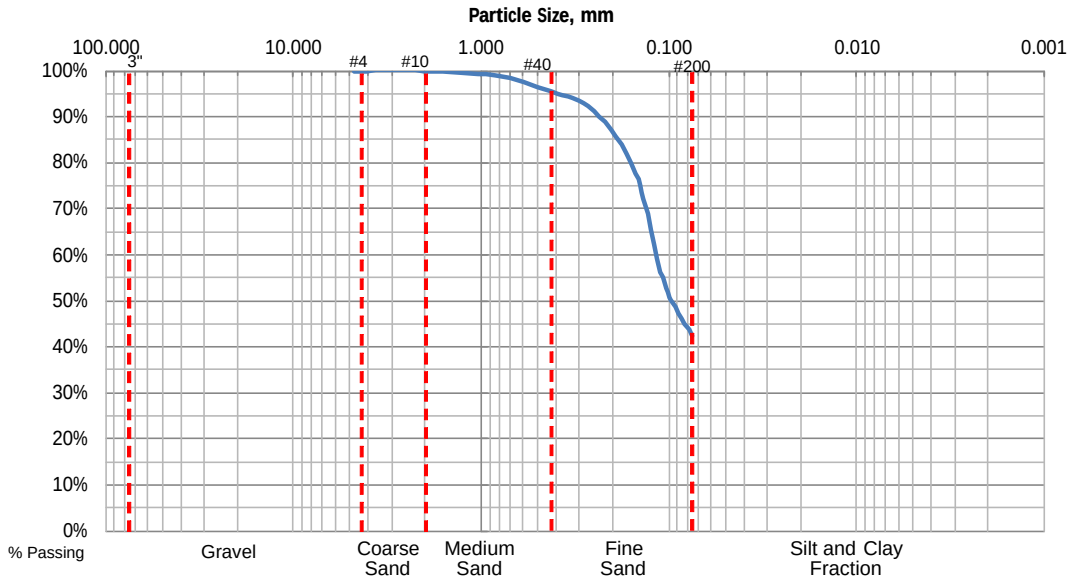
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B03, SS-04**
Page 1 of 1

Sample Identification
B03, SS-4, 6 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	96
No. 60	0.25	91
No. 100	0.18	78
No. 140	0.106	54
No. 200	0.075	42.4

Material	%
Gravel	0.0
Total Sand	57.6
Coarse Sand	0.0
Medium Sand	4.5
Fine Sand	53.1
Silt and Clay	42.4

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
39	17	22



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/24/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B03 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-3

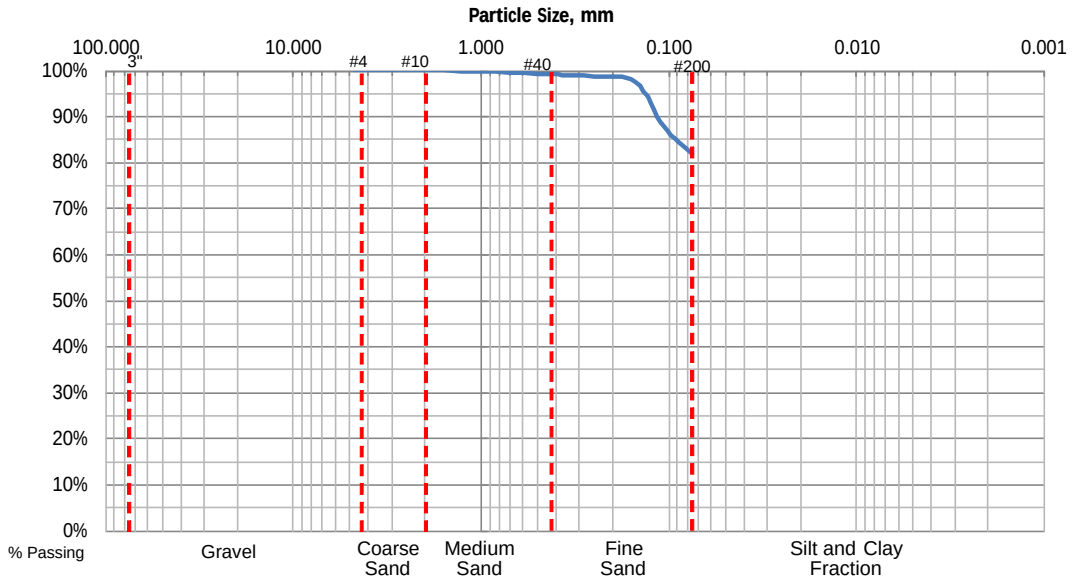
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B03, SS-05
Page 1 of 1

Sample Identification
B03, SS-5, 8 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	99
No. 60	0.25	99
No. 100	0.18	97
No. 140	0.106	88
No. 200	0.075	82.0

Material	%
Gravel	0.0
Total Sand	18.0
Coarse Sand	0.0
Medium Sand	0.9
Fine Sand	17.1
Silt and Clay	82.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
54	17	37



Classification	
ASTM	Fat Clay with Sand (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B03**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-3**

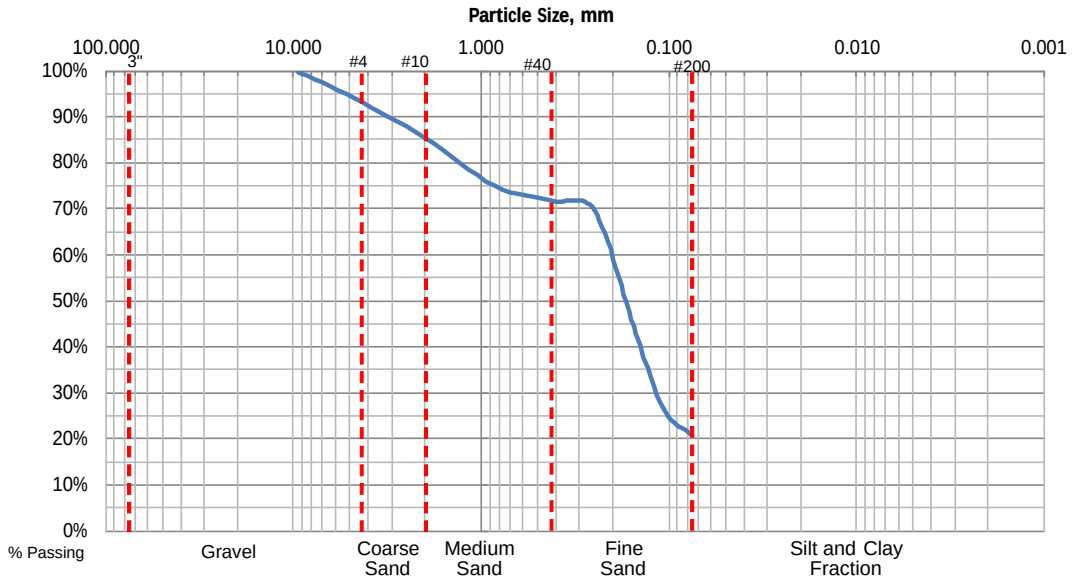
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B03, SS-06**
Page 1 of 1

Sample Identification
B03, SS-6, 13.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	94
No. 10	2.00	86
No. 20	0.85	75
No. 40	0.425	72
No. 60	0.25	70
No. 100	0.18	43
No. 140	0.106	26
No. 200	0.075	20.6

Material	%
Gravel	5.8
Total Sand	73.6
Coarse Sand	8.5
Medium Sand	13.8
Fine Sand	51.3
Silt and Clay	20.6

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
38	16	22



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B03**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-3**

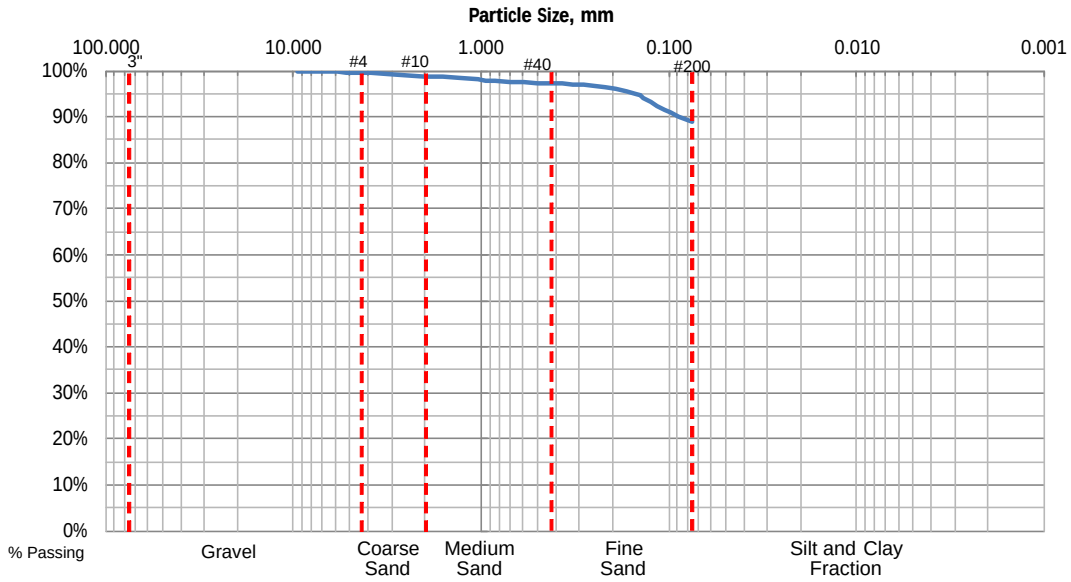
Client PO: 111563 **TEST RESULTS** **Report No: 82517--B03, SS-07**
Page 1 of 1

Sample Identification
B03, SS-7, 18.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	100
No. 10	2.00	99
No. 20	0.85	98
No. 40	0.425	97
No. 60	0.25	97
No. 100	0.18	95
No. 140	0.106	92
No. 200	0.075	88.9

Material	%
Gravel	0.2
Total Sand	10.9
Coarse Sand	0.8
Medium Sand	1.7
Fine Sand	8.4
Silt and Clay	88.9

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
65	20	45



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B03**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-3**

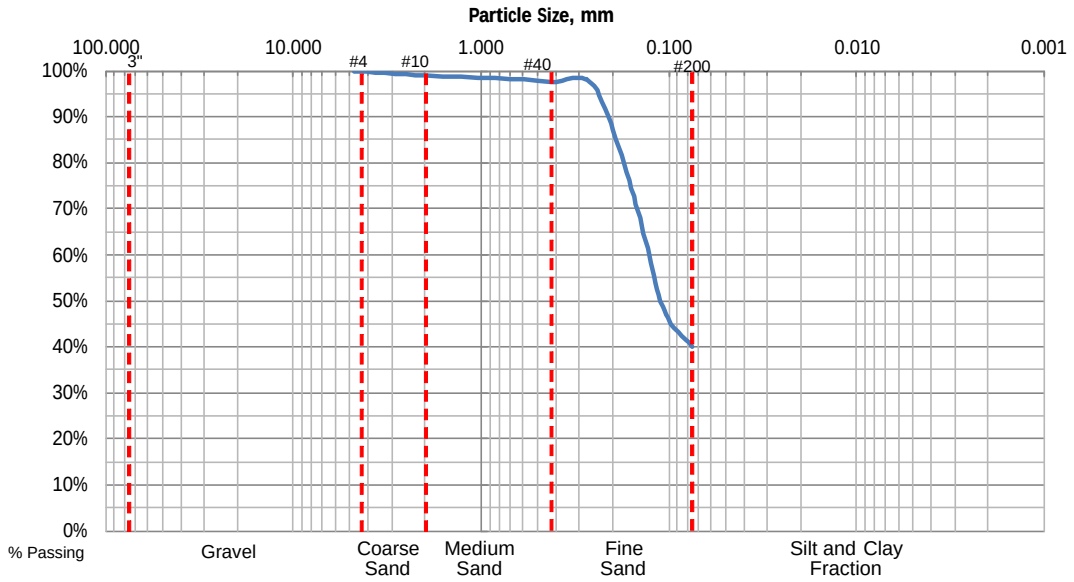
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B03, SS-08**
Page 1 of 1

Sample Identification
B03, SS-8, 23.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	99
No. 20	0.85	98
No. 40	0.425	98
No. 60	0.25	97
No. 100	0.18	71
No. 140	0.106	48
No. 200	0.075	39.9

Material	%
Gravel	0.0
Total Sand	60.1
Coarse Sand	0.9
Medium Sand	1.4
Fine Sand	57.8
Silt and Clay	39.9

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
38	13	25



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/24/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B03 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-3

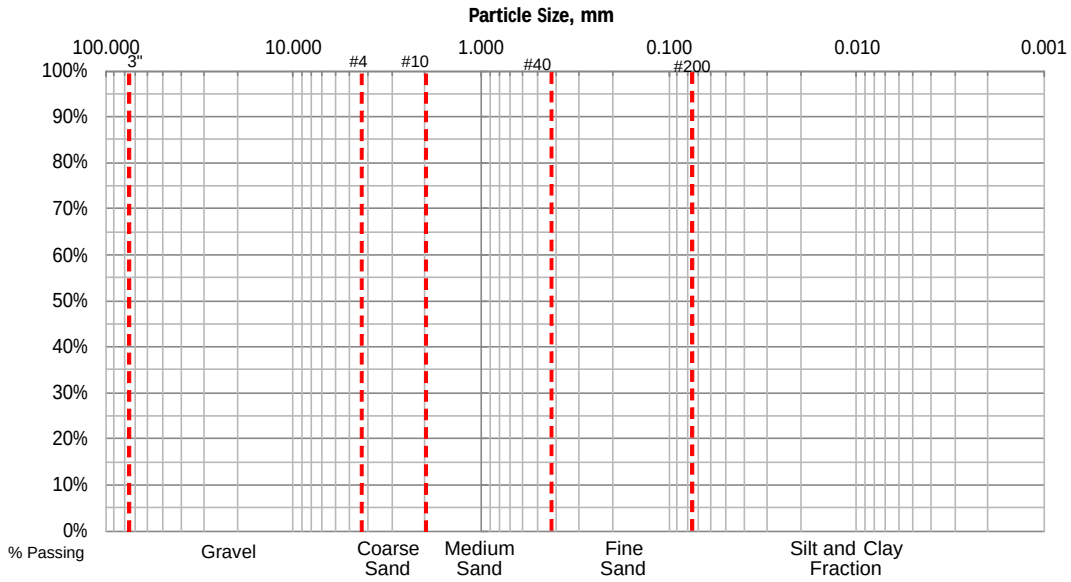
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B03, SS-10
Page 1 of 1

Sample Identification

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4		
No. 10		
No. 20		
No. 40		
No. 60		
No. 100		
No. 140		
No. 200		

Material	%
Gravel	0.0
Total Sand	0.0
Coarse Sand	0.0
Medium Sand	0.0
Fine Sand	0.0
Silt and Clay	

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)



Classification	
ASTM	
AASHTO	

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/24/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B03 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-3

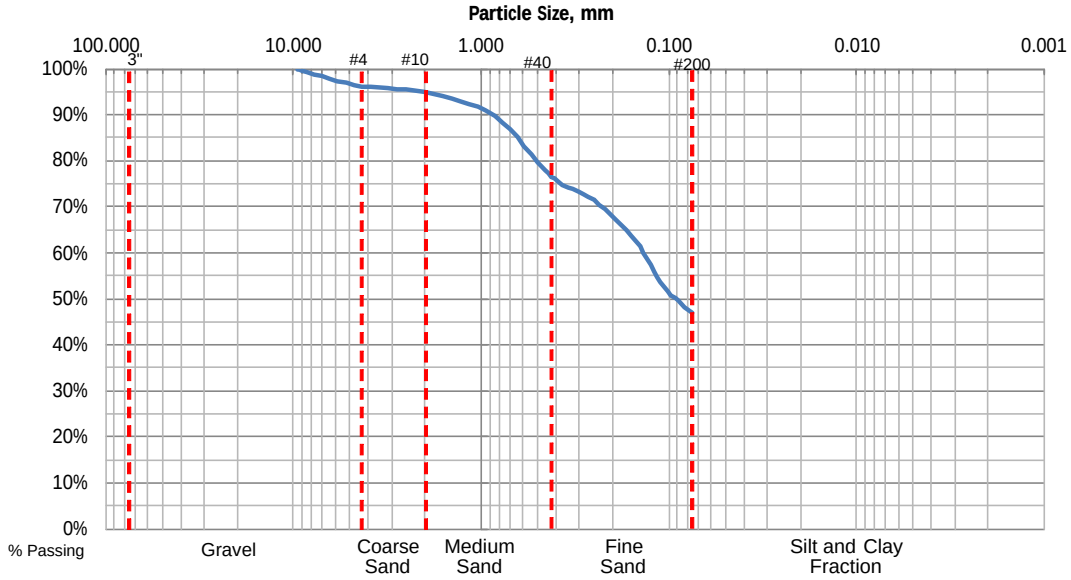
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B03, SS-11
Page 1 of 1

Sample Identification
B03, SS-11, 38.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	97
No. 10	2.00	95
No. 20	0.85	90
No. 40	0.425	77
No. 60	0.25	71
No. 100	0.18	63
No. 140	0.106	53
No. 200	0.075	47.0

Material	%
Gravel	3.3
Total Sand	49.7
Coarse Sand	1.7
Medium Sand	18.3
Fine Sand	29.7
Silt and Clay	47.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
68	23	45



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

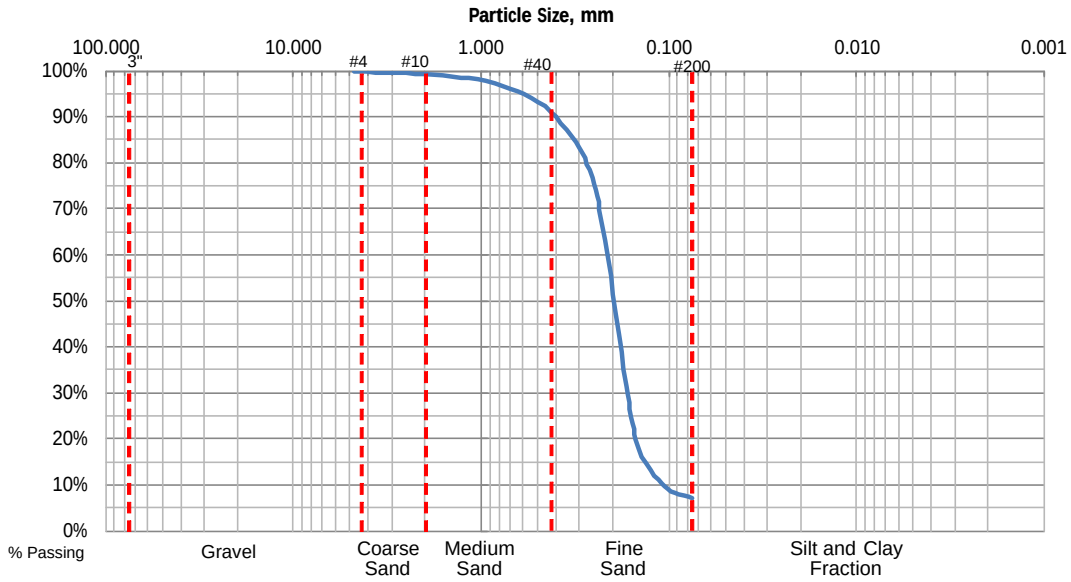
Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B03**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-3**

Client PO: 111563 **TEST RESULTS** **Report No: 82517-B03, SS-12**
Page 1 of 1

Sample Identification
B03, SS-12, 43.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	99
No. 20	0.85	97
No. 40	0.425	91
No. 60	0.25	75
No. 100	0.18	20
No. 140	0.106	10
No. 200	0.075	7.1
Coefficient of curvature, Cc		2.1
Coefficient of uniformity, Cu		1.2
Material		**%**
Gravel		0.0
Total Sand		92.9
Coarse Sand		0.7
Medium Sand		8.2
Fine Sand		84.0
Silt and Clay		7.1
Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with clay (SP-SC)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B03**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-3**

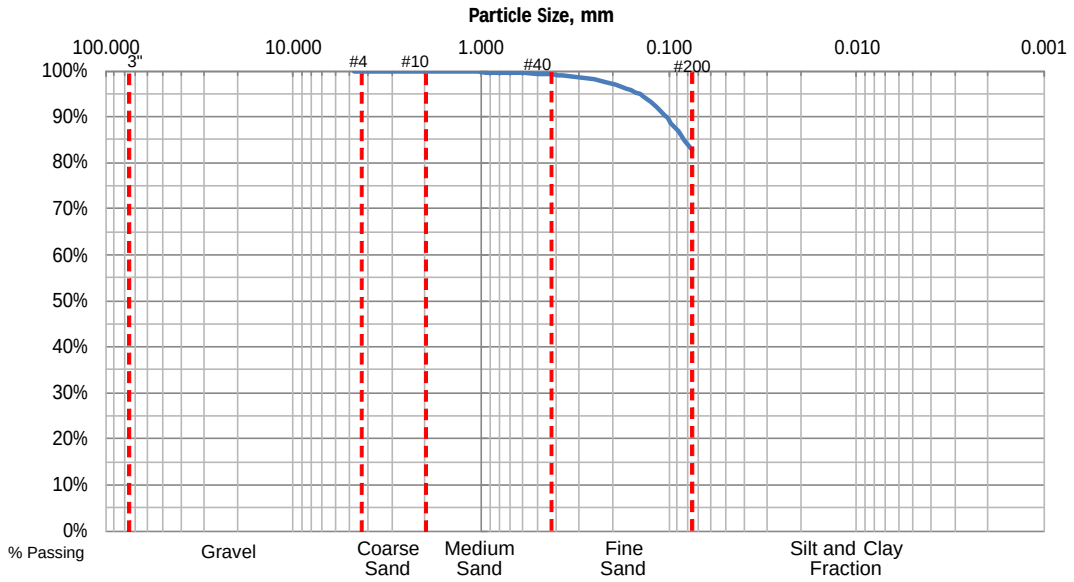
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B03, SS-13**
Page 1 of 1

Sample Identification
B03, SS-13, 48.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	99
No. 60	0.25	98
No. 100	0.18	95
No. 140	0.106	90
No. 200	0.075	82.7

Material	%
Gravel	0.0
Total Sand	17.3
Coarse Sand	0.0
Medium Sand	0.6
Fine Sand	16.6
Silt and Clay	82.7

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
69	32	37



Classification	
ASTM	Fat Clay with Sand (CH)
AASHTO	A-7-5

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B03**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-3**

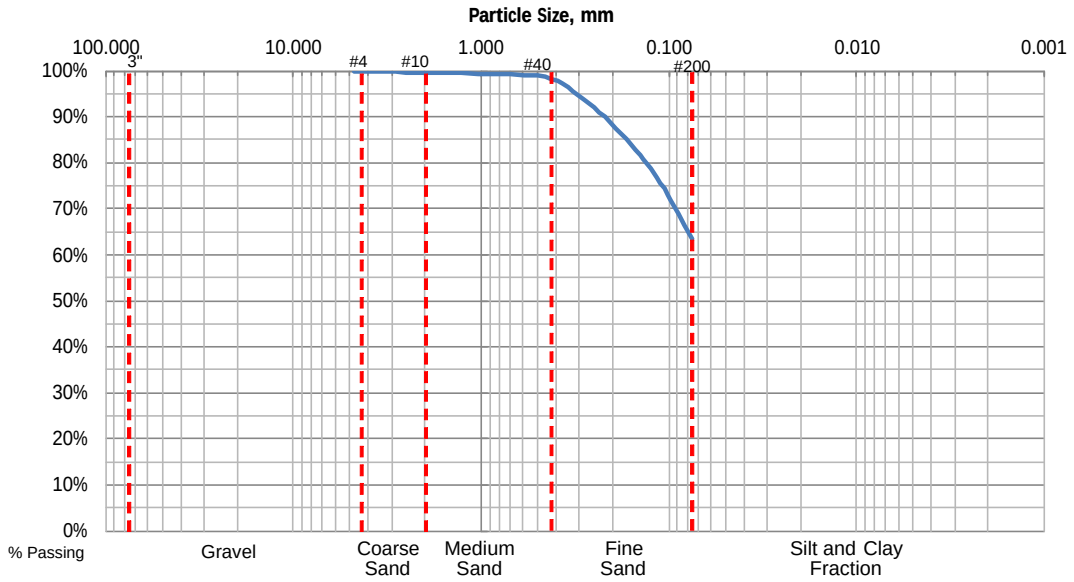
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B03, SS-16**
Page 1 of 1

Sample Identification
B03, SS-16, 63.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	98
No. 60	0.25	92
No. 100	0.18	83
No. 140	0.106	74
No. 200	0.075	63.5

Material	%
Gravel	0.0
Total Sand	36.5
Coarse Sand	0.2
Medium Sand	1.4
Fine Sand	34.9
Silt and Clay	63.5

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
77	35	42



Classification	
ASTM	Sandy Fat Clay (CH)
AASHTO	A-7-5

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**06/04/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B03**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-3**

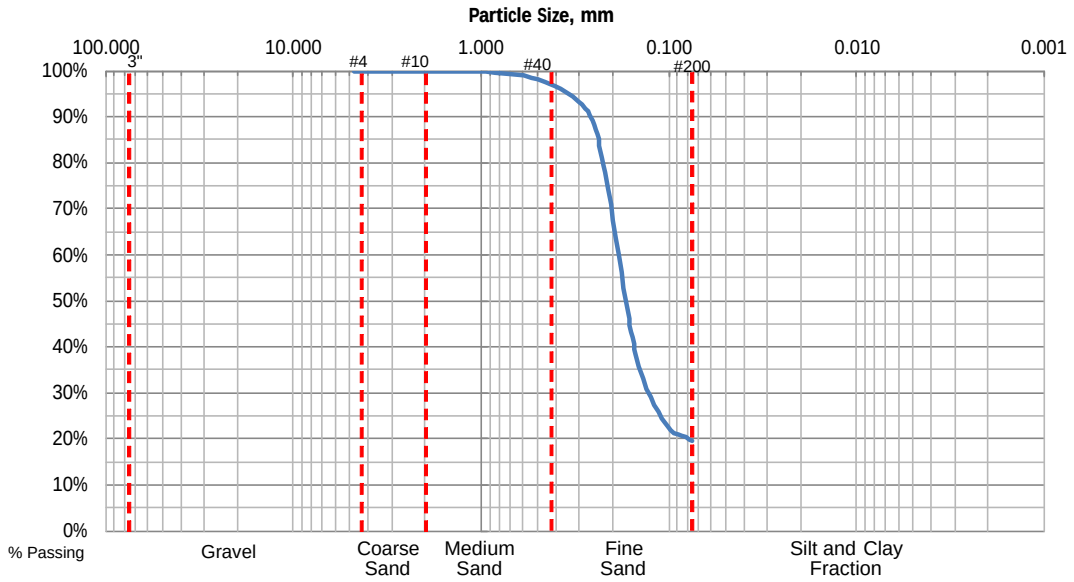
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B03, SS-23**
Page 1 of 1

Sample Identification
B03, SS-23, 98.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	97
No. 60	0.25	88
No. 100	0.18	39
No. 140	0.106	24
No. 200	0.075	19.6

Material	%
Gravel	0.0
Total Sand	80.4
Coarse Sand	0.0
Medium Sand	2.9
Fine Sand	77.5
Silt and Clay	19.6

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
21	19	2



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/18/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B04 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82517-4

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B04
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
B04	SS-1	0.0	19.3		7.8	NP	NP	NP	SP-SM	A-3
B04	SS-4	6.0	25.5		20.3	34	22	12	SC	A-2-6
B04	SS-5	8.0	30.9		19.8	29	25	4	SM	A-2-4
B04	SS-6	13.5	32.9		13.1	NP	NP	NP	SM	A-2-4
B04	SS-7	18.5	71.6		86.4	77	31	46	CH	A-7-5
B04	SS-8	23.5	88.0		86.2	115	39	76	CH	A-7-5
B04	SS-9	28.5	51.8		51.2	55	17	38	CH	A-7-6
B04	SS-10	33.5	32.3		23.6	32	23	9	SC	A-2-4
B04	SS-11	38.5	28.7		20.6	28	19	9	SC	A-2-4
B04	SS-12	43.5	25.8		8.5	NP	NP	NP	SP-SM	A-3
B04	SS-13	48.5	43.0		36.4	47	24	23	SC	A-7-6
B04	SS-19	78.5	33.6		36.4	51	24	27	SC	A-7-6
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B04 **Order Number:**

Client: CDM SMITH

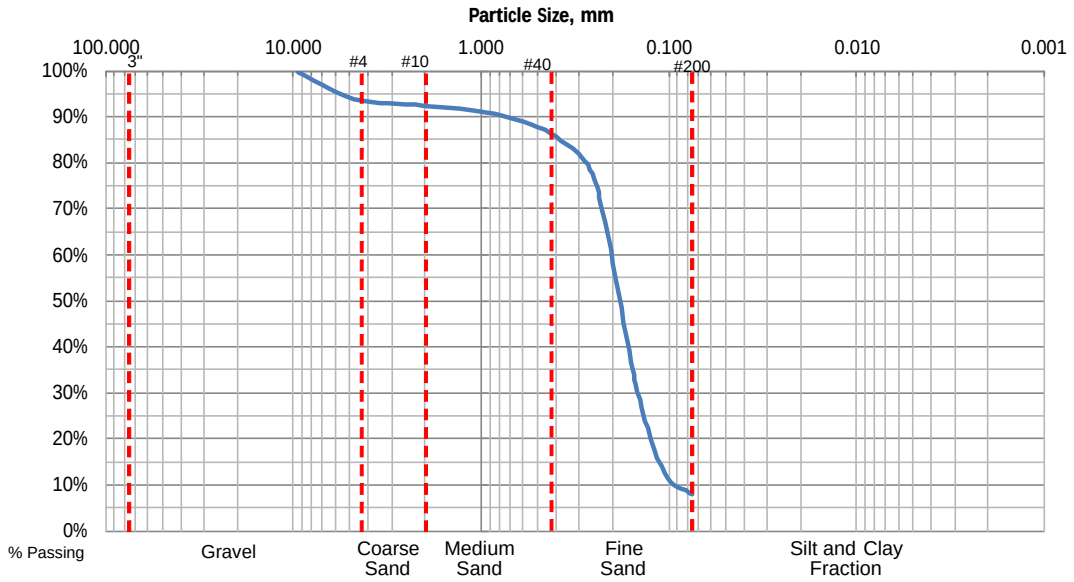
REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-4

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B04, SS-01
Page 1 of 1

Sample Identification
B04, SS-1, 0 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	94
No. 10	2.00	93
No. 20	0.85	91
No. 40	0.425	86
No. 60	0.25	77
No. 100	0.18	32
No. 140	0.106	12
No. 200	0.075	7.8
Coefficient of curvature, Cc		2.4
Coefficient of uniformity, Cu		1.1
Material		**%**
Gravel		6.1
Total Sand		86.1
Coarse Sand		1.4
Medium Sand		6.2
Fine Sand		78.5
Silt and Clay		7.8

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B04**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-4**

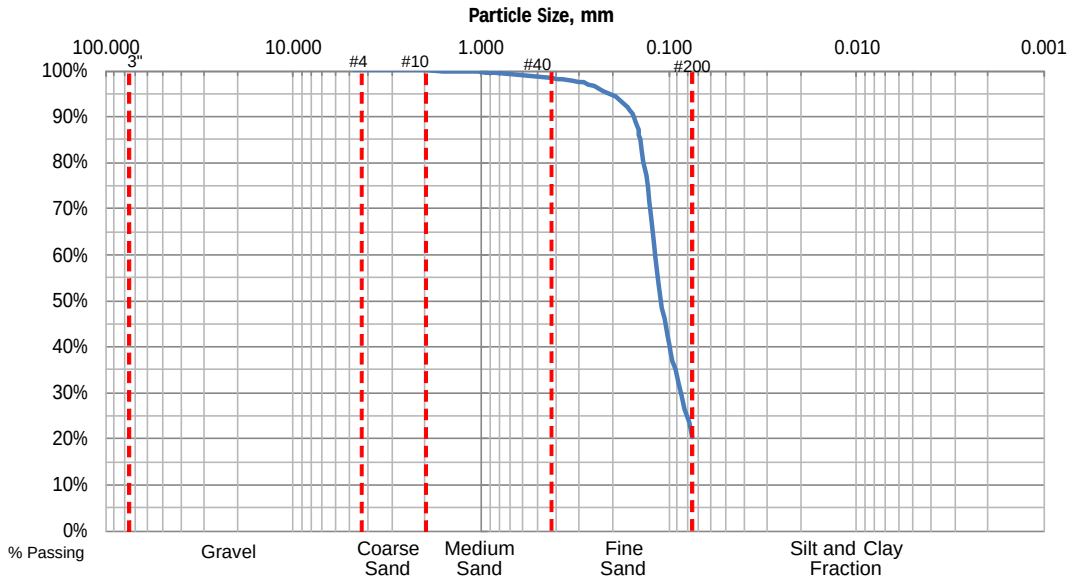
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B04, SS-04**
Page 1 of 1

Sample Identification
B04, SS-4, 6 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	98
No. 60	0.25	96
No. 100	0.18	89
No. 140	0.106	46
No. 200	0.075	20.3

Material	%
Gravel	0.0
Total Sand	79.7
Coarse Sand	0.0
Medium Sand	1.7
Fine Sand	77.9
Silt and Clay	20.3

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
34	22	12



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B04 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-4

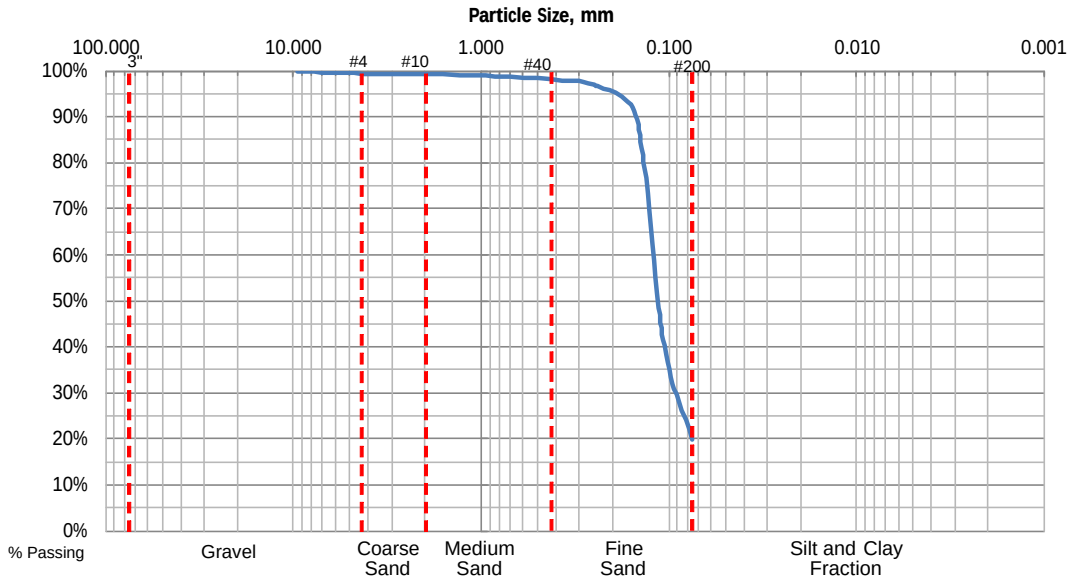
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B04, SS-05
Page 1 of 1

Sample Identification
B04, SS-5, 8 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	100
No. 10	2.00	99
No. 20	0.85	99
No. 40	0.425	98
No. 60	0.25	97
No. 100	0.18	90
No. 140	0.106	40
No. 200	0.075	19.8

Material	%
Gravel	0.4
Total Sand	79.8
Coarse Sand	0.2
Medium Sand	1.2
Fine Sand	78.4
Silt and Clay	19.8

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
29	25	4



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B04 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-4

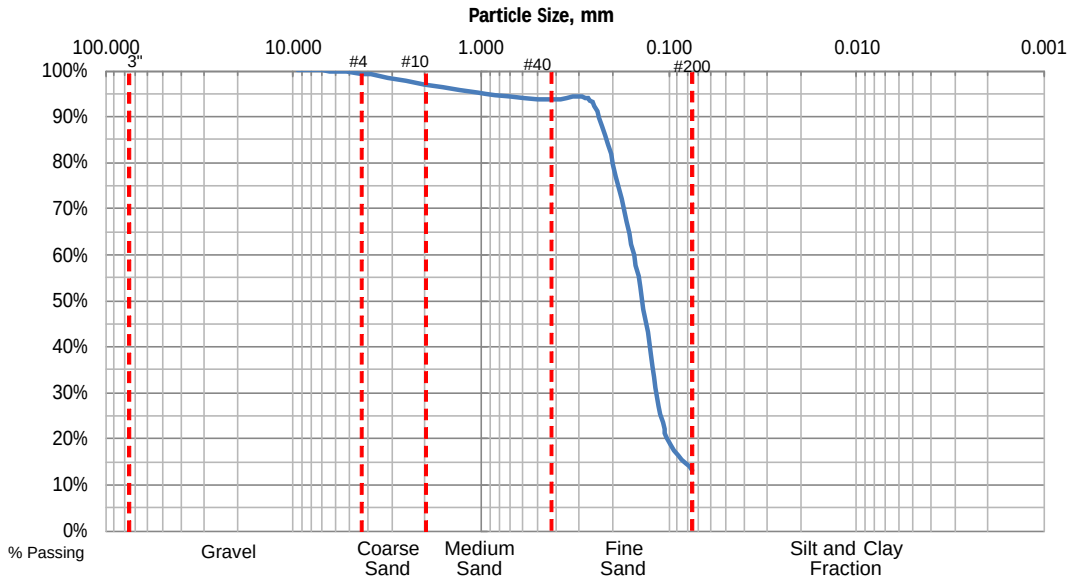
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B04, SS-06
Page 1 of 1

Sample Identification
B04, SS-6, 13.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	100
No. 10	2.00	97
No. 20	0.85	94
No. 40	0.425	94
No. 60	0.25	92
No. 100	0.18	58
No. 140	0.106	22
No. 200	0.075	13.1

Material	%
Gravel	0.5
Total Sand	86.4
Coarse Sand	2.6
Medium Sand	3.4
Fine Sand	80.5
Silt and Clay	13.1

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B04**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-4**

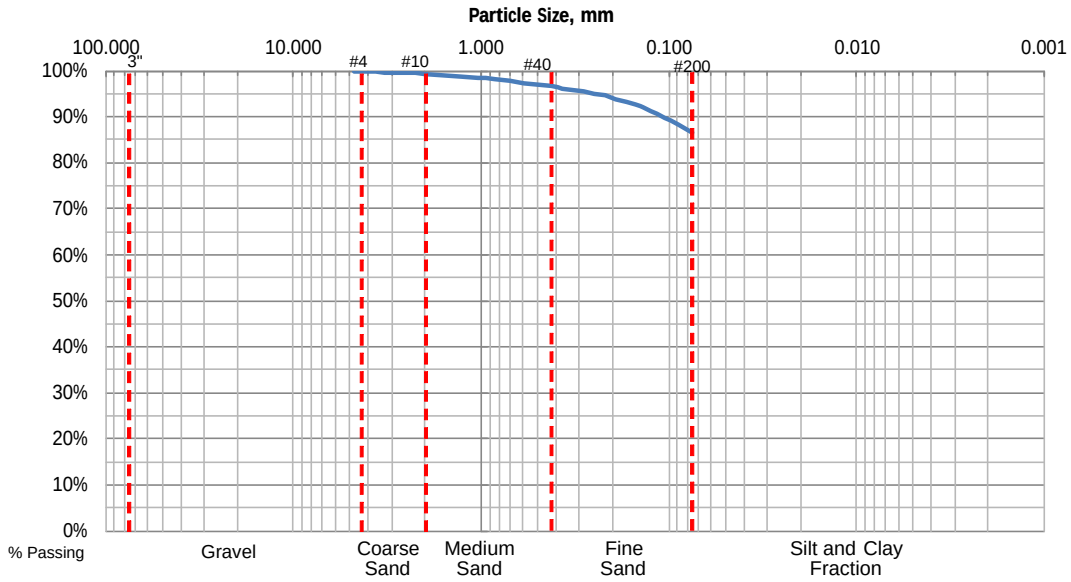
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B04, SS-07**
Page 1 of 1

Sample Identification
B04, SS-7, 18.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	98
No. 40	0.425	97
No. 60	0.25	95
No. 100	0.18	93
No. 140	0.106	90
No. 200	0.075	86.4

Material	%
Gravel	0.0
Total Sand	13.6
Coarse Sand	0.5
Medium Sand	2.9
Fine Sand	10.2
Silt and Clay	86.4

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
77	31	46



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-5

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B04 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-4

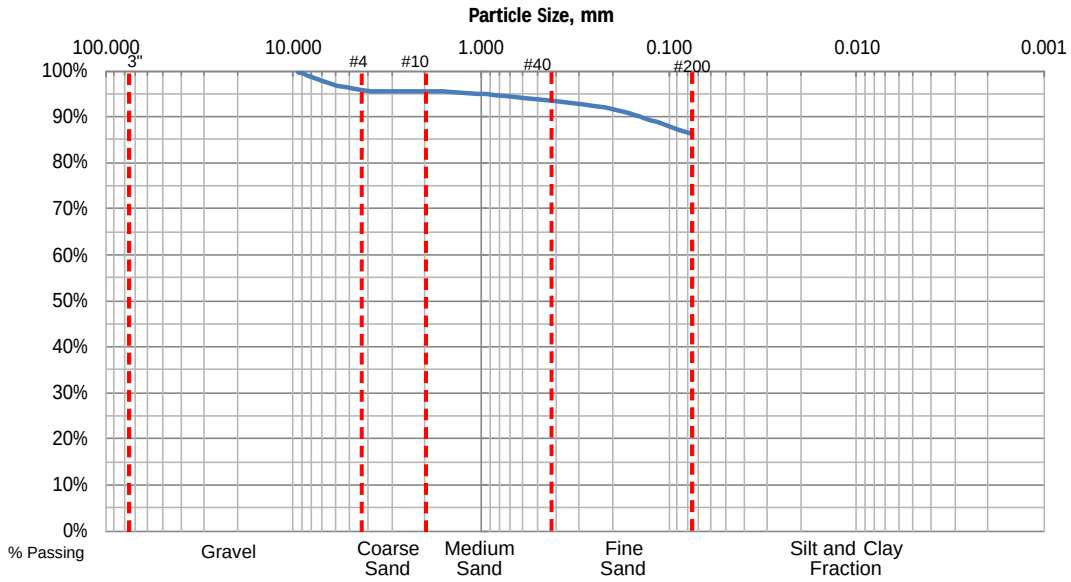
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B04, SS-08
Page 1 of 1

Sample Identification
B04, SS-8, 23.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	96
No. 10	2.00	96
No. 20	0.85	95
No. 40	0.425	94
No. 60	0.25	92
No. 100	0.18	90
No. 140	0.106	88
No. 200	0.075	86.2

Material	%
Gravel	3.9
Total Sand	9.9
Coarse Sand	0.5
Medium Sand	2.1
Fine Sand	7.3
Silt and Clay	86.2

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
115	39	76



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-5

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B04 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-4

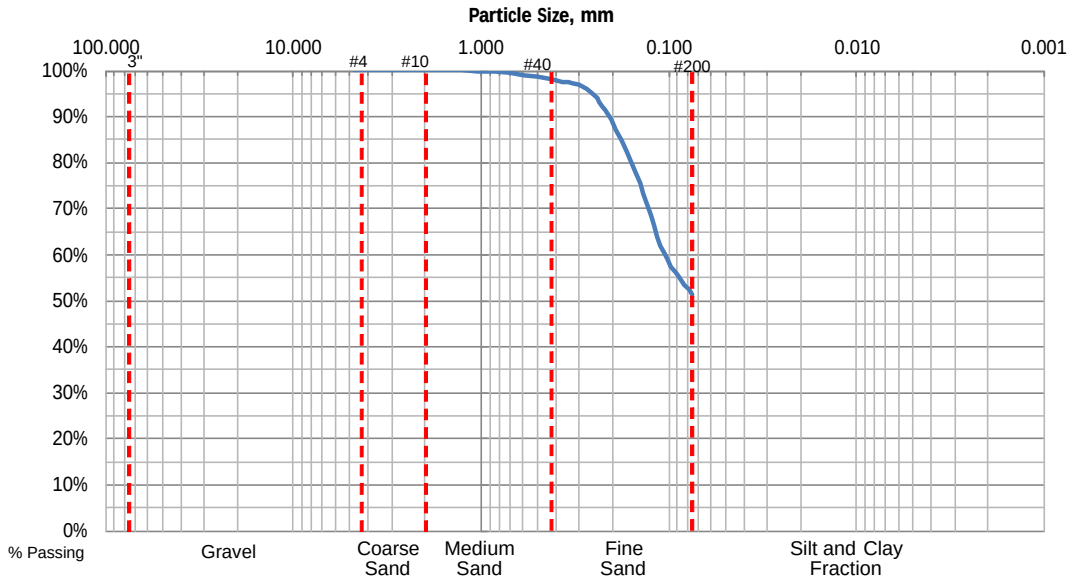
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B04, SS-09
Page 1 of 1

Sample Identification
B04, SS-9, 28.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	98
No. 60	0.25	95
No. 100	0.18	78
No. 140	0.106	60
No. 200	0.075	51.2

Material	%
Gravel	0.0
Total Sand	48.8
Coarse Sand	0.0
Medium Sand	2.0
Fine Sand	46.8
Silt and Clay	51.2

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
55	17	38



Classification	
ASTM	Sandy Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B04**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-4**

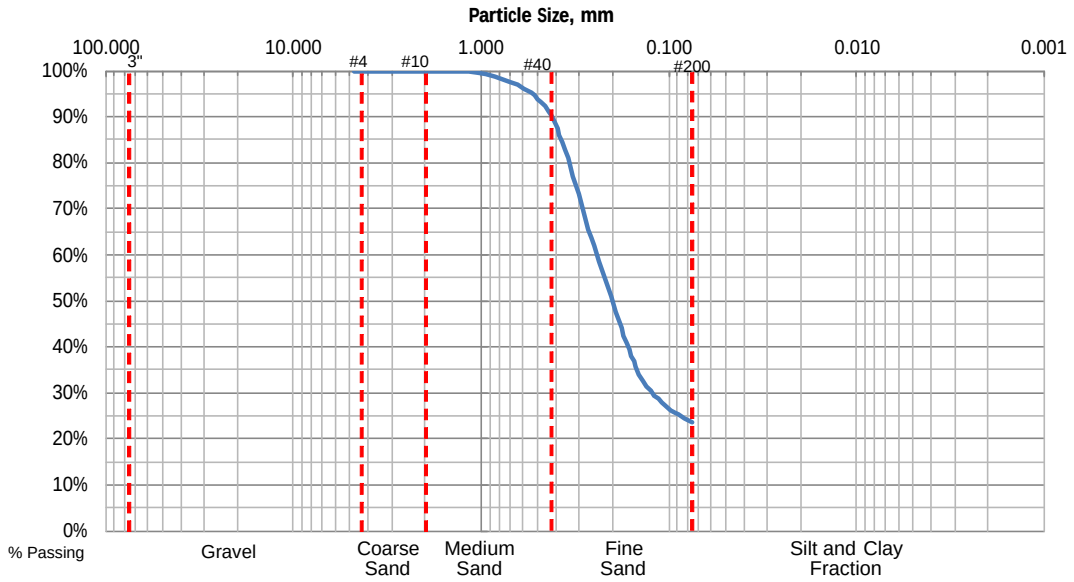
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B04, SS-10**
Page 1 of 1

Sample Identification
B04, SS-10, 33.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	90
No. 60	0.25	62
No. 100	0.18	36
No. 140	0.106	27
No. 200	0.075	23.6

Material	%
Gravel	0.0
Total Sand	76.4
Coarse Sand	0.0
Medium Sand	9.7
Fine Sand	66.6
Silt and Clay	23.6

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
32	23	9



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B04**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-4**

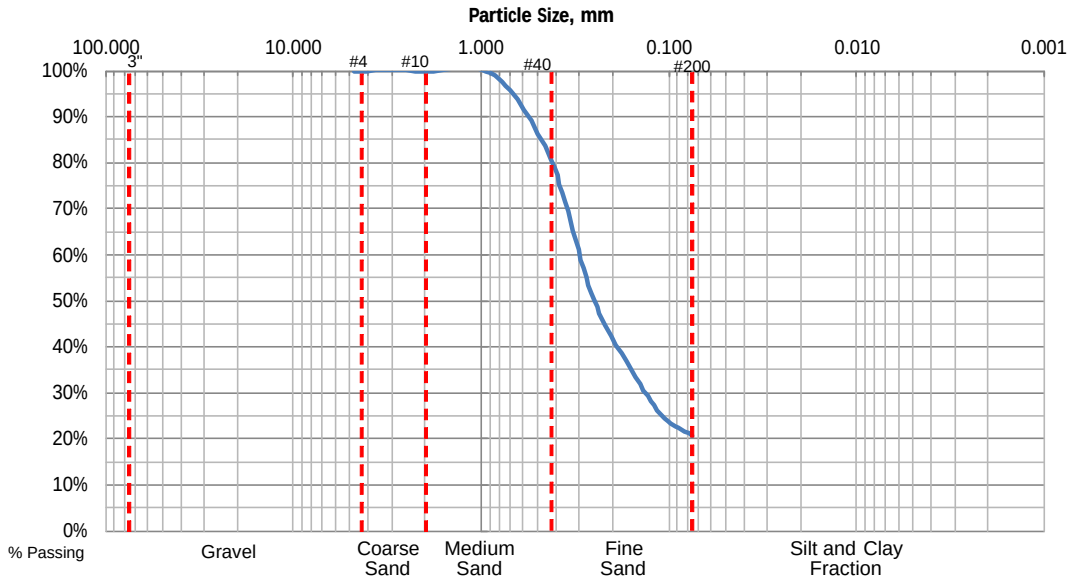
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B04, SS-11**
Page 1 of 1

Sample Identification
B04, SS-11, 38.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	81
No. 60	0.25	50
No. 100	0.18	33
No. 140	0.106	25
No. 200	0.075	20.6

Material	%
Gravel	0.0
Total Sand	79.4
Coarse Sand	0.0
Medium Sand	19.4
Fine Sand	59.9
Silt and Clay	20.6

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
28	19	9



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B04 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-4

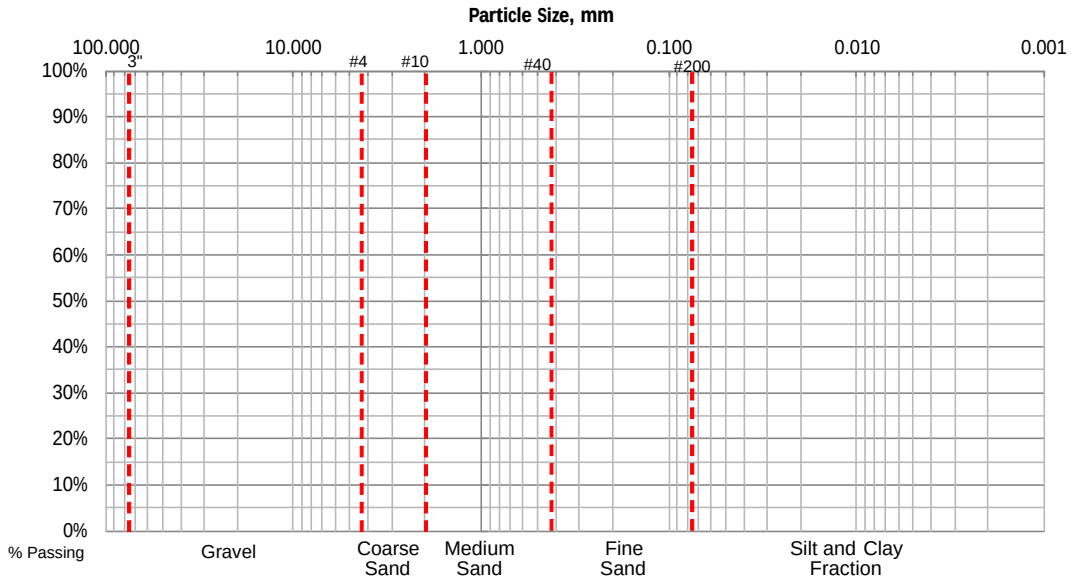
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B04, SS-12
Page 1 of 1

Sample Identification

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4		
No. 10		
No. 20		
No. 40		
No. 60		
No. 100		
No. 140		
No. 200		

Material	%
Gravel	0.0
Total Sand	0.0
Coarse Sand	0.0
Medium Sand	0.0
Fine Sand	0.0
Silt and Clay	

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)



Classification	
ASTM	
AASHTO	

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B04 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-4

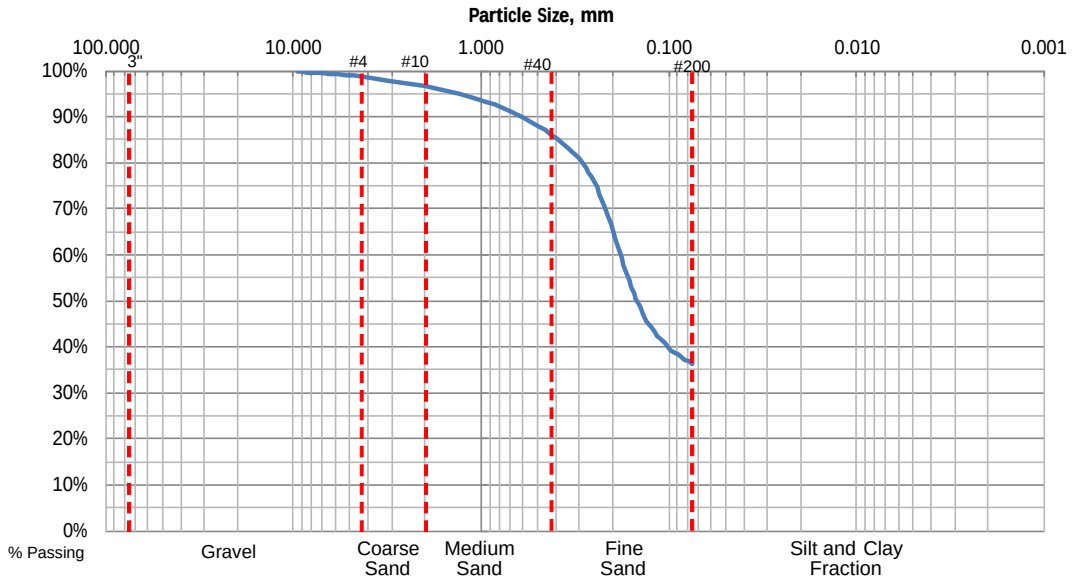
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B04, SS-13
Page 1 of 1

Sample Identification
B04, SS-13, 48.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	99
No. 10	2.00	97
No. 20	0.85	93
No. 40	0.425	86
No. 60	0.25	76
No. 100	0.18	51
No. 140	0.106	41
No. 200	0.075	36.4

Material	%
Gravel	1.0
Total Sand	62.6
Coarse Sand	2.3
Medium Sand	10.5
Fine Sand	49.9
Silt and Clay	36.4

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
47	24	23



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B04**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-4**

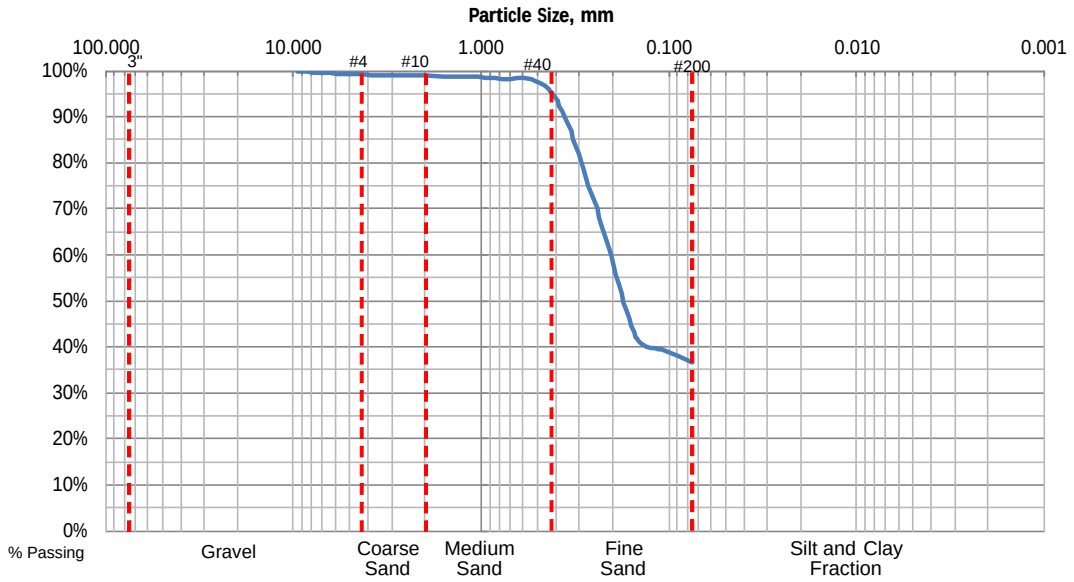
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B04, SS-19**
Page 1 of 1

Sample Identification
B04, SS-19, 78.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	99
No. 10	2.00	99
No. 20	0.85	98
No. 40	0.425	96
No. 60	0.25	72
No. 100	0.18	42
No. 140	0.106	39
No. 200	0.075	36.4

Material	%
Gravel	0.7
Total Sand	62.9
Coarse Sand	0.3
Medium Sand	3.5
Fine Sand	59.1
Silt and Clay	36.4

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
51	24	27



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/19/2023
Report Date: 06/20/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B05 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82825-6

Client PO: 111563 **TEST RESULTS** **Report No:** 82825-B05
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
B05	SS-3	4.0	24.7		10.3	NP	NP	NP	SP-SM	A-2-4
B05	SS-5	8.0	39.8		22.1	26	24	2	SM	A-2-4
B05	SS-7	18.5	69.7		89.5	62	21	41	CH	A-7-6
B05	SS-9	28.5	82.6		98.0	82	28	54	CH	A-7-6
B05	SS-11	38.5	43.7		25.6	35	27	8	SM	A-2-4
B05	SS-12	43.5	110.4		90.4	89	51	38	MH	A-7-5
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/19/2023
Report Date: 06/21/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B05 **Order Number:**

Client: CDM SMITH

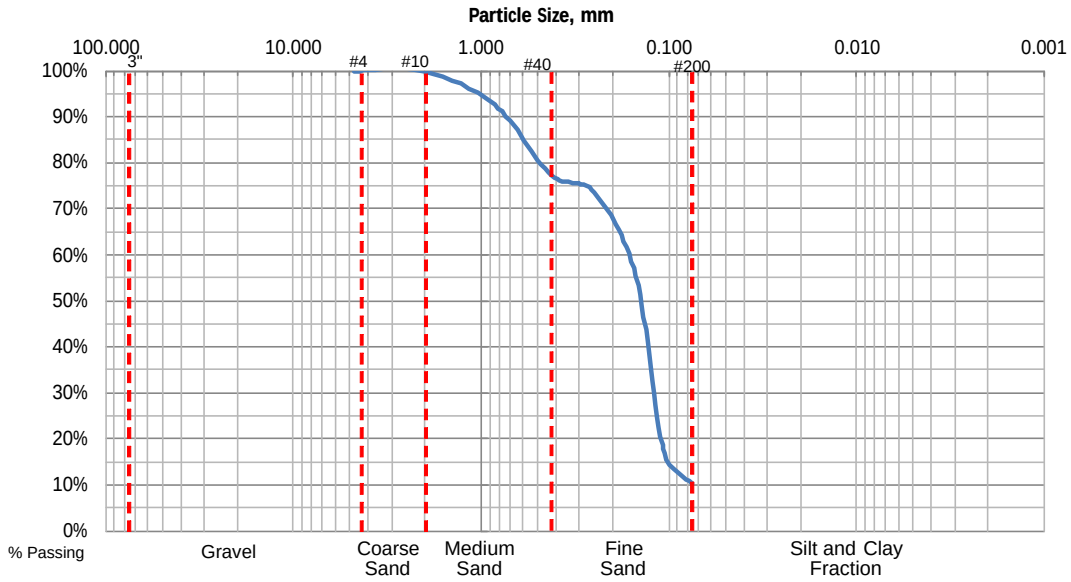
REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82825-6

Client PO: 111563 **TEST RESULTS** **Report No:** 82825-B05, SS-03
Page 1 of 1

Sample Identification
B05, SS-3, 4 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	93
No. 40	0.425	77
No. 60	0.25	74
No. 100	0.18	55
No. 140	0.106	17
No. 200	0.075	10.3
Coefficient of curvature, Cc		2.5
Coefficient of uniformity, Cu		1.2
Material		**%**
Gravel		0.0
Total Sand		89.7
Coarse Sand		0.1
Medium Sand		22.4
Fine Sand		67.1
Silt and Clay		10.3

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B05**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-6**

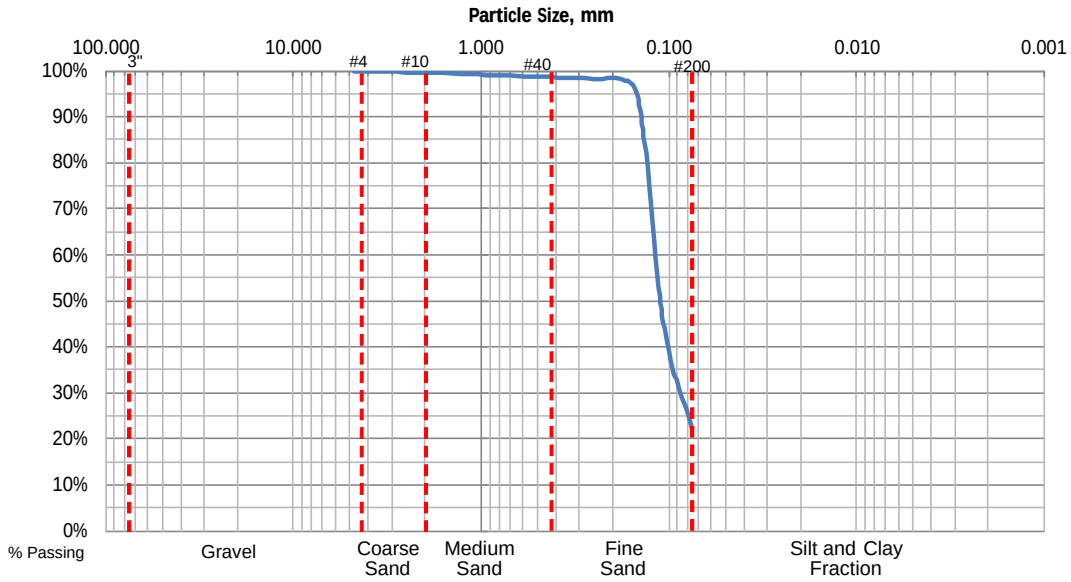
Client PO: 111563 **TEST RESULTS** **Report No: 82825-B05, SS-05**
Page 1 of 1

Sample Identification
B05, SS-5, 8 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	99
No. 60	0.25	98
No. 100	0.18	96
No. 140	0.106	44
No. 200	0.075	22.1

Material	%
Gravel	0.0
Total Sand	77.9
Coarse Sand	0.2
Medium Sand	1.0
Fine Sand	76.6
Silt and Clay	22.1

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
26	24	2



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

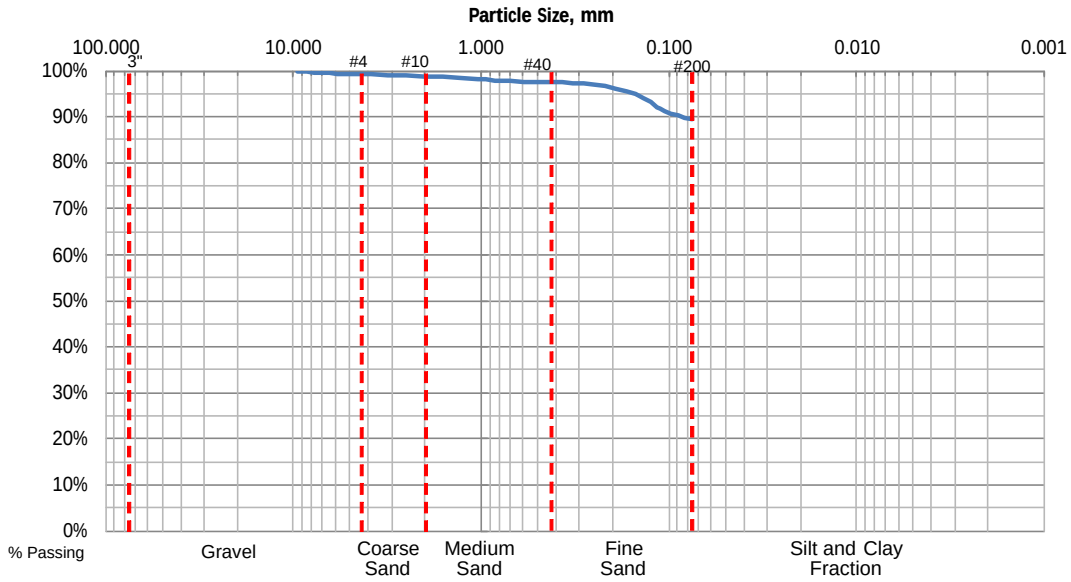
Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B05**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-6**
Client PO:	**111563**	**TEST RESULTS**	**Report No: 82825-B05, SS-07**
			Page 1 of 1

Sample Identification
B05, SS-7, 18.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	99
No. 10	2.00	99
No. 20	0.85	98
No. 40	0.425	98
No. 60	0.25	97
No. 100	0.18	95
No. 140	0.106	91
No. 200	0.075	89.5

Material	%
Gravel	0.6
Total Sand	9.9
Coarse Sand	0.4
Medium Sand	1.4
Fine Sand	8.1
Silt and Clay	89.5

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
62	21	41



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/19/2023
Report Date: 06/21/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B05 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82825-6

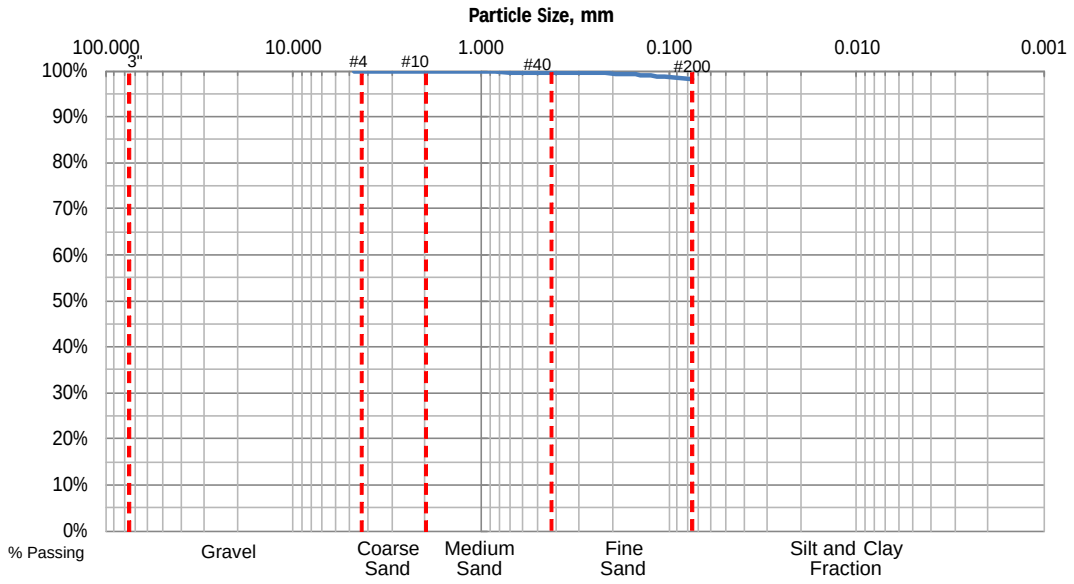
Client PO: 111563 **TEST RESULTS** **Report No:** 82825-B05, SS-09
Page 1 of 1

Sample Identification
B05, SS-9, 28.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	100
No. 100	0.18	99
No. 140	0.106	99
No. 200	0.075	98.0

Material	%
Gravel	0.0
Total Sand	2.0
Coarse Sand	0.0
Medium Sand	0.3
Fine Sand	1.7
Silt and Clay	98.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
82	28	54



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B05**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-6**

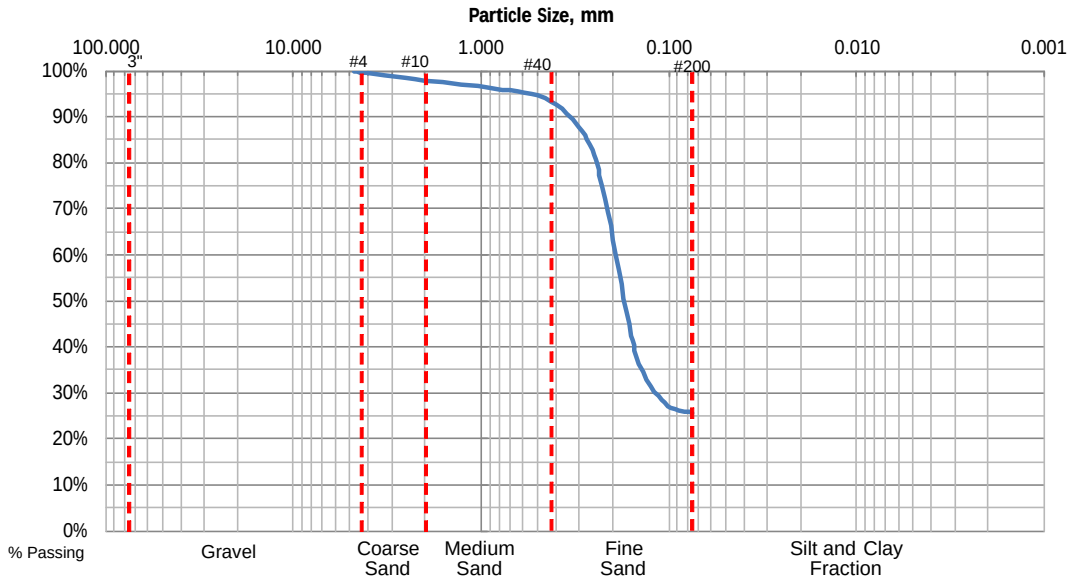
Client PO: 111563 **TEST RESULTS** **Report No: 82825-B05, SS-11**
Page 1 of 1

Sample Identification
B05, SS-11, 38.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	98
No. 20	0.85	96
No. 40	0.425	93
No. 60	0.25	82
No. 100	0.18	38
No. 140	0.106	28
No. 200	0.075	25.6

Material	%
Gravel	0.0
Total Sand	74.4
Coarse Sand	1.9
Medium Sand	4.6
Fine Sand	67.9
Silt and Clay	25.6

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
35	27	8



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

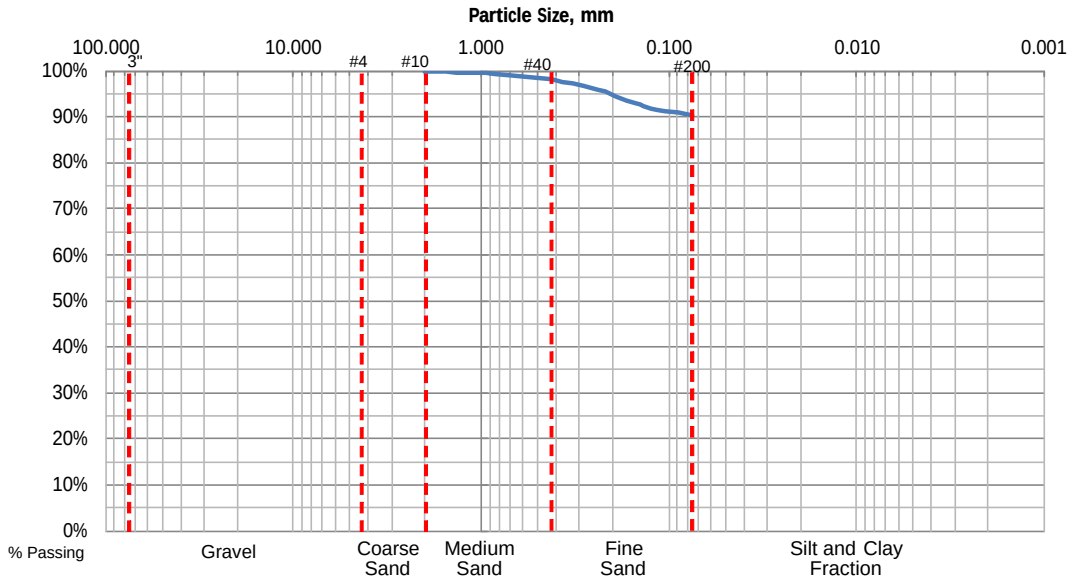
Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B05**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-6**
Client PO:	**111563**	**TEST RESULTS**	**Report No: 82825-B05, SS-12**
			Page 1 of 1

Sample Identification
B05, SS-12, 43.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4		
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	98
No. 60	0.25	96
No. 100	0.18	93
No. 140	0.106	91
No. 200	0.075	90.4

Material	%
Gravel	0.0
Total Sand	9.6
Coarse Sand	0.0
Medium Sand	1.8
Fine Sand	7.8
Silt and Clay	90.4

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
89	51	38



Classification	
ASTM	Elastic Silt (MH)
AASHTO	A-7-5

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/19/2023
Report Date: 06/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B06 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82825-1

Client PO: 111563 **TEST RESULTS** **Report No:** 82825-B06
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
B06	SS-5	8.0	45.3		45.1	37	30	7	SM	A-4
B06	SS-6	10.0	31.0		15.8	NP	NP	NP	SM	A-2-4
B06	SS-8	14.0	41.9		52.2	40	21	19	CL	A-6
B06	SS-10	18.0	81.5		93.6	69	31	38	CH	A-7-5
B06	SS-11	20.0	88.7		92.8	78	28	50	CH	A-7-6
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B06**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-1**

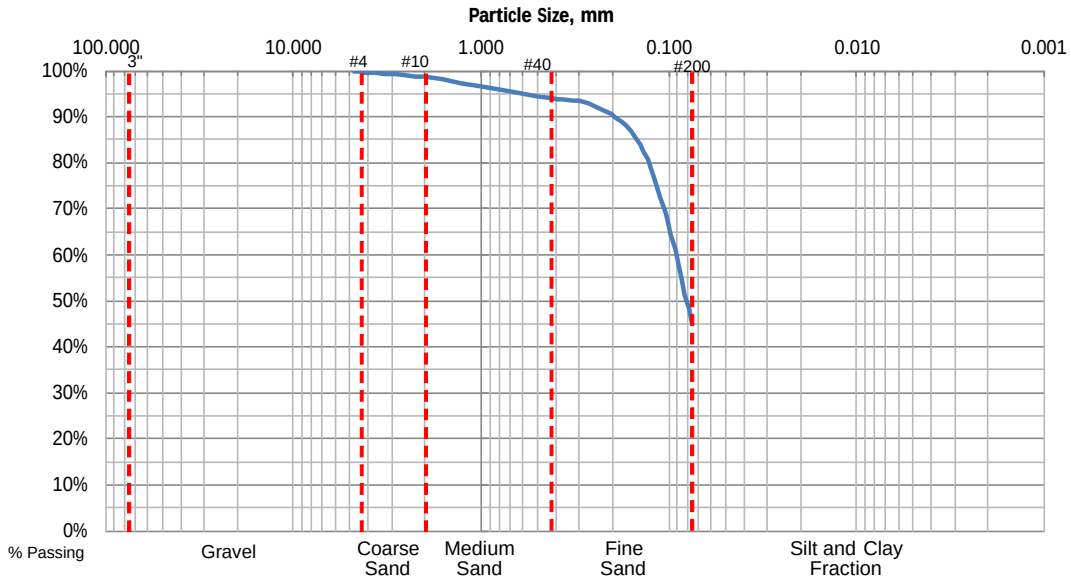
Client PO: 111563 **TEST RESULTS** **Report No: 82825-B06, SS-05**
Page 1 of 1

Sample Identification
B06, SS-5, 8 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	99
No. 20	0.85	96
No. 40	0.425	94
No. 60	0.25	93
No. 100	0.18	86
No. 140	0.106	70
No. 200	0.075	45.1

Material	%
Gravel	0.0
Total Sand	54.9
Coarse Sand	1.2
Medium Sand	4.6
Fine Sand	49.1
Silt and Clay	45.1

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
37	30	7



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/19/2023
Report Date: 06/21/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B06 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82825-1

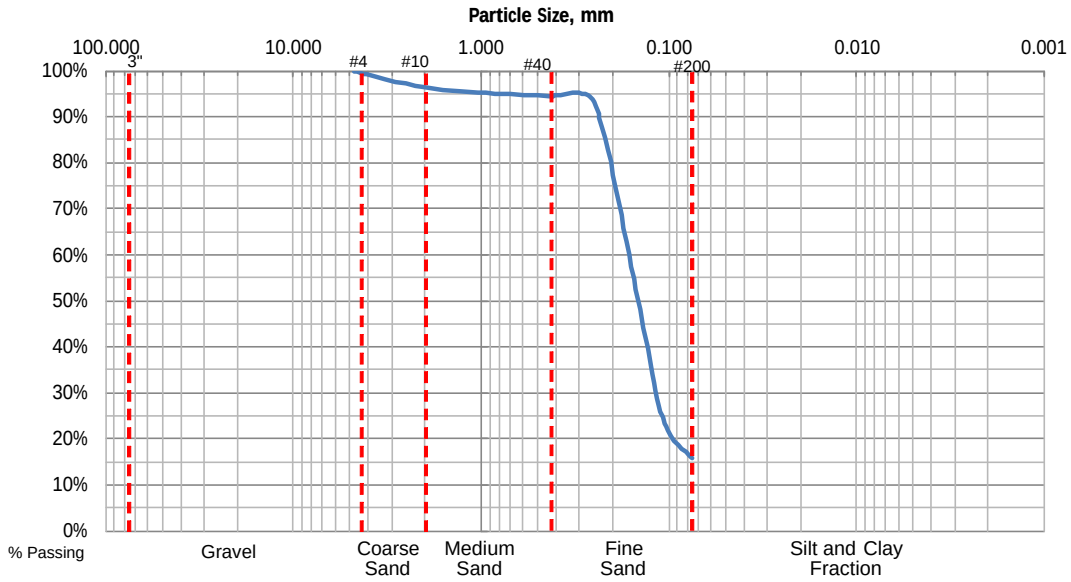
Client PO: 111563 **TEST RESULTS** **Report No:** 82825-B06, SS-06
Page 1 of 1

Sample Identification
B06, SS-6, 10 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	96
No. 20	0.85	95
No. 40	0.425	95
No. 60	0.25	93
No. 100	0.18	53
No. 140	0.106	23
No. 200	0.075	15.8

Material	%
Gravel	0.0
Total Sand	84.2
Coarse Sand	3.5
Medium Sand	1.8
Fine Sand	78.8
Silt and Clay	15.8

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B06**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-1**

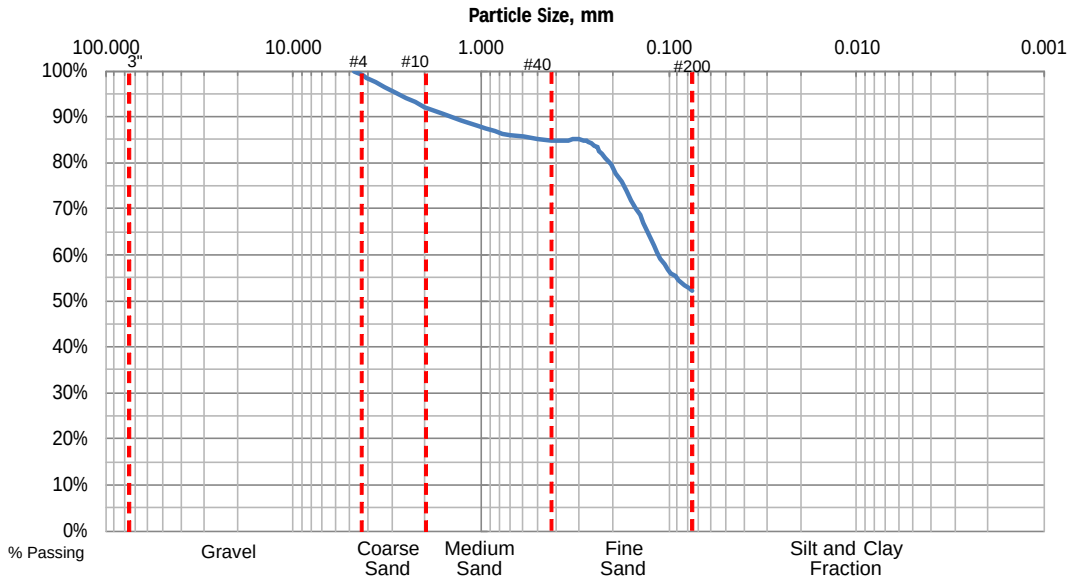
Client PO: 111563 **TEST RESULTS** **Report No: 82825-B06, SS-08**
Page 1 of 1

Sample Identification
B06, SS-8, 14 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	92
No. 20	0.85	87
No. 40	0.425	85
No. 60	0.25	84
No. 100	0.18	70
No. 140	0.106	58
No. 200	0.075	52.2

Material	%
Gravel	0.0
Total Sand	47.8
Coarse Sand	7.7
Medium Sand	7.3
Fine Sand	32.8
Silt and Clay	52.2

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
40	21	19



Classification	
ASTM	Sandy Lean Clay (CL)
AASHTO	A-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

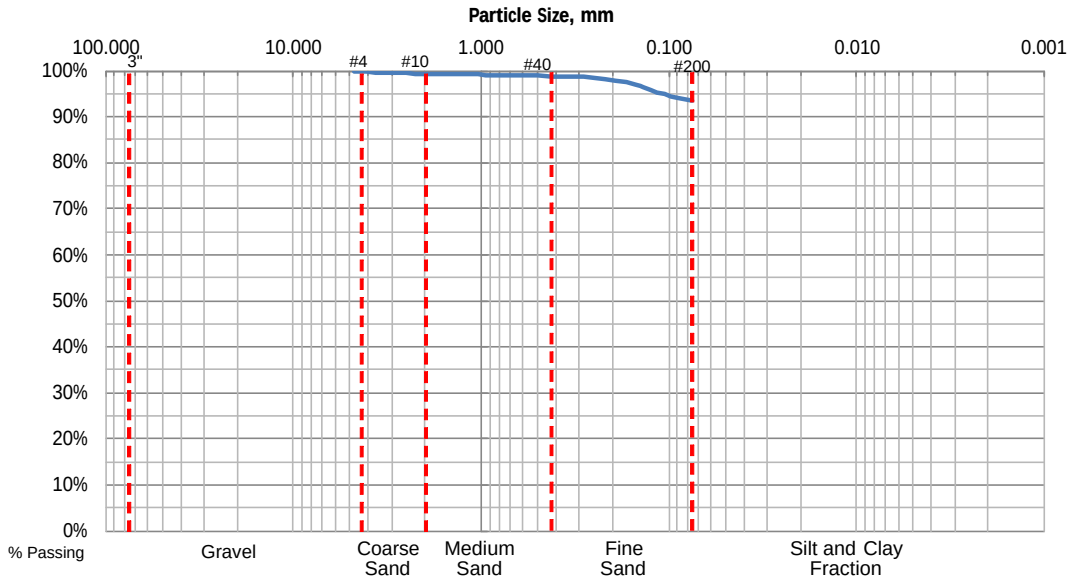
Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B06**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-1**
Client PO:	**111563**	**TEST RESULTS**	**Report No: 82825-B06, SS-10**
			Page 1 of 1

Sample Identification
B06, SS-10, 18 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	99
No. 60	0.25	99
No. 100	0.18	97
No. 140	0.106	95
No. 200	0.075	93.6

Material	%
Gravel	0.0
Total Sand	6.4
Coarse Sand	0.5
Medium Sand	0.6
Fine Sand	5.3
Silt and Clay	93.6

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
69	31	38



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-5

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B06**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-1**

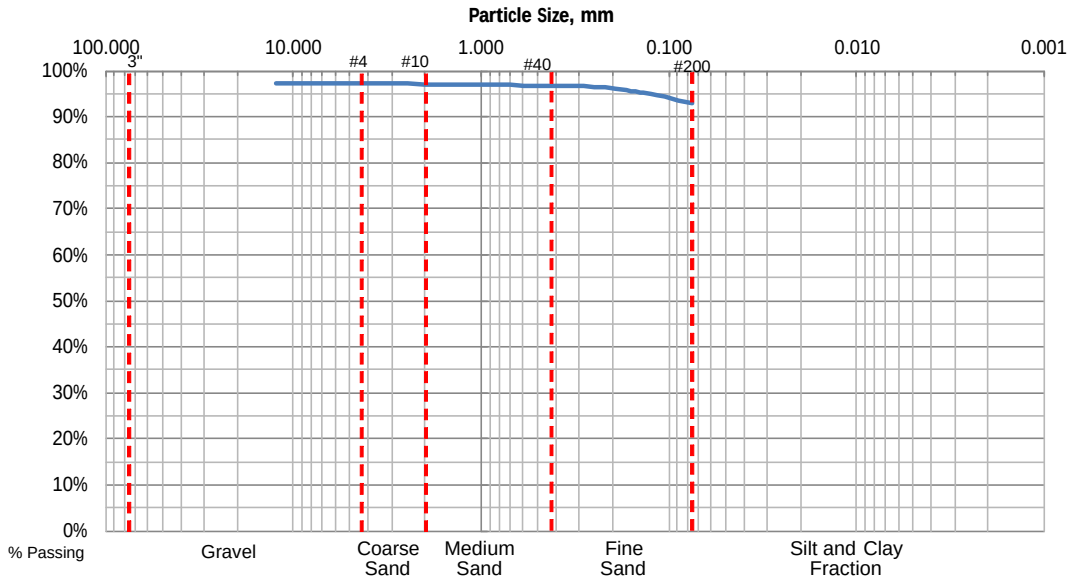
Client PO: 111563 **TEST RESULTS** **Report No: 82825-B06, SS-11**
Page 1 of 1

Sample Identification
B06, SS-11, 20 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.	12.5	97
3/8 in.	9.5	97
No. 4	4.75	97
No. 10	2.00	97
No. 20	0.85	97
No. 40	0.425	97
No. 60	0.25	97
No. 100	0.18	95
No. 140	0.106	94
No. 200	0.075	92.8

Material	%
Gravel	2.6
Total Sand	4.6
Coarse Sand	0.1
Medium Sand	0.4
Fine Sand	4.0
Silt and Clay	92.8

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
78	28	50



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82517-5

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
B07	SS-1	0.0	9.8		6.8	NP	NP	NP	SP-SM	A-3
B07	SS-2	2.0	24.6		38.1	36	15	21	SC	A-6
B07	SS-3	4.0	27.0		33.2	40	14	26	SC	A-2-6
B07	SS-4	6.0	39.4		83.2	53	19	34	CH	A-7-6
B07	SS-5	8.0	34.3		16.9	33	12	21	SC	A-2-6
B07	SS-6	10.0	30.8		12.7	NP	NP	NP	SM	A-2-4
B07	SS-7	12.0	33.4		19.0	35	15	20	SC	A-2-6
B07	SS-8	14.0	65.0		82.8	69	22	47	CH	A-7-6
B07	SS-9	16.0	74.9		88.3	90	23	67	CH	A-7-6
B07	SS-10	18.0	90.3		96.5	113	29	84	CH	A-7-6
B07	SS-11	20.0	39.7		63.6	63	19	44	CH	A-7-6
B07	SS-12	22.0	29.2		25.1	26	12	14	SC	A-2-6
B07	SS-13	24.0	89.3		94.8	105	27	78	CH	A-7-6
B07	SS-14	26.0	37.7		18.6	NP	NP	NP	SM	A-2-4
B07	SS-15	28.0	29.8		7.1	NP	NP	NP	SP-SM	A-3
Comments										

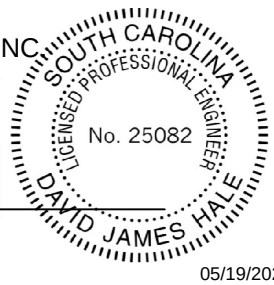
Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED



David J. Hale, P.E.
Project Engineer



05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82517-5

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
B07	SS-16	30.0	26.7		8.4	NP	NP	NP	SP-SM	A-3
B07	SS-17	32.0	34.5		21.6	28	23	5	SM	A-2-4
B07	SS-18	34.0	29.8		9.6	NP	NP	NP	SP-SM	A-3
B07	SS-19	36.0	25.4		8.0	NP	NP	NP	SP-SM	A-3
B07	SS-20	38.0	25.3		4.9	NP	NP	NP	SP	A-3
B07	SS-21	40.0	22.9		9.7	NP	NP	NP	SP-SM	A-3
B07	SS-22	42.0	37.3		24.0	35	22	13	SC	A-2-6
B07	SS-23	44.0	27.2		18.5	41	12	29	SC	A-2-7
B07	SS-24	46.0	23.8		17.0	33	13	20	SC	A-2-6
B07	SS-25	48.0	44.5		50.2	51	18	33	CH	A-7-6
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

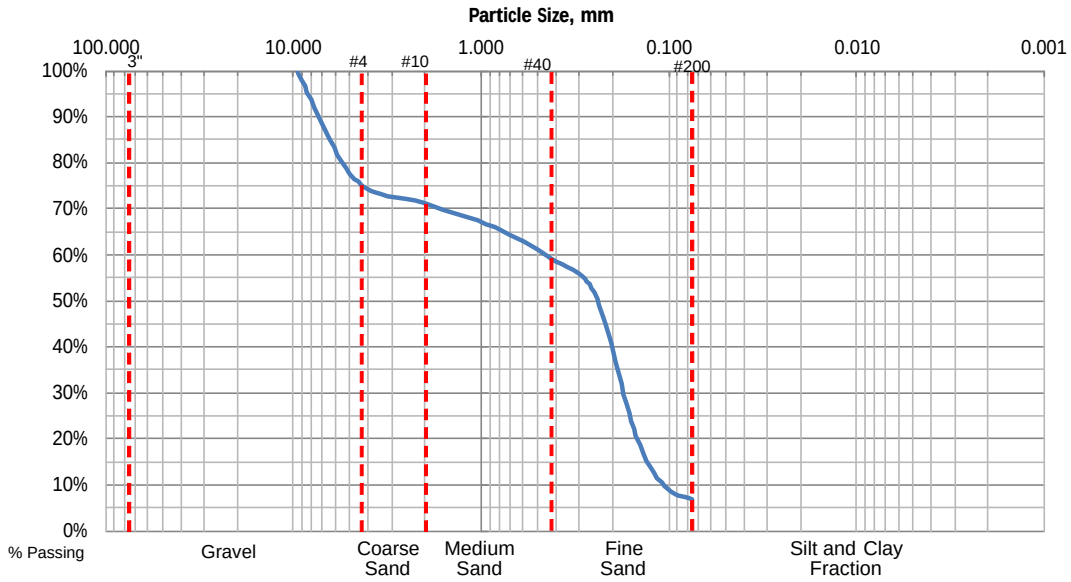
Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-01**
Page 1 of 1

Sample Identification
B07, SS-1, 0 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	77
No. 10	2.00	71
No. 20	0.85	66
No. 40	0.425	59
No. 60	0.25	52
No. 100	0.18	21
No. 140	0.106	10
No. 200	0.075	6.8
Coefficient of curvature, Cc		4.4
Coefficient of uniformity, Cu		0.6
Material		**%**
Gravel		23.3
Total Sand		69.9
Coarse Sand		5.4
Medium Sand		12.0
Fine Sand		52.5
Silt and Clay		6.8

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt and gravel (SP-SM)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

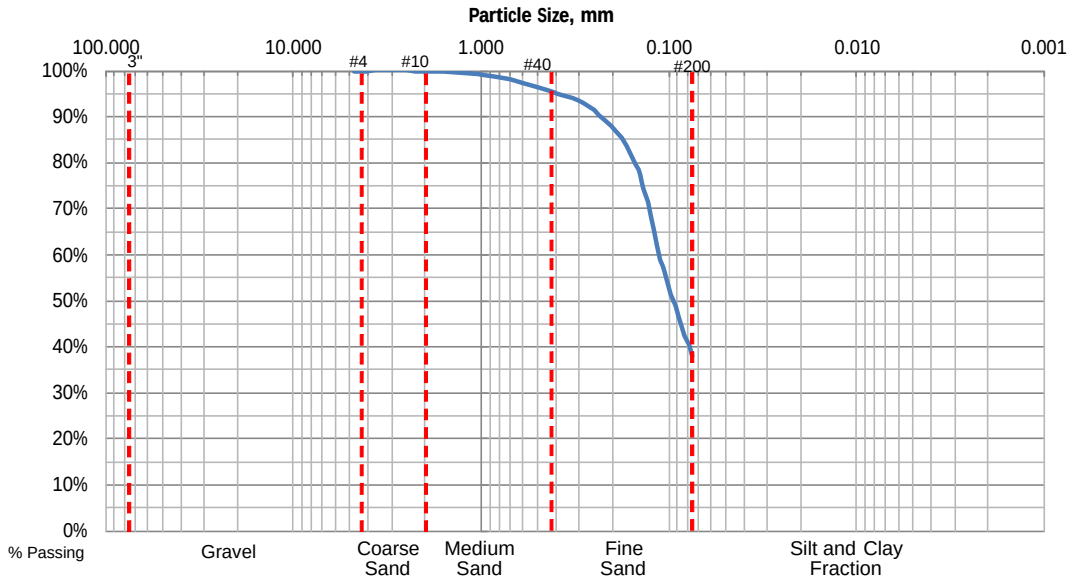
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-02**
Page 1 of 1

Sample Identification
B07, SS-2, 2 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	96
No. 60	0.25	91
No. 100	0.18	80
No. 140	0.106	56
No. 200	0.075	38.1

Material	%
Gravel	0.0
Total Sand	61.9
Coarse Sand	0.1
Medium Sand	4.4
Fine Sand	57.4
Silt and Clay	38.1

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
36	15	21



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

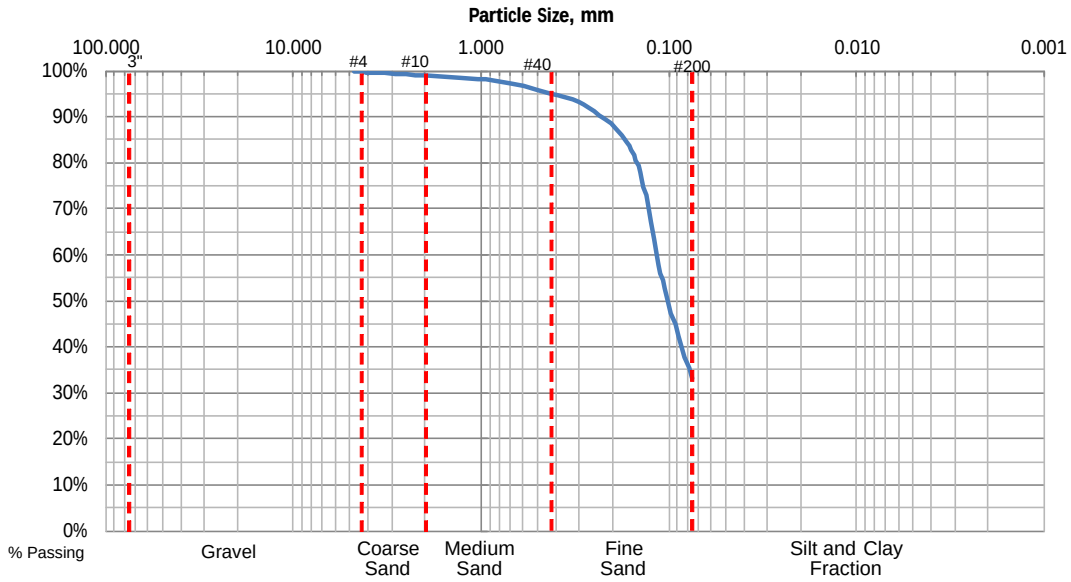
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-03**
Page 1 of 1

Sample Identification
B07, SS-3, 4 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	99
No. 20	0.85	98
No. 40	0.425	95
No. 60	0.25	91
No. 100	0.18	81
No. 140	0.106	53
No. 200	0.075	33.2

Material	%
Gravel	0.0
Total Sand	66.8
Coarse Sand	0.9
Medium Sand	3.9
Fine Sand	62.0
Silt and Clay	33.2

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
40	14	26



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

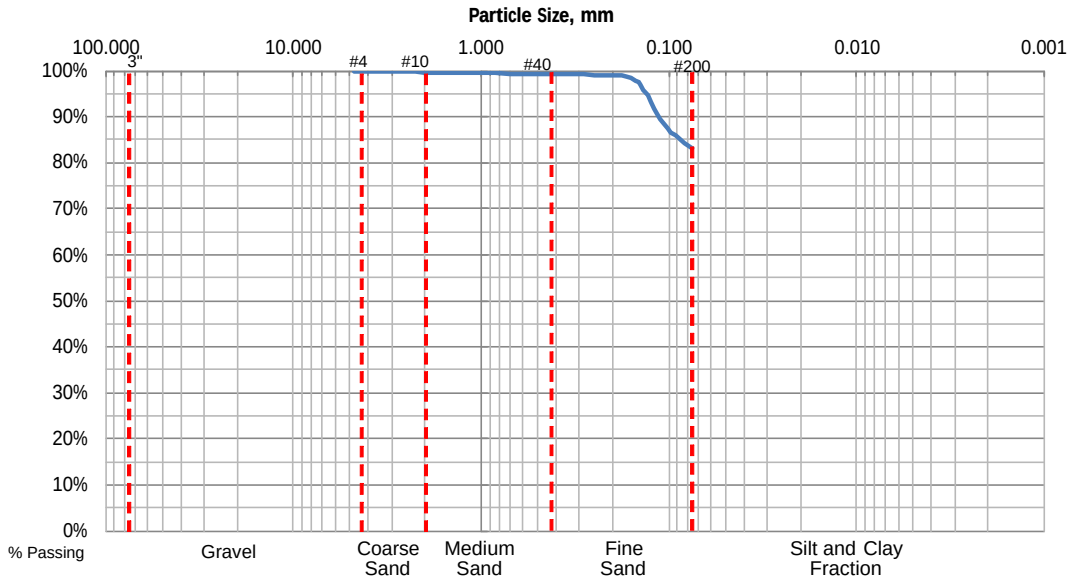
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-04**
Page 1 of 1

Sample Identification
B07, SS-4, 6 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	99
No. 60	0.25	99
No. 100	0.18	98
No. 140	0.106	88
No. 200	0.075	83.2

Material	%
Gravel	0.0
Total Sand	16.8
Coarse Sand	0.1
Medium Sand	0.5
Fine Sand	16.2
Silt and Clay	83.2

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
53	19	34



Classification	
ASTM	Fat Clay with Sand (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

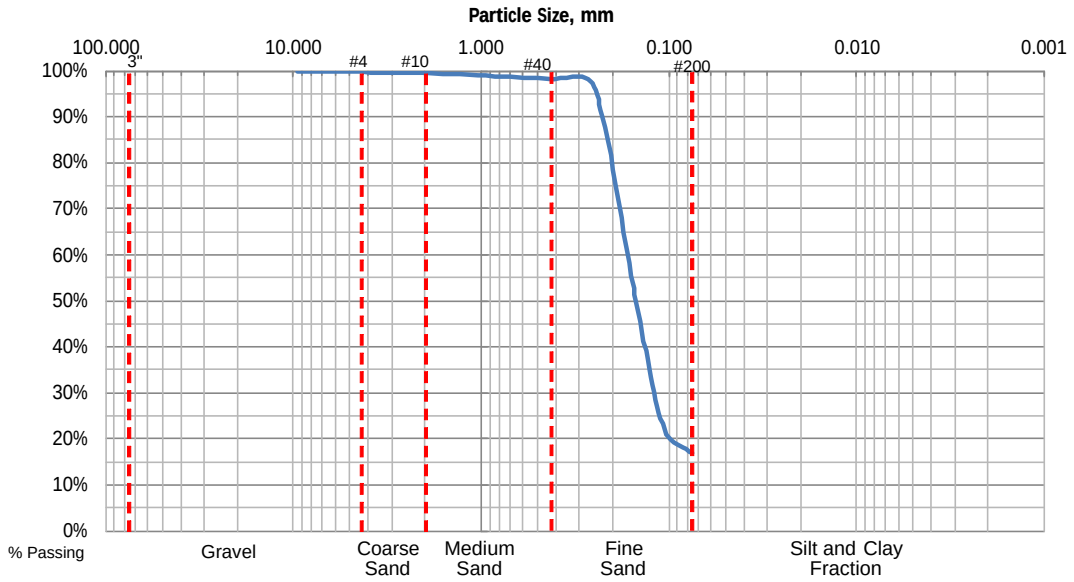
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-05**
Page 1 of 1

Sample Identification
B07, SS-5, 8 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	100
No. 10	2.00	99
No. 20	0.85	99
No. 40	0.425	98
No. 60	0.25	97
No. 100	0.18	50
No. 140	0.106	22
No. 200	0.075	16.9

Material	%
Gravel	0.2
Total Sand	82.9
Coarse Sand	0.3
Medium Sand	1.4
Fine Sand	81.2
Silt and Clay	16.9

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
33	12	21



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

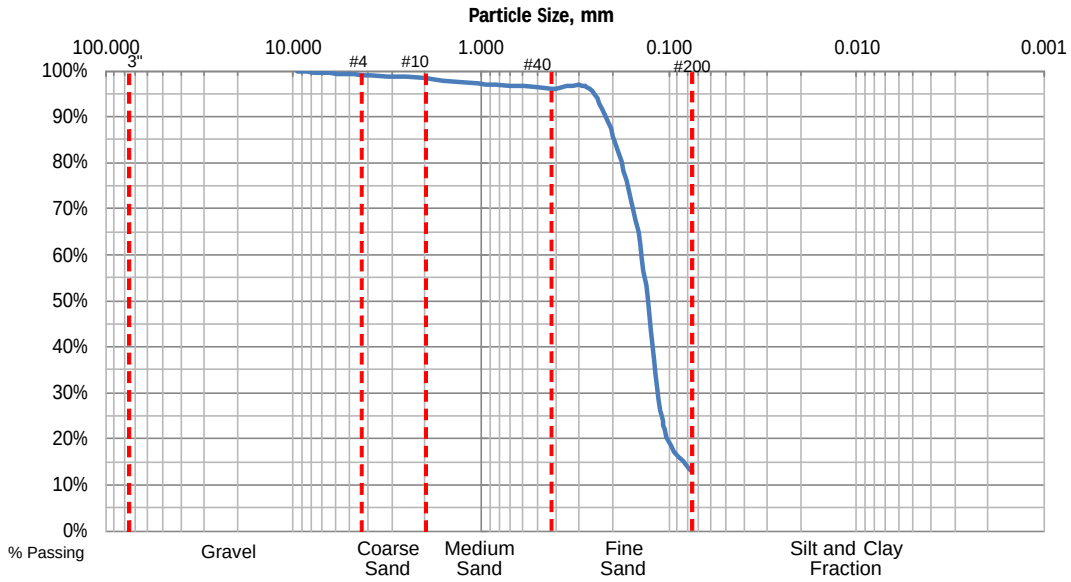
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-06**
Page 1 of 1

Sample Identification
B07, SS-6, 10 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	99
No. 10	2.00	98
No. 20	0.85	97
No. 40	0.425	96
No. 60	0.25	95
No. 100	0.18	67
No. 140	0.106	22
No. 200	0.075	12.7

Material	%
Gravel	0.6
Total Sand	86.7
Coarse Sand	0.9
Medium Sand	2.2
Fine Sand	83.6
Silt and Clay	12.7

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

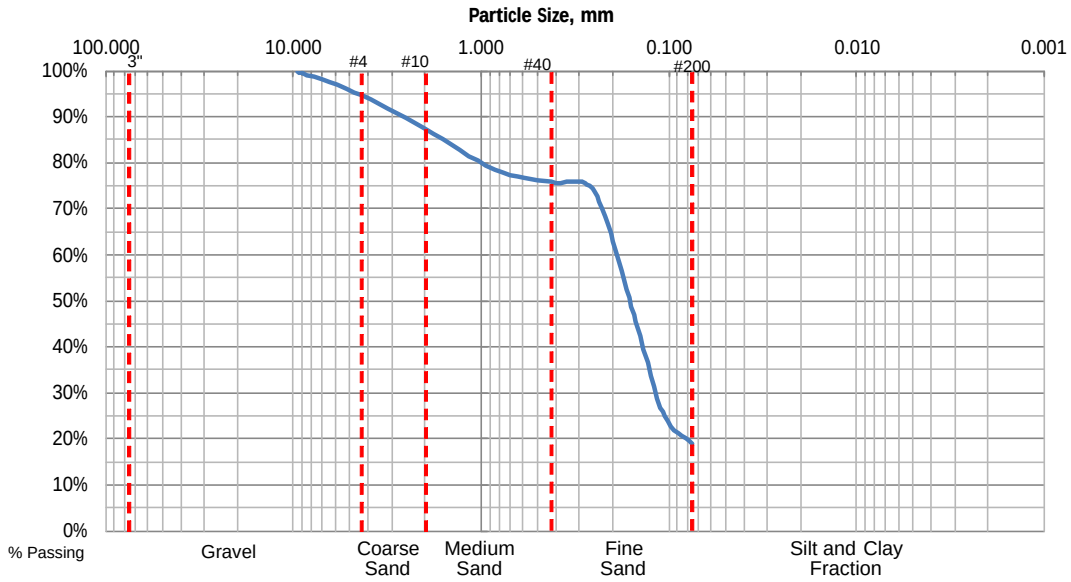
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-07**
Page 1 of 1

Sample Identification
B07, SS-7, 12 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	96
No. 10	2.00	88
No. 20	0.85	79
No. 40	0.425	76
No. 60	0.25	74
No. 100	0.18	46
No. 140	0.106	25
No. 200	0.075	19.0

Material	%
Gravel	4.5
Total Sand	76.5
Coarse Sand	7.9
Medium Sand	11.7
Fine Sand	56.9
Silt and Clay	19.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
35	15	20



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-5

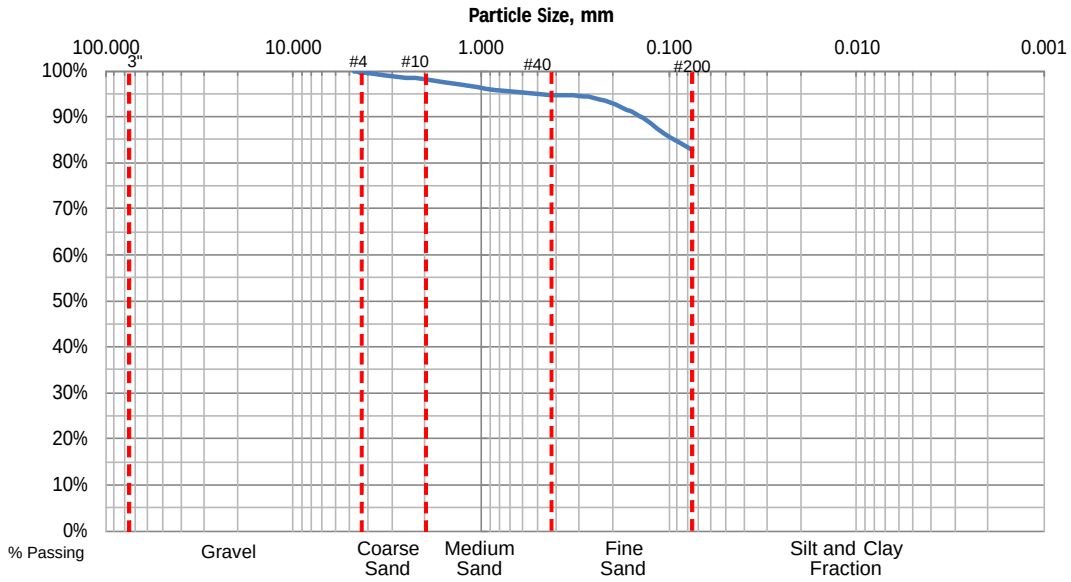
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07, SS-08
Page 1 of 1

Sample Identification
B07, SS-8, 14 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	98
No. 20	0.85	96
No. 40	0.425	95
No. 60	0.25	94
No. 100	0.18	91
No. 140	0.106	86
No. 200	0.075	82.8

Material	%
Gravel	0.0
Total Sand	17.2
Coarse Sand	1.8
Medium Sand	3.3
Fine Sand	12.1
Silt and Clay	82.8

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
69	22	47



Classification	
ASTM	Fat Clay with Sand (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-5

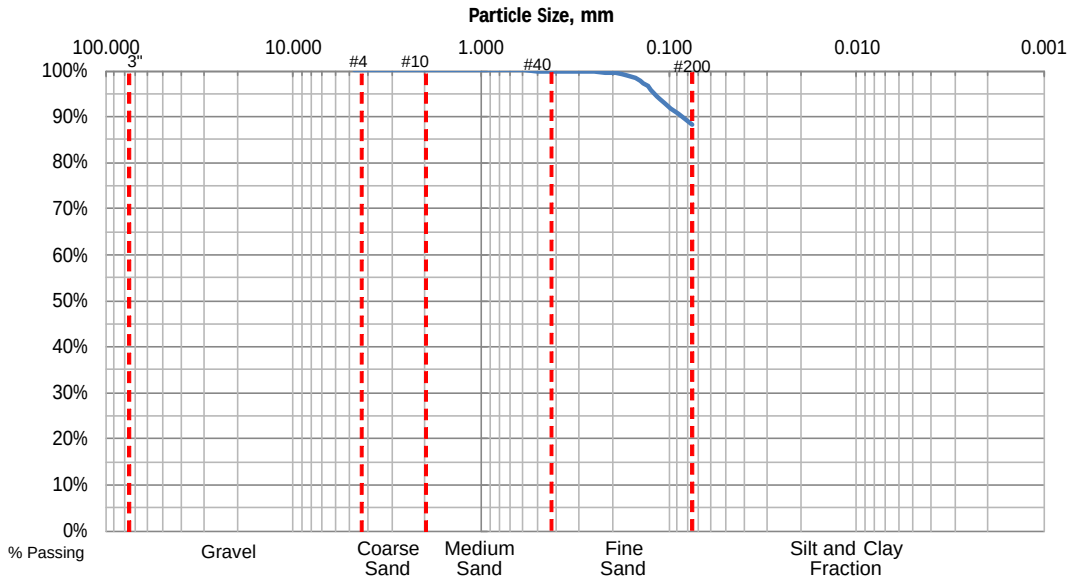
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07, SS-09
Page 1 of 1

Sample Identification
B07, SS-9, 16 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	100
No. 100	0.18	98
No. 140	0.106	93
No. 200	0.075	88.3

Material	%
Gravel	0.0
Total Sand	11.7
Coarse Sand	0.0
Medium Sand	0.2
Fine Sand	11.5
Silt and Clay	88.3

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
90	23	67



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-5

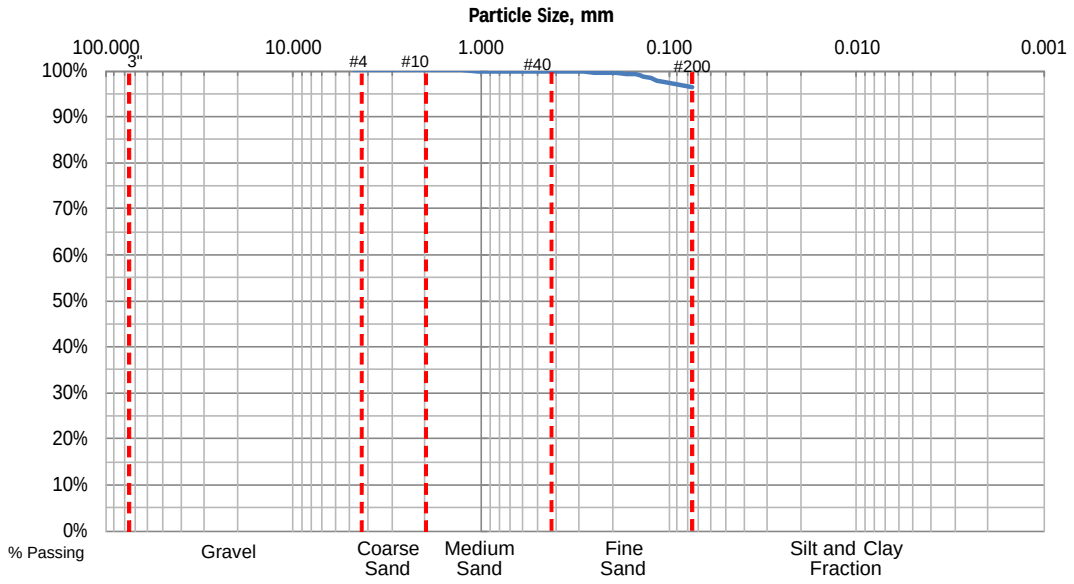
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07, SS-10
Page 1 of 1

Sample Identification
B07, SS-10, 18 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	100
No. 100	0.18	99
No. 140	0.106	98
No. 200	0.075	96.5

Material	%
Gravel	0.0
Total Sand	3.5
Coarse Sand	0.0
Medium Sand	0.3
Fine Sand	3.2
Silt and Clay	96.5

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
113	29	84



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-5

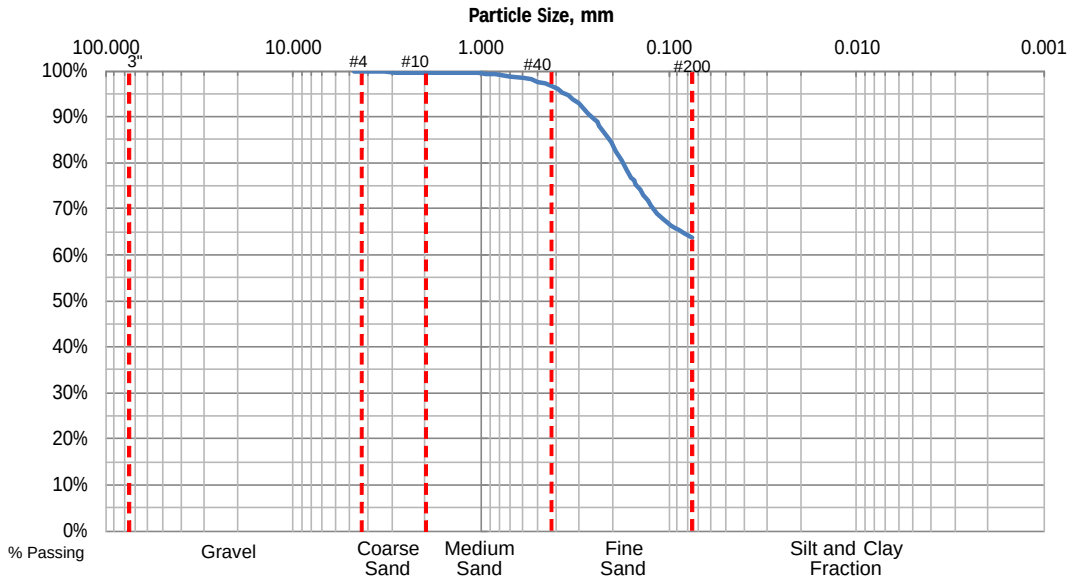
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07, SS-11
Page 1 of 1

Sample Identification
B07, SS-11, 20 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	97
No. 60	0.25	90
No. 100	0.18	75
No. 140	0.106	67
No. 200	0.075	63.6

Material	%
Gravel	0.0
Total Sand	36.4
Coarse Sand	0.3
Medium Sand	2.9
Fine Sand	33.2
Silt and Clay	63.6

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
63	19	44



Classification	
ASTM	Sandy Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

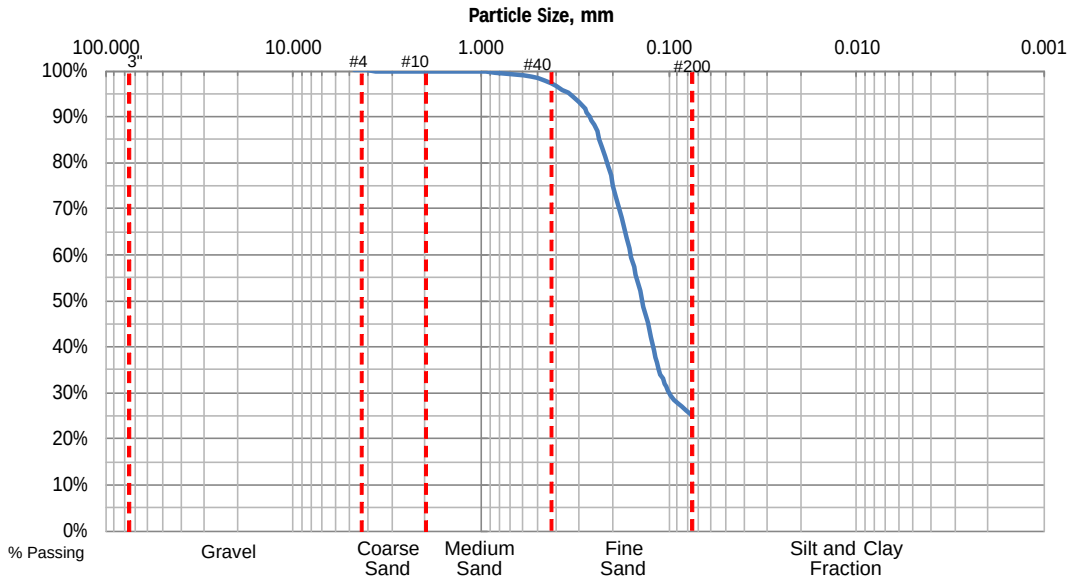
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-12**
Page 1 of 1

Sample Identification
B07, SS-12, 22 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	97
No. 60	0.25	88
No. 100	0.18	56
No. 140	0.106	32
No. 200	0.075	25.1

Material	%
Gravel	0.0
Total Sand	74.9
Coarse Sand	0.2
Medium Sand	2.6
Fine Sand	72.1
Silt and Clay	25.1

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
26	12	14



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-5

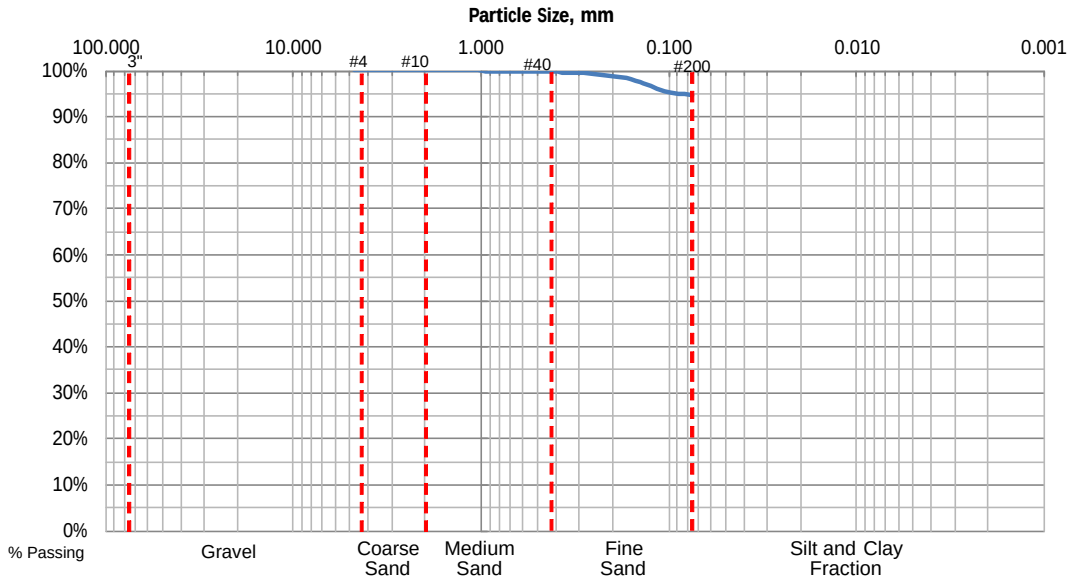
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07, SS-13
Page 1 of 1

Sample Identification
B07, SS-13, 24 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	99
No. 100	0.18	98
No. 140	0.106	96
No. 200	0.075	94.8

Material	%
Gravel	0.0
Total Sand	5.2
Coarse Sand	0.0
Medium Sand	0.3
Fine Sand	4.9
Silt and Clay	94.8

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
105	27	78



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-5

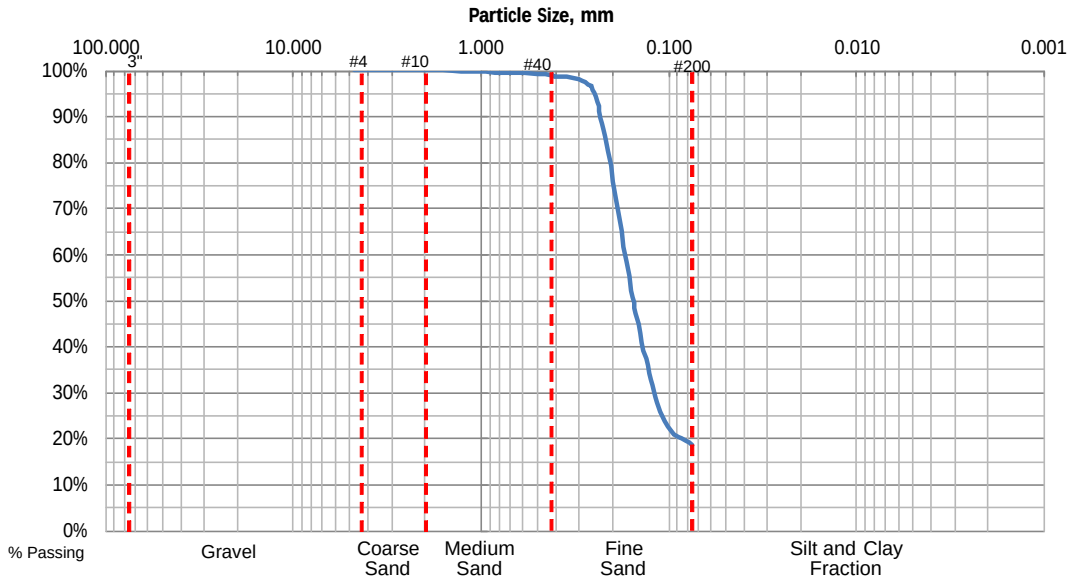
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07, SS-14
Page 1 of 1

Sample Identification
B07, SS-14, 26 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	99
No. 60	0.25	95
No. 100	0.18	47
No. 140	0.106	24
No. 200	0.075	18.6

Material	%
Gravel	0.0
Total Sand	81.4
Coarse Sand	0.0
Medium Sand	1.1
Fine Sand	80.3
Silt and Clay	18.6

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

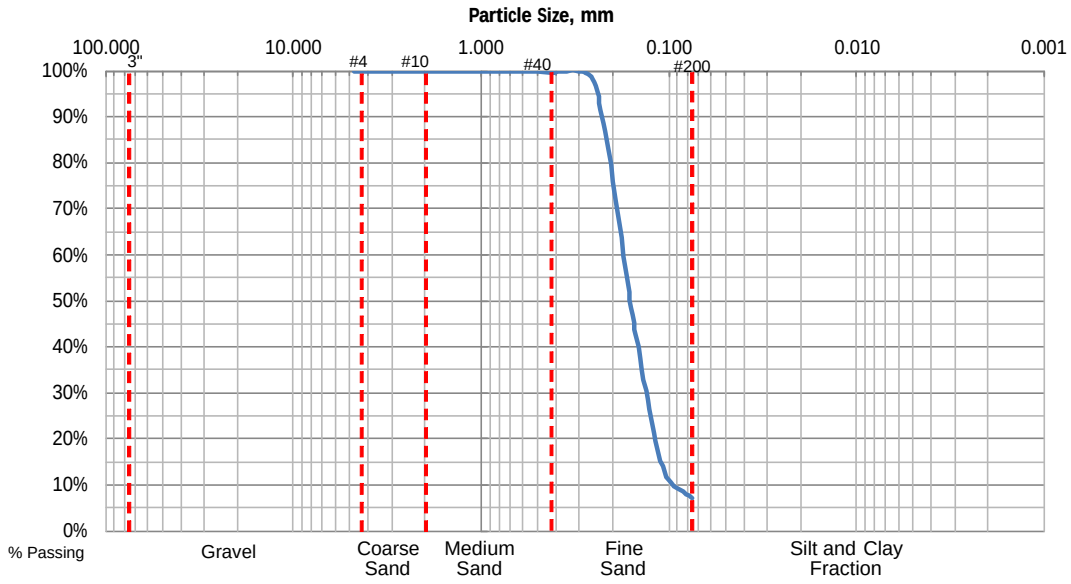
PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-15**
Page 1 of 1

Sample Identification		
B07, SS-15, 28 ft		
Sieve	**Size, mm**	**% Passing**
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	98
No. 100	0.18	43
No. 140	0.106	13
No. 200	0.075	7.1
Coefficient of curvature, Cc		2.0
Coefficient of uniformity, Cu		1.1
Material		**%**
Gravel		0.0
Total Sand		92.9
Coarse Sand		0.0
Medium Sand		0.2
Fine Sand		92.6
Silt and Clay		7.1
Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

Client: CDM SMITH

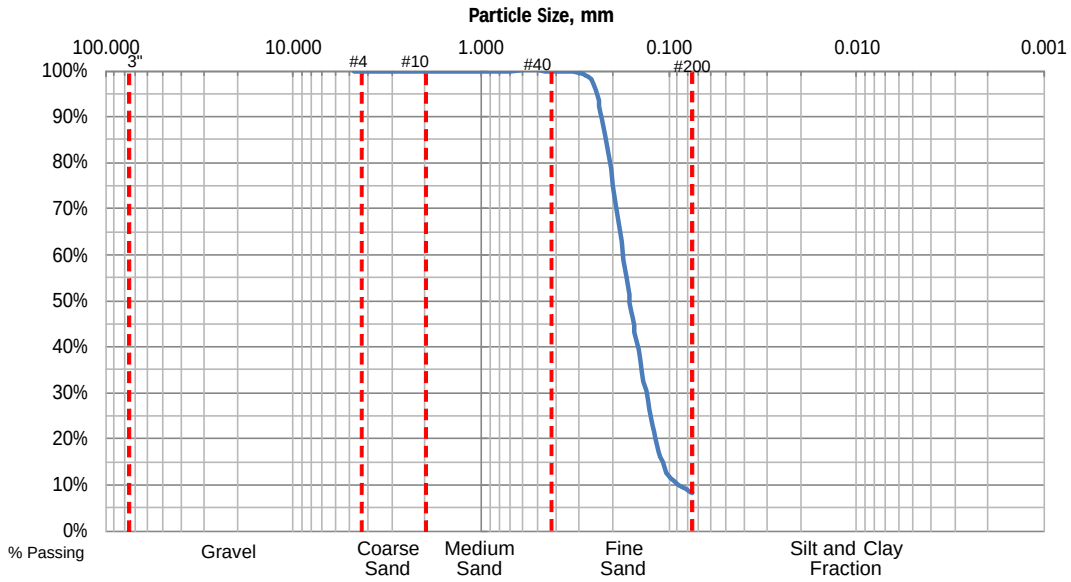
REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-5

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07, SS-16
Page 1 of 1

Sample Identification
B07, SS-16, 30 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	97
No. 100	0.18	42
No. 140	0.106	14
No. 200	0.075	8.4
Coefficient of curvature, Cc		2.2
Coefficient of uniformity, Cu		1.1
Material		**%**
Gravel		0.0
Total Sand		91.6
Coarse Sand		0.0
Medium Sand		0.1
Fine Sand		91.6
Silt and Clay		8.4

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

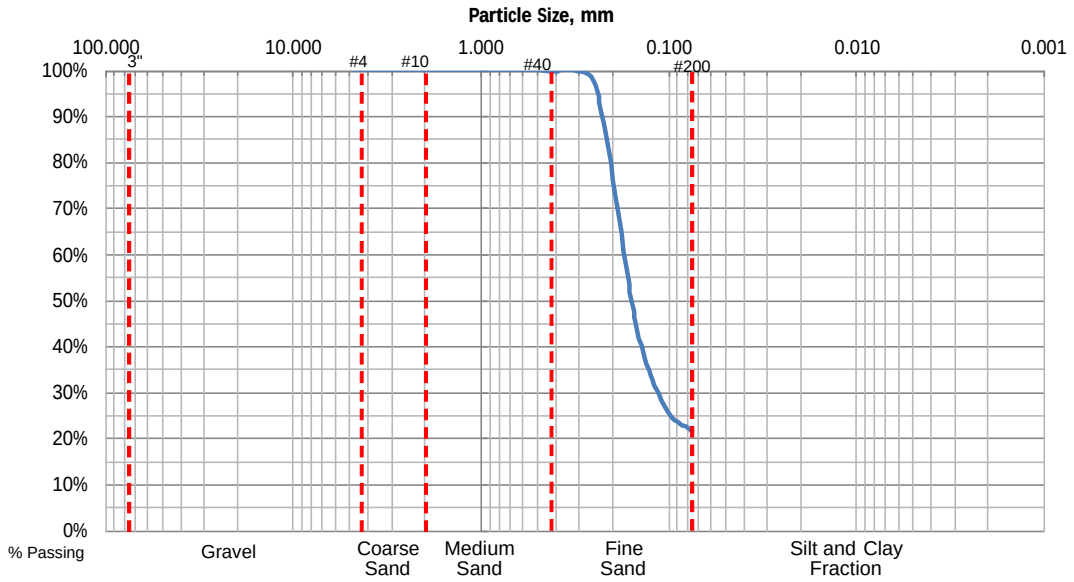
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-17**
Page 1 of 1

Sample Identification
B07, SS-17, 32 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	97
No. 100	0.18	45
No. 140	0.106	27
No. 200	0.075	21.6

Material	%
Gravel	0.0
Total Sand	78.4
Coarse Sand	0.0
Medium Sand	0.2
Fine Sand	78.3
Silt and Clay	21.6

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
28	23	5



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

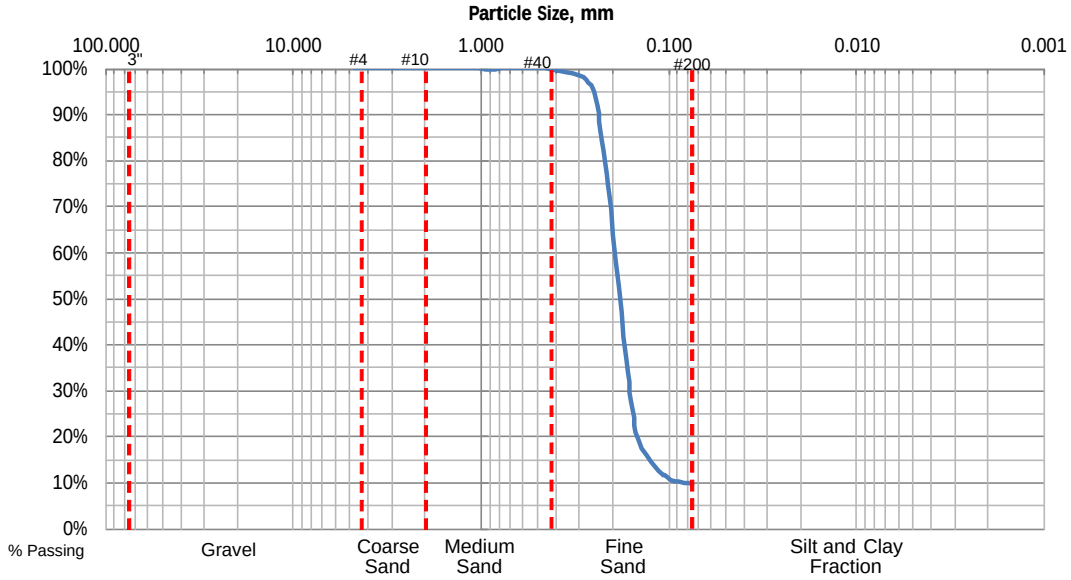
Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-18**
Page 1 of 1

Sample Identification
B07, SS-18, 34 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	95
No. 100	0.18	21
No. 140	0.106	12
No. 200	0.075	9.6
Coefficient of curvature, Cc		2.5
Coefficient of uniformity, Cu		1.6
Material		**%**
Gravel		0.0
Total Sand		90.4
Coarse Sand		0.0
Medium Sand		0.2
Fine Sand		90.3
Silt and Clay		9.6
Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

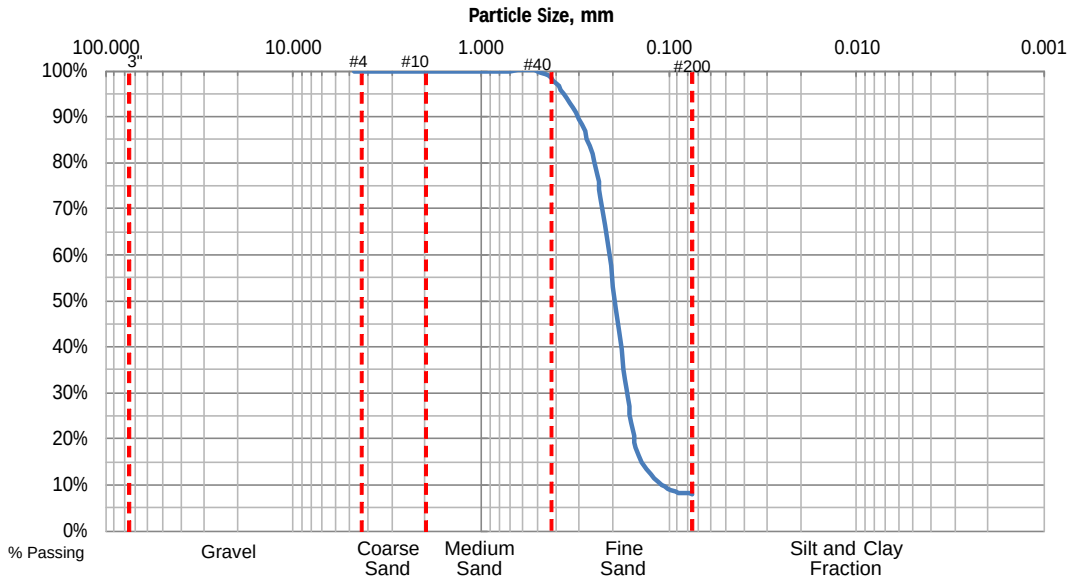
Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-5

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07, SS-19
Page 1 of 1

Sample Identification
B07, SS-19, 36 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	98
No. 60	0.25	80
No. 100	0.18	18
No. 140	0.106	10
No. 200	0.075	8.0
Coefficient of curvature, Cc		2.0
Coefficient of uniformity, Cu		1.2
Material		**%**
Gravel		0.0
Total Sand		92.0
Coarse Sand		0.0
Medium Sand		1.6
Fine Sand		90.4
Silt and Clay		8.0
Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

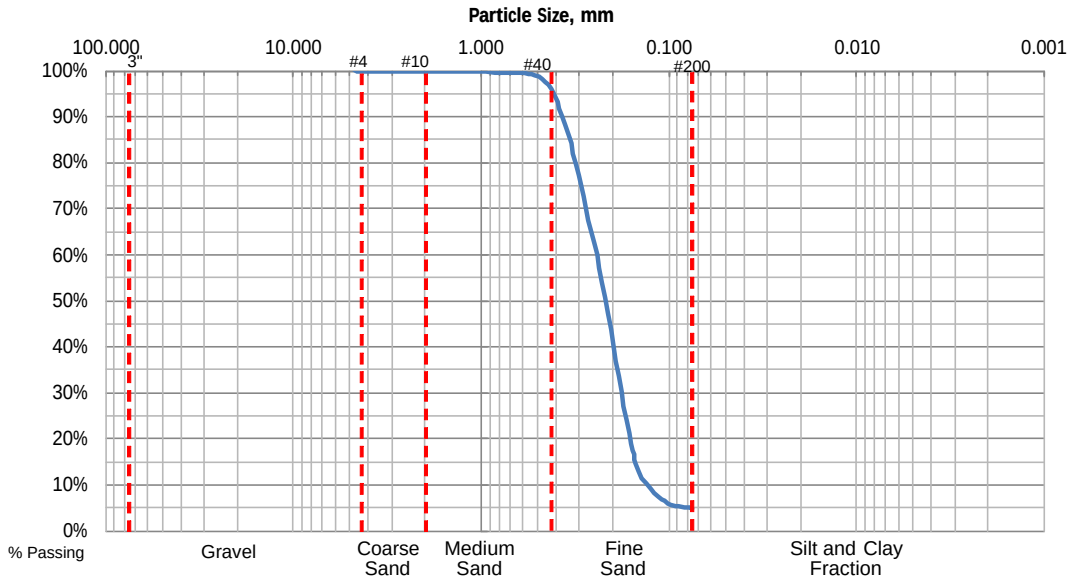
Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-5

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07, SS-20
Page 1 of 1

Sample Identification
B07, SS-20, 38 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	96
No. 60	0.25	63
No. 100	0.18	15
No. 140	0.106	7
No. 200	0.075	4.9
Coefficient of curvature, Cc		2.0
Coefficient of uniformity, Cu		1.1
Material		**%**
Gravel		0.0
Total Sand		95.1
Coarse Sand		0.2
Medium Sand		3.8
Fine Sand		91.1
Silt and Clay		4.9
Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand (SP)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

Client: CDM SMITH

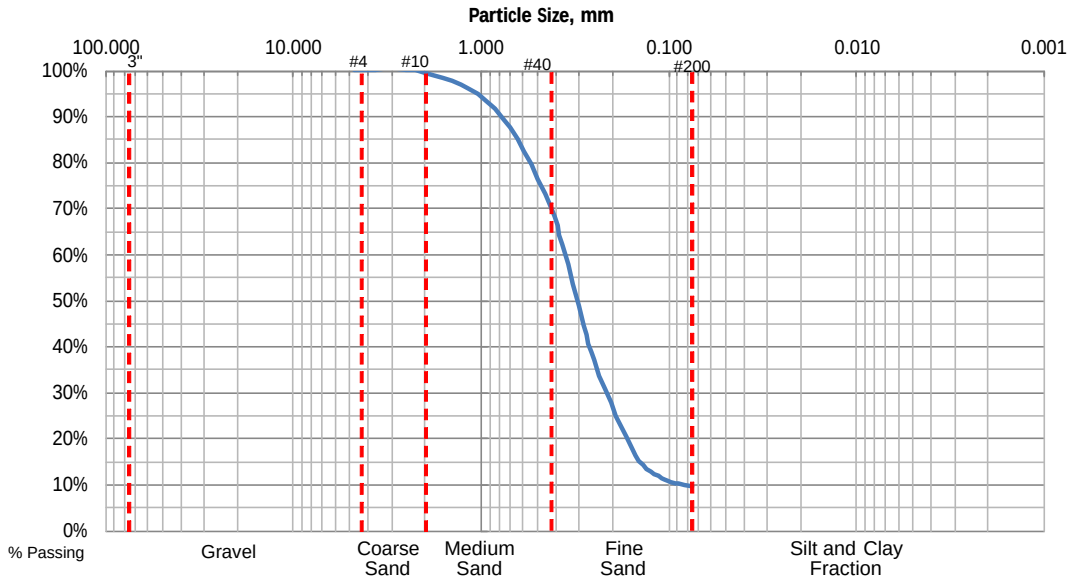
REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-5

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07, SS-21
Page 1 of 1

Sample Identification
B07, SS-21, 40 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	92
No. 40	0.425	70
No. 60	0.25	37
No. 100	0.18	17
No. 140	0.106	11
No. 200	0.075	9.7
Coefficient of curvature, Cc		4.6
Coefficient of uniformity, Cu		1.5
Material		**%**
Gravel		0.0
Total Sand		90.3
Coarse Sand		0.5
Medium Sand		29.5
Fine Sand		60.3
Silt and Clay		9.7

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

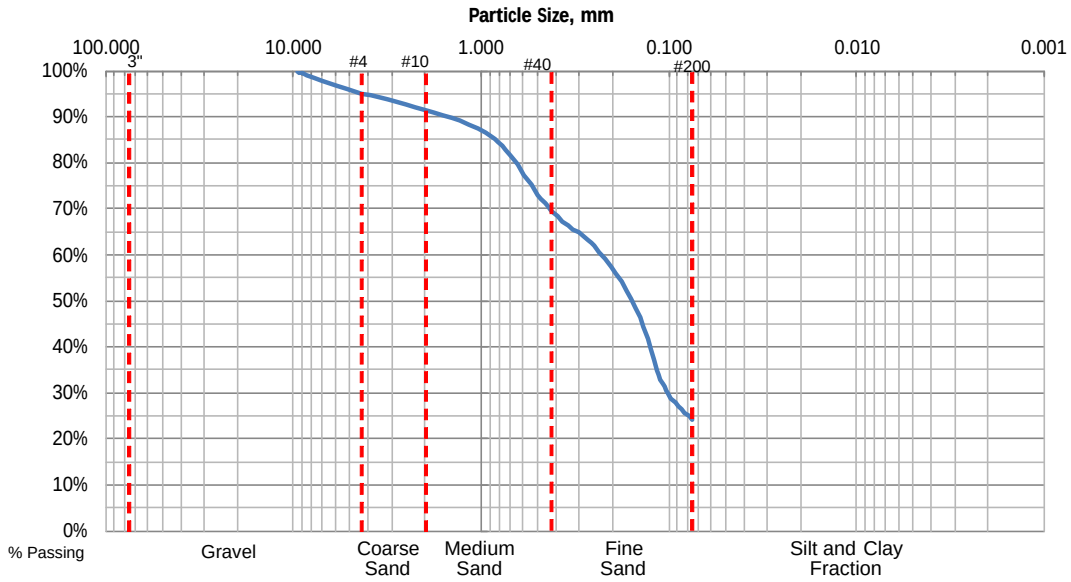
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-22**
Page 1 of 1

Sample Identification
B07, SS-22, 42 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	96
No. 10	2.00	92
No. 20	0.85	85
No. 40	0.425	70
No. 60	0.25	62
No. 100	0.18	49
No. 140	0.106	31
No. 200	0.075	24.0

Material	%
Gravel	4.3
Total Sand	71.7
Coarse Sand	4.0
Medium Sand	22.1
Fine Sand	45.5
Silt and Clay	24.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
35	22	13



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

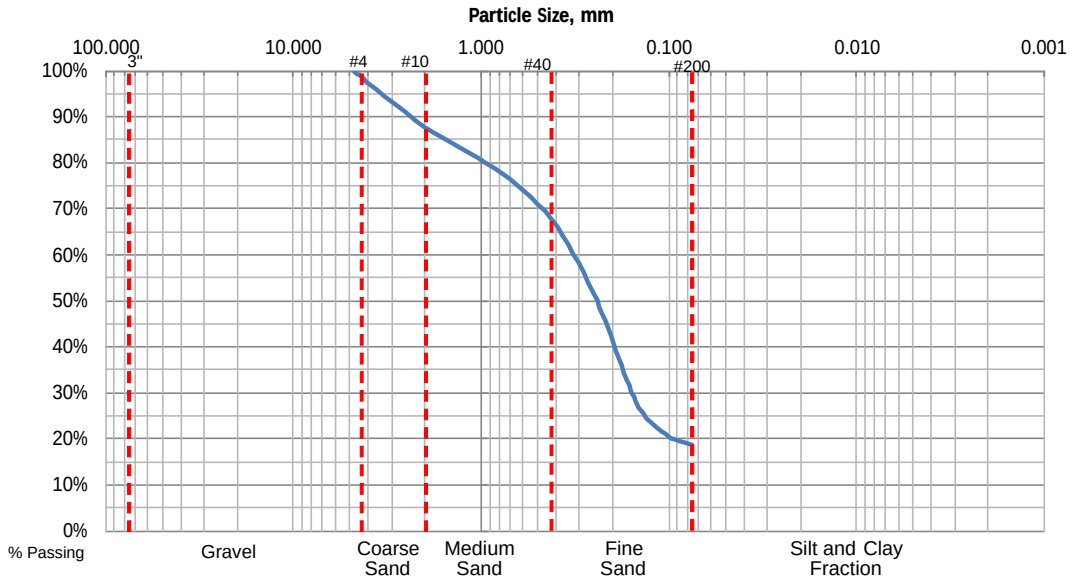
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-23**
Page 1 of 1

Sample Identification
B07, SS-23, 44 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	88
No. 20	0.85	79
No. 40	0.425	68
No. 60	0.25	51
No. 100	0.18	28
No. 140	0.106	21
No. 200	0.075	18.5

Material	%
Gravel	0.0
Total Sand	81.5
Coarse Sand	12.2
Medium Sand	19.9
Fine Sand	49.4
Silt and Clay	18.5

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
41	12	29



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-7

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B07 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-5

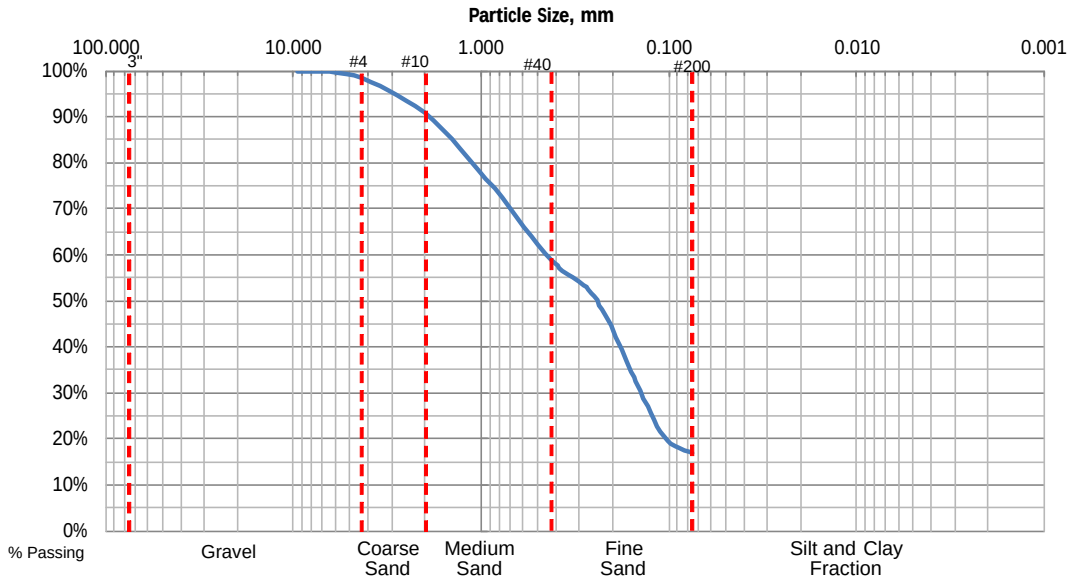
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B07, SS-24
Page 1 of 1

Sample Identification
B07, SS-24, 46 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	99
No. 10	2.00	91
No. 20	0.85	74
No. 40	0.425	59
No. 60	0.25	51
No. 100	0.18	33
No. 140	0.106	21
No. 200	0.075	17.0

Material	%
Gravel	1.1
Total Sand	81.9
Coarse Sand	8.1
Medium Sand	31.9
Fine Sand	41.9
Silt and Clay	17.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
33	13	20



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B07**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-5**

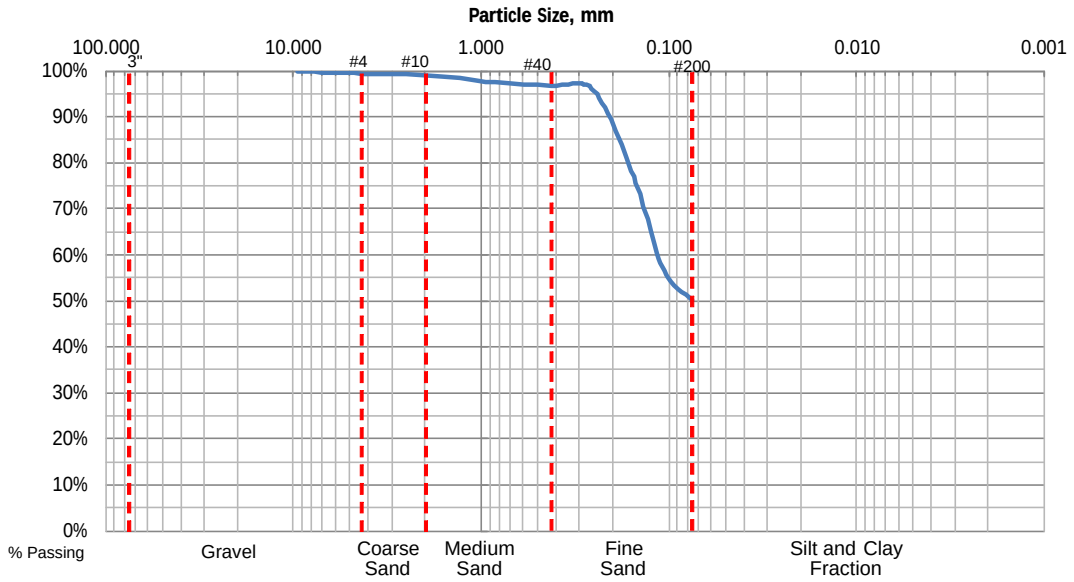
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B07, SS-25**
Page 1 of 1

Sample Identification
B07, SS-25, 48 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	100
No. 10	2.00	99
No. 20	0.85	98
No. 40	0.425	97
No. 60	0.25	96
No. 100	0.18	76
No. 140	0.106	56
No. 200	0.075	50.2

Material	%
Gravel	0.4
Total Sand	49.4
Coarse Sand	0.5
Medium Sand	2.3
Fine Sand	46.6
Silt and Clay	50.2

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
51	18	33



Classification	
ASTM	Sandy Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

Form No: TR-D2216-T265-2
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s):	5/4 - 5/5/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Sample by:	Soil Consultants, Inc.	Sample Date(s):	3/6/23
Sampling Method:	Split Spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 20977 Calibration Date: 3/2/23 Oven ID. 1454 Calibration Date: 9/1/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture
		ft.		grams	grams	grams	grams	%
B08	SS-1	0-2	20	6.77	187.97	165.49	22.48	14.2%
B08	SS-3	4-6	7-33	6.68	212.73	181.39	31.34	17.9%
B08	SS-5	8-10	9	6.85	189.44	133.56	55.88	44.1%
B08	SS-6	13.5-15	296	6.88	164.62	103.96	60.66	62.5%
B08	SS-7	18.5-20	2	6.80	140.36	75.41	64.95	94.7%
B08	SS-8	23.5-25	12	6.89	143.51	89.29	54.22	65.8%
B08	SS-9	28.5-30	75	6.99	170.31	119.51	50.80	45.1%
B08	SS-10	33.5-35	37	6.87	176.93	107.64	69.29	68.8%
B08	SS-11	38.5-40	72	6.89	179.08	116.67	62.41	56.9%
B08	SS-12	43.5-45	21	6.88	176.11	127.07	49.04	40.8%
B08	SS-13	48.5-50	284	6.95	143.27	95.13	48.14	54.6%
B08	SS-20	83.5-85	24	6.98	183.16	141.33	41.83	31.1%

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

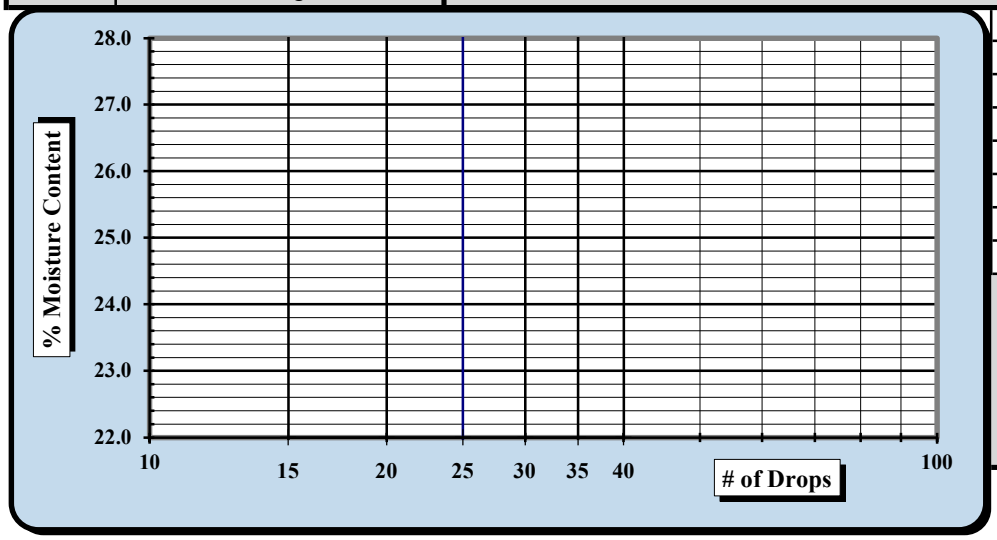
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-1		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 0-2	
Sample Description:		Brown Poorly Graded SAND with Silt (SP-SM) A-2-4			

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	51								
A	Tare Weight	14.03								
B	Wet Soil Weight + A	23.86								
C	Dry Soil Weight + A	22.25								
D	Water Weight (B-C)	1.61								
E	Dry Soil Weight (C-A)	8.22								
F	% Moisture (D/E)*100	19.6%								
N	# OF DROPS	6						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**N.P.**
Plastic Index	**N.P.**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 25.8%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

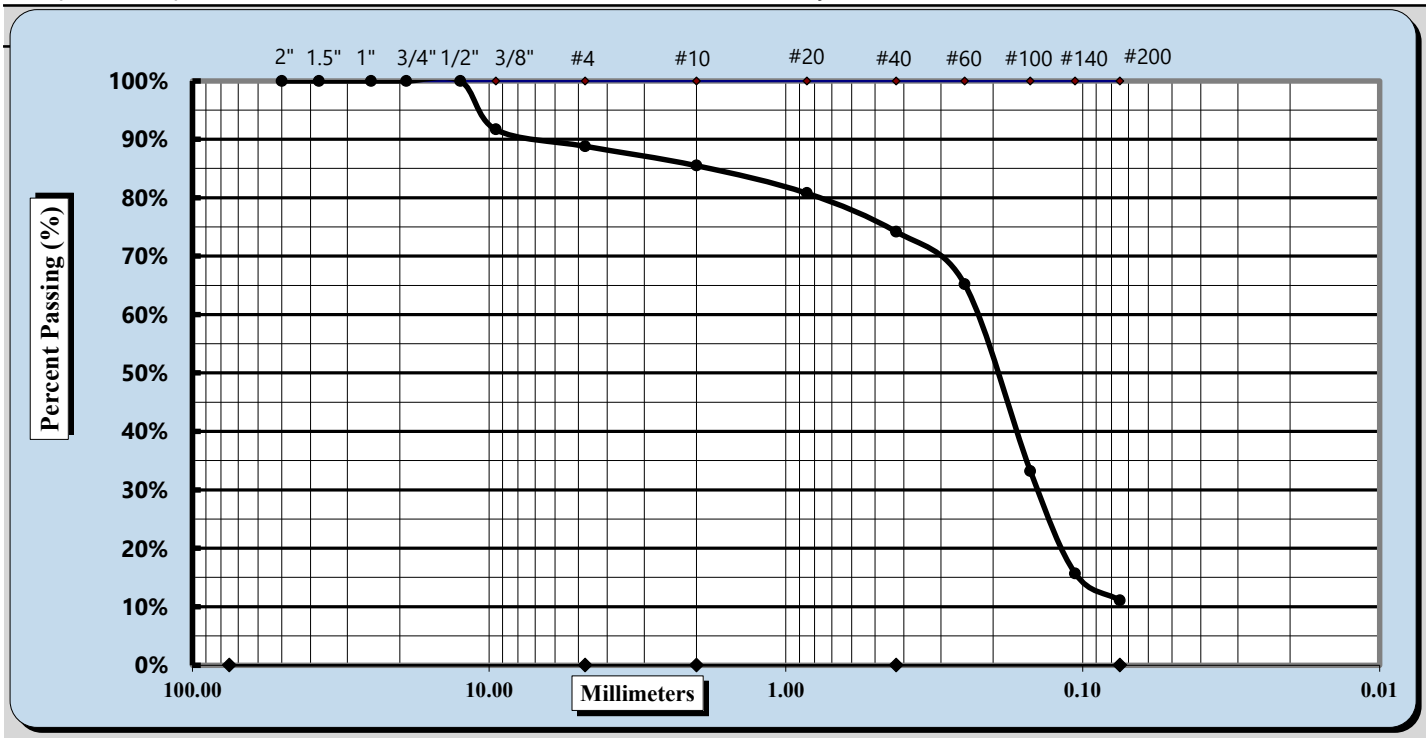
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A			Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange			Lab Report #:	1
Client Name:	CDM Smith			Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201				
Received By:	Lab Tech	Sampled by:	S&ME, Inc.	Date Sampled:	3/6/2023
Location:	Site-Borehole	Boring #:	B08	Sample #:	SS-1
Log/Sample Id.	143	Type:	SS	Elev/Depth (ft):	0-2
Sample Description:		Brown Poorly Graded SAND with Silt (SP-SM)			A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	1/2"	Coarse Sand	3.3%	Fine Sand	63.1%
Gravel	11.2%	Medium Sand	11.3%	Silt & Clay	11.1%
Liquid Limit	*ND	Plastic Limit	N.P.	Plastic Index	N.P.
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	14.2%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

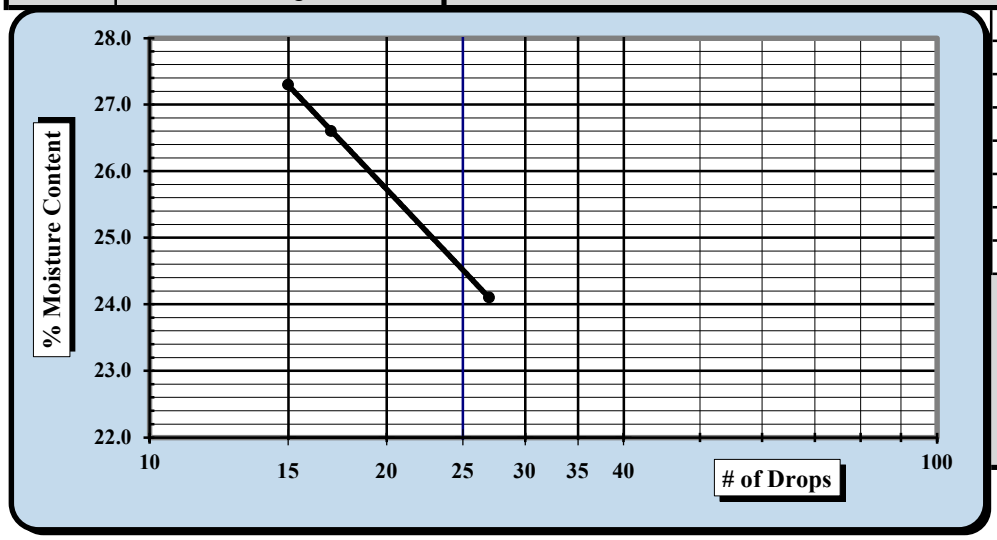
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-3		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 4-6	
Sample Description:			Brown Silty Clayey Sand (SC-SM)		A-2-4

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	66	17	32				74	79	
A	Tare Weight	13.98	12.34	12.14				14.07	13.98	
B	Wet Soil Weight + A	24.48	22.94	21.61				21.72	21.01	
C	Dry Soil Weight + A	22.44	20.67	19.62				20.43	19.81	
D	Water Weight (B-C)	2.04	2.27	1.99				1.29	1.20	
E	Dry Soil Weight (C-A)	8.46	8.33	7.48				6.36	5.83	
F	% Moisture (D/E)*100	24.1%	27.3%	26.6%				20.3%	20.6%	
N	# OF DROPS	27	15	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**20.5%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**25**
Plastic Limit	**21**
Plastic Index	**4**
Group Symbol	**CL-ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 9.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

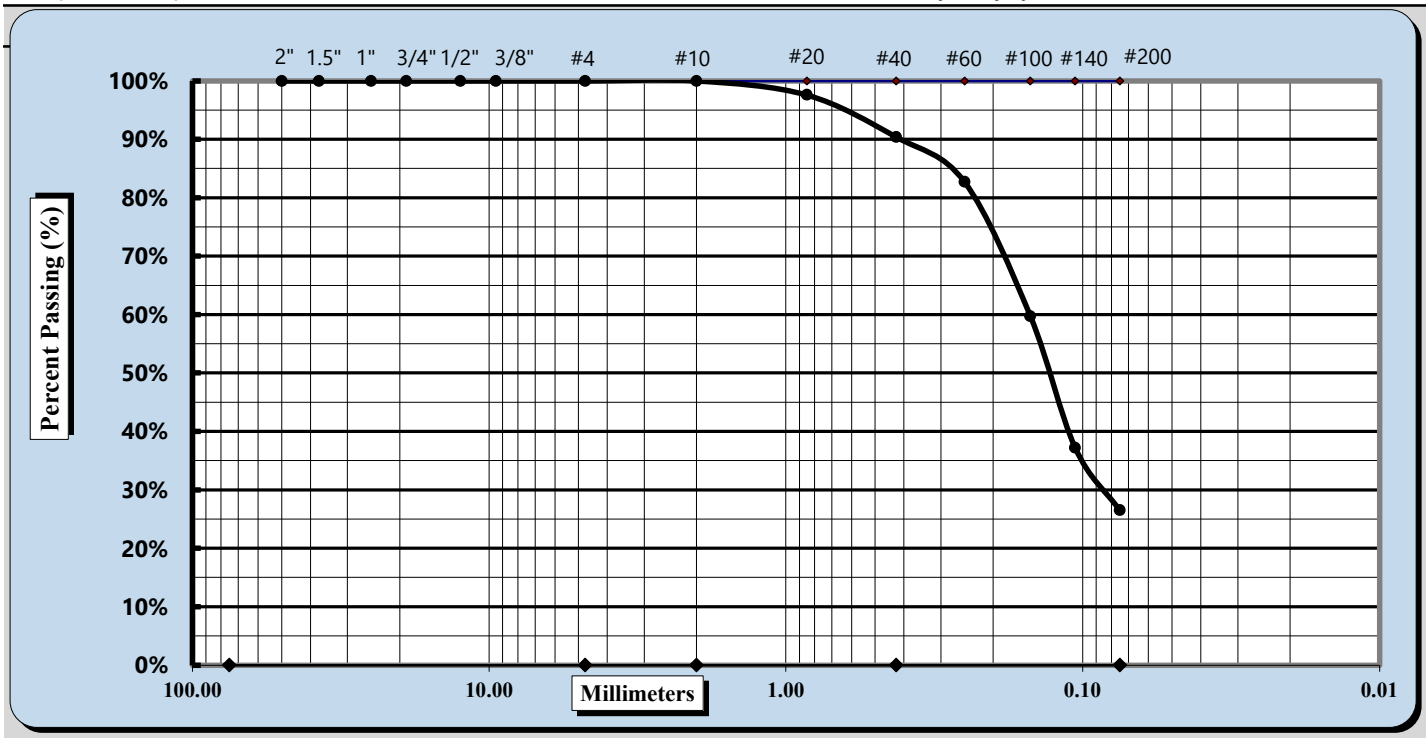
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/6/2023
Location:	Site-Borehole	Boring #: B08	Sample #: SS-3
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 4-6
Sample Description:	Brown Silty Clayey Sand (SC-SM)		A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.0%	Fine Sand	63.9%
Gravel	0.0%	Medium Sand	9.6%	Silt & Clay	26.5%
Liquid Limit	25	Plastic Limit	21	Plastic Index	4
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	17.9%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

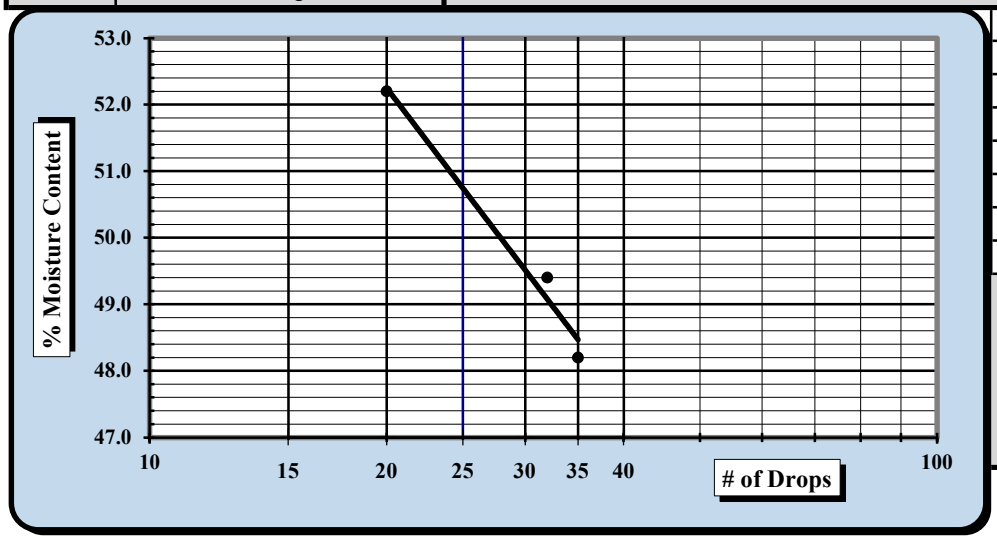
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-5		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 8-10	
Sample Description:				Gray-Brown CLAY (CH) A-7-6 (32)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	93	83	90				84	2	
A	Tare Weight	13.93	13.95	14.04				14.01	12.22	
B	Wet Soil Weight + A	24.85	22.60	24.51				21.01	19.37	
C	Dry Soil Weight + A	21.30	19.74	20.92				20.02	18.37	
D	Water Weight (B-C)	3.55	2.86	3.59				0.99	1.00	
E	Dry Soil Weight (C-A)	7.37	5.79	6.88				6.01	6.15	
F	% Moisture (D/E)*100	48.2%	49.4%	52.2%				16.5%	16.3%	
N	# OF DROPS	35	32	20				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**16.4%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**51**
Plastic Limit	**16**
Plastic Index	**35**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 0.9%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

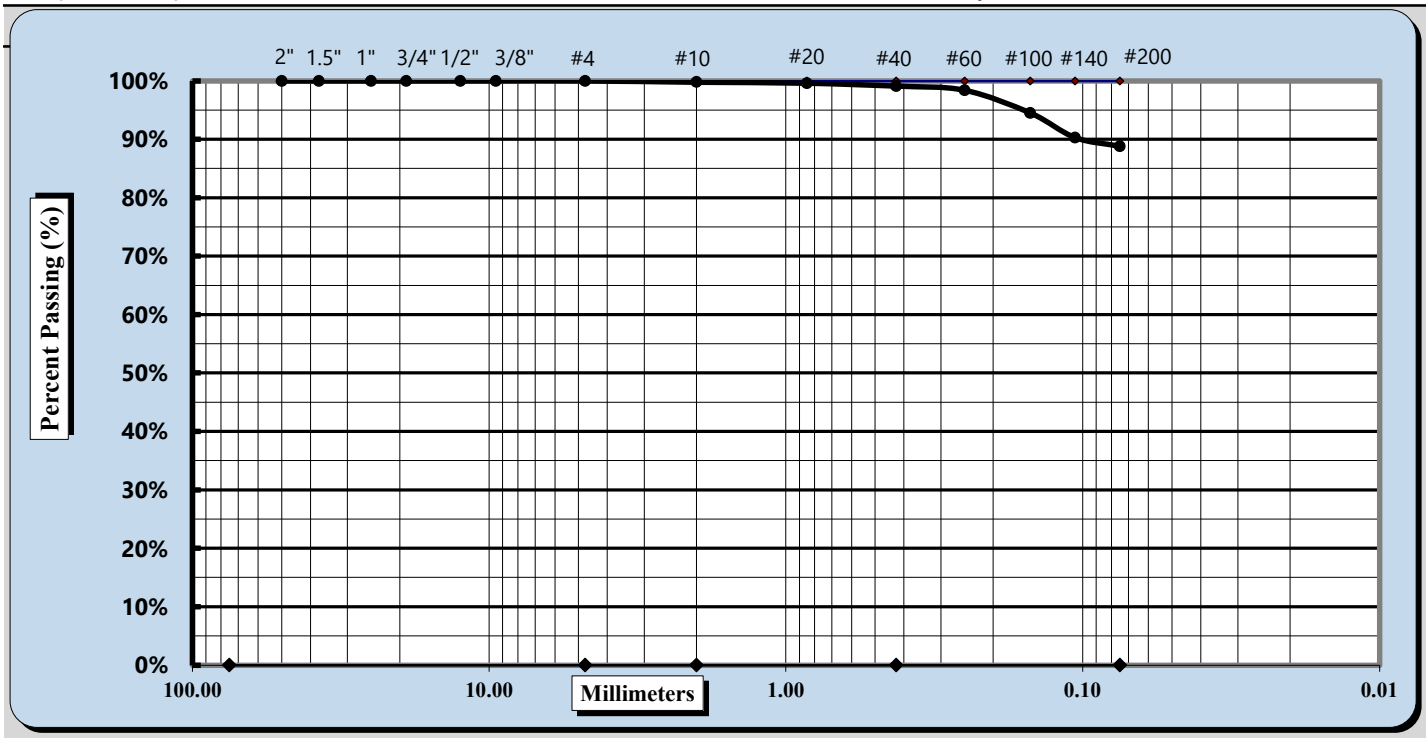
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A			Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange			Lab Report #:	1
Client Name:	CDM Smith			Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201				
Received By:	Lab Tech	Sampled by:	S&ME, Inc.	Date Sampled:	3/6/2023
Location:	Site-Borehole	Boring #:	B08	Sample #:	SS-5
Log/Sample Id.	143	Type:	SS	Elev/Depth (ft):	8-10
Sample Description:				Gray-Brown CLAY (CH)	A-7-6 (32)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.2%	Fine Sand	10.3%
Gravel	0.0%	Medium Sand	0.7%	Silt & Clay	88.8%
Liquid Limit	51	Plastic Limit	16	Plastic Index	35
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	44.3%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

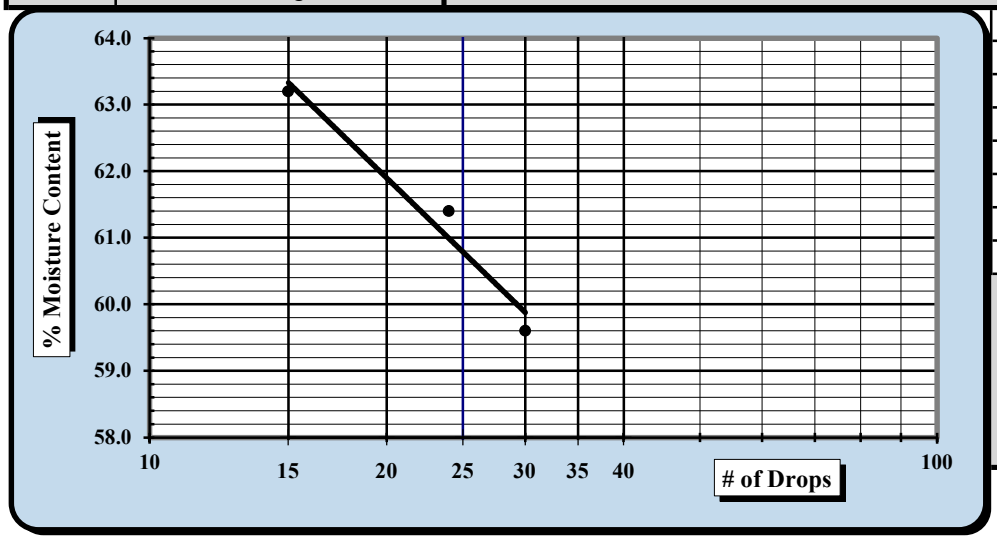
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-6		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 13.5-15	
Sample Description:			Dark Gray CLAY with Sand (CH)	A-7-6	(27)

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	4	B-4	65				58	54	
A	Tare Weight	12.14	21.26	13.90				13.98	13.96	
B	Wet Soil Weight + A	21.11	29.34	22.00				20.36	21.12	
C	Dry Soil Weight + A	17.76	26.21	18.92				19.24	19.85	
D	Water Weight (B-C)	3.35	3.13	3.08				1.12	1.27	
E	Dry Soil Weight (C-A)	5.62	4.95	5.02				5.26	5.89	
F	% Moisture (D/E)*100	59.6%	63.2%	61.4%				21.3%	21.6%	
N	# OF DROPS	30	15	24				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**21.5%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**61**
Plastic Limit	**22**
Plastic Index	**39**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 4.6%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

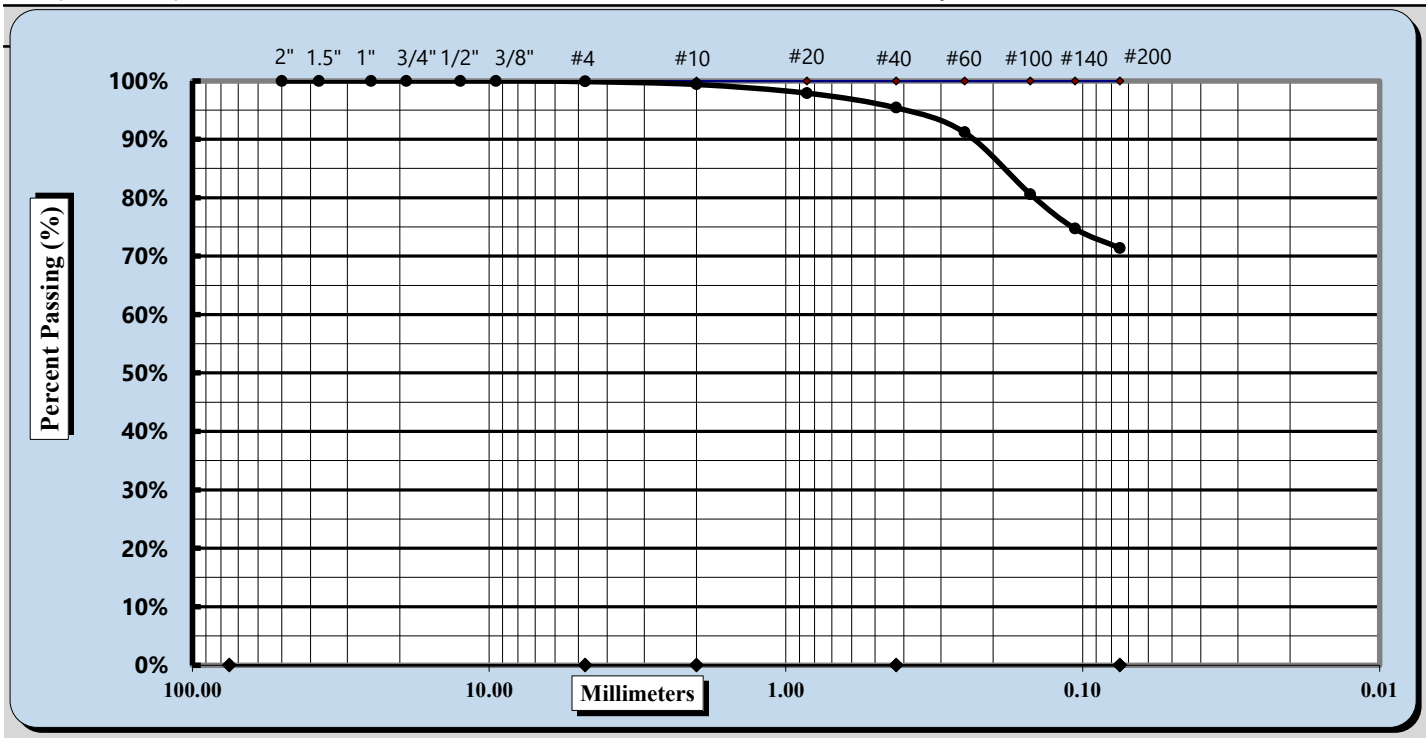
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/6/2023
Location:	Site-Borehole	Boring #: B08	Sample #: SS-6
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 13.5-15
Sample Description:		Dark Gray CLAY with Sand (CH)	A-7-6 (27)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	0.5%	Fine Sand	24.0%
Gravel	0.1%	Medium Sand	4.0%	Silt & Clay	71.4%
Liquid Limit	61	Plastic Limit	22	Plastic Index	39
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	62.5%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

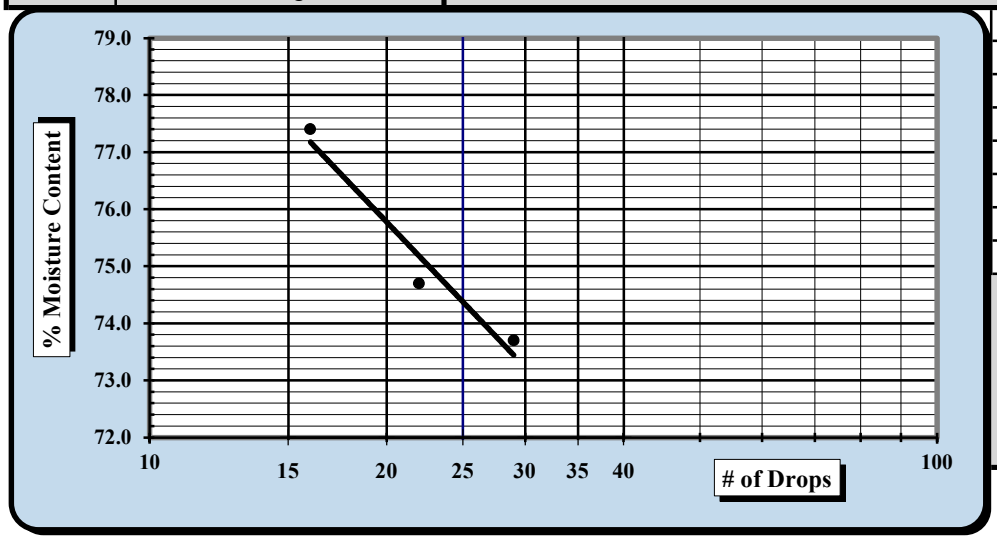
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-7		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 18.5-20	
Sample Description:				Dark Gray CLAY (CH) A-7-6 (49)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	55	39	71				12	44	
A	Tare Weight	13.94	12.29	14.14				12.18	12.28	
B	Wet Soil Weight + A	22.31	20.63	22.96				19.41	18.75	
C	Dry Soil Weight + A	18.76	16.99	19.19				18.00	17.53	
D	Water Weight (B-C)	3.55	3.64	3.77				1.41	1.22	
E	Dry Soil Weight (C-A)	4.82	4.70	5.05				5.82	5.25	
F	% Moisture (D/E)*100	73.7%	77.4%	74.7%				24.2%	23.2%	
N	# OF DROPS	29	16	22				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**23.7%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**74**
Plastic Limit	**24**
Plastic Index	**50**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 2.3%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

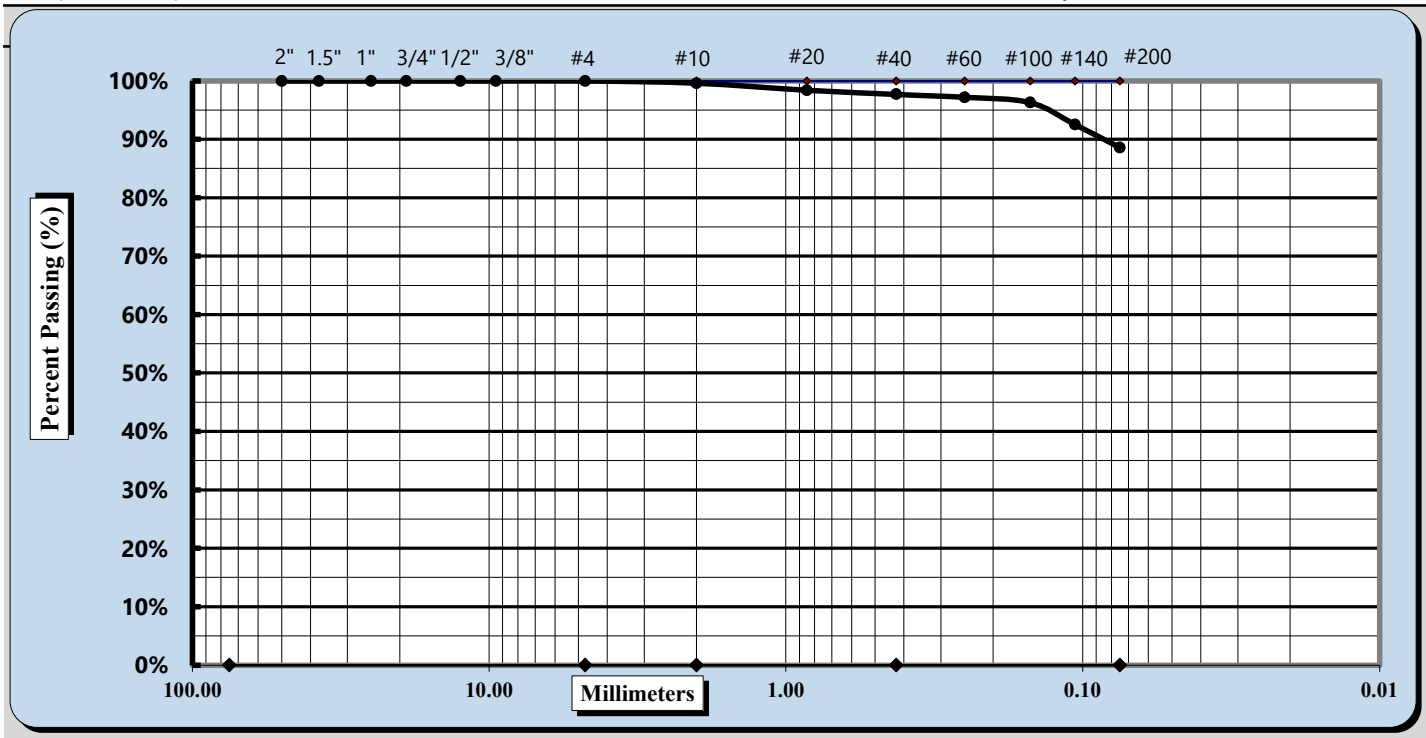
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A			Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange			Lab Report #:	1
Client Name:	CDM Smith			Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201				
Received By:	Lab Tech	Sampled by:	S&ME, Inc.	Date Sampled:	3/6/2023
Location:	Site-Borehole	Boring #:	B08	Sample #:	SS-7
Log/Sample Id.	143	Type:	SS	Elev/Depth (ft):	18.5-20
Sample Description:				Dark Gray CLAY (CH)	A-7-6 (49)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.4%	Fine Sand	9.1%
Gravel	0.0%	Medium Sand	1.9%	Silt & Clay	88.6%
Liquid Limit	74	Plastic Limit	24	Plastic Index	50
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	94.7%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

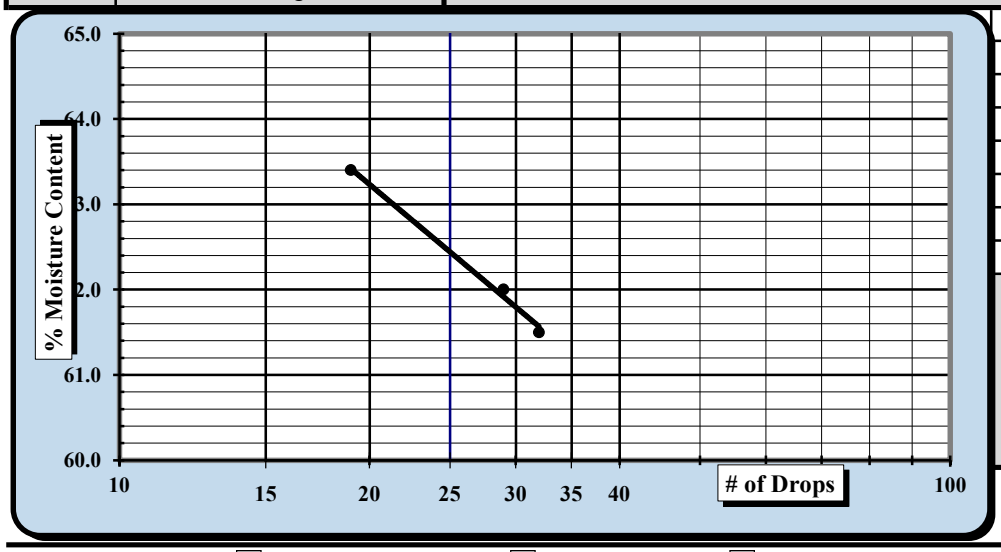
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-8		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 23.5-25	
Sample Description:				Gray-Brown CLAY (CH) A-7-6 (47)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	B-6	56	C-10				C-3	C-2	
A	Tare Weight	21.31	13.96	21.47				21.32	21.15	
B	Wet Soil Weight + A	30.50	23.86	30.51				27.88	27.97	
C	Dry Soil Weight + A	27.00	20.02	27.05				26.93	27.00	
D	Water Weight (B-C)	3.50	3.84	3.46				0.95	0.97	
E	Dry Soil Weight (C-A)	5.69	6.06	5.58				5.61	5.85	
F	% Moisture (D/E)*100	61.5%	63.4%	62.0%				16.9%	16.6%	
N	# OF DROPS	32	19	29				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**16.8%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**62**
Plastic Limit	**17**
Plastic Index	**45**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 1.3%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils 0

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

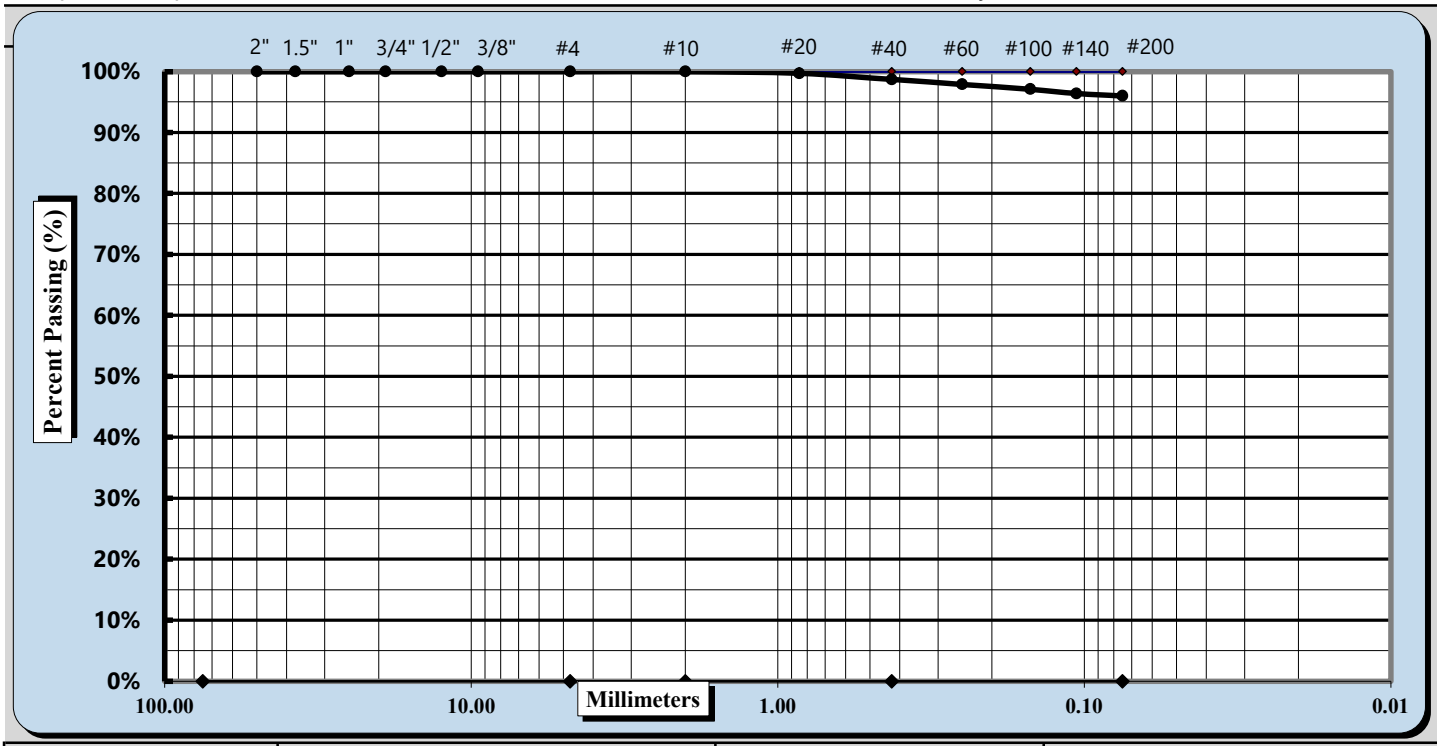
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/6/2023
Location:	Site-Borehole	Boring #: B08	Sample #: SS-8
Log/Sample Id.		Type: SS	Elev/Depth (ft): 23.5-25
Sample Description:		Gray-Brown CLAY (CH)	A-7-6 (47)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.0%	Fine Sand	2.7%
Gravel	0.0%	Medium Sand	1.3%	Silt & Clay	96.0%
Liquid Limit	62	Plastic Limit	17	Plastic Index	45
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	65.8%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

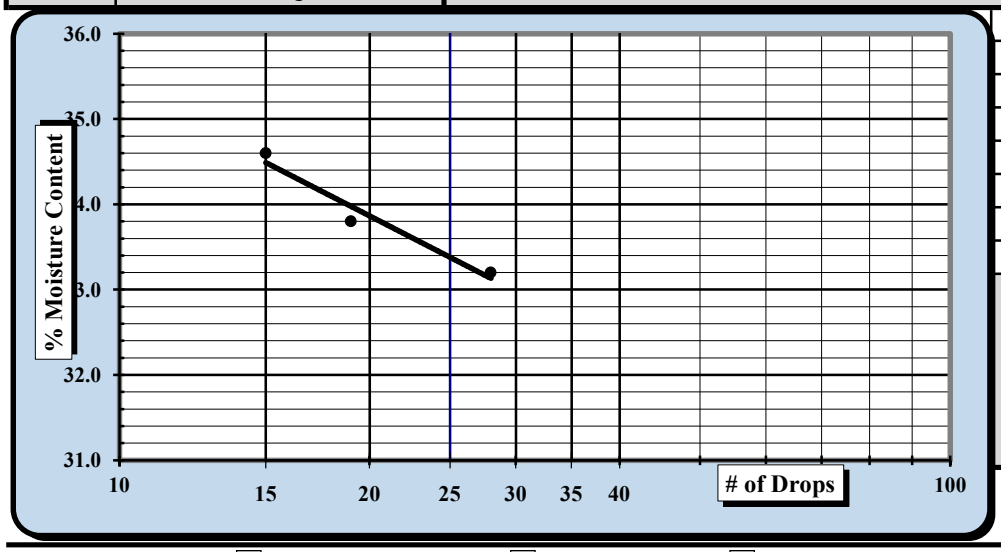
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-9		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 28.5-30	
Sample Description:				Dark Gray Clayey SAND (SC) A-2-6	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	B-2	810	84				A-2	C-2	
A	Tare Weight	21.31	12.45	14.13				21.39	21.31	
B	Wet Soil Weight + A	33.35	21.04	24.02				28.44	29.61	
C	Dry Soil Weight + A	30.35	18.87	21.48				27.37	28.40	
D	Water Weight (B-C)	3.00	2.17	2.54				1.07	1.21	
E	Dry Soil Weight (C-A)	9.04	6.42	7.35				5.98	7.09	
F	% Moisture (D/E)*100	33.2%	33.8%	34.6%				17.9%	17.1%	
N	# OF DROPS	28	19	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**17.5%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**33**
Plastic Limit	**18**
Plastic Index	**15**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 3.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

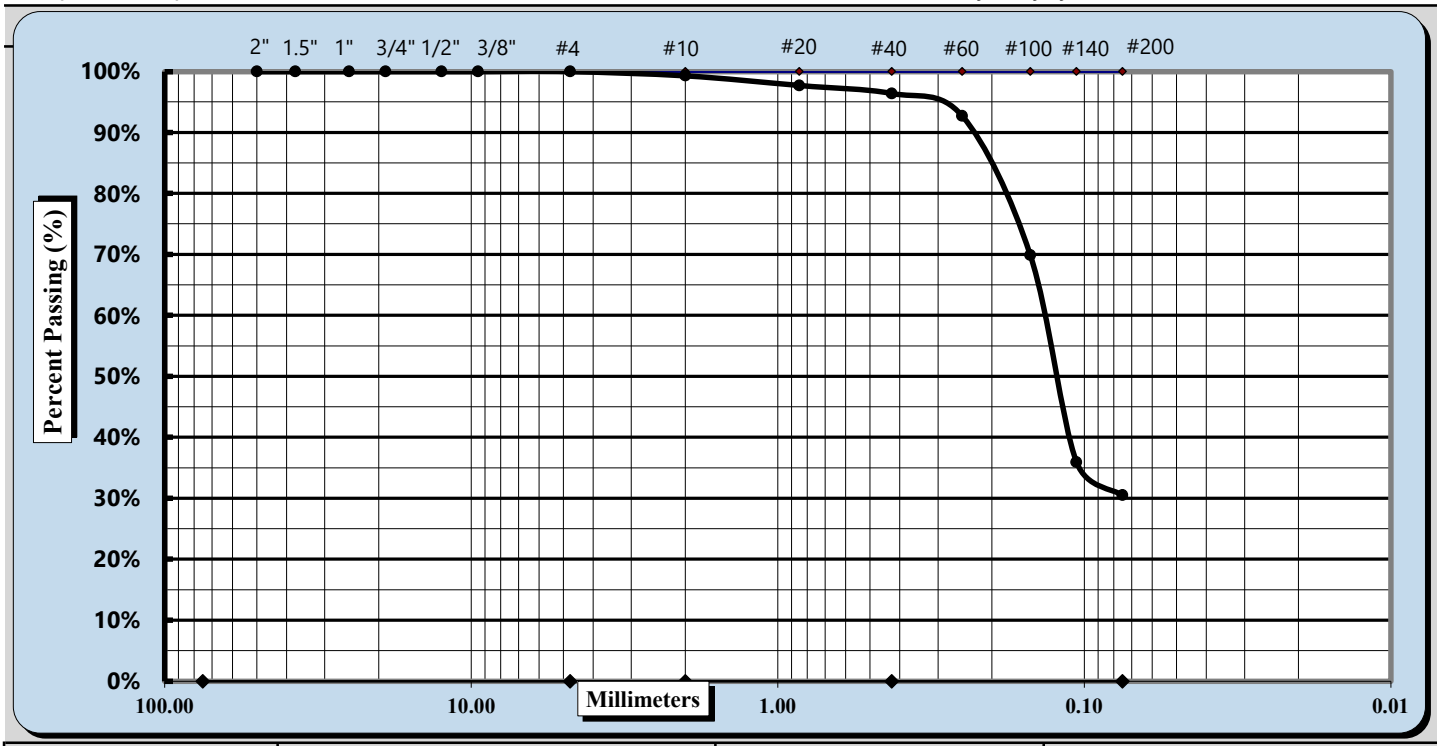
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/6/2023
Location:	Site-Borehole	Boring #: B08	Sample #: SS-9
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 28.5-30
Sample Description:		Dark Gray Clayey SAND (SC)	A-2-6 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.7%	Fine Sand	65.9%
Gravel	0.0%	Medium Sand	2.9%	Silt & Clay	30.5%
Liquid Limit	33	Plastic Limit	18	Plastic Index	15
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	45.1%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

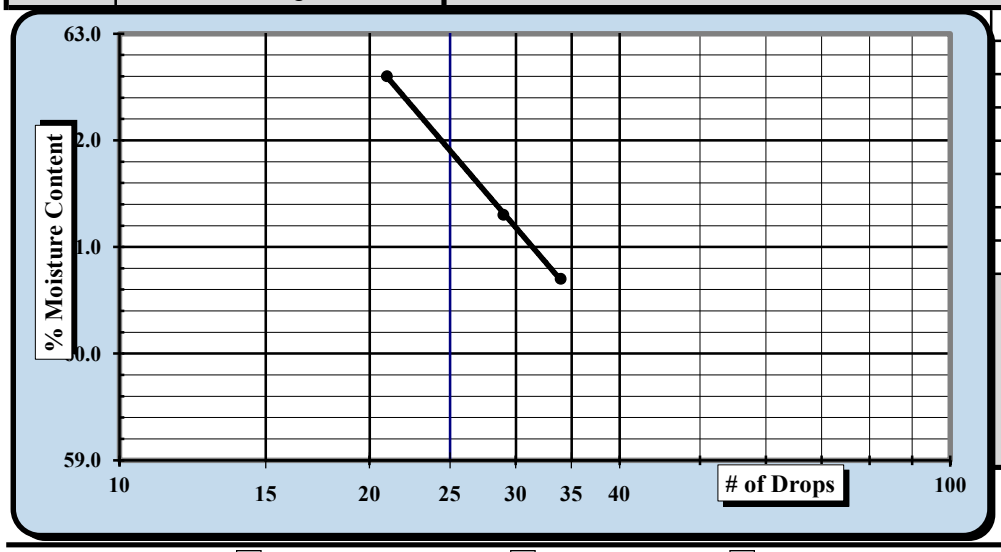
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-10		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 33.5-35	
Sample Description:			Dark Gray CLAY with Sand (CH)	A-7-6	(38)

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	16	24	53				8	41	
A	Tare Weight	20.94	12.15	13.91				13.48	13.48	
B	Wet Soil Weight + A	29.76	20.38	22.33				20.89	20.36	
C	Dry Soil Weight + A	26.43	17.21	19.13				19.83	19.36	
D	Water Weight (B-C)	3.33	3.17	3.20				1.06	1.00	
E	Dry Soil Weight (C-A)	5.49	5.06	5.22				6.35	5.88	
F	% Moisture (D/E)*100	60.7%	62.6%	61.3%				16.7%	17.0%	
N	# OF DROPS	34	21	29				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**16.9%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**62**
Plastic Limit	**17**
Plastic Index	**45**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 2.8%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

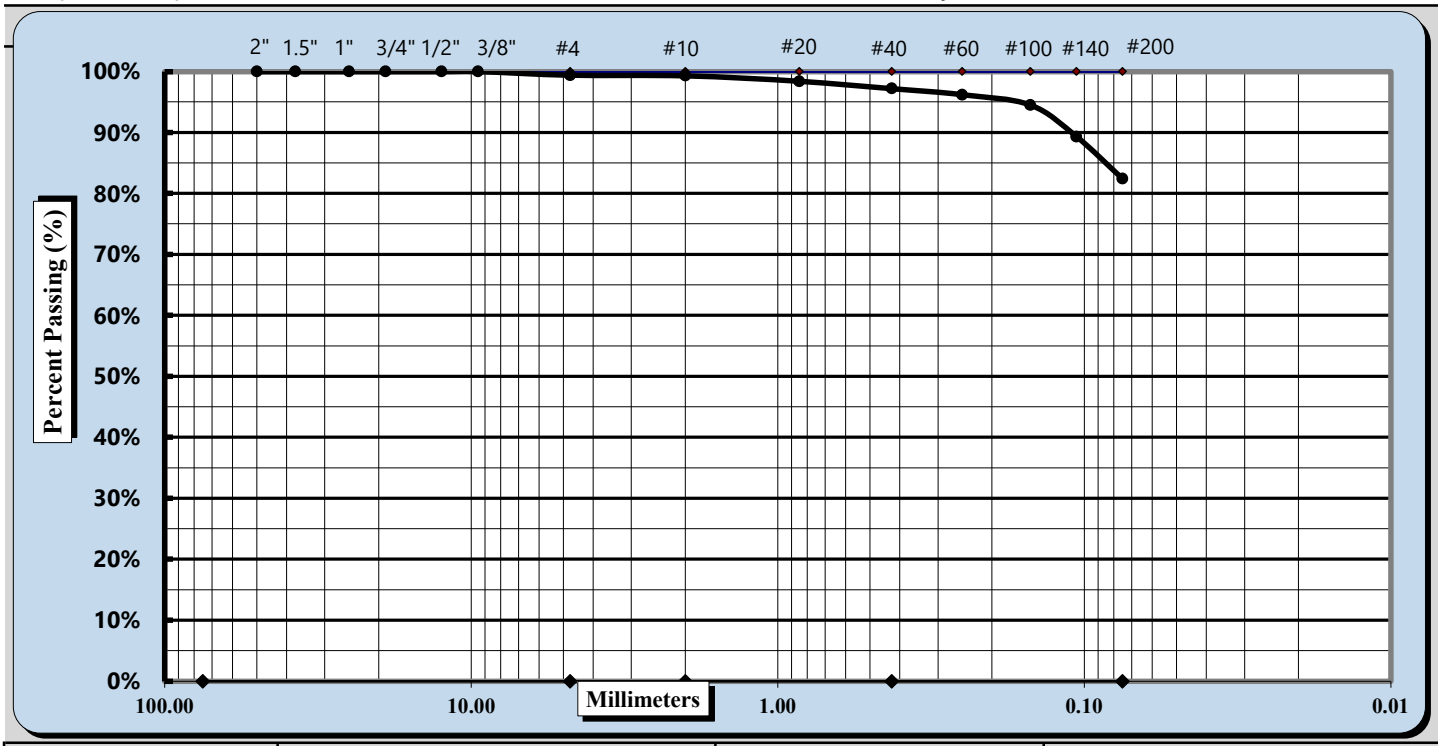
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/6/2023
Location:	Site-Borehole	Boring #: B08	Sample #: SS-10
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 33.5-35
Sample Description:		Dark Gray CLAY with Sand (CH)	A-7-6 (38)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	0.1%	Fine Sand	14.8%
Gravel	0.6%	Medium Sand	2.1%	Silt & Clay	82.4%
Liquid Limit	62	Plastic Limit	17	Plastic Index	45
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	68.8%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

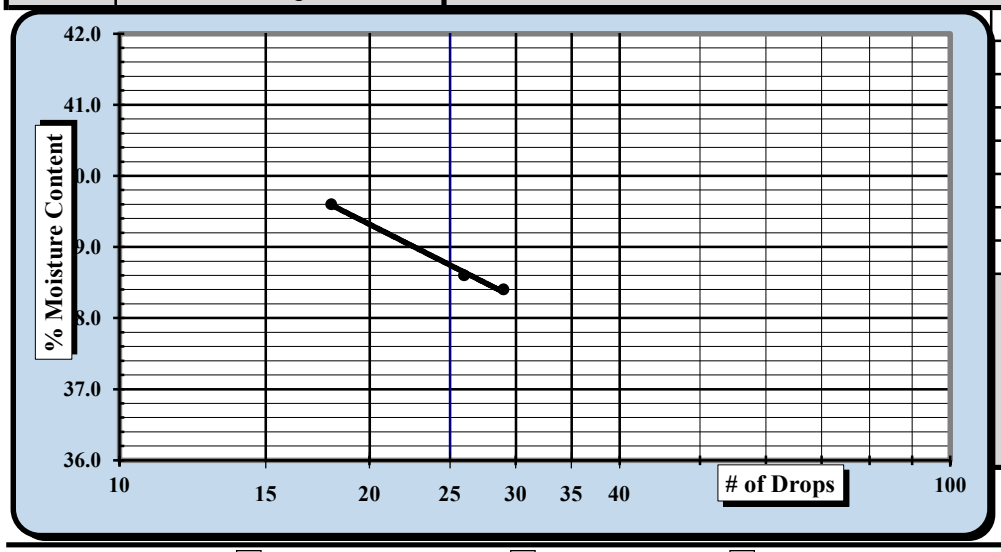
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-11		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 38.5-40	
Sample Description:			Dark Gray Clayey SAND (SC)		A-6 (6)

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	40	33	9				52	15	
A	Tare Weight	12.31	12.32	12.30				14.06	12.27	
B	Wet Soil Weight + A	20.78	20.40	22.28				22.83	18.36	
C	Dry Soil Weight + A	18.43	18.11	19.50				21.53	17.50	
D	Water Weight (B-C)	2.35	2.29	2.78				1.30	0.86	
E	Dry Soil Weight (C-A)	6.12	5.79	7.20				7.47	5.23	
F	% Moisture (D/E)*100	38.4%	39.6%	38.6%				17.4%	16.4%	
N	# OF DROPS	29	18	26				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**16.9%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**39**
Plastic Limit	**17**
Plastic Index	**22**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 2.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

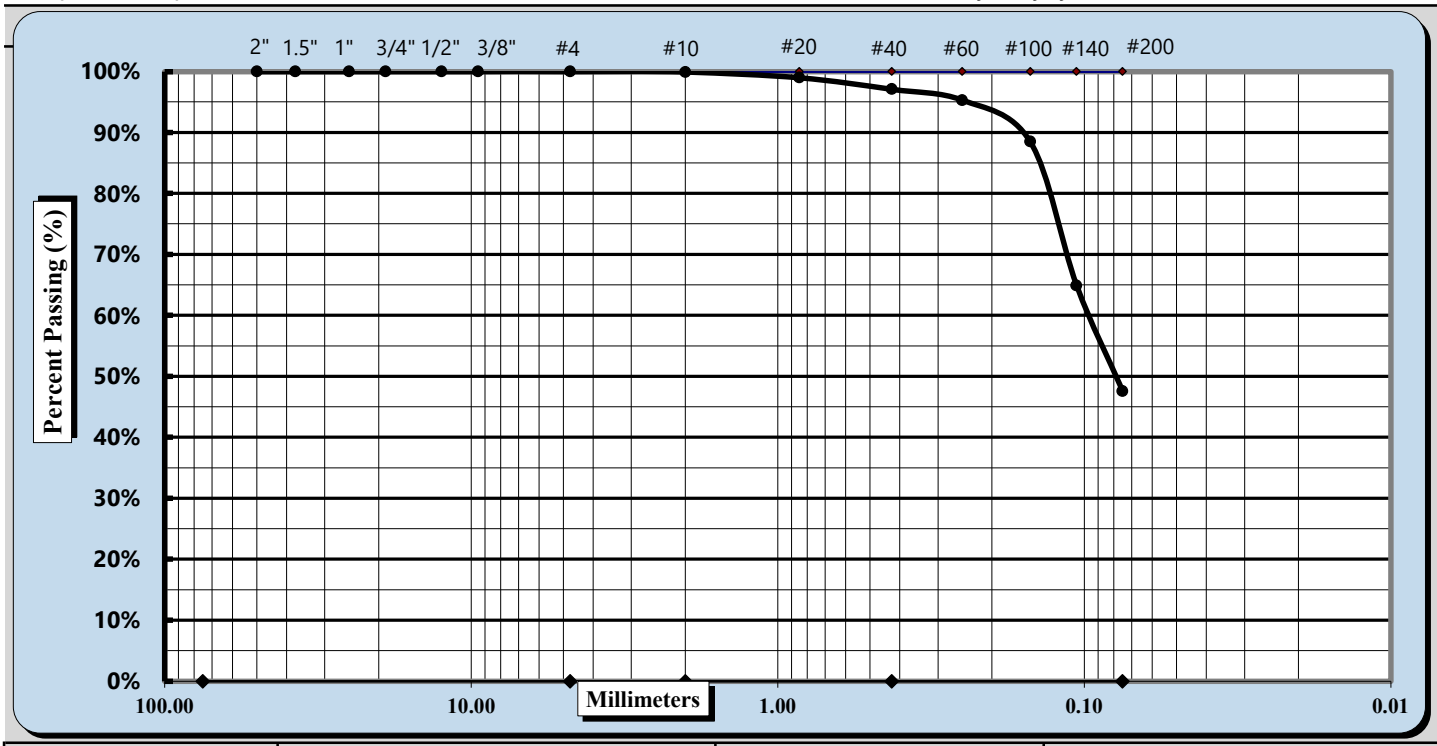
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/6/2023
Location:	Site-Borehole	Boring #: B08	Sample #: SS-11
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 38.5-40
Sample Description:		Dark Gray Clayey SAND (SC)	A-6 (6)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.1%	Fine Sand	49.5%
Gravel	0.0%	Medium Sand	2.8%	Silt & Clay	47.6%
Liquid Limit	39	Plastic Limit	17	Plastic Index	22
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	56.9%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

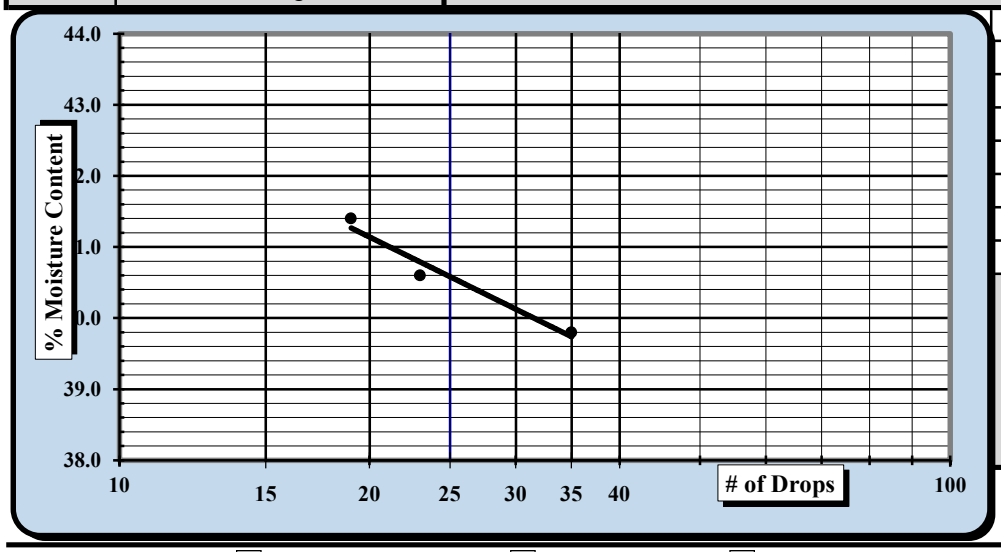
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-12		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 43.5-45	
Sample Description:			Dark Gray Clayey SAND (SC)	A-2-7	(3)

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	69	22	18				64	60	
A	Tare Weight	14.12	12.35	12.33				14.15	14.07	
B	Wet Soil Weight + A	23.47	20.60	21.51				21.25	20.22	
C	Dry Soil Weight + A	20.77	18.25	18.82				20.15	19.24	
D	Water Weight (B-C)	2.70	2.35	2.69				1.10	0.98	
E	Dry Soil Weight (C-A)	6.65	5.90	6.49				6.00	5.17	
F	% Moisture (D/E)*100	40.6%	39.8%	41.4%				18.3%	19.0%	
N	# OF DROPS	23	35	19				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**18.7%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**41**
Plastic Limit	**19**
Plastic Index	**22**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 24.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

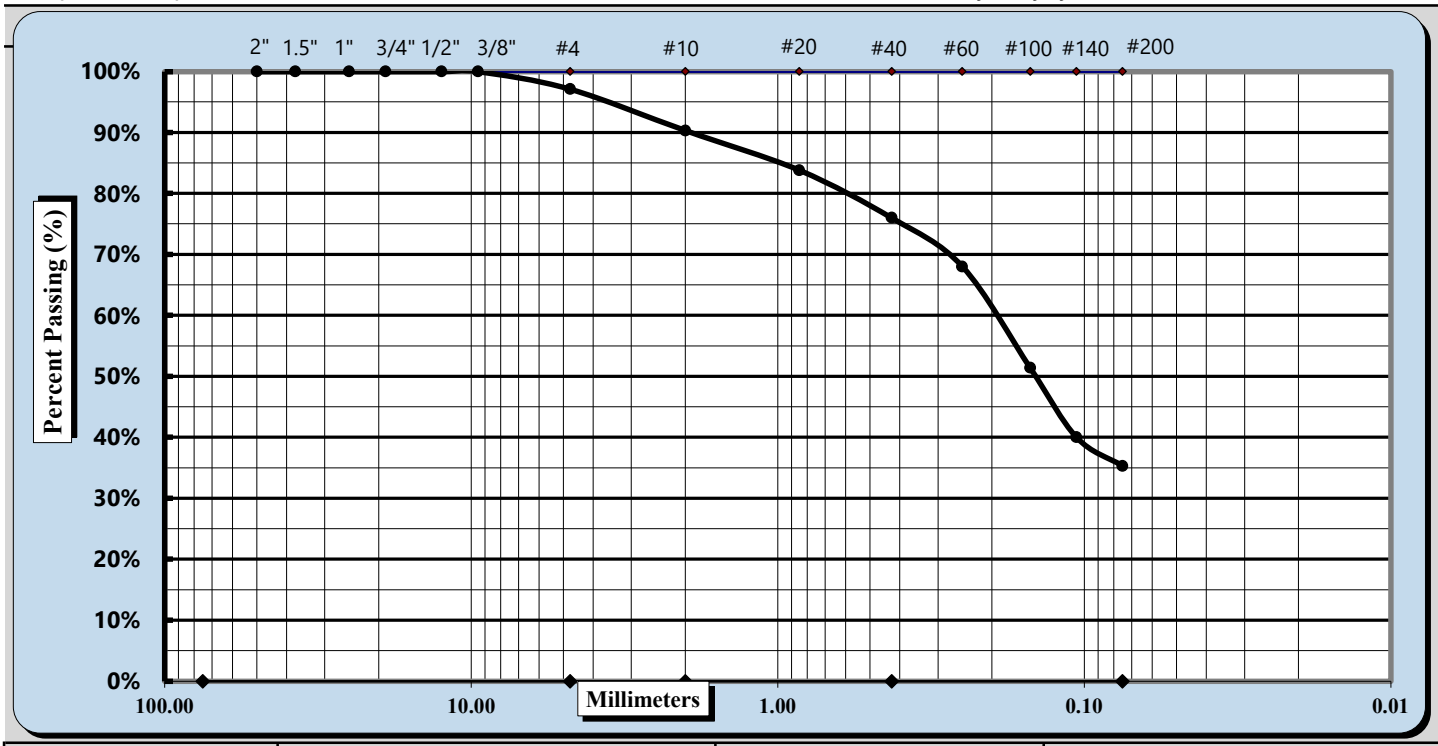
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/6/2023
Location:	Site-Borehole	Boring #: B08	Sample #: SS-12
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 43.5-45
Sample Description:		Dark Gray Clayey SAND (SC)	A-2-7 (3)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	6.8%	Fine Sand	40.7%
Gravel	2.9%	Medium Sand	14.3%	Silt & Clay	35.3%
Liquid Limit	41	Plastic Limit	19	Plastic Index	22
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	40.8%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

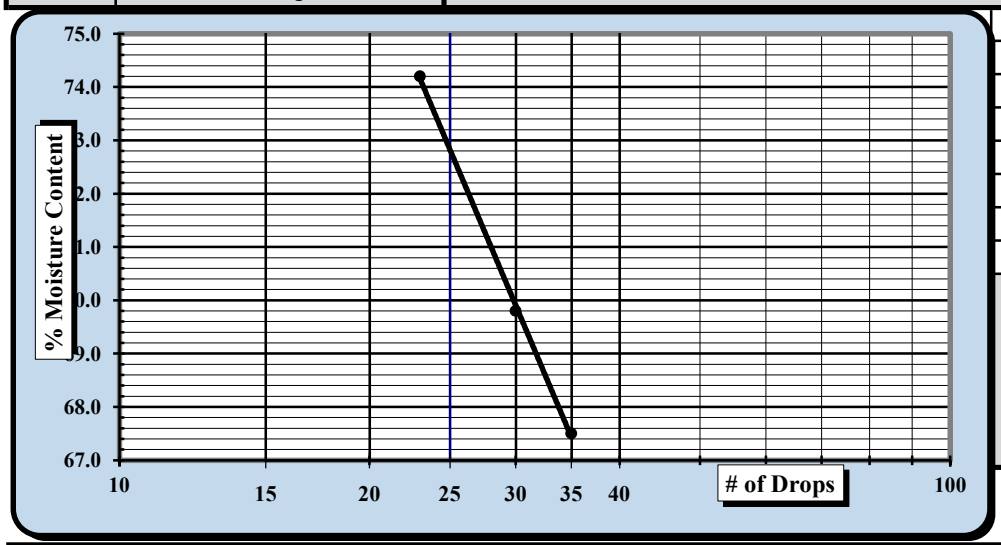
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-13		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 48.5-50	
Sample Description:				Brown CLAY (CH) A-7-6 (45)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	16	70	47				81	46	
A	Tare Weight	12.27	14.10	12.29				14.09	12.28	
B	Wet Soil Weight + A	20.61	22.59	20.65				20.16	19.64	
C	Dry Soil Weight + A	17.25	19.10	17.09				18.91	18.15	
D	Water Weight (B-C)	3.36	3.49	3.56				1.25	1.49	
E	Dry Soil Weight (C-A)	4.98	5.00	4.80				4.82	5.87	
F	% Moisture (D/E)*100	67.5%	69.8%	74.2%				25.9%	25.4%	
N	# OF DROPS	35	30	23				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**25.7%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**73**
Plastic Limit	**26**
Plastic Index	**47**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 0.9%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

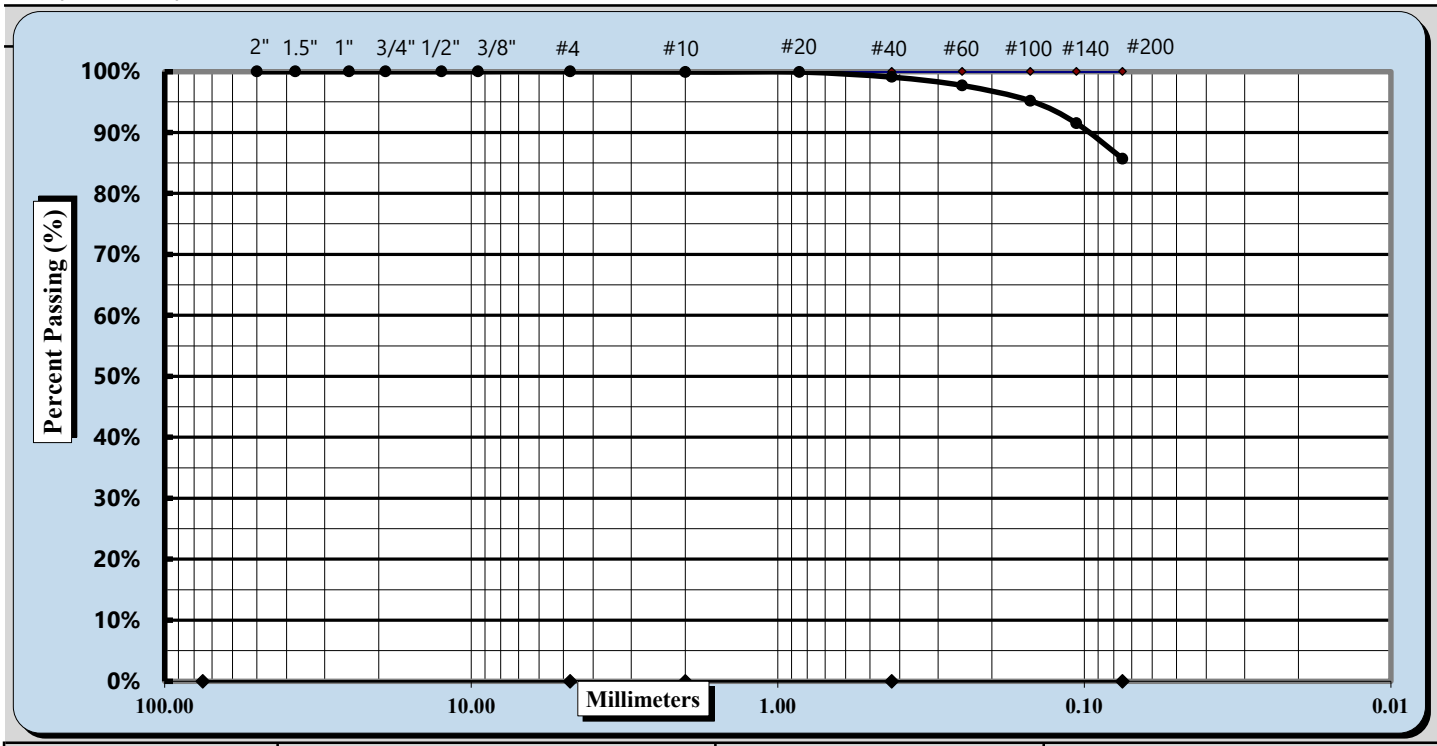
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/6/2023
Location:	Site-Borehole	Boring #: B08	Sample #: SS-13
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 48.5-50
Sample Description:			Brown CLAY (CH) A-7-6 (45)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.1%	Fine Sand	13.4%
Gravel	0.0%	Medium Sand	0.8%	Silt & Clay	85.7%
Liquid Limit	73	Plastic Limit	26	Plastic Index	47
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	54.6%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

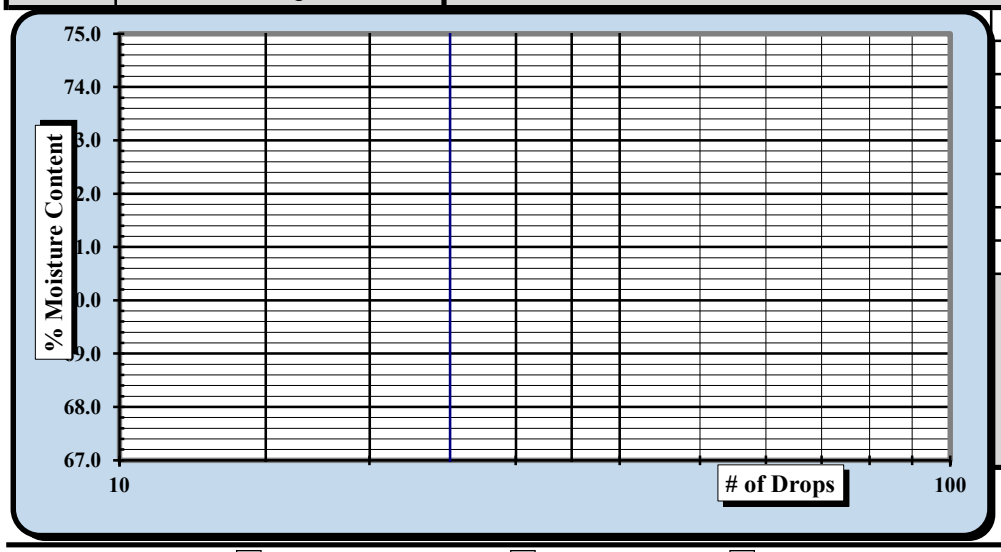
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/8/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B08	Sample #: SS-20		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 83.5-85	
Sample Description:				Brown Silty SAND (SM) A-2-4	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	43								
A	Tare Weight	12.18								
B	Wet Soil Weight + A	22.52								
C	Dry Soil Weight + A	20.51								
D	Water Weight (B-C)	2.01								
E	Dry Soil Weight (C-A)	8.33								
F	% Moisture (D/E)*100	24.1%								
N	# OF DROPS	6						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 6.4%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

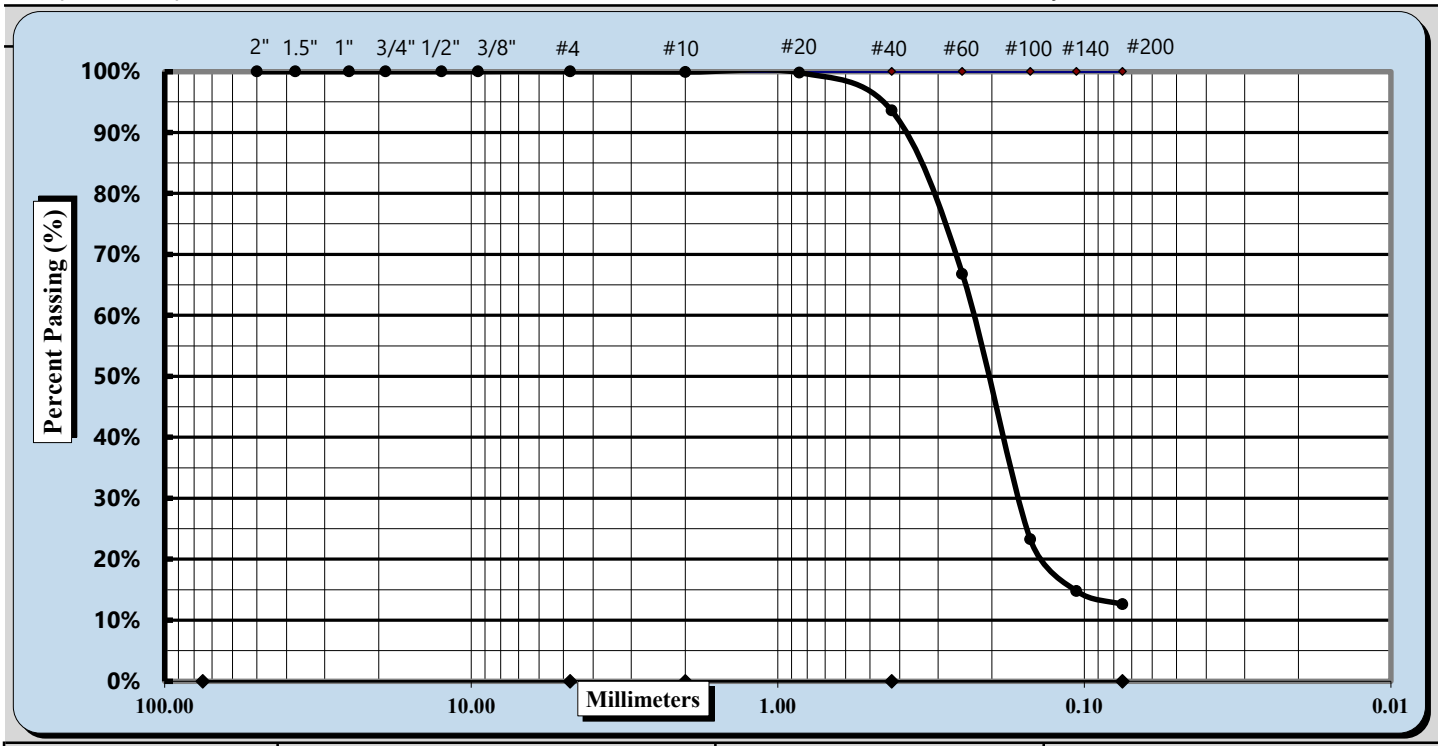
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/10/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/6/2023
Location:	Site-Borehole	Boring #: B08	Sample #: SS-20
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 83.5-85
Sample Description:		Brown Silty SAND (SM)	A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.1%	Fine Sand	81.0%
Gravel	0.0%	Medium Sand	6.3%	Silt & Clay	12.6%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	31.1%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/10/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-2
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s):	5/4 - 5/5/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Sample by:	Soil Consultants, Inc.	Sample Date(s):	3/9/23
Sampling Method:	Split Spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 20977 Calibration Date: 3/2/23 Oven ID. 1454 Calibration Date: 9/1/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture
		ft.		grams	grams	grams	grams	%
B09	SS-2	2-4		6.84	194.45	167.57	26.88	16.7%
B09	SS-5	8-10		7.02	180.41	154.84	25.57	17.3%
B09	SS-6	13.5-15		7.01	190.74	157.06	33.68	22.4%
B09	SS-8	23.5-25		6.77	187.00	130.42	56.58	45.8%
B09	SS-9	28.5-30		6.97	183.43	141.27	42.16	31.4%
B09	SS-10	33.5-35		6.85	171.65	104.13	67.52	69.4%
B09	SS-11	38.5-40		6.74	181.97	143.51	38.46	28.1%
B09	SS-13	48.5-50		6.87	156.60	96.65	59.95	66.8%
B09	SS-18	73.5-75		7.09	168.13	106.06	62.07	62.7%

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

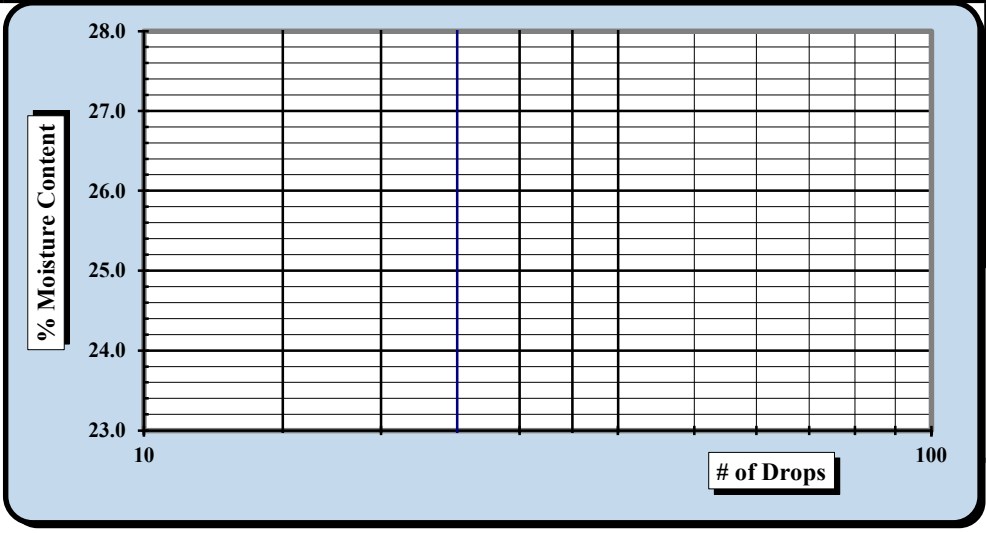
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B09	Sample #: SS-2		Sample Date: 3/9/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 2-4	
Sample Description:		Brown Poorly Graded SAND with Silt (SP-SM) A-2-4 (0)			

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	53								
A	Tare Weight	13.40								
B	Wet Soil Weight + A	34.51								
C	Dry Soil Weight + A	30.67								
D	Water Weight (B-C)	3.84								
E	Dry Soil Weight (C-A)	17.27								
F	% Moisture (D/E)*100	22.2%								
N	# OF DROPS	15						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☐
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 10.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

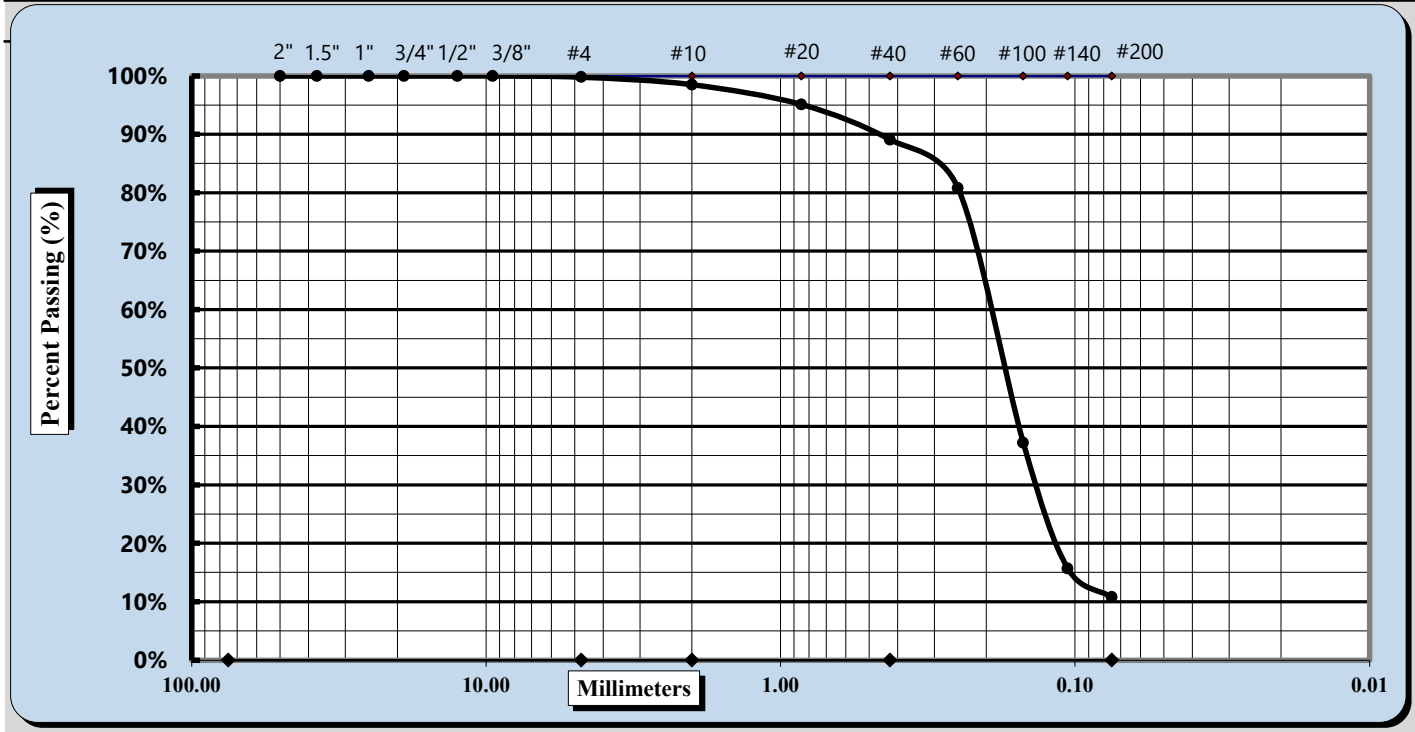
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/9/2023
Location:	Site-Borehole	Boring #: B09	Sample #: SS-2
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 2-4
Sample Description:	Brown Poorly Graded SAND with Silt (SP-SM)		A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	1.3%	Fine Sand	78.3%
Gravel	0.2%	Medium Sand	9.4%	Silt & Clay	10.8%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	16.7%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

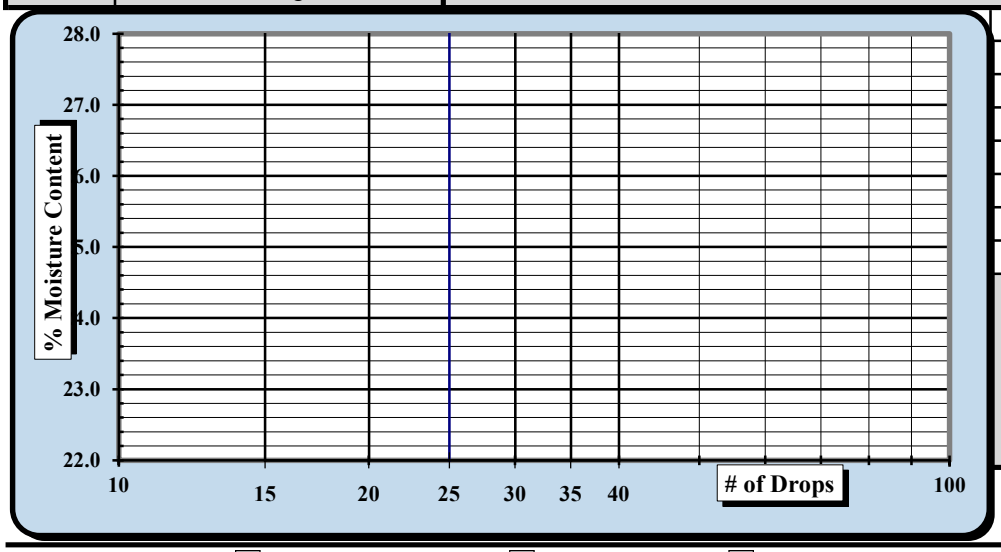
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B09	Sample #: SS-5		Sample Date: 3/9/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 8-10	
Sample Description:				Tan-Brown Silty SAND (SM) A-2-4 (0)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	46								
A	Tare Weight	12.28								
B	Wet Soil Weight + A	31.37								
C	Dry Soil Weight + A	27.97								
D	Water Weight (B-C)	3.40								
E	Dry Soil Weight (C-A)	15.69								
F	% Moisture (D/E)*100	21.7%								
N	# OF DROPS	13						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**ND**
Plastic Index	**ND**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 6.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

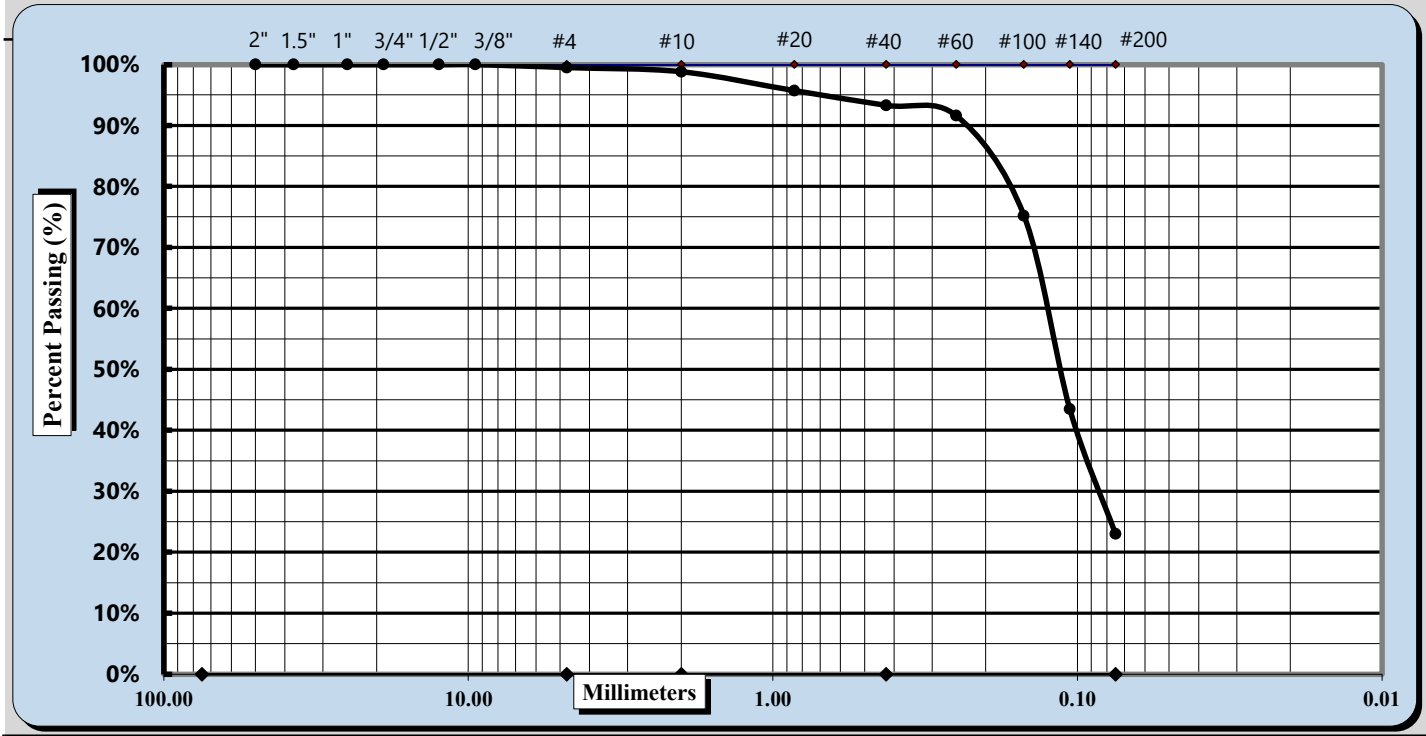
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/9/2023
Location:	Site-Borehole	Boring #: B09	Sample #: SS-5
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 8-10
Sample Description:		Tan-Brown Silty SAND (SM)	A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	0.7%	Fine Sand	70.3%
Gravel	0.5%	Medium Sand	5.5%	Silt & Clay	23.0%
Liquid Limit	*ND	Plastic Limit	ND	Plastic Index	ND
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	17.3%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

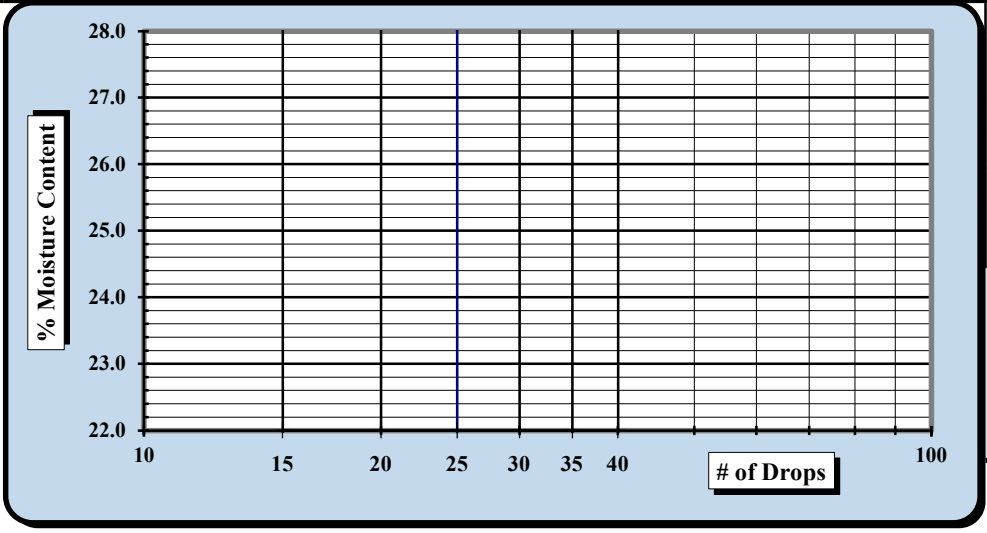
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B09	Sample #: SS-6		Sample Date: 3/9/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 13.5-15	
Sample Description:		Brown Poorly Graded SAND with Silt (SP-SM) A-2-4 (0)			

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	8								
A	Tare Weight	13.49								
B	Wet Soil Weight + A	26.97								
C	Dry Soil Weight + A	24.96								
D	Water Weight (B-C)	2.01								
E	Dry Soil Weight (C-A)	11.47								
F	% Moisture (D/E)*100	17.5%								
N	# OF DROPS	14						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 14.4%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

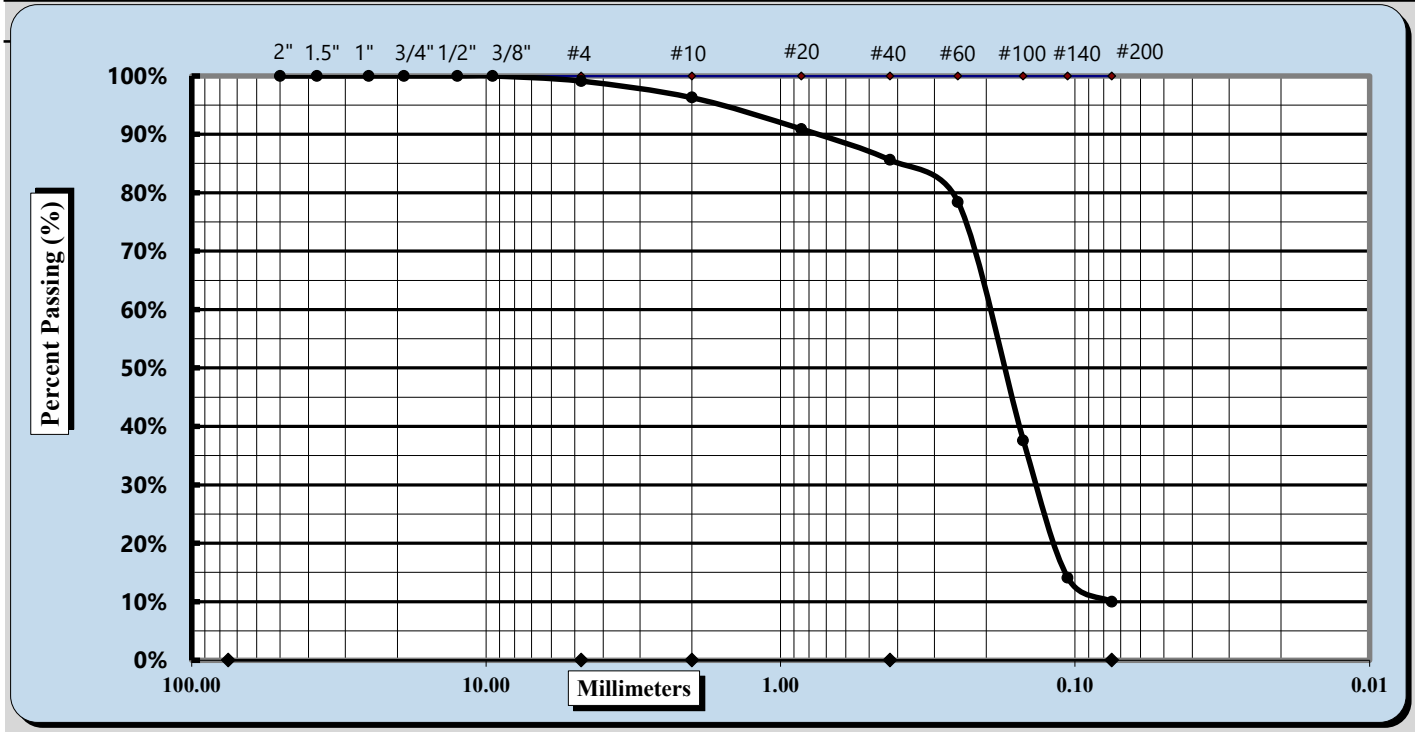
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/9/2023
Location:	Site-Borehole	Boring #: B09	Sample #: SS-6
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 13.5-15
Sample Description:	Brown Poorly Graded SAND with Silt (SP-SM)		A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	2.8%	Fine Sand	75.6%
Gravel	0.9%	Medium Sand	10.7%	Silt & Clay	10.0%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	22.4%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

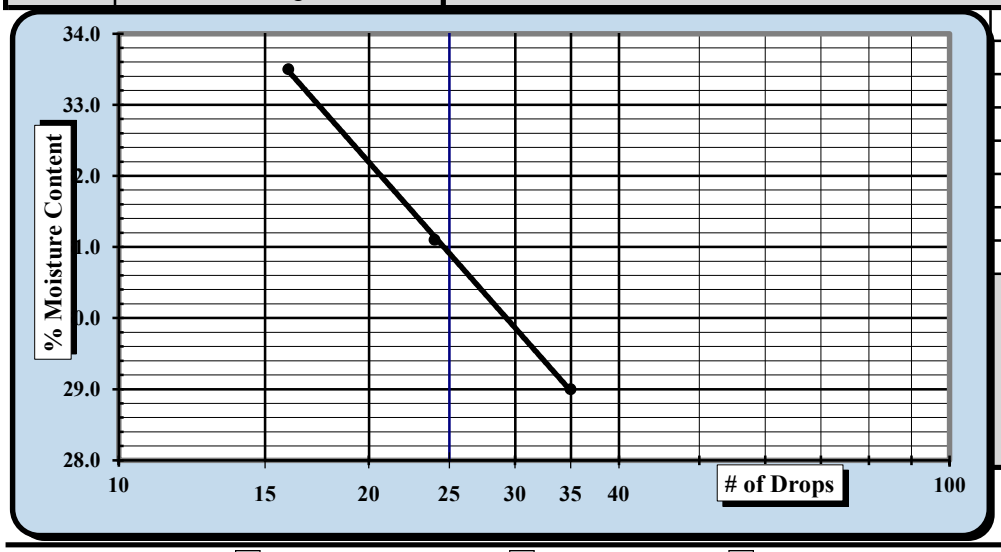
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B09	Sample #: SS-8		Sample Date: 3/9/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 23.5-25	
Sample Description:				Gray Silty SAND (SM) A-4 (1)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	66	12	24				14	17	
A	Tare Weight	13.98	12.18	12.15				8.60	8.59	
B	Wet Soil Weight + A	31.51	27.43	31.49				15.37	14.99	
C	Dry Soil Weight + A	27.11	23.81	27.14				13.98	13.72	
D	Water Weight (B-C)	4.40	3.62	4.35				1.39	1.27	
E	Dry Soil Weight (C-A)	13.13	11.63	14.99				5.38	5.13	
F	% Moisture (D/E)*100	33.5%	31.1%	29.0%				25.8%	24.8%	
N	# OF DROPS	16	24	35				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**25.3%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**31**
Plastic Limit	**25**
Plastic Index	**6**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 1.2%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

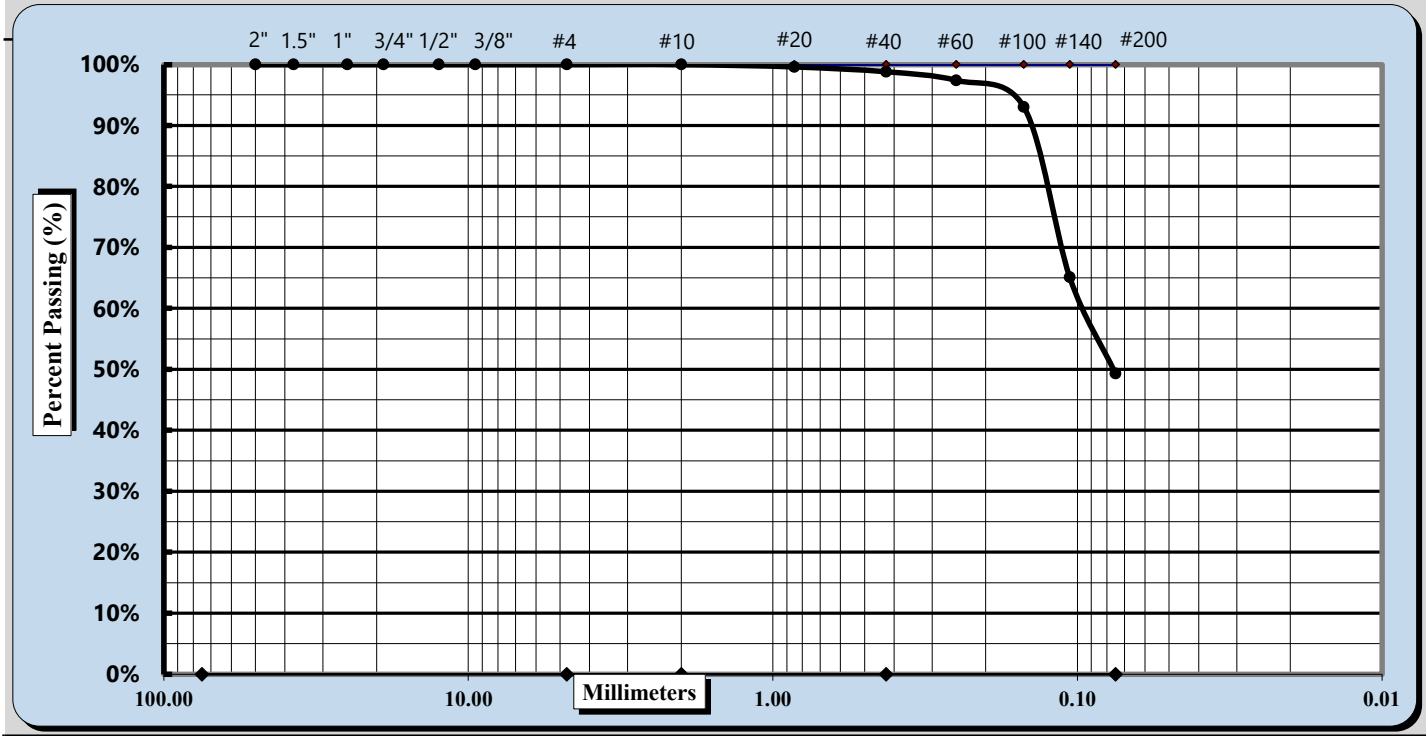
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/9/2023
Location:	Site-Borehole	Boring #: B09	Sample #: SS-8
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 23.5-25
Sample Description:		Gray Silty SAND (SM)	A-4 (1)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.0%	Fine Sand	49.5%
Gravel	0.0%	Medium Sand	1.2%	Silt & Clay	49.3%
Liquid Limit	31	Plastic Limit	25	Plastic Index	6
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	45.8%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

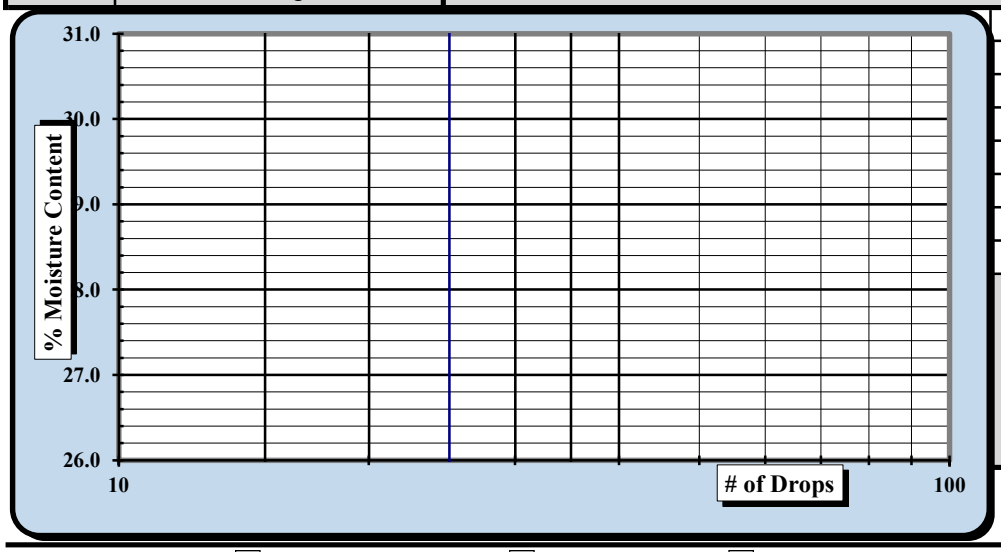
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B09	Sample #: SS-9		Sample Date: 3/6/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 28.5-30	
Sample Description:		Gray Poorly Graded SAND with Silt (SP-SM) A-2-4 (1)			

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	51								
A	Tare Weight	14.05								
B	Wet Soil Weight + A	27.45								
C	Dry Soil Weight + A	24.80								
D	Water Weight (B-C)	2.65								
E	Dry Soil Weight (C-A)	10.75								
F	% Moisture (D/E)*100	24.7%								
N	# OF DROPS	11						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 7.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

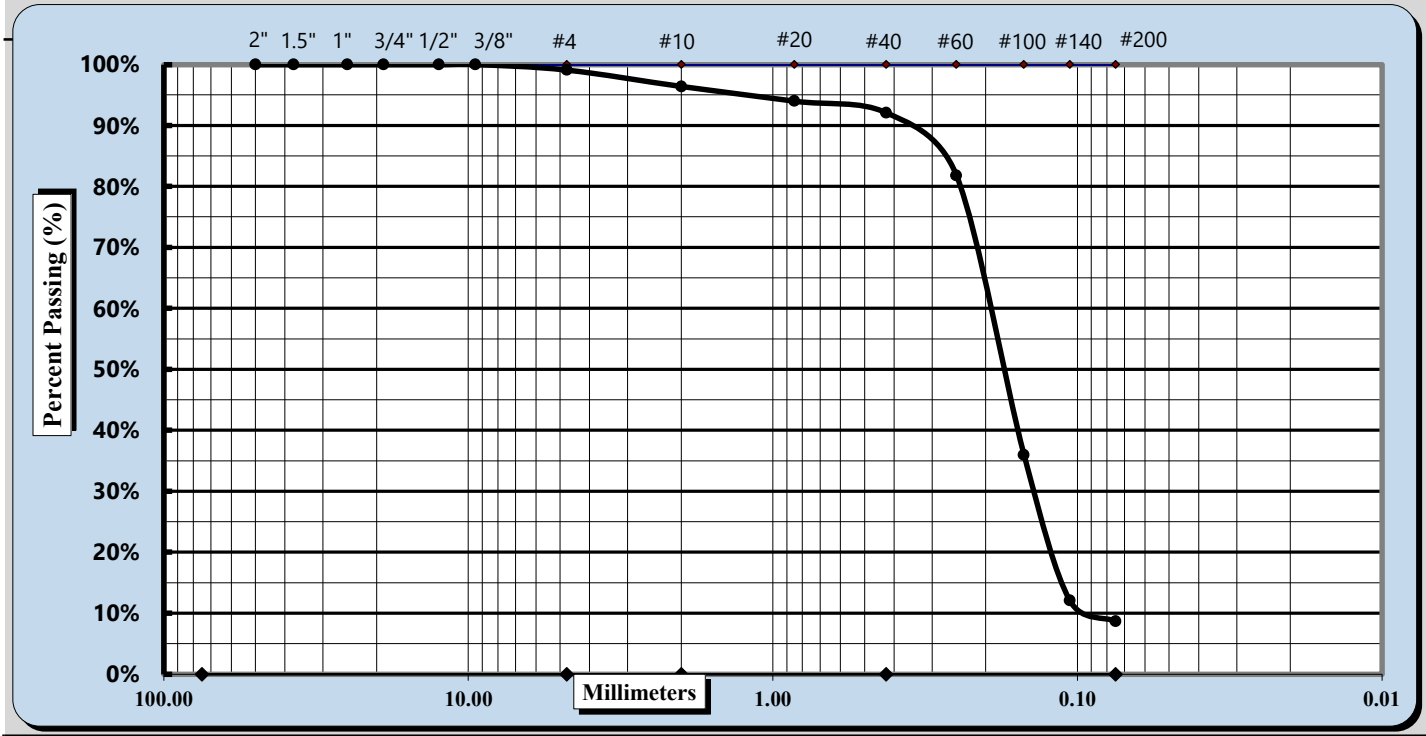
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/6/2023
Location:	Site-Borehole	Boring #: B09	Sample #: SS-9
Log/Sample Id.		Type: SS	Elev/Depth (ft): 28.5-30
Sample Description:		Gray Poorly Graded SAND with Silt (SP-SM)	A-2-4 (1)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	2.7%	Fine Sand	83.4%
Gravel	0.9%	Medium Sand	4.3%	Silt & Clay	8.7%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	31.4%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

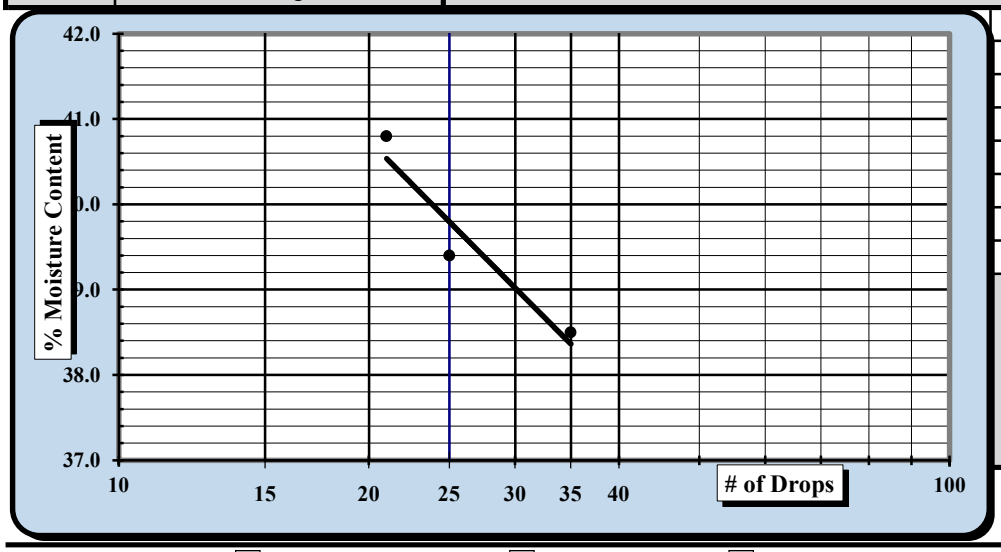
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B09	Sample #: SS-10		Sample Date: 3/9/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 33.5-35	
Sample Description:				Gray CLAY with Sand (CL) A-6 (17)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	B-6	2	40				28	12	
A	Tare Weight	21.32	12.21	12.32				8.56	8.59	
B	Wet Soil Weight + A	32.09	20.49	21.13				15.35	15.18	
C	Dry Soil Weight + A	28.97	18.19	18.64				14.25	14.13	
D	Water Weight (B-C)	3.12	2.30	2.49				1.10	1.05	
E	Dry Soil Weight (C-A)	7.65	5.98	6.32				5.69	5.54	
F	% Moisture (D/E)*100	40.8%	38.5%	39.4%				19.3%	19.0%	
N	# OF DROPS	21	35	25				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**19.2%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**40**
Plastic Limit	**19**
Plastic Index	**21**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 0.3%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

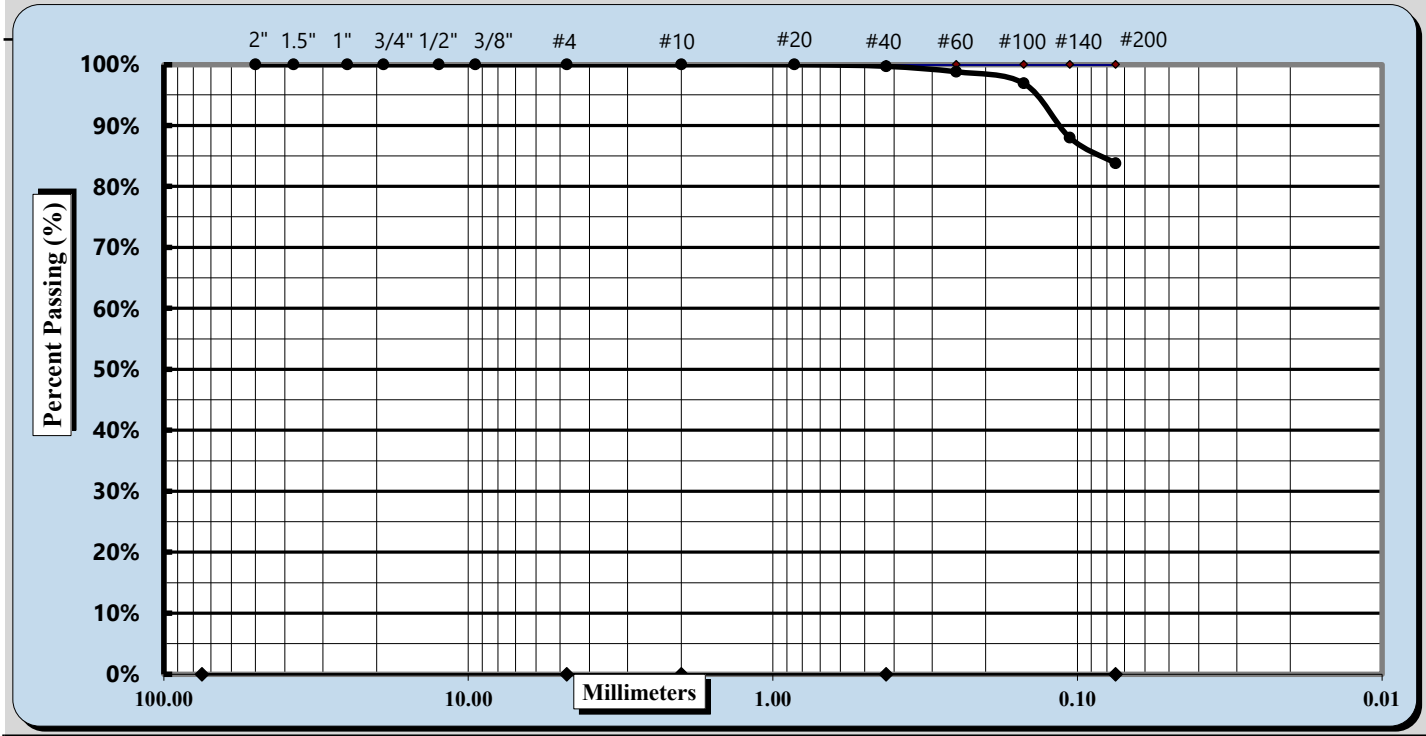
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/9/2023
Location:	Site-Borehole	Boring #: B09	Sample #: SS-10
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 33.5-35
Sample Description:		Gray CLAY with Sand (CL)	A-6 (17)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.0%	Fine Sand	15.9%
Gravel	0.0%	Medium Sand	0.3%	Silt & Clay	83.8%
Liquid Limit	40	Plastic Limit	19	Plastic Index	21
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	69.4%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

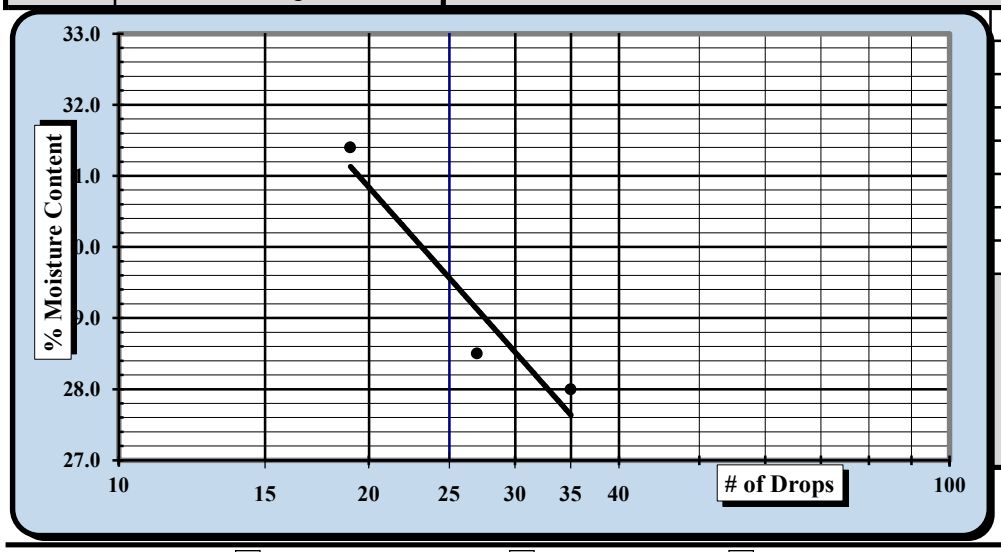
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B09	Sample #: SS-11		Sample Date: 3/9/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 38.5-40	
Sample Description:				Gray Sandy CLAY (CL)	A-6 (4)

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	71	83	22				166	4	
A	Tare Weight	14.15	13.95	12.34				8.58	8.63	
B	Wet Soil Weight + A	31.73	33.20	26.14				15.10	15.62	
C	Dry Soil Weight + A	27.83	28.99	22.84				14.10	14.60	
D	Water Weight (B-C)	3.90	4.21	3.30				1.00	1.02	
E	Dry Soil Weight (C-A)	13.68	15.04	10.50				5.52	5.97	
F	% Moisture (D/E)*100	28.5%	28.0%	31.4%				18.1%	17.1%	
N	# OF DROPS	27	35	19				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**17.6%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**30**
Plastic Limit	**18**
Plastic Index	**12**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 0.9%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

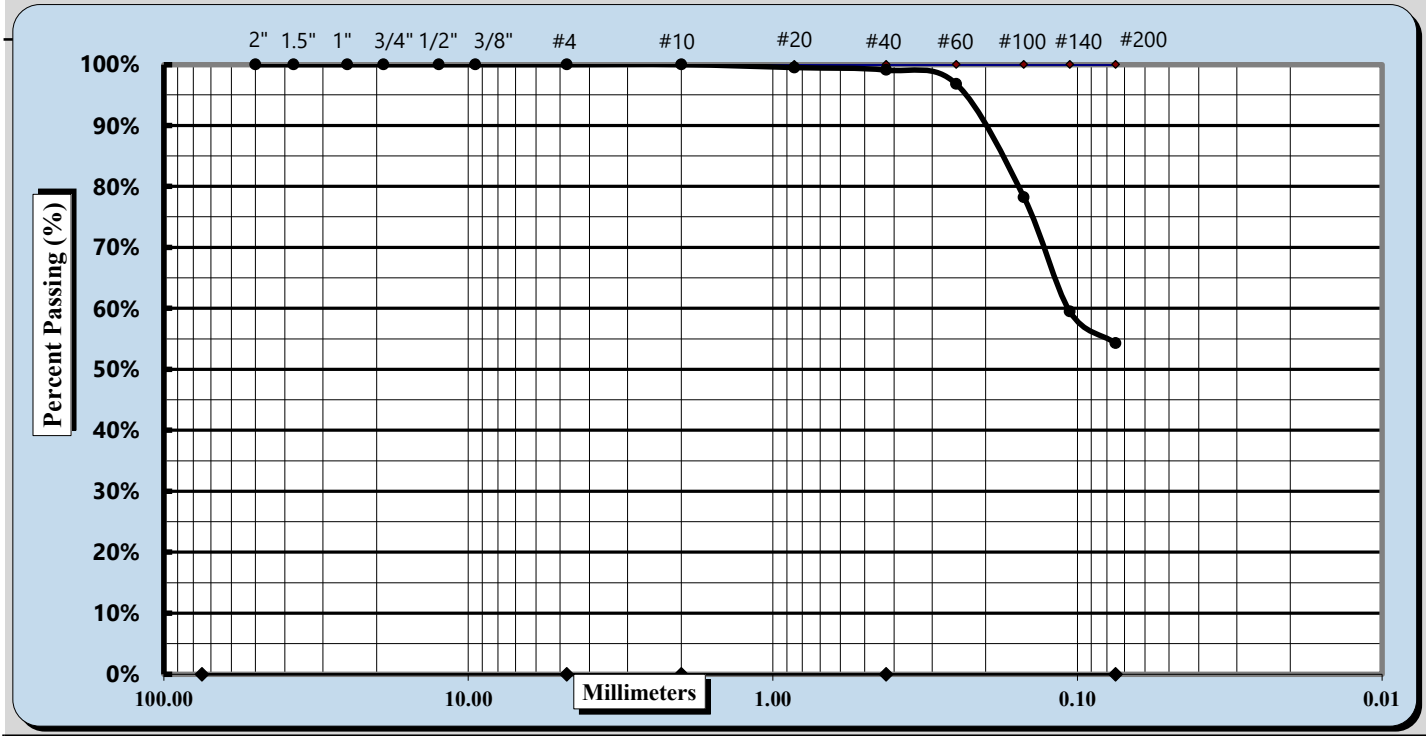
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/9/2023
Location:	Site-Borehole	Boring #: B09	Sample #: SS-11
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 38.5-40
Sample Description:		Gray Sandy CLAY (CL)	A-6 (4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.0%	Fine Sand	44.8%
Gravel	0.0%	Medium Sand	0.9%	Silt & Clay	54.3%
Liquid Limit	30	Plastic Limit	18	Plastic Index	12
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	28.1%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

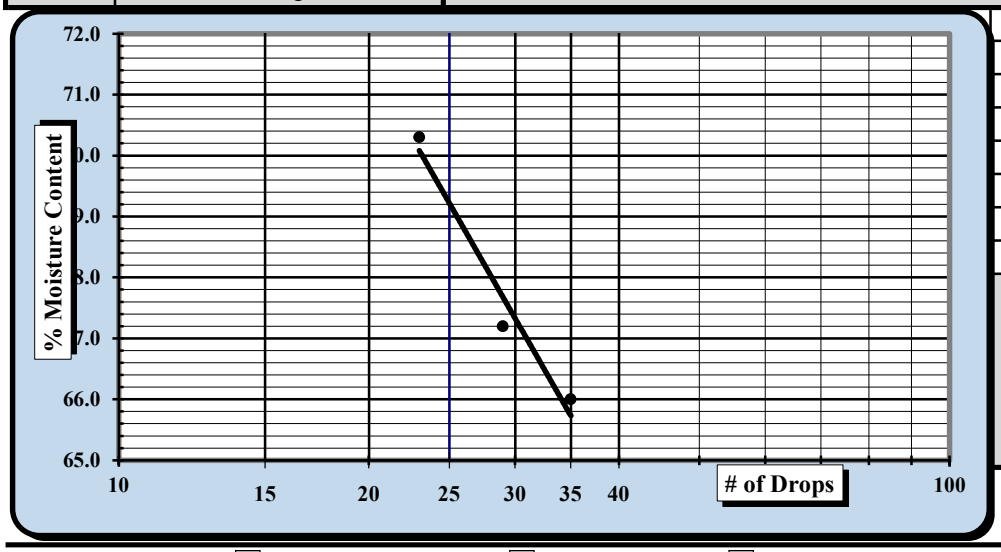
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B09	Sample #: SS-13		Sample Date: 3/9/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 48.5-50	
Sample Description:			Dark Gray CLAY with Sand (CH) A-7-6 (42)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	47	9	53				90	70	
A	Tare Weight	12.29	12.31	13.91				14.04	14.10	
B	Wet Soil Weight + A	21.27	20.92	23.87				20.52	20.15	
C	Dry Soil Weight + A	17.70	17.46	19.76				19.48	19.18	
D	Water Weight (B-C)	3.57	3.46	4.11				1.04	0.97	
E	Dry Soil Weight (C-A)	5.41	5.15	5.85				5.44	5.08	
F	% Moisture (D/E)*100	66.0%	67.2%	70.3%				19.1%	19.1%	
N	# OF DROPS	35	29	23				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**19.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**69**
Plastic Limit	**19**
Plastic Index	**50**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 6.9%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

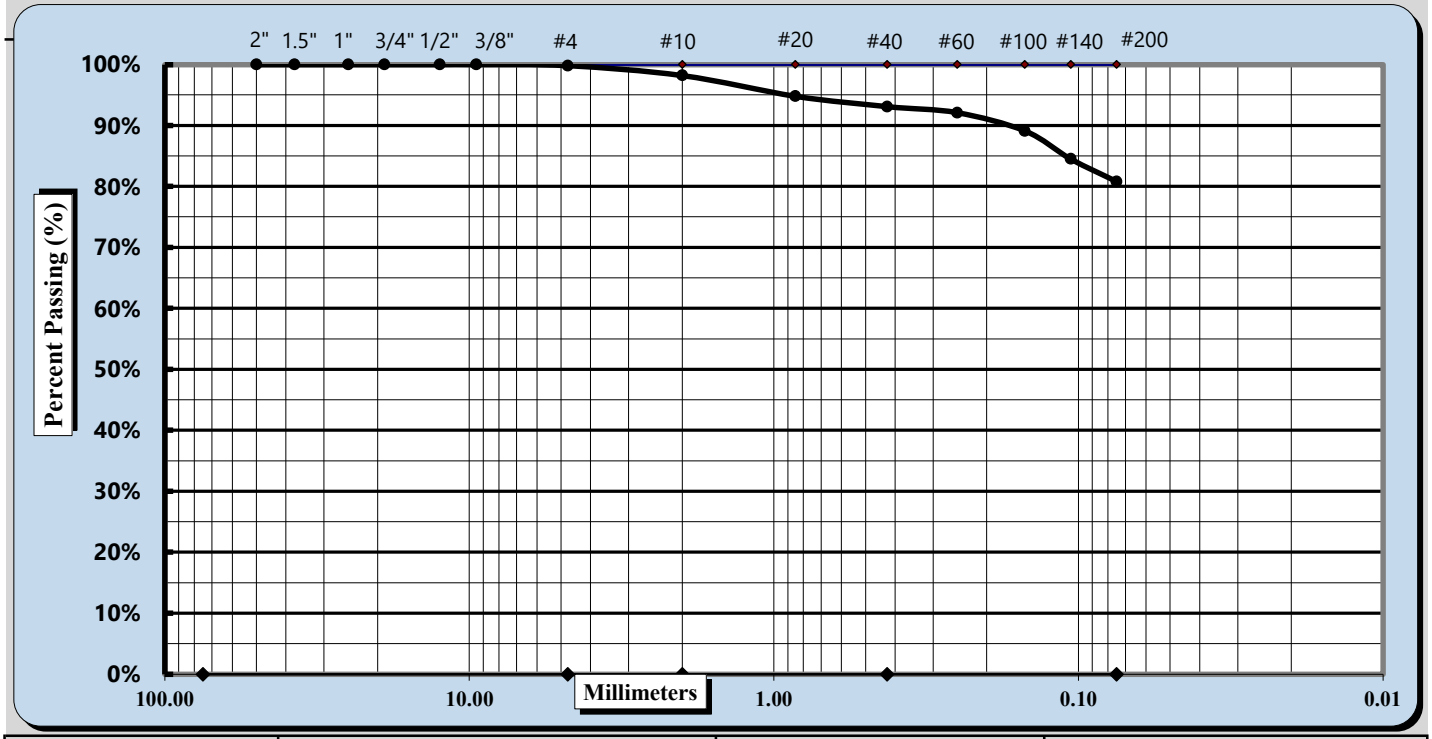
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/9/2023
Location:	Site-Borehole	Boring #: B09	Sample #: SS-13
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 48.5-50
Sample Description:		Dark Gray CLAY with Sand (CH)	A-7-6 (42)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	1.6%	Fine Sand	12.3%
Gravel	0.2%	Medium Sand	5.1%	Silt & Clay	80.8%
Liquid Limit	69	Plastic Limit	19	Plastic Index	50
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	66.8%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

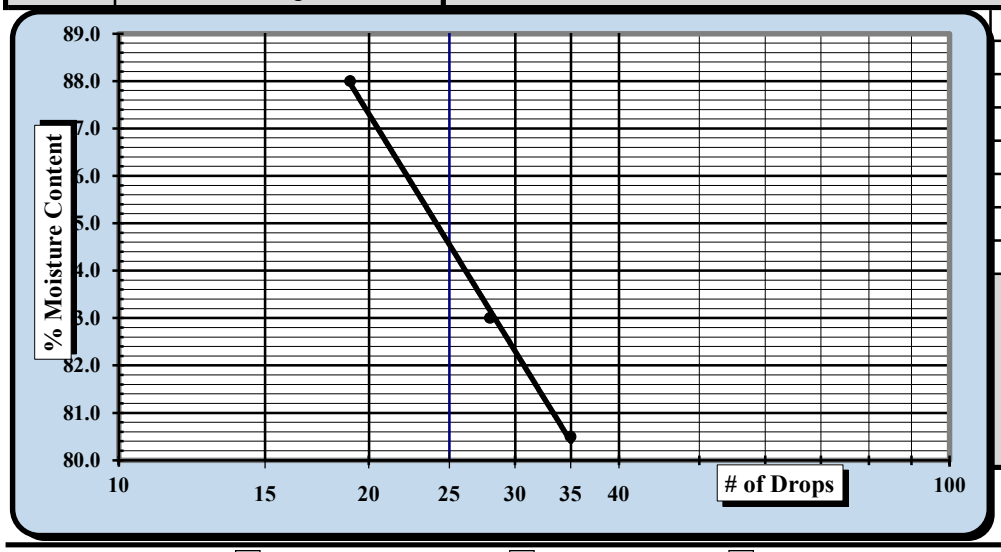
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B09	Sample #: SS-18		Sample Date: 3/9/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 73.5-75	
Sample Description:				Brown Sandy CLAY (CH) A-7-6 (41)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	C-10	21	16				69	32	
A	Tare Weight	21.47	13.27	20.96				14.12	12.15	
B	Wet Soil Weight + A	30.89	24.16	31.47				21.54	19.28	
C	Dry Soil Weight + A	26.69	19.22	26.55				19.99	17.83	
D	Water Weight (B-C)	4.20	4.94	4.92				1.55	1.45	
E	Dry Soil Weight (C-A)	5.22	5.95	5.59				5.87	5.68	
F	% Moisture (D/E)*100	80.5%	83.0%	88.0%				26.4%	25.5%	
N	# OF DROPS	35	28	19				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**26.0%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**85**
Plastic Limit	**26**
Plastic Index	**59**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 1.8%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

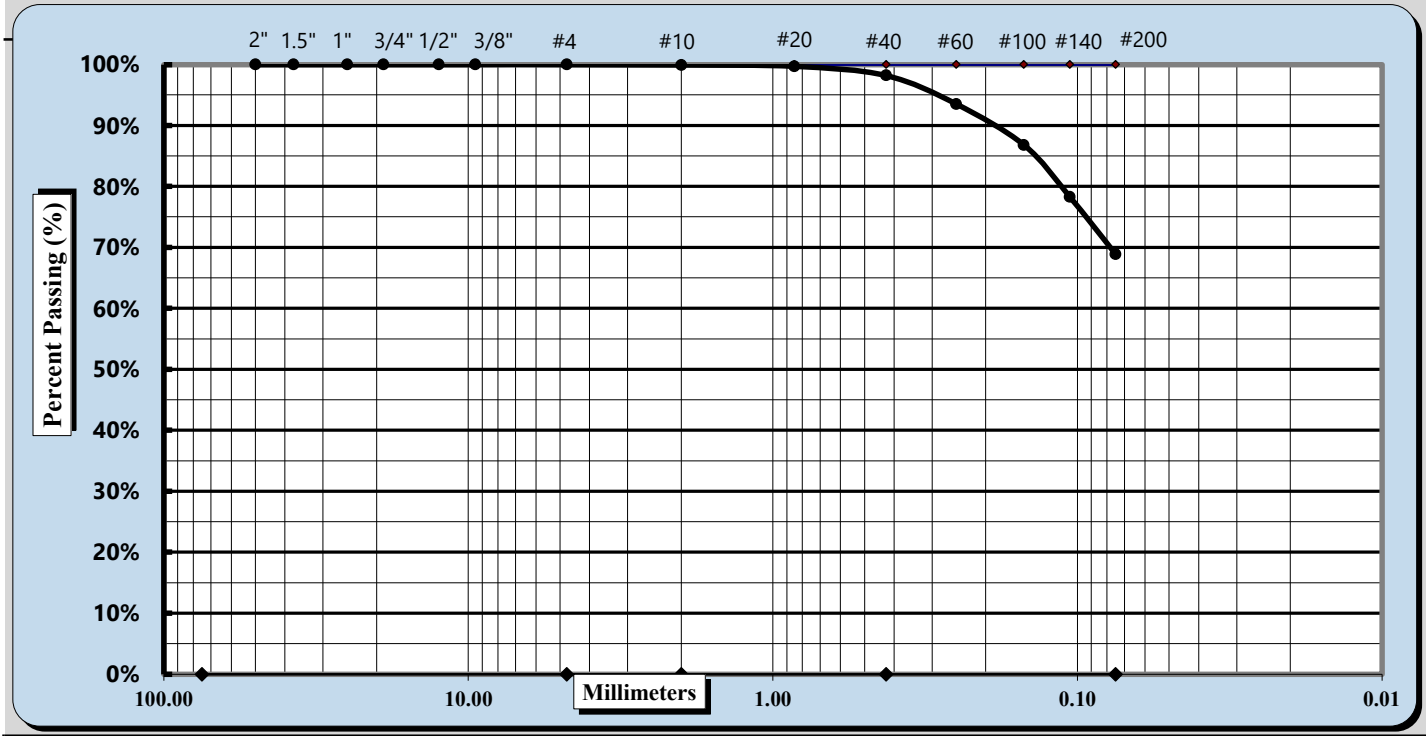
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/9/2023
Location:	Site-Borehole	Boring #: B09	Sample #: SS-18
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 73.5-75
Sample Description:		Brown Sandy CLAY (CH)	A-7-6 (41)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.1%	Fine Sand	29.3%
Gravel	0.0%	Medium Sand	1.7%	Silt & Clay	68.9%
Liquid Limit	85	Plastic Limit	26	Plastic Index	59
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	62.7%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/02/23
Project Name:	526 Longpoint Road Interchange	Test Date(s):	5/12 - 5/13/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Sampled by:	Soil Consultants, Inc.	Sample Date(s):	3/14/23
Sampling Method:	Split-spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 13942 Calibration Date: 11/01/22 Oven ID. 13978 Calibration Date: 10/01/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft.		grams	grams	grams	grams	%	
B10	SS-2	2.0-4.0'	D-12	92.44	423.73	375.08	48.65	17.2%	
B10	SS-3	4.0-6.0'	D-20	100.05	422.77	364.67	58.10	22.0%	
B10	SS-5	8.0-10.0'	YM-5	96.49	404.31	340.93	63.38	25.9%	
B10	SS-6	13.5-15.0'	D-14	101.56	401.12	260.81	140.31	88.1%	
B10	SS-7	18.5-20.0'	D-11	93.36	406.47	334.91	71.56	29.6%	
B10	SS-8	23.5-25.0'	D-21	99.83	406.00	283.40	122.60	66.8%	
B10	SS-9	28.5-30.0'	YM-9	100.08	407.78	346.06	61.72	25.1%	
B10	SS-11	38.5-40.0'	D-10	95.44	365.73	313.60	52.13	23.9%	
B10	SS-12	43.5-45.0'	YM-7	89.92	408.40	337.46	70.94	28.7%	
B10	SS-14	53.5-55.0'	YM-4	98.66	402.40	263.14	139.26	84.7%	
B10	SS-15	58.5-60.0'	D-5	96.91	409.26	294.61	114.65	58.0%	
B10	SS-19	78.5-80.0'	WX-Z	87.99	403.27	307.15	96.12	43.9%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Benjamin Kovaleski		NICET Lab Level III / 117226	6/02/23
Technician Name		*Certification Type / No.*	*Date*
Brian Vaughan, P.E.	Brian Vaughan	QA Supervisor	6/02/23
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

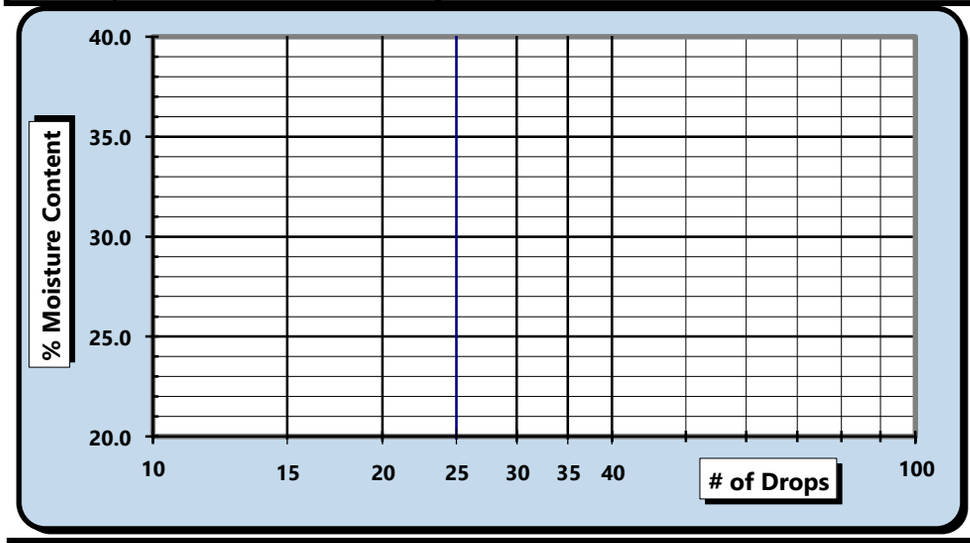
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/06/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/05/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-2	Type: Split-spoon	Depth: 2.0 - 4.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 6.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/06/23	Brian Vaughan, P.E.	6/06/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

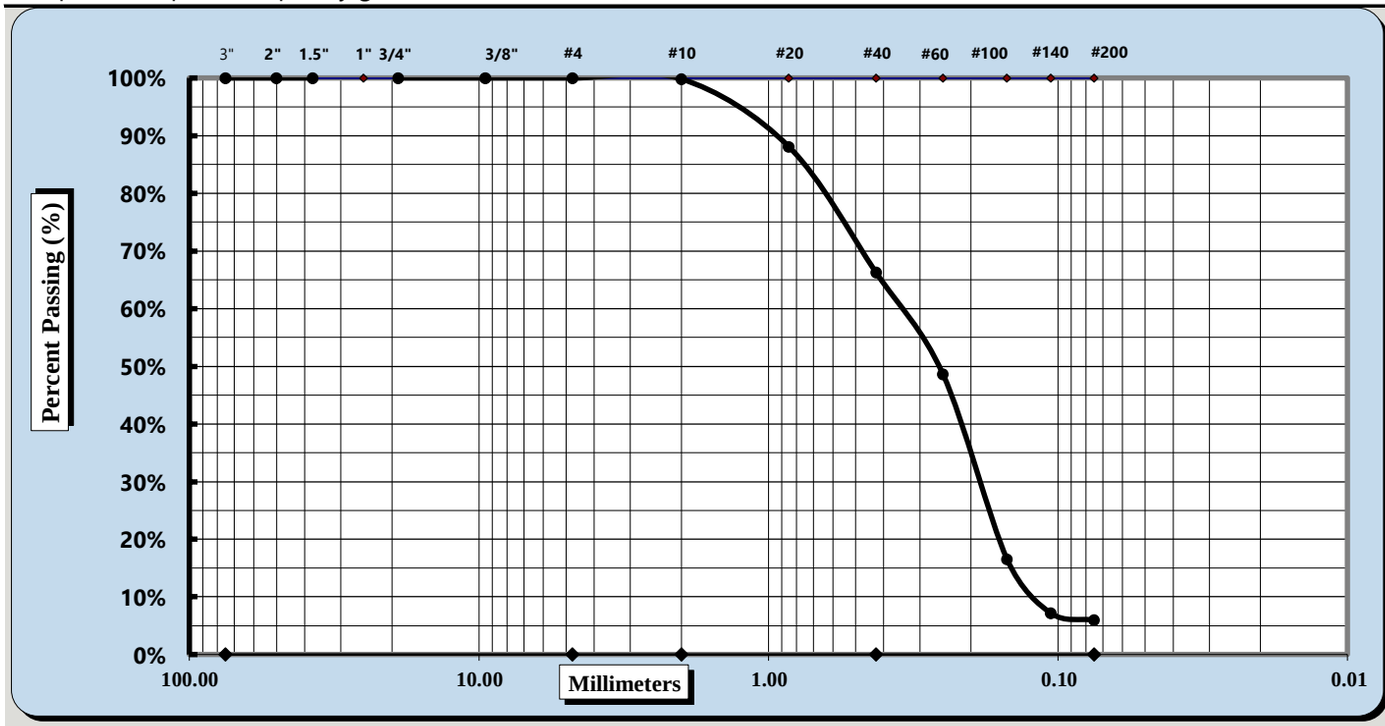
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/6/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/06/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-2	Type:	Split-spoon	Depth:	2.0 - 4.0'
Sample Description:	poorly graded SAND with silt [SP-SM/ A-3]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.1%	Fine Sand	60.3%
Gravel	0.0%	Medium Sand	33.6%	Silt & Clay	6.0%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	17.2%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/6/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

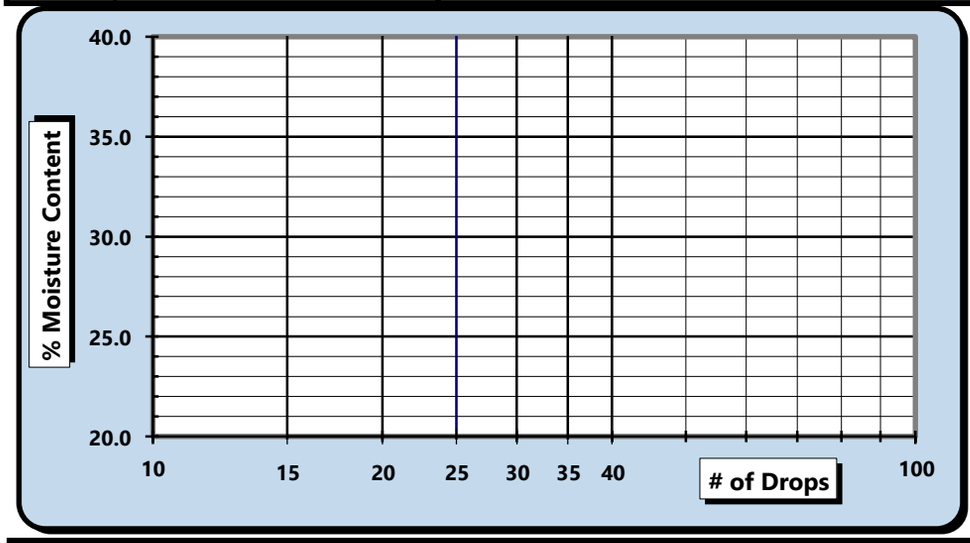
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/06/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/05/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-3	Type: Split-spoon	Depth: 4.0 - 6.0'
Sample Description:	poorly graded SAND [SP / A-3]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 4.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/06/23	Brian Vaughan, P.E.	6/06/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

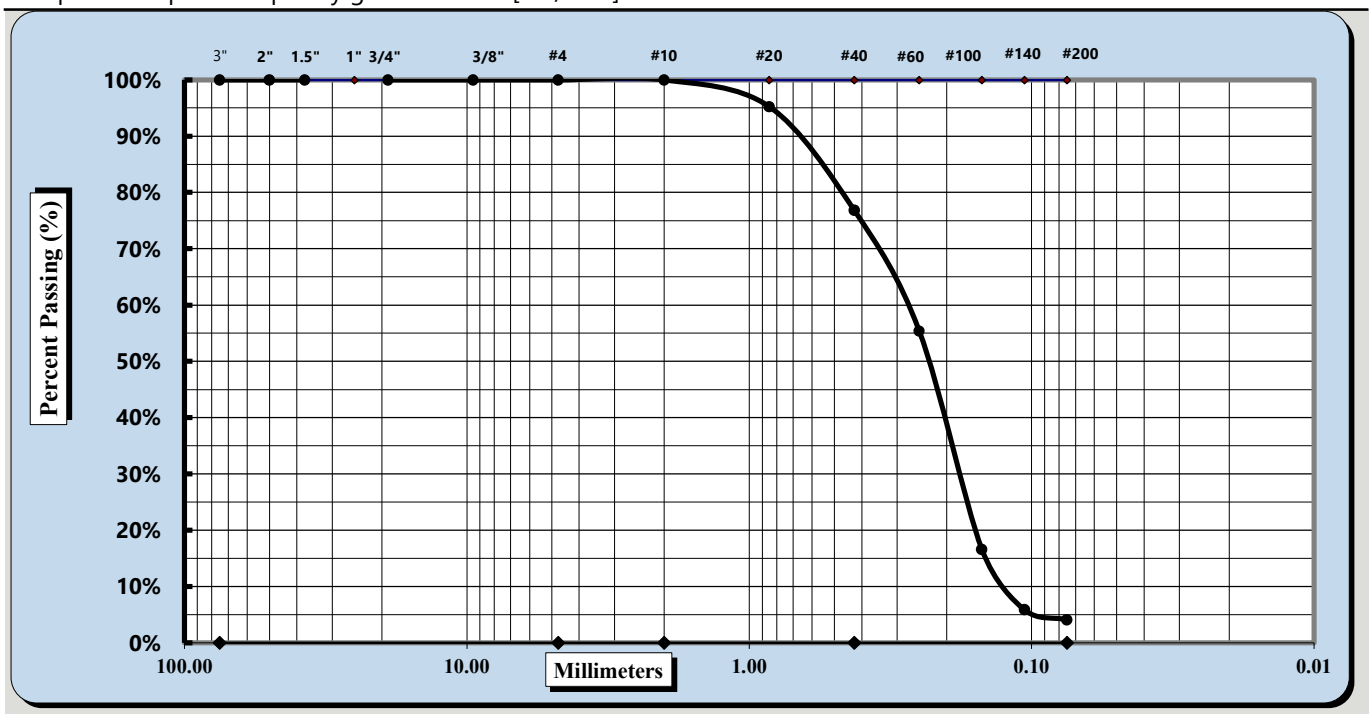
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/6/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/06/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-3	Type:	Split-spoon	Depth:	4.0 - 6.0'

Sample Description: poorly graded SAND [SP / A-3]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.0%	Fine Sand	72.7%
Gravel	0.0%	Medium Sand	23.1%	Silt & Clay	4.1%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	22.0%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/6/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

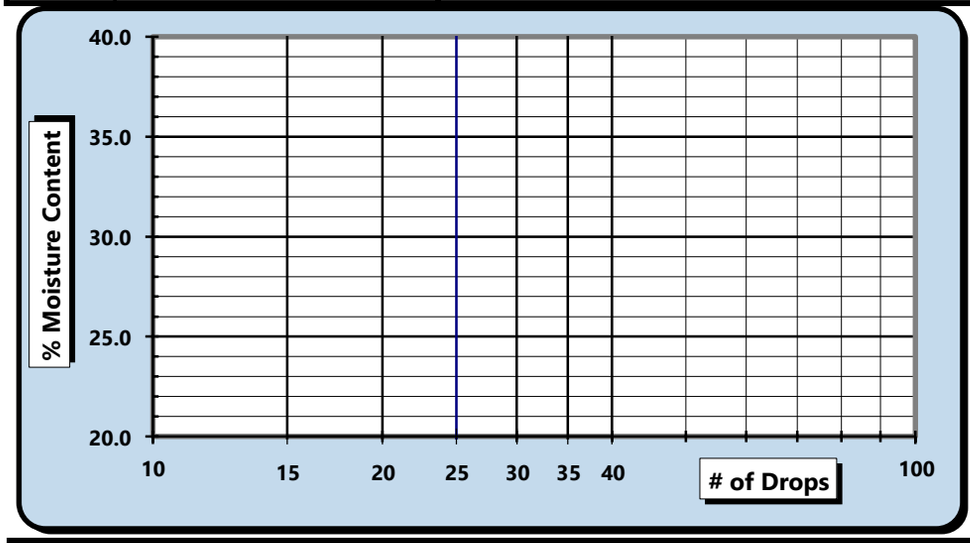
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/06/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/05/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-5	Type: Split-spoon	Depth: 8.0 - 10.0'
Sample Description:	poorly graded SAND [SP / A-3]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 3.8%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/06/23	Brian Vaughan, P.E.	6/06/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

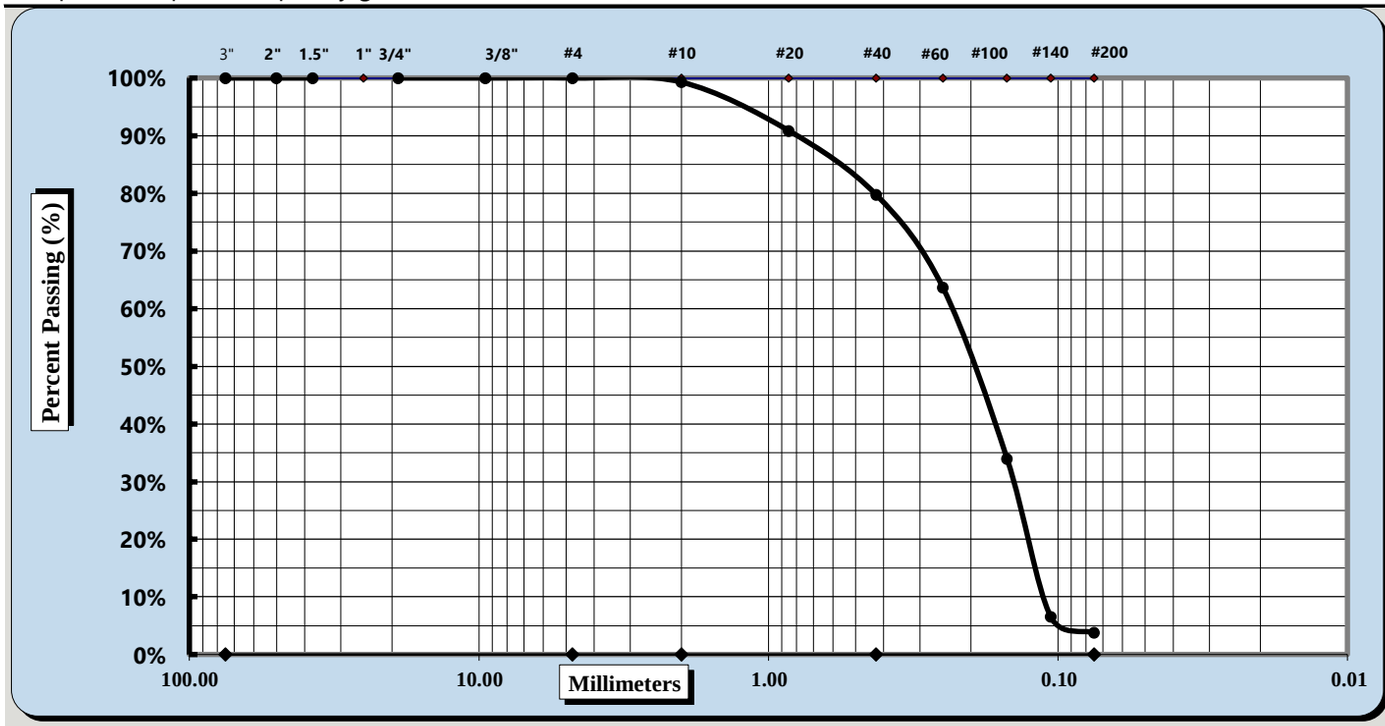
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/6/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/06/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-5	Type:	Split-spoon	Depth:	8.0 - 10.0'
Sample Description:	poorly graded SAND [SP / A-3]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.7%	Fine Sand	76.0%
Gravel	0.0%	Medium Sand	19.5%	Silt & Clay	3.8%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	25.9%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/6/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

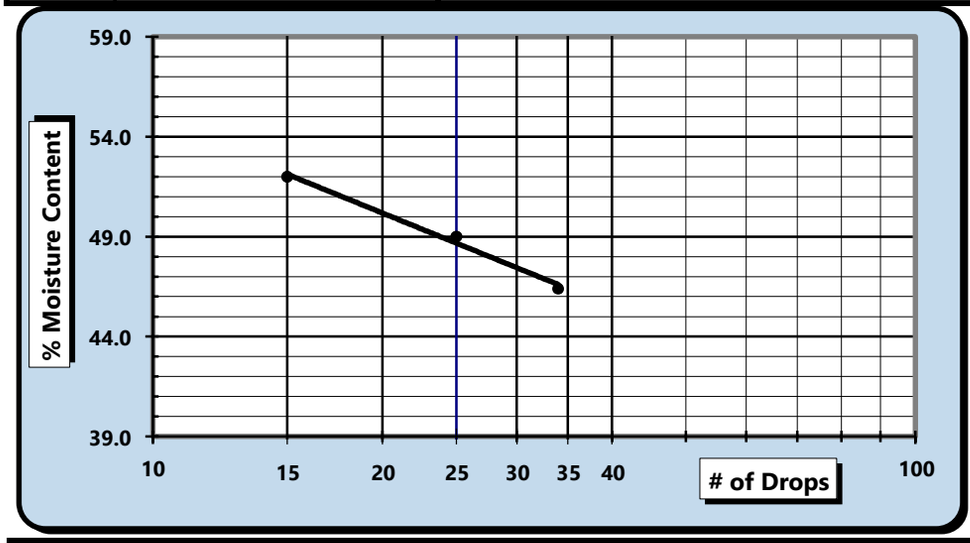
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/06/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/05/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-6	Type: Split-spoon	Depth: 13.5 - 15.0'
Sample Description:	lean CLAY [CL / A-7-6(22)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.70	26.51	26.34				25.91		
B	Wet Soil Weight + A	39.80	40.55	39.79				38.97		
C	Dry Soil Weight + A	35.65	35.93	35.19				36.30		
D	Water Weight (B-C)	4.15	4.62	4.60				2.67		
E	Dry Soil Weight (C-A)	8.95	9.42	8.85				10.39		
F	% Moisture (D/E)*100	46.4%	49.0%	52.0%				25.7%		
N	# OF DROPS	34	25	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							25.7%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**49**
Plastic Limit	**26**
Plastic Index	**23**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 88.0%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/06/23	Brian Vaughan, P.E.	6/06/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

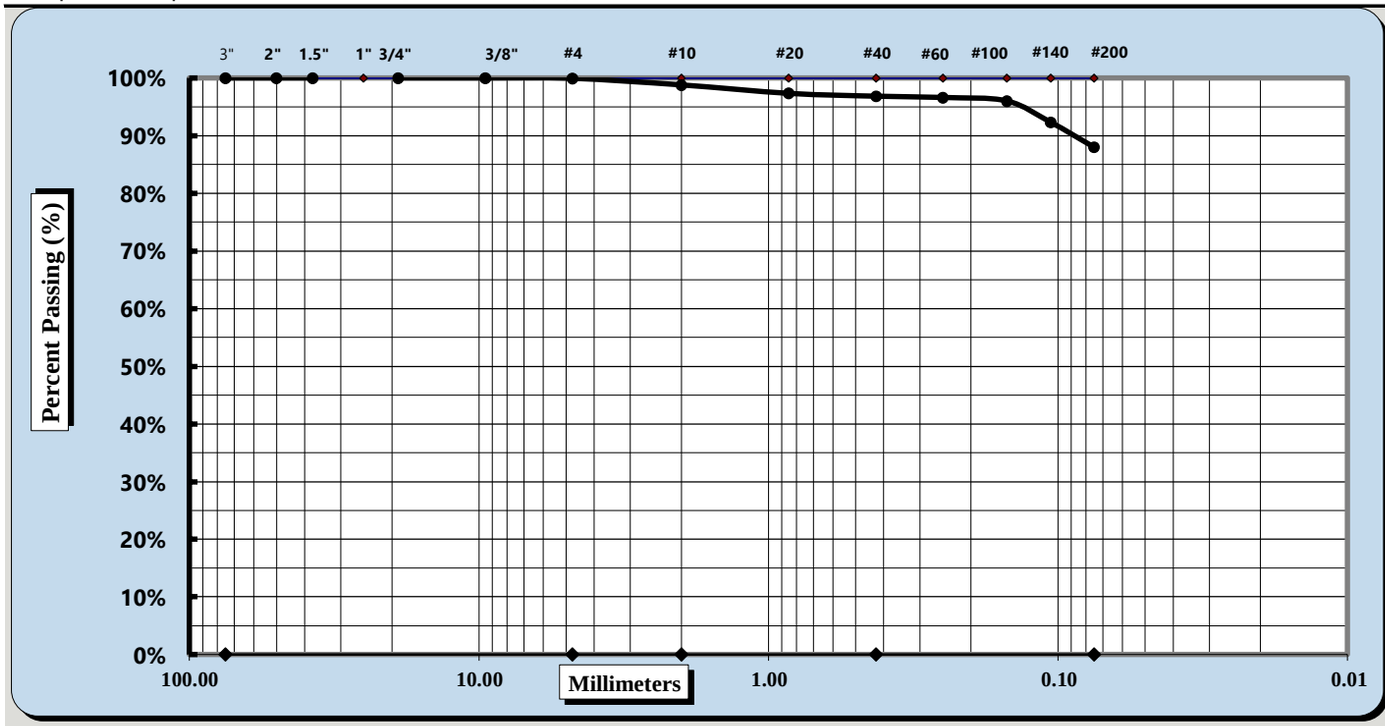
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/6/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/06/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-6	Type:	Split-spoon	Depth:	13.5 - 15.0'
Sample Description:	lean CLAY [CL / A-7-6(22)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	4.75 mm	Coarse Sand	1.1%	Fine Sand	8.8%
Gravel	0.1%	Medium Sand	2.0%	Silt & Clay	88.0%
Liquid Limit	49	Plastic Limit	26	Plastic Index	23
		Natural Moisture	88.1%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/6/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

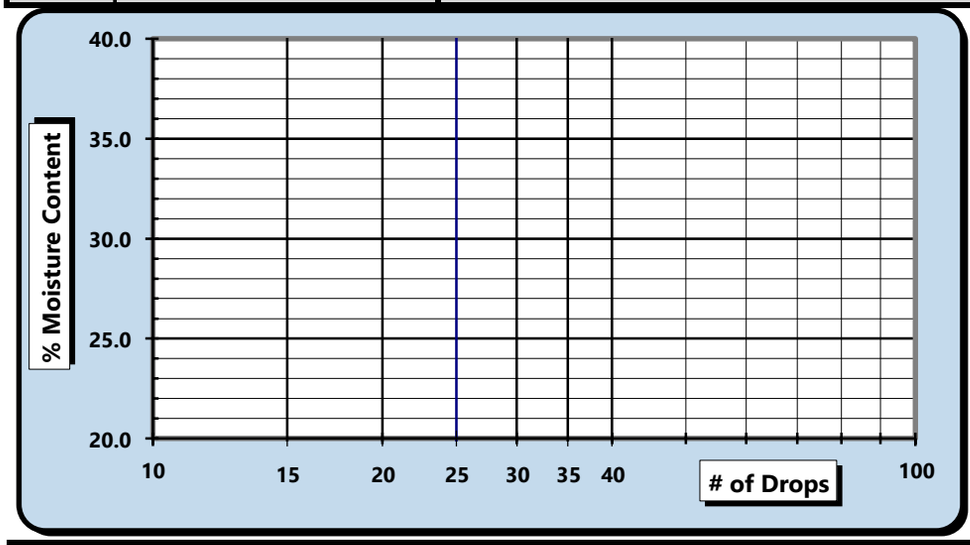
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/06/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/05/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-7	Type: Split-spoon	Depth: 18.5 - 20.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 9.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/06/23	Brian Vaughan, P.E.	6/06/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

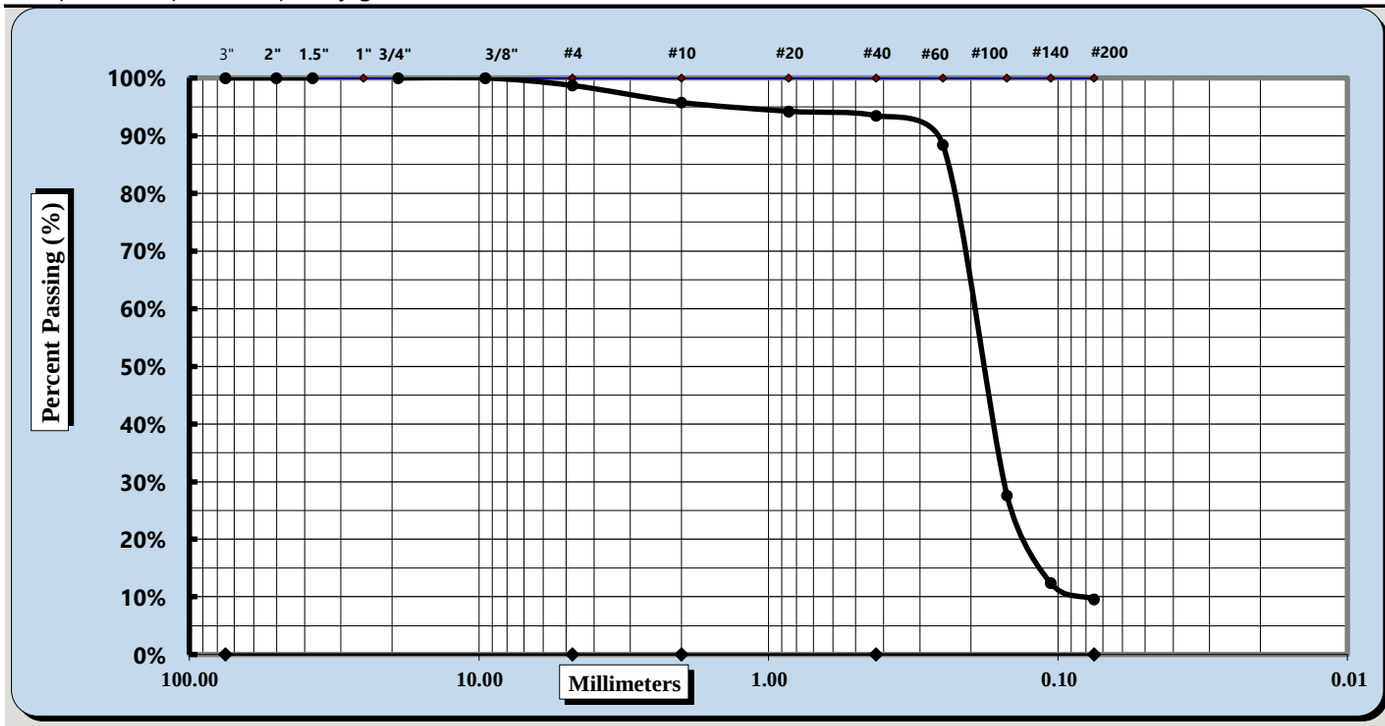
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/6/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/06/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-7	Type:	Split-spoon	Depth:	18.5 - 20.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	9.50 mm	Coarse Sand	2.9%	Fine Sand	83.8%
Gravel	1.3%	Medium Sand	2.3%	Silt & Clay	9.6%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	29.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/6/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

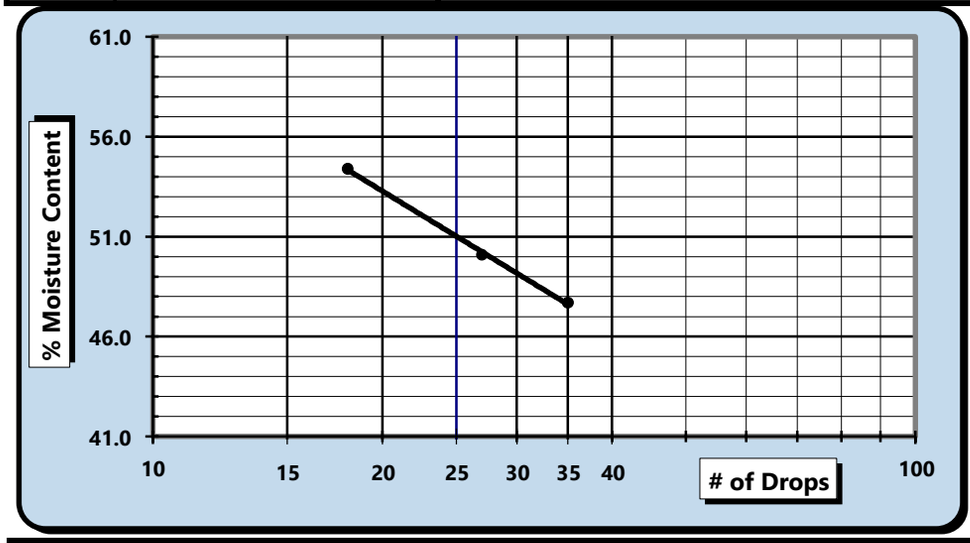
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/06/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/05/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-8	Type: Split-spoon	Depth: 23.5 - 25.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(21)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	5	6	7				8		
A	Tare Weight	26.94	27.77	26.27				27.33		
B	Wet Soil Weight + A	39.86	42.70	41.71				39.18		
C	Dry Soil Weight + A	35.69	37.72	36.27				36.56		
D	Water Weight (B-C)	4.17	4.98	5.44				2.62		
E	Dry Soil Weight (C-A)	8.75	9.95	10.00				9.23		
F	% Moisture (D/E)*100	47.7%	50.1%	54.4%				28.4%		
N	# OF DROPS	35	27	18				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							28.4%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**51**
Plastic Limit	**28**
Plastic Index	**23**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 82.5%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/06/23	Brian Vaughan, P.E.	6/06/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

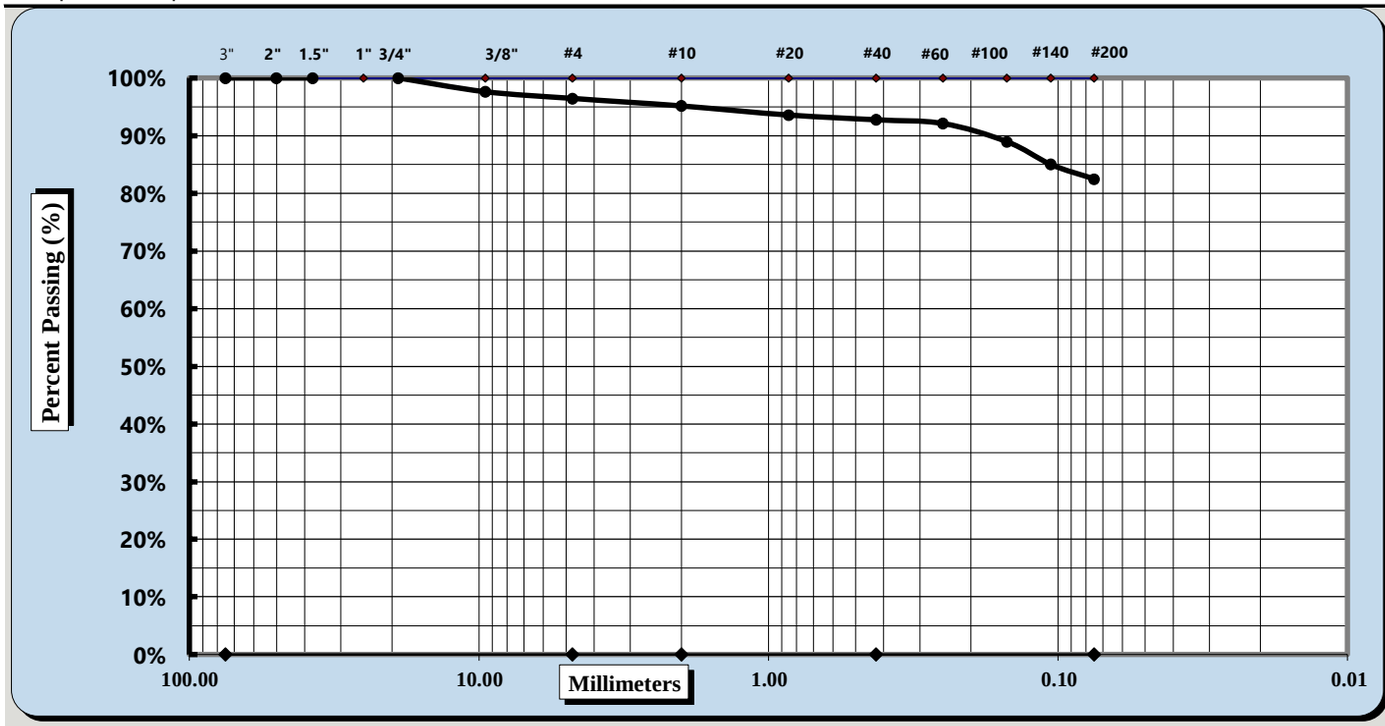
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/6/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/06/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-8	Type:	Split-spoon	Depth:	23.5 - 25.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(21)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	19.0 mm	Coarse Sand	1.3%	Fine Sand	10.3%
Gravel	3.5%	Medium Sand	2.4%	Silt & Clay	82.5%
Liquid Limit	51	Plastic Limit	28	Plastic Index	23
		Natural Moisture	66.8%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/6/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

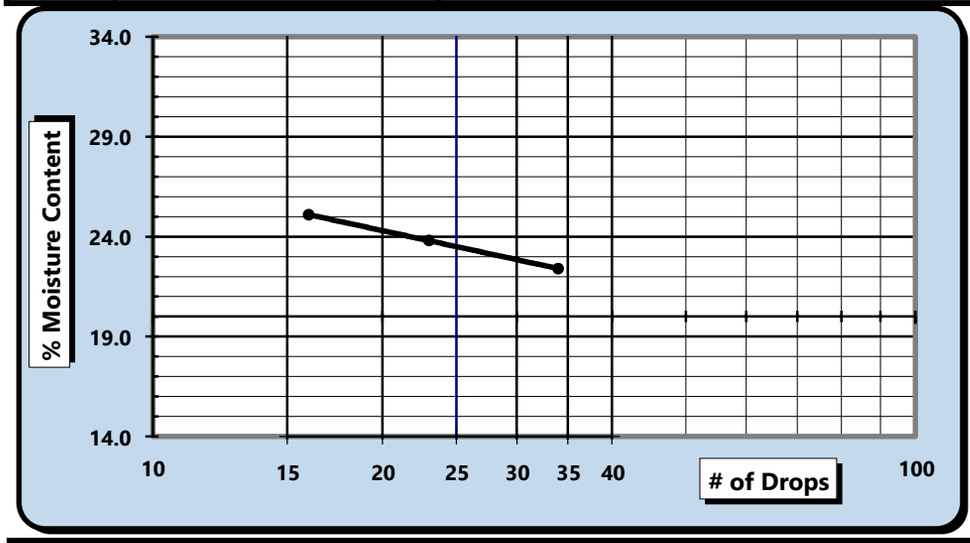
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/06/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/05/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-9	Type: Split-spoon	Depth: 28.5 - 30.0'
Sample Description:	silty clayey SAND [SC-SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	9	10	11				12		
A	Tare Weight	26.82	26.74	26.66				26.65		
B	Wet Soil Weight + A	45.96	43.75	43.43				38.50		
C	Dry Soil Weight + A	42.46	40.48	40.07				36.76		
D	Water Weight (B-C)	3.50	3.27	3.36				1.74		
E	Dry Soil Weight (C-A)	15.64	13.74	13.41				10.11		
F	% Moisture (D/E)*100	22.4%	23.8%	25.1%				17.2%		
N	# OF DROPS	34	23	16				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							17.2%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**24**
Plastic Limit	**17**
Plastic Index	**7**
Group Symbol	**CL-ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 26.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/06/23	Brian Vaughan, P.E.	6/06/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

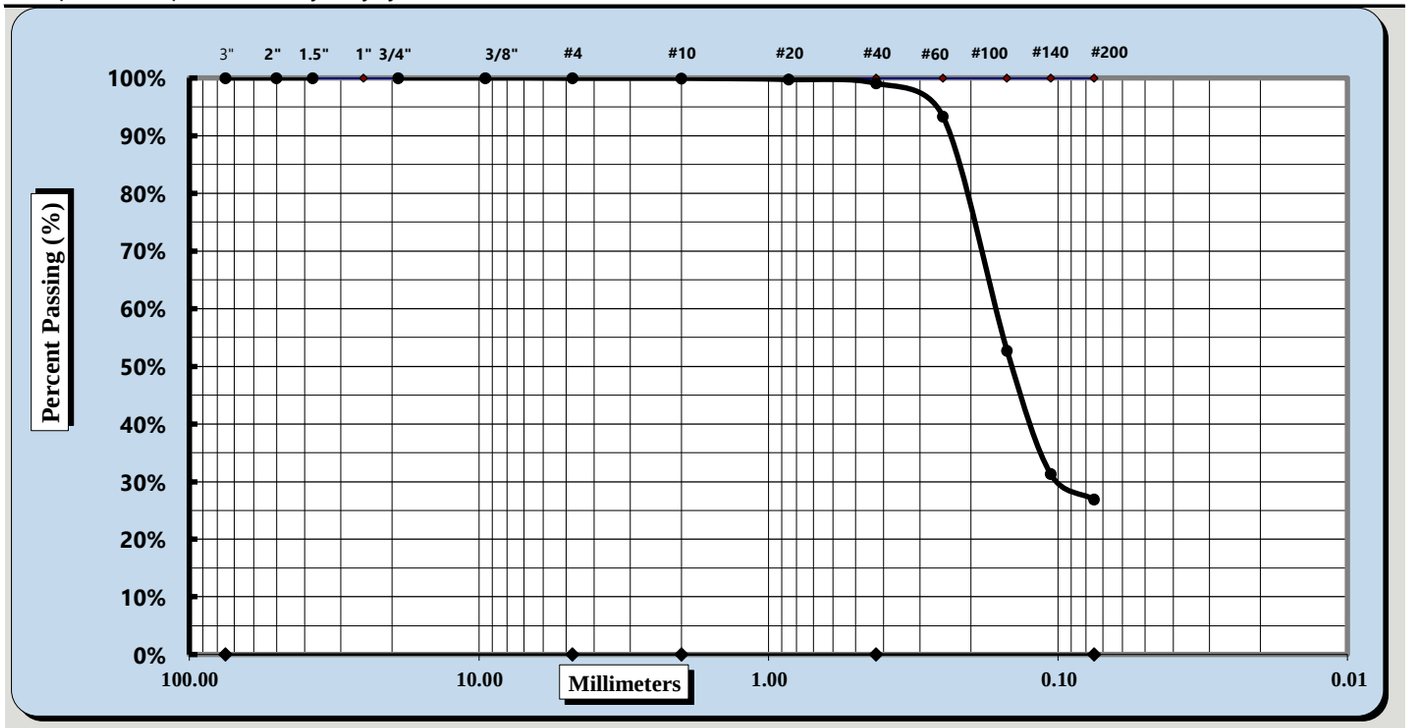
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/6/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/06/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-9	Type:	Split-spoon	Depth:	28.5 - 30.0'
Sample Description:	silty clayey SAND [SC-SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.425 mm	Coarse Sand	0.0%	Fine Sand	72.2%
Gravel	0.0%	Medium Sand	0.9%	Silt & Clay	26.9%
Liquid Limit	24	Plastic Limit	17	Plastic Index	7

Natural Moisture 25.1%

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/6/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

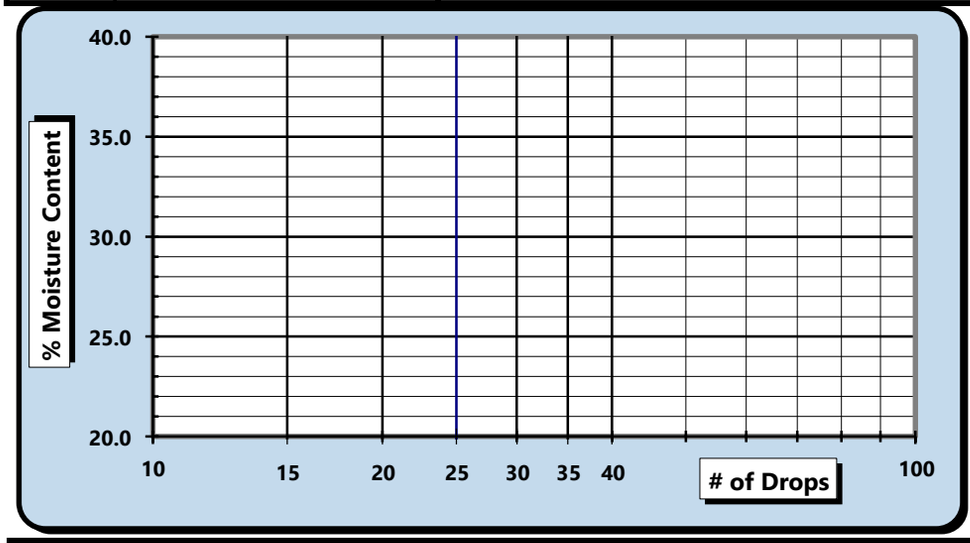
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/06/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/06/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-11	Type: Split-spoon	Depth: 38.5 - 40.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 13.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/06/23	Brian Vaughan, P.E.	6/06/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

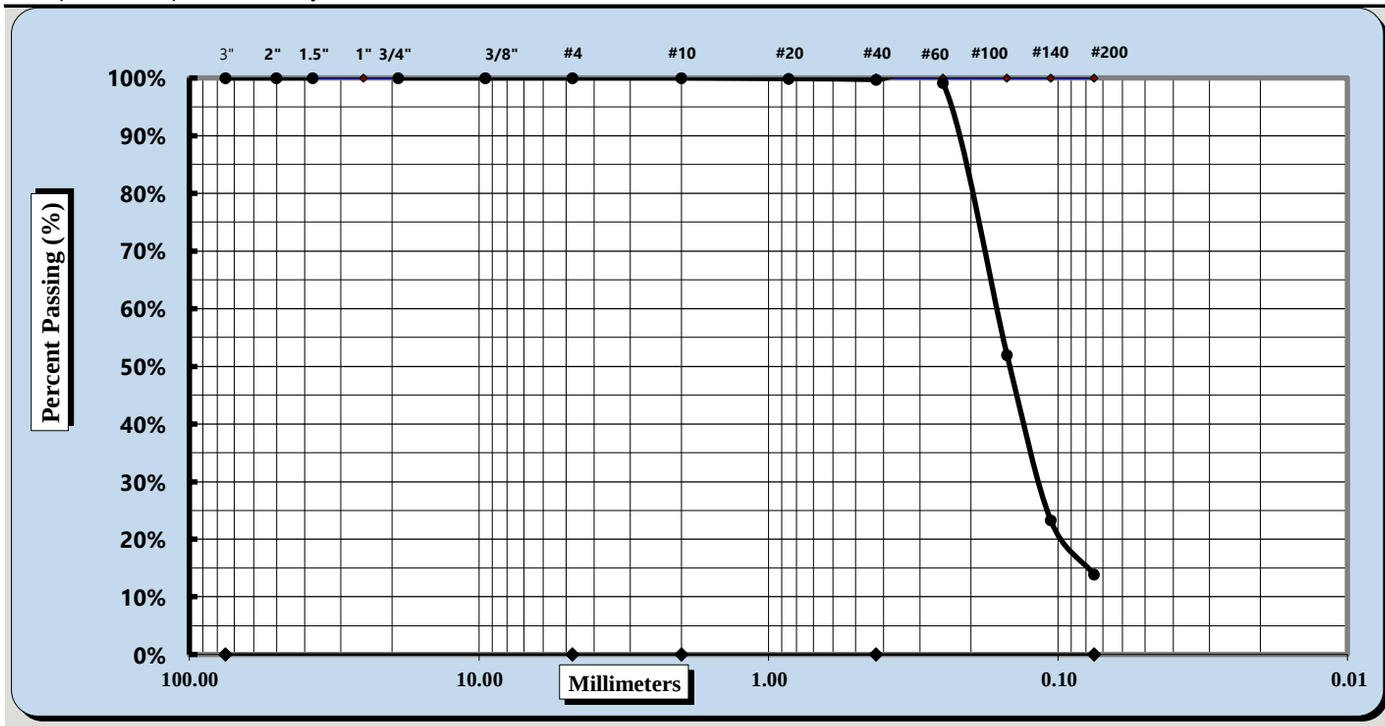
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/6/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/06/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-11	Type:	Split-spoon	Depth:	38.5 - 40.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.25 mm	Coarse Sand	0.0%	Fine Sand	85.8%
Gravel	0.0%	Medium Sand	0.3%	Silt & Clay	13.9%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	23.9%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/6/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

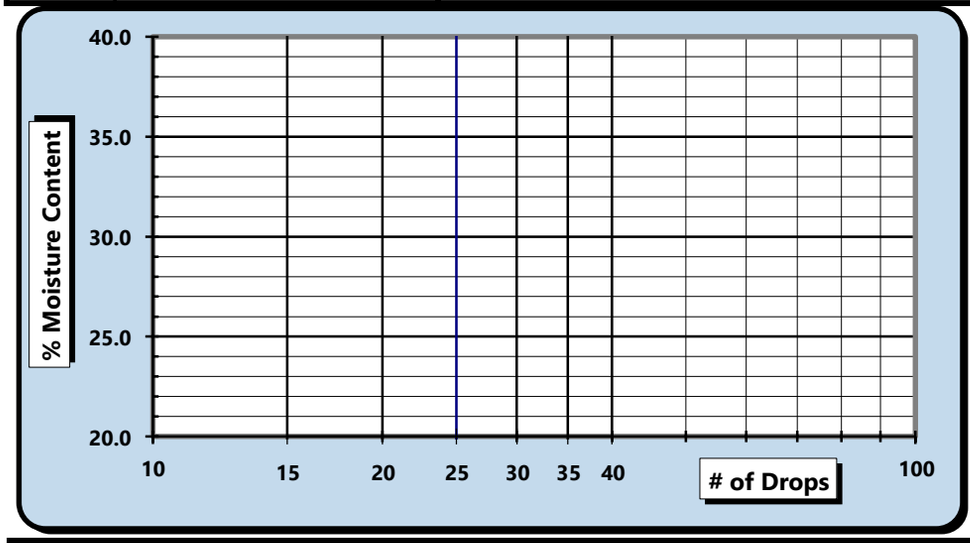
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/06/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/06/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-12	Type: Split-spoon	Depth: 43.5 - 45.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 18.5%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/06/23	Brian Vaughan, P.E.	6/06/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

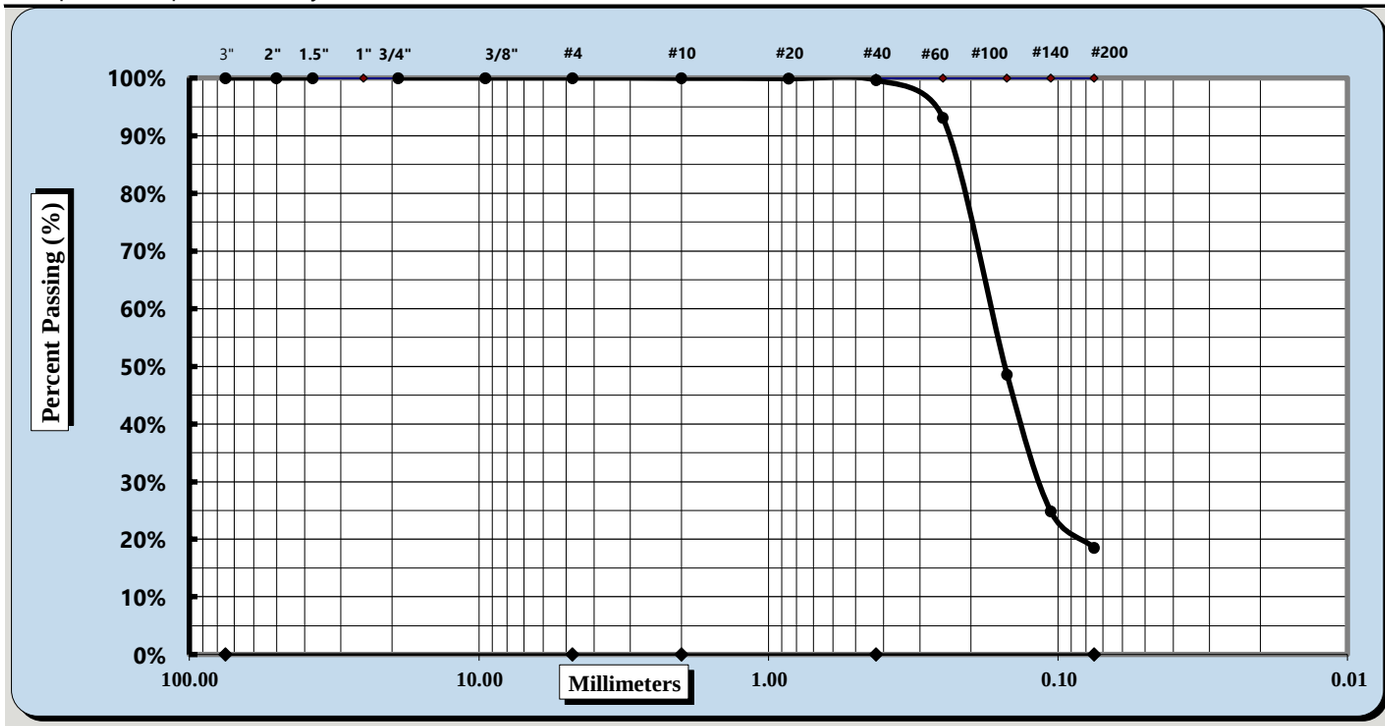
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/6/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/06/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-12	Type:	Split-spoon	Depth:	43.5 - 45.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.425 mm	Coarse Sand	0.0%	Fine Sand	81.1%
Gravel	0.0%	Medium Sand	0.3%	Silt & Clay	18.5%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	28.7%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/6/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

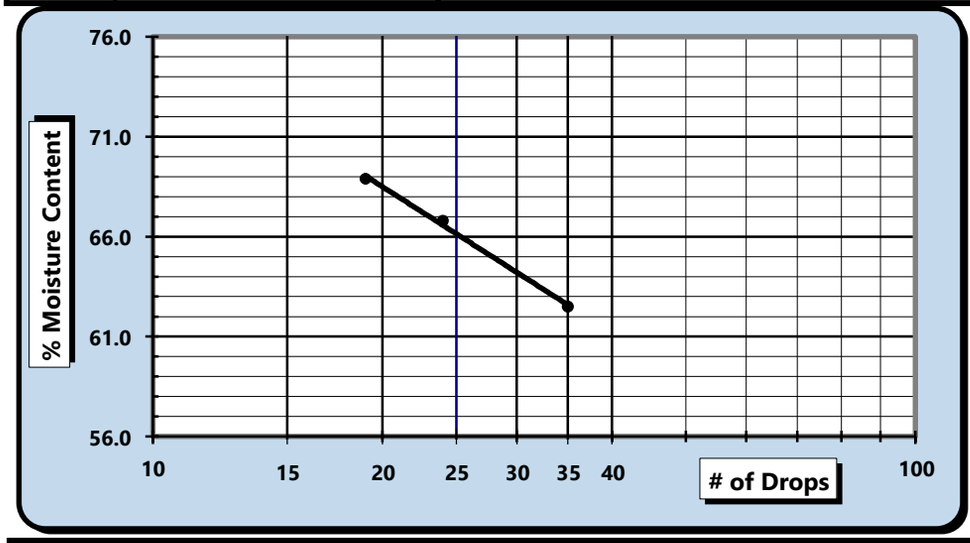
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/07/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/06/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-14	Type: Split-spoon	Depth: 53.5 - 55.0'
Sample Description:	elastic SILT [MH / A-7-5(34)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.69	26.50	26.35				25.92		
B	Wet Soil Weight + A	39.69	39.66	41.20				39.45		
C	Dry Soil Weight + A	34.69	34.39	35.14				36.01		
D	Water Weight (B-C)	5.00	5.27	6.06				3.44		
E	Dry Soil Weight (C-A)	8.00	7.89	8.79				10.09		
F	% Moisture (D/E)*100	62.5%	66.8%	68.9%				34.1%		
N	# OF DROPS	35	24	19				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							34.1%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**66**
Plastic Limit	**34**
Plastic Index	**32**
Group Symbol	**MH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 89.0%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/07/23	Brian Vaughan, P.E.	6/07/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

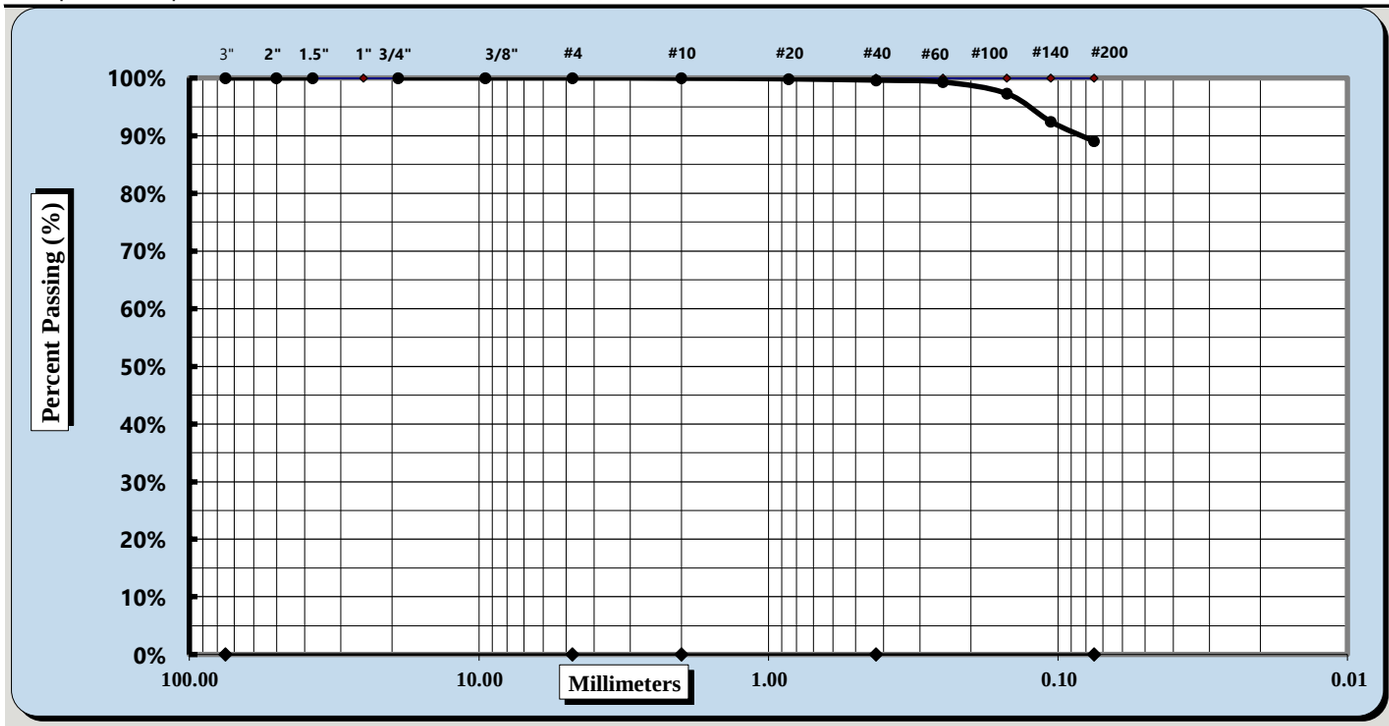
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/7/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/07/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-14	Type:	Split-spoon	Depth:	53.5 - 55.0'
Sample Description:	elastic SILT [MH / A-7-5(34)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.25 mm	Coarse Sand	0.0%	Fine Sand	10.6%
Gravel	0.0%	Medium Sand	0.4%	Silt & Clay	89.0%
Liquid Limit	66	Plastic Limit	34	Plastic Index	32
		Natural Moisture	84.7%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/7/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

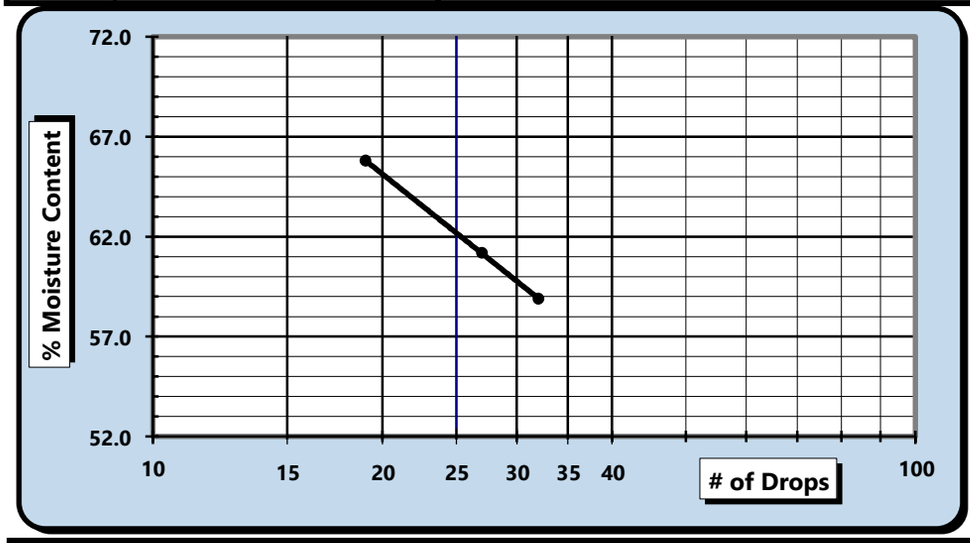
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/07/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/06/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-15	Type: Split-spoon	Depth: 58.5 - 60.0'
Sample Description:	elastic SILT [MH / A-7-5(27)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	5	6	7				8		
A	Tare Weight	26.95	27.78	26.29				27.31		
B	Wet Soil Weight + A	40.39	39.66	40.00				41.37		
C	Dry Soil Weight + A	35.41	35.15	34.56				37.91		
D	Water Weight (B-C)	4.98	4.51	5.44				3.46		
E	Dry Soil Weight (C-A)	8.46	7.37	8.27				10.60		
F	% Moisture (D/E)*100	58.9%	61.2%	65.8%				32.6%		
N	# OF DROPS	32	27	19				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							32.6%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**62**
Plastic Limit	**33**
Plastic Index	**29**
Group Symbol	**MH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 82.1%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/07/23	Brian Vaughan, P.E.	6/07/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

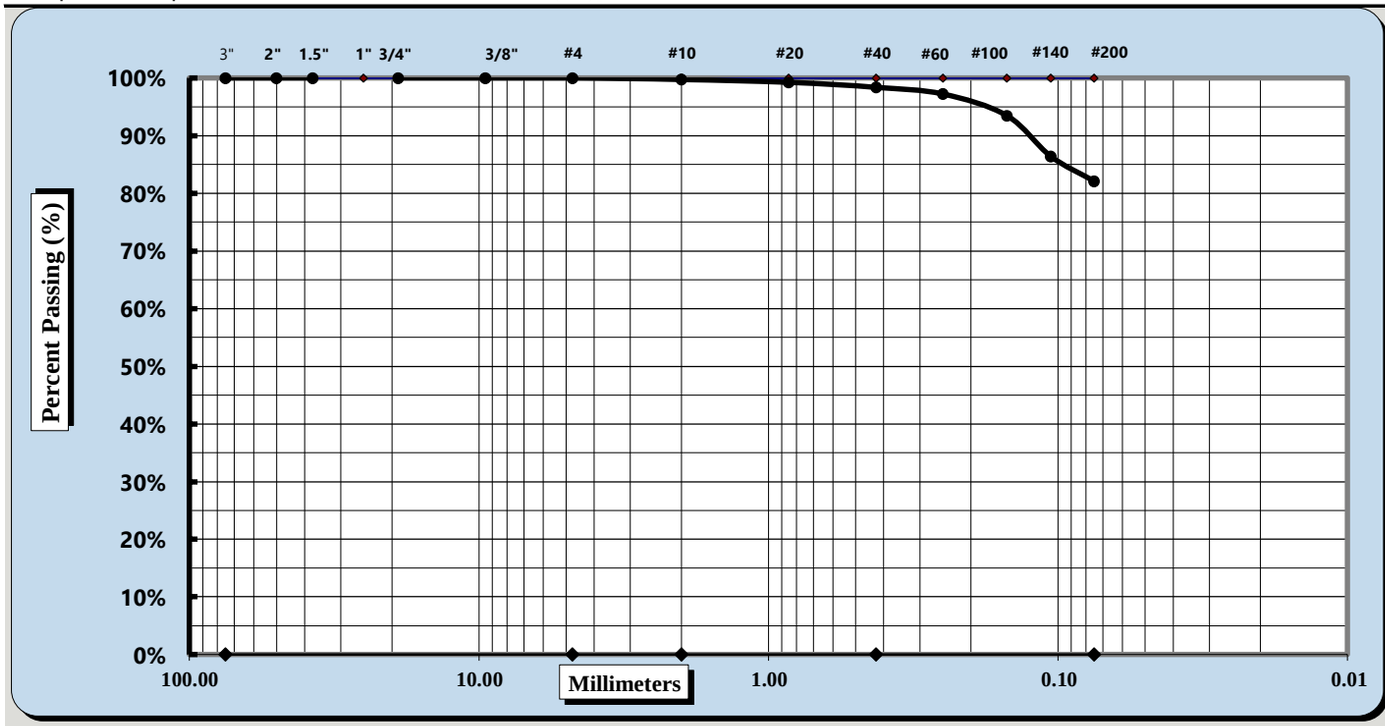
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/7/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/07/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-15	Type:	Split-spoon	Depth:	58.5 - 60.0'
Sample Description:	elastic SILT [MH / A-7-5(27)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.2%	Fine Sand	16.3%
Gravel	0.0%	Medium Sand	1.4%	Silt & Clay	82.1%
Liquid Limit	62	Plastic Limit	33	Plastic Index	29
		Natural Moisture	58.0%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/7/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

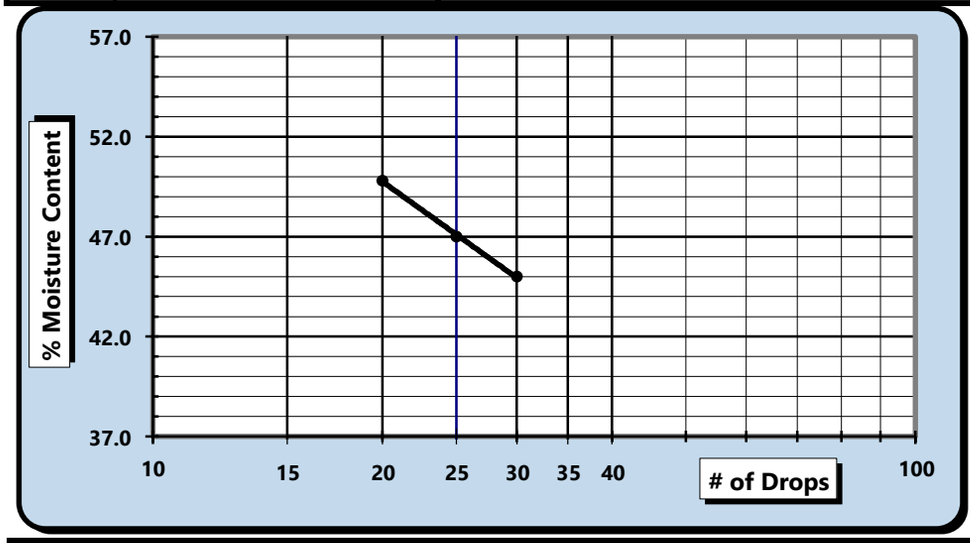
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/07/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/06/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B10	Log #: 52g	Sample Date: 3/14/23
Sample #:	SS-19	Type: Split-spoon	Depth: 78.5 - 80.0'
Sample Description:	silty SAND [SM / A-7-5(3)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	9	10	11				12		
A	Tare Weight	26.82	26.74	26.66				26.63		
B	Wet Soil Weight + A	42.05	41.16	39.86				38.23		
C	Dry Soil Weight + A	37.32	36.55	35.47				35.57		
D	Water Weight (B-C)	4.73	4.61	4.39				2.66		
E	Dry Soil Weight (C-A)	10.50	9.81	8.81				8.94		
F	% Moisture (D/E)*100	45.0%	47.0%	49.8%				29.8%		
N	# OF DROPS	30	25	20				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							29.8%		



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**47**
Plastic Limit	**30**
Plastic Index	**17**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 40.4%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/07/23	Brian Vaughan, P.E.	6/07/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

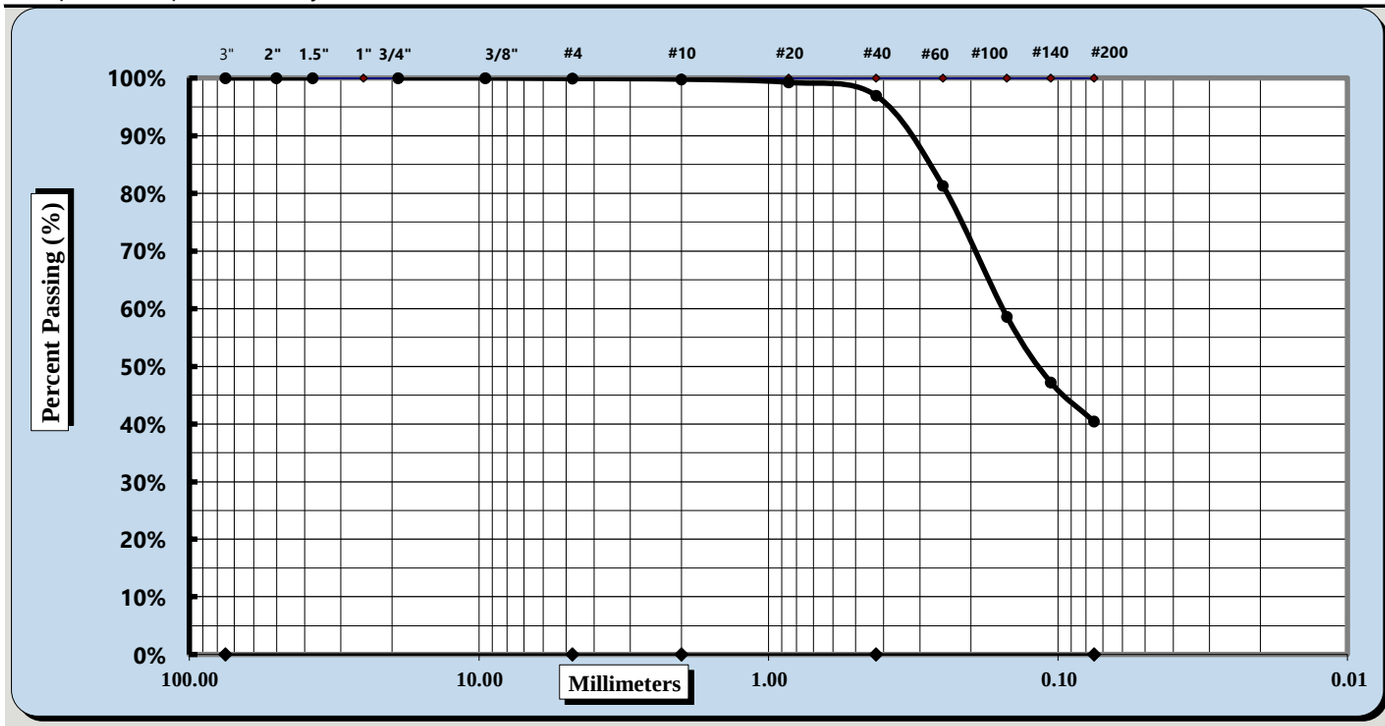
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/7/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/05 - 6/07/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B10	Log #:	52g	Sample Date:	3/14/23
Sample #:	SS-19	Type:	Split-spoon	Depth:	78.5 - 80.0'
Sample Description:	silty SAND [SM / A-7-5(3)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.1%	Fine Sand	56.5%
Gravel	0.1%	Medium Sand	2.8%	Silt & Clay	40.4%
Liquid Limit	47	Plastic Limit	30	Plastic Index	17
		Natural Moisture	43.9%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/7/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-2
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s):	5/4 - 5/5/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Sample by:	Soil Consultants, Inc.	Sample Date(s):	3/20/23
Sampling Method:	Split Spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 20977 Calibration Date: 3/2/23 Oven ID. 1454 Calibration Date: 9/1/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture
		ft.		grams	grams	grams	grams	%
B11	SS-1	0-2		6.83	170.80	153.44	17.36	11.8%
B11	SS-3	4-6		6.82	182.49	149.29	33.20	23.3%
B11	SS-4	6-8		6.90	156.63	127.80	28.83	23.8%
B11	SS-5	8-10		6.79	195.97	151.32	44.65	30.9%
B11	SS-6	13.5-15		6.84	158.94	97.64	61.30	67.5%
B11	SS-7	18.5-20		6.78	168.29	131.29	37.00	29.7%
B11	SS-8	23.5-25		6.97	215.29	175.80	39.49	23.4%
B11	SS-9	28.5-30		7.07	153.97	97.24	56.73	62.9%
B11	SS-10	33.5-35		7.11	147.69	96.45	51.24	57.4%
B11	SS-11	38.5-40		7.17	174.61	123.08	51.53	44.5%
B11	SS-12	43.5-45		6.99	174.29	128.66	45.63	37.5%
B11	SS-13	48.5-50		6.93	170.31	112.54	57.77	54.7%

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

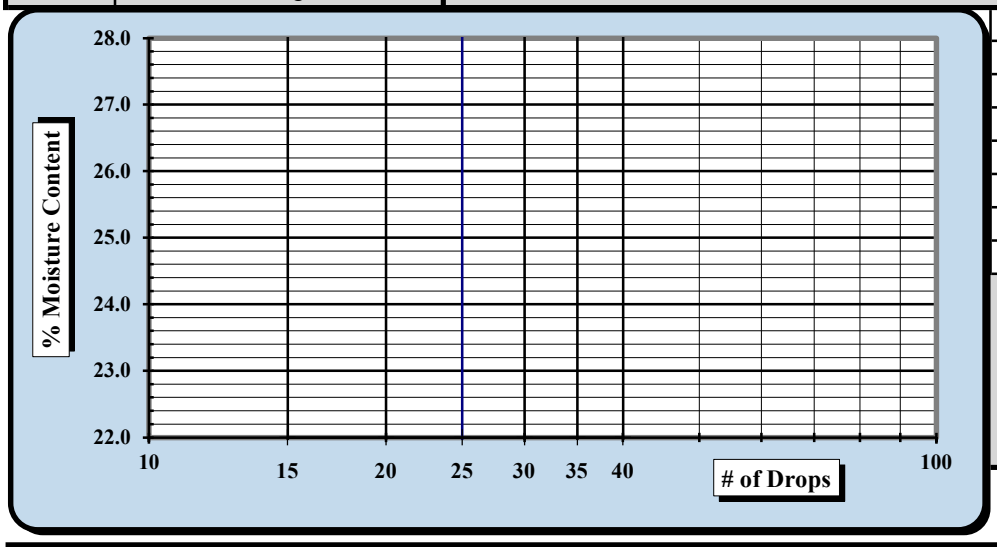
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B11	Sample #: SS-1		Sample Date: 3/20/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 0-2	
Sample Description:				Brown Silty SAND (SM) A-2-4 (0)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	17								
A	Tare Weight	8.59								
B	Wet Soil Weight + A	16.62								
C	Dry Soil Weight + A	15.48								
D	Water Weight (B-C)	1.14								
E	Dry Soil Weight (C-A)	6.89								
F	% Moisture (D/E)*100	16.5%								
N	# OF DROPS	8						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 2.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

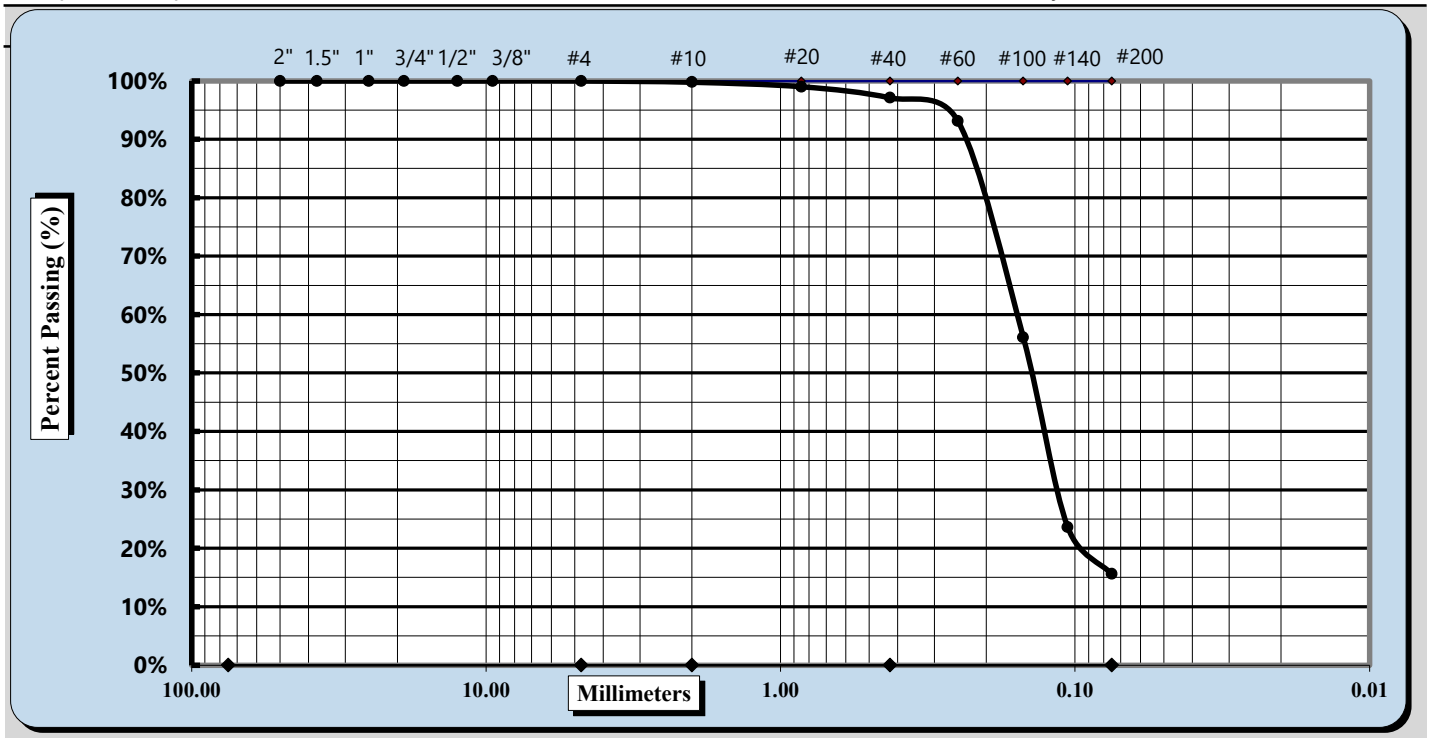
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-1
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 0-2
Sample Description:		Brown Silty SAND (SM)	A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.2%	Fine Sand	81.5%
Gravel	0.0%	Medium Sand	2.7%	Silt & Clay	15.6%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	11.8%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

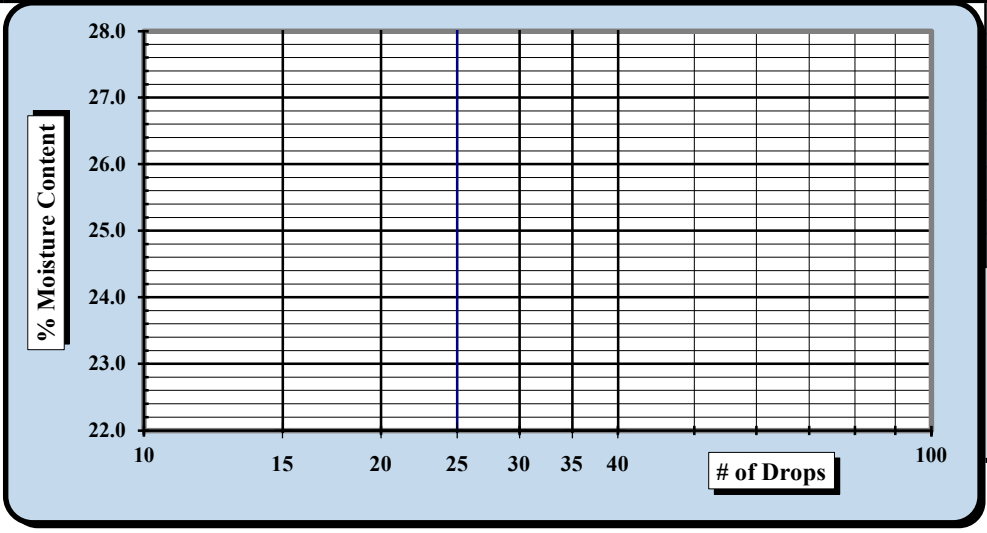
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B11	Sample #: SS-3		Sample Date: 3/20/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 4-6	
Sample Description:		Tan-Brown Poorly Graded SAND with Silt (SP-SM) A-2-4 (0)			

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	166								
A	Tare Weight	8.57								
B	Wet Soil Weight + A	18.87								
C	Dry Soil Weight + A	17.32								
D	Water Weight (B-C)	1.55								
E	Dry Soil Weight (C-A)	8.75								
F	% Moisture (D/E)*100	17.7%								
N	# OF DROPS	5						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 0.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

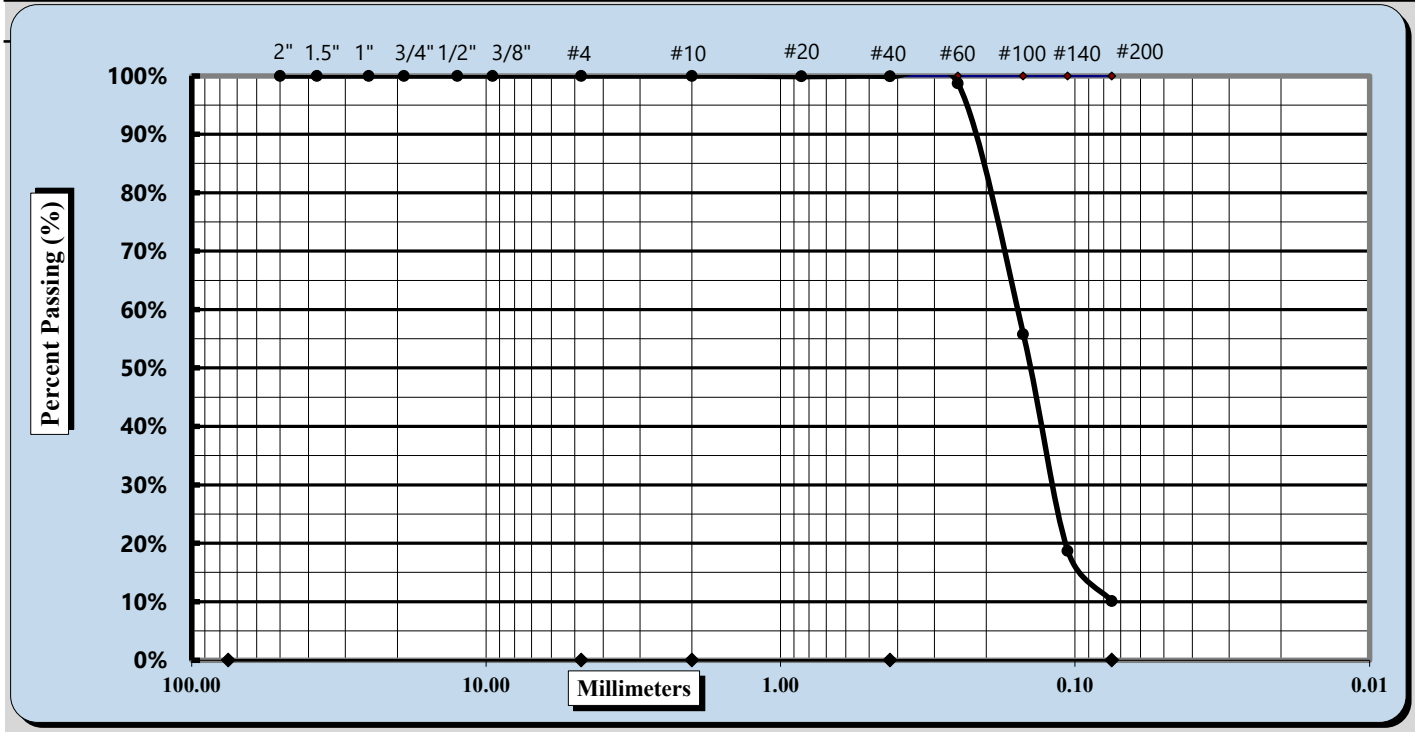
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-3
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 4-6
Sample Description:	Tan-Brown Poorly Graded SAND with Silt (SP-SM)		A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.0%	Fine Sand	89.8%
Gravel	0.0%	Medium Sand	0.1%	Silt & Clay	10.1%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	23.3%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

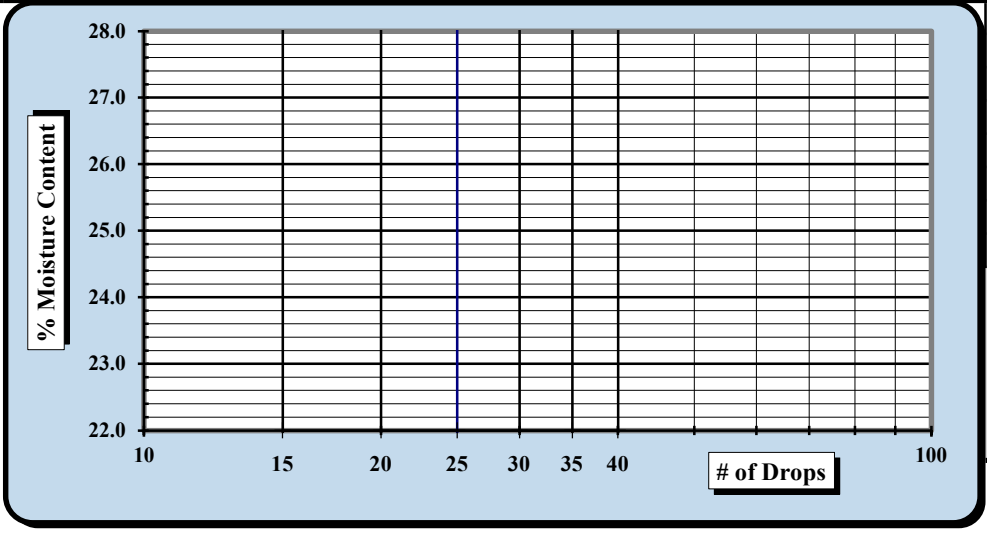
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B11	Sample #: SS-4		Sample Date: 3/20/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 6-8	
Sample Description:		Tan Poorly Graded SAND with Silt (SP-SM) A-2-4 (1)			

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	28								
A	Tare Weight	8.55								
B	Wet Soil Weight + A	20.95								
C	Dry Soil Weight + A	18.67								
D	Water Weight (B-C)	2.28								
E	Dry Soil Weight (C-A)	10.12								
F	% Moisture (D/E)*100	22.5%								
N	# OF DROPS	7						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 0.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

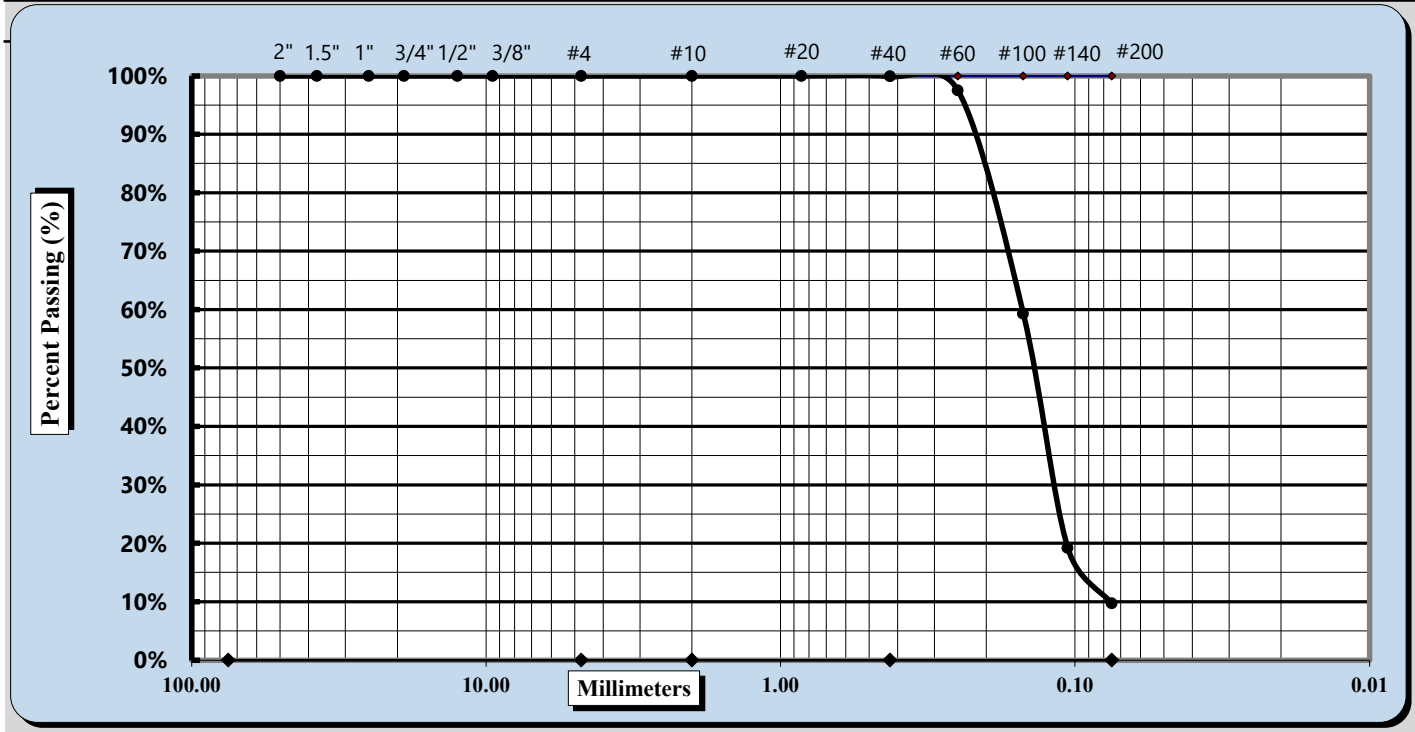
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-4
Log/Sample Id.		Type: SS	Elev/Depth (ft): 6-8
Sample Description:		Tan Poorly Graded SAND with Silt (SP-SM)	A-2-4 (1)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.0%	Fine Sand	90.2%
Gravel	0.0%	Medium Sand	0.1%	Silt & Clay	9.7%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	23.8%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

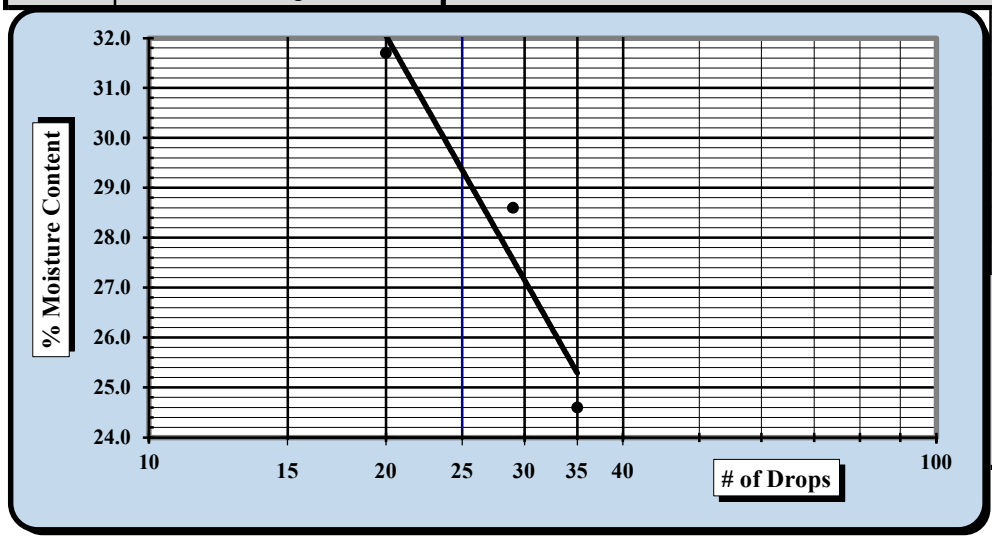
ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Boring #:	B11	Sample #: SS-5	Sample Date: 3/20/2023
Location:	Site-Borehole	Offset: N/A	Depth (ft): 8-10
Sample Description:		Tan-Brown Clayey SAND (SC) A-2-6 (0)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	21	53	112				16	93	
A	Tare Weight	13.27	13.40	11.14				12.27	13.93	
B	Wet Soil Weight + A	26.84	28.03	23.93				19.76	20.47	
C	Dry Soil Weight + A	24.16	24.78	20.85				18.59	19.49	
D	Water Weight (B-C)	2.68	3.25	3.08				1.17	0.98	
E	Dry Soil Weight (C-A)	10.89	11.38	9.71				6.32	5.56	
F	% Moisture (D/E)*100	24.6%	28.6%	31.7%				18.5%	17.6%	
N	# OF DROPS	35	29	20				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**18.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**29**
Plastic Limit	**18**
Plastic Index	**11**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 4.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

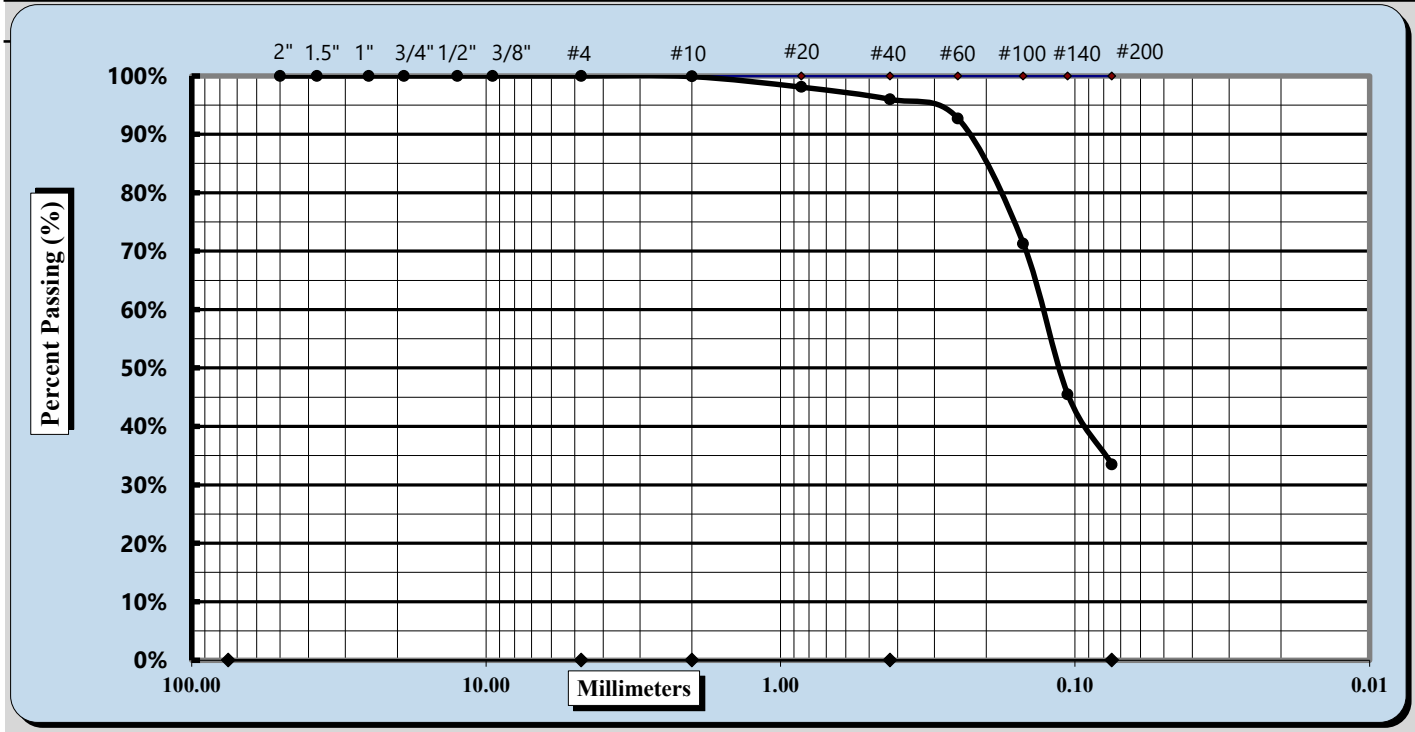
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-5
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 8-10
Sample Description:		Tan-Brown Clayey SAND (SC)	A-2-6 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.1%	Fine Sand	62.5%
Gravel	0.0%	Medium Sand	3.9%	Silt & Clay	33.5%
Liquid Limit	29	Plastic Limit	18	Plastic Index	11
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	30.9%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

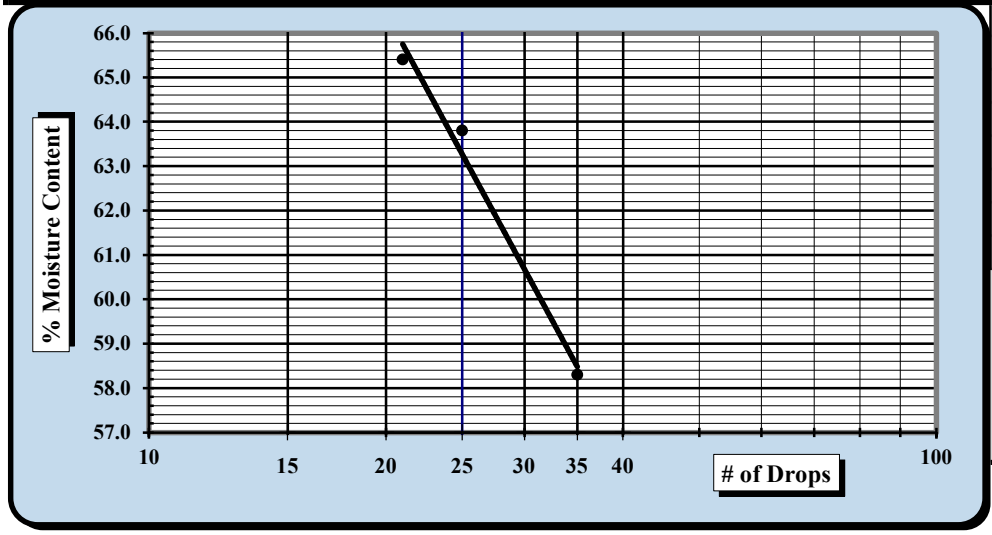
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B11	Sample #: SS-6		Sample Date: 3/20/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 13.5-15	
Sample Description:				Gray CLAY with Sand (CH) A-7-6 (31)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	12	4	14				33	39	
A	Tare Weight	8.58	8.61	8.59				12.31	12.29	
B	Wet Soil Weight + A	17.95	17.41	19.24				19.70	19.32	
C	Dry Soil Weight + A	14.30	14.17	15.03				18.46	18.15	
D	Water Weight (B-C)	3.65	3.24	4.21				1.24	1.17	
E	Dry Soil Weight (C-A)	5.72	5.56	6.44				6.15	5.86	
F	% Moisture (D/E)*100	63.8%	58.3%	65.4%				20.2%	20.0%	
N	# OF DROPS	25	35	21				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**20.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**63**
Plastic Limit	**20**
Plastic Index	**43**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 6.9%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

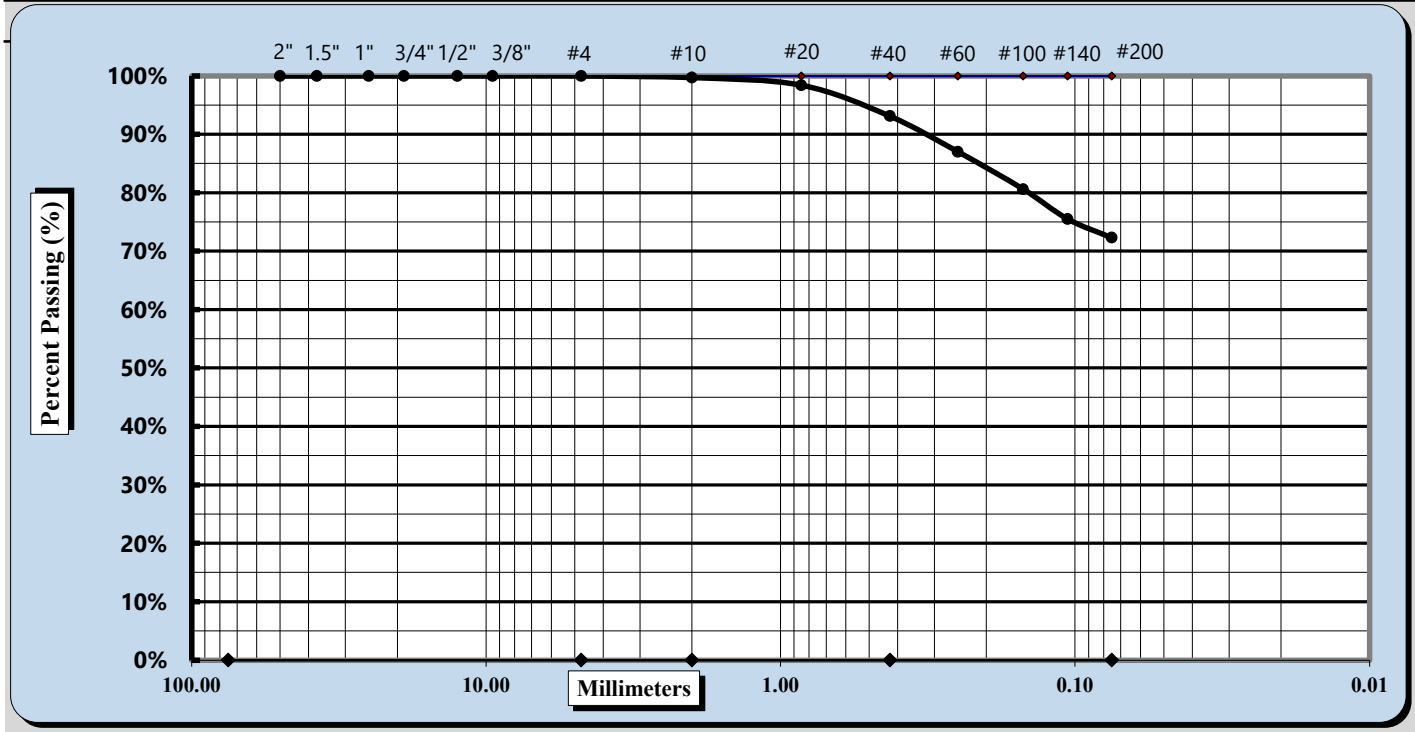
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-6
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 13.5-15
Sample Description:		Gray CLAY with Sand (CH)	A-7-6 (31)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.3%	Fine Sand	20.8%
Gravel	0.0%	Medium Sand	6.6%	Silt & Clay	72.3%
Liquid Limit	63	Plastic Limit	20	Plastic Index	43
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	67.5%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

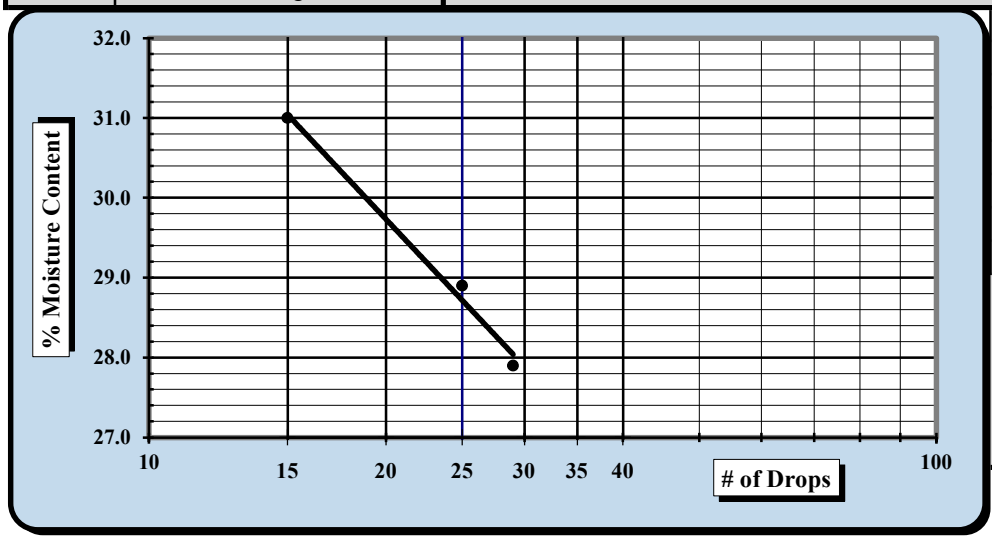
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B11	Sample #: SS-7		Sample Date: 3/20/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 18.5-20	
Sample Description:				Gray Clayey SAND (SC) A-2-6 (0)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	8	46	12				65	55	
A	Tare Weight	13.49	12.28	12.18				13.90	13.93	
B	Wet Soil Weight + A	27.02	26.86	26.52				22.21	21.84	
C	Dry Soil Weight + A	23.99	23.68	23.13				21.05	20.76	
D	Water Weight (B-C)	3.03	3.18	3.39				1.16	1.08	
E	Dry Soil Weight (C-A)	10.50	11.40	10.95				7.15	6.83	
F	% Moisture (D/E)*100	28.9%	27.9%	31.0%				16.2%	15.8%	
N	# OF DROPS	25	29	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**16.0%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**29**
Plastic Limit	**16**
Plastic Index	**13**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 5.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

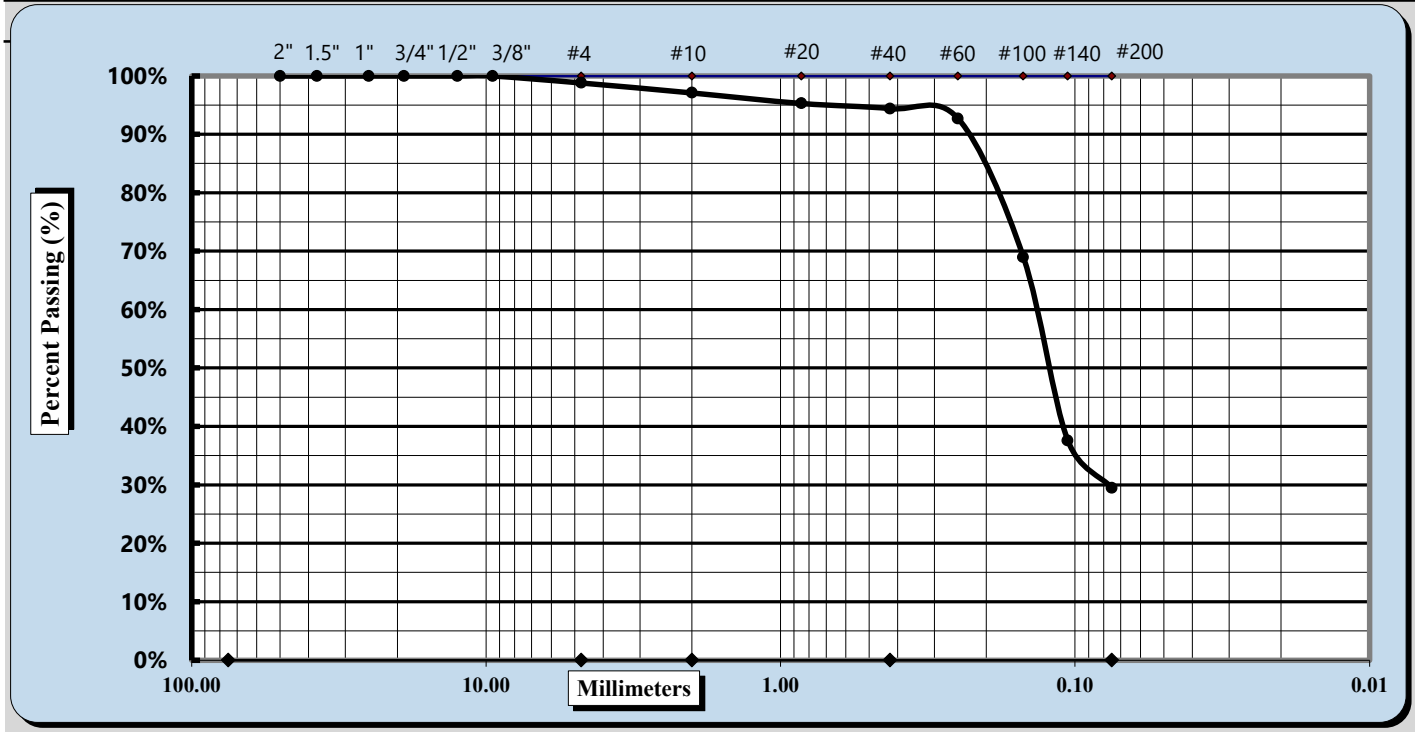
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-7
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 18.5-20
Sample Description:		Gray Clayey SAND (SC)	A-2-6 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	1.7%	Fine Sand	64.9%
Gravel	1.2%	Medium Sand	2.7%	Silt & Clay	29.5%
Liquid Limit	29	Plastic Limit	16	Plastic Index	13
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	29.7%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

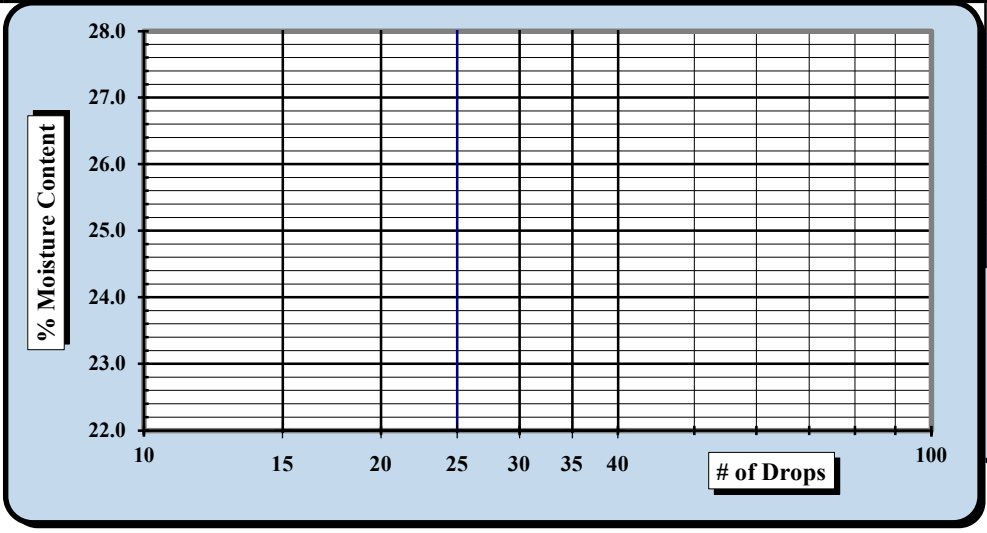
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B11	Sample #: SS-8		Sample Date: 3/20/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 23.5-25	
Sample Description:				Gray Silty SAND (SM) A-2-4 (0)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	2								
A	Tare Weight	12.21								
B	Wet Soil Weight + A	22.88								
C	Dry Soil Weight + A	21.25								
D	Water Weight (B-C)	1.63								
E	Dry Soil Weight (C-A)	9.04								
F	% Moisture (D/E)*100	18.0%								
N	# OF DROPS	10						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 27.5%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

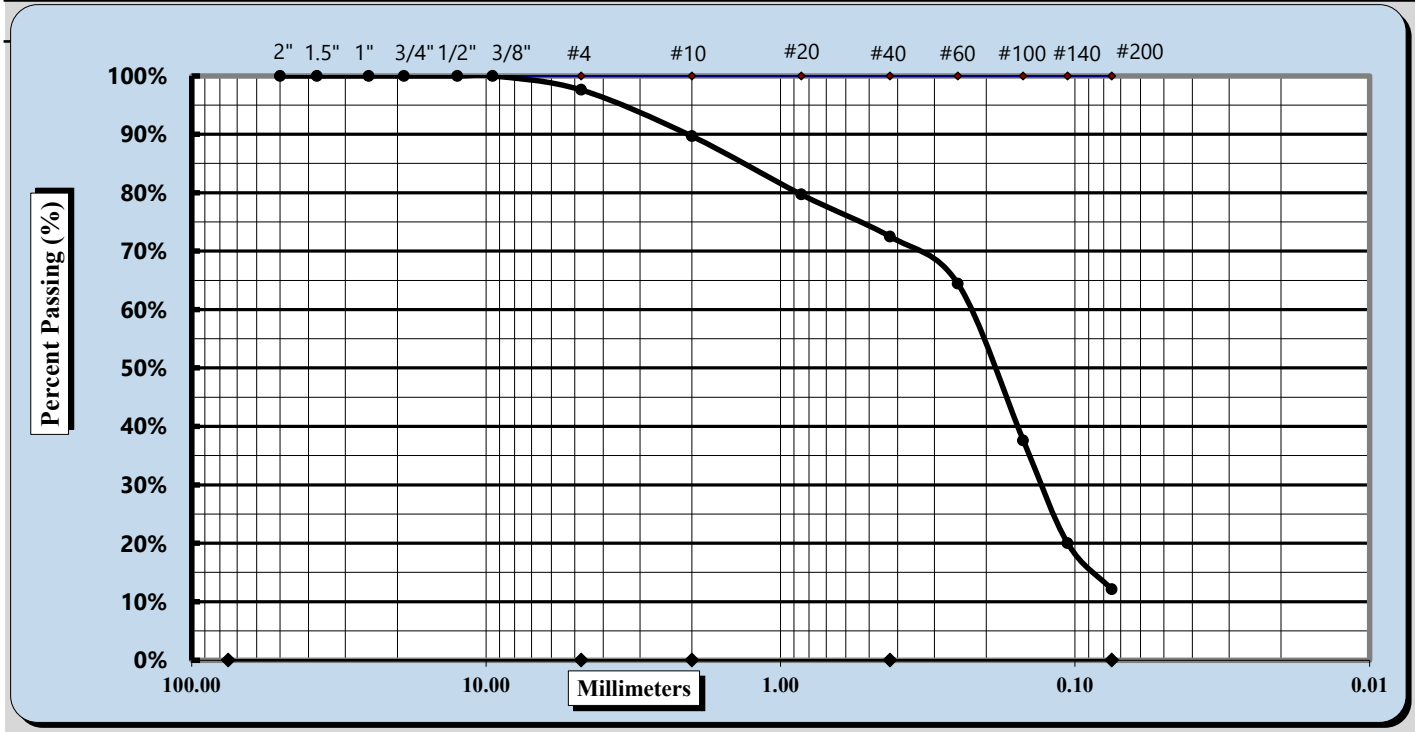
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-8
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 23.5-25
Sample Description:		Gray Silty SAND (SM)	A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	7.9%	Fine Sand	60.4%
Gravel	2.4%	Medium Sand	17.2%	Silt & Clay	12.1%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	23.4%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

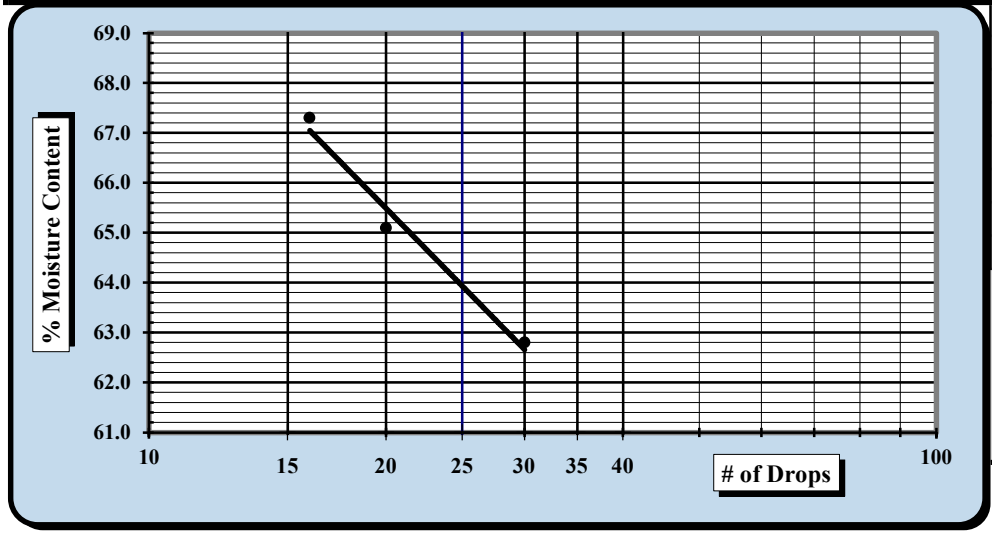
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B11	Sample #: SS-9		Sample Date: 3/20/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 28.5-30	
Sample Description:				Gray CLAY with Sand (CH) A-7-6 (31)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	C-3	A-2	41				89	B-4	
A	Tare Weight	21.33	21.38	13.48				14.13	21.26	
B	Wet Soil Weight + A	31.05	32.59	24.29				20.20	28.00	
C	Dry Soil Weight + A	27.30	28.17	19.94				19.23	26.88	
D	Water Weight (B-C)	3.75	4.42	4.35				0.97	1.12	
E	Dry Soil Weight (C-A)	5.97	6.79	6.46				5.10	5.62	
F	% Moisture (D/E)*100	62.8%	65.1%	67.3%				19.0%	19.9%	
N	# OF DROPS	30	20	16				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**19.5%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**64**
Plastic Limit	**20**
Plastic Index	**44**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 5.9%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

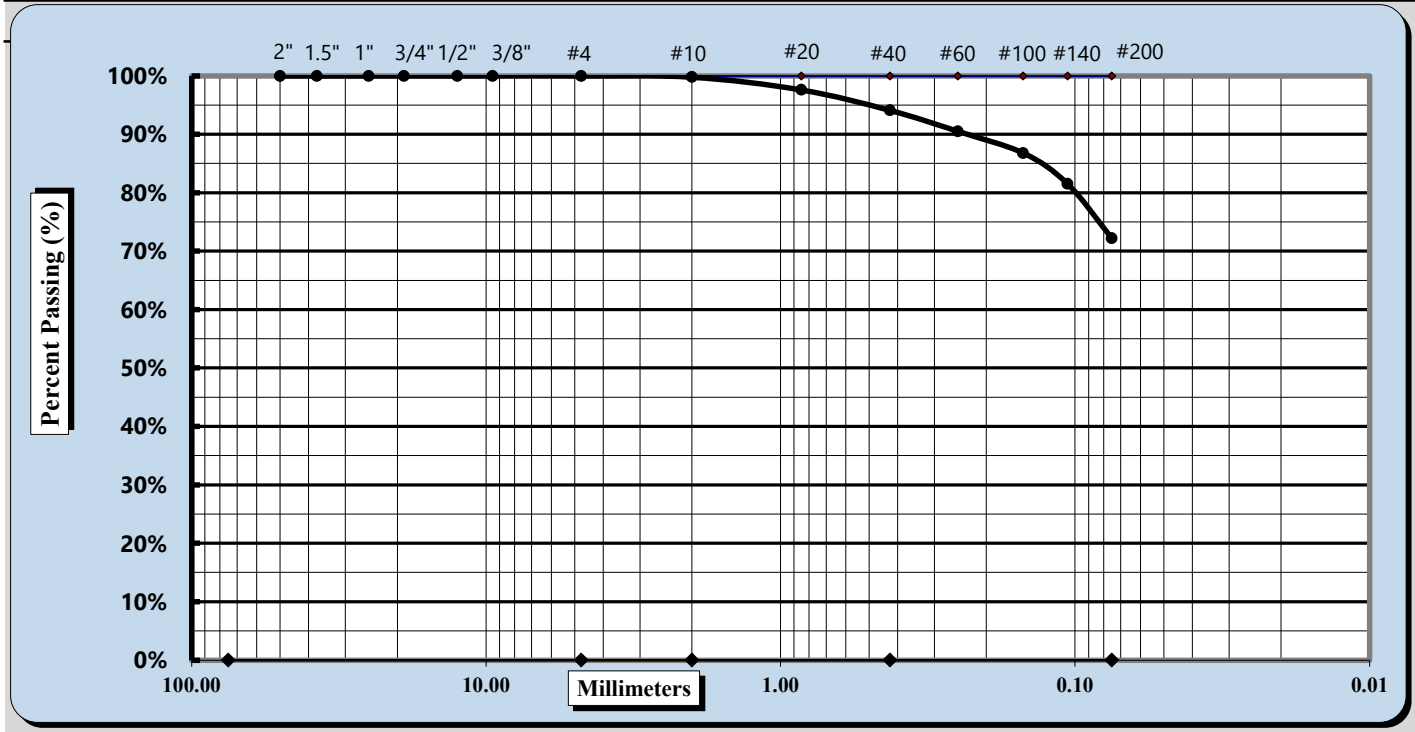
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-9
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 28.5-30
Sample Description:		Gray CLAY with Sand (CH)	A-7-6 (31)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.2%	Fine Sand	21.9%
Gravel	0.0%	Medium Sand	5.7%	Silt & Clay	72.2%
Liquid Limit	64	Plastic Limit	20	Plastic Index	44
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	62.9%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

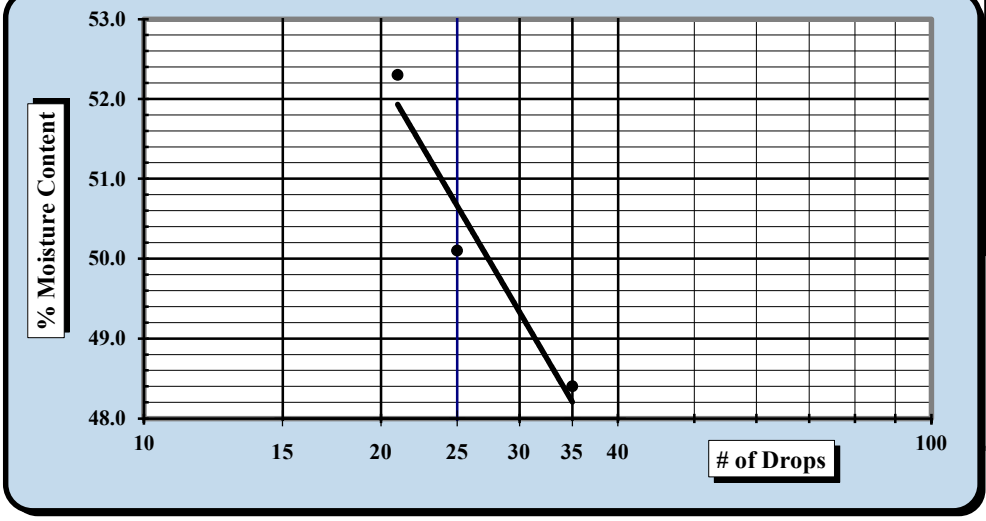
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B11	Sample #: SS-10		Sample Date: 3/20/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 33.5-35	
Sample Description:				Gray Sandy CLAY (CH) A-7-6 (17)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	79	15	44				B-6	56	
A	Tare Weight	13.97	12.27	12.28				21.31	13.98	
B	Wet Soil Weight + A	24.77	21.95	23.00				28.22	21.49	
C	Dry Soil Weight + A	21.25	18.72	19.32				27.23	20.42	
D	Water Weight (B-C)	3.52	3.23	3.68				0.99	1.07	
E	Dry Soil Weight (C-A)	7.28	6.45	7.04				5.92	6.44	
F	% Moisture (D/E)*100	48.4%	50.1%	52.3%				16.7%	16.6%	
N	# OF DROPS	35	25	21				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**16.7%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**51**
Plastic Limit	**17**
Plastic Index	**34**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 9.1%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

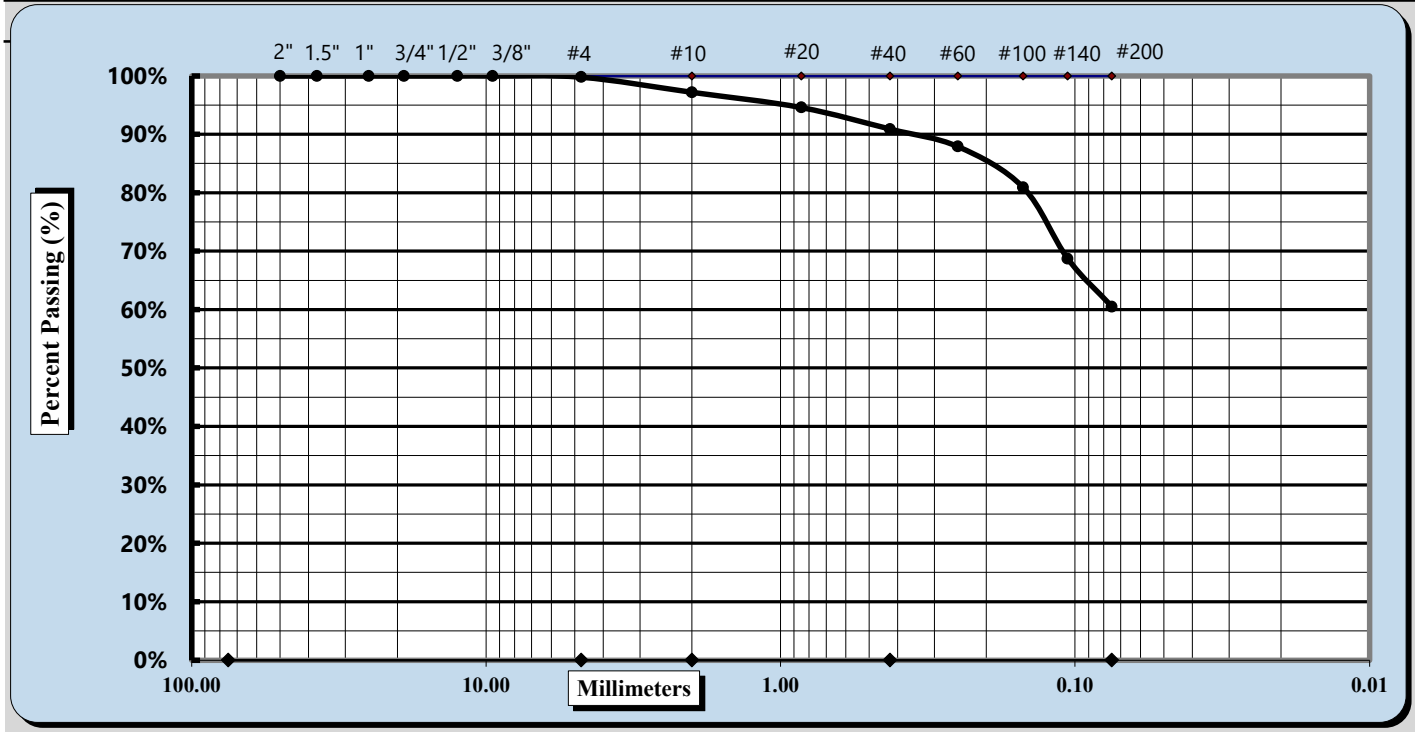
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-10
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 33.5-35
Sample Description:		Gray Sandy CLAY (CH)	A-7-6 (17)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	2.6%	Fine Sand	30.4%
Gravel	0.2%	Medium Sand	6.3%	Silt & Clay	60.5%
Liquid Limit	51	Plastic Limit	17	Plastic Index	34
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	57.4%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

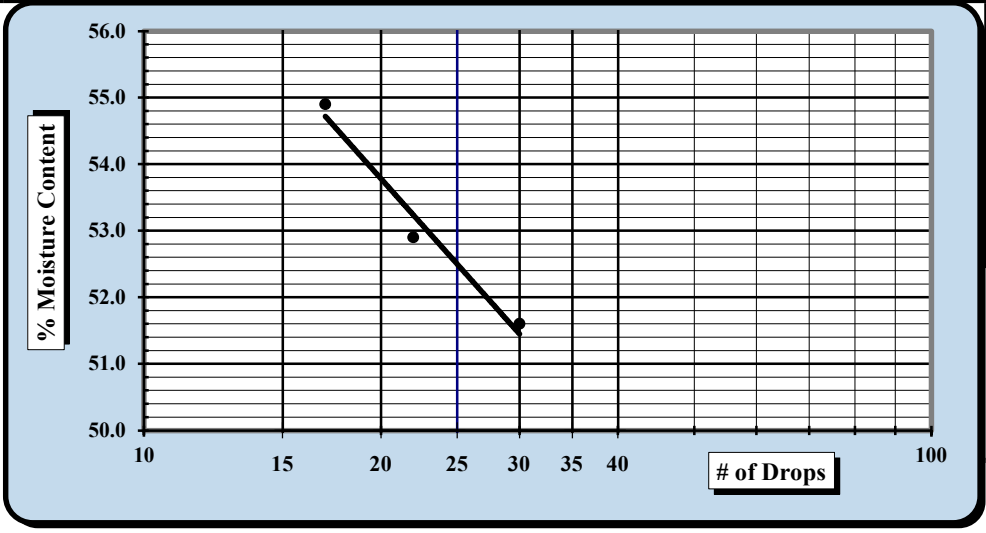
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B11	Sample #: SS-11	Sample Date: 3/20/2023
Location:	Site-Borehole	Offset: N/A	Depth (ft): 38.5-40
Sample Description:			Brown Clayey SAND (SC) A-2-7 (1)

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	58	52	54				17	4	
A	Tare Weight	13.99	14.07	13.97				12.34	12.14	
B	Wet Soil Weight + A	23.72	24.13	23.84				19.23	18.15	
C	Dry Soil Weight + A	20.41	20.65	20.34				17.92	16.98	
D	Water Weight (B-C)	3.31	3.48	3.50				1.31	1.17	
E	Dry Soil Weight (C-A)	6.42	6.58	6.37				5.58	4.84	
F	% Moisture (D/E)*100	51.6%	52.9%	54.9%				23.5%	24.2%	
N	# OF DROPS	30	22	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**23.9%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**53**
Plastic Limit	**24**
Plastic Index	**29**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 1.2%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

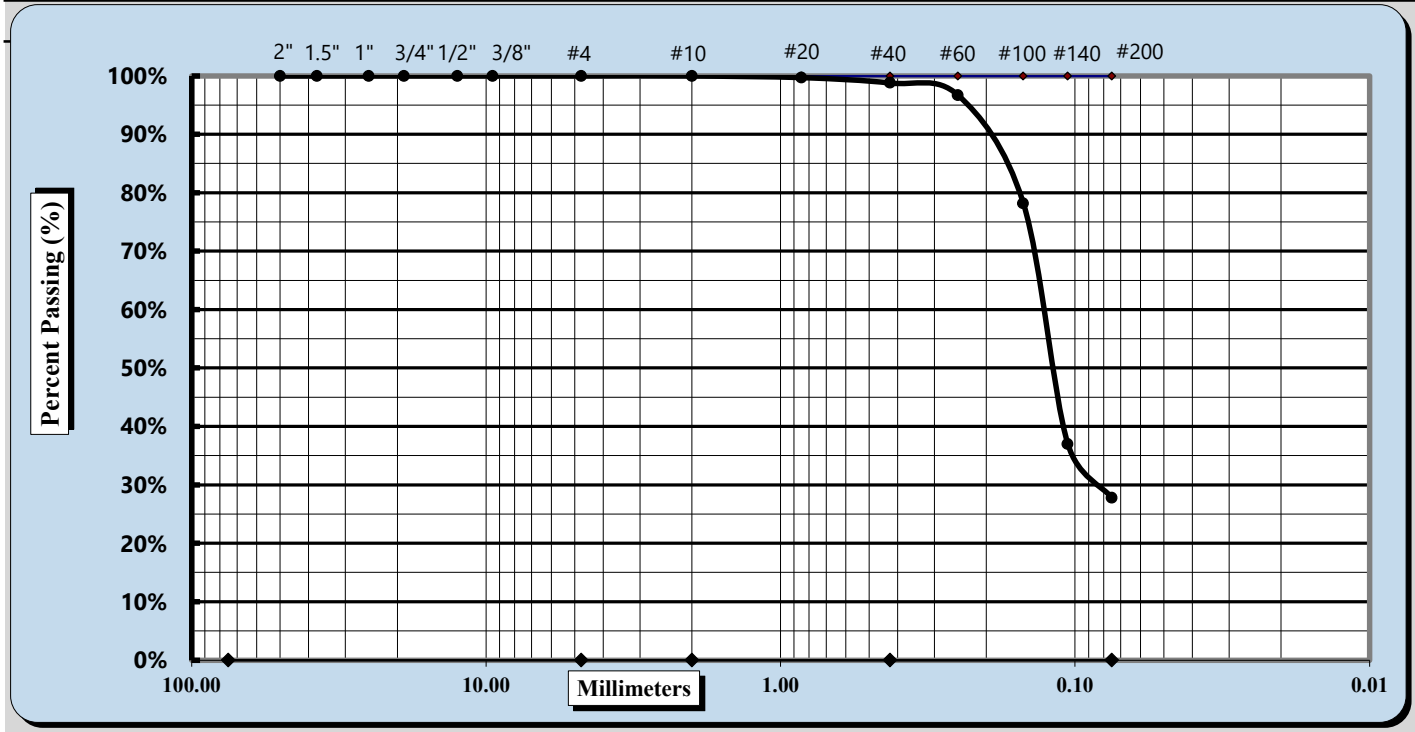
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-11
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 38.5-40
Sample Description:		Brown Clayey SAND (SC)	A-2-7 (1)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.0%	Fine Sand	71.0%
Gravel	0.0%	Medium Sand	1.2%	Silt & Clay	27.8%
Liquid Limit	53	Plastic Limit	24	Plastic Index	29
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	44.5%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

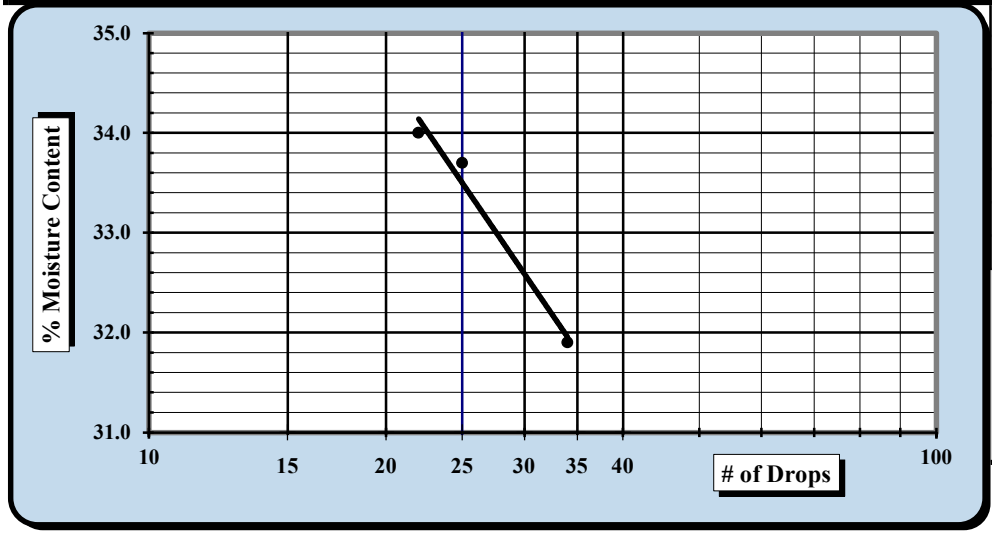
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B11	Sample #: SS-12		Sample Date: 3/20/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 43.5-45	
Sample Description:				Brown Silty SAND (SM) A-2-4 (0)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	84	64	81				C-2	B-2	
A	Tare Weight	14.00	14.16	14.09				21.32	21.30	
B	Wet Soil Weight + A	26.82	27.72	30.24				28.85	28.73	
C	Dry Soil Weight + A	23.59	24.44	26.14				27.32	27.23	
D	Water Weight (B-C)	3.23	3.28	4.10				1.53	1.50	
E	Dry Soil Weight (C-A)	9.59	10.28	12.05				6.00	5.93	
F	% Moisture (D/E)*100	33.7%	31.9%	34.0%				25.5%	25.3%	
N	# OF DROPS	25	34	22				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**25.4%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**34**
Plastic Limit	**25**
Plastic Index	**9**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 0.8%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

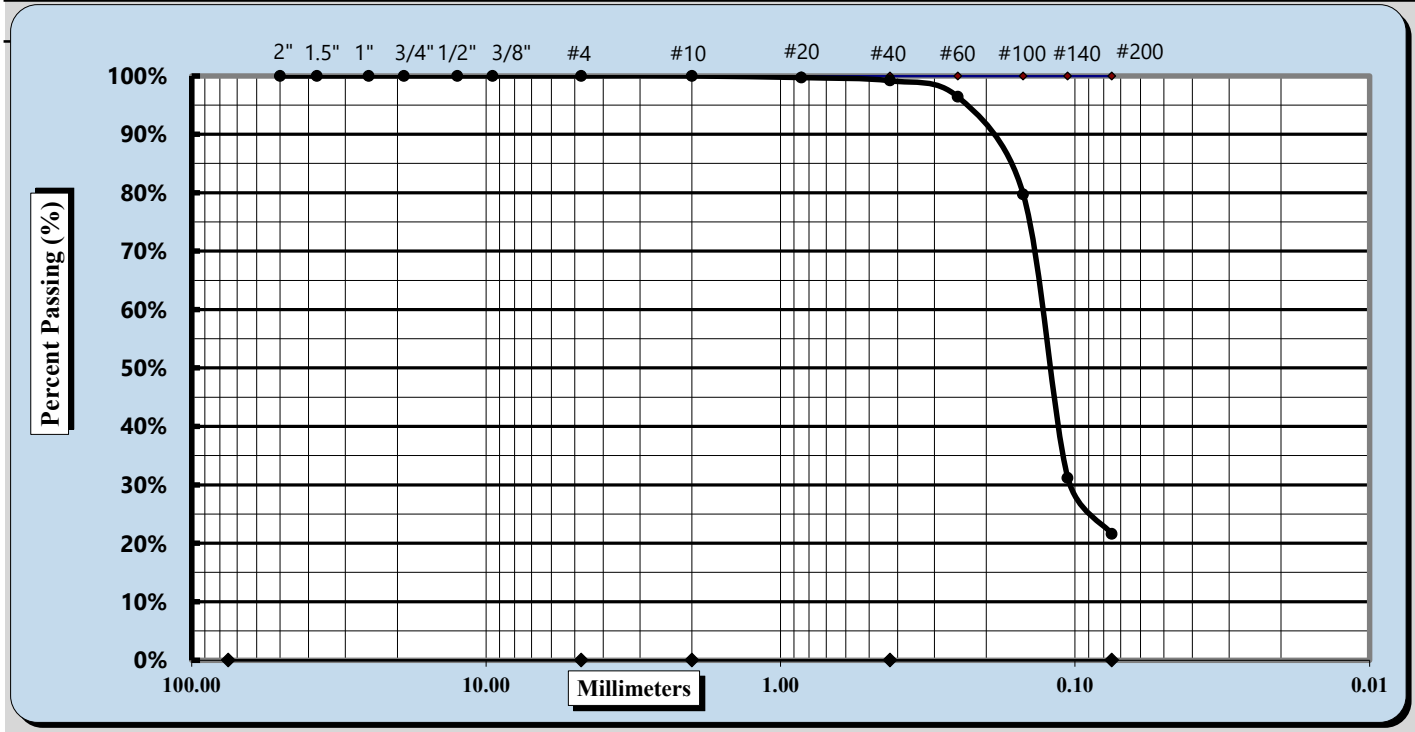
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	4/21/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-12
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 43.5-45
Sample Description:		Brown Silty SAND (SM)	A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.0%	Fine Sand	77.6%
Gravel	0.0%	Medium Sand	0.8%	Silt & Clay	21.6%
Liquid Limit	34	Plastic Limit	25	Plastic Index	9
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	37.5%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

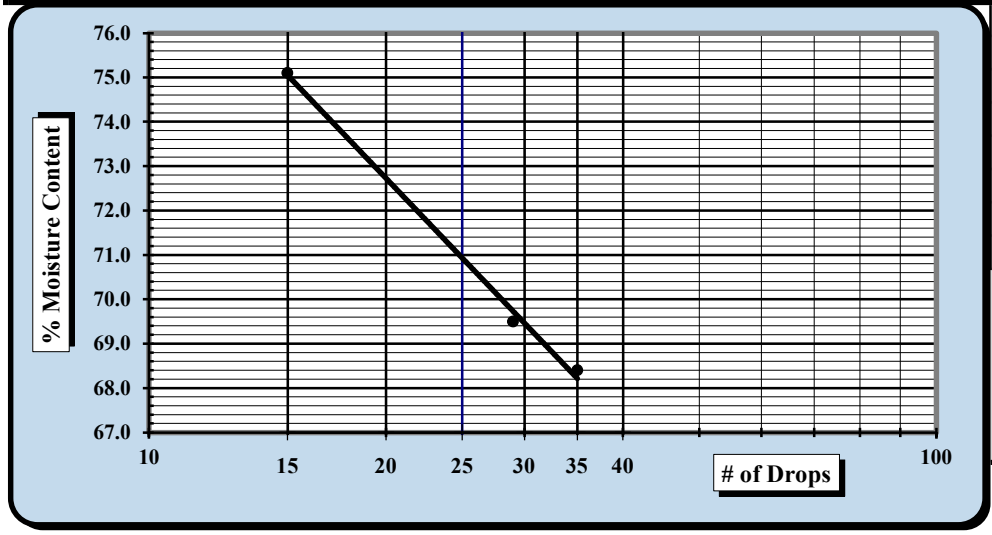
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/3/23 to 5/9/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	B11	Sample #: SS-13		Sample Date: 3/20/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 48.5-50	
Sample Description:				Brown CLAY with Sand (CH) A-7-6 (38)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	74	60	C-2				43	18	
A	Tare Weight	14.07	14.08	21.14				12.19	12.34	
B	Wet Soil Weight + A	22.59	23.74	30.70				19.21	18.68	
C	Dry Soil Weight + A	19.13	19.78	26.60				17.72	17.32	
D	Water Weight (B-C)	3.46	3.96	4.10				1.49	1.36	
E	Dry Soil Weight (C-A)	5.06	5.70	5.46				5.53	4.98	
F	% Moisture (D/E)*100	68.4%	69.5%	75.1%				26.9%	27.3%	
N	# OF DROPS	35	29	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**27.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**71**
Plastic Limit	**27**
Plastic Index	**44**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 0.6%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

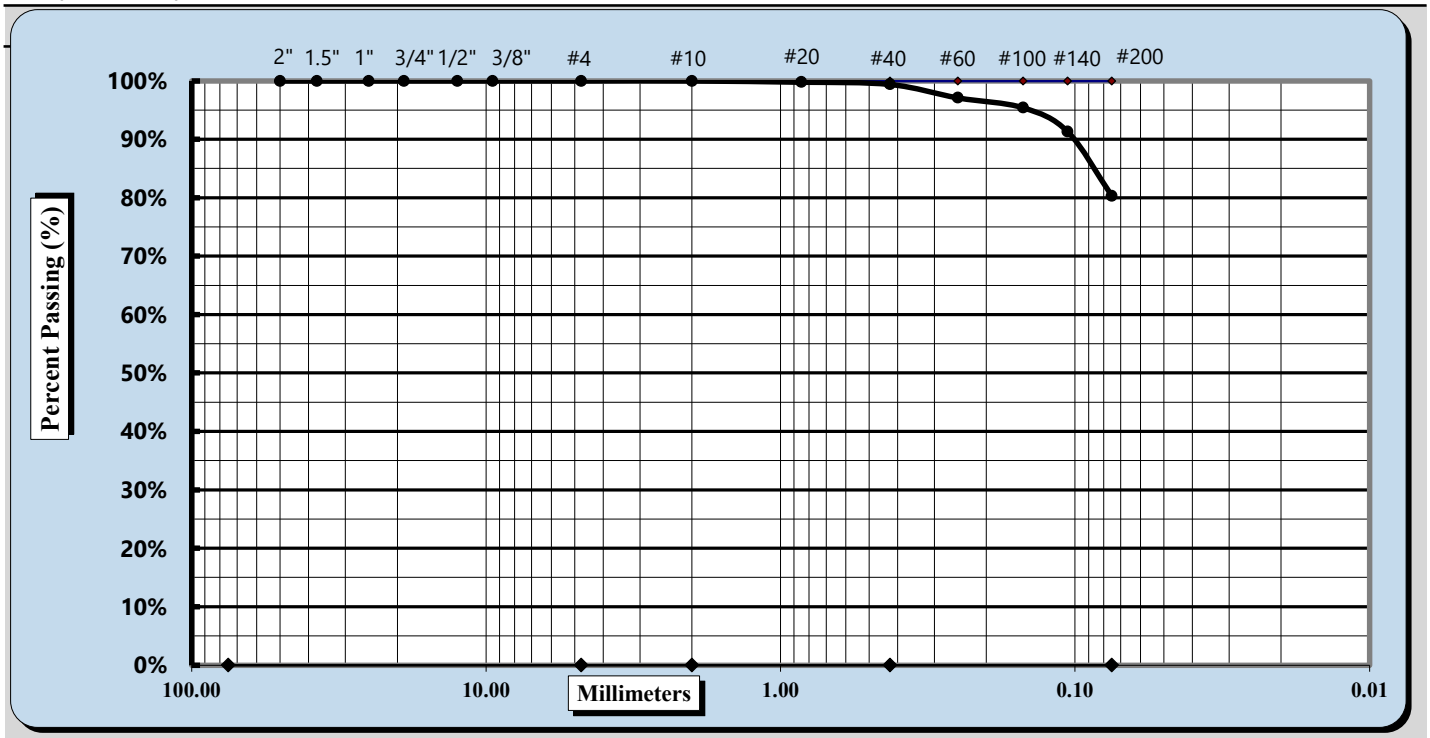
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/20/2023
Location:	Site-Borehole	Boring #: B11	Sample #: SS-13
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 48.5-50
Sample Description:		Brown CLAY with Sand (CH)	A-7-6 (38)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.0%	Fine Sand	19.1%
Gravel	0.0%	Medium Sand	0.6%	Silt & Clay	80.3%
Liquid Limit	71	Plastic Limit	27	Plastic Index	44
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	54.7%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/02/23
Project Name:	526 Longpoint Road Interchange	Test Date(s):	5/15 - 5/16/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Sampled by:	Soil Consultants, Inc.	Sample Date(s):	3/22/23
Sampling Method:	Split-spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 13942 Calibration Date: 11/01/22 Oven ID. 13978 Calibration Date: 10/01/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft.		grams	grams	grams	grams	%	
B12	SS-1	0.0-2.0'	D-3A	94.71	408.31	378.56	29.75	10.5%	
B12	SS-4	6.0-8.0'	WX-1	99.62	416.79	335.72	81.07	34.3%	
B12	SS-5	8.0-10.0'	YM-6	93.76	402.85	276.13	126.72	69.5%	
B12	SS-6	13.5-15.0'	D-15	93.77	403.22	293.95	109.27	54.6%	
B12	SS-7	18.5-20.0'	D-22	92.93	416.08	331.11	84.97	35.7%	
B12	SS-8	23.5-25.0'	D-17	99.95	354.00	306.18	47.82	23.2%	
B12	SS-9	28.5-30.0'	D-8	91.77	405.32	311.71	93.61	42.6%	
B12	SS-10	33.5-35.0'	D-16	97.76	402.69	328.44	74.25	32.2%	
B12	SS-11	38.5-40.0'	CL-6	64.61	346.61	283.95	62.66	28.6%	
B12	SS-12	43.5-45.0'	CL-4	62.46	399.39	332.03	67.36	25.0%	
B12	SS-14	53.5-55.0'	CL-5	64.44	347.19	239.14	108.05	61.8%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Benjamin Kovaleski		NICET Lab Level III / 117226	6/02/23
Technician Name		*Certification Type / No.*	*Date*
Brian Vaughan, P.E.	Brian Vaughan	QA Supervisor	6/02/23
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

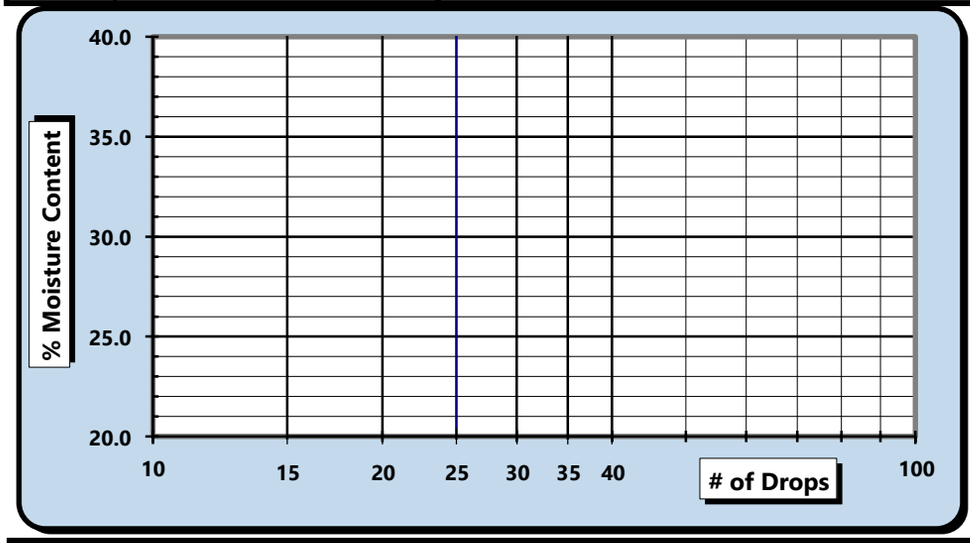
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/08/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/05/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B12	Log #: 52g	Sample Date: 3/22/23
Sample #:	SS-1	Type: Split-spoon	Depth: 0.0 - 2.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 14.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/08/23	Brian Vaughan, P.E.	6/08/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

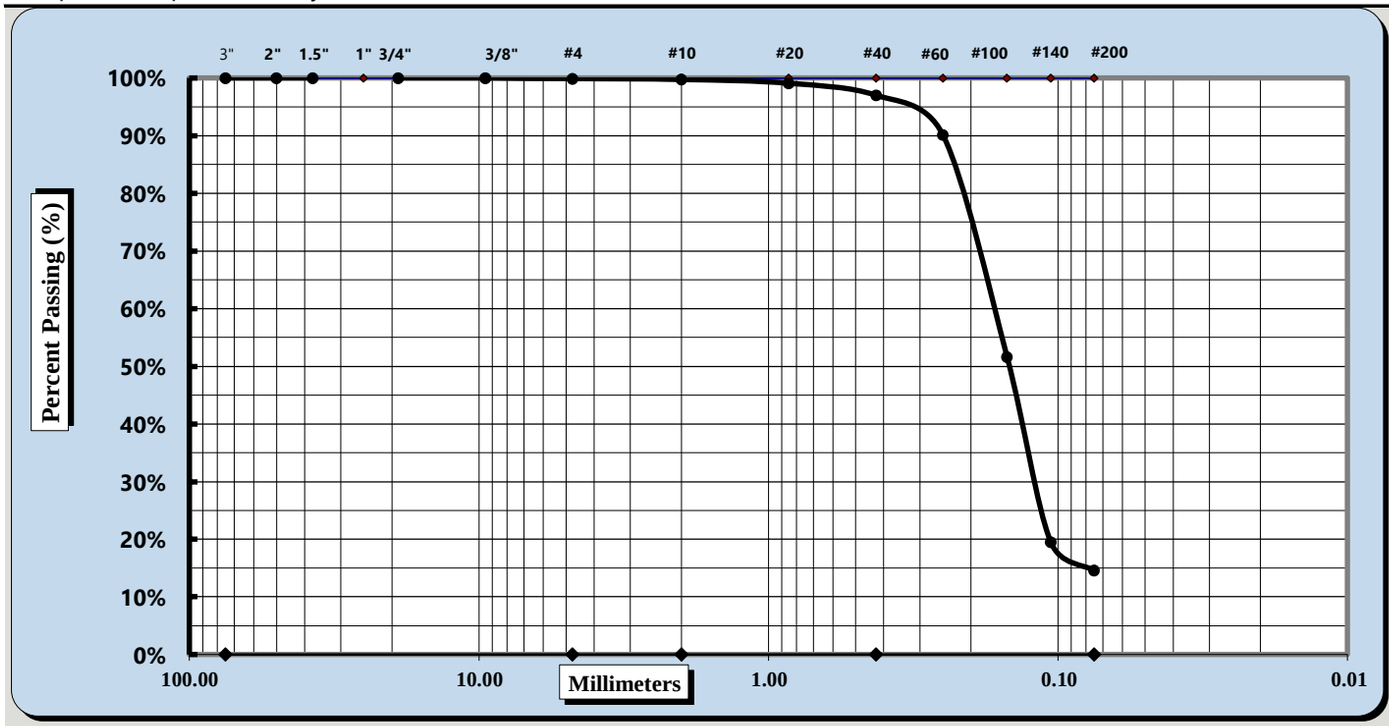
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/8/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/07 - 6/08/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B12	Log #:	52g	Sample Date:	3/22/23
Sample #:	SS-1	Type:	Split-spoon	Depth:	0.0 - 2.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.1%	Fine Sand	82.4%
Gravel	0.1%	Medium Sand	2.7%	Silt & Clay	14.6%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	10.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

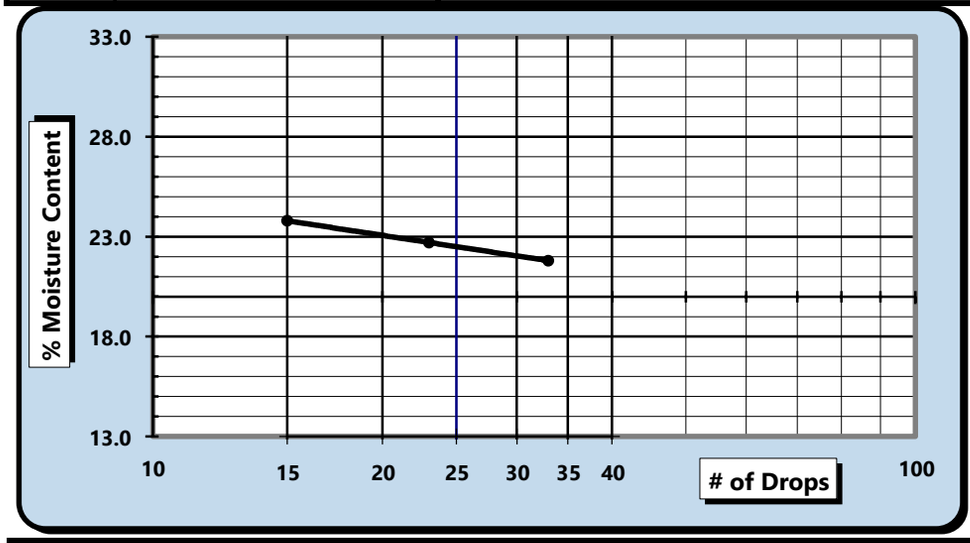
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/08/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/07/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B12	Log #: 52g	Sample Date: 3/22/23
Sample #:	SS-4	Type: Split-spoon	Depth: 6.0 - 8.0'
Sample Description:	silty clayey SAND [SC-SM / A-4(0)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.70	26.50	26.33				25.91		
B	Wet Soil Weight + A	42.70	42.87	42.68				37.34		
C	Dry Soil Weight + A	39.84	39.84	39.54				35.49		
D	Water Weight (B-C)	2.86	3.03	3.14				1.85		
E	Dry Soil Weight (C-A)	13.14	13.34	13.21				9.58		
F	% Moisture (D/E)*100	21.8%	22.7%	23.8%				19.3%		
N	# OF DROPS	33	23	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							19.3%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**23**
Plastic Limit	**19**
Plastic Index	**4**
Group Symbol	**CL-ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 43.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/08/23	Brian Vaughan, P.E.	6/08/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

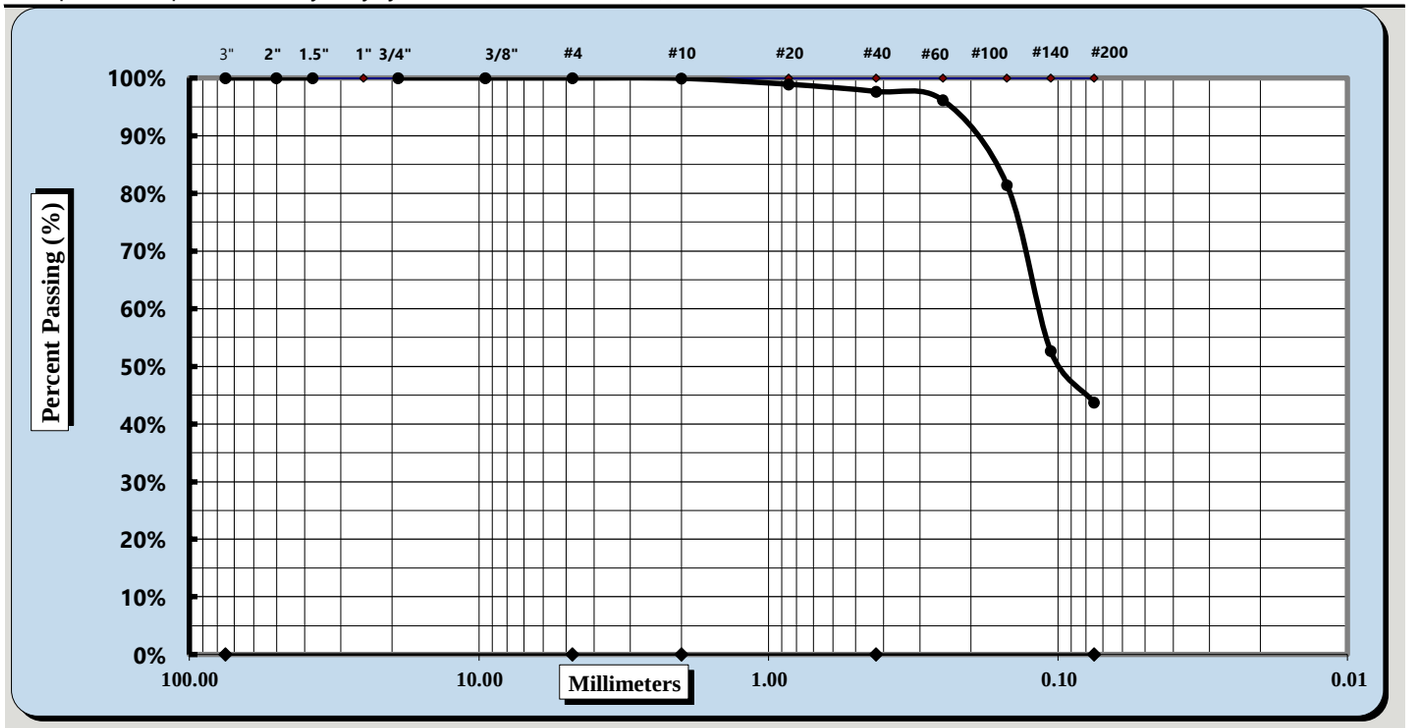
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/8/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/07 - 6/08/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B12	Log #:	52g	Sample Date:	3/22/23
Sample #:	SS-4	Type:	Split-spoon	Depth:	6.0 - 8.0'
Sample Description:	silty clayey SAND [SC-SM / A-4(0)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.1%	Fine Sand	54.0%
Gravel	0.0%	Medium Sand	2.3%	Silt & Clay	43.7%
Liquid Limit	23	Plastic Limit	19	Plastic Index	4
		Natural Moisture	34.3%		

Notes / Deviations / References:

Brian Vaughan, P.E. — *Technical Responsibility*
Brian Vaughan — *Signature*
QA Supervisor — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

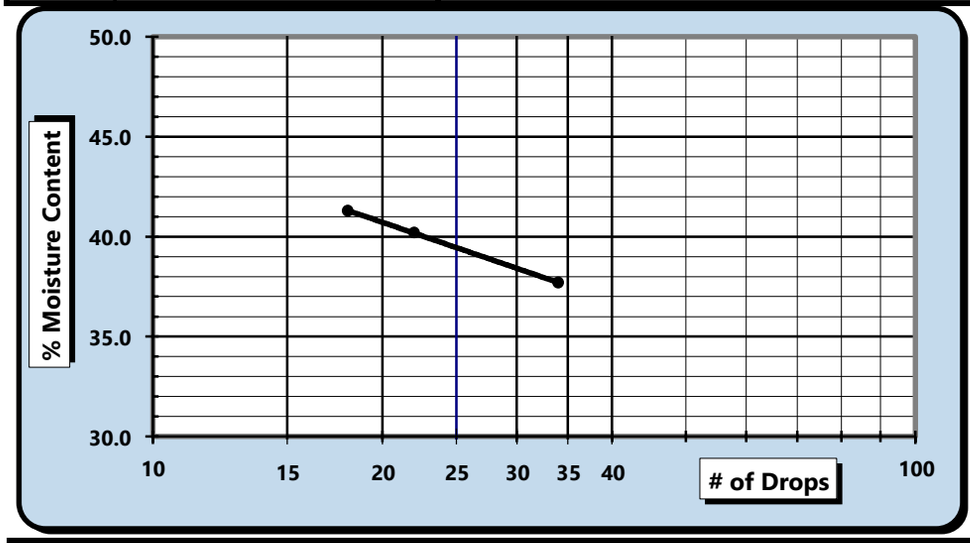
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/08/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/07/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B12	Log #: 52g	Sample Date: 3/22/23
Sample #:	SS-5	Type: Split-spoon	Depth: 8.0 - 10.0'
Sample Description:	sandy SILT [ML / A-6(6)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	5	6	7				8		
A	Tare Weight	26.96	27.77	26.28				27.30		
B	Wet Soil Weight + A	42.22	45.56	39.92				39.30		
C	Dry Soil Weight + A	38.04	40.46	35.93				36.71		
D	Water Weight (B-C)	4.18	5.10	3.99				2.59		
E	Dry Soil Weight (C-A)	11.08	12.69	9.65				9.41		
F	% Moisture (D/E)*100	37.7%	40.2%	41.3%				27.5%		
N	# OF DROPS	34	22	18				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							27.5%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**40**
Plastic Limit	**28**
Plastic Index	**12**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 58.9%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/08/23	Brian Vaughan, P.E.	6/08/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

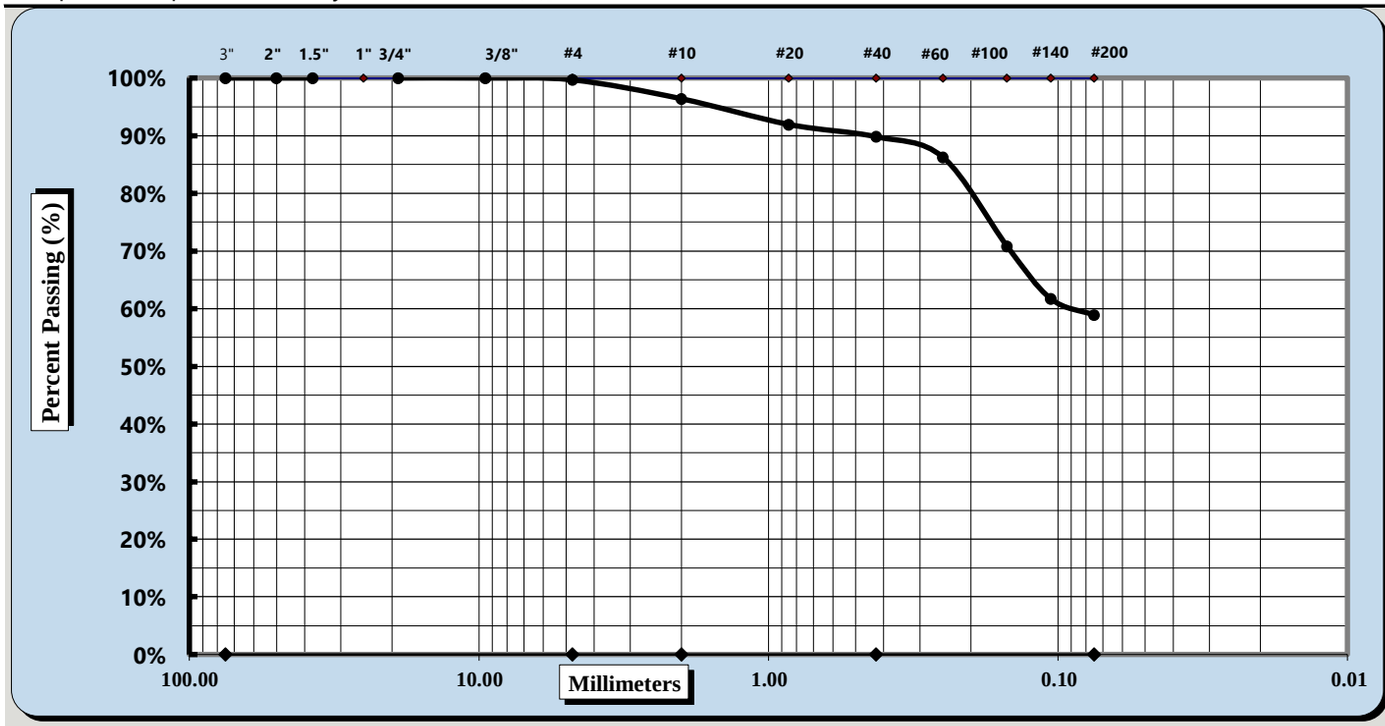
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/8/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/07 - 6/08/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B12	Log #:	52g	Sample Date:	3/22/23
Sample #:	SS-5	Type:	Split-spoon	Depth:	8.0 - 10.0'
Sample Description:	sandy SILT [ML / A-6(6)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	4.75 mm	Coarse Sand	3.3%	Fine Sand	31.0%
Gravel	0.3%	Medium Sand	6.6%	Silt & Clay	58.9%
Liquid Limit	40	Plastic Limit	28	Plastic Index	12
		Natural Moisture	69.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

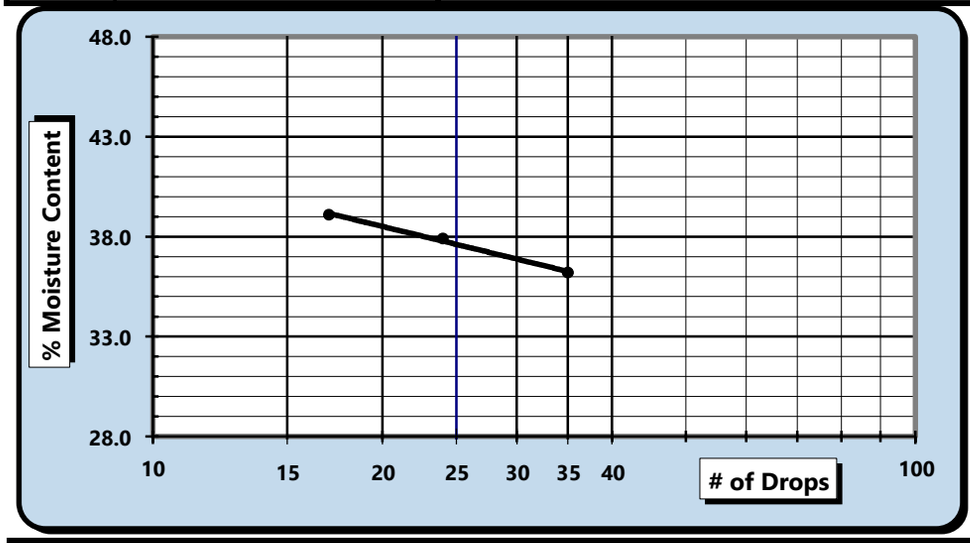
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/08/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/07/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B12	Log #: 52g	Sample Date: 3/22/23
Sample #:	SS-6	Type: Split-spoon	Depth: 13.5 - 15.0'
Sample Description:	sandy lean CLAY [CL / A-6(11)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	9	10	11				12		
A	Tare Weight	26.84	26.74	26.66				26.64		
B	Wet Soil Weight + A	41.45	41.48	42.68				40.65		
C	Dry Soil Weight + A	37.57	37.43	38.18				38.31		
D	Water Weight (B-C)	3.88	4.05	4.50				2.34		
E	Dry Soil Weight (C-A)	10.73	10.69	11.52				11.67		
F	% Moisture (D/E)*100	36.2%	37.9%	39.1%				20.1%		
N	# OF DROPS	35	24	17				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							20.1%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**38**
Plastic Limit	**20**
Plastic Index	**18**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 68.1%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/08/23	Brian Vaughan, P.E.	6/08/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

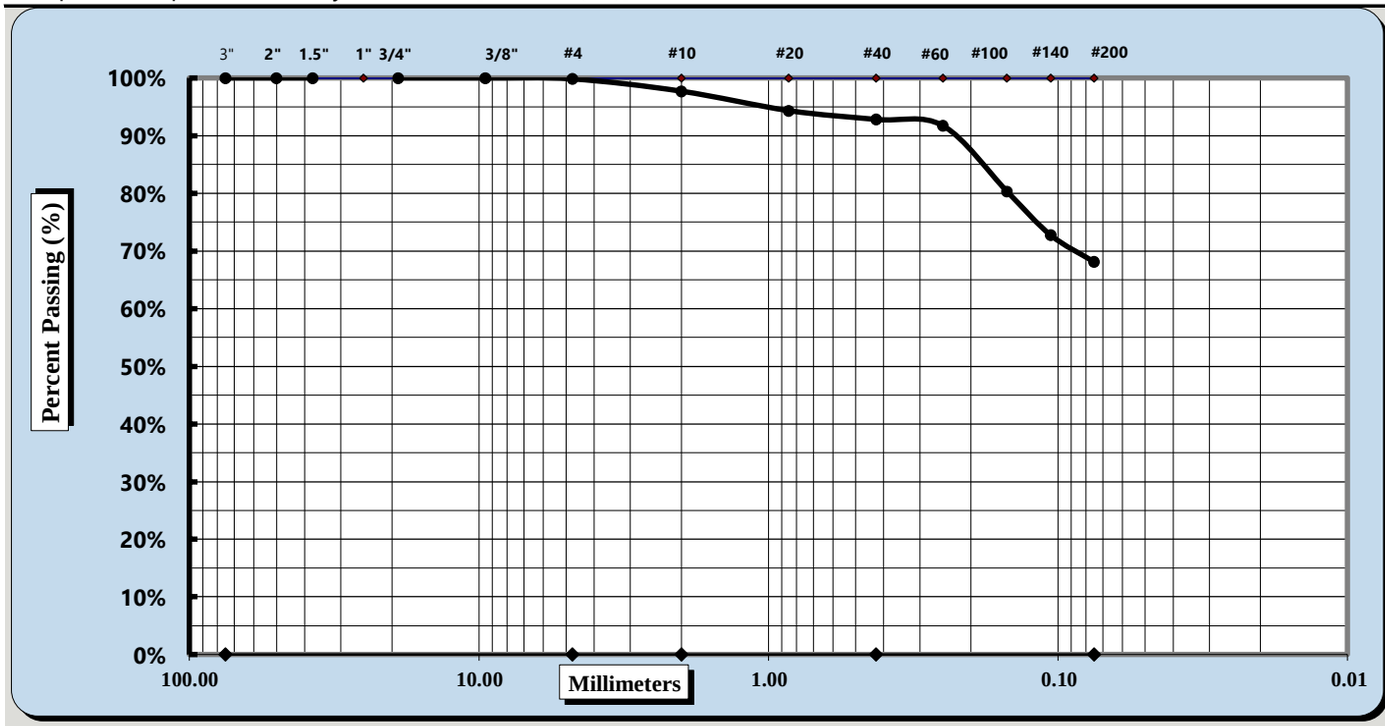
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/8/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/07 - 6/08/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B12	Log #:	52g	Sample Date:	3/22/23
Sample #:	SS-6	Type:	Split-spoon	Depth:	13.5 - 15.0'
Sample Description:	sandy lean CLAY [CL / A-6(11)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	4.75 mm	Coarse Sand	2.1%	Fine Sand	24.7%
Gravel	0.1%	Medium Sand	4.9%	Silt & Clay	68.1%
Liquid Limit	38	Plastic Limit	20	Plastic Index	18
		Natural Moisture	54.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

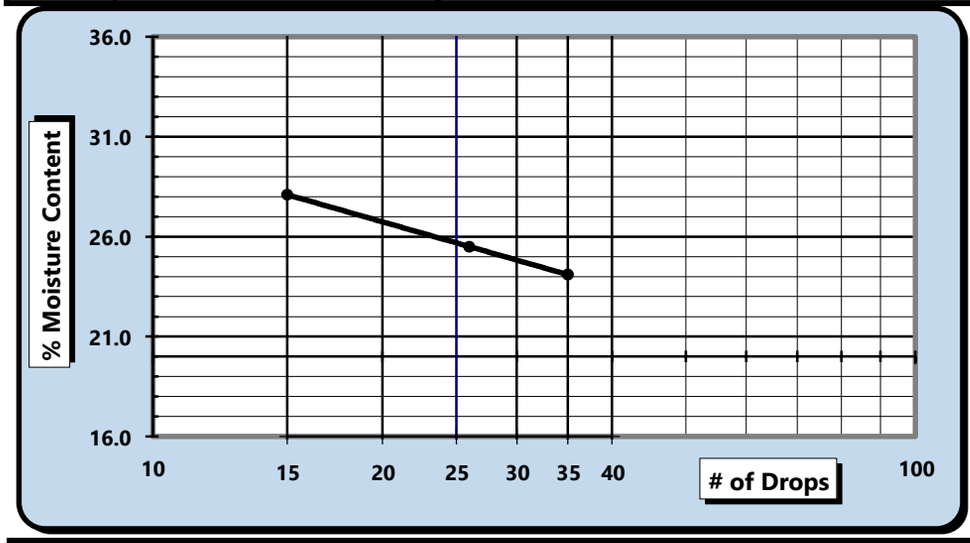
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/08/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/07/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B12	Log #: 52g	Sample Date: 3/22/23
Sample #:	SS-7	Type: Split-spoon	Depth: 18.5 - 20.0'
Sample Description:	clayey SAND [SC / A-6(1)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	13	14	15				16		
A	Tare Weight	26.75	26.63	27.61				26.58		
B	Wet Soil Weight + A	43.10	41.21	44.80				40.60		
C	Dry Soil Weight + A	39.92	38.25	41.03				38.78		
D	Water Weight (B-C)	3.18	2.96	3.77				1.82		
E	Dry Soil Weight (C-A)	13.17	11.62	13.42				12.20		
F	% Moisture (D/E)*100	24.1%	25.5%	28.1%				14.9%		
N	# OF DROPS	35	26	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							14.9%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**26**
Plastic Limit	**15**
Plastic Index	**11**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 37.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/08/23	Brian Vaughan, P.E.	6/08/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

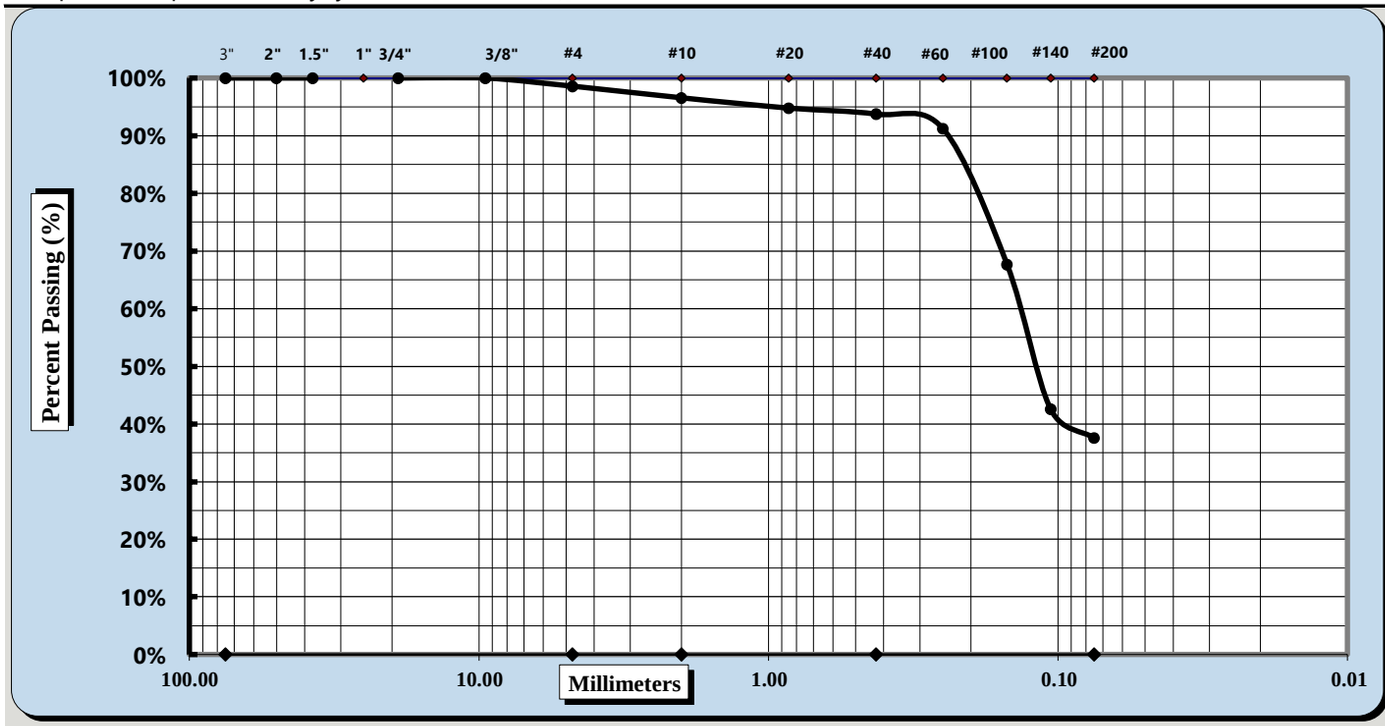
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/8/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/07 - 6/08/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B12	Log #:	52g	Sample Date:	3/22/23
Sample #:	SS-7	Type:	Split-spoon	Depth:	18.5 - 20.0'
Sample Description:	clayey SAND [SC / A-6(1)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	9.50 mm	Coarse Sand	2.0%	Fine Sand	56.1%
Gravel	1.4%	Medium Sand	2.9%	Silt & Clay	37.6%
Liquid Limit	26	Plastic Limit	15	Plastic Index	11
		Natural Moisture	35.7%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

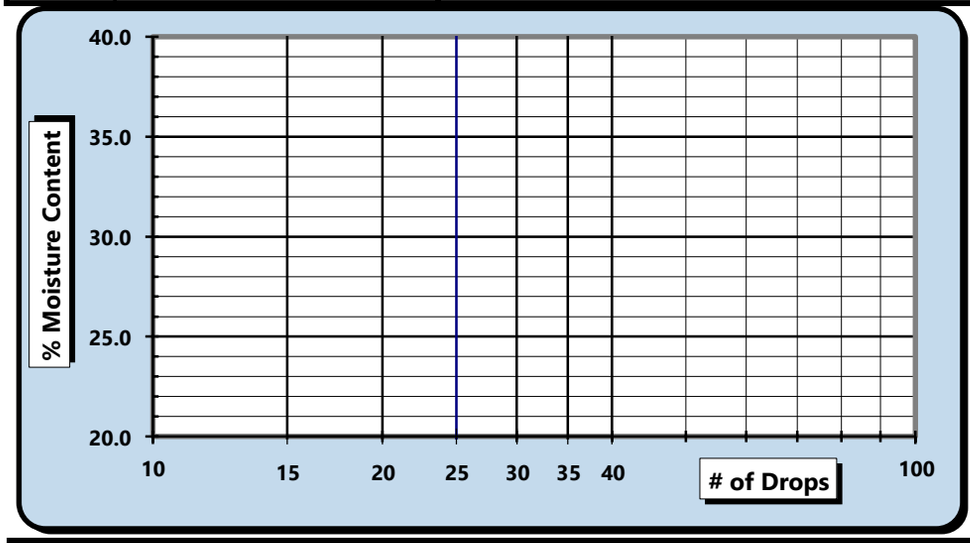
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/08/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/07/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B12	Log #: 52g	Sample Date: 3/22/23
Sample #:	SS-8	Type: Split-spoon	Depth: 23.5 - 25.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 12.2%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/08/23	Brian Vaughan, P.E.	6/08/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/8/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/07 - 6/08/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B12	Log #:	52g	Sample Date:	3/22/23
Sample #:	SS-8	Type:	Split-spoon	Depth:	23.5 - 25.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	9.50 mm	Coarse Sand	7.1%	Fine Sand	62.9%
Gravel	2.1%	Medium Sand	15.7%	Silt & Clay	12.2%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	23.2%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

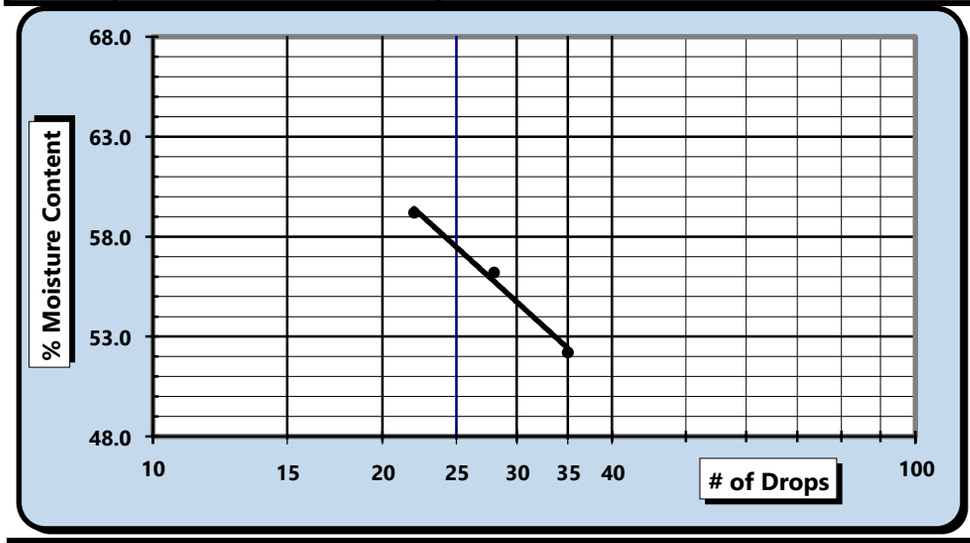
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/10/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/08/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B12	Log #: 52g	Sample Date: 3/22/23
Sample #:	SS-9	Type: Split-spoon	Depth: 28.5 - 30.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(28)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	17	18	19				20		
A	Tare Weight	26.63	26.78	26.66				26.79		
B	Wet Soil Weight + A	39.98	42.40	40.94				39.81		
C	Dry Soil Weight + A	35.40	36.78	35.63				37.43		
D	Water Weight (B-C)	4.58	5.62	5.31				2.38		
E	Dry Soil Weight (C-A)	8.77	10.00	8.97				10.64		
F	% Moisture (D/E)*100	52.2%	56.2%	59.2%				22.4%		
N	# OF DROPS	35	28	22				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							22.4%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**58**
Plastic Limit	**22**
Plastic Index	**36**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 76.1%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/10/23	Brian Vaughan, P.E.	6/10/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

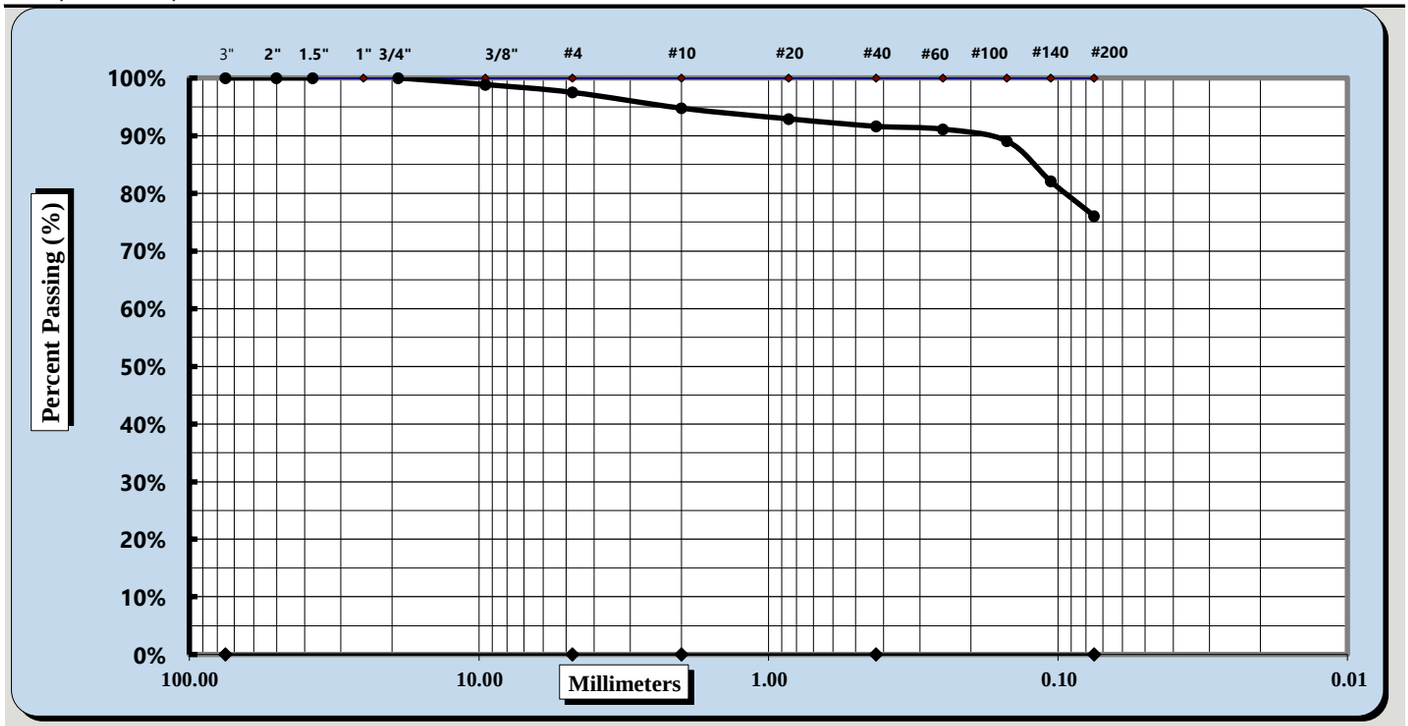
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/10/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/07 - 6/09/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B12	Log #:	52g	Sample Date:	3/22/23
Sample #:	SS-9	Type:	Split-spoon	Depth:	28.5 - 30.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(28)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	19.0 mm	Coarse Sand	2.7%	Fine Sand	15.6%
Gravel	2.5%	Medium Sand	3.2%	Silt & Clay	76.1%
Liquid Limit	58	Plastic Limit	22	Plastic Index	36
		Natural Moisture	42.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/10/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

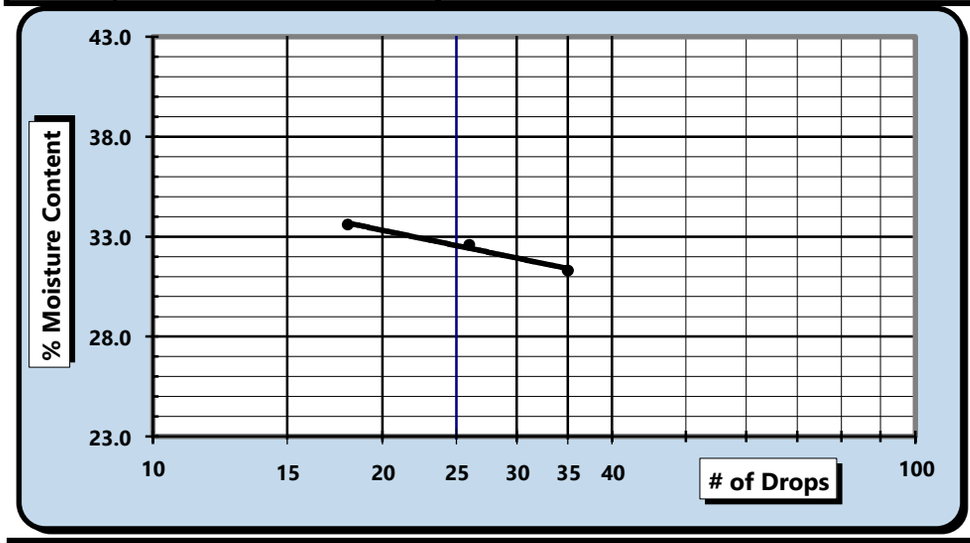
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/10/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/08/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B12	Log #: 52g	Sample Date: 3/22/23
Sample #:	SS-10	Type: Split-spoon	Depth: 33.5 - 35.0'
Sample Description:	clayey SAND [SC / A-2-6(1)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	21	22	23				24		
A	Tare Weight	28.07	25.64	27.23				25.96		
B	Wet Soil Weight + A	45.88	40.32	41.45				38.88		
C	Dry Soil Weight + A	41.63	36.71	37.87				36.77		
D	Water Weight (B-C)	4.25	3.61	3.58				2.11		
E	Dry Soil Weight (C-A)	13.56	11.07	10.64				10.81		
F	% Moisture (D/E)*100	31.3%	32.6%	33.6%				19.5%		
N	# OF DROPS	35	26	18				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							19.5%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**33**
Plastic Limit	**20**
Plastic Index	**13**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 34.3%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/10/23	Brian Vaughan, P.E.	6/10/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/10/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/07 - 6/09/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B12	Log #:	52g	Sample Date:	3/22/23
Sample #:	SS-10	Type:	Split-spoon	Depth:	33.5 - 35.0'
Sample Description:	clayey SAND [SC / A-2-6(1)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	19.0 mm	Coarse Sand	2.4%	Fine Sand	43.5%
Gravel	4.6%	Medium Sand	15.2%	Silt & Clay	34.3%
Liquid Limit	33	Plastic Limit	20	Plastic Index	13
		Natural Moisture	32.2%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/10/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

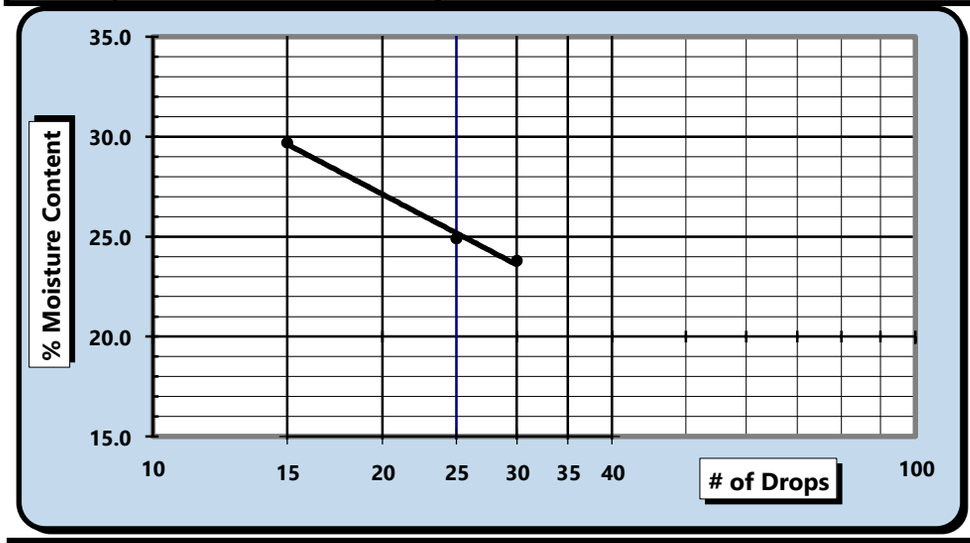
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/12/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B12	Log #: 52g	Sample Date: 3/22/23
Sample #:	SS-11	Type: Split-spoon	Depth: 38.5 - 40.0'
Sample Description:	silty clayey SAND [SC-SM / A-1-b]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.70	26.51	26.36				25.91		
B	Wet Soil Weight + A	41.62	44.89	43.11				36.71		
C	Dry Soil Weight + A	38.75	41.23	39.27				34.94		
D	Water Weight (B-C)	2.87	3.66	3.84				1.77		
E	Dry Soil Weight (C-A)	12.05	14.72	12.91				9.03		
F	% Moisture (D/E)*100	23.8%	24.9%	29.7%				19.6%		
N	# OF DROPS	30	25	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							19.6%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**25**
Plastic Limit	**20**
Plastic Index	**5**
Group Symbol	**CL-ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 14.8%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/12/23	Brian Vaughan, P.E.	6/12/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

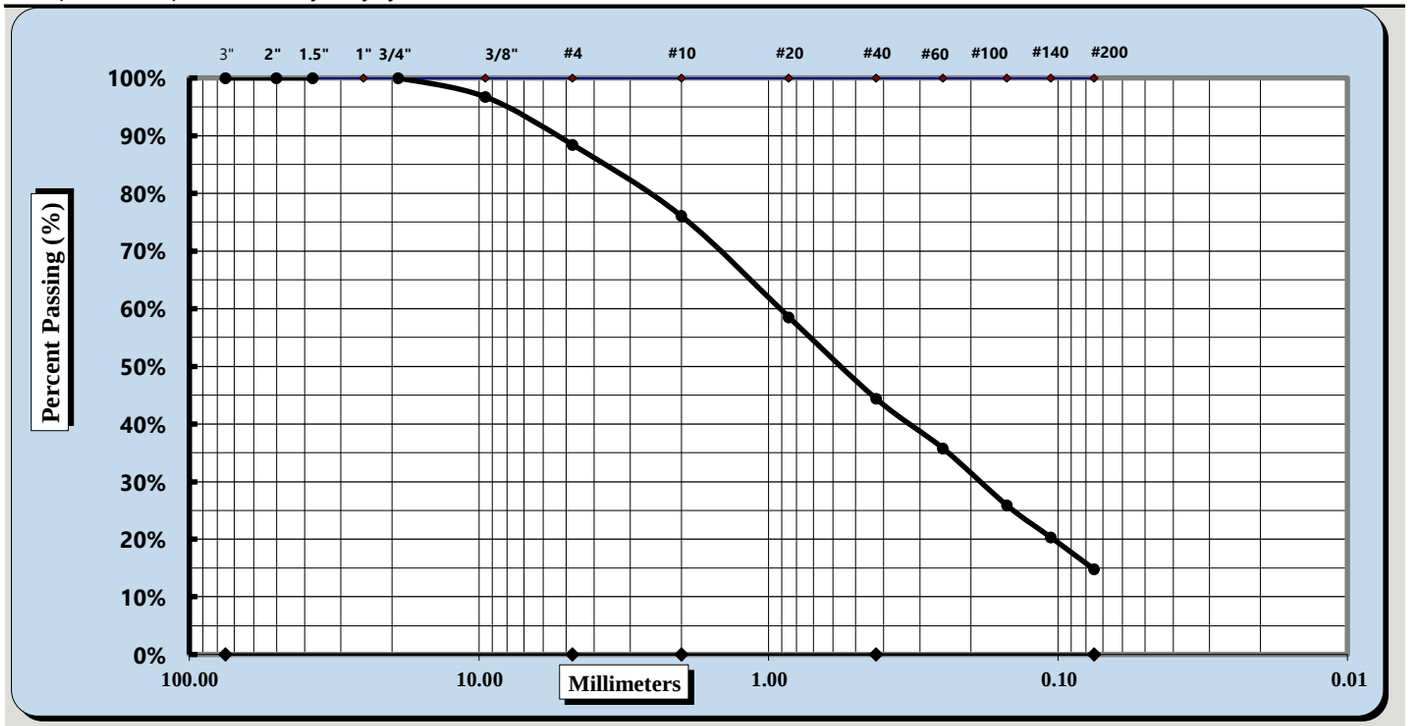
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/12/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/07 - 6/11/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B12	Log #:	52g	Sample Date:	3/22/23
Sample #:	SS-11	Type:	Split-spoon	Depth:	38.5 - 40.0'
Sample Description:	silty clayey SAND [SC-SM / A-1-b]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	19.0 mm	Coarse Sand	12.4%	Fine Sand	29.6%
Gravel	11.6%	Medium Sand	31.7%	Silt & Clay	14.8%
Liquid Limit	25	Plastic Limit	20	Plastic Index	5
		Natural Moisture	28.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/12/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

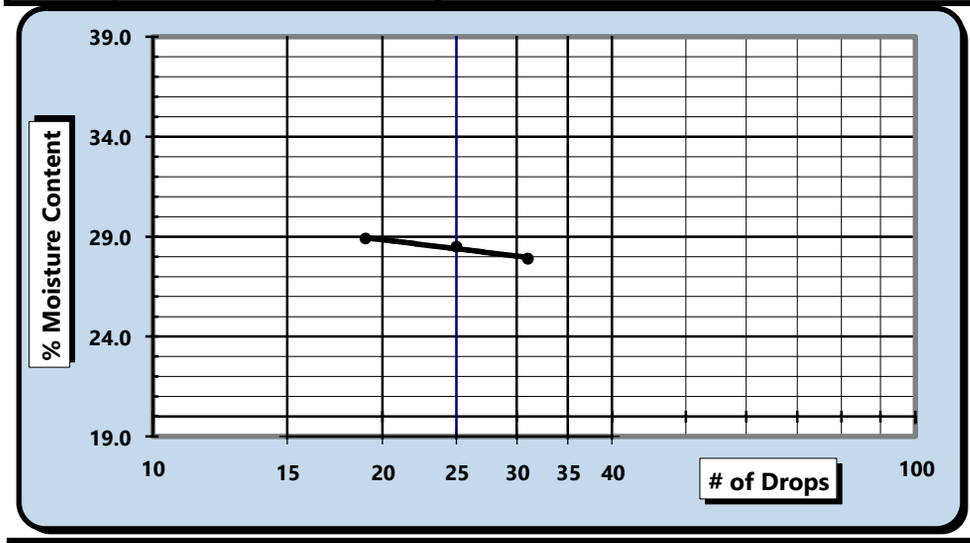
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/12/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B12	Log #: 52g	Sample Date: 3/22/23
Sample #:	SS-12	Type: Split-spoon	Depth: 43.5 - 45.0'
Sample Description:	clayey SAND [SC / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	5	6	7				8		
A	Tare Weight	26.96	27.77	26.29				27.30		
B	Wet Soil Weight + A	46.23	45.26	44.52				39.77		
C	Dry Soil Weight + A	42.03	41.38	40.43				37.69		
D	Water Weight (B-C)	4.20	3.88	4.09				2.08		
E	Dry Soil Weight (C-A)	15.07	13.61	14.14				10.39		
F	% Moisture (D/E)*100	27.9%	28.5%	28.9%				20.0%		
N	# OF DROPS	31	25	19				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							20.0%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**29**
Plastic Limit	**20**
Plastic Index	**9**
Group Symbol	CL

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 25.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/12/23	Brian Vaughan, P.E.	6/12/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

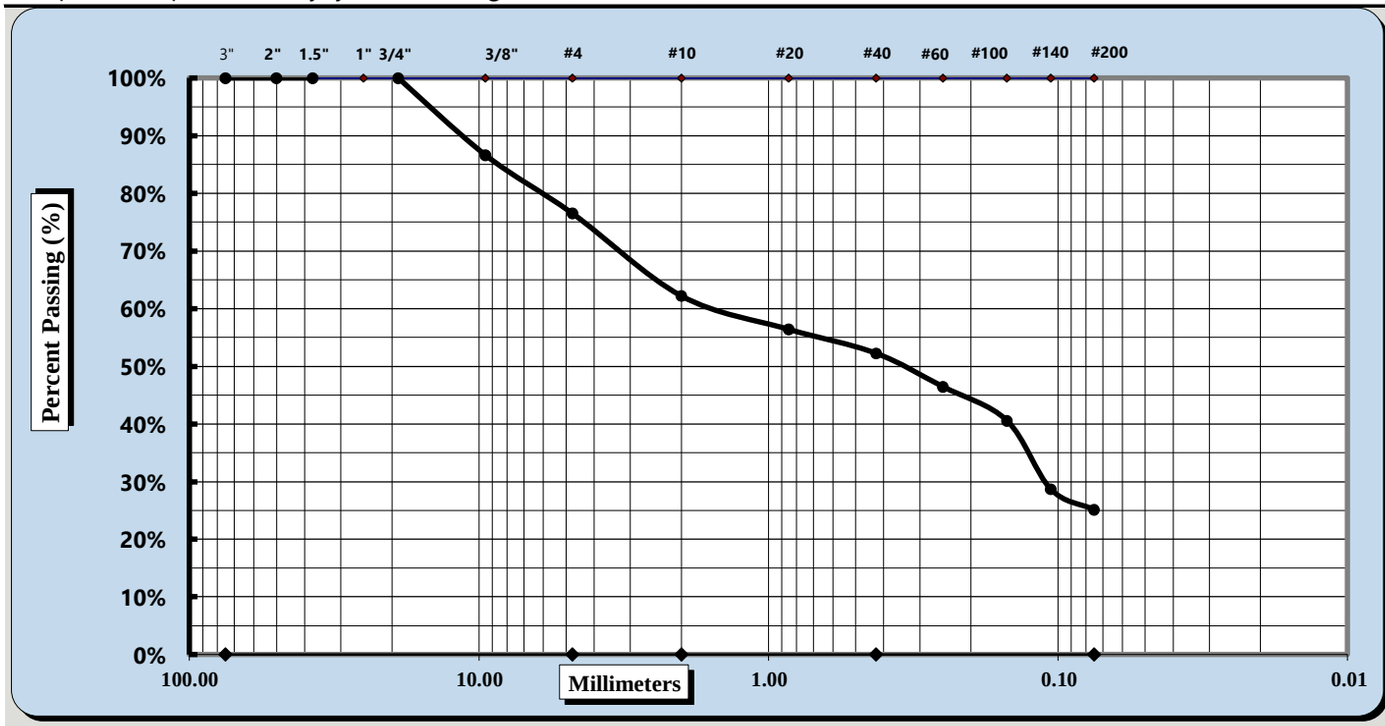
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/12/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/07 - 6/11/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B12	Log #:	52g	Sample Date:	3/22/23
Sample #:	SS-12	Type:	Split-spoon	Depth:	43.5 - 45.0'
Sample Description:	clayey SAND with gravel [SC / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	19.0 mm	Coarse Sand	14.3%	Fine Sand	27.1%
Gravel	23.5%	Medium Sand	10.0%	Silt & Clay	25.1%
Liquid Limit	29	Plastic Limit	20	Plastic Index	9
		Natural Moisture	25.0%		

Notes / Deviations / References:

Brian Vaughan, P.E. — *Technical Responsibility*
Brian Vaughan — *Signature*
QA Supervisor — *Position*
6/12/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

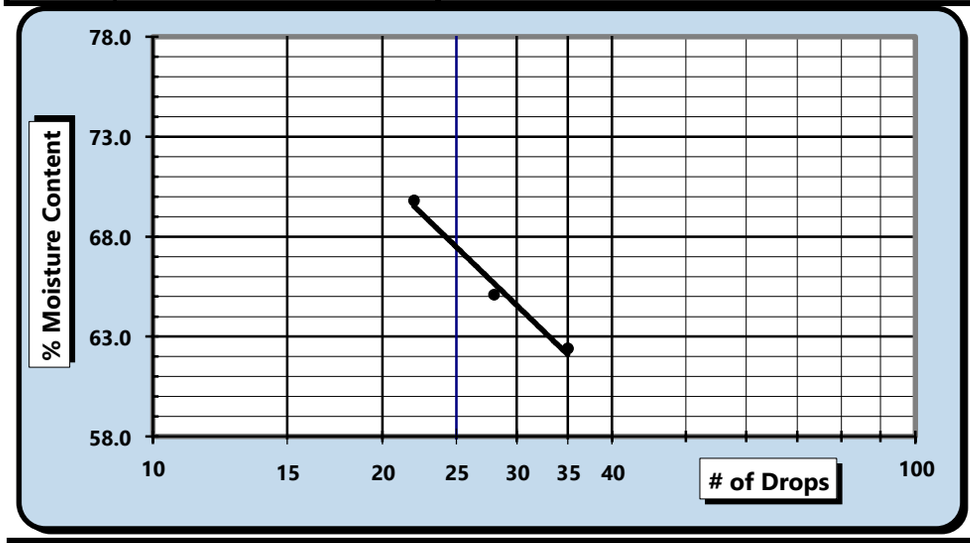
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/12/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/11/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B12	Log #: 52g	Sample Date: 3/22/23
Sample #:	SS-14	Type: Split-spoon	Depth: 53.5 - 55.0'
Sample Description:	fat CLAY with sand [CH / A-7-5(34)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	9	10	11				12		
A	Tare Weight	26.85	26.75	26.66				26.64		
B	Wet Soil Weight + A	39.89	39.63	38.94				40.32		
C	Dry Soil Weight + A	34.88	34.55	33.89				37.10		
D	Water Weight (B-C)	5.01	5.08	5.05				3.22		
E	Dry Soil Weight (C-A)	8.03	7.80	7.23				10.46		
F	% Moisture (D/E)*100	62.4%	65.1%	69.8%				30.8%		
N	# OF DROPS	35	28	22				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							30.8%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**68**
Plastic Limit	**31**
Plastic Index	**37**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 81.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/12/23	Brian Vaughan, P.E.	6/12/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

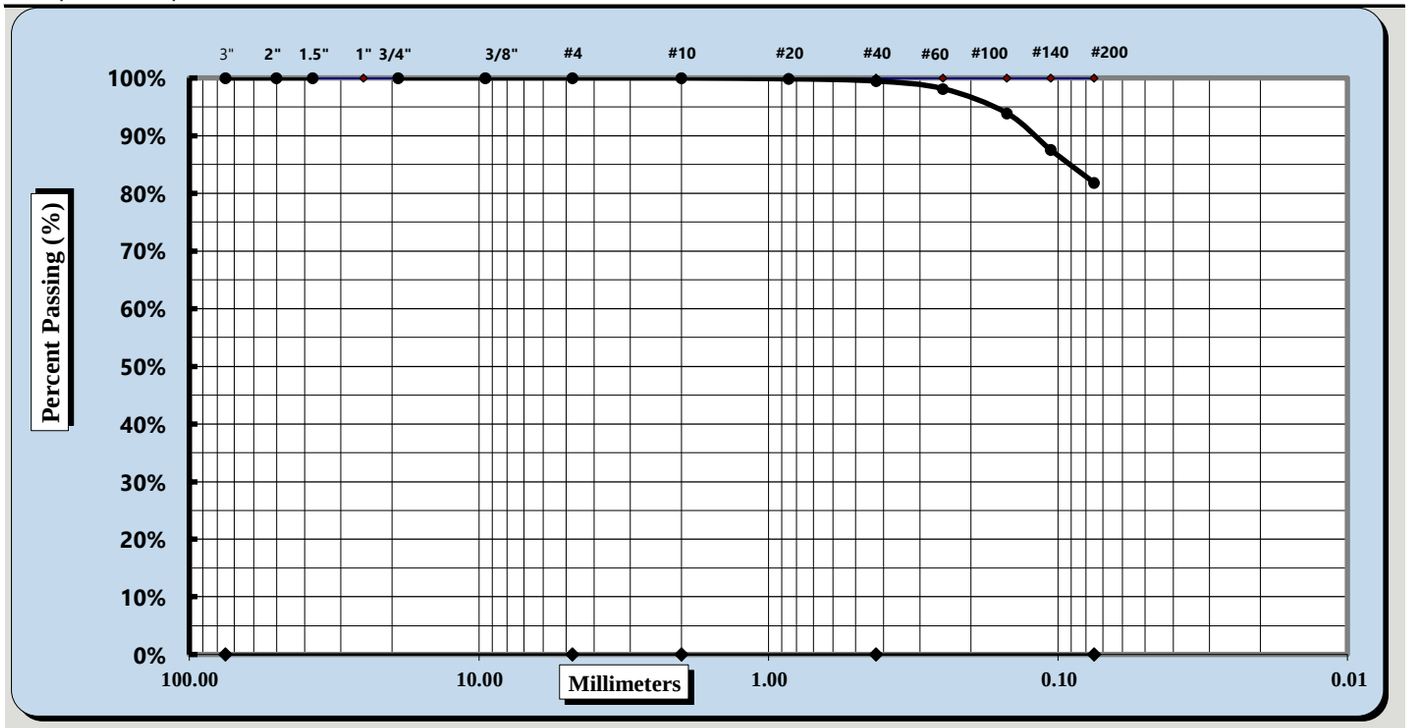
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/12/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/07 - 6/11/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B12	Log #:	52g	Sample Date:	3/22/23
Sample #:	SS-14	Type:	Split-spoon	Depth:	53.5 - 55.0'
Sample Description:	fat CLAY with sand [CH / A-7-5(34)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.425 mm	Coarse Sand	0.0%	Fine Sand	17.6%
Gravel	0.0%	Medium Sand	0.5%	Silt & Clay	81.9%
Liquid Limit	68	Plastic Limit	31	Plastic Index	37
		Natural Moisture	61.8%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/12/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s):	8/14/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		
Sample by:	S&ME	Sample Date(s):	8/13/2025

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 33377 Calibration Date: 2/10/25 Oven ID. 17745 Calibration Date: 9/27/24

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft. or m.		grams	grams	grams	grams	%	
B-13 SPT	S-6	18.5'-20'	H	73.7	166.2	120.7	45.50	96.8%	
B-13 SPT	S-10	38.5'-40'	Muave	83.2	216.1	167.2	48.90	58.2%	
B-13 SPT	S-12	48.5'-50'	ZZZ	80.6	200.9	158.9	42.00	53.6%	
B-13 SPT	S-13	53.5'-55'	PQR	78.1	165.4	132.4	33.00	60.8%	
B-13 SPT	S-15	63.5'-65'	AAA	75.1	192.6	151.6	41.00	53.6%	
B-13 SPT	S-16	68.5'-70'	I	80.1	170.9	144.2	26.70	41.7%	
B-13 SPT	S-17	73.5'-75'	G	80.2	187.9	159.2	28.70	36.3%	
B-13 SPT	S-18	78.5'-80'	O	76.8	203.6	171.5	32.10	33.9%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Jason S. McGough	*Jason S. Mcgough*	Lab Supervisor	8/22/2025
		Position	*Date*
Andrew Fiehler, PE		Sr. Engineer	8/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

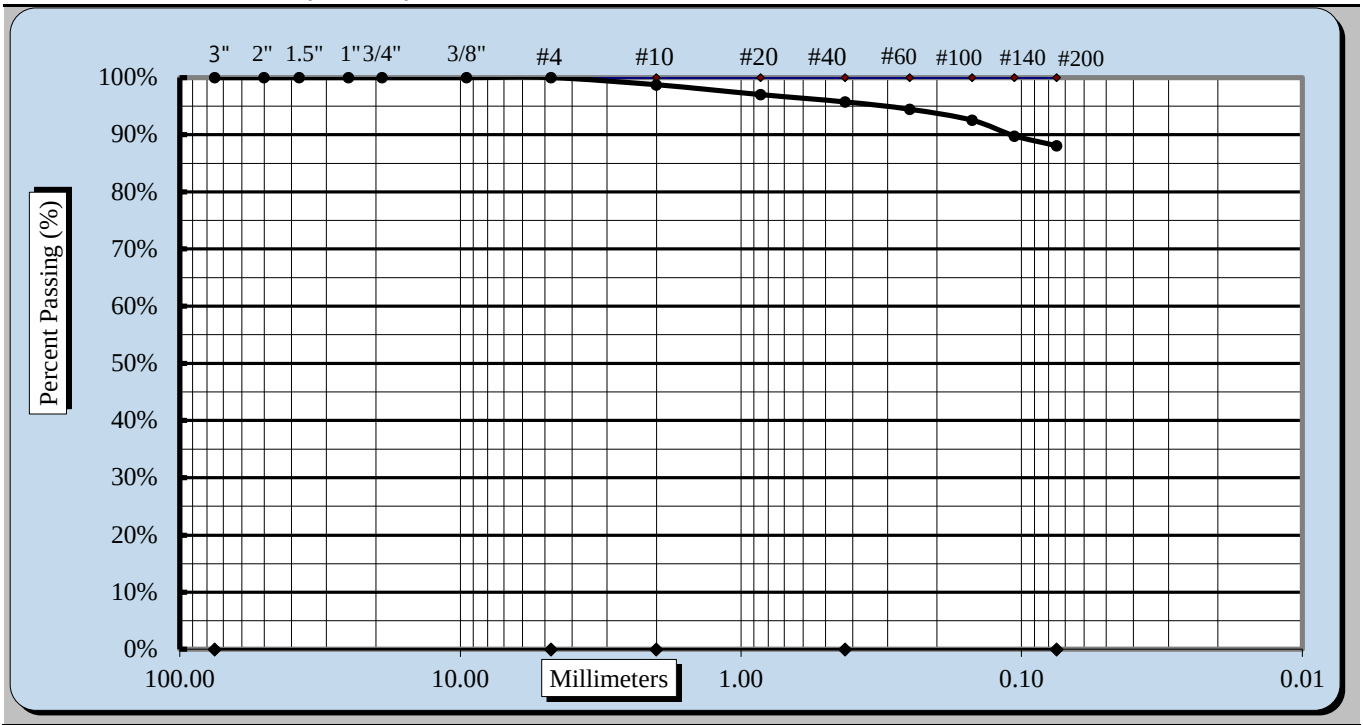
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia, SC 29201	Date Sampled:	8/13/2025
Boring #:	B-13 Sample #: S-6	Depth:	18.5'-20'
Location:	SPT		
Sample Description:	Gray Fat Clay (CH) A-7-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	8%
Gravel	0%	Medium Sand	3%	Silt & Clay	88%
Liquid Limit	64	Plastic Limit	29	Plastic Index	35

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

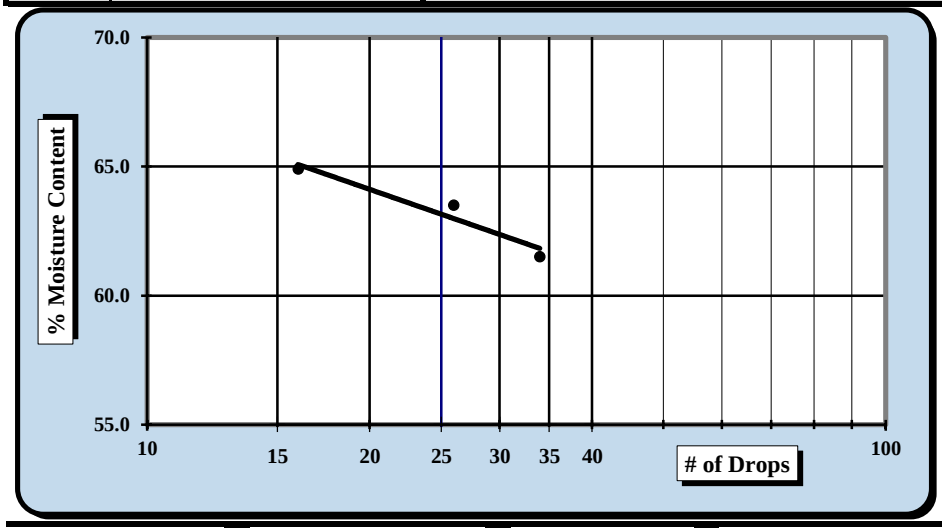
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/8/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-13	Sample #:	S-6	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	18.5'-20'
Sample Description:	Gray Fat Clay (CH) A-7-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	57	3	22				64	92	
A	Tare Weight	14.58	14.62	14.61				14.61	14.62	
B	Wet Soil Weight + A	31.62	31.74	31.84				21.72	21.77	
C	Dry Soil Weight + A	25.13	25.09	25.06				20.14	20.17	
D	Water Weight (B-C)	6.49	6.65	6.78				1.58	1.60	
E	Dry Soil Weight (C-A)	10.55	10.47	10.45				5.53	5.55	
F	% Moisture (D/E)*100	61.5%	63.5%	64.9%				28.6%	28.8%	
N	# OF DROPS	34	26	16				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**28.7%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**64**
Plastic Limit	**29**
Plastic Index	**35**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

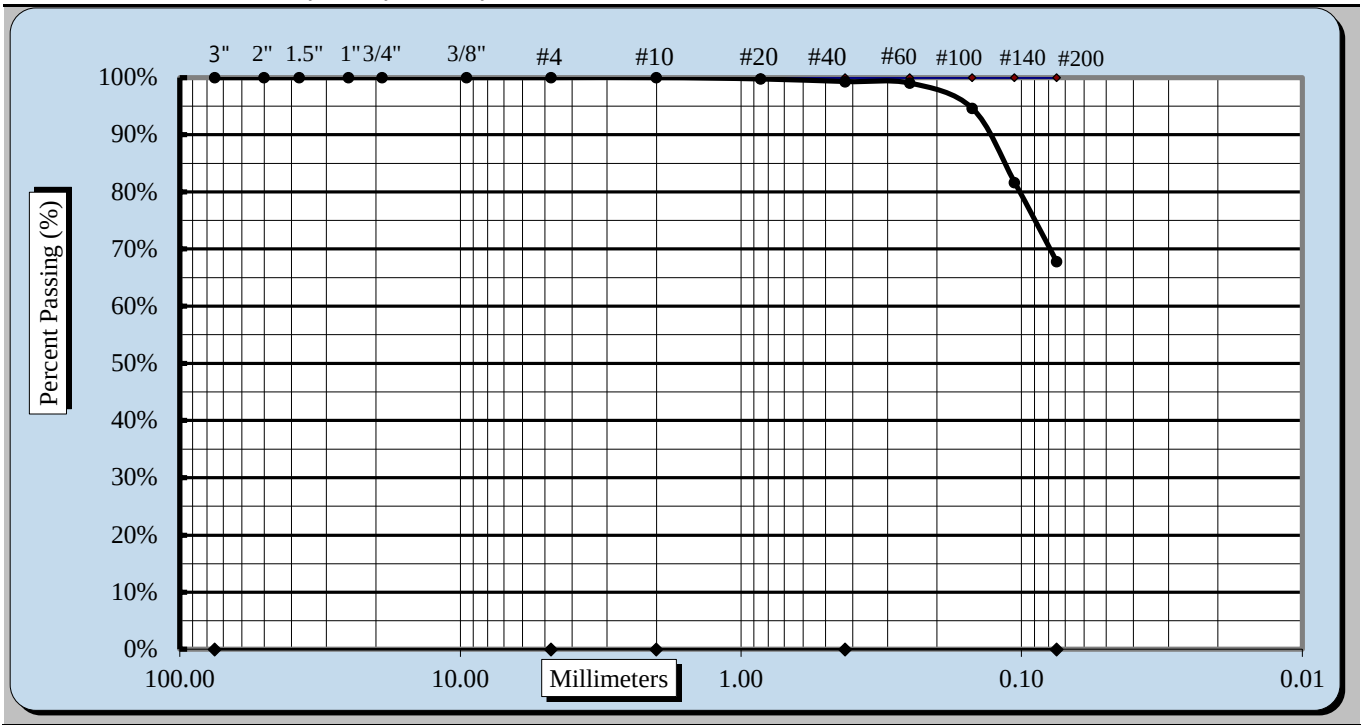
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-13 Sample #: S-10	Depth:	38.5'-40'
Location:	SPT		
Sample Description:	Gray Sandy Fat Clay (CH) A-7-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	31%
Gravel	0%	Medium Sand	1%	Silt & Clay	68%
Liquid Limit	53	Plastic Limit	14	Plastic Index	39
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	58.2%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

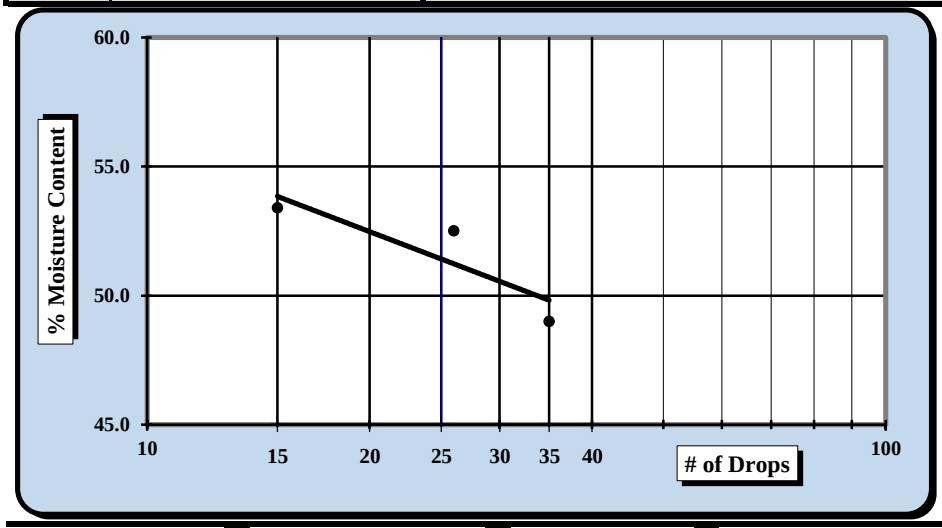
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/8/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-13	Sample #:	S-10	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	38.5'-40'
Sample Description:	Gray Sandy Fat Clay (CH) A-7-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	79	58	33				47	112	
A	Tare Weight	14.58	14.59	14.57				14.62	14.57	
B	Wet Soil Weight + A	31.64	31.79	31.86				21.55	21.59	
C	Dry Soil Weight + A	26.03	25.87	25.84				20.71	20.72	
D	Water Weight (B-C)	5.61	5.92	6.02				0.84	0.87	
E	Dry Soil Weight (C-A)	11.45	11.28	11.27				6.09	6.15	
F	% Moisture (D/E)*100	49.0%	52.5%	53.4%				13.8%	14.1%	
N	# OF DROPS	35	26	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**14.0%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**53**
Plastic Limit	**14**
Plastic Index	**39**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

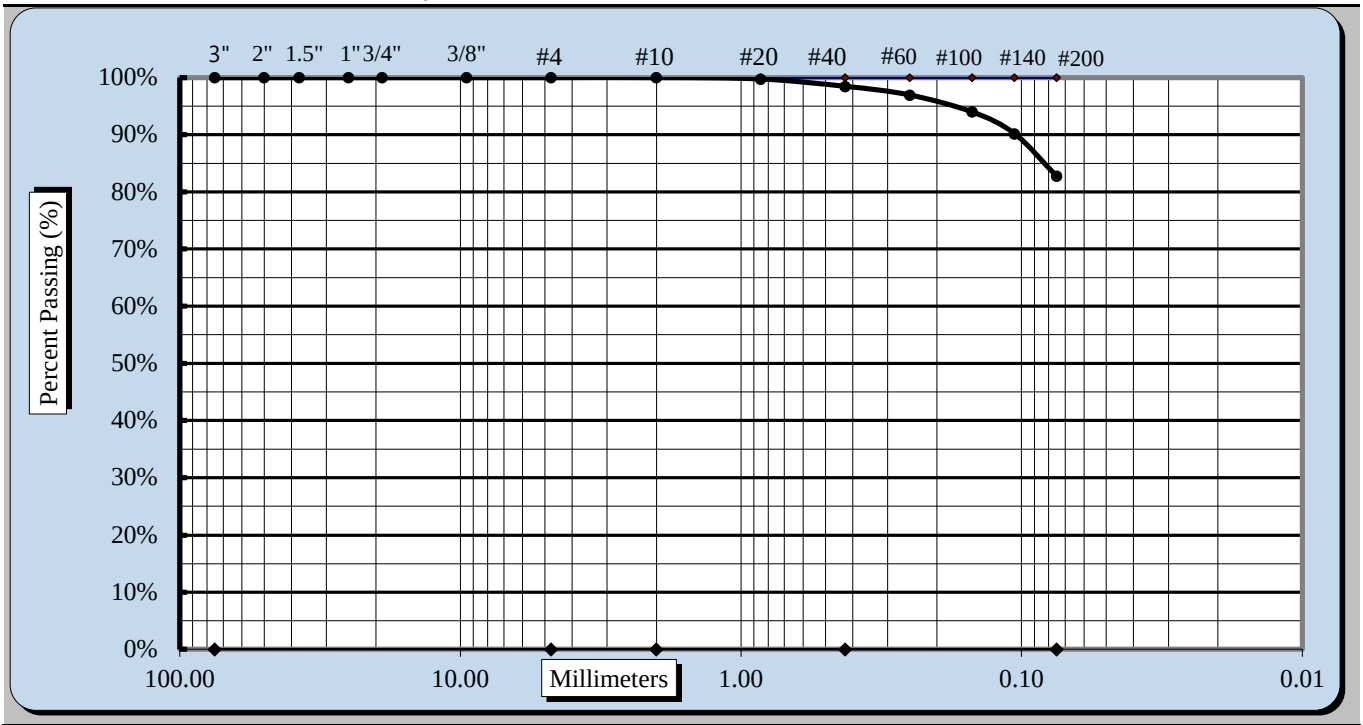
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-13 Sample #: S-12	Depth:	48.5'-50'
Location:	SPT		
Sample Description:	Brown Fat Clay (CH) A-7-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	16%
Gravel	0%	Medium Sand	2%	Silt & Clay	83%
Liquid Limit	68	Plastic Limit	24	Plastic Index	44
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	53.6%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

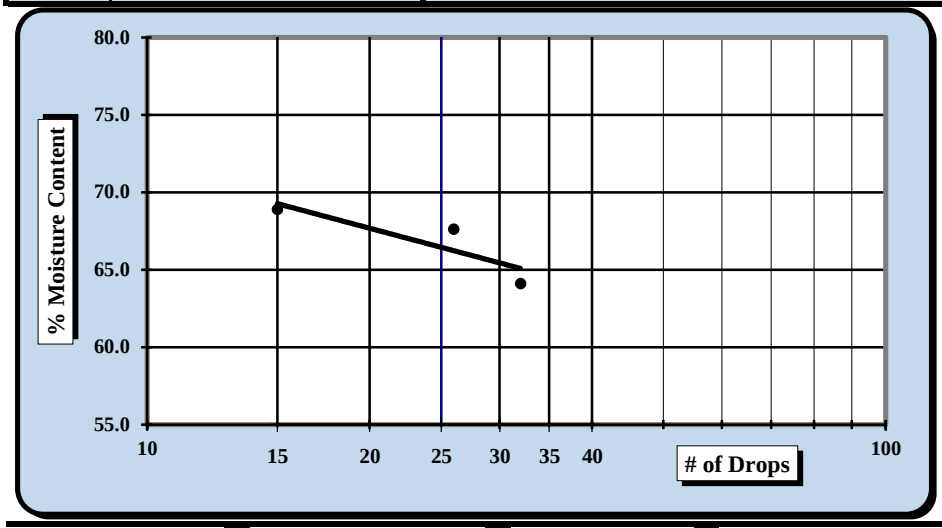
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/8/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-13	Sample #:	S-12	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	48.5'-50'
Sample Description:	Brown Fat Clay (CH) A-7-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	84	65	70				39	5	
A	Tare Weight	14.57	14.58	14.59				14.57	14.58	
B	Wet Soil Weight + A	31.72	31.78	31.83				21.67	21.66	
C	Dry Soil Weight + A	25.02	24.84	24.80				20.31	20.30	
D	Water Weight (B-C)	6.70	6.94	7.03				1.36	1.36	
E	Dry Soil Weight (C-A)	10.45	10.26	10.21				5.74	5.72	
F	% Moisture (D/E)*100	64.1%	67.6%	68.9%				23.7%	23.8%	
N	# OF DROPS	32	26	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**23.8%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**68**
Plastic Limit	**24**
Plastic Index	**44**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

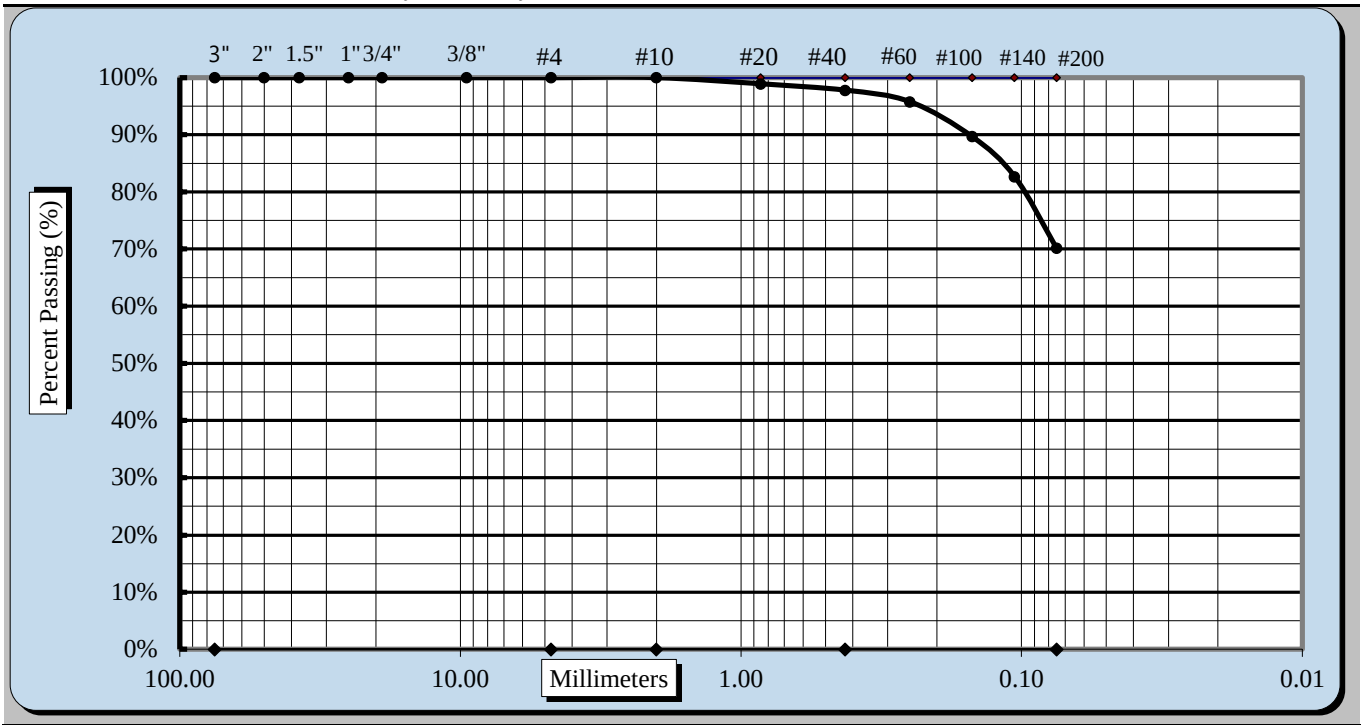
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-13 Sample #: S-13	Depth:	53.5'-55'
Location:	SPT		
Sample Description:	Brown Sandy Lean Clay (CL) A-7-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	28%
Gravel	0%	Medium Sand	2%	Silt & Clay	70%
Liquid Limit	48	Plastic Limit	24	Plastic Index	24
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	60.8%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

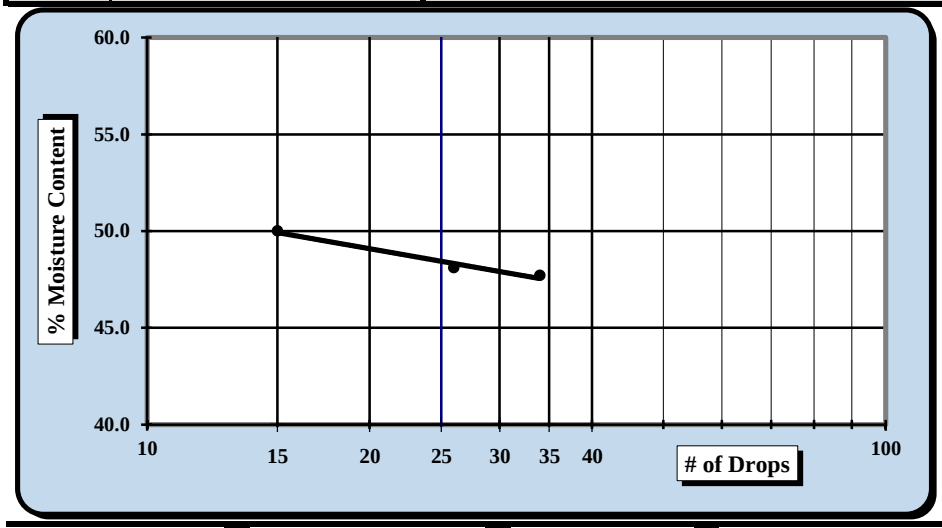
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/8/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-13	Sample #:	S-13	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	53.5'-55'
Sample Description:	Brown Sandy Lean Clay (CL) A-7-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	68	28	15				32	17	
A	Tare Weight	14.61	14.61	14.62				14.57	14.62	
B	Wet Soil Weight + A	31.64	31.77	31.82				21.66	21.69	
C	Dry Soil Weight + A	26.14	26.20	26.09				20.31	20.33	
D	Water Weight (B-C)	5.50	5.57	5.73				1.35	1.36	
E	Dry Soil Weight (C-A)	11.53	11.59	11.47				5.74	5.71	
F	% Moisture (D/E)*100	47.7%	48.1%	50.0%				23.5%	23.8%	
N	# OF DROPS	34	26	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**23.7%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**48**
Plastic Limit	**24**
Plastic Index	**24**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

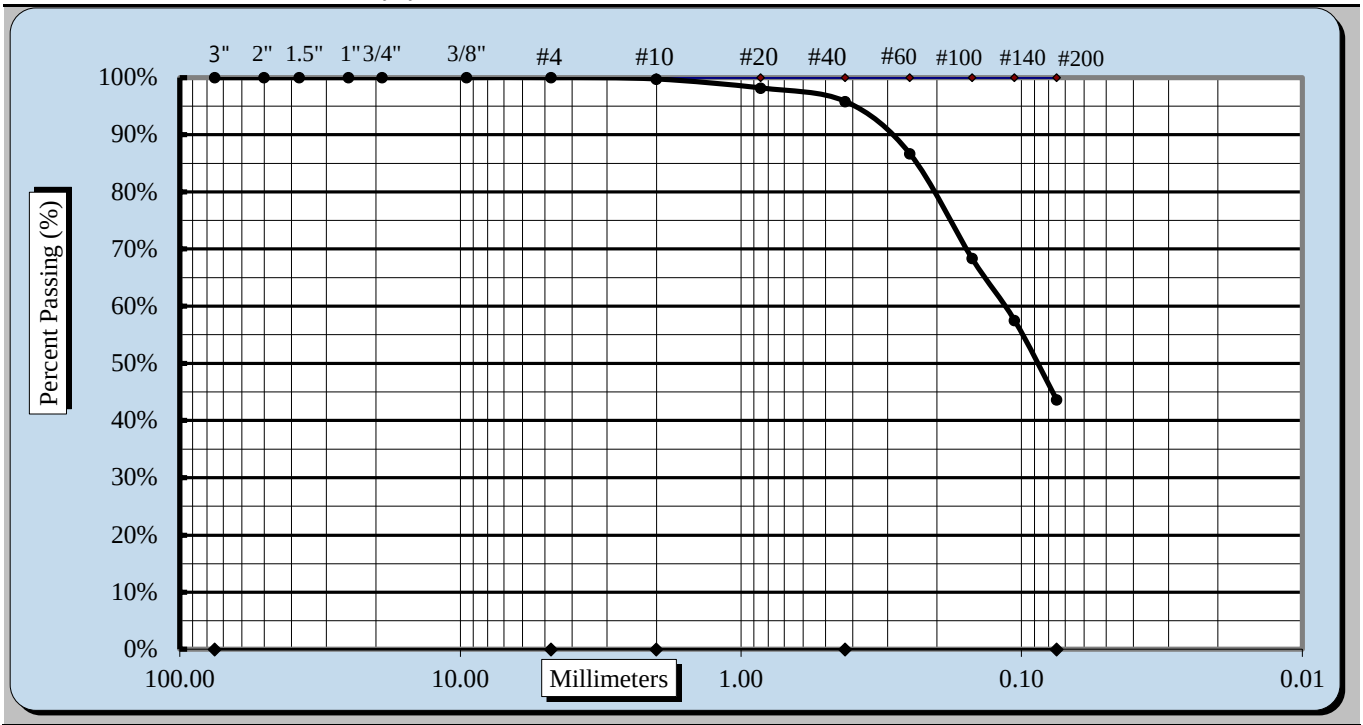
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-13 Sample #: S-15	Depth:	63.5'-65'
Location:	SPT		
Sample Description:	Brown Clayey Sand (SC) A-7		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	52%
Gravel	0%	Medium Sand	4%	Silt & Clay	44%
Liquid Limit	34	Plastic Limit	17	Plastic Index	17
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	53.6%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

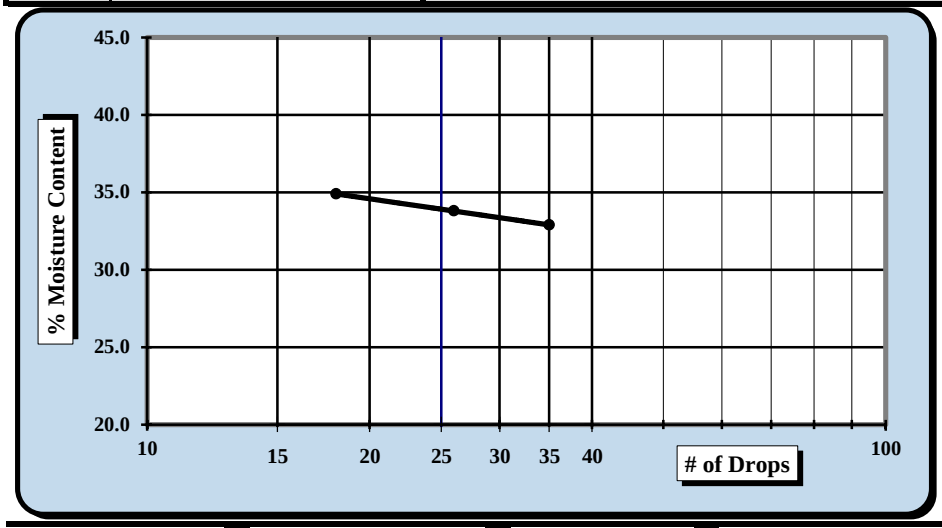
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/8/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-13	Sample #:	S-15	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	63.5'-65'
Sample Description:	Brown Clayey Sand (SC) A-7				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	18	64	92				81	56	
A	Tare Weight	14.57	14.62	14.61				14.62	14.60	
B	Wet Soil Weight + A	31.66	31.72	31.85				21.87	21.92	
C	Dry Soil Weight + A	27.43	27.40	27.39				20.84	20.88	
D	Water Weight (B-C)	4.23	4.32	4.46				1.03	1.04	
E	Dry Soil Weight (C-A)	12.86	12.78	12.78				6.22	6.28	
F	% Moisture (D/E)*100	32.9%	33.8%	34.9%				16.6%	16.6%	
N	# OF DROPS	35	26	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**16.6%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**34**
Plastic Limit	**17**
Plastic Index	**17**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

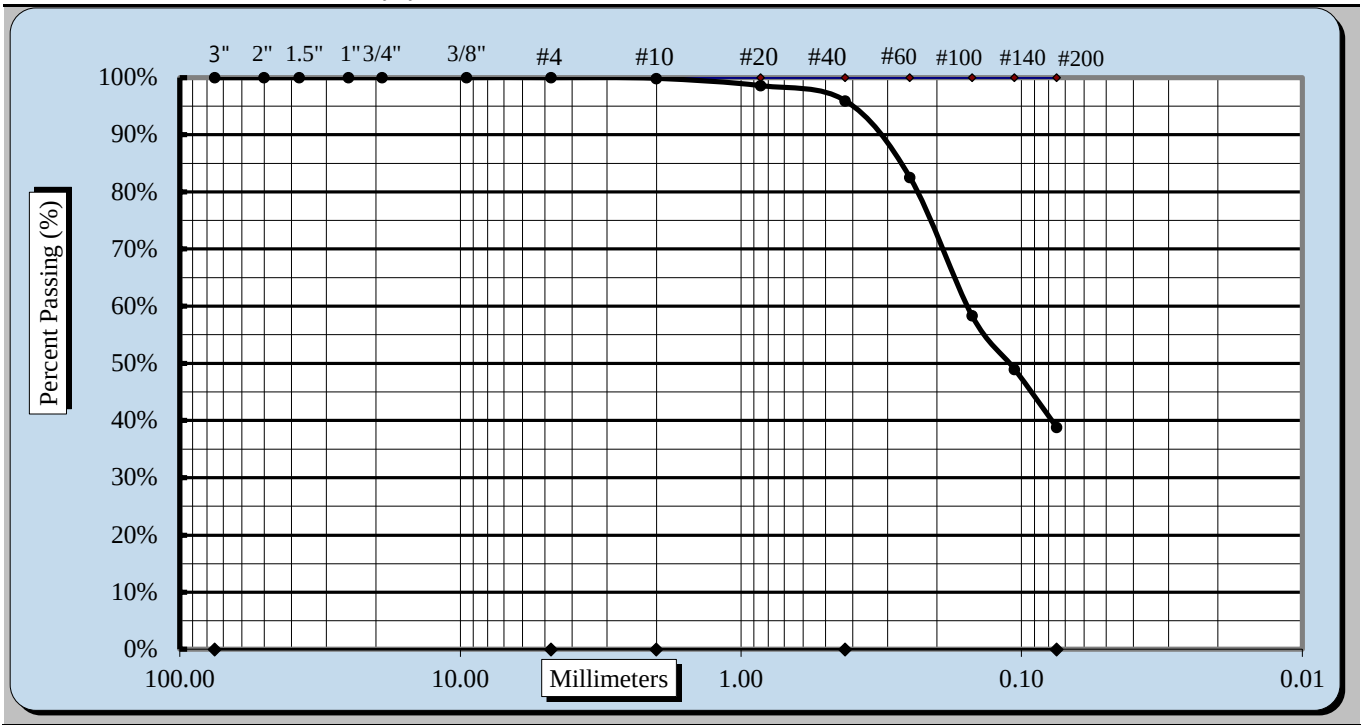
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-13 Sample #: S-16	Depth:	68.5'-70'
Location:	SPT		
Sample Description:	Brown Clayey Sand (SC) A-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	57%
Gravel	0%	Medium Sand	4%	Silt & Clay	39%
Liquid Limit	28	Plastic Limit	12	Plastic Index	16
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	41.7%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

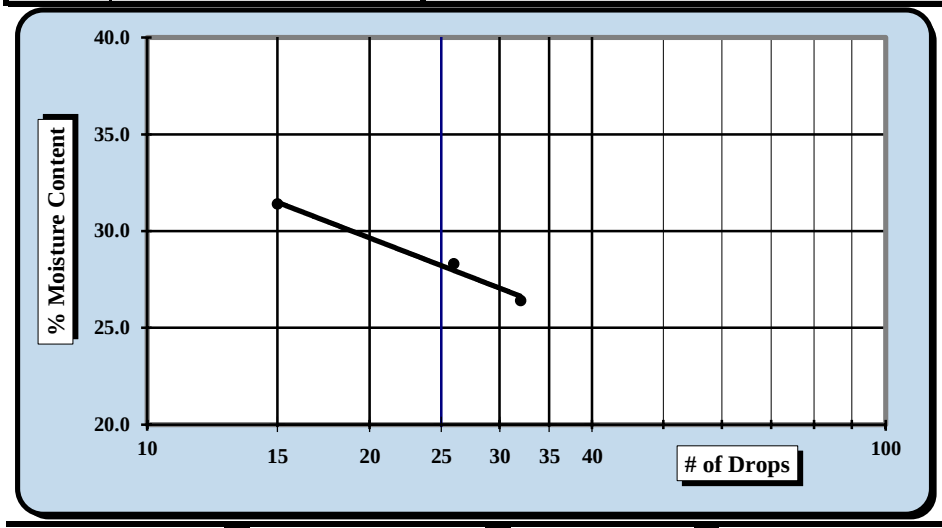
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/8/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-13	Sample #:	S-16	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	68.5'-70'
Sample Description:	Brown Clayey Sand (SC) A-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	14	91	67				124	2	
A	Tare Weight	14.58	14.62	14.57				14.62	14.61	
B	Wet Soil Weight + A	31.58	31.62	31.77				21.32	21.35	
C	Dry Soil Weight + A	28.03	27.87	27.66				20.61	20.63	
D	Water Weight (B-C)	3.55	3.75	4.11				0.71	0.72	
E	Dry Soil Weight (C-A)	13.45	13.25	13.09				5.99	6.02	
F	% Moisture (D/E)*100	26.4%	28.3%	31.4%				11.9%	12.0%	
N	# OF DROPS	32	26	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**12.0%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**28**
Plastic Limit	**12**
Plastic Index	**16**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

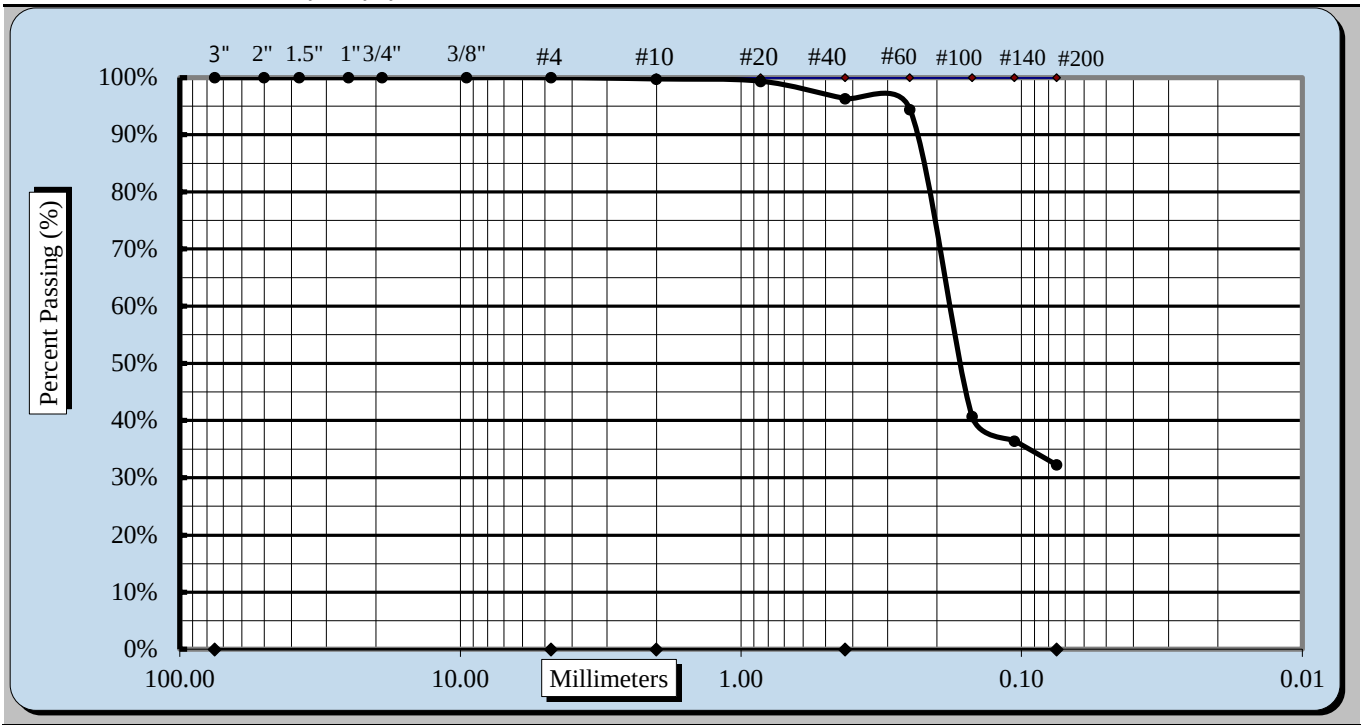
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-13 Sample #: S-17	Depth:	73.5'-75'
Location:	SPT		
Sample Description:	Gray Clayey Sand (SC) A-2-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	64%
Gravel	0%	Medium Sand	3%	Silt & Clay	32%
Liquid Limit	26	Plastic Limit	11	Plastic Index	15
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	36.3%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

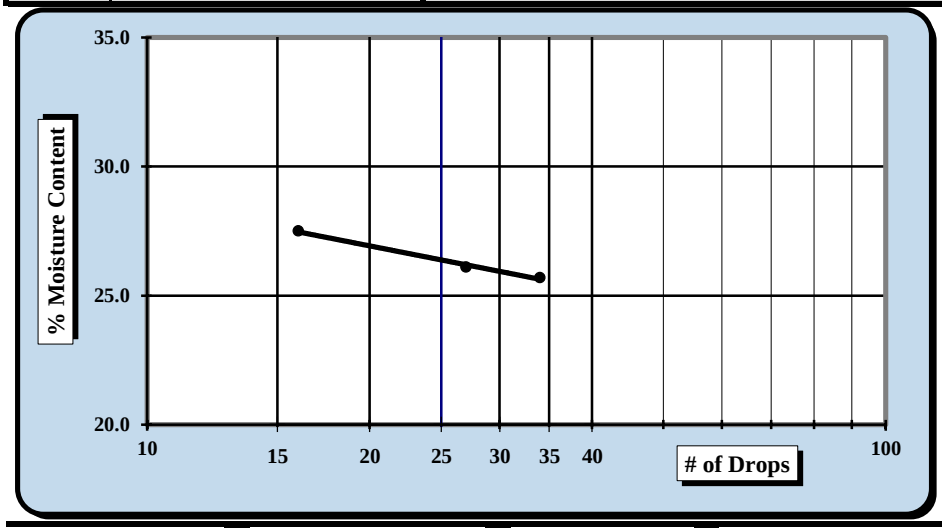
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/8/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-13	Sample #:	S-17	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	73.5'-75'
Sample Description:	Gray Clayey Sand (SC) A-2-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	147	29	36				16	84	
A	Tare Weight	14.58	14.59	14.62				14.57	14.56	
B	Wet Soil Weight + A	31.25	31.38	31.42				21.66	21.69	
C	Dry Soil Weight + A	27.84	27.90	27.80				20.94	20.96	
D	Water Weight (B-C)	3.41	3.48	3.62				0.72	0.73	
E	Dry Soil Weight (C-A)	13.26	13.31	13.18				6.37	6.40	
F	% Moisture (D/E)*100	25.7%	26.1%	27.5%				11.3%	11.4%	
N	# OF DROPS	34	27	16				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**11.4%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**26**
Plastic Limit	**11**
Plastic Index	**15**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

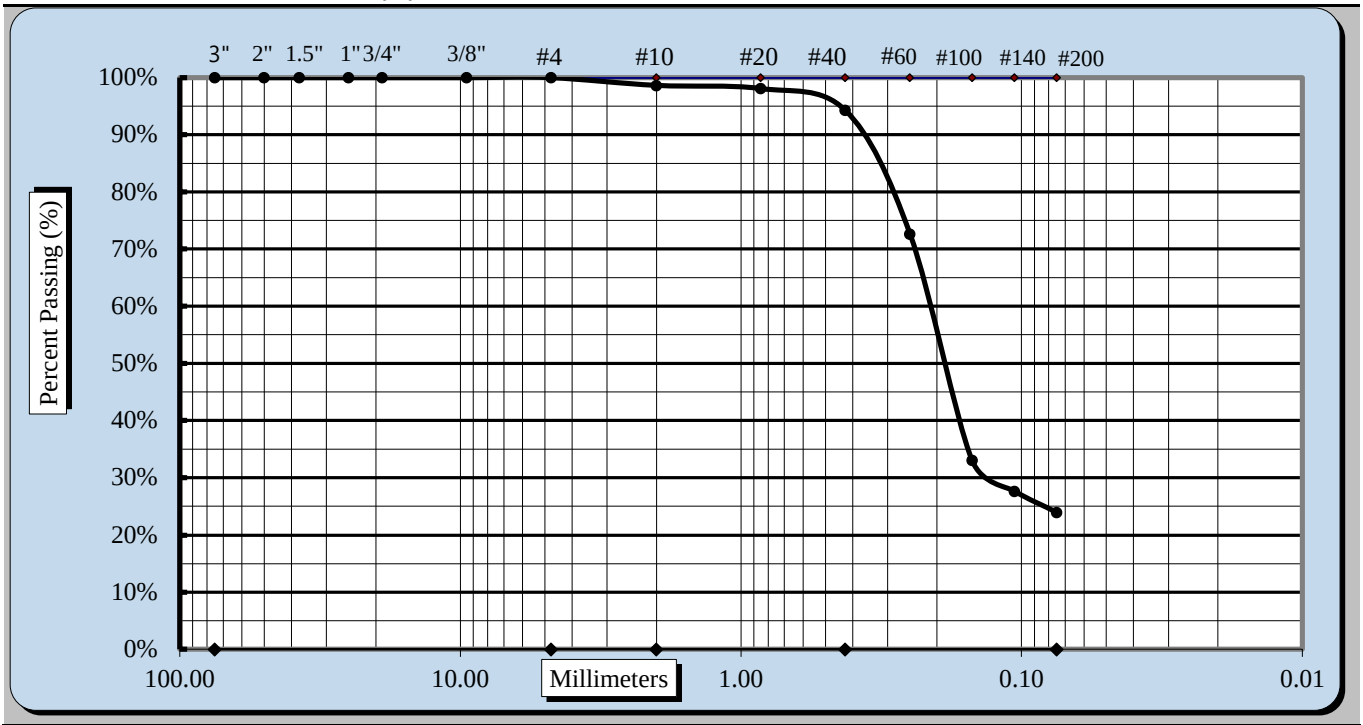
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-13 Sample #: S-18	Depth:	78.5'-80
Location:	SPT		
Sample Description:	Brown Clayey Sand (SC) A-2-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	70%
Gravel	0%	Medium Sand	4%	Silt & Clay	24%
Liquid Limit	28	Plastic Limit	13	Plastic Index	15

Natural Moisture 33.9%

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

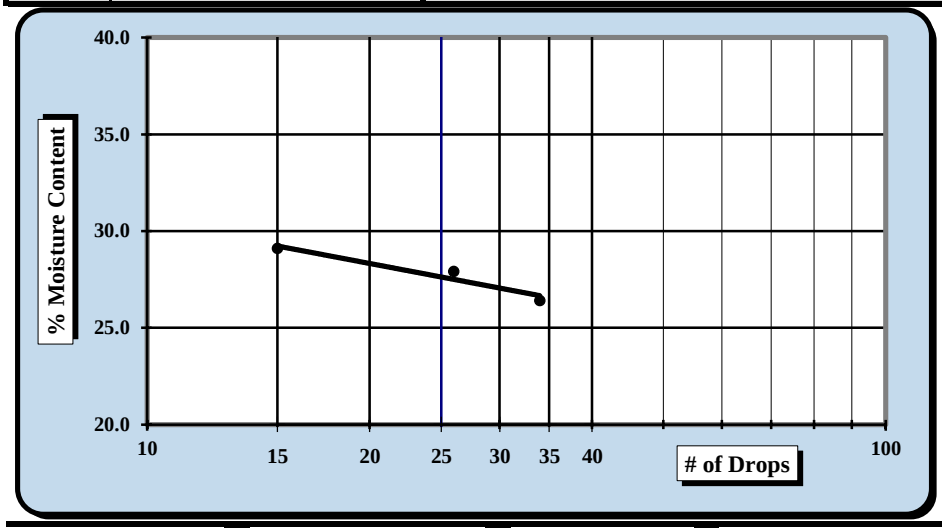
Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-13	Sample #:	S-18	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	78.5'-80'

Sample Description: Brown Clayey Sand (SC) A-2-6

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	18	55	91				106	3	
A	Tare Weight	14.58	14.59	14.57				14.58	14.62	
B	Wet Soil Weight + A	31.71	31.82	31.94				21.77	21.79	
C	Dry Soil Weight + A	28.13	28.06	28.02				20.94	20.95	
D	Water Weight (B-C)	3.58	3.76	3.92				0.83	0.84	
E	Dry Soil Weight (C-A)	13.55	13.47	13.45				6.36	6.33	
F	% Moisture (D/E)*100	26.4%	27.9%	29.1%				13.1%	13.3%	
N	# OF DROPS	34	26	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**13.2%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**28**
Plastic Limit	**13**
Plastic Index	**15**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s):	8/14/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		
Sample by:	S&ME	Sample Date(s):	8/13/2025

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 33377 Calibration Date: 2/10/25 Oven ID. 17745 Calibration Date: 9/27/24

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft. or m.		grams	grams	grams	grams	%	
B-14 SPT	S-1	0'-2'	Red	82.3	260.3	222.8	37.50	26.7%	
B-14 SPT	S-3	4'-6'	Def	86.3	196.1	174.1	22.00	25.1%	
B-14 SPT	S-8	23.5'-35'	BBB	79.8	225.2	177.1	48.10	49.4%	
B-14 SPT	S-10	33.5'-35'	MMM	82.1	323.2	273.3	49.90	26.1%	
B-14 SPT	S-12	43.5'-45'	SSS	83.2	262.3	220.2	42.10	30.7%	
B-14 SPT	S-13	48.5'-50'	Green	81.6	192.4	155.9	36.50	49.1%	
B-14 SPT	S-15	58.5'-60'	Diane	81.0	172.7	132.1	40.60	79.5%	
B-14 SPT	S-17	68.5'-70'	Sally	81.6	220.8	179.4	41.40	42.3%	
B-14 SPT	S-19	78.5'-80'	III	81.3	191.7	159.7	32.00	40.8%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Jason S. McGough	*Jason S. Mcgough*	Lab Supervisor	8/22/2025
		Position	*Date*
Andrew Fiehler, PE		Sr. Engineer	8/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

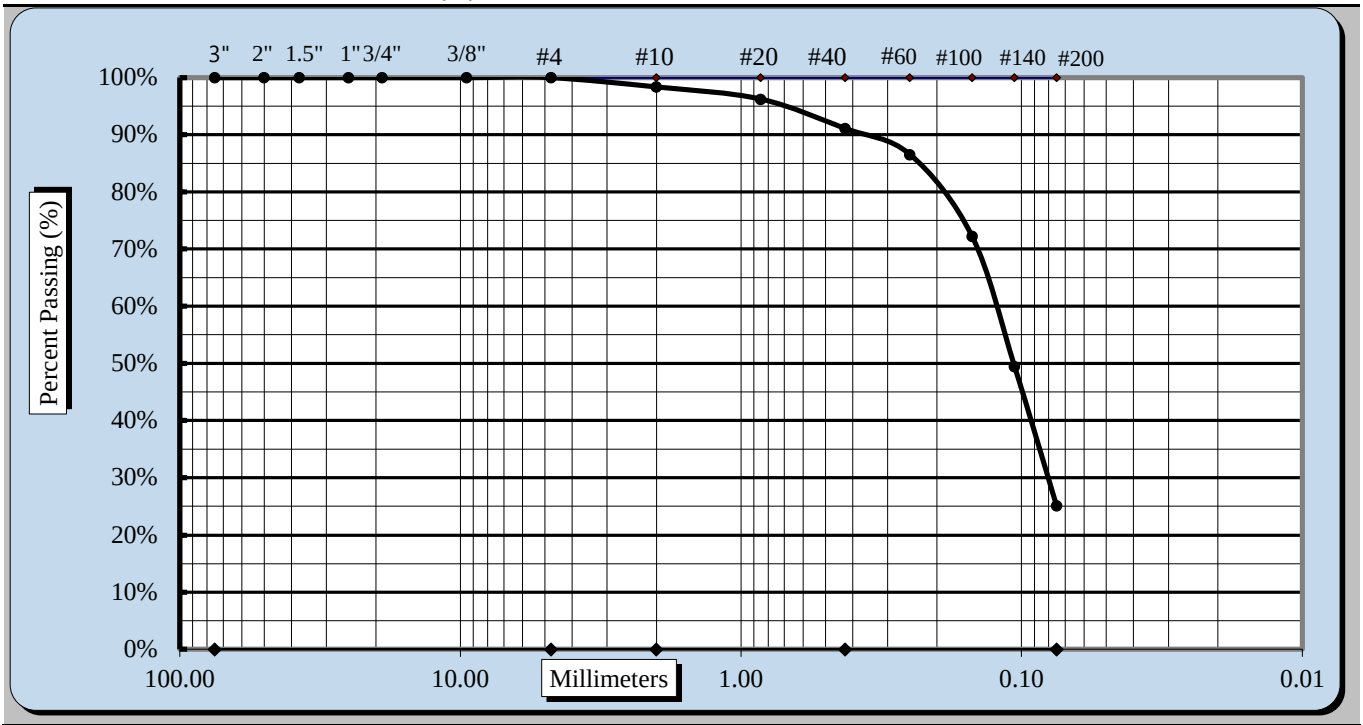
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-14 Sample #: S-1	Depth:	0'-2'
Location:	SPT		
Sample Description:	Dark Brown Clayey sand (SC) A-2-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	2%	Fine Sand	66%
Gravel	0%	Medium Sand	7%	Silt & Clay	25%
Liquid Limit	27	Plastic Limit	17	Plastic Index	11
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	26.7%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

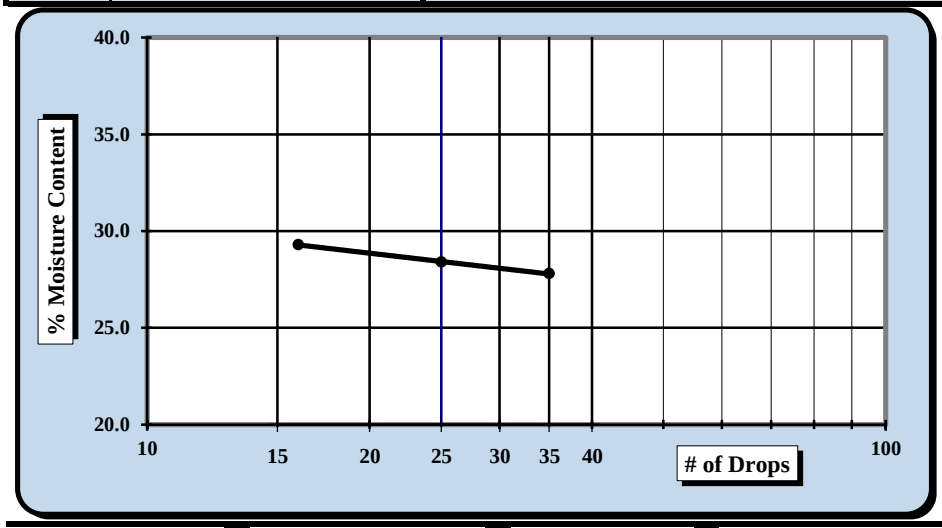
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-14	Sample #:	S-1	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	0'-2'
Sample Description:	Dark Brown Clayey sand (SC) A-2-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	82	31	59				107	3	
A	Tare Weight	14.58	14.57	14.59				14.57	14.58	
B	Wet Soil Weight + A	31.66	31.69	31.72				21.84	21.89	
C	Dry Soil Weight + A	27.94	27.90	27.84				20.82	20.85	
D	Water Weight (B-C)	3.72	3.79	3.88				1.02	1.04	
E	Dry Soil Weight (C-A)	13.36	13.33	13.25				6.25	6.27	
F	% Moisture (D/E)*100	27.8%	28.4%	29.3%				16.3%	16.6%	
N	# OF DROPS	35	25	16				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**16.5%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**28**
Plastic Limit	**17**
Plastic Index	**11**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

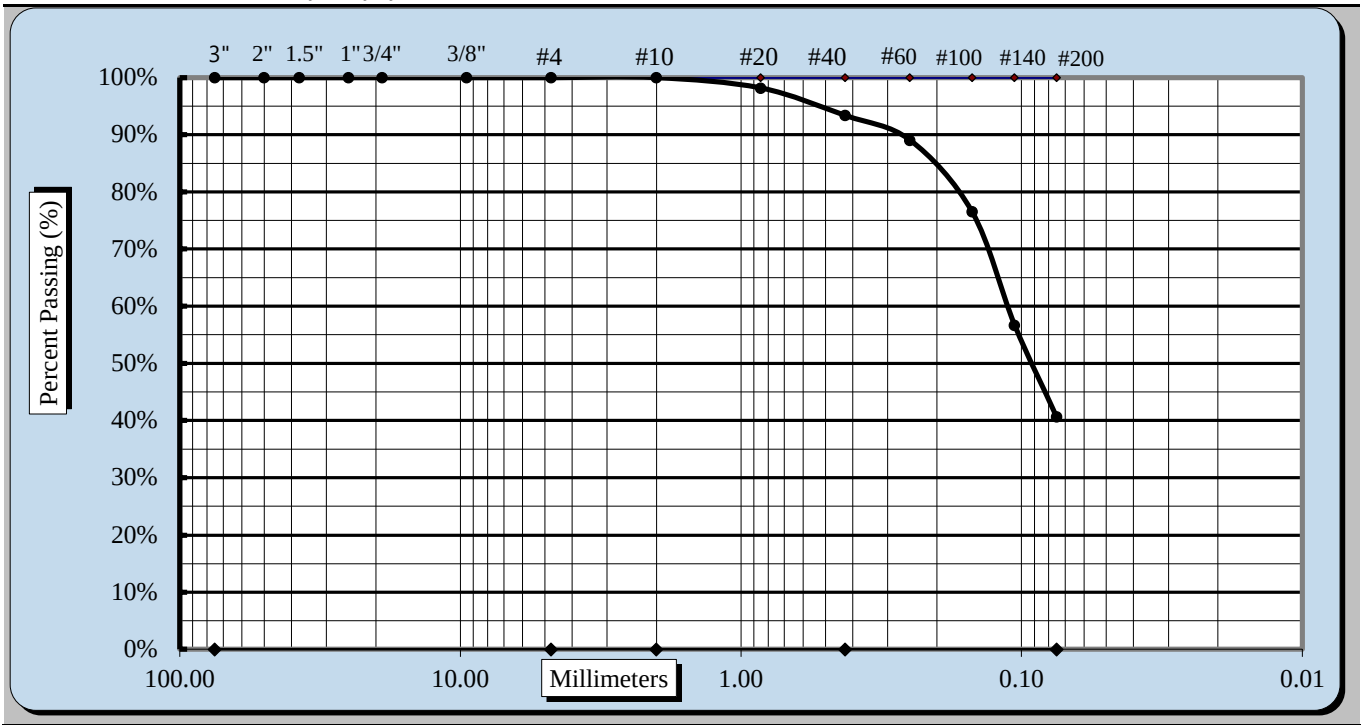
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-14 Sample #: S-3	Depth:	4'-6'
Location:	SPT		
Sample Description:	Gray Clayey Sand (SC) A-2-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	53%
Gravel	0%	Medium Sand	7%	Silt & Clay	41%
Liquid Limit	36	Plastic Limit	20	Plastic Index	16
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	25.1%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

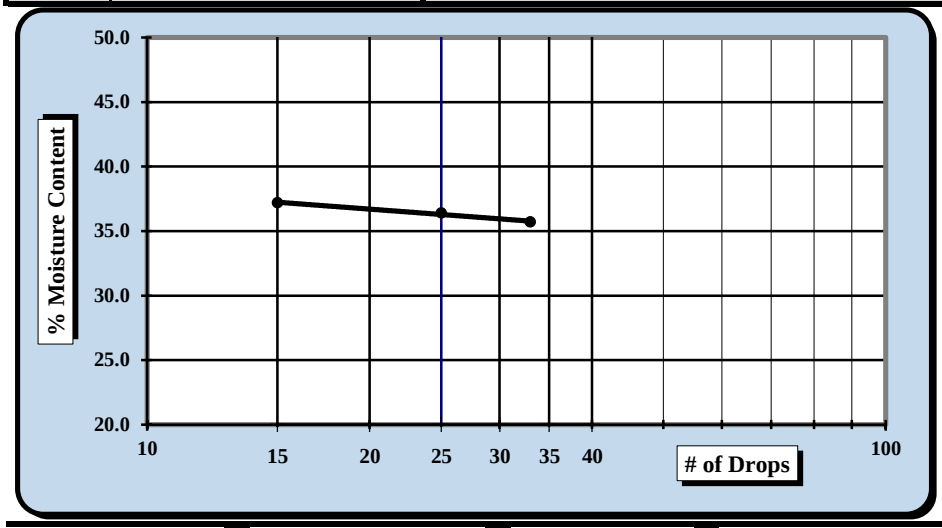
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-14	Sample #:	S-3	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	4'-6'
Sample Description:	Gray Clayey Sand (SC) A-2-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	11	25	49				61	8	
A	Tare Weight	14.58	14.62	14.57				14.62	14.57	
B	Wet Soil Weight + A	31.58	31.62	31.66				21.87	21.89	
C	Dry Soil Weight + A	27.11	27.08	27.03				20.64	20.66	
D	Water Weight (B-C)	4.47	4.54	4.63				1.23	1.23	
E	Dry Soil Weight (C-A)	12.53	12.46	12.46				6.02	6.09	
F	% Moisture (D/E)*100	35.7%	36.4%	37.2%				20.4%	20.2%	
N	# OF DROPS	33	25	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**20.3%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**36**
Plastic Limit	**20**
Plastic Index	**16**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

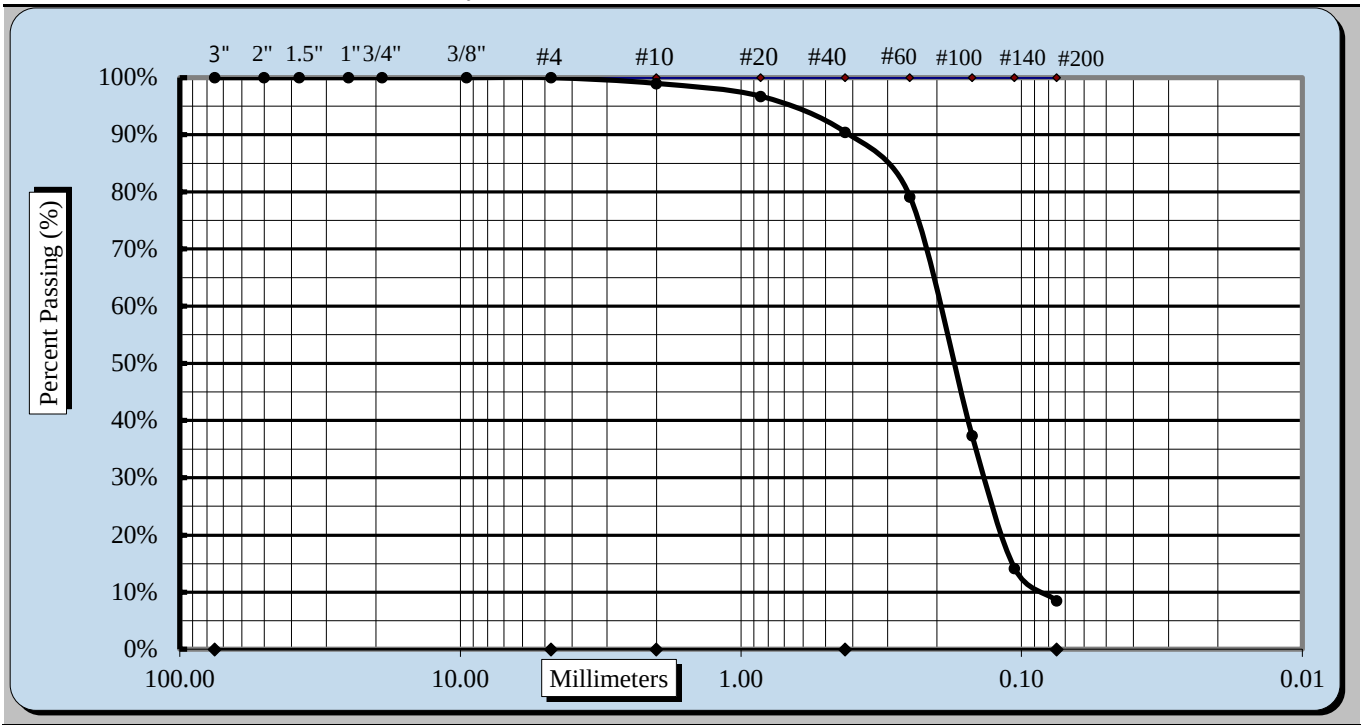
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-14 Sample #: S-8	Depth:	23.5'-35'
Location:	SPT		
Sample Description:	Dark Brown Poorly Graded Sand with Silt (SP-SM) A-3		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	82%
Gravel	0%	Medium Sand	9%	Silt & Clay	9%
Liquid Limit	--	Plastic Limit	NP	Plastic Index	--
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	49.4%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE — *Technical Responsibility*
Signature
Sr. Engineer — *Position*
2/25/2025 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

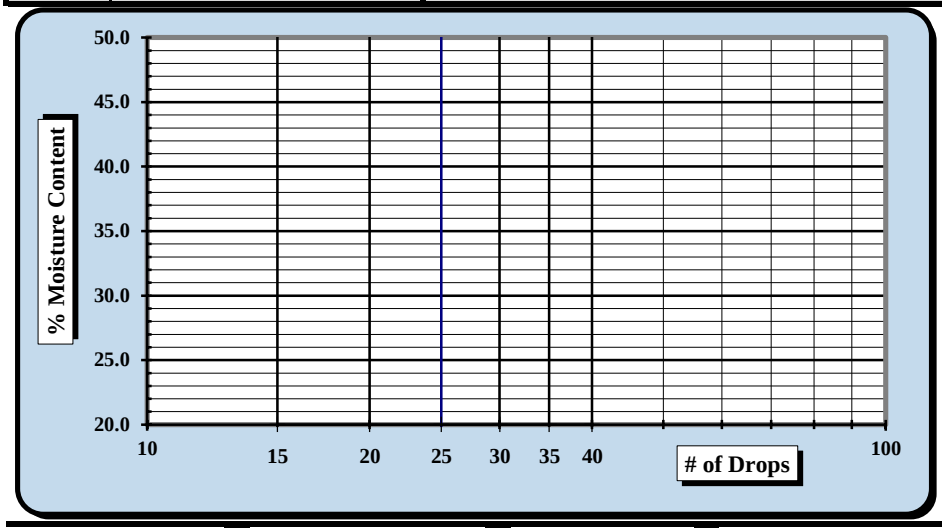
Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-14	Sample #:	S-8	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	23.5'-35'

Sample Description: Dark Brown Poorly Graded Sand with Silt (SP-SM) A-3

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A								NP	
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	
Plastic Limit	**NP**
Plastic Index	
Group Symbol	**SP-SM**

Multipoint Method ☐
One-point Method ☑

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

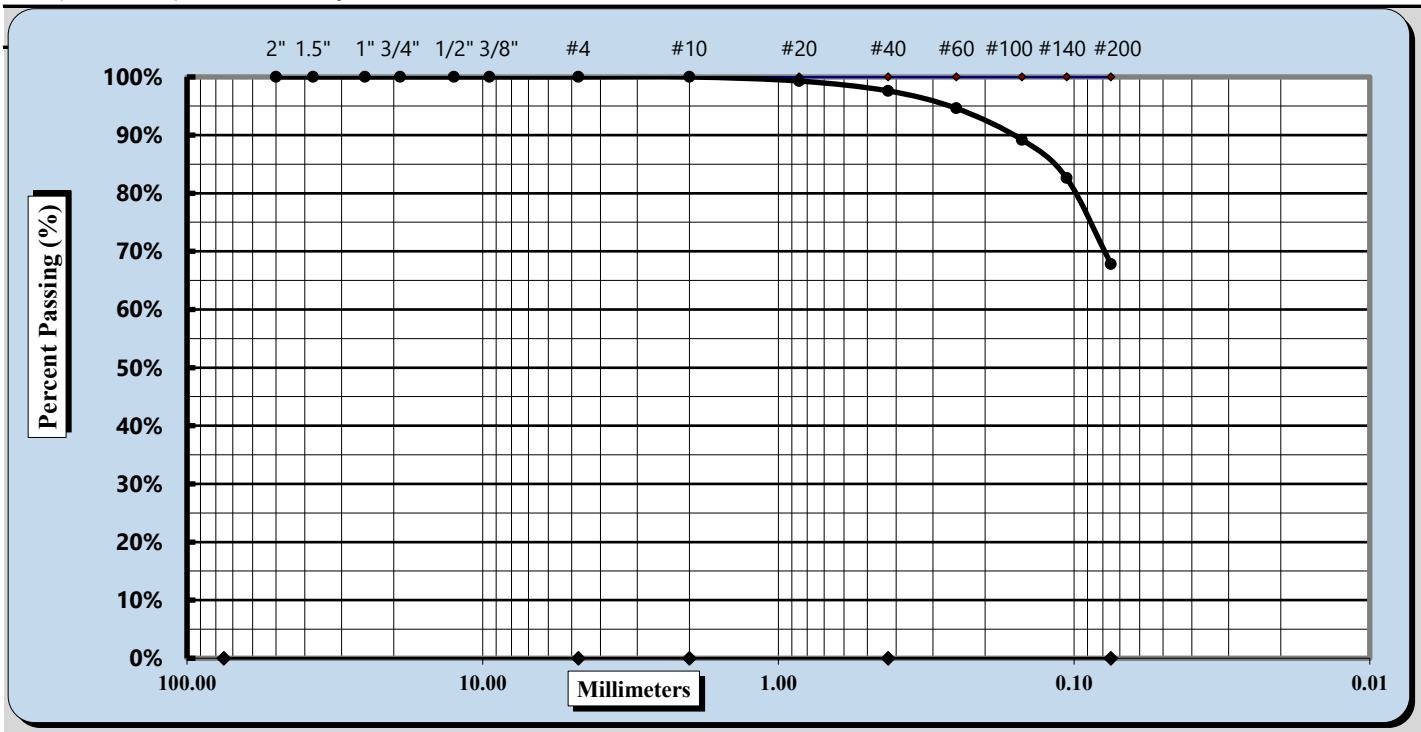
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/26/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	8/25 - 8/26/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B 14	Log #:	40g	Sample Date(s):	6/17 - 6/24/25
Location:	Undisturbed	Type:	Undisturbed	Depth:	14 - 16'

Sample Description: sandy lean CLAY [CL / A-7-6(17)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	0.85 mm	Coarse Sand	0.0%	Fine Sand	29.8%
Gravel	0.0%	Medium Sand	2.4%	Silt & Clay	67.8%
Liquid Limit	47	Plastic Limit	26	Plastic Index	21
		Natural Moisture	N/A		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/26/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

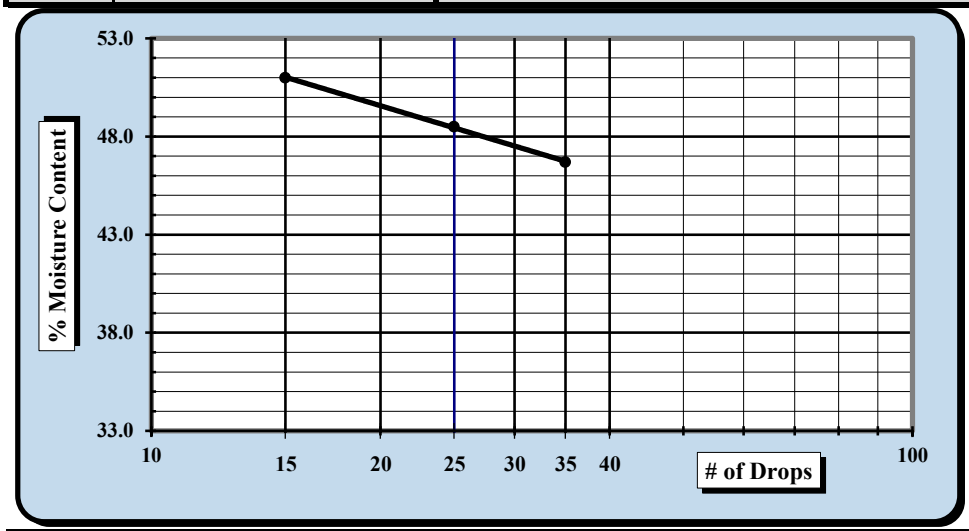
Project #:	200424A	Report Date:	8/26/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	8/26/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	B 14	Log #:	40g	Sample Date:	6/17 - 6/24/25
Location:	Undisturbed	Type:	Undisturbed	Depth:	14 - 16'

Sample Description: sandy lean CLAY [CL / A-7-6(17)]

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	10/30/2024	Grooving tool	23119	10/15/2024
LL Apparatus	23158	7/18/2024			
Oven	13978	10/1/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	6	7	8				9	10	
A	Tare Weight	27.79	26.32	27.34				26.85	26.76	
B	Wet Soil Weight + A	42.84	41.99	41.62				33.15	33.31	
C	Dry Soil Weight + A	38.05	36.87	36.80				31.97	32.05	
D	Water Weight (B-C)	4.79	5.12	4.82				1.18	1.26	
E	Dry Soil Weight (C-A)	10.26	10.55	9.46				5.12	5.29	
F	% Moisture (D/E)*100	46.7%	48.5%	51.0%				23.0%	23.8%	
N	# OF DROPS	35	25	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**23.4%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**49**
Plastic Limit	**23**
Plastic Index	**26**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 67.8%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Benjamin J. Kovaleski	8/26/25	Brian Vaughan, P.E.	8/26/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

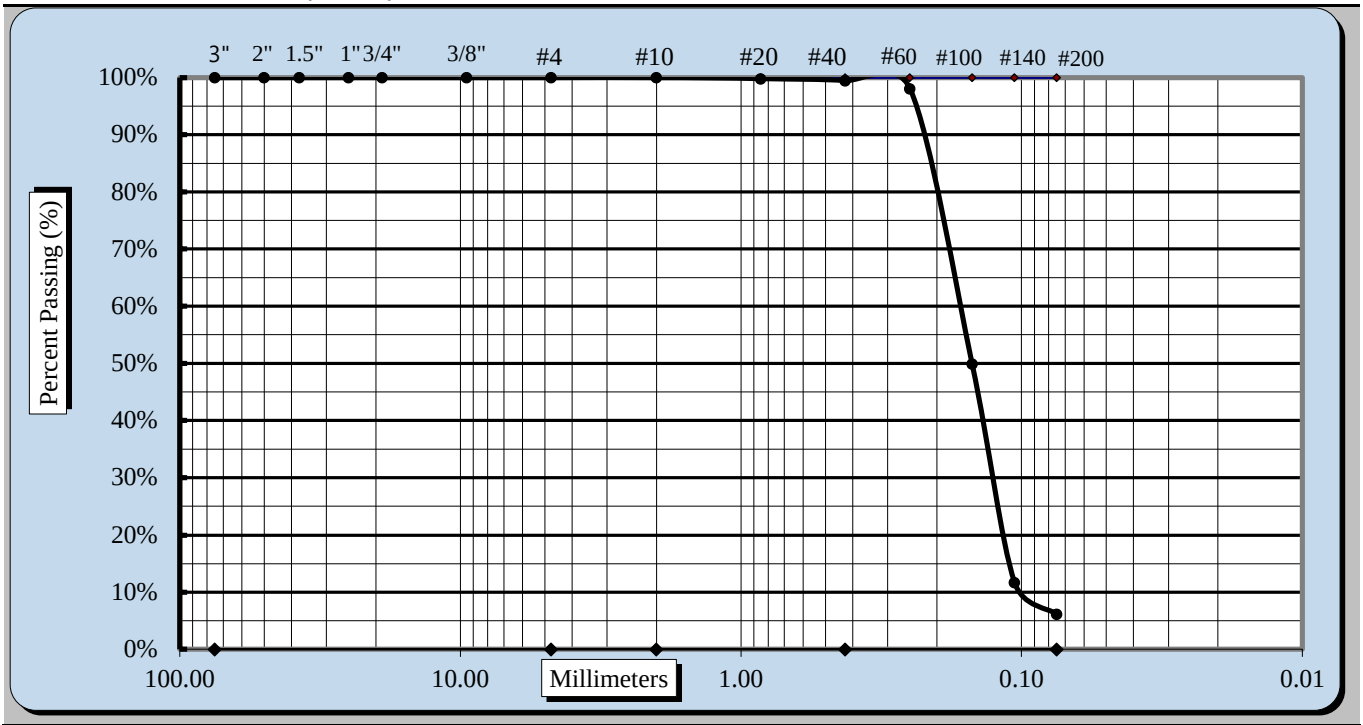
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-14 Sample #: S-10	Depth:	33.5'-35'
Location:	SPT		
Sample Description:	Gray Poorly Graded Sand with Silt (SP-SM) A-3		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	93%
Gravel	0%	Medium Sand	1%	Silt & Clay	6%
Liquid Limit	--	Plastic Limit	NP	Plastic Index	--
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	26.1%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE — *Technical Responsibility*
Signature
Sr. Engineer — *Position*
2/25/2025 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

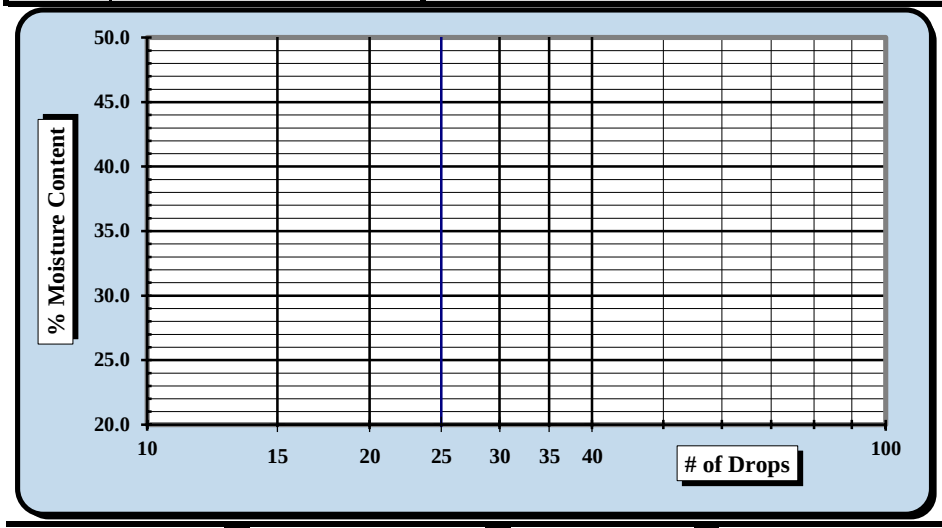
Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-14	Sample #:	S-10	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	33.5'-35'

Sample Description: Gray Poorly Graded Sand with Silt (SP-SM) A-3

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A								NP	
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	
Plastic Limit	**NP**
Plastic Index	
Group Symbol	**SP-SM**

Multipoint Method ☐
One-point Method ☑

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

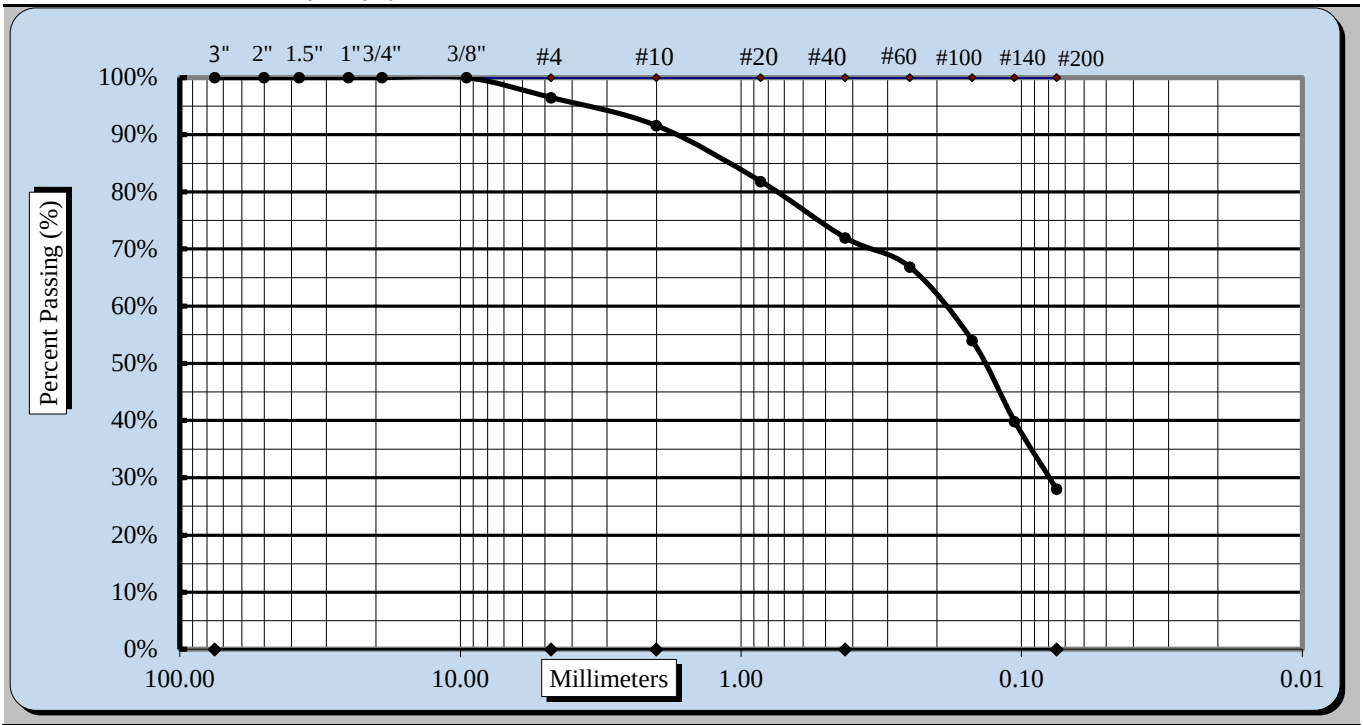
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-14 Sample #: S-12	Depth:	43.5'-45'
Location:	SPT		
Sample Description:	Gray Clayey Sand (SC) A-2-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	3/8"	Coarse Sand	5%	Fine Sand	44%
Gravel	4%	Medium Sand	20%	Silt & Clay	28%
Liquid Limit	29	Plastic Limit	13	Plastic Index	16
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	30.7%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

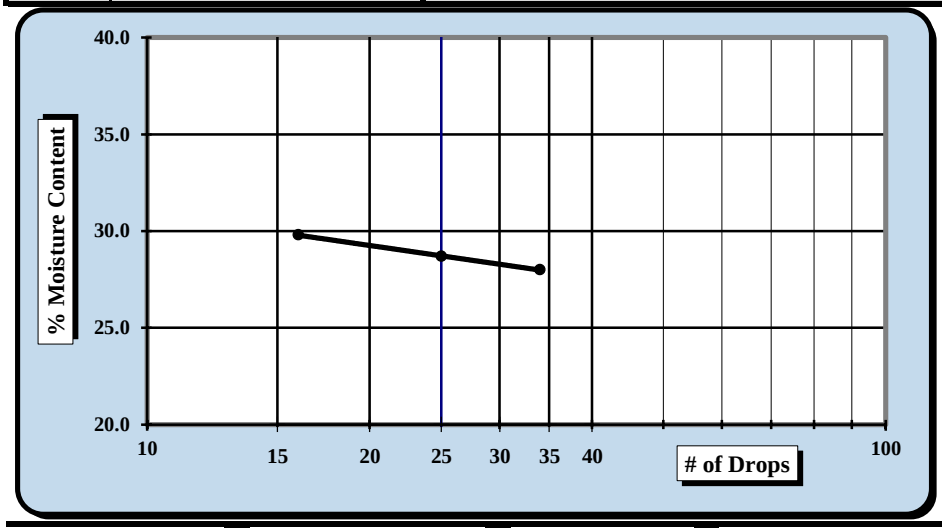
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-14	Sample #:	S-12	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	43.5'-45'
Sample Description:	Gray Clayey Sand (SC) A-2-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	19	12	66				15	127	
A	Tare Weight	14.58	14.57	14.57				14.59	14.57	
B	Wet Soil Weight + A	31.59	31.62	31.66				21.77	21.89	
C	Dry Soil Weight + A	27.87	27.82	27.74				20.96	21.08	
D	Water Weight (B-C)	3.72	3.80	3.92				0.81	0.81	
E	Dry Soil Weight (C-A)	13.29	13.25	13.17				6.37	6.51	
F	% Moisture (D/E)*100	28.0%	28.7%	29.8%				12.7%	12.4%	
N	# OF DROPS	34	25	16				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**12.6%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**29**
Plastic Limit	**13**
Plastic Index	**16**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

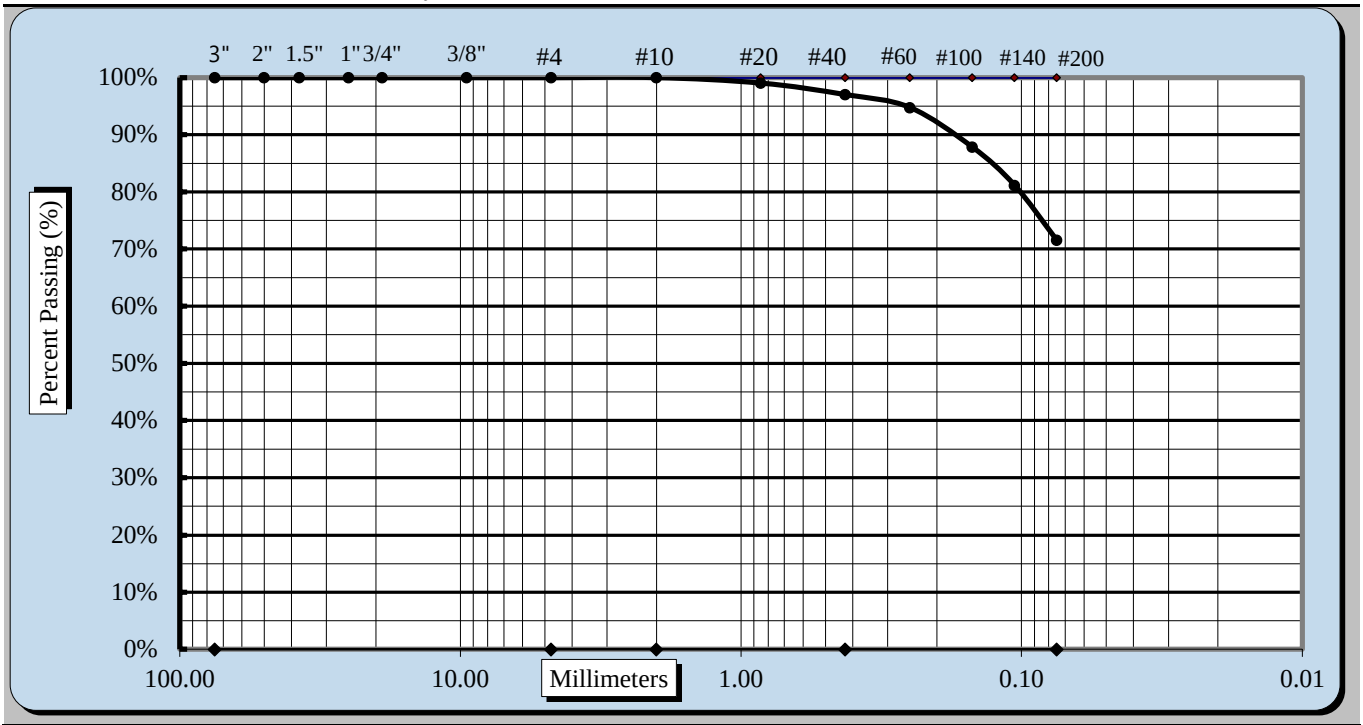
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-14 Sample #: S-13	Depth:	48.5'-50'
Location:	SPT		
Sample Description:	Brown Fat Clay (CH) A-7-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	25%
Gravel	0%	Medium Sand	3%	Silt & Clay	72%
Liquid Limit	52	Plastic Limit	21	Plastic Index	31
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	49.1%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

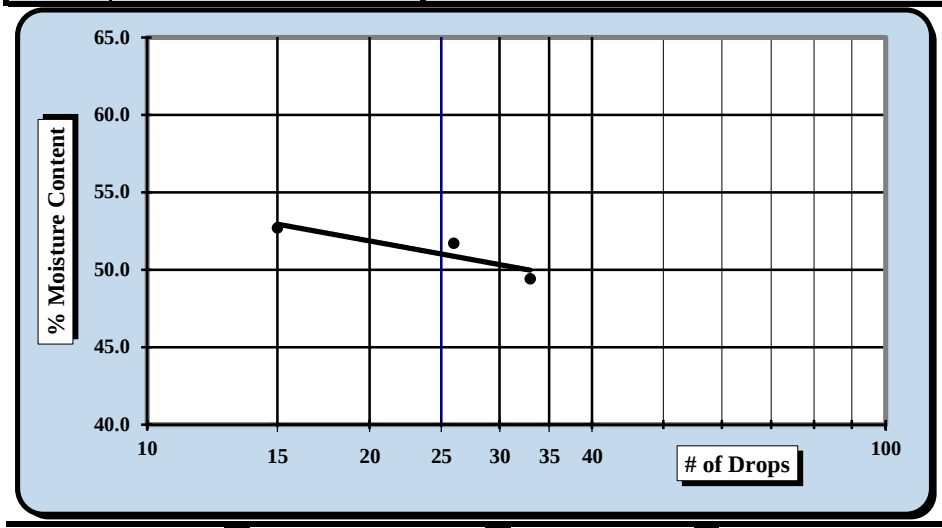
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/12/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-14	Sample #:	S-13	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	48.5'-50'
Sample Description:	Brown Fat Clay (CH) A-7-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	78	49	50				39	52	
A	Tare Weight	14.58	14.57	14.59				14.62	14.61	
B	Wet Soil Weight + A	31.67	31.79	31.86				21.67	21.69	
C	Dry Soil Weight + A	26.02	25.92	25.90				20.44	20.46	
D	Water Weight (B-C)	5.65	5.87	5.96				1.23	1.23	
E	Dry Soil Weight (C-A)	11.44	11.35	11.31				5.82	5.85	
F	% Moisture (D/E)*100	49.4%	51.7%	52.7%				21.1%	21.0%	
N	# OF DROPS	33	26	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**21.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**52**
Plastic Limit	**21**
Plastic Index	**31**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

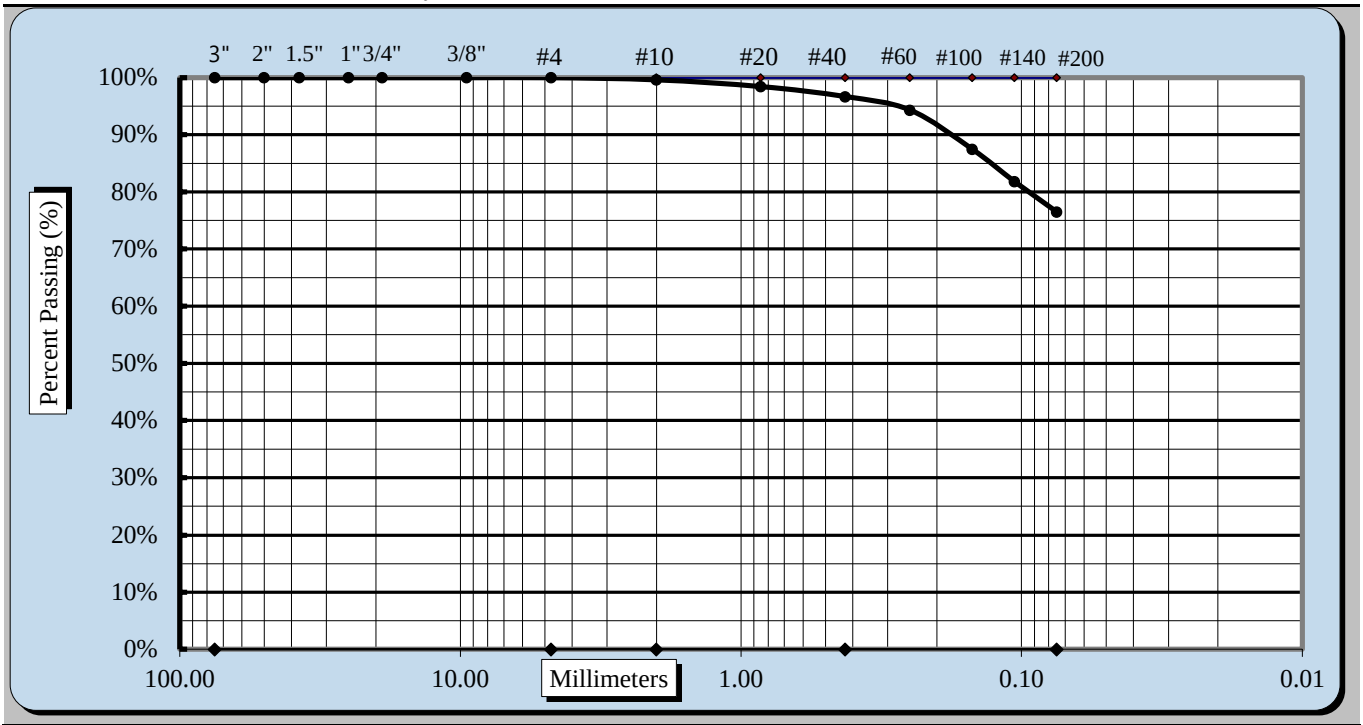
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-14 Sample #: S-15	Depth:	48.5'-50'
Location:	SPT		
Sample Description:	Brown Fat Clay (CH) A-7-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	20%
Gravel	0%	Medium Sand	3%	Silt & Clay	77%
Liquid Limit	53	Plastic Limit	26	Plastic Index	27
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	79.5%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-14	Sample #:	S-15	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	58.5'-60'
Sample Description:	Brown Fat Clay (CH) A-7-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	39	48	17				28	11	
A	Tare Weight	14.58	14.57	14.62				14.59	14.62	
B	Wet Soil Weight + A	31.91	32.11	32.24				21.72	21.73	
C	Dry Soil Weight + A	26.11	26.02	25.84				20.25	20.26	
D	Water Weight (B-C)	5.80	6.09	6.40				1.47	1.47	
E	Dry Soil Weight (C-A)	11.53	11.45	11.22				5.66	5.64	
F	% Moisture (D/E)*100	50.3%	53.2%	57.0%				26.0%	26.1%	
N	# OF DROPS	35	24	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**26.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**53**
Plastic Limit	**26**
Plastic Index	**27**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

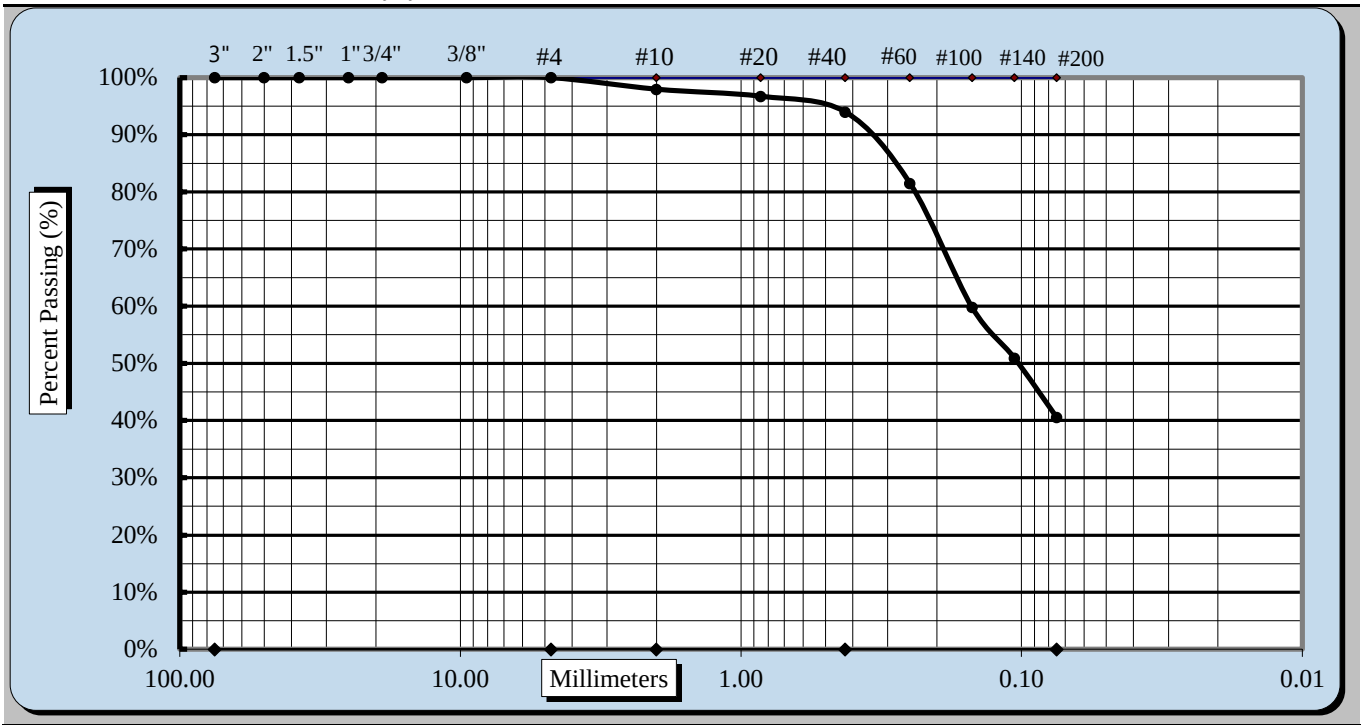
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-14 Sample #: S-17	Depth:	68.5'-70'
Location:	SPT		
Sample Description:	Brown Clayey Sand (SC) A-2-7		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	2%	Fine Sand	53%
Gravel	0%	Medium Sand	4%	Silt & Clay	41%
Liquid Limit	35	Plastic Limit	15	Plastic Index	20
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	42.3%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

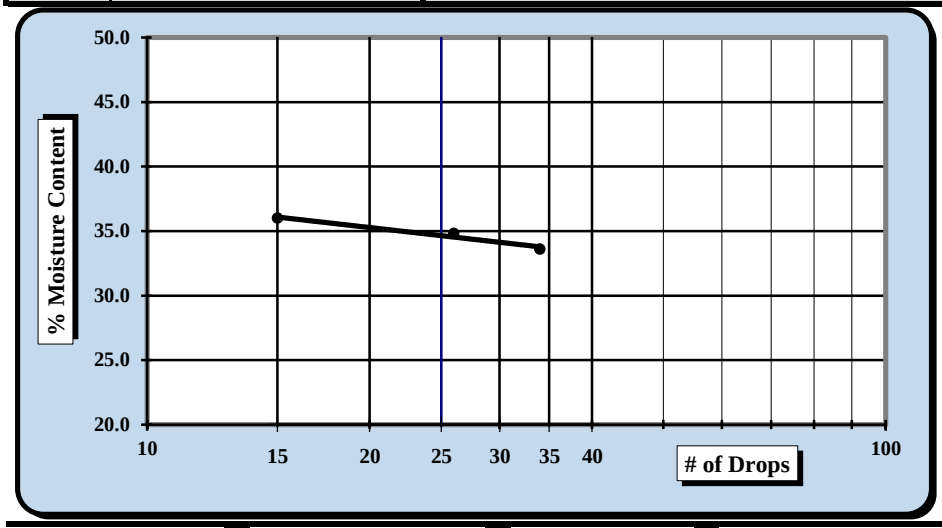
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-14	Sample #:	S-17	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	68.5'-70'
Sample Description:	Brown Clayey Sand (SC) A-2-7				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	61	7	37				19	84	
A	Tare Weight	14.57	14.58	14.57				14.61	14.57	
B	Wet Soil Weight + A	31.72	31.84	31.91				21.65	21.66	
C	Dry Soil Weight + A	27.41	27.38	27.32				20.72	20.73	
D	Water Weight (B-C)	4.31	4.46	4.59				0.93	0.93	
E	Dry Soil Weight (C-A)	12.84	12.80	12.75				6.11	6.16	
F	% Moisture (D/E)*100	33.6%	34.8%	36.0%				15.2%	15.1%	
N	# OF DROPS	34	26	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**15.2%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**35**
Plastic Limit	**15**
Plastic Index	**20**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

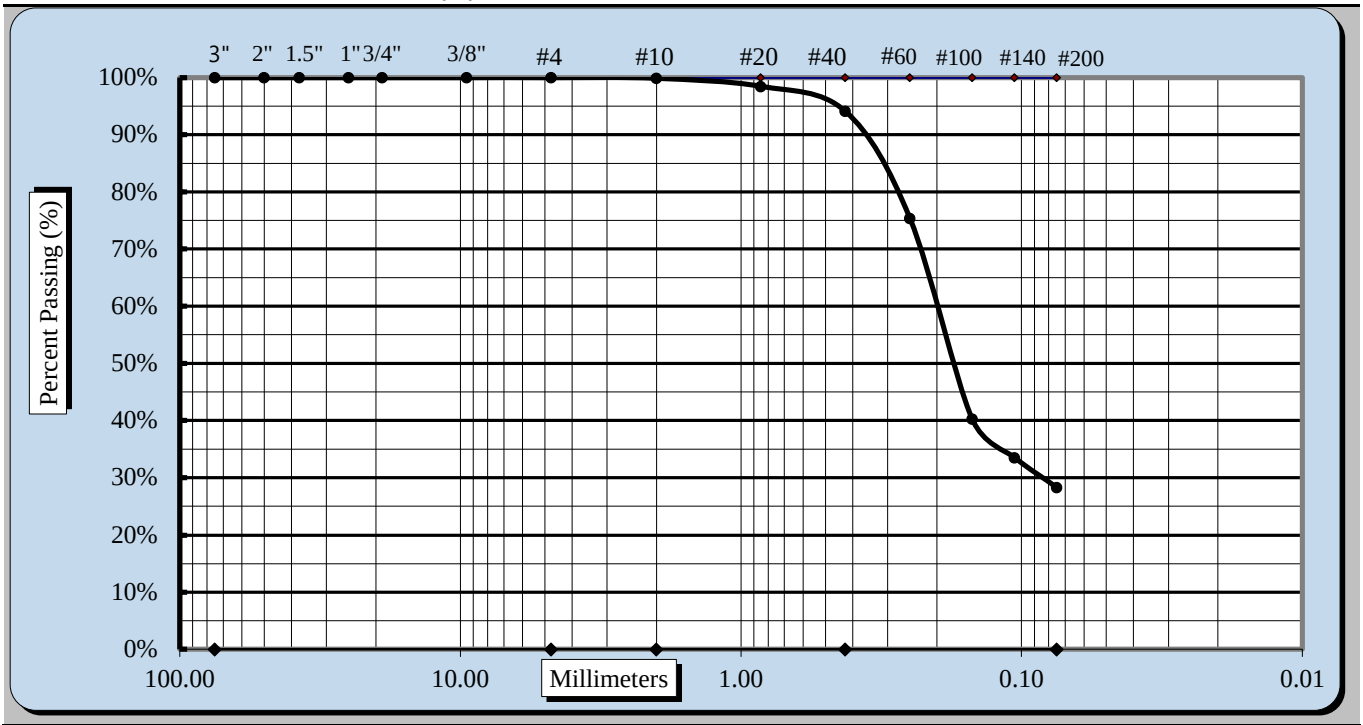
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-14 Sample #: S-19	Depth:	78.5'-80'
Location:	SPT		
Sample Description:	Dark Brown Clayey Sand (SC) A-2-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	66%
Gravel	0%	Medium Sand	6%	Silt & Clay	28%
Liquid Limit	33	Plastic Limit	20	Plastic Index	13
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	40.8%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

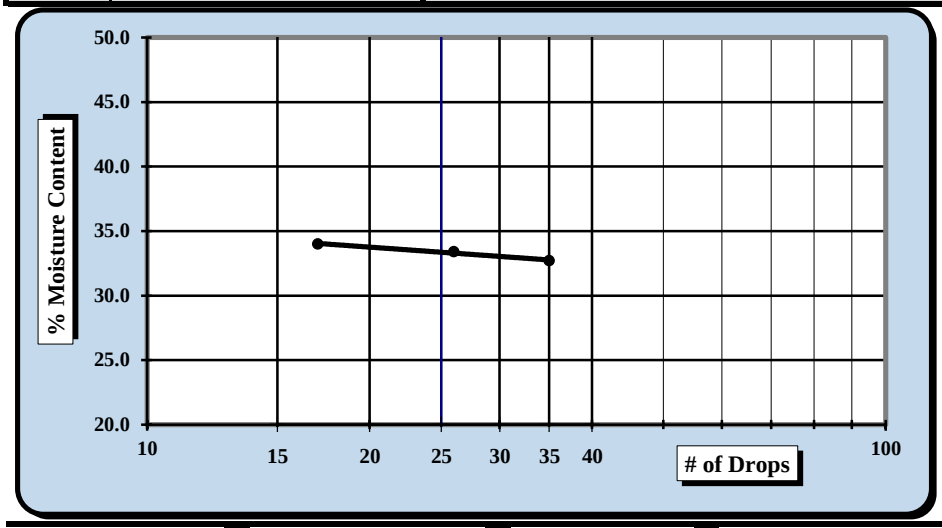
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-14	Sample #:	S-19	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	78.5'-80'
Sample Description:	Dark Brown Clayey Sand (SC) A-2-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	89	48	72				3	91	
A	Tare Weight	14.58	14.57	14.57				14.59	14.60	
B	Wet Soil Weight + A	31.65	31.69	31.74				21.82	21.85	
C	Dry Soil Weight + A	27.44	27.40	27.38				20.64	20.66	
D	Water Weight (B-C)	4.21	4.29	4.36				1.18	1.19	
E	Dry Soil Weight (C-A)	12.86	12.83	12.81				6.05	6.06	
F	% Moisture (D/E)*100	32.7%	33.4%	34.0%				19.5%	19.6%	
N	# OF DROPS	35	26	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**19.6%**		



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**33**
Plastic Limit	**20**
Plastic Index	**13**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s):	8/14/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		
Sample by:	S&ME	Sample Date(s):	8/13/2025

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 33377 Calibration Date: 2/10/25 Oven ID. 17745 Calibration Date: 9/27/24

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft. or m.		grams	grams	grams	grams	%	
B-15 SPT	S-1	1'-3'	GGG	82.2	315.5	286.2	29.30	14.4%	
B-15 SPT	S-3	5'-7'	YZ	81.9	191.6	164.6	27.00	32.6%	
B-15 SPT	S-6	18.5'-20'	J	77.7	164.7	134.1	30.60	54.3%	
B-15 SPT	S-11	43.5'-45'	N	78.8	171.7	134.0	37.70	68.3%	
B-15 SPT	S-13	53.5'-55'	P	81.7	163.0	133.2	29.80	57.9%	
B-15 SPT	S-15	63.5'-65'	F	82.3	201.4	162.6	38.80	48.3%	
B-15 SPT	S-17	73.5'-75'	Pink	80.7	188.3	156.3	32.00	42.3%	
B-15 SPT	S-19	83.5'-85'	WWW	65.9	297.1	244.7	52.40	29.3%	
B-15 SPT	S-21	93.5'-95'	Sue	81.4	270.2	226.0	44.20	30.6%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Jason S. McGough	*Jason S. Mcgough*	Lab Supervisor	8/22/2025
		Position	*Date*
Andrew Fiehler, PE		Sr. Engineer	8/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

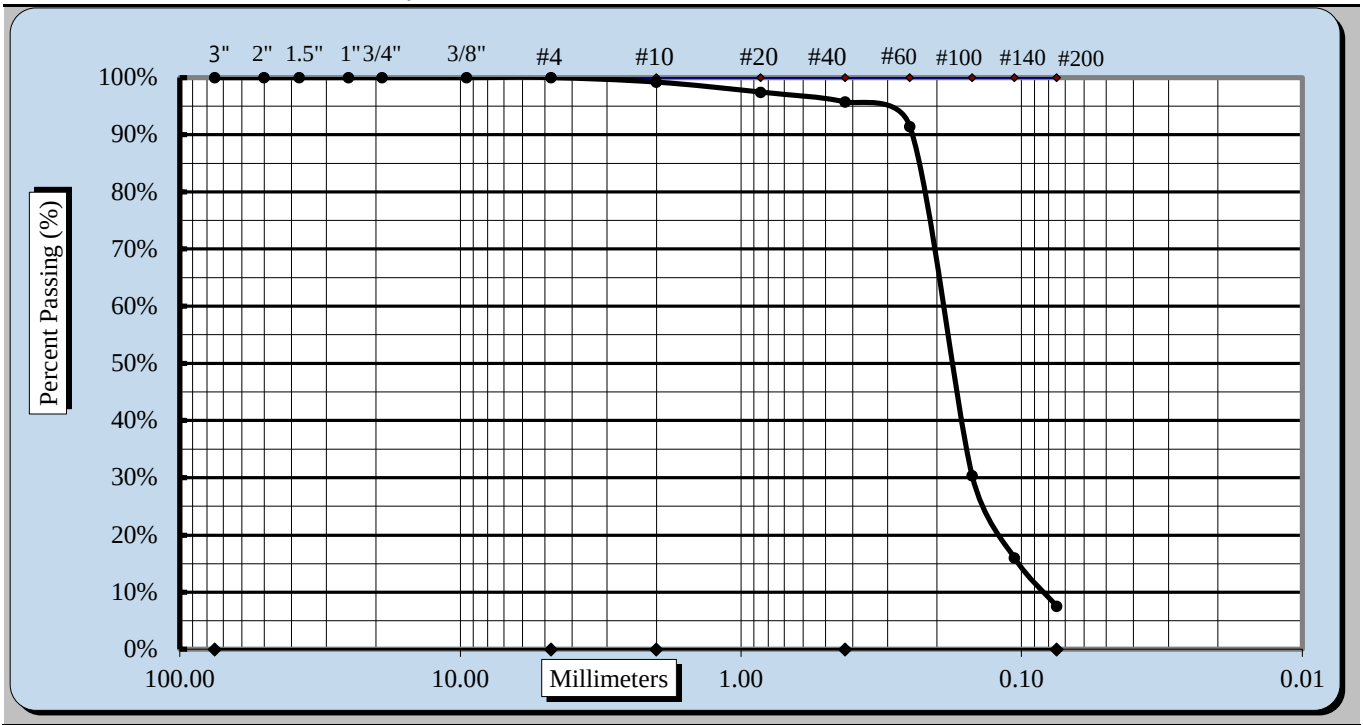
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-15 Sample #: S-1	Depth:	1'-3'
Location:	SPT		
Sample Description:	Brown Poorly Graded Sand with Silt (SP-SM) A-3		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	88%
Gravel	0%	Medium Sand	3%	Silt & Clay	8%
Liquid Limit	--	Plastic Limit	NP	Plastic Index	--
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	14.4%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

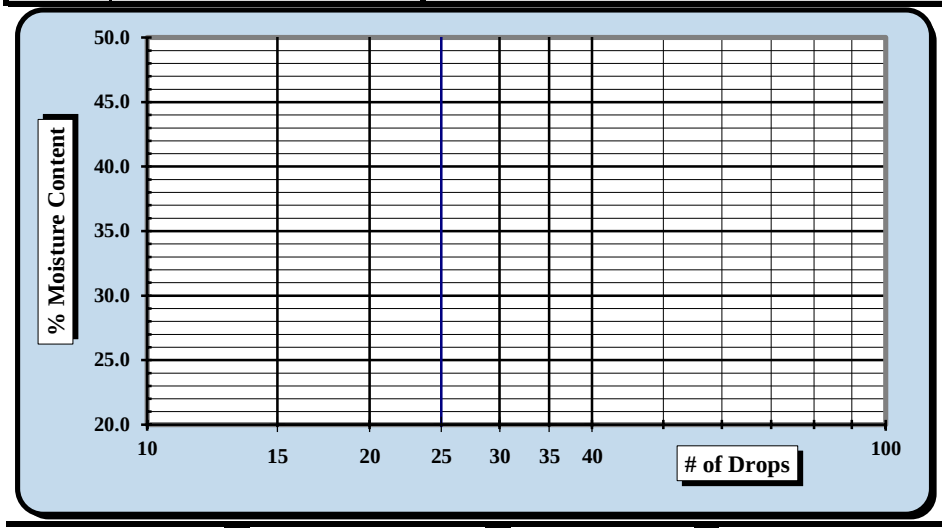
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-15	Sample #:	S-1	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	1'-3'
Sample Description:	Brown Poorly Graded Sand with Silt (SP-SM) A-3				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A								NP	
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	
Plastic Limit	**NP**
Plastic Index	
Group Symbol	**SP-SM**

Multipoint Method ☐
One-point Method ☑

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

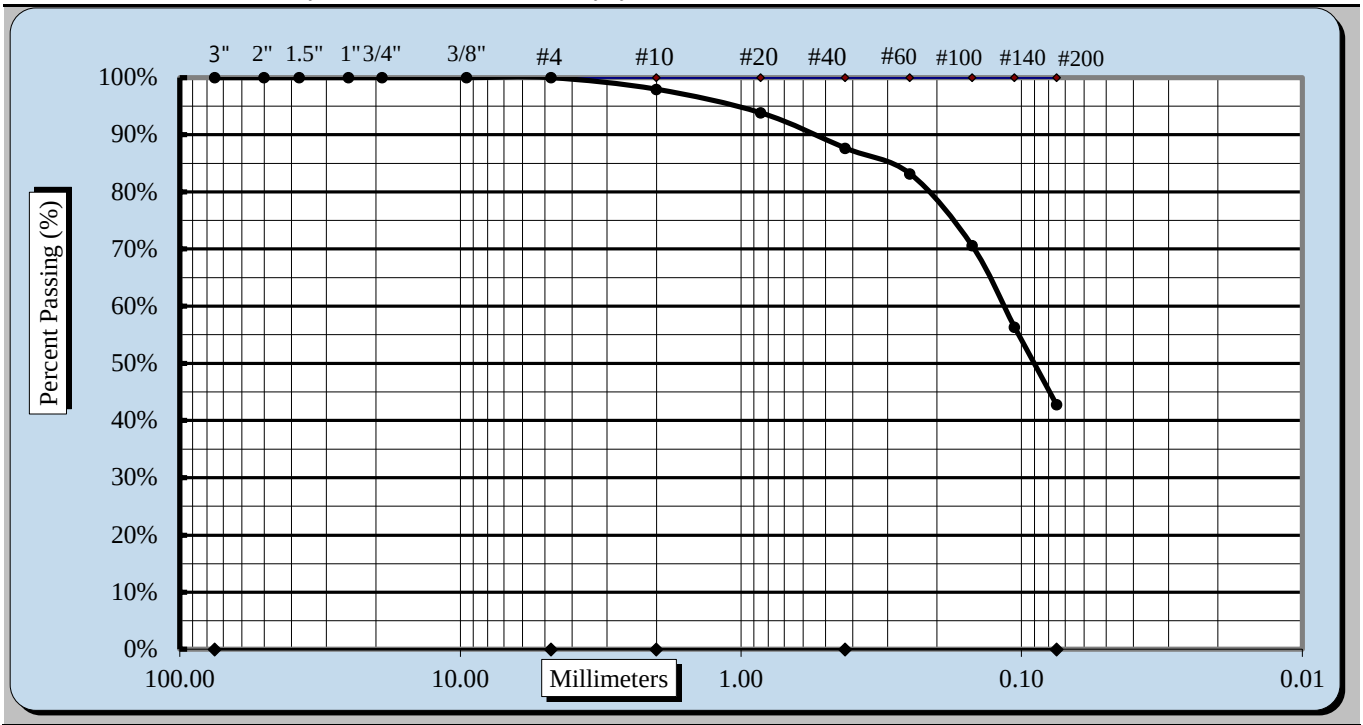
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-15 Sample #: S-3	Depth:	5'-7'
Location:	SPT		
Sample Description:	Gray with Reddish Brown Clayey Sand (SC) A-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	2%	Fine Sand	45%
Gravel	0%	Medium Sand	10%	Silt & Clay	43%
Liquid Limit	36	Plastic Limit	12	Plastic Index	24
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	32.6%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

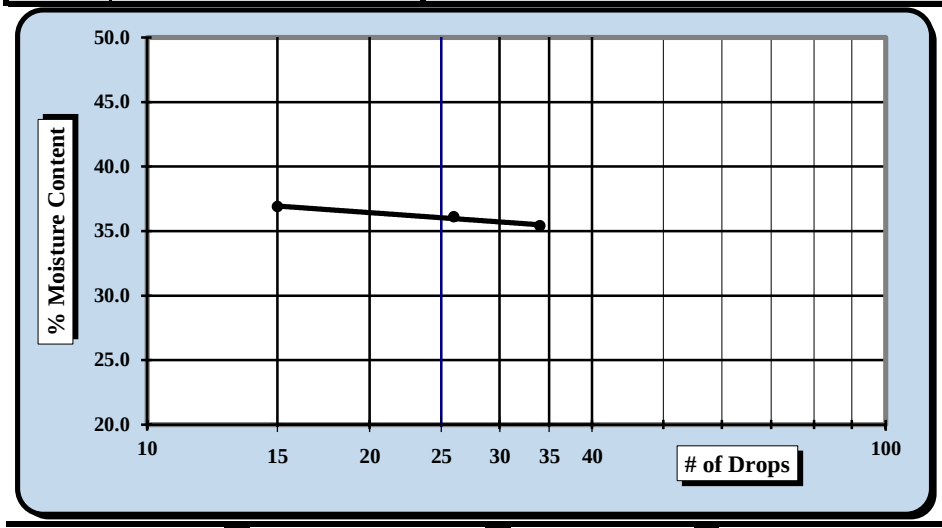
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-15	Sample #:	S-3	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	5'-7'
Sample Description:	Gray with Reddish Brown Clayey Sand (SC) A-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	48	39	71				55	113	
A	Tare Weight	14.58	14.57	14.59				14.61	14.57	
B	Wet Soil Weight + A	31.59	31.62	31.69				27.11	27.15	
C	Dry Soil Weight + A	27.14	27.10	27.08				25.74	25.77	
D	Water Weight (B-C)	4.45	4.52	4.61				1.37	1.38	
E	Dry Soil Weight (C-A)	12.56	12.53	12.49				11.13	11.20	
F	% Moisture (D/E)*100	35.4%	36.1%	36.9%				12.3%	12.3%	
N	# OF DROPS	34	26	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**12.3%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**36**
Plastic Limit	**12**
Plastic Index	**24**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

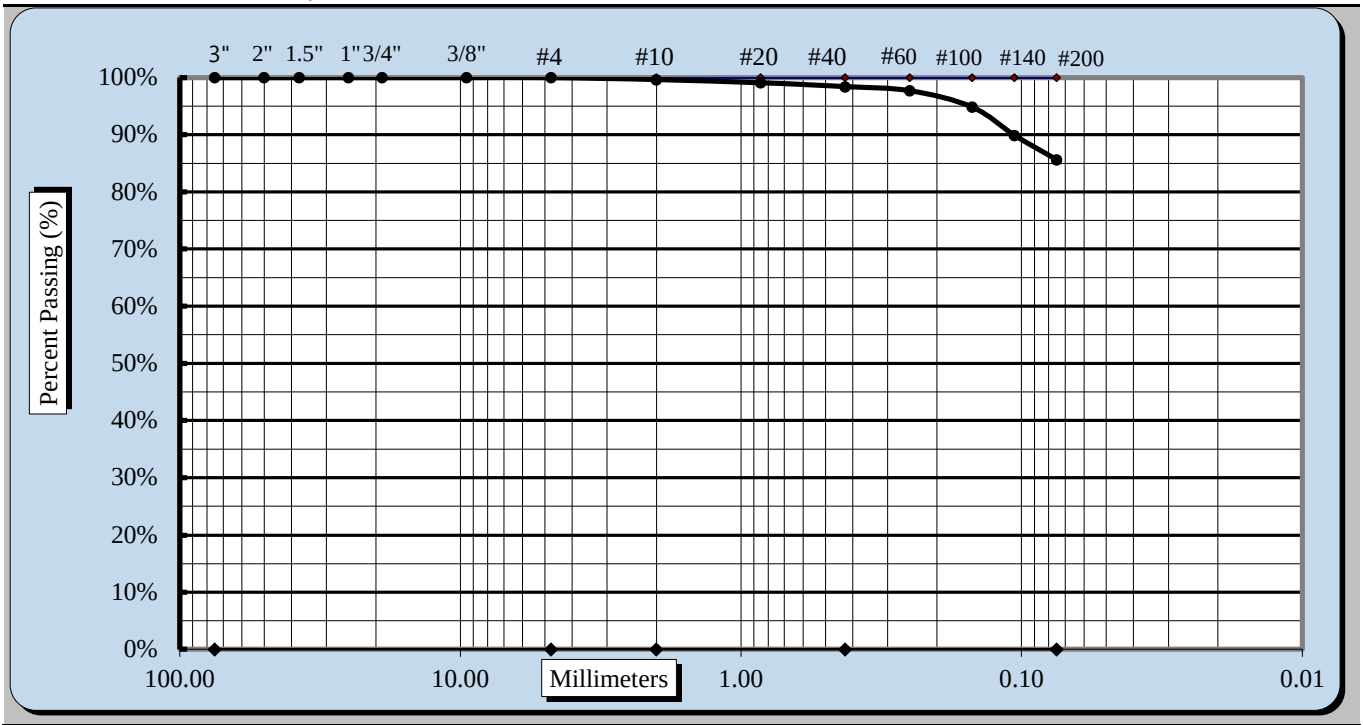
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-15 Sample #: S-6	Depth:	18.5'-20'
Location:	SPT		
Sample Description:	Gray Elastic Silt with Sand (MH) A-7-5		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	13%
Gravel	0%	Medium Sand	1%	Silt & Clay	86%
Liquid Limit	62	Plastic Limit	33	Plastic Index	29
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	54.3%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	88/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-15	Sample #:	S-6	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	18.5'-20'
Sample Description:	Gray Elastic Silt with Sand (MH) A-7-5				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	37	49	52				18	106	
A	Tare Weight	14.58	14.57	14.62				14.57	14.61	
B	Wet Soil Weight + A	31.52	31.64	31.77				21.84	21.89	
C	Dry Soil Weight + A	25.14	25.12	25.11				20.06	20.09	
D	Water Weight (B-C)	6.38	6.52	6.66				1.78	1.80	
E	Dry Soil Weight (C-A)	10.56	10.55	10.49				5.49	5.48	
F	% Moisture (D/E)*100	60.4%	61.8%	63.5%				32.4%	32.8%	
N	# OF DROPS	34	26	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**32.6%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**62**
Plastic Limit	**33**
Plastic Index	**29**
Group Symbol	**MH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	88/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

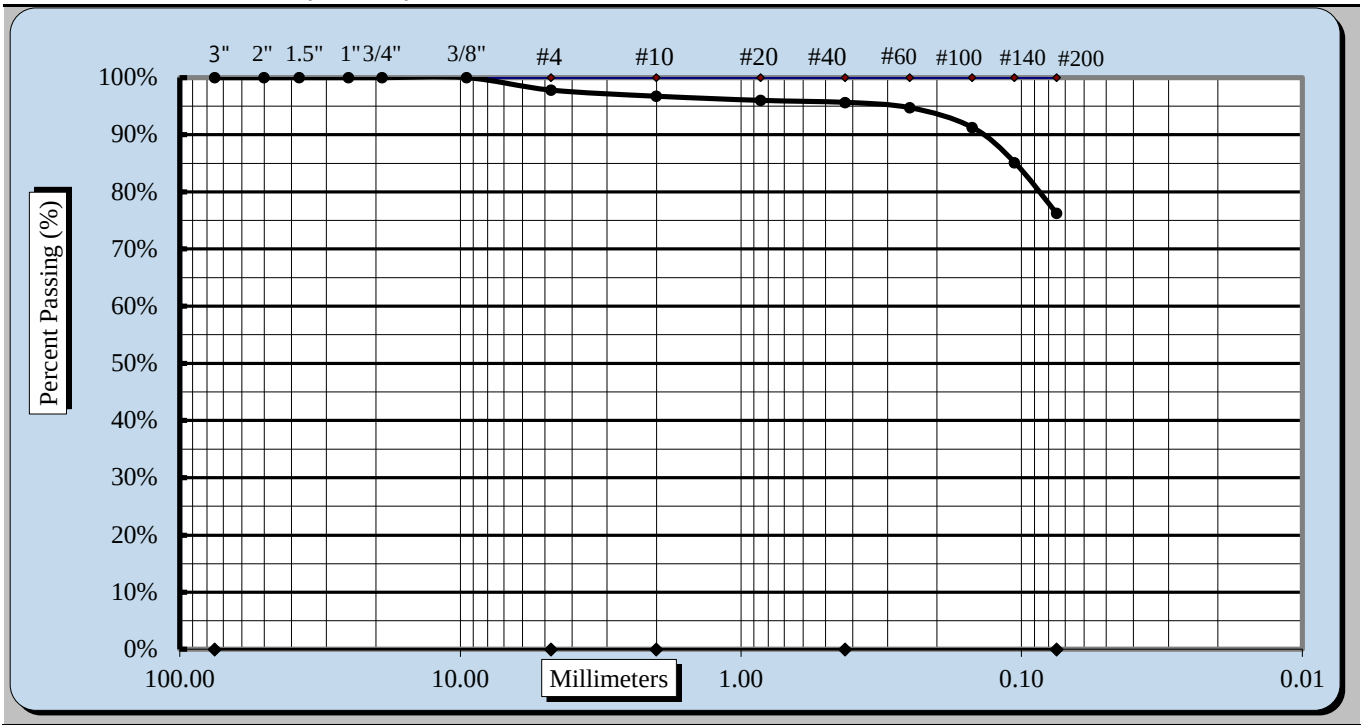
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-15 Sample #: S-11	Depth:	43.5'-45'
Location:	SPT		
Sample Description:	Gray Fat Clay (CH) A-7-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	3/8"	Coarse Sand	1%	Fine Sand	19%
Gravel	2%	Medium Sand	1%	Silt & Clay	76%
Liquid Limit	63	Plastic Limit	16	Plastic Index	47
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	68.3%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

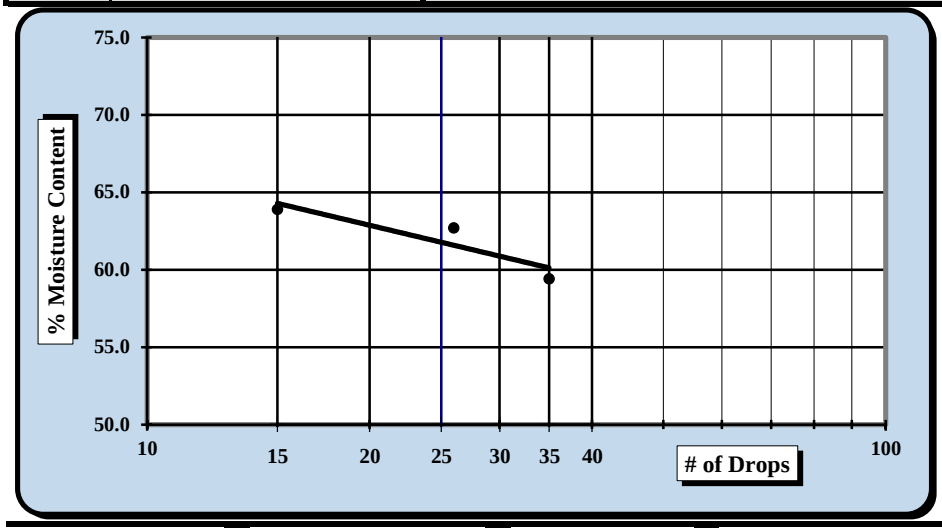
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/11/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-15	Sample #:	S-11	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	43.5'-45'
Sample Description:	Gray Fat Clay (CH) A-7-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	69	30	12				8	57	
A	Tare Weight	14.58	14.62	14.57				14.62	14.61	
B	Wet Soil Weight + A	31.64	31.72	31.80				21.69	21.72	
C	Dry Soil Weight + A	25.28	25.13	25.08				20.74	20.77	
D	Water Weight (B-C)	6.36	6.59	6.72				0.95	0.95	
E	Dry Soil Weight (C-A)	10.70	10.51	10.51				6.12	6.16	
F	% Moisture (D/E)*100	59.4%	62.7%	63.9%				15.5%	15.4%	
N	# OF DROPS	35	26	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**15.5%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**63**
Plastic Limit	**16**
Plastic Index	**47**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

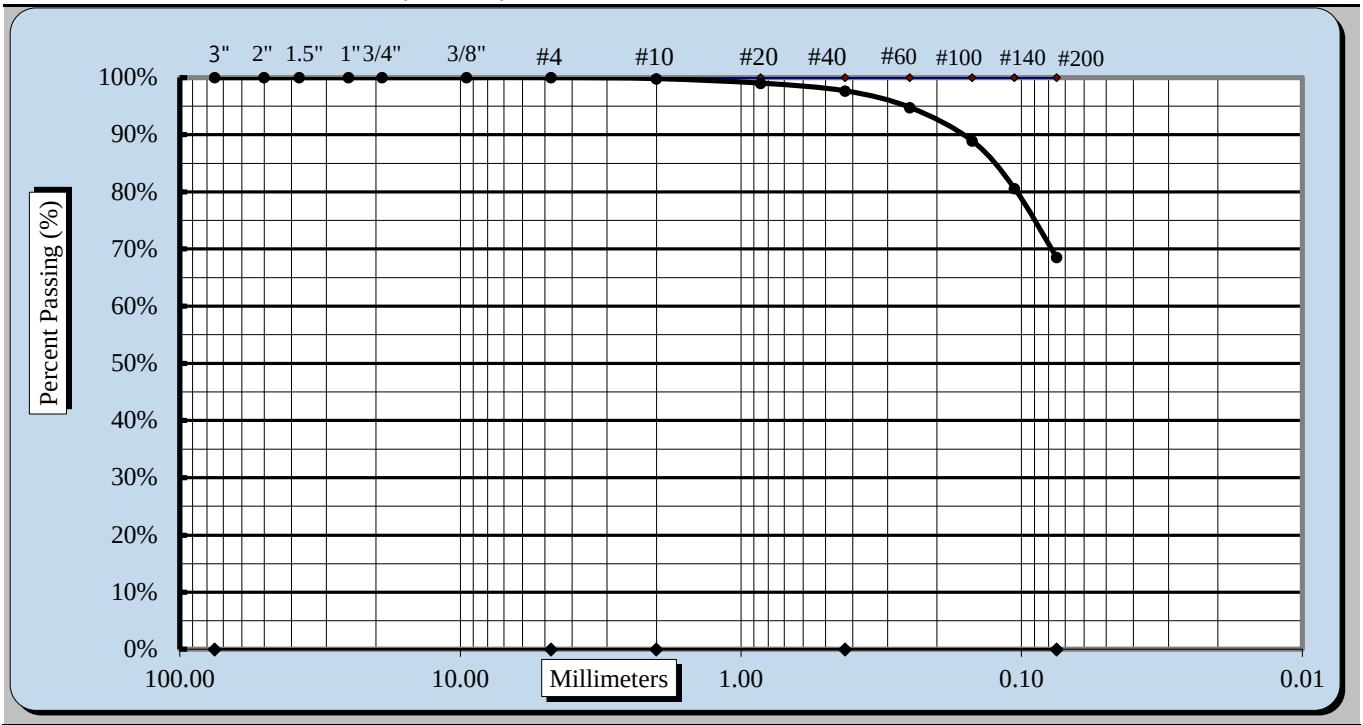
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-15 Sample #: S-13	Depth:	53.5'-55'
Location:	SPT		
Sample Description:	Brown Sandy Fat Clay (CH) A-7-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	29%
Gravel	0%	Medium Sand	2%	Silt & Clay	69%
Liquid Limit	51	Plastic Limit	24	Plastic Index	27
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	57.9%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

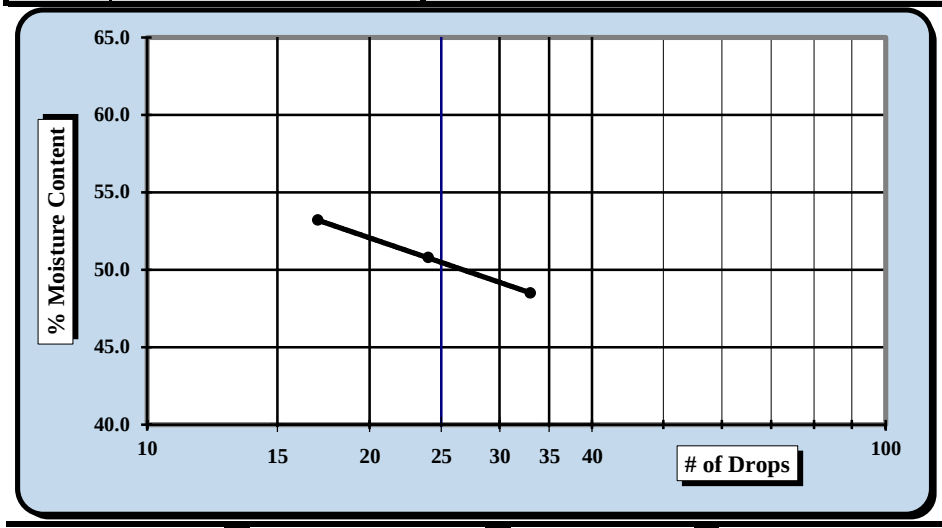
Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/12/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-15	Sample #:	S-13	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	53.5'-55'

Sample Description: Brown Sandy Fat Clay (CH) A-7-6

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	16	37	22				7	58	
A	Tare Weight	14.57	14.57	14.57				14.57	14.59	
B	Wet Soil Weight + A	31.71	31.84	31.99				21.48	21.52	
C	Dry Soil Weight + A	26.11	26.02	25.94				20.14	20.18	
D	Water Weight (B-C)	5.60	5.82	6.05				1.34	1.34	
E	Dry Soil Weight (C-A)	11.54	11.45	11.37				5.57	5.59	
F	% Moisture (D/E)*100	48.5%	50.8%	53.2%				24.1%	24.0%	
N	# OF DROPS	33	24	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**24.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**51**
Plastic Limit	**24**
Plastic Index	**27**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

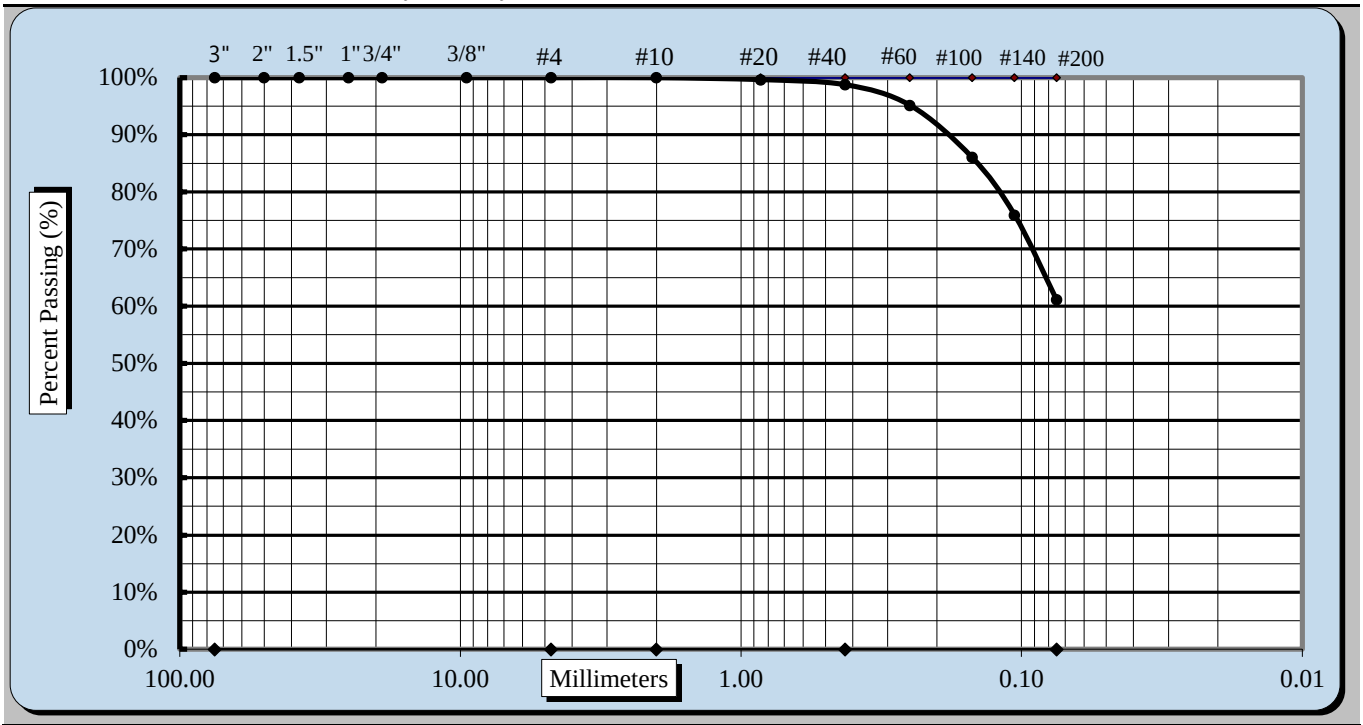
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-15 Sample #: S-15	Depth:	63.5'-65'
Location:	SPT		
Sample Description:	Brown Sandy Fat Clay (CH) A-7-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	38%
Gravel	0%	Medium Sand	1%	Silt & Clay	61%
Liquid Limit	51	Plastic Limit	26	Plastic Index	25
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	48.3%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

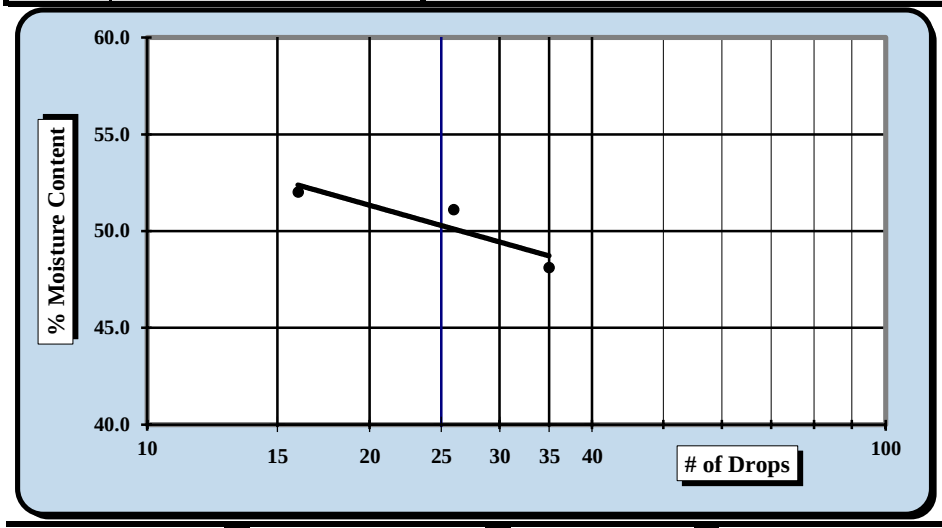
Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/12/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-15	Sample #:	S-15	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	63.5'-65'

Sample Description: Brown Sandy Fat Clay (CH) A-7-6

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	29	41	67				13	108	
A	Tare Weight	14.59	14.62	14.57				14.58	14.62	
B	Wet Soil Weight + A	31.71	31.82	31.85				21.69	21.72	
C	Dry Soil Weight + A	26.15	26.00	25.94				20.23	20.25	
D	Water Weight (B-C)	5.56	5.82	5.91				1.46	1.47	
E	Dry Soil Weight (C-A)	11.56	11.38	11.37				5.65	5.63	
F	% Moisture (D/E)*100	48.1%	51.1%	52.0%				25.8%	26.1%	
N	# OF DROPS	35	26	16				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**26.0%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**51**
Plastic Limit	**26**
Plastic Index	**25**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

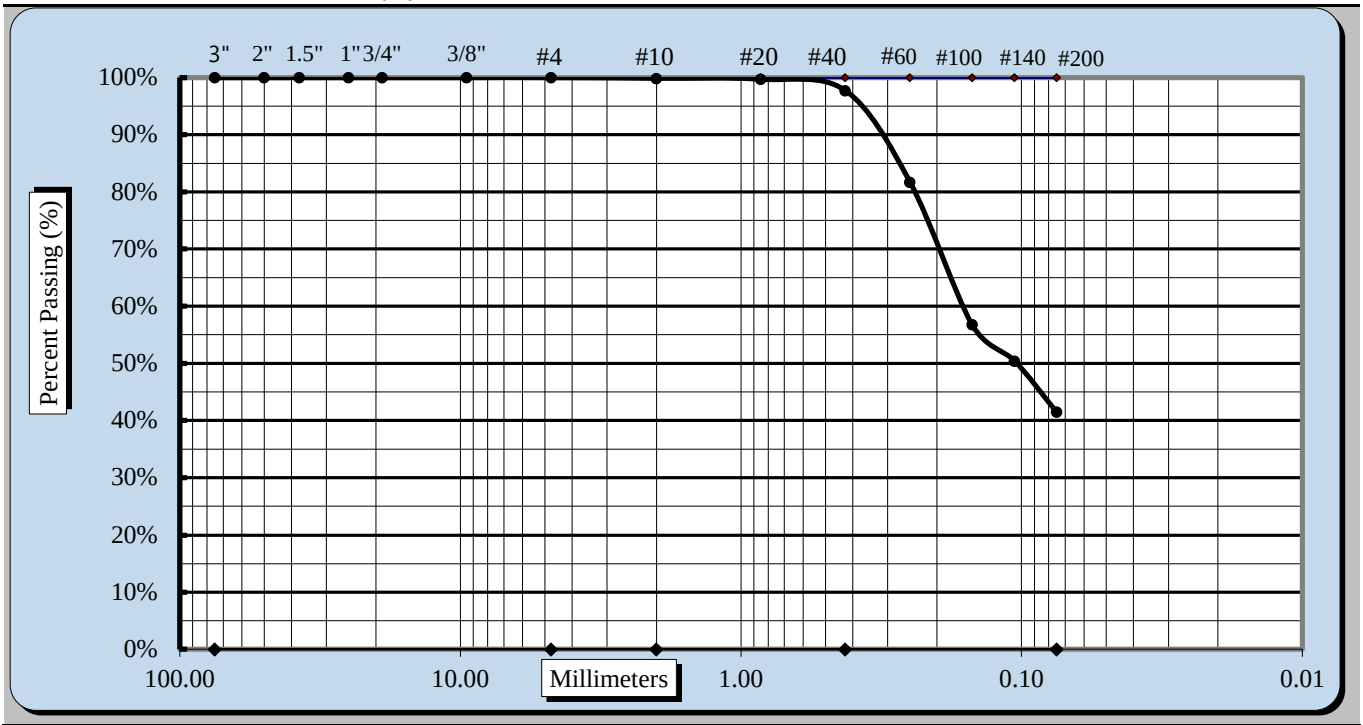
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-15 Sample #: S-17	Depth:	73.5'-75'
Location:	SPT		
Sample Description:	Brown Clayey Sand (SC) A-2-7		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	56%
Gravel	0%	Medium Sand	2%	Silt & Clay	42%
Liquid Limit	33	Plastic Limit	15	Plastic Index	18
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	42.3%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

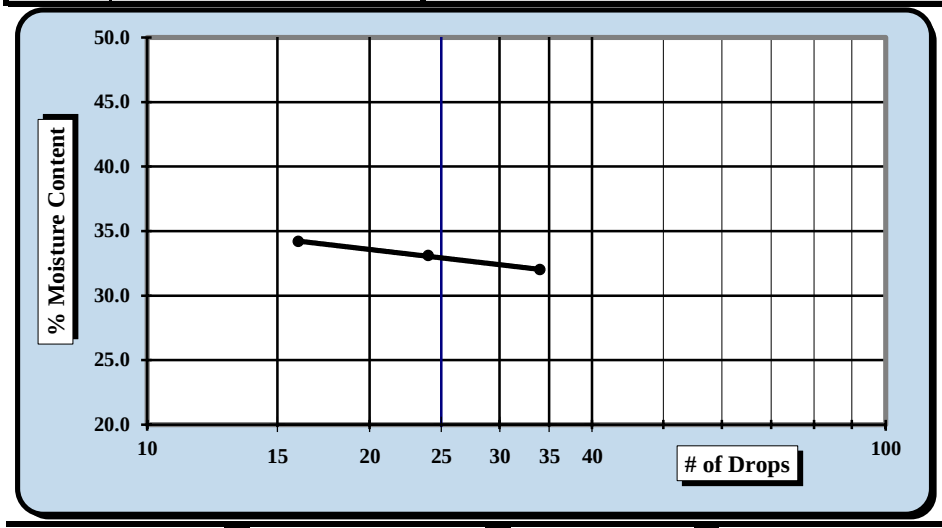
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/12/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-15	Sample #:	S-17	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	73.5'-75'
Sample Description:	Brown Clayey Sand (SC) A-2-7				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	36	18	74				99	107	
A	Tare Weight	14.58	14.62	14.57				14.59	14.62	
B	Wet Soil Weight + A	31.69	31.74	31.79				21.64	21.66	
C	Dry Soil Weight + A	27.54	27.48	27.40				20.71	20.73	
D	Water Weight (B-C)	4.15	4.26	4.39				0.93	0.93	
E	Dry Soil Weight (C-A)	12.96	12.86	12.83				6.12	6.11	
F	% Moisture (D/E)*100	32.0%	33.1%	34.2%				15.2%	15.2%	
N	# OF DROPS	34	24	16				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**15.2%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**33**
Plastic Limit	**15**
Plastic Index	**18**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

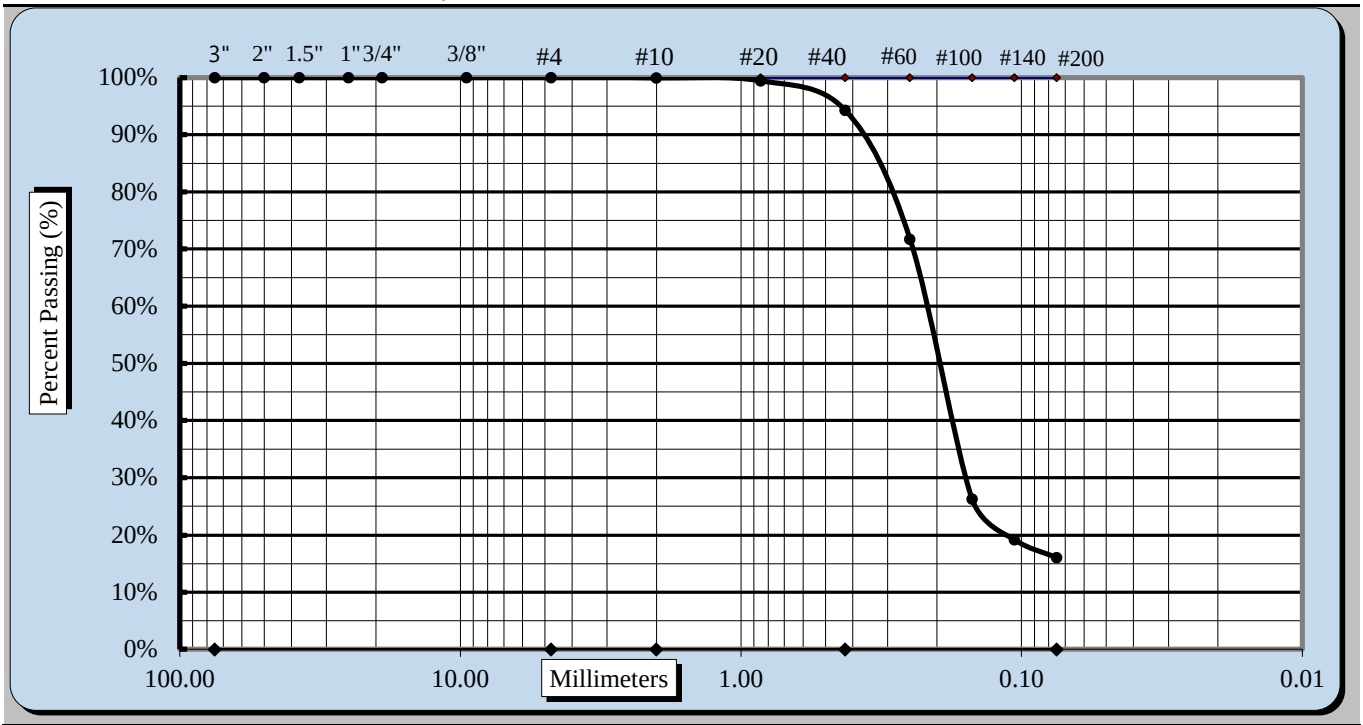
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-15 Sample #: S-19	Depth:	83.5'-85'
Location:	SPT		
Sample Description:	Dark Brown Silty Sand (SM) A-2		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	78%
Gravel	0%	Medium Sand	6%	Silt & Clay	16%
Liquid Limit	--	Plastic Limit	NP	Plastic Index	--
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	29.3%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

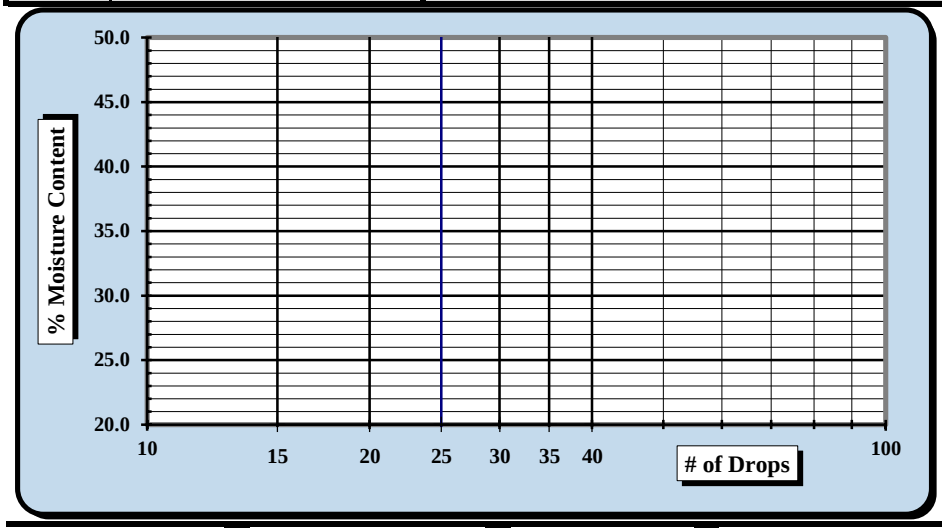
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/12/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-15	Sample #:	S-19	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	83.5'-85'
Sample Description:	Dark Brown Silty Sand (SM) A-2				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A								NP	
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	
Plastic Limit	**NP**
Plastic Index	
Group Symbol	**SM**

Multipoint Method ☐
One-point Method ☑

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

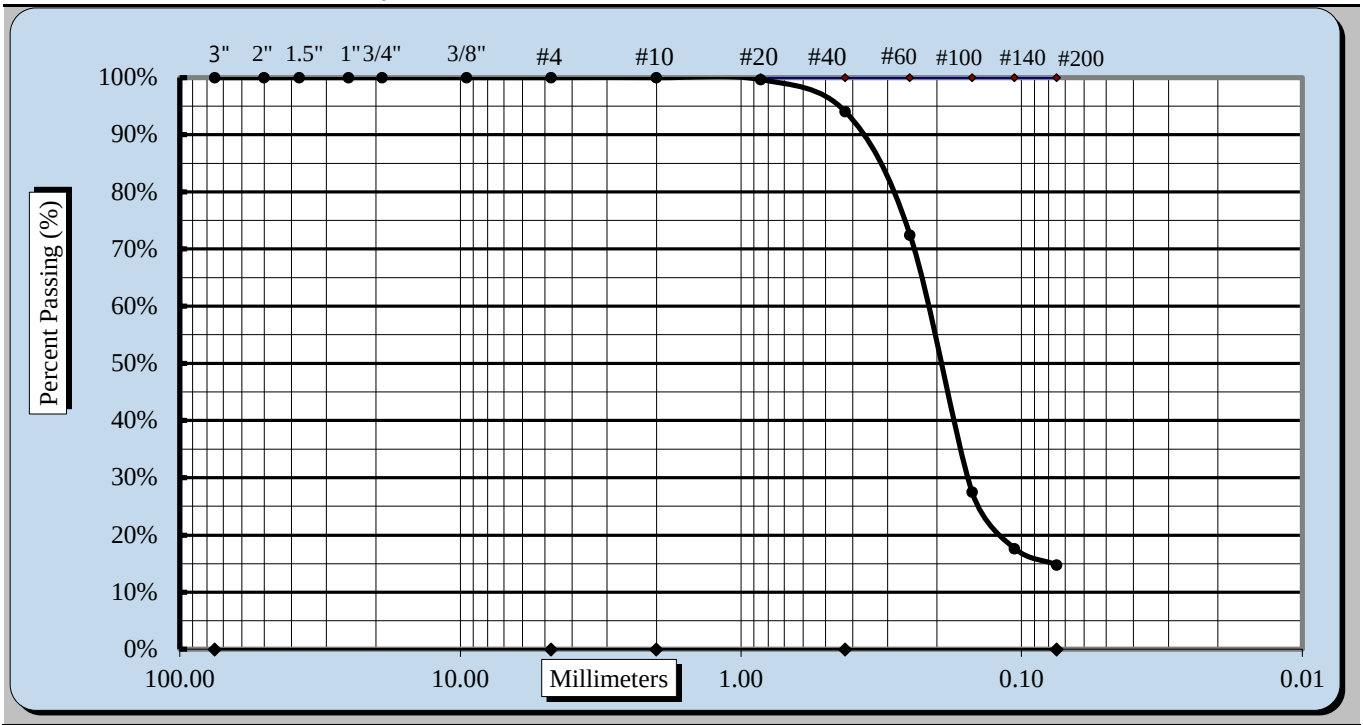
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	B-15 Sample #: S-21	Depth:	93.5'-95'
Location:	SPT		
Sample Description:	Brown Silty Sand (SM) A-2		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	79%
Gravel	0%	Medium Sand	6%	Silt & Clay	15%
Liquid Limit	--	Plastic Limit	NP	Plastic Index	--
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	30.6%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

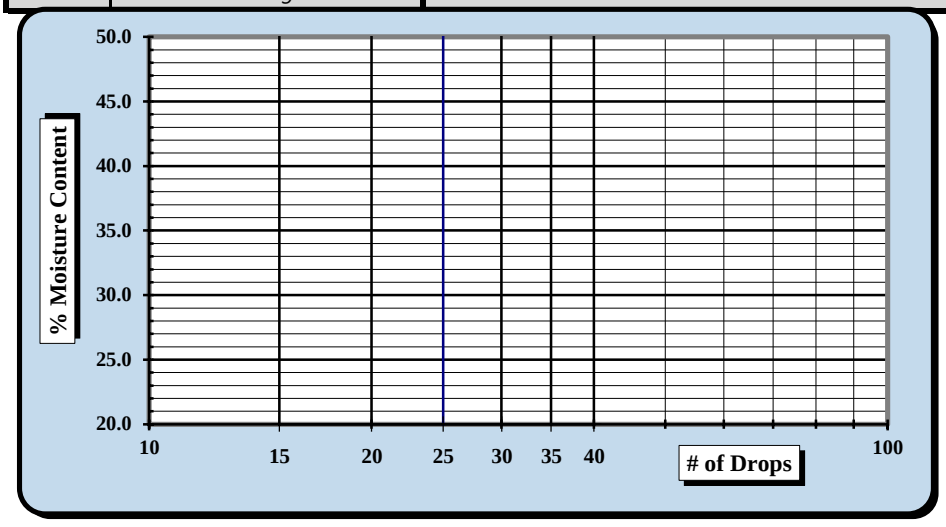
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/12/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	B-15	Sample #:	S-21	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	93.5'-95'
Sample Description:	Brown Silty Sand (SM) A-2				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A								NP	
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	
Plastic Limit	**NP**
Plastic Index	
Group Symbol	**SM**

Multipoint Method ☐
One-point Method ☑

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/04/25
Project Name:	I-526 / Long Point Road Interchange	Test Date(s):	7/14 - 7/15/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
		Sample Date(s):	6/17 - 6/24/25

Sampling Method: Split-spoon

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 13942 Calibration Date: 10/31/24 Oven ID. 13978 Calibration Date: 10/01/24

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	
		ft.		grams	grams	grams	grams	%	
B-016	SPT-3	4.0 - 6.0'	CL-6	64.58	519.21	452.44	66.77	17.2%	
B-016	SPT-5	8.0 - 10.0'	BK-1	99.75	516.11	421.20	94.91	29.5%	
B-016	SPT-6	13.5 - 15.0'	BK-13	103.93	532.07	397.22	134.85	46.0%	
B-016	SPT-8	23.5 - 25.0'	Y-14	120.40	566.51	418.80	147.71	49.5%	
B-016	SPT-10	33.5 - 35.0'	G-4	228.85	533.38	414.46	118.92	64.1%	
B-016	SPT-14	53.5 - 55.0'	PC-1	109.17	516.08	372.79	143.29	54.4%	
B-016	SPT-16	63.5 - 65.0'	BK-9	111.61	512.03	365.77	146.26	57.5%	
B-016	SPT-18	73.5 - 75.0'	BK-2	123.12	547.27	425.00	122.27	40.5%	
B-016	SPT-20	83.5 - 85.0'	BK-5	103.94	450.73	386.90	63.83	22.6%	
B-016	SPT-22	93.5 - 95.0'	G-3	225.77	505.99	456.18	49.81	21.6%	

Notes / Deviations / References

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Benjamin Kovaleski		NICET Lab Level III / 117226	8/04/25
Technician Name		*Certification Type / No.*	*Date*
Brian Vaughan, P.E.	Brian Vaughan	QA Supervisor	8/04/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

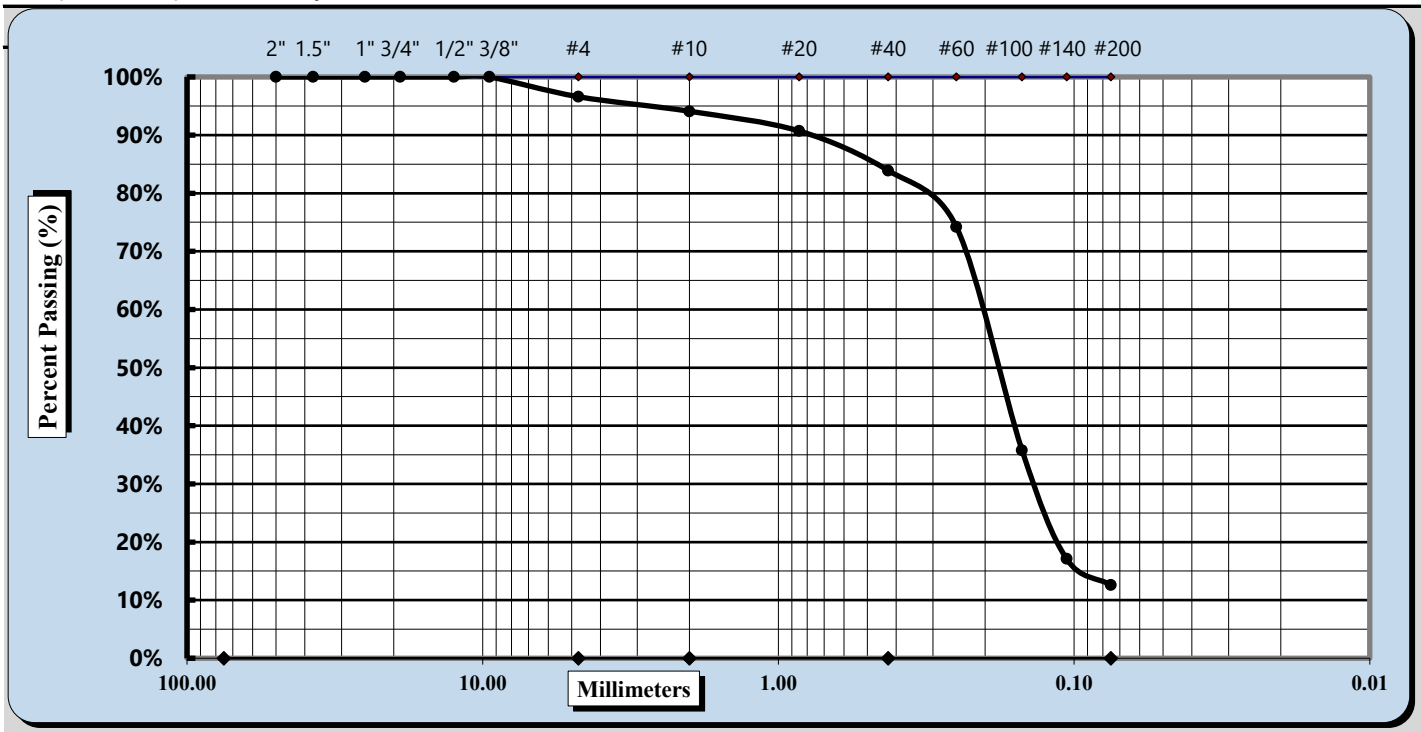
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-016	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-3	Type:	Split-spoon	Depth:	4.0 - 6.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	9.50 mm	Coarse Sand	2.5%	Fine Sand	71.3%
Gravel	3.4%	Medium Sand	10.2%	Silt & Clay	12.6%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	17.2%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

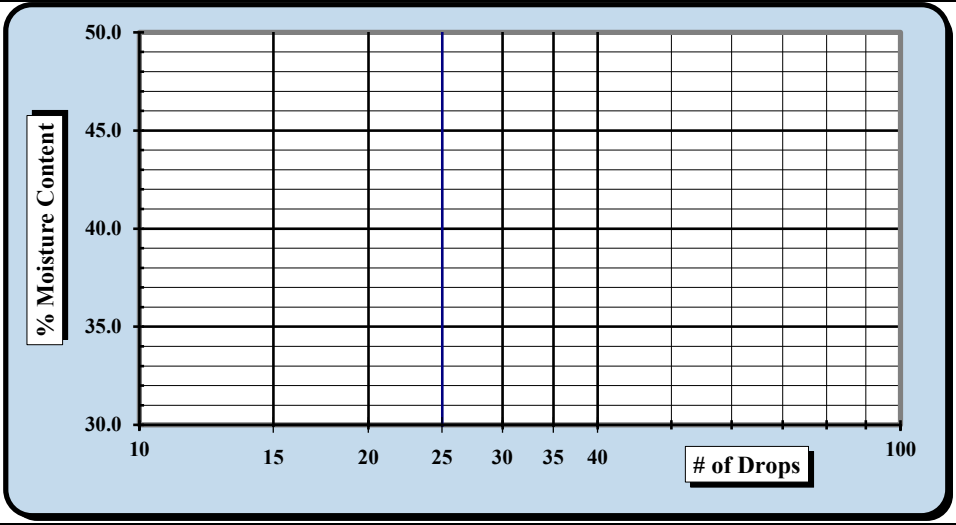
S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/22/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/21/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	B-016	Log #:	177	Sample Date(s):	6/17 - 6/24/25
Location:	SS-3	Type:	Split-spoon	Depth:	4.0 - 6.0'
Sample Description:	silty SAND (SM / A-2-4)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 12.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/22/25	Brian Vaughan, P.E.	7/22/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

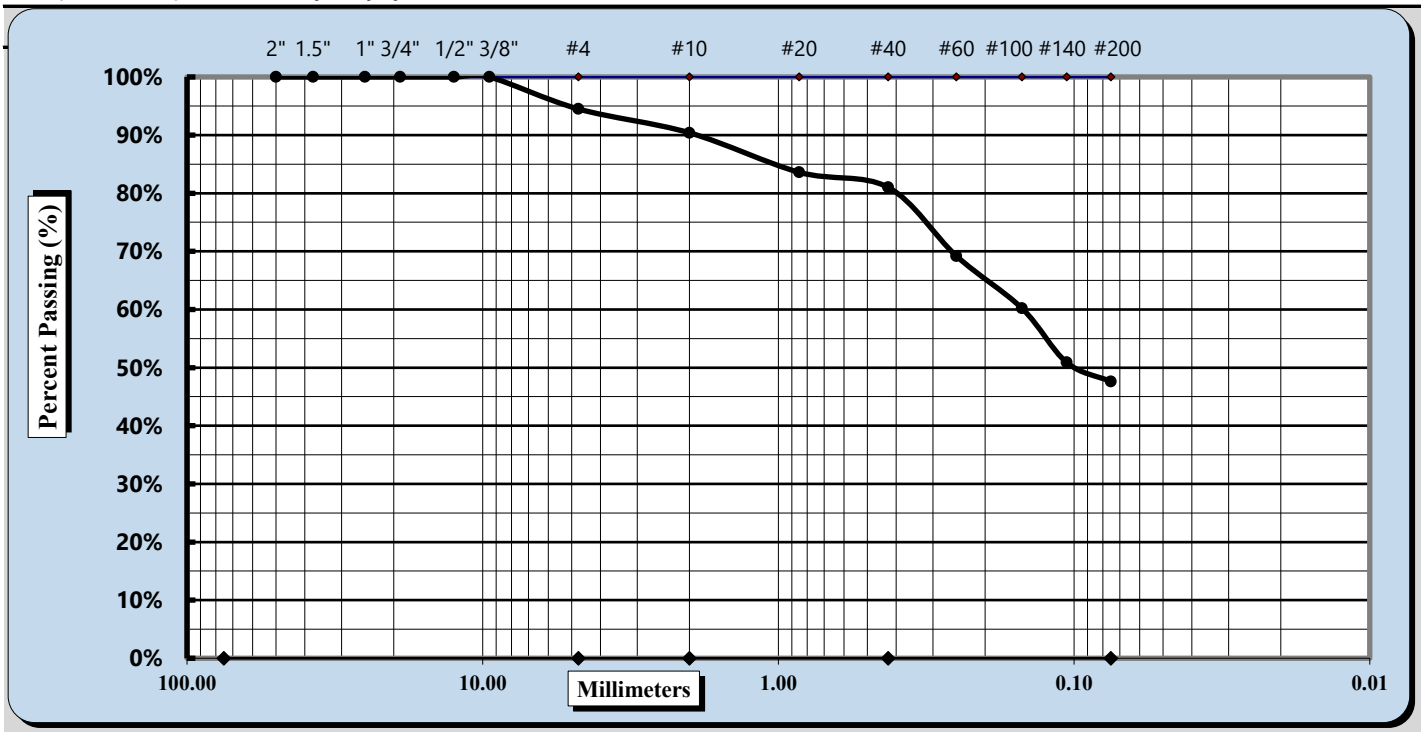
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-016	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-5	Type:	Split-spoon	Depth:	8.0 - 10.0'

Sample Description: silty clayey SAND [SC-SM / A-4(0)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	9.50 mm	Coarse Sand	4.1%	Fine Sand	33.4%
Gravel	5.5%	Medium Sand	9.4%	Silt & Clay	47.6%
Liquid Limit	27	Plastic Limit	22	Plastic Index	5
		Natural Moisture	29.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

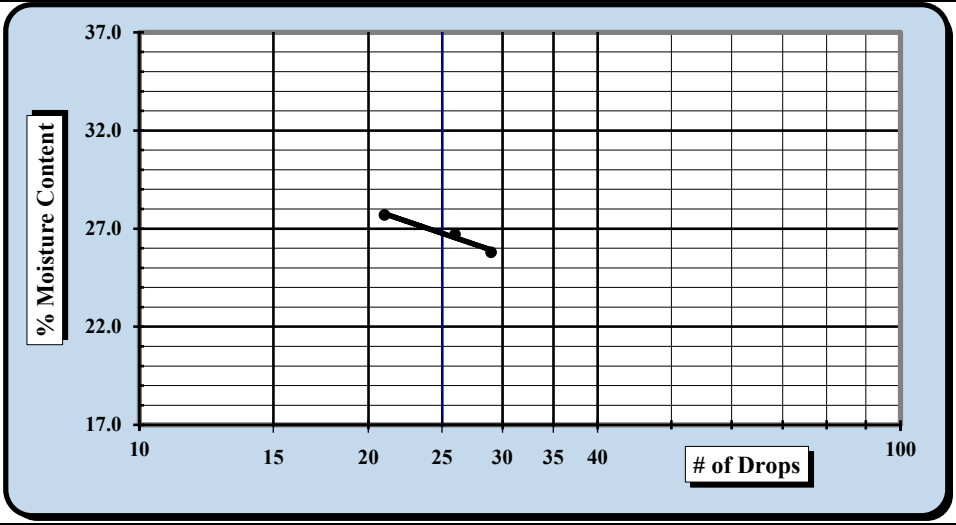
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/22/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/21/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-016	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-5	Type: Split-spoon	Depth: 8.0 - 10.0'
Sample Description:	silty clayey SAND [SC-SM / A-4(0)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Z4	Z5	Z6				25	26	
A	Tare Weight	15.72	15.51	16.89				11.67	11.52	
B	Wet Soil Weight + A	27.26	26.75	29.67				20.39	20.72	
C	Dry Soil Weight + A	24.89	24.38	26.90				18.82	19.05	
D	Water Weight (B-C)	2.37	2.37	2.77				1.57	1.67	
E	Dry Soil Weight (C-A)	9.17	8.87	10.01				7.15	7.53	
F	% Moisture (D/E)*100	25.8%	26.7%	27.7%				22.0%	22.2%	
N	# OF DROPS	29	26	21				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							22.1%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**27**
Plastic Limit	**22**
Plastic Index	**5**
Group Symbol	**CL-ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 47.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/22/25	Brian Vaughan, P.E.	7/22/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

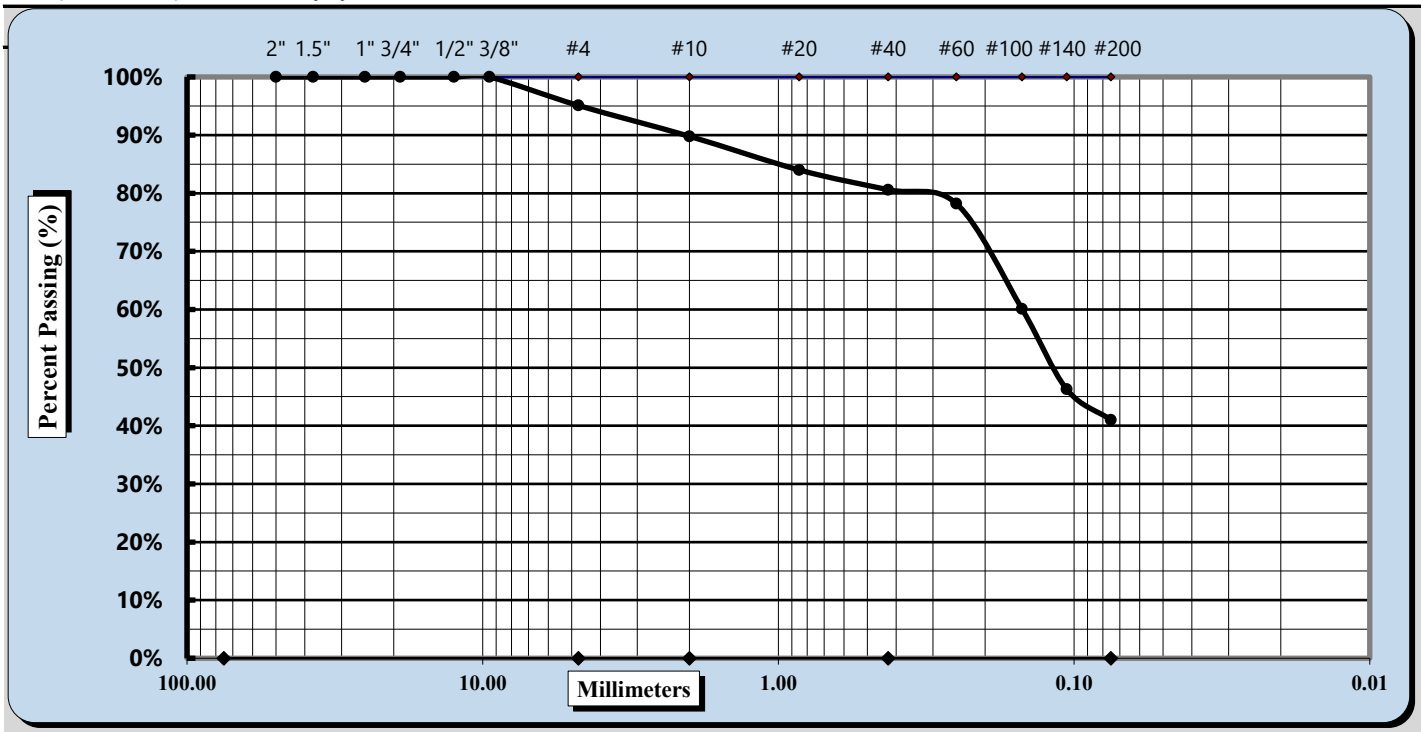
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-016	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-6	Type:	Split-spoon	Depth:	13.5 - 15.0'

Sample Description: clayey SAND [SC / A-6(3)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	9.50 mm	Coarse Sand	5.3%	Fine Sand	39.6%
Gravel	4.9%	Medium Sand	9.2%	Silt & Clay	41.0%
Liquid Limit	35	Plastic Limit	16	Plastic Index	19
		Natural Moisture	45.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

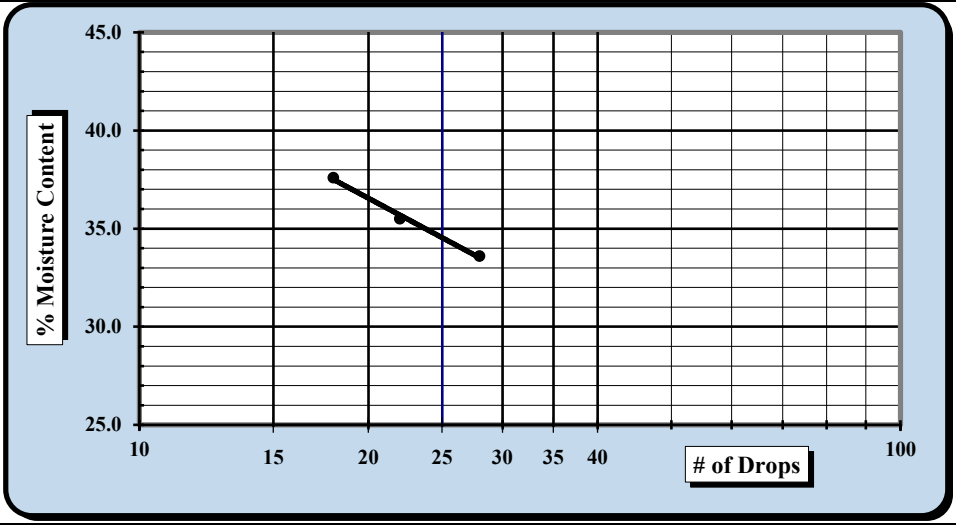
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/22/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/21/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-016	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-6	Type: Split-spoon	Depth: 13.5 - 15.0'
Sample Description:	clayey SAND [SC / A-6(3)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	P1	P2	P3				1	2	
A	Tare Weight	16.27	15.15	16.47				12.09	12.12	
B	Wet Soil Weight + A	27.01	26.26	28.08				21.81	21.77	
C	Dry Soil Weight + A	24.31	23.35	24.91				20.45	20.41	
D	Water Weight (B-C)	2.70	2.91	3.17				1.36	1.36	
E	Dry Soil Weight (C-A)	8.04	8.20	8.44				8.36	8.29	
F	% Moisture (D/E)*100	33.6%	35.5%	37.6%				16.3%	16.4%	
N	# OF DROPS	28	22	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							16.4%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**35**
Plastic Limit	**16**
Plastic Index	**19**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 41.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/22/25	Brian Vaughan, P.E.	7/22/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

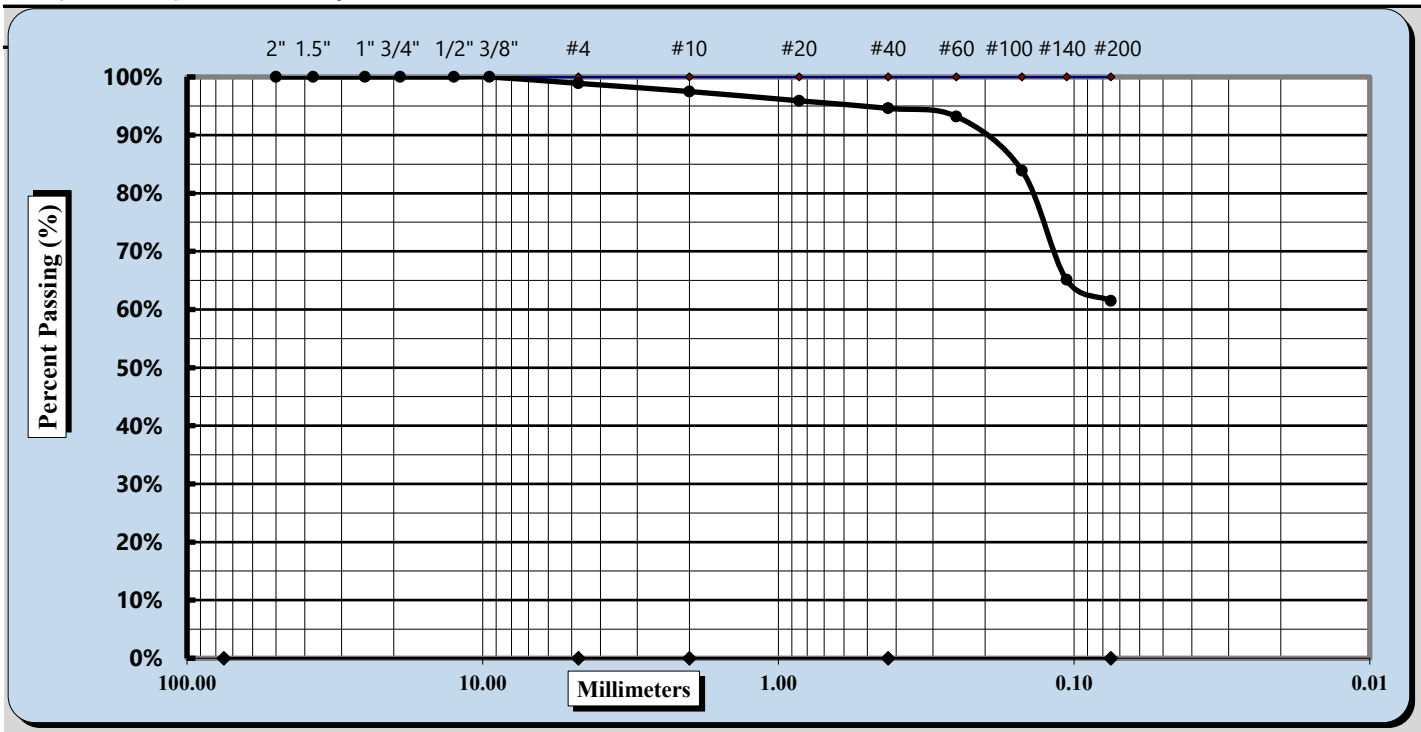
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-016	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-8	Type:	Split-spoon	Depth:	23.5 - 25.0'

Sample Description: sandy lean CLAY [CL / A-6(12)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	9.50 mm	Coarse Sand	1.4%	Fine Sand	33.1%
Gravel	1.1%	Medium Sand	2.9%	Silt & Clay	61.5%
Liquid Limit	39	Plastic Limit	15	Plastic Index	24
		Natural Moisture	49.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

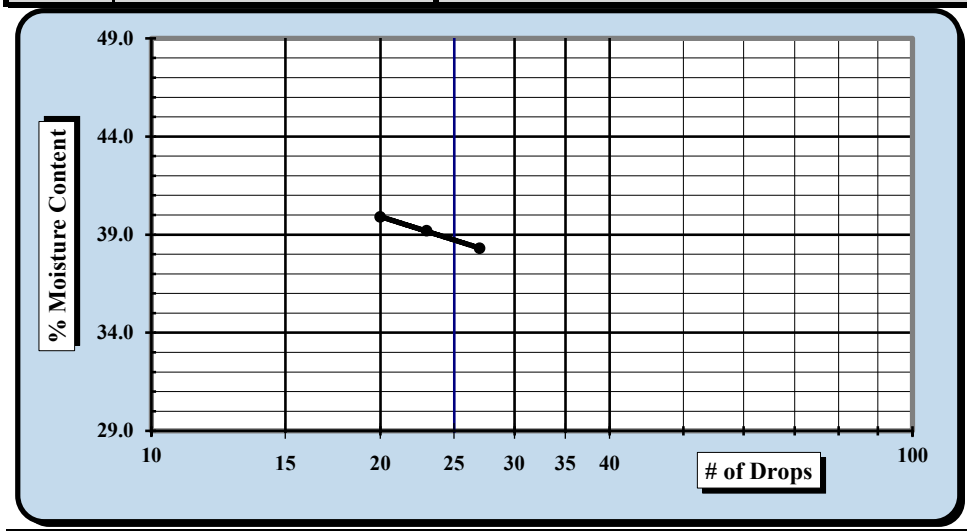
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/22/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/21/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-016	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-8	Type: Split-spoon	Depth: 23.5 - 25.0'
Sample Description:	sandy lean CLAY [CL / A-6(12)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	P4	P5	P6				12	13	
A	Tare Weight	16.57	16.57	15.95				11.11	12.09	
B	Wet Soil Weight + A	28.09	28.51	26.81				20.62	21.12	
C	Dry Soil Weight + A	24.90	25.15	23.71				19.41	19.95	
D	Water Weight (B-C)	3.19	3.36	3.10				1.21	1.17	
E	Dry Soil Weight (C-A)	8.33	8.58	7.76				8.30	7.86	
F	% Moisture (D/E)*100	38.3%	39.2%	39.9%				14.6%	14.9%	
N	# OF DROPS	27	23	20				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							14.8%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**39**
Plastic Limit	**15**
Plastic Index	**24**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 61.5%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/22/25	Brian Vaughan, P.E.	7/22/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

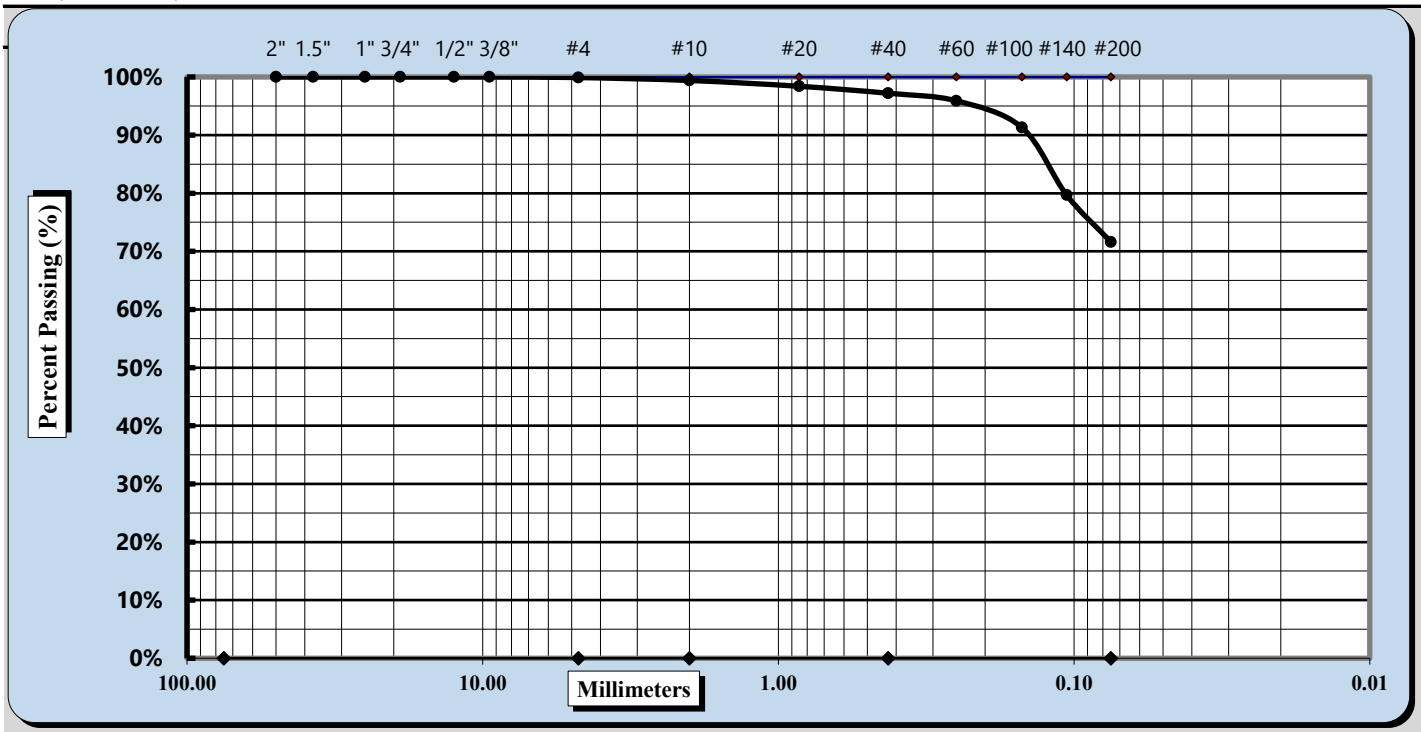
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-016	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-10	Type:	Split-spoon	Depth:	33.5 - 35.0'

Sample Description: lean CLAY with sand [CL / A-7-6(21)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.5%	Fine Sand	25.6%
Gravel	0.1%	Medium Sand	2.2%	Silt & Clay	71.6%
Liquid Limit	49	Plastic Limit	18	Plastic Index	31
		Natural Moisture	64.1%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

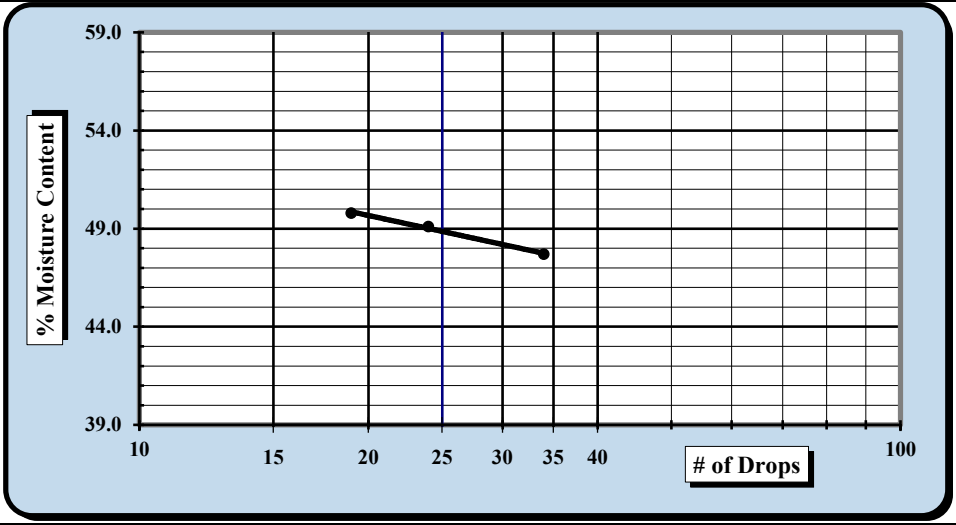
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/22/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/21/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-016	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-10	Type: Split-spoon	Depth: 33.5 - 35.0'
Sample Description:	lean CLAY with sand [CL / A-7-6(21)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit Q4	Q5	Q6				Plastic Limit 17	18	
A	Tare Weight	16.65	16.78	16.80				12.09	12.10	
B	Wet Soil Weight + A	26.80	26.28	26.60				20.28	20.29	
C	Dry Soil Weight + A	23.52	23.15	23.34				19.03	19.02	
D	Water Weight (B-C)	3.28	3.13	3.26				1.25	1.27	
E	Dry Soil Weight (C-A)	6.87	6.37	6.54				6.94	6.92	
F	% Moisture (D/E)*100	47.7%	49.1%	49.8%				18.0%	18.4%	
N	# OF DROPS	34	24	19				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							18.2%		



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**49**
Plastic Limit	**18**
Plastic Index	**31**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 71.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/22/25	Brian Vaughan, P.E.	7/22/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

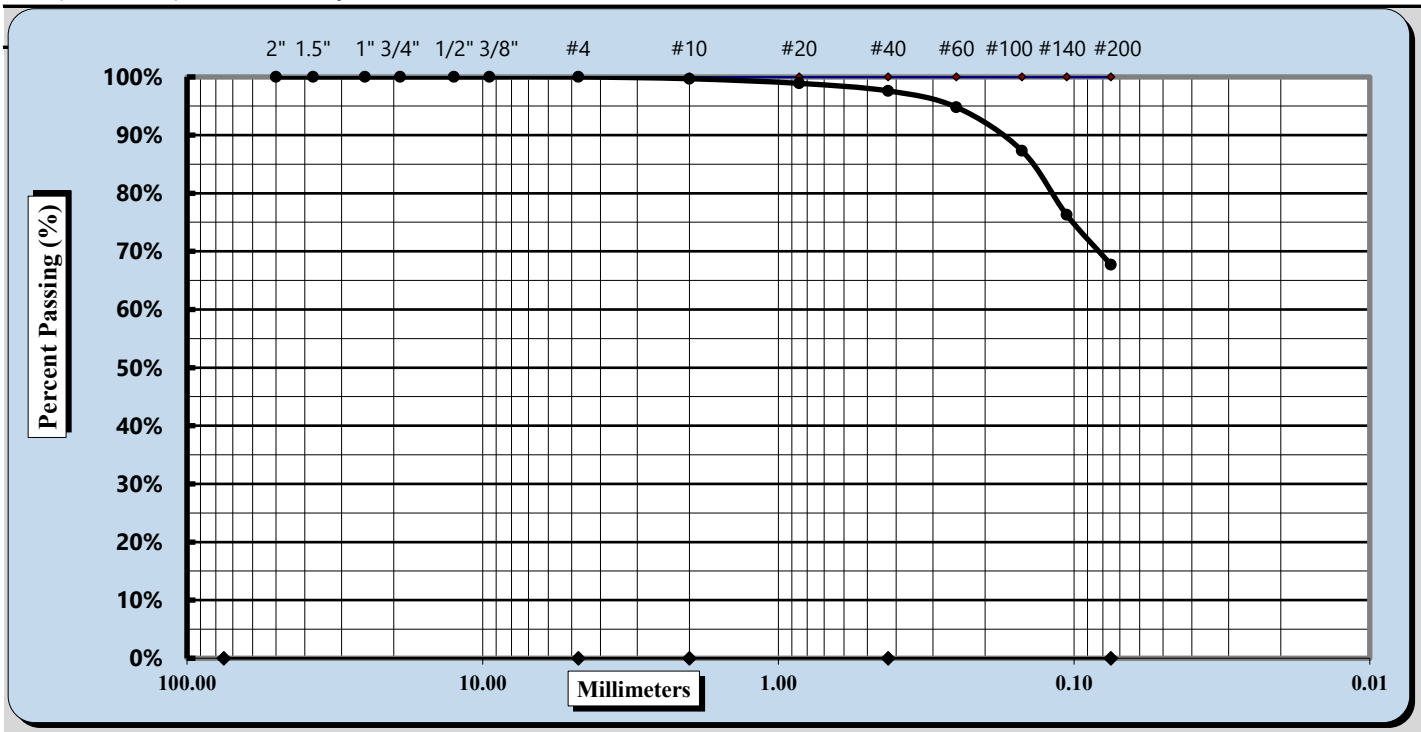
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-016	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-14	Type:	Split-spoon	Depth:	53.5 - 55.0'

Sample Description: sandy fat CLAY [CH / A-7-5(35)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.3%	Fine Sand	29.9%
Gravel	0.0%	Medium Sand	2.1%	Silt & Clay	67.7%
Liquid Limit	81	Plastic Limit	30	Plastic Index	51
		Natural Moisture	54.4%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

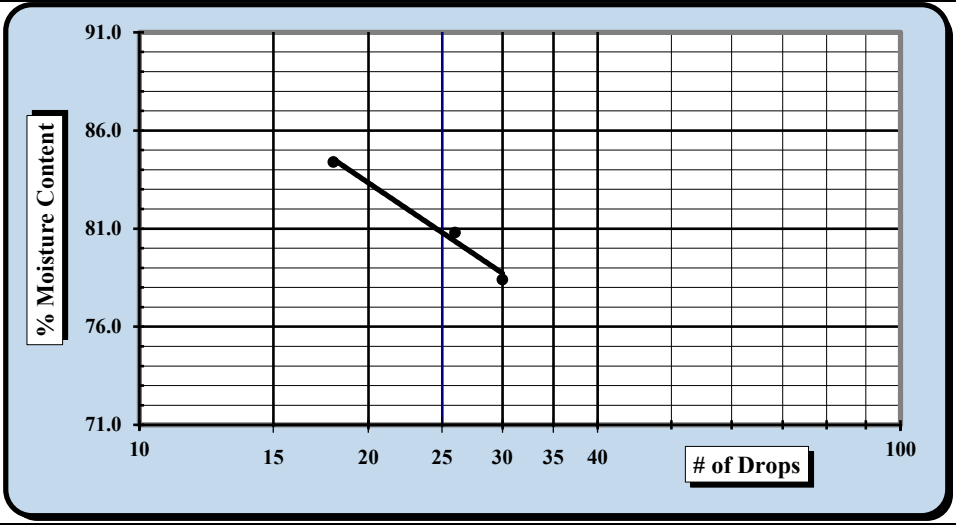
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/22/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/21/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-016	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-14	Type: Split-spoon	Depth: 53.5 - 55.0'
Sample Description:	sandy fat CLAY [CH / A-7-5(35)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Y4	Y5	Y6				20	21	
A	Tare Weight	16.75	16.68	15.89				12.09	12.05	
B	Wet Soil Weight + A	26.74	25.34	24.17				20.06	20.21	
C	Dry Soil Weight + A	22.35	21.47	20.38				18.22	18.34	
D	Water Weight (B-C)	4.39	3.87	3.79				1.84	1.87	
E	Dry Soil Weight (C-A)	5.60	4.79	4.49				6.13	6.29	
F	% Moisture (D/E)*100	78.4%	80.8%	84.4%				30.0%	29.7%	
N	# OF DROPS	30	26	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							29.9%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**81**
Plastic Limit	**30**
Plastic Index	**51**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 67.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/22/25	Brian Vaughan, P.E.	7/22/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

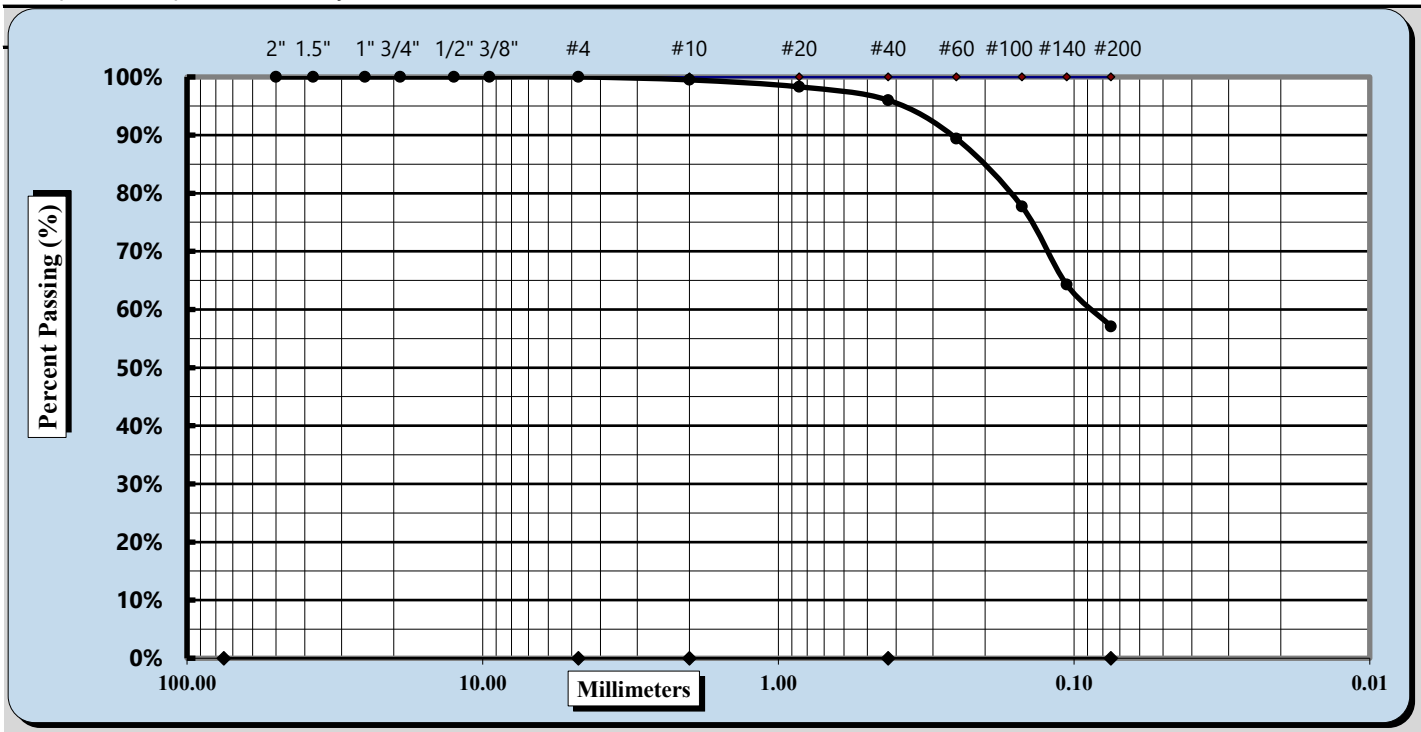
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-016	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-16	Type:	Split-spoon	Depth:	63.5 - 65.0'

Sample Description: sandy fat CLAY [CH / A-7-5(20)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.5%	Fine Sand	38.9%
Gravel	0.0%	Medium Sand	3.5%	Silt & Clay	57.1%
Liquid Limit	69	Plastic Limit	30	Plastic Index	39
		Natural Moisture	57.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

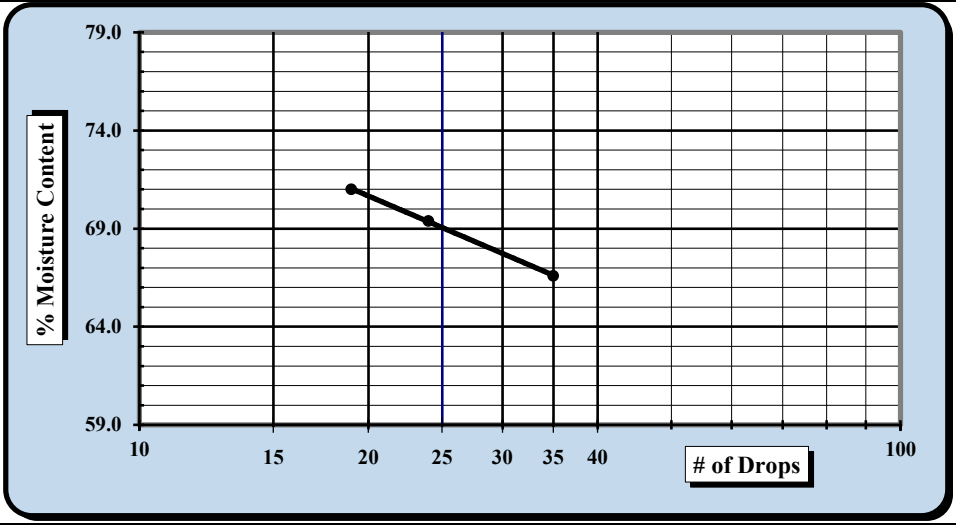
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/22/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/21/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-016	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-16	Type: Split-spoon	Depth: 63.5 - 65.0'
Sample Description:	sandy fat CLAY [CH / A-7-5(20)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Y1	Y2	Y3				5	6	
A	Tare Weight	16.35	16.40	16.95				12.06	12.26	
B	Wet Soil Weight + A	26.21	24.87	26.80				20.90	21.35	
C	Dry Soil Weight + A	22.27	21.40	22.71				18.85	19.27	
D	Water Weight (B-C)	3.94	3.47	4.09				2.05	2.08	
E	Dry Soil Weight (C-A)	5.92	5.00	5.76				6.79	7.01	
F	% Moisture (D/E)*100	66.6%	69.4%	71.0%				30.2%	29.7%	
N	# OF DROPS	35	24	19				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							30.0%		



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**69**
Plastic Limit	**30**
Plastic Index	**39**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 57.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/22/25	Brian Vaughan, P.E.	7/22/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

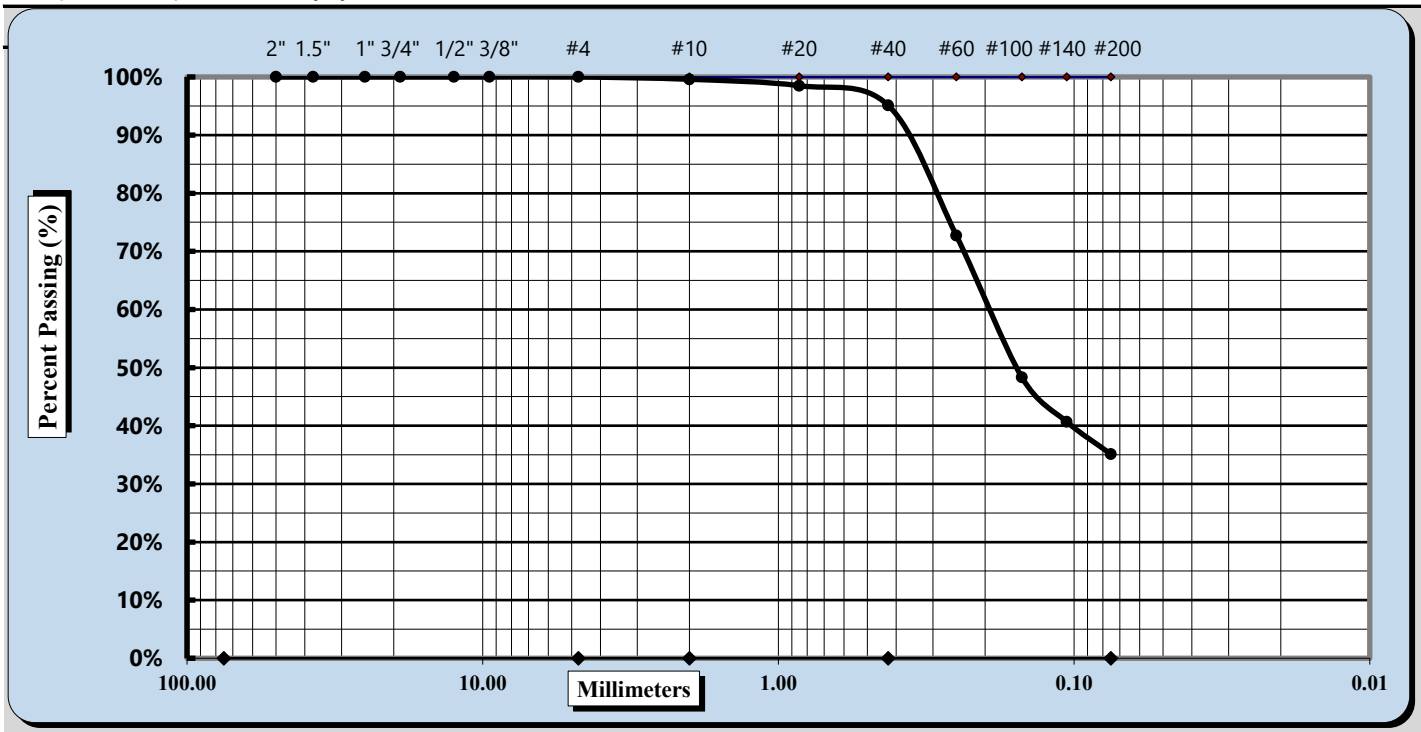
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-016	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-18	Type:	Split-spoon	Depth:	73.5 - 75.0'

Sample Description: clayey SAND [SC / A-2-7(3)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.4%	Fine Sand	60.0%
Gravel	0.0%	Medium Sand	4.5%	Silt & Clay	35.1%
Liquid Limit	48	Plastic Limit	21	Plastic Index	27
		Natural Moisture	40.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

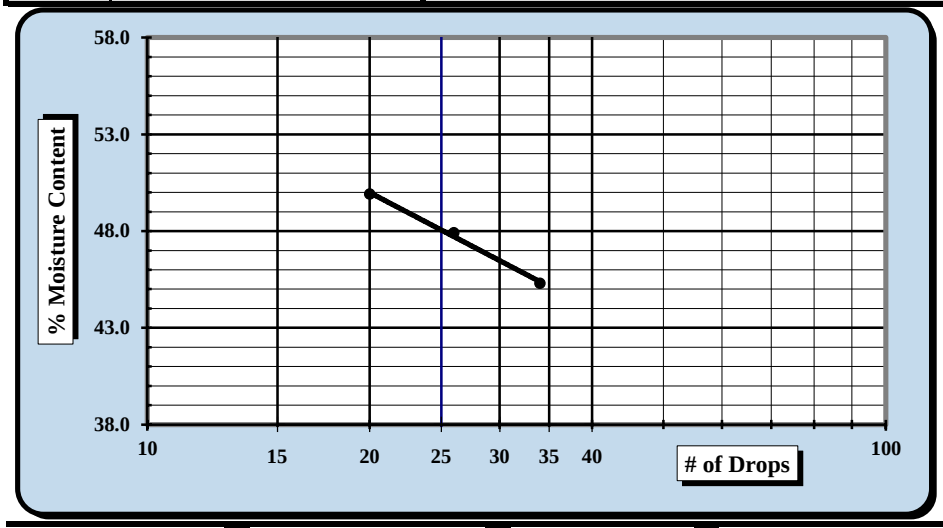
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/22/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/21/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-016	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-18	Type: Split-spoon	Depth: 73.5 - 75.0'
Sample Description:	clayey SAND [SC / A-2-7(3)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Z1	Z2	Z3				7	9	
A	Tare Weight	15.85	16.53	16.73				11.96	12.20	
B	Wet Soil Weight + A	27.21	27.59	26.28				20.67	20.79	
C	Dry Soil Weight + A	23.67	24.01	23.10				19.19	19.31	
D	Water Weight (B-C)	3.54	3.58	3.18				1.48	1.48	
E	Dry Soil Weight (C-A)	7.82	7.48	6.37				7.23	7.11	
F	% Moisture (D/E)*100	45.3%	47.9%	49.9%				20.5%	20.8%	
N	# OF DROPS	34	26	20				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							20.7%		



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**48**
Plastic Limit	**21**
Plastic Index	**27**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 35.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/22/25	Brian Vaughan, P.E.	7/22/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

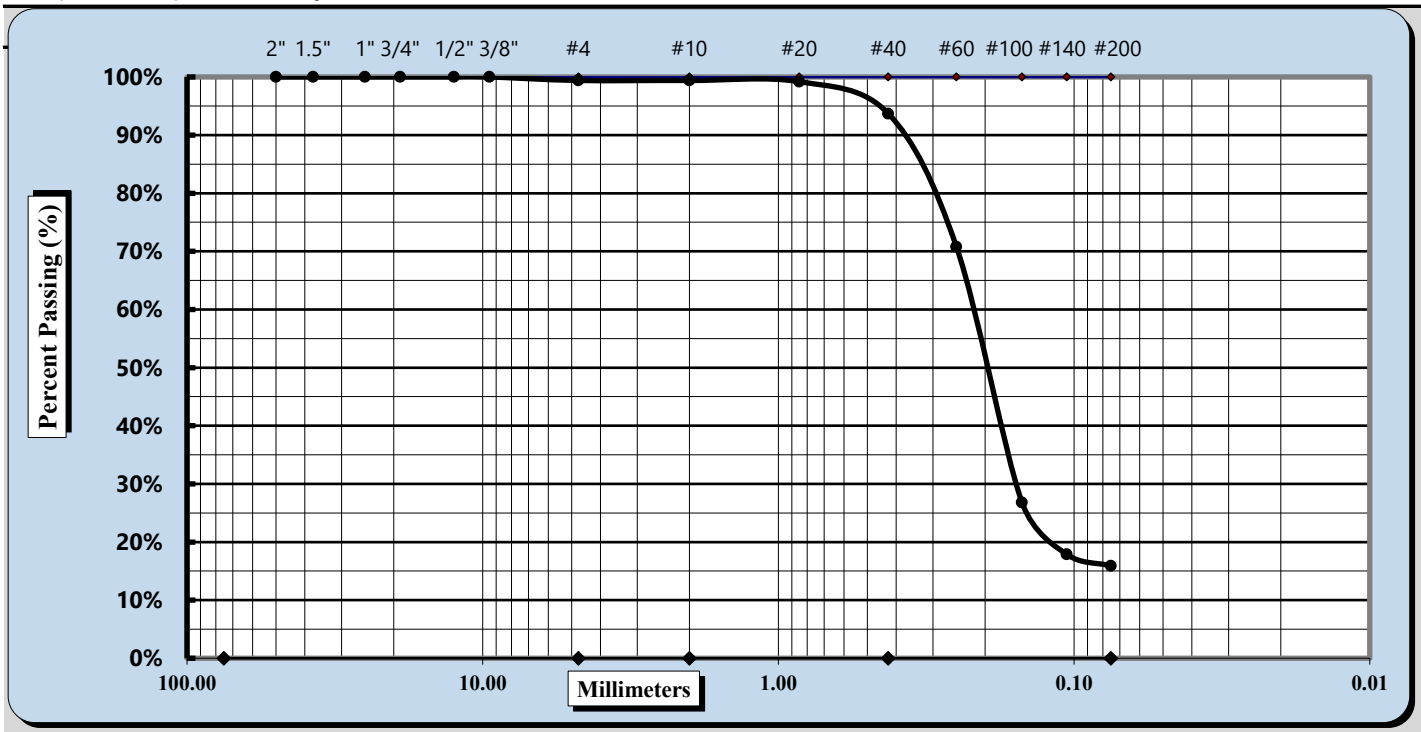
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-016	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-20	Type:	Split-spoon	Depth:	83.5 - 85.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	0.85 mm	Coarse Sand	0.0%	Fine Sand	77.8%
Gravel	0.6%	Medium Sand	5.7%	Silt & Clay	15.9%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	22.6%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

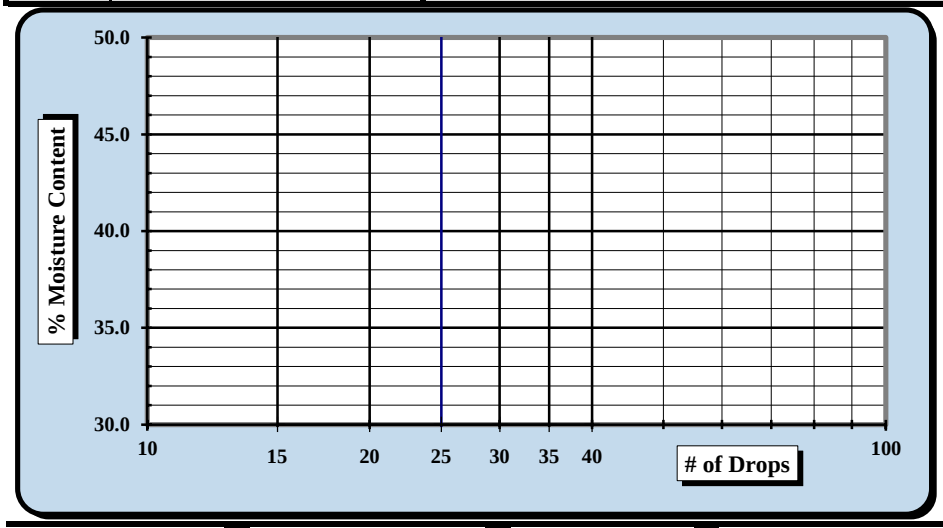
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/22/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/21/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-016	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-20	Type: Split-spoon	Depth: 83.5 - 85.0'
Sample Description:	silty SAND (SM / A-2-4)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 15.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/22/25	Brian Vaughan, P.E.	7/22/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

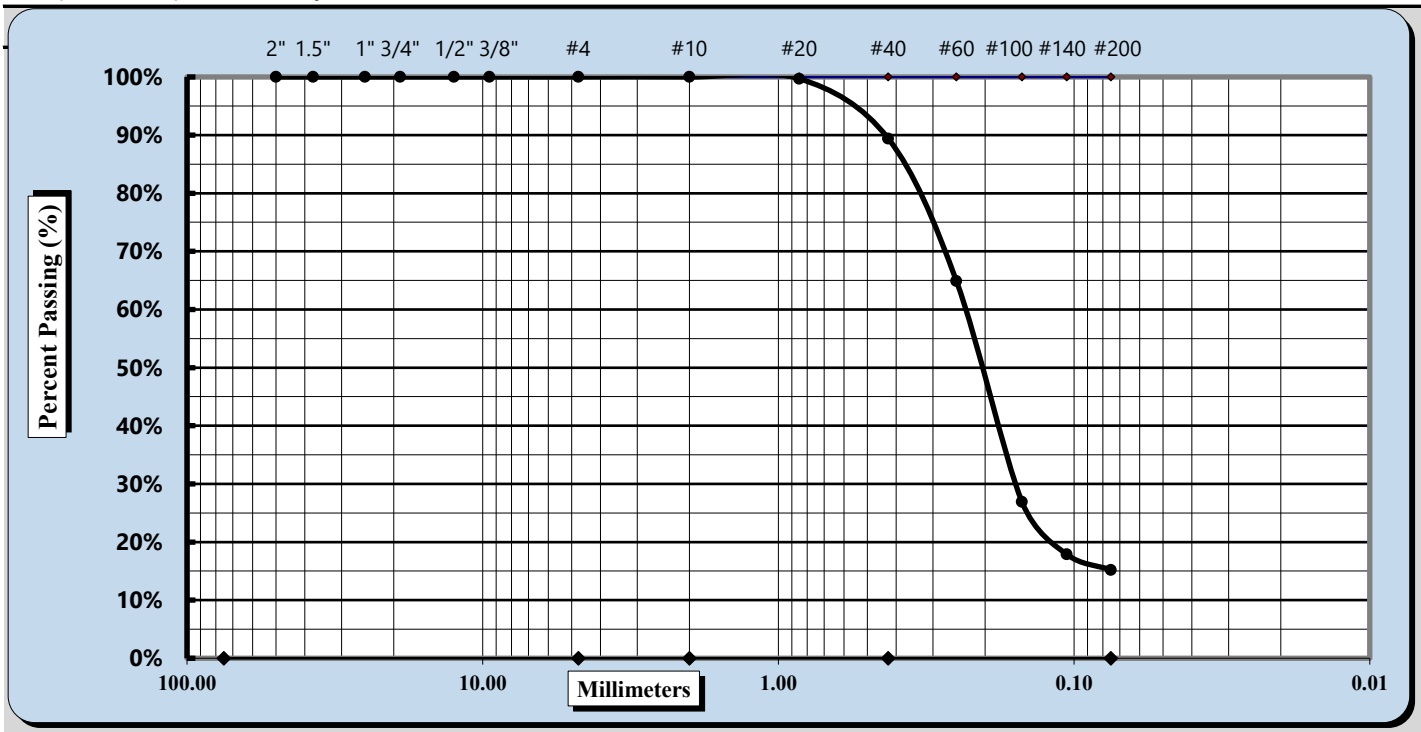
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-016	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-22	Type:	Split-spoon	Depth:	93.5 - 95.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	0.85 mm	Coarse Sand	0.0%	Fine Sand	74.2%
Gravel	0.0%	Medium Sand	10.6%	Silt & Clay	15.2%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	21.6%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

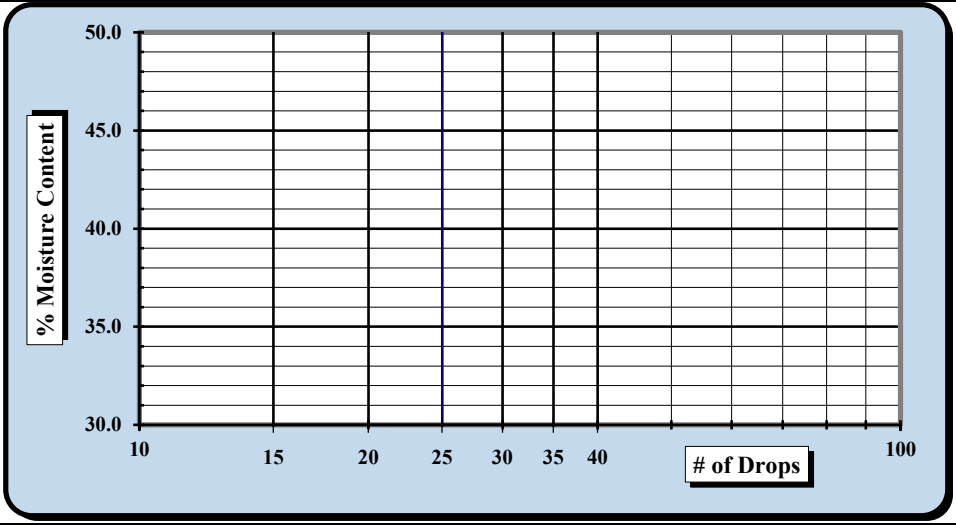
S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/22/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/21/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	B-016	Log #:	177	Sample Date(s):	6/17 - 6/24/25
Location:	SS-22	Type:	Split-spoon	Depth:	93.5 - 95.0'
Sample Description:	silty SAND (SM / A-2-4)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 15.2%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/22/25	Brian Vaughan, P.E.	7/22/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/04/25
Project Name:	I-526 / Long Point Road Interchange	Test Date(s):	7/14 - 7/15/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
		Sample Date(s):	6/17 - 6/24/25

Sampling Method: Split-spoon

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 13942 Calibration Date: 10/31/24 Oven ID. 13978 Calibration Date: 10/01/24

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	
		ft.		grams	grams	grams	grams	%	
B-017	SPT-2	2.0 - 4.0'	YM-9	100.25	525.92	456.76	69.16	19.4%	
B-017	SPT-4	6.0 - 8.0'	D-9	91.27	434.32	363.20	71.12	26.2%	
B-017	SPT-5	8.0 - 10.0'	YM-4	98.75	538.74	437.57	101.17	29.9%	
B-017	SPT-7	18.5 - 20.0'	D-12	92.51	500.74	338.35	162.39	66.1%	
B-017	SPT-8	23.5 - 25.0'	D-22	92.93	291.98	247.46	44.52	28.8%	
B-017	SPT-11	38.5 - 40.0'	D-20	100.13	396.30	324.60	71.70	31.9%	
B-017	SPT-13	48.5 - 50.0'	YM-7	90.11	517.63	379.73	137.90	47.6%	
B-017	SPT-15	58.5 - 60.0'	D-21	99.99	514.34	365.29	149.05	56.2%	
B-017	SPT-17	68.5 - 70.0'	YM-2	91.05	523.16	401.47	121.69	39.2%	
B-017	SPT-19	78.5 - 80.0'	D-3A	94.87	518.16	397.11	121.05	40.1%	
B-017	SPT-21	88.5 - 90.0'	D-13	90.49	516.25	430.72	85.53	25.1%	
B-017	SPT-23	98.5 - 100.0'	CL-1	92.50	538.43	450.03	88.40	24.7%	
B-017	SPT-25	108.5 - 110.0'	CL-3	61.95	343.80	251.66	92.14	48.6%	
B-017	SPT-29	128.5 - 130.0'	CL-5	64.47	446.17	310.25	135.92	55.3%	
B-017	SPT-31	138.5 - 140.0'	CL-4	62.46	465.60	293.42	172.18	74.5%	
B-017	SPT-33	148.5 - 150.0'	CL-2	68.78	448.72	326.74	121.98	47.3%	

Notes / Deviations / References

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Benjamin Kovaleski		NICET Lab Level III / 117226	8/04/25
Technician Name		*Certification Type / No.*	*Date*
Brian Vaughan, P.E.	Brian Vaughan	QA Supervisor	8/04/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

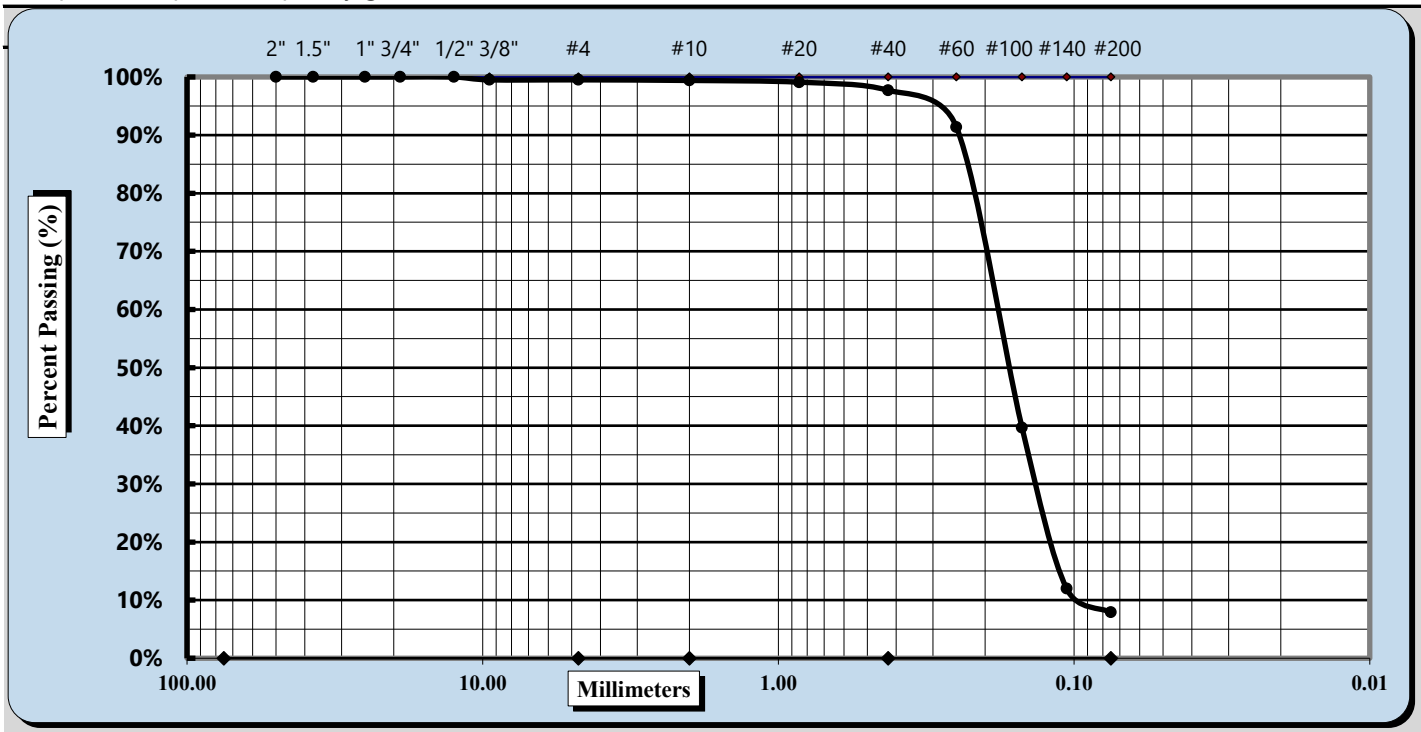
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-2	Type:	Split-spoon	Depth:	2.0 - 4.0'

Sample Description: poorly graded SAND with silt (SP-SM / A-3)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	0.85 mm	Coarse Sand	0.1%	Fine Sand	89.8%
Gravel	0.5%	Medium Sand	1.7%	Silt & Clay	7.9%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	19.4%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

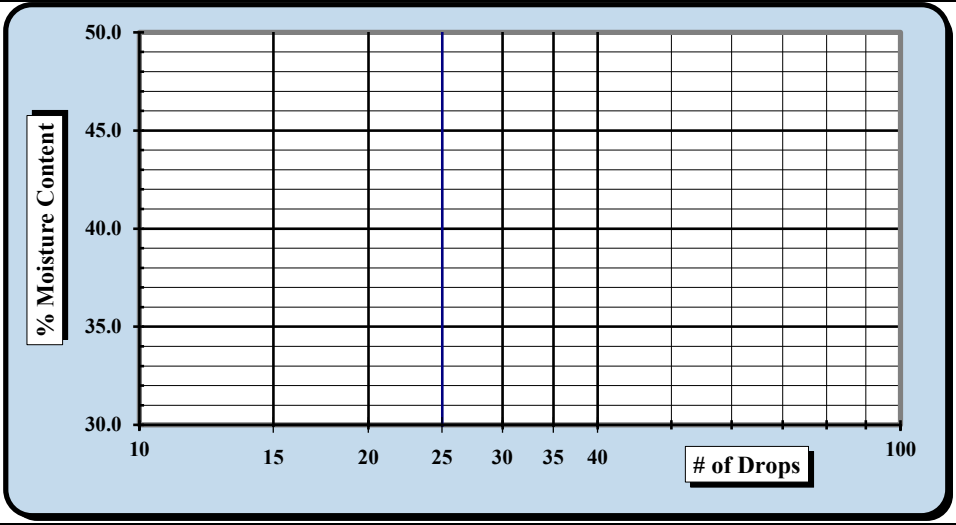
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/23/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/22/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-2	Type: Split-spoon	Depth: 2.0 - 4.0'
Sample Description:	poorly graded SAND with silt (SP-SM / A-3)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 7.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/23/25	Brian Vaughan, P.E.	7/23/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

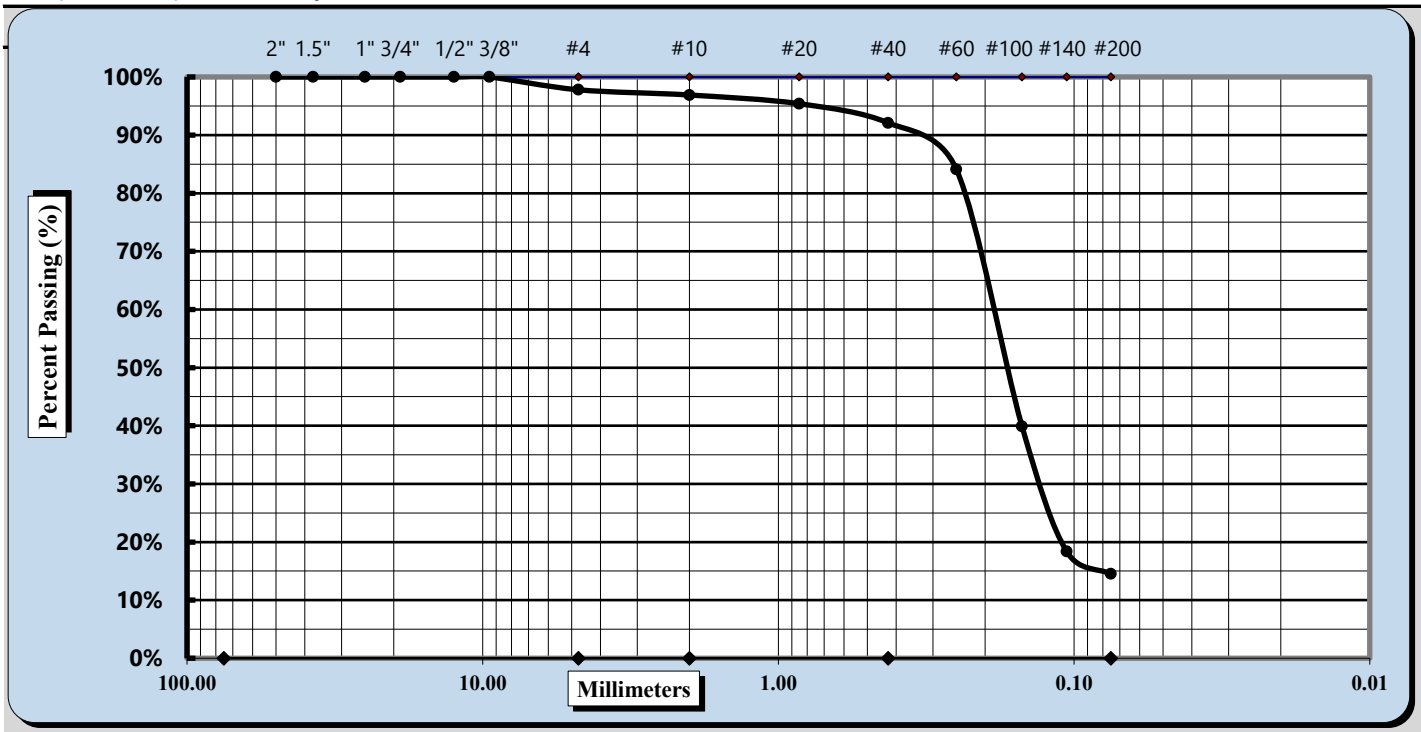
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-4	Type:	Split-spoon	Depth:	6.0 - 8.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	9.50 mm	Coarse Sand	0.9%	Fine Sand	77.6%
Gravel	2.2%	Medium Sand	4.8%	Silt & Clay	14.5%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	26.2%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

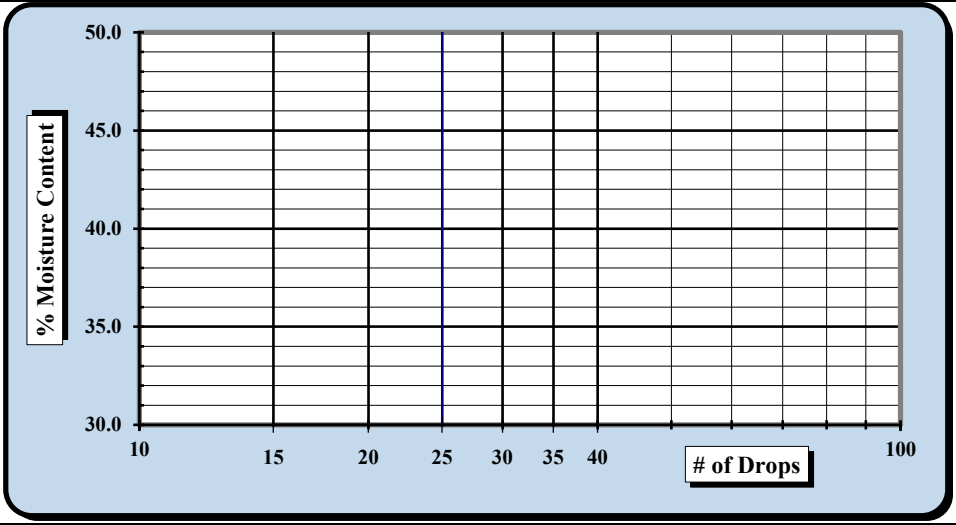
S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/23/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/22/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	B-017	Log #:	177	Sample Date(s):	6/17 - 6/24/25
Location:	SS-4	Type:	Split-spoon	Depth:	6.0 - 8.0'
Sample Description:	silty SAND (SM / A-2-4)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 14.5%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/23/25	Brian Vaughan, P.E.	7/23/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

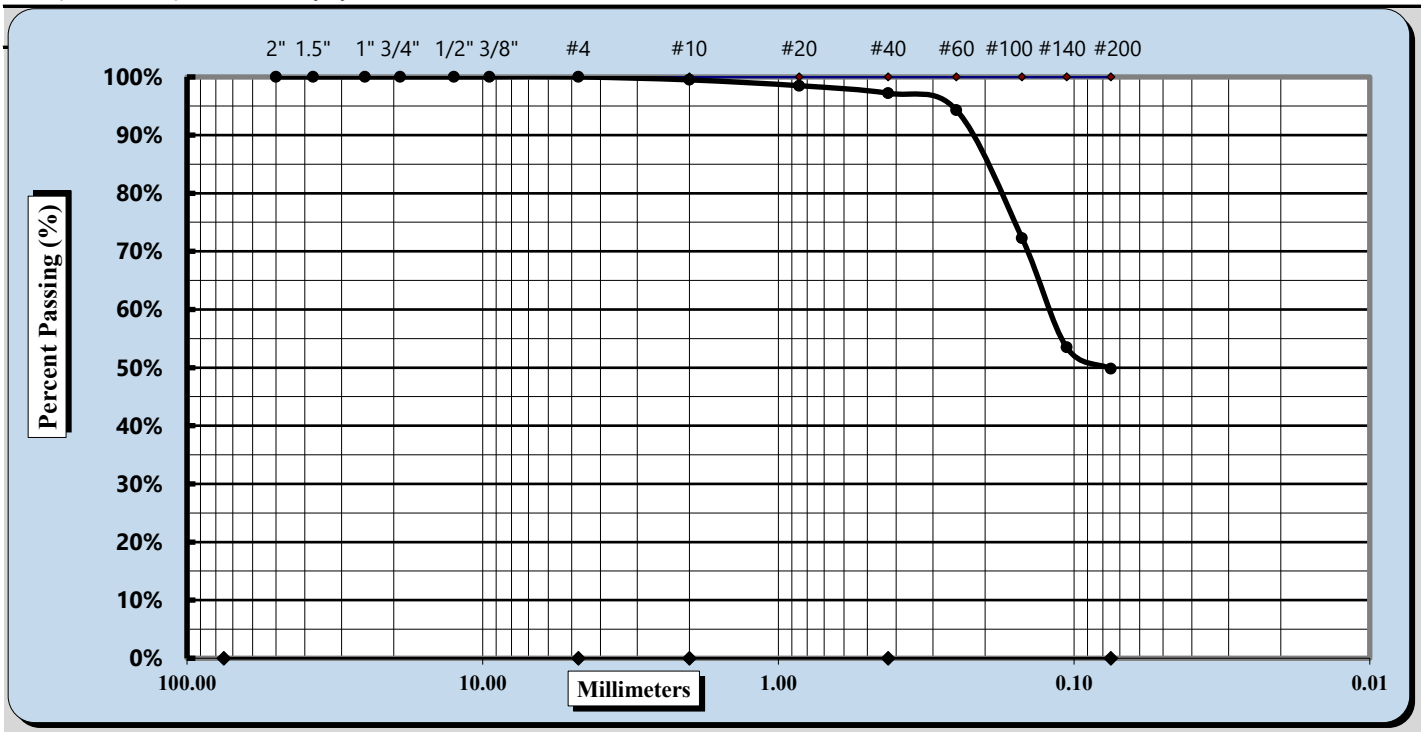
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-5	Type:	Split-spoon	Depth:	8.0 -10.0'

Sample Description: clayey SAND [SC / A-6(5)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.5%	Fine Sand	47.4%
Gravel	0.0%	Medium Sand	2.3%	Silt & Clay	49.8%
Liquid Limit	33	Plastic Limit	16	Plastic Index	17
		Natural Moisture	29.7%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

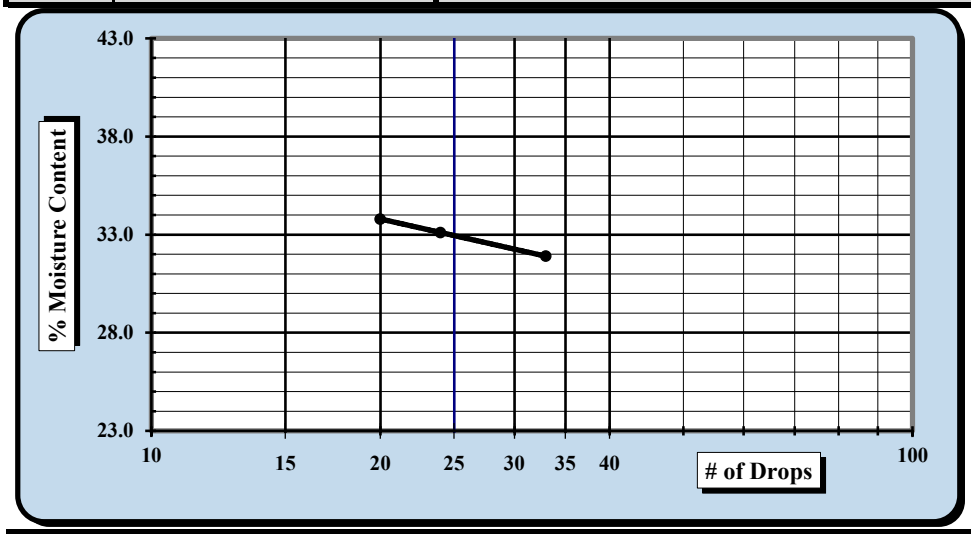
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/23/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/22/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-5	Type: Split-spoon	Depth: 8.0 - 10.0'
Sample Description:	clayey SAND [SC / A-6(5)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Q1	Q2	Q3				3	4	
A	Tare Weight	16.58	16.52	15.69				11.56	12.24	
B	Wet Soil Weight + A	27.12	27.89	27.32				20.20	20.78	
C	Dry Soil Weight + A	24.57	25.06	24.38				19.00	19.62	
D	Water Weight (B-C)	2.55	2.83	2.94				1.20	1.16	
E	Dry Soil Weight (C-A)	7.99	8.54	8.69				7.44	7.38	
F	% Moisture (D/E)*100	31.9%	33.1%	33.8%				16.1%	15.7%	
N	# OF DROPS	33	24	20				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							15.9%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**33**
Plastic Limit	**16**
Plastic Index	**17**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 49.8%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/23/25	Brian Vaughan, P.E.	7/23/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

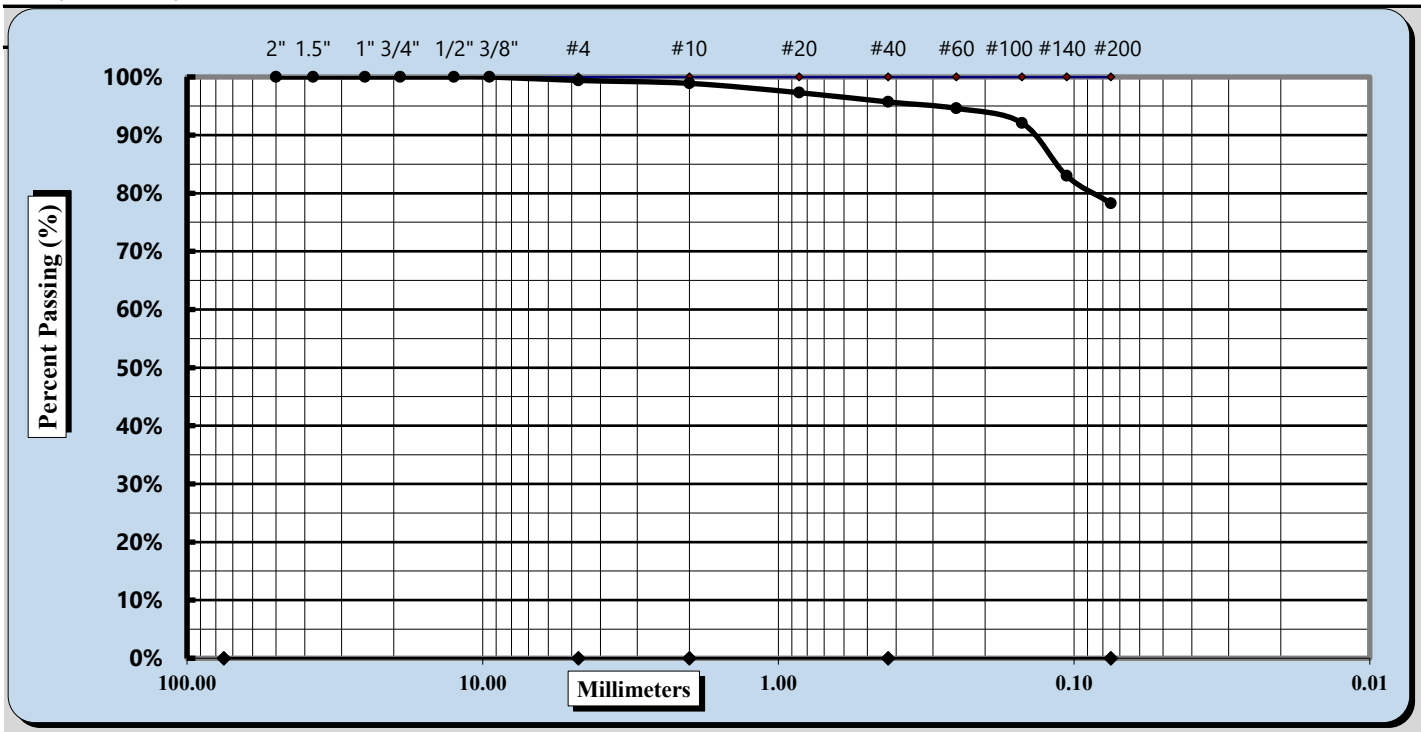
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-7	Type:	Split-spoon	Depth:	18.5 - 20.0'

Sample Description: fat CLAY with sand [CH / A-7-6(28)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	4.75 mm	Coarse Sand	0.5%	Fine Sand	17.4%
Gravel	0.6%	Medium Sand	3.2%	Silt & Clay	78.3%
Liquid Limit	56	Plastic Limit	21	Plastic Index	35
		Natural Moisture	66.1%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/23/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/22/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-7	Type: Split-spoon	Depth: 18.5 - 20.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(28)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	P7	P8	P9				29	31	
A	Tare Weight	15.73	15.58	15.91				11.55	11.50	
B	Wet Soil Weight + A	25.71	24.47	25.74				19.62	19.56	
C	Dry Soil Weight + A	22.27	21.32	22.17				18.23	18.14	
D	Water Weight (B-C)	3.44	3.15	3.57				1.39	1.42	
E	Dry Soil Weight (C-A)	6.54	5.74	6.26				6.68	6.64	
F	% Moisture (D/E)*100	52.6%	54.9%	57.0%				20.8%	21.4%	
N	# OF DROPS	34	27	22				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							21.1%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**56**
Plastic Limit	**21**
Plastic Index	**35**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 78.3%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/23/25	Brian Vaughan, P.E.	7/23/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

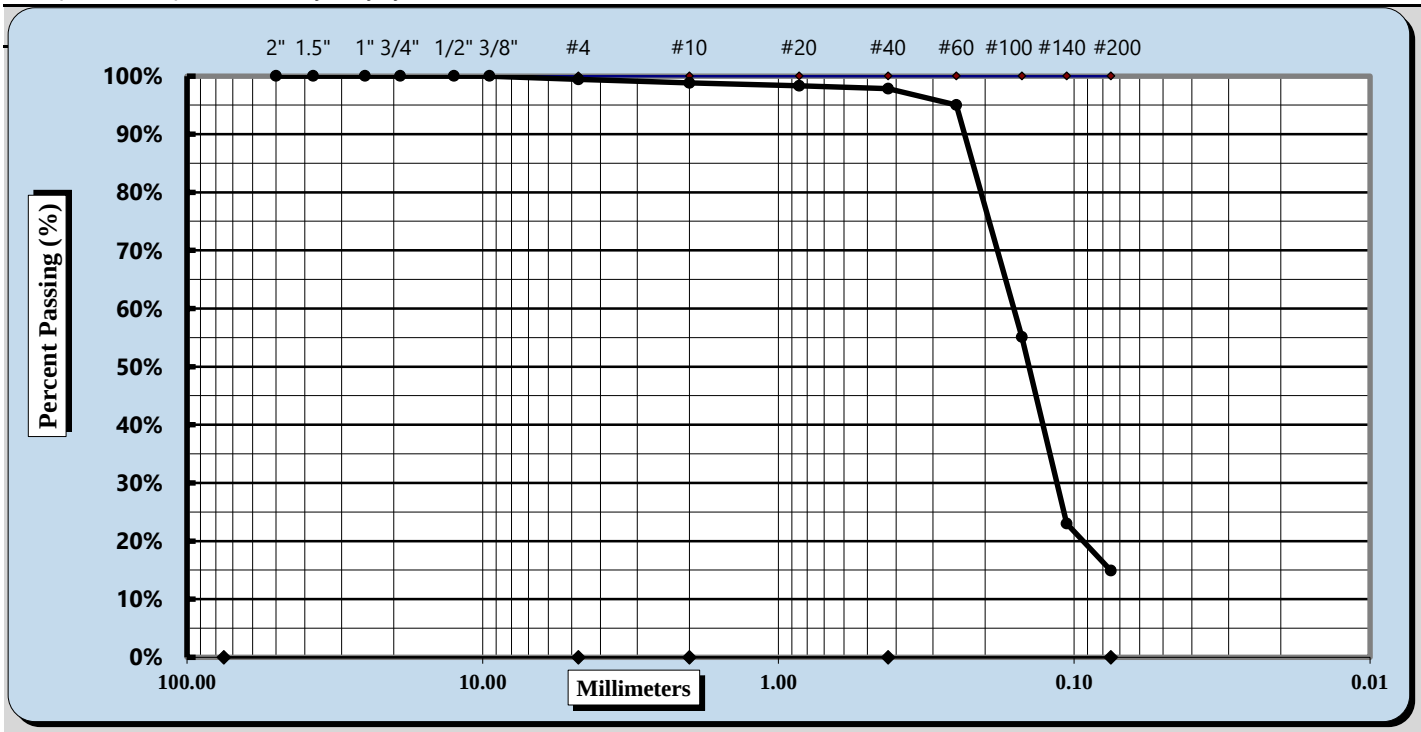
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-8	Type:	Split-spoon	Depth:	23.5 - 25.0'

Sample Description: silty clayey SAND (SC-SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	4.75 mm	Coarse Sand	0.6%	Fine Sand	82.9%
Gravel	0.6%	Medium Sand	1.0%	Silt & Clay	14.9%
Liquid Limit	25	Plastic Limit	19	Plastic Index	6
		Natural Moisture	28.8%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

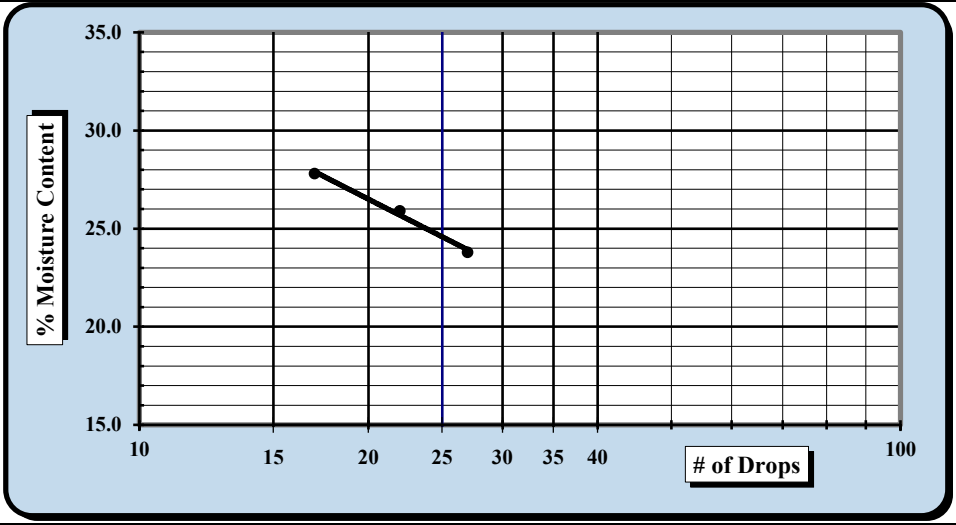
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/23/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/22/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-8	Type: Split-spoon	Depth: 23.5 - 25.0'
Sample Description:	silty clayey SAND (SC-SM / A-2-4)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Q7	Q8	Q9				23	22	
A	Tare Weight	16.86	16.90	16.77				12.10	11.88	
B	Wet Soil Weight + A	26.99	28.75	29.31				22.33	22.39	
C	Dry Soil Weight + A	25.04	26.31	26.58				20.68	20.74	
D	Water Weight (B-C)	1.95	2.44	2.73				1.65	1.65	
E	Dry Soil Weight (C-A)	8.18	9.41	9.81				8.58	8.86	
F	% Moisture (D/E)*100	23.8%	25.9%	27.8%				19.2%	18.6%	
N	# OF DROPS	27	22	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							18.9%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**25**
Plastic Limit	**19**
Plastic Index	**6**
Group Symbol	**CL-ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 14.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/23/25	Brian Vaughan, P.E.	7/23/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

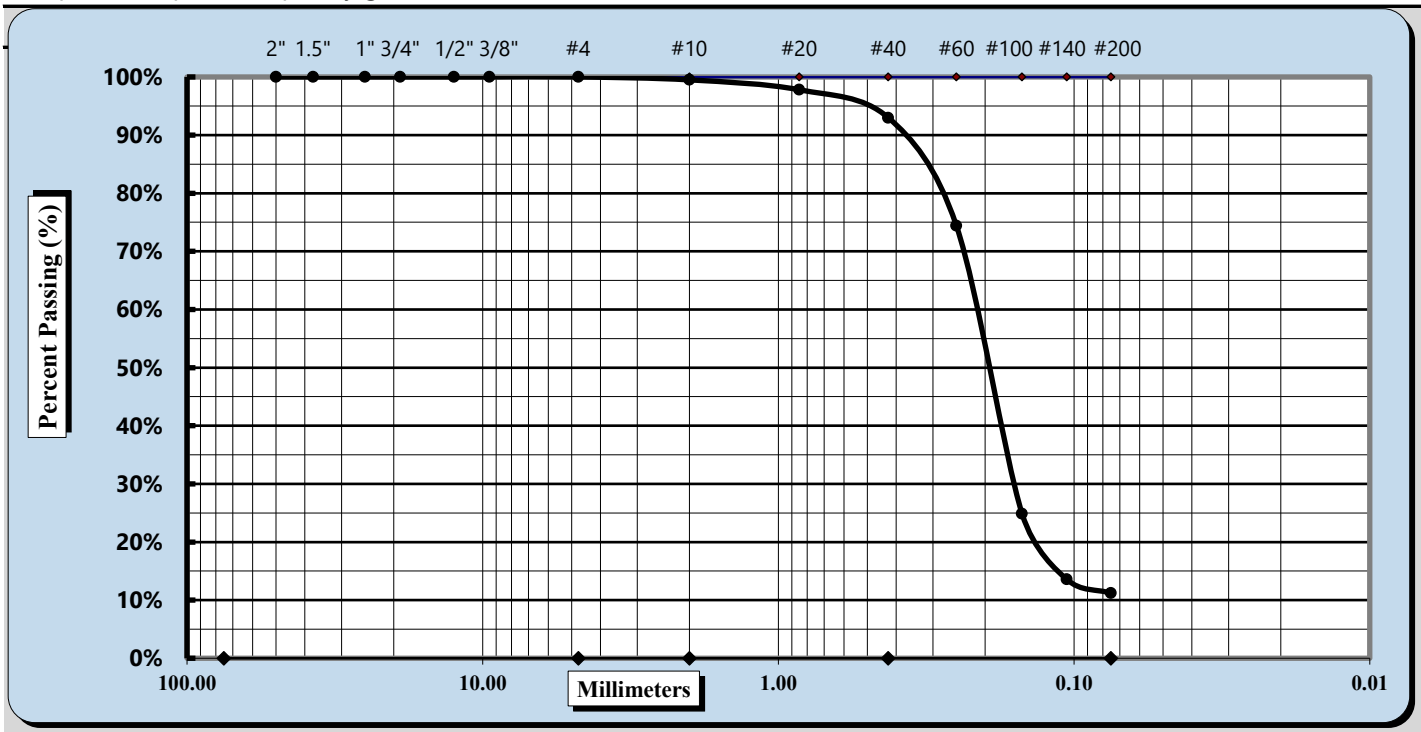
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-11	Type:	Split-spoon	Depth:	38.5 - 40.0'

Sample Description: poorly graded SAND with silt (SP-SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.5%	Fine Sand	81.8%
Gravel	0.0%	Medium Sand	6.5%	Silt & Clay	11.2%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	31.9%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

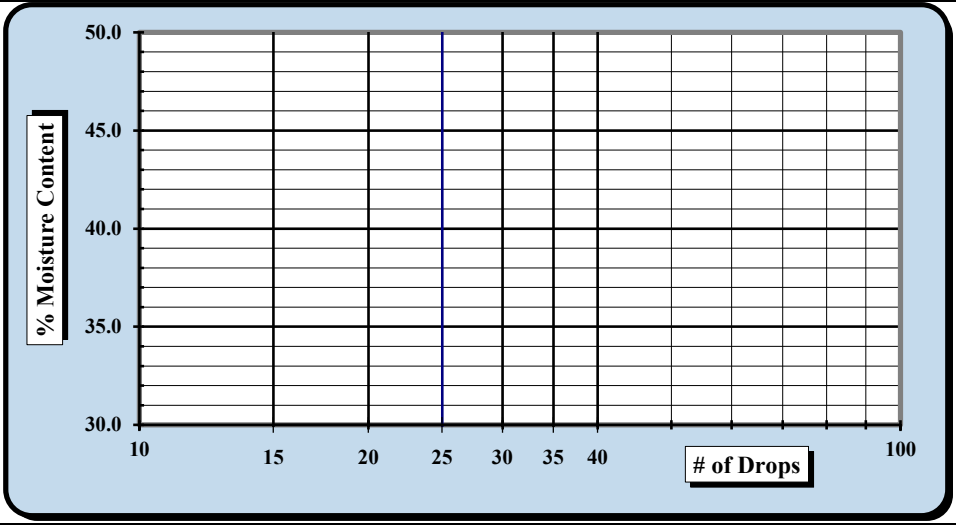
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/23/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/22/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-11	Type: Split-spoon	Depth: 38.5 - 40.0'
Sample Description:	poorly graded SAND with silt (SP-SM / A-2-4)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 11.2%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/23/25	Brian Vaughan, P.E.	7/23/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

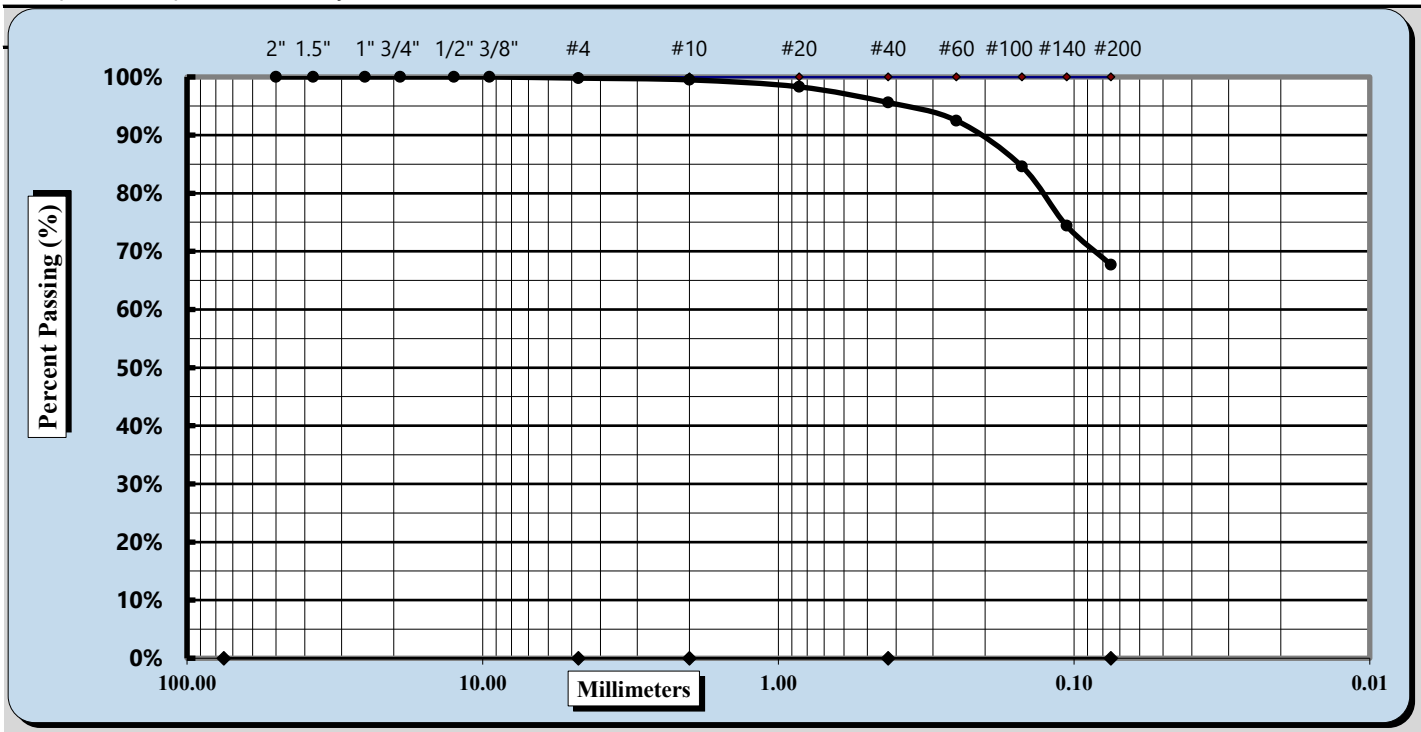
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-13	Type:	Split-spoon	Depth:	48.5 - 50.0'

Sample Description: sandy fat CLAY [CH / A-7-6(20)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.3%	Fine Sand	27.9%
Gravel	0.2%	Medium Sand	3.9%	Silt & Clay	67.7%
Liquid Limit	58	Plastic Limit	29	Plastic Index	29
		Natural Moisture	47.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

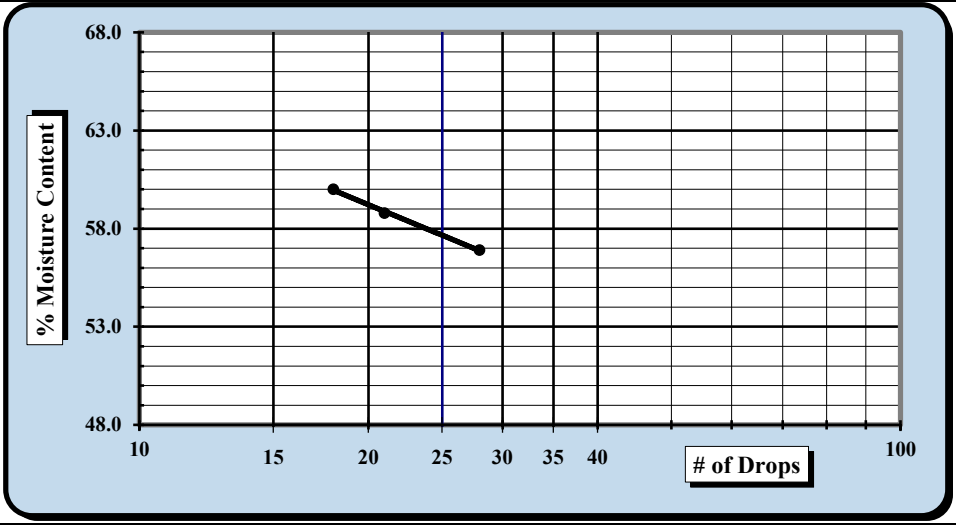
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/23/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/22/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-13	Type: Split-spoon	Depth: 48.5 - 50.0'
Sample Description:	sandy fat CLAY [CH / A-7-6(20)]		A-

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Z7	Z8	Z9				27	28	
A	Tare Weight	16.70	15.68	16.67				11.44	11.45	
B	Wet Soil Weight + A	25.97	24.40	25.55				20.44	20.48	
C	Dry Soil Weight + A	22.61	21.17	22.22				18.43	18.45	
D	Water Weight (B-C)	3.36	3.23	3.33				2.01	2.03	
E	Dry Soil Weight (C-A)	5.91	5.49	5.55				6.99	7.00	
F	% Moisture (D/E)*100	56.9%	58.8%	60.0%				28.8%	29.0%	
N	# OF DROPS	28	21	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							28.9%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**58**
Plastic Limit	**29**
Plastic Index	**29**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 67.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/23/25	Brian Vaughan, P.E.	7/23/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

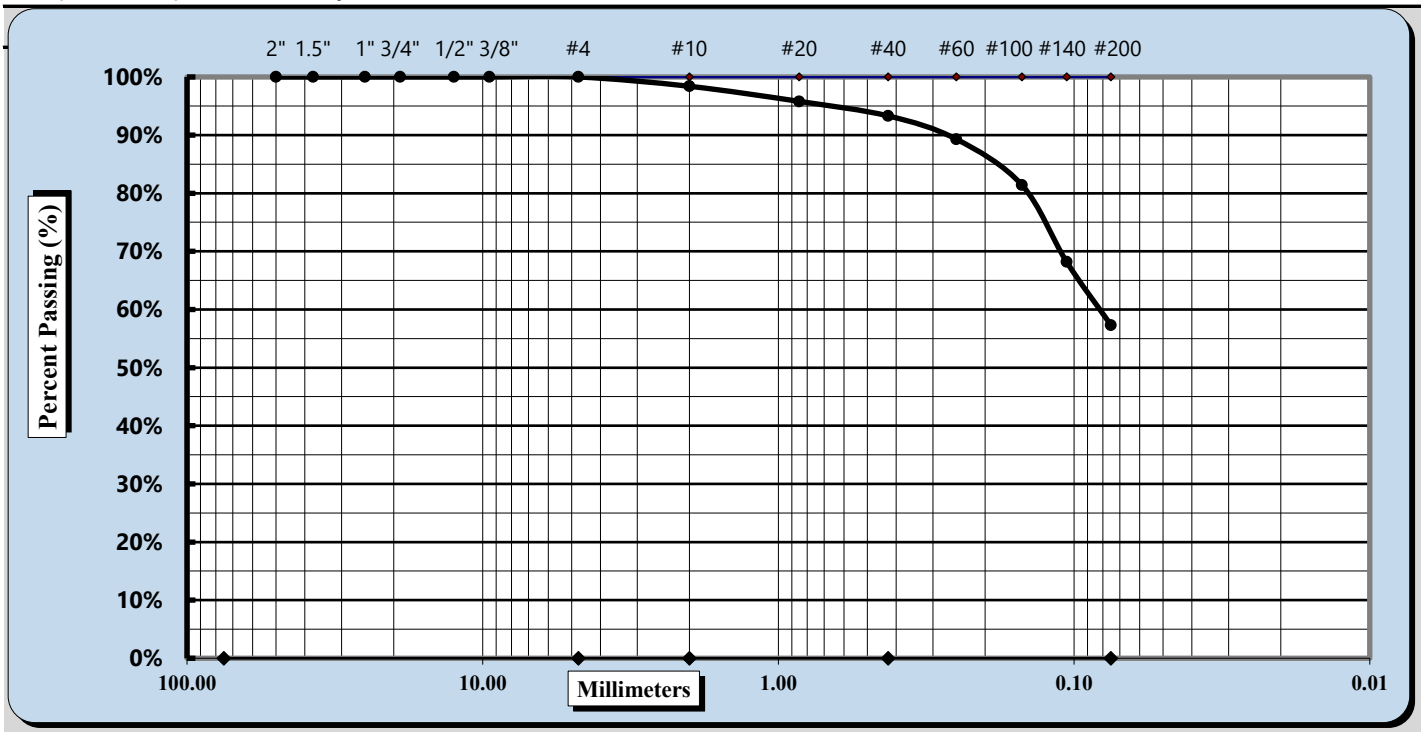
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-15	Type:	Split-spoon	Depth:	58.5 - 60.0'

Sample Description: sandy fat CLAY [CH / A-7-5(18)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	4.75 mm	Coarse Sand	1.6%	Fine Sand	36.0%
Gravel	0.0%	Medium Sand	5.1%	Silt & Clay	57.3%
Liquid Limit	66	Plastic Limit	30	Plastic Index	36
		Natural Moisture	56.2%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

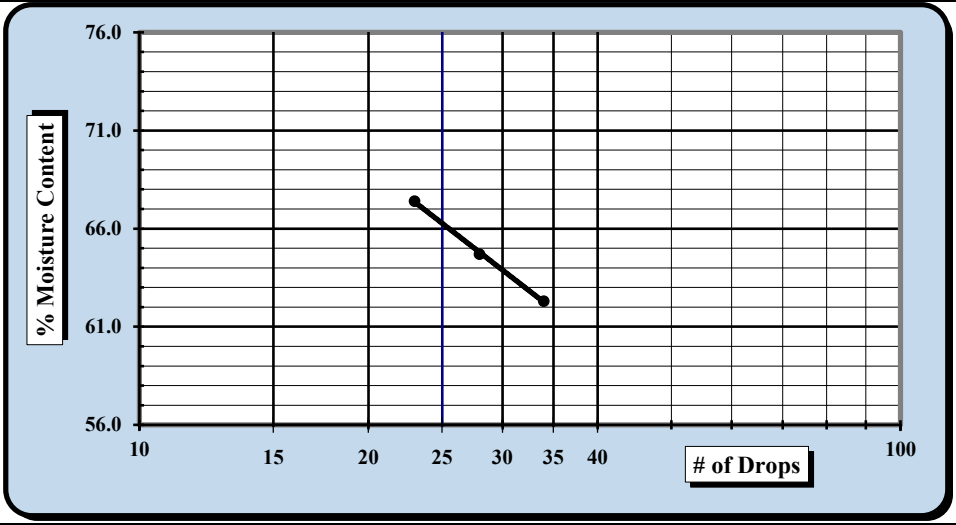
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/23/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/22/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-15	Type: Split-spoon	Depth: 58.5 - 60.0'
Sample Description:	sandy fat CLAY [CH / A-7-5(18)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Z4	Z5	Z6				25	26	
A	Tare Weight	15.71	15.51	16.90				11.62	11.52	
B	Wet Soil Weight + A	24.20	24.37	26.56				20.88	20.29	
C	Dry Soil Weight + A	20.94	20.89	22.67				18.75	18.30	
D	Water Weight (B-C)	3.26	3.48	3.89				2.13	1.99	
E	Dry Soil Weight (C-A)	5.23	5.38	5.77				7.13	6.78	
F	% Moisture (D/E)*100	62.3%	64.7%	67.4%				29.9%	29.4%	
N	# OF DROPS	34	28	23				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							29.7%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**66**
Plastic Limit	**30**
Plastic Index	**36**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 57.3%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/23/25	Brian Vaughan, P.E.	7/23/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

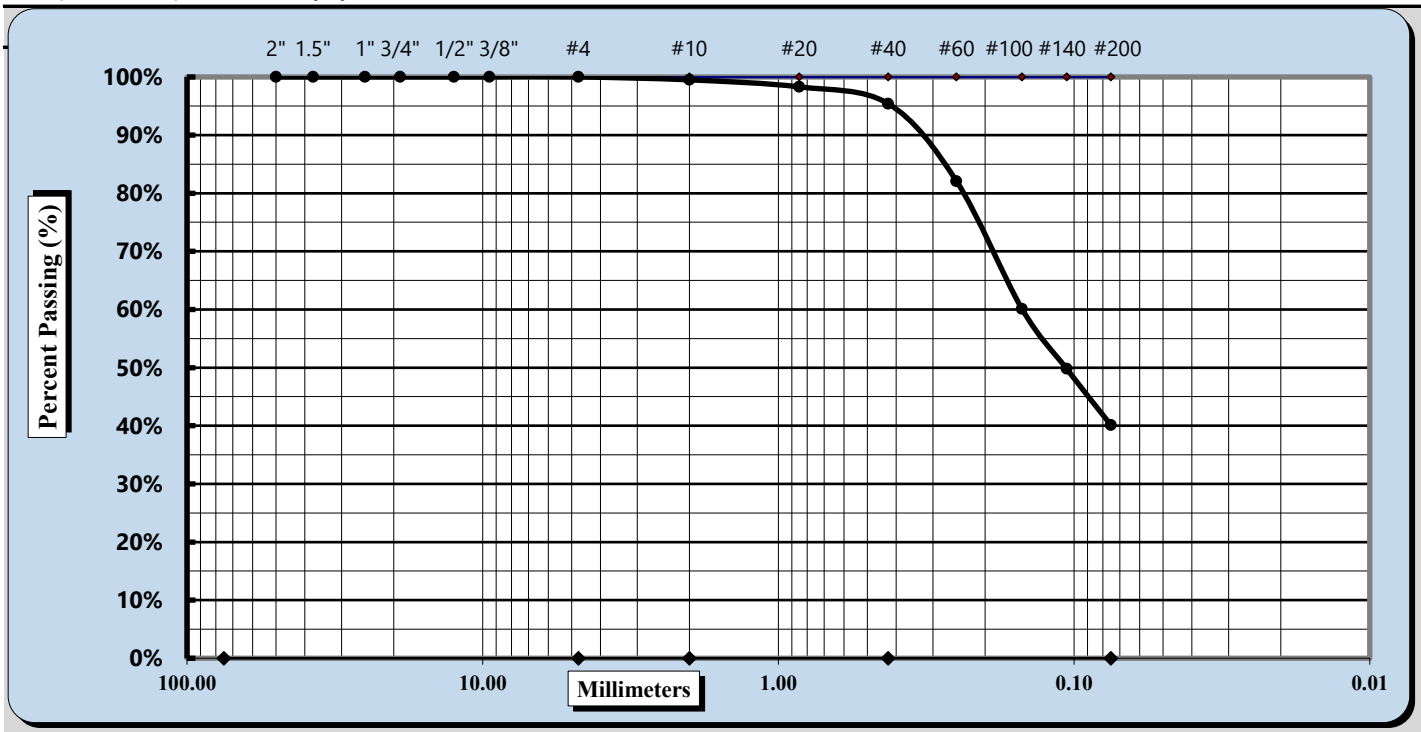
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-17	Type:	Split-spoon	Depth:	68.5-70.0'

Sample Description: clayey SAND [SC / A-7-6(4)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.5%	Fine Sand	55.3%
Gravel	0.0%	Medium Sand	4.1%	Silt & Clay	40.1%
Liquid Limit	48	Plastic Limit	26	Plastic Index	22
		Natural Moisture	39.2%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

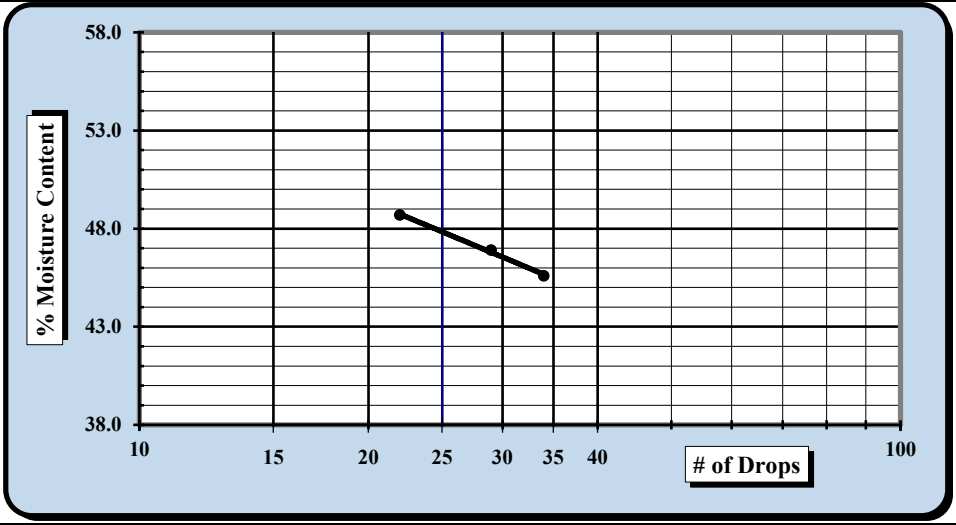
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/24/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/23/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-17	Type: Split-spoon	Depth: 68.5 - 70.0'
Sample Description:	clayey SAND [SC / A-7-6(4)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Z1	Z2	Z3				7	9	
A	Tare Weight	15.84	16.54	16.76				12.00	12.21	
B	Wet Soil Weight + A	25.58	26.41	26.78				20.86	21.13	
C	Dry Soil Weight + A	22.53	23.26	23.50				19.01	19.27	
D	Water Weight (B-C)	3.05	3.15	3.28				1.85	1.86	
E	Dry Soil Weight (C-A)	6.69	6.72	6.74				7.01	7.06	
F	% Moisture (D/E)*100	45.6%	46.9%	48.7%				26.4%	26.3%	
N	# OF DROPS	34	29	22				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							26.4%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**48**
Plastic Limit	**26**
Plastic Index	**22**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 40.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/24/25	Brian Vaughan, P.E.	7/24/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

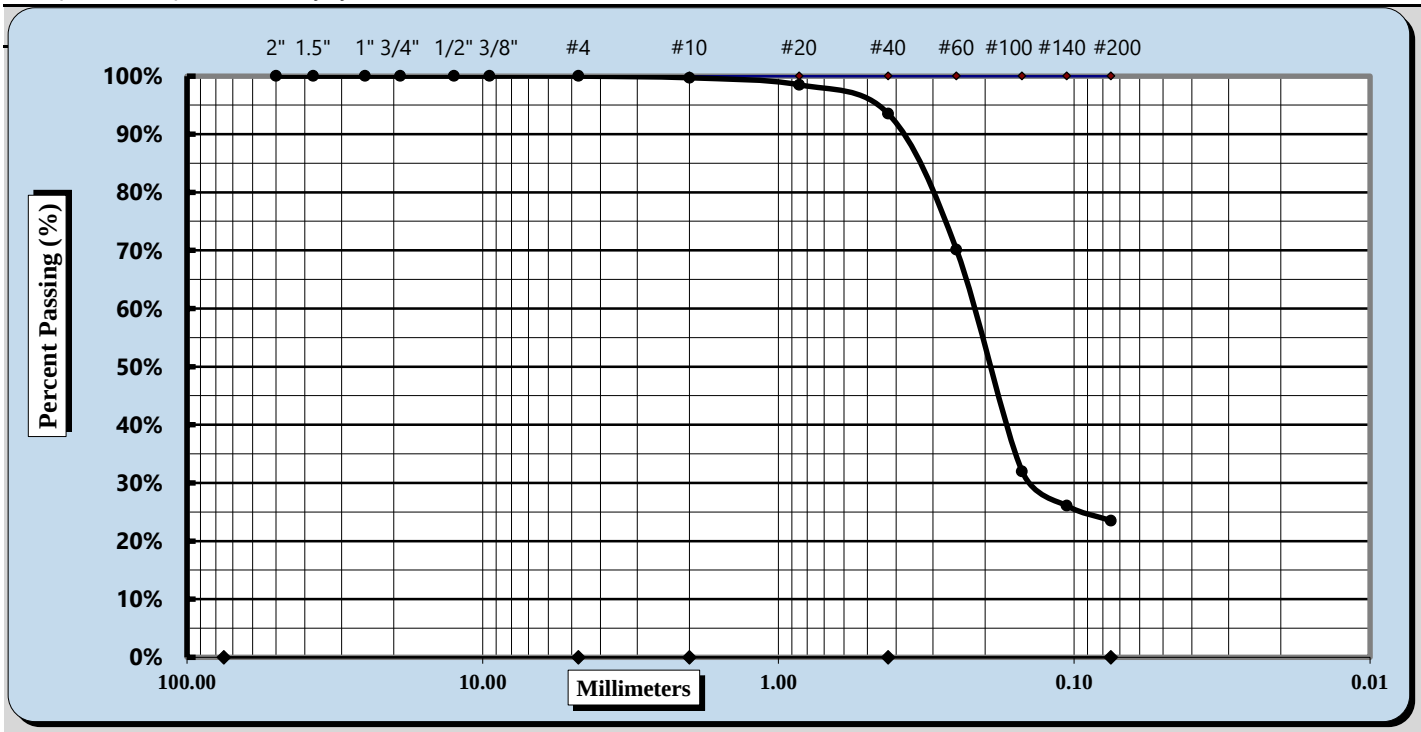
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-19	Type:	Split-spoon	Depth:	78.5 - 80.0'

Sample Description: clayey SAND [SC / A-2-7(1)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.3%	Fine Sand	70.0%
Gravel	0.0%	Medium Sand	6.2%	Silt & Clay	23.5%
Liquid Limit	43	Plastic Limit	22	Plastic Index	21
		Natural Moisture	40.1%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

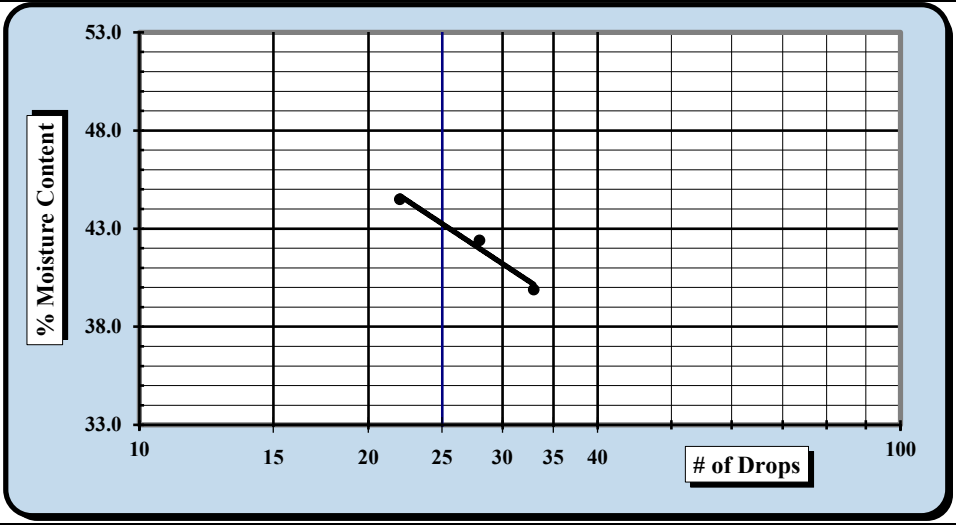
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/24/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/23/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-19	Type: Split-spoon	Depth: 78.5 - 80.0'
Sample Description:	clayey SAND [SC / A-2-7(1)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Y4	Y5	Y6				20	21	
A	Tare Weight	16.78	16.68	15.88				12.10	12.04	
B	Wet Soil Weight + A	27.72	26.48	25.95				21.37	21.30	
C	Dry Soil Weight + A	24.60	23.56	22.85				19.69	19.66	
D	Water Weight (B-C)	3.12	2.92	3.10				1.68	1.64	
E	Dry Soil Weight (C-A)	7.82	6.88	6.97				7.59	7.62	
F	% Moisture (D/E)*100	39.9%	42.4%	44.5%				22.1%	21.5%	
N	# OF DROPS	33	28	22				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							21.8%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**43**
Plastic Limit	**22**
Plastic Index	**21**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 23.5%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/24/25	Brian Vaughan, P.E.	7/24/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

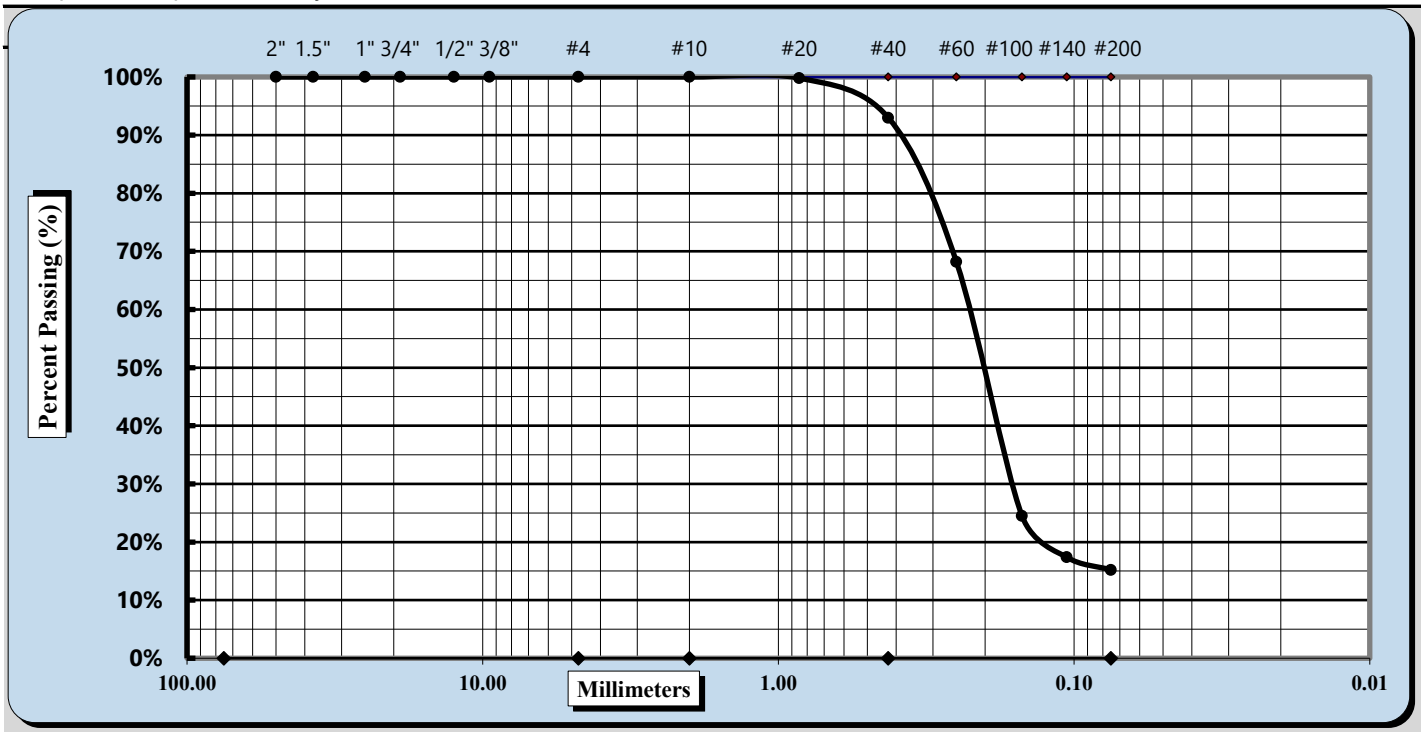
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-21	Type:	Split-spoon	Depth:	88.5 - 90.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	0.85 mm	Coarse Sand	0.0%	Fine Sand	77.8%
Gravel	0.0%	Medium Sand	7.0%	Silt & Clay	15.2%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	25.1%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

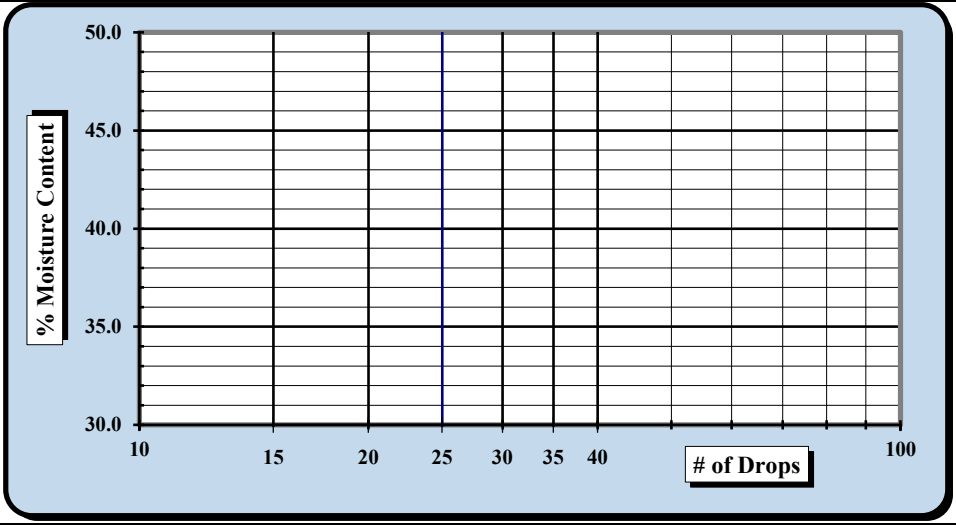
S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/24/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/23/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	B-017	Log #:	177	Sample Date(s):	6/17 - 6/24/25
Location:	SS-21	Type:	Split-spoon	Depth:	88.5 - 90.0'
Sample Description:	silty SAND (SM / A-2-4)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 15.2%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/24/25	Brian Vaughan, P.E.	7/24/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

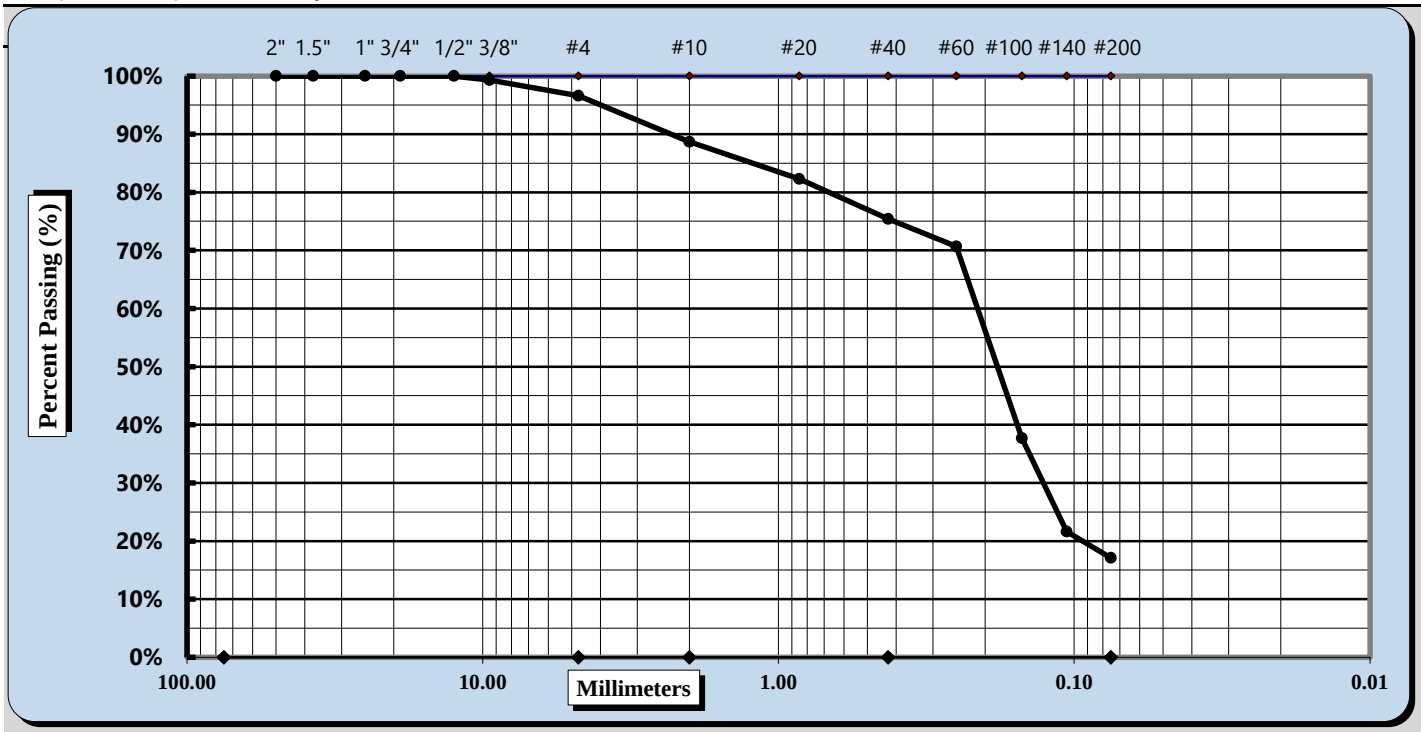
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-23	Type:	Split-spoon	Depth:	98.5 - 100.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	9.50 mm	Coarse Sand	7.9%	Fine Sand	58.3%
Gravel	3.4%	Medium Sand	13.3%	Silt & Clay	17.1%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	24.7%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

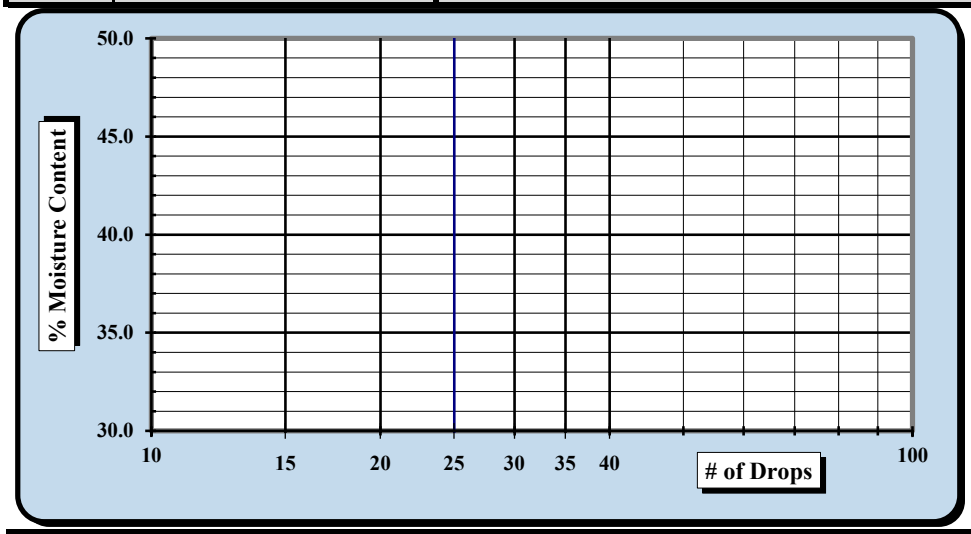
S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/24/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/23/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	B-017	Log #:	177	Sample Date(s):	6/17 - 6/24/25
Location:	SS-23	Type:	Split-spoon	Depth:	98.5 - 100.0'
Sample Description:	silty SAND (SM / A-2-4)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 17.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/24/25	Brian Vaughan, P.E.	7/24/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

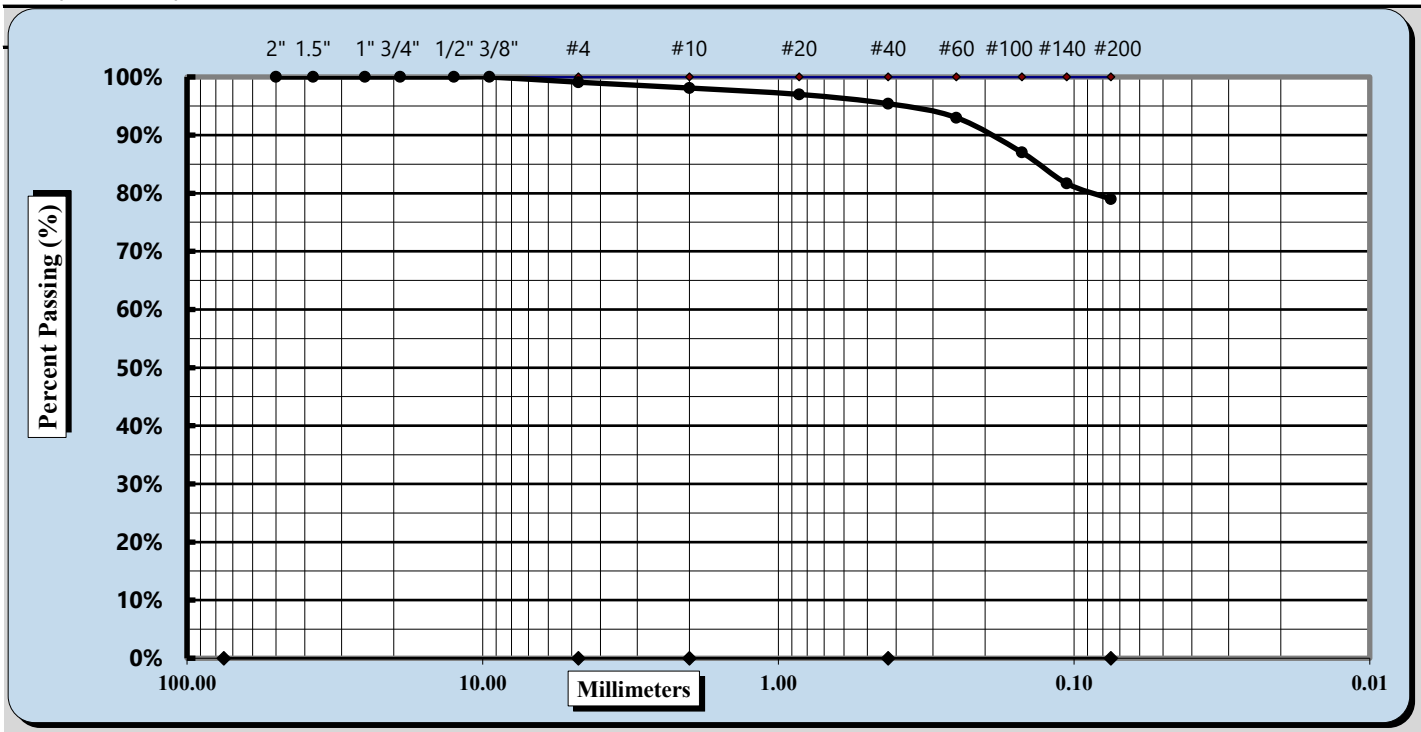
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-25	Type:	Split-spoon	Depth:	108.5 - 110.0'

Sample Description: fat CLAY with sand [CH / A-7-6(29)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	4.75 mm	Coarse Sand	1.0%	Fine Sand	16.4%
Gravel	0.9%	Medium Sand	2.7%	Silt & Clay	79.0%
Liquid Limit	62	Plastic Limit	28	Plastic Index	34
		Natural Moisture	49.1%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

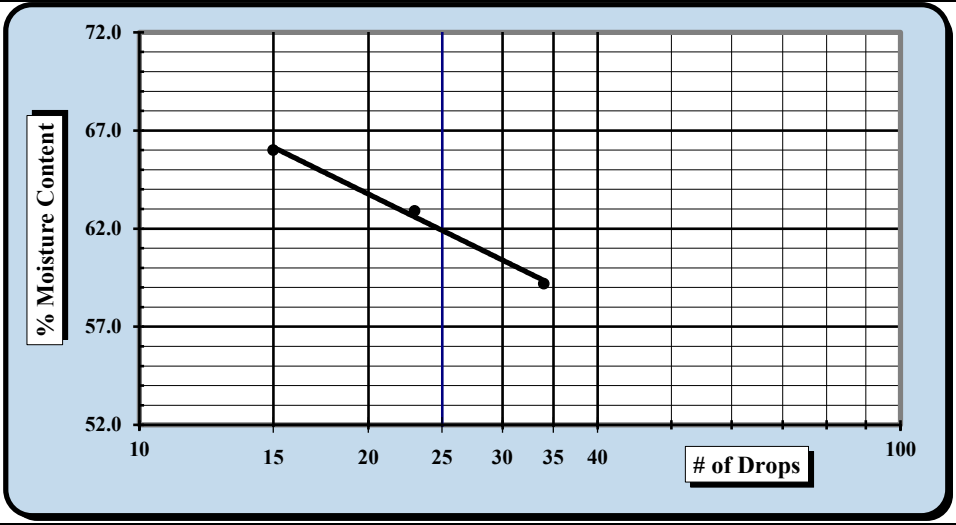
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/24/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/23/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-25	Type: Split-spoon	Depth: 108.5 - 110.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(29)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Q1	Q2	Q3				3	4	
A	Tare Weight	16.63	16.57	15.70				11.57	12.26	
B	Wet Soil Weight + A	25.72	25.66	24.78				20.15	20.87	
C	Dry Soil Weight + A	22.34	22.15	21.17				18.30	19.01	
D	Water Weight (B-C)	3.38	3.51	3.61				1.85	1.86	
E	Dry Soil Weight (C-A)	5.71	5.58	5.47				6.73	6.75	
F	% Moisture (D/E)*100	59.2%	62.9%	66.0%				27.5%	27.6%	
N	# OF DROPS	34	23	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							27.6%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**62**
Plastic Limit	**28**
Plastic Index	**34**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 79.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/24/25	Brian Vaughan, P.E.	7/24/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

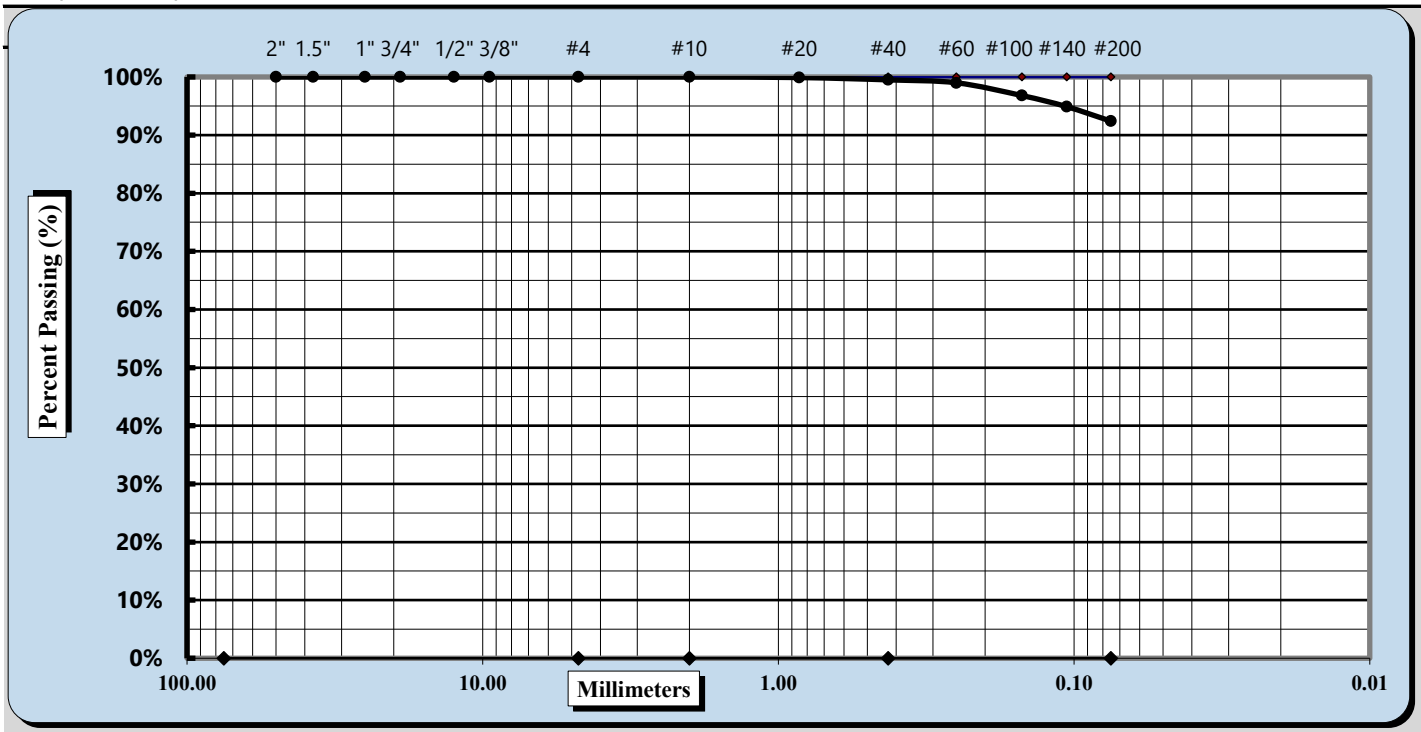
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-29	Type:	Split-spoon	Depth:	128.5 - 130.0'

Sample Description: fat CLAY [CH / A-7-6(62)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	0.25 mm	Coarse Sand	0.0%	Fine Sand	7.1%
Gravel	0.0%	Medium Sand	0.5%	Silt & Clay	92.4%
Liquid Limit	85	Plastic Limit	26	Plastic Index	59
		Natural Moisture	55.3%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

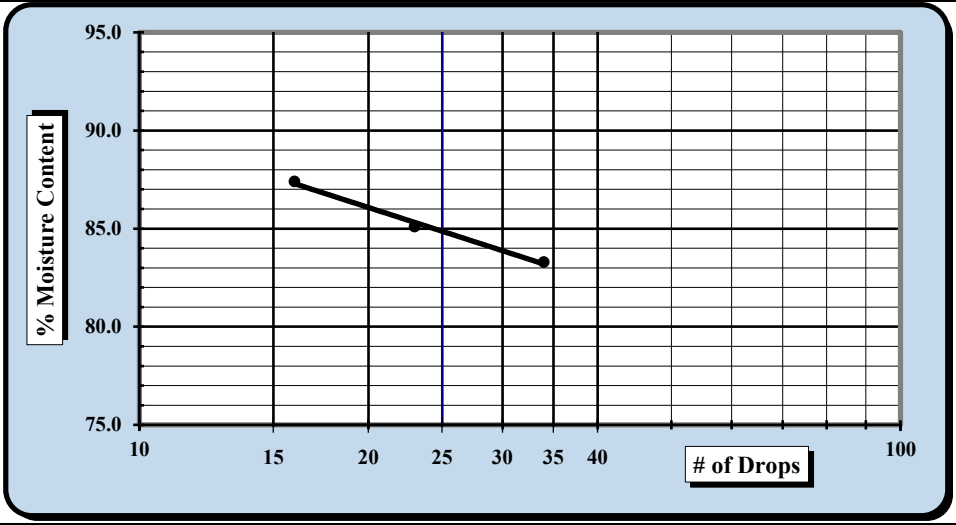
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/24/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/23/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-29	Type: Split-spoon	Depth: 128.5 - 130.0'
Sample Description:	fat CLAY [CH / A-7-6(62)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Z4	Z5	Z6				22	23	
A	Tare Weight	15.71	15.50	16.90				11.90	12.05	
B	Wet Soil Weight + A	23.63	23.68	25.05				20.22	20.25	
C	Dry Soil Weight + A	20.03	19.92	21.25				18.49	18.56	
D	Water Weight (B-C)	3.60	3.76	3.80				1.73	1.69	
E	Dry Soil Weight (C-A)	4.32	4.42	4.35				6.59	6.51	
F	% Moisture (D/E)*100	83.3%	85.1%	87.4%				26.3%	26.0%	
N	# OF DROPS	34	23	16				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							26.2%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**85**
Plastic Limit	**26**
Plastic Index	**59**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 92.4%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/24/25	Brian Vaughan, P.E.	7/24/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

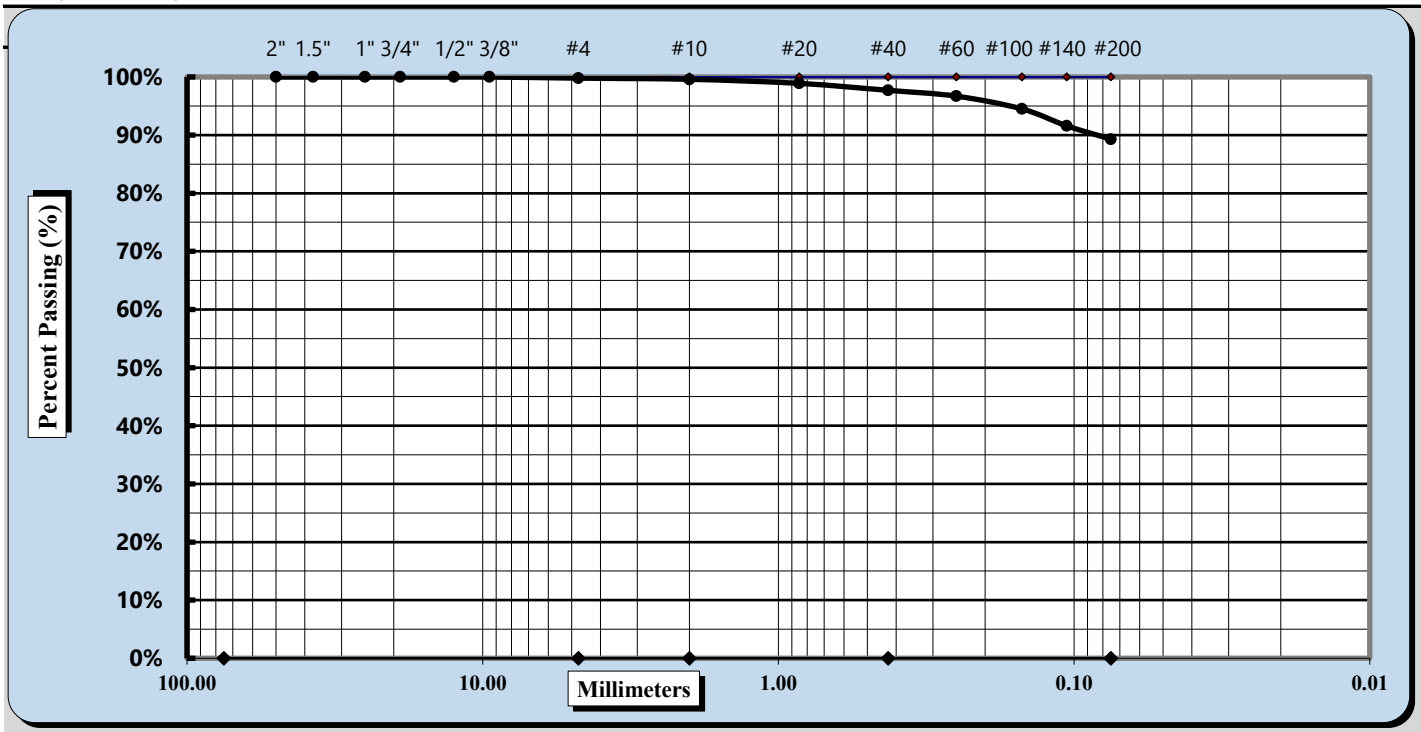
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-31	Type:	Split-spoon	Depth:	138.5 - 140.0'

Sample Description: fat CLAY [CH / A-7-6(65)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.2%	Fine Sand	8.4%
Gravel	0.2%	Medium Sand	1.9%	Silt & Clay	89.3%
Liquid Limit	90	Plastic Limit	25	Plastic Index	65
		Natural Moisture	74.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

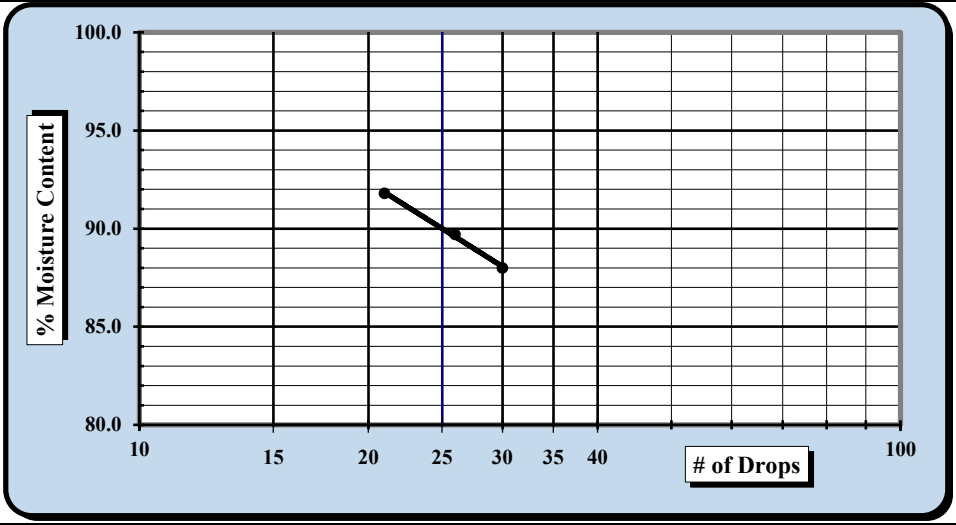
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/25/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/24/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-31	Type: Split-spoon	Depth: 138.5 - 140.0'
Sample Description:	fat CLAY [CH / A-7-6(65)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	P1	P2	P3				1	2	
A	Tare Weight	16.27	15.16	16.48				12.08	12.13	
B	Wet Soil Weight + A	23.64	22.54	24.92				18.92	19.23	
C	Dry Soil Weight + A	20.19	19.05	20.88				17.55	17.79	
D	Water Weight (B-C)	3.45	3.49	4.04				1.37	1.44	
E	Dry Soil Weight (C-A)	3.92	3.89	4.40				5.47	5.66	
F	% Moisture (D/E)*100	88.0%	89.7%	91.8%				25.0%	25.4%	
N	# OF DROPS	30	26	21				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							25.2%		



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**90**
Plastic Limit	**25**
Plastic Index	**65**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 89.3%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/25/25	Brian Vaughan, P.E.	7/25/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

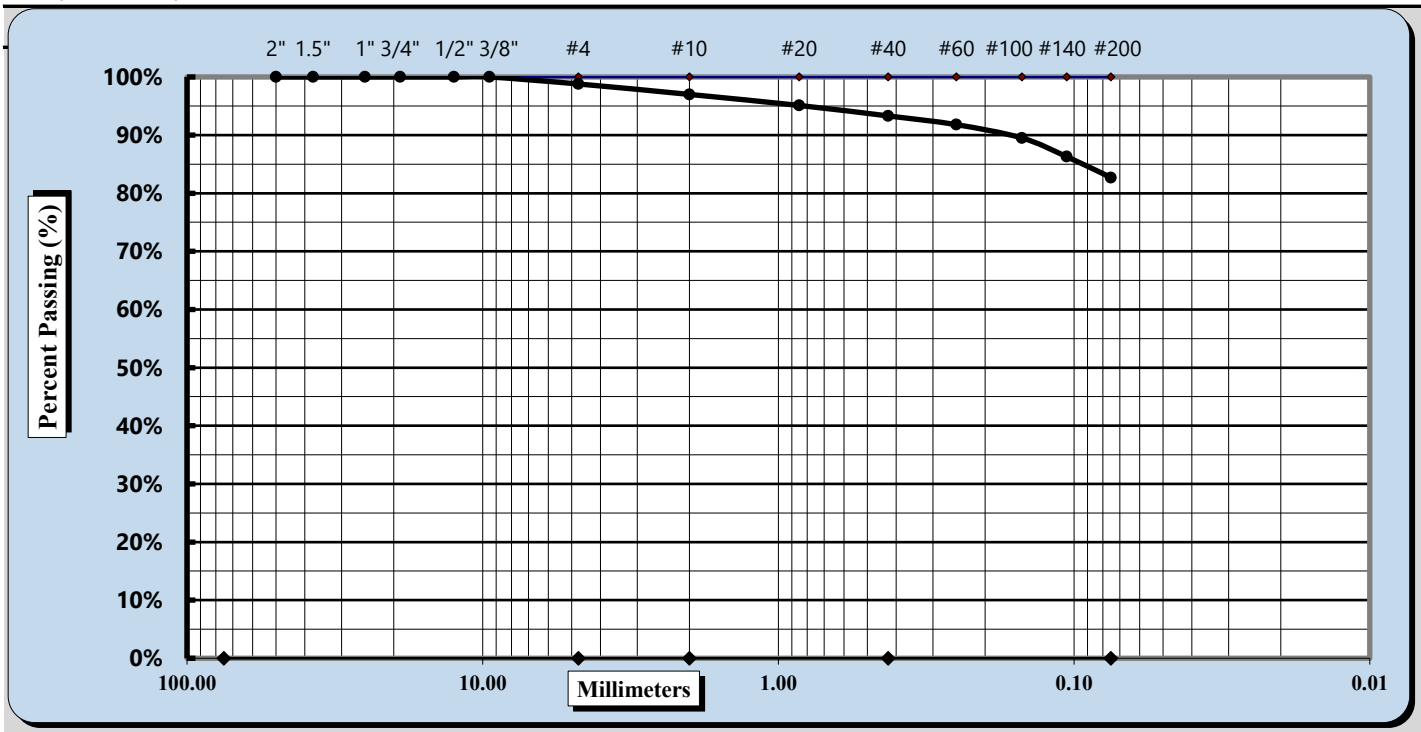
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/12/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/12/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-017	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-33	Type:	Split-spoon	Depth:	148.5 - 150.0'

Sample Description: lean CLAY with sand [CL / A-7-6(28)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	9.50 mm	Coarse Sand	1.8%	Fine Sand	10.6%
Gravel	1.2%	Medium Sand	3.7%	Silt & Clay	82.7%
Liquid Limit	45	Plastic Limit	27	Plastic Index	18
		Natural Moisture	47.3%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/12/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

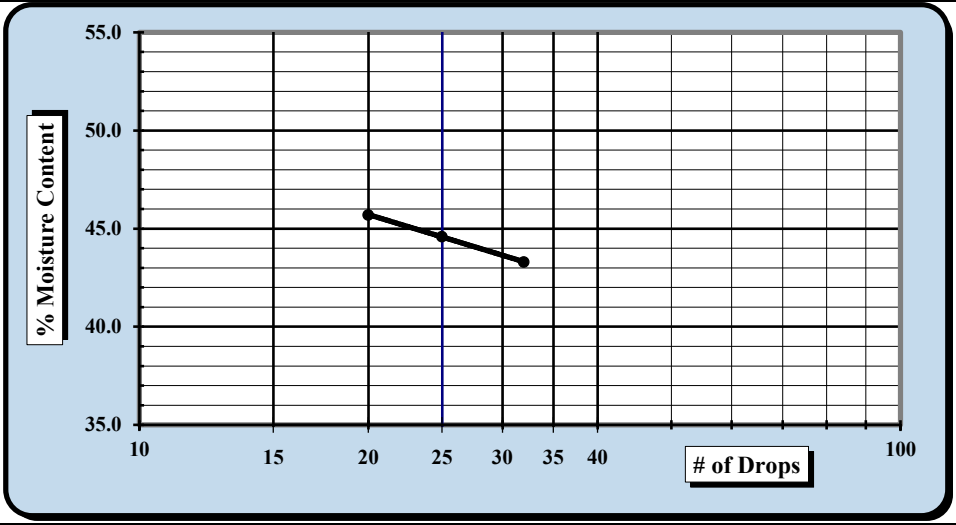
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/25/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/24/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-017	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-33	Type: Split-spoon	Depth: 148.5 - 150.0'
Sample Description:	lean CLAY with sand [CL / A-7-6(28)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Q1	Q2	Q3				3	4	
A	Tare Weight	16.58	16.52	15.67				11.56	12.25	
B	Wet Soil Weight + A	25.91	25.27	24.95				20.40	21.12	
C	Dry Soil Weight + A	23.09	22.57	22.04				18.50	19.22	
D	Water Weight (B-C)	2.82	2.70	2.91				1.90	1.90	
E	Dry Soil Weight (C-A)	6.51	6.05	6.37				6.94	6.97	
F	% Moisture (D/E)*100	43.3%	44.6%	45.7%				27.4%	27.3%	
N	# OF DROPS	32	25	20				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							27.4%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**45**
Plastic Limit	**27**
Plastic Index	**18**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 82.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/25/25	Brian Vaughan, P.E.	7/25/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/04/25
Project Name:	I-526 / Long Point Road Interchange	Test Date(s):	7/14 - 7/15/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
		Sample Date(s):	6/17 - 6/24/25

Sampling Method: Split-spoon

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 13942 Calibration Date: 10/31/24 Oven ID. 13978 Calibration Date: 10/01/24

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	
		ft.		grams	grams	grams	grams	%	
B-018	SPT-2	2.0 - 4.0'	D-15	93.85	349.26	311.35	37.91	17.4%	
B-018	SPT-3	4.0 - 6.0'	D-11	93.45	249.48	220.73	28.75	22.6%	
B-018	SPT-4	6.0 - 8.0'	YM-6	93.92	496.21	396.93	99.28	32.8%	
B-018	SPT-5	8.0 - 10.0'	D-10	95.51	505.48	397.85	107.63	35.6%	
B-018	SPT-6	13.5 - 15.0'	D-17	100.02	533.41	426.55	106.86	32.7%	
B-018	SPT-7	18.5 - 20.0'	D-14	101.64	524.82	343.05	181.77	75.3%	
B-018	SPT-8	23.5 - 25.0'	WX-Z	88.04	282.09	214.53	67.56	53.4%	
B-018	SPT-9	28.5 - 30.0'	YM-8	97.55	515.65	386.63	129.02	44.6%	
B-018	SPT-10	33.5 - 35.0'	D-4	90.62	435.34	346.28	89.06	34.8%	
B-018	SPT-11	38.5 - 40.0'	D-18	102.30	439.74	370.16	69.58	26.0%	
B-018	SPT-12	43.5 - 45.0'	D-6	96.09	381.73	318.00	63.73	28.7%	
B-018	SPT-13	48.5 - 50.0'	D-7	96.48	515.72	363.42	152.30	57.1%	
B-018	SPT-15	58.5 - 60.0'	YM-5	96.51	538.95	396.12	142.83	47.7%	
B-018	SPT-17	68.5 - 70.0'	D-19	94.85	538.15	411.56	126.59	40.0%	
B-018	SPT-19	78.5 - 80.0'	YM-3	96.92	504.15	397.78	106.37	35.4%	
B-018	SPT-23	98.5 - 100.0'	YM-1	94.35	504.04	416.06	87.98	27.3%	

Notes / Deviations / References

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Benjamin Kovaleski		NICET Lab Level III / 117226	8/04/25
Technician Name		*Certification Type / No.*	*Date*
Brian Vaughan, P.E.	Brian Vaughan	QA Supervisor	8/04/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

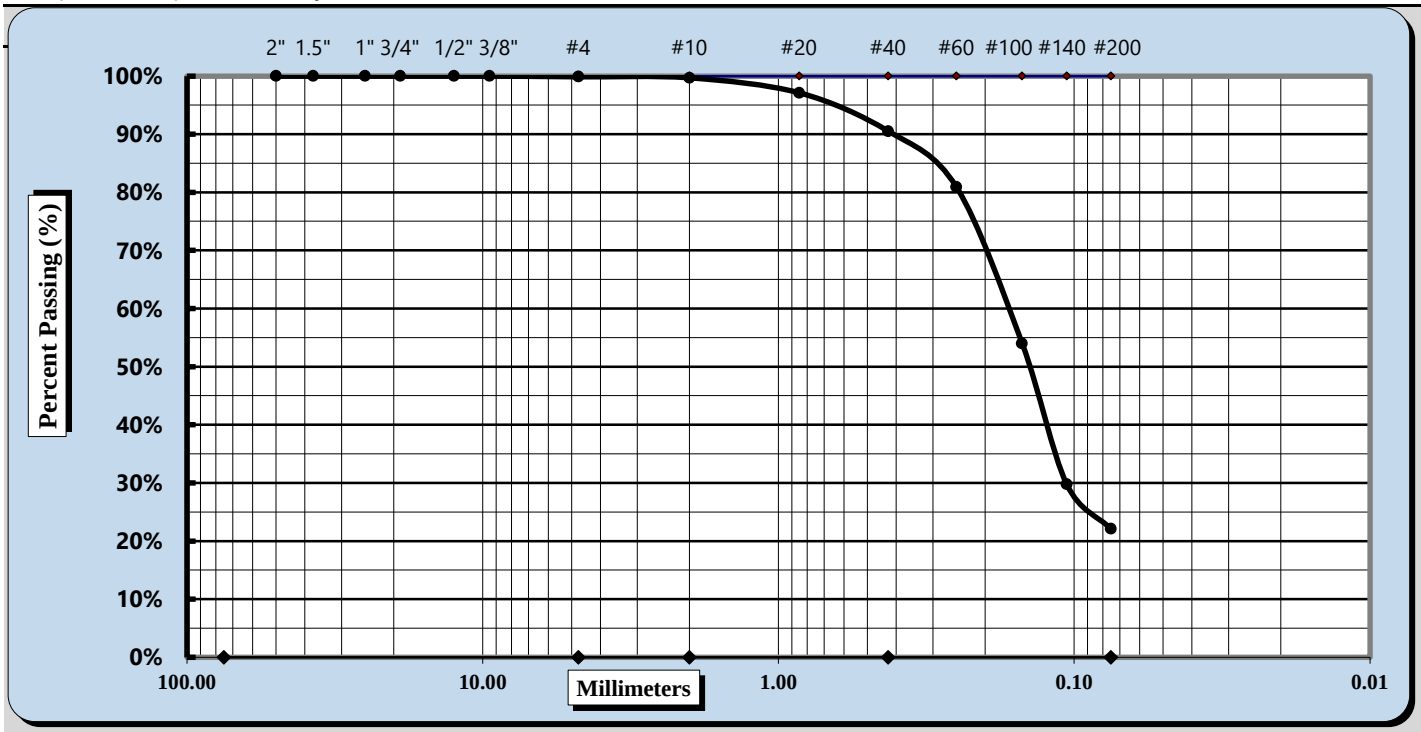
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-2	Type:	Split-spoon	Depth:	2.0 - 4.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.2%	Fine Sand	68.4%
Gravel	0.1%	Medium Sand	9.2%	Silt & Clay	22.1%
Liquid Limit	22	Plastic Limit	19	Plastic Index	3
		Natural Moisture	17.4%		

Notes / Deviations / References:

Brian Vaughan, P.E. — *Technical Responsibility*
Brian Vaughan — *Signature*
QA Supervisor — *Position*
8/4/25 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

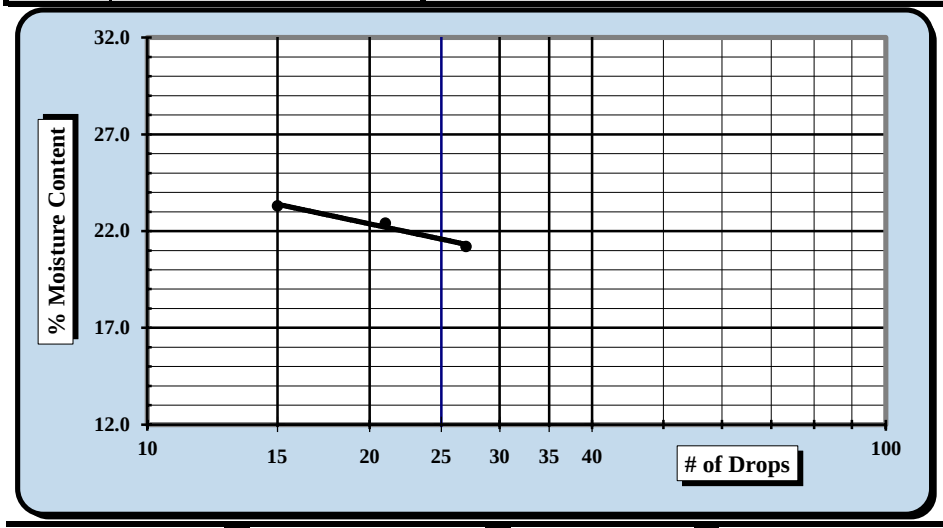
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/25/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/24/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-2	Type: Split-spoon	Depth: 2.0 - 4.0'
Sample Description:	silty SAND (SM / A-2-4)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Y1	Y2	Y3				5	6	
A	Tare Weight	16.36	16.39	17.00				12.06	12.27	
B	Wet Soil Weight + A	28.92	29.74	30.34				20.65	20.74	
C	Dry Soil Weight + A	26.72	27.30	27.82				19.26	19.39	
D	Water Weight (B-C)	2.20	2.44	2.52				1.39	1.35	
E	Dry Soil Weight (C-A)	10.36	10.91	10.82				7.20	7.12	
F	% Moisture (D/E)*100	21.2%	22.4%	23.3%				19.3%	19.0%	
N	# OF DROPS	27	21	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							19.2%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**22**
Plastic Limit	**19**
Plastic Index	**3**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 22.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/25/25	Brian Vaughan, P.E.	7/25/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

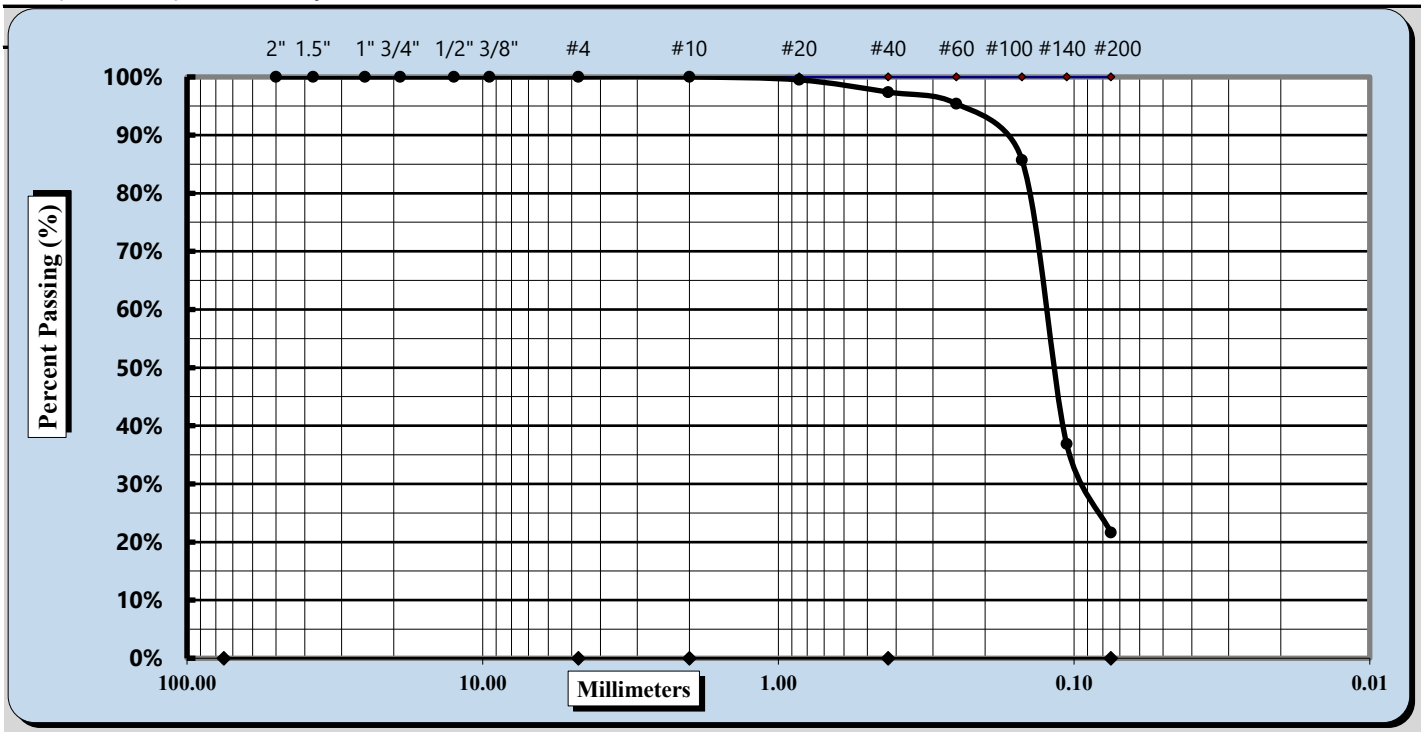
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-3	Type:	Split-spoon	Depth:	4.0 - 6.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	0.85 mm	Coarse Sand	0.0%	Fine Sand	75.8%
Gravel	0.0%	Medium Sand	2.6%	Silt & Clay	21.6%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	22.6%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

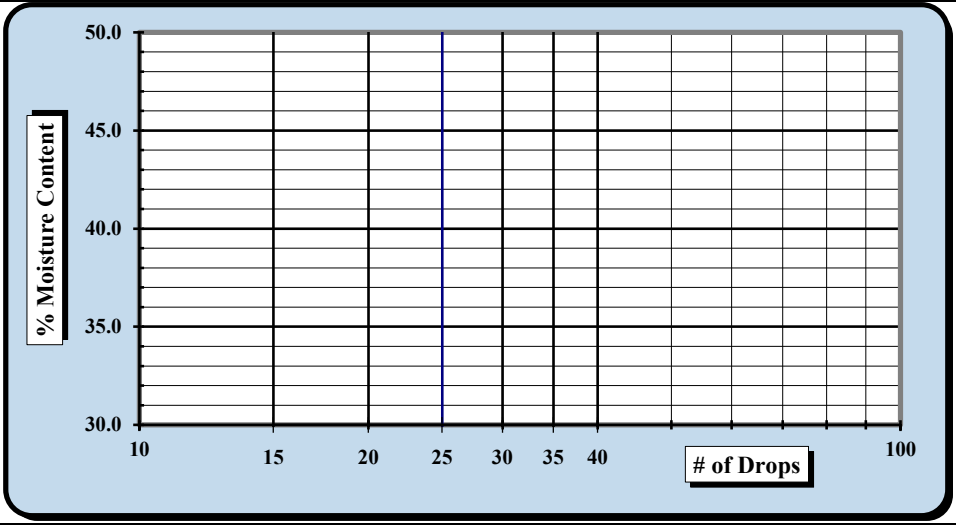
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/25/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/24/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-3	Type: Split-spoon	Depth: 4.0 - 6.0'
Sample Description:	silty SAND (SM / A-2-4)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 21.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/25/25	Brian Vaughan, P.E.	7/25/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

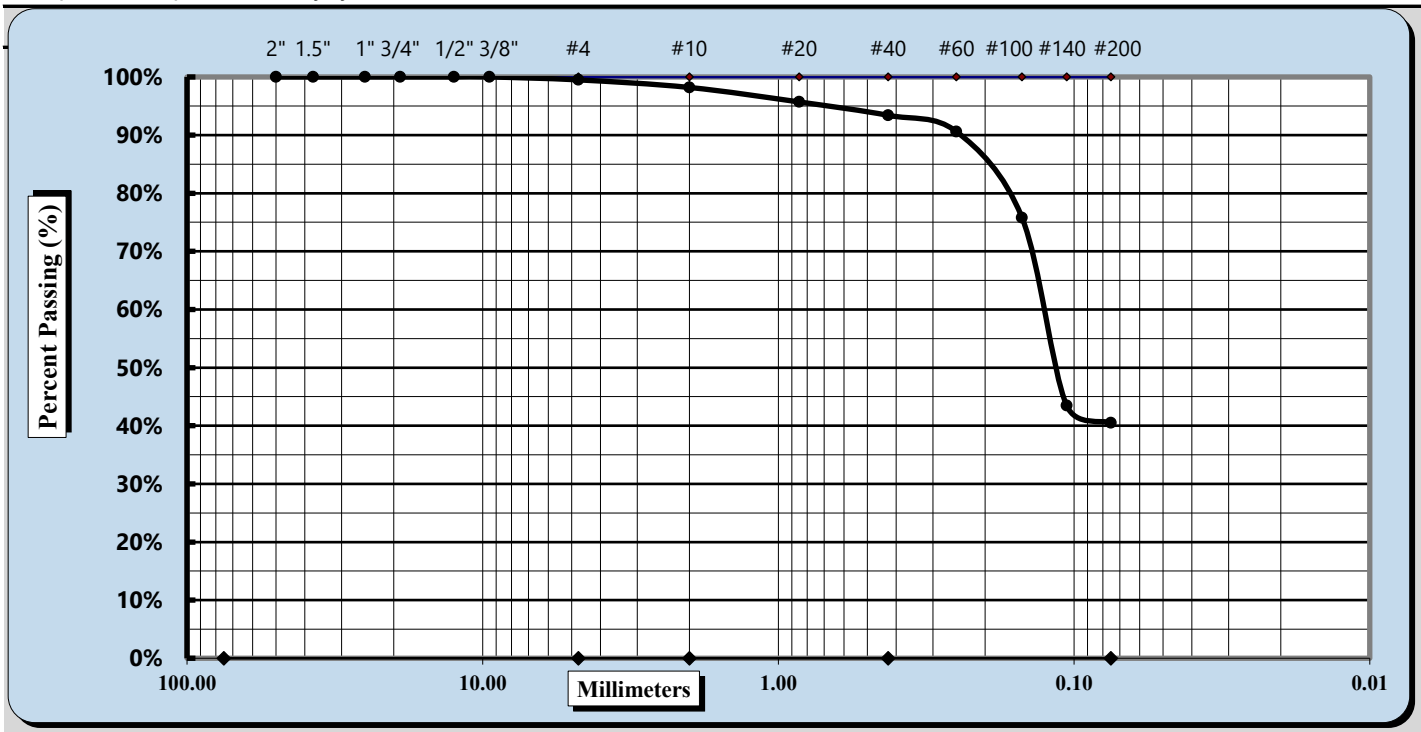
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-4	Type:	Split-spoon	Depth:	6.0 - 8.0'

Sample Description: clayey SAND [SC / A-6(5)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	4.75 mm	Coarse Sand	1.3%	Fine Sand	52.9%
Gravel	0.5%	Medium Sand	4.8%	Silt & Clay	40.5%
Liquid Limit	39	Plastic Limit	16	Plastic Index	23
		Natural Moisture	32.8%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

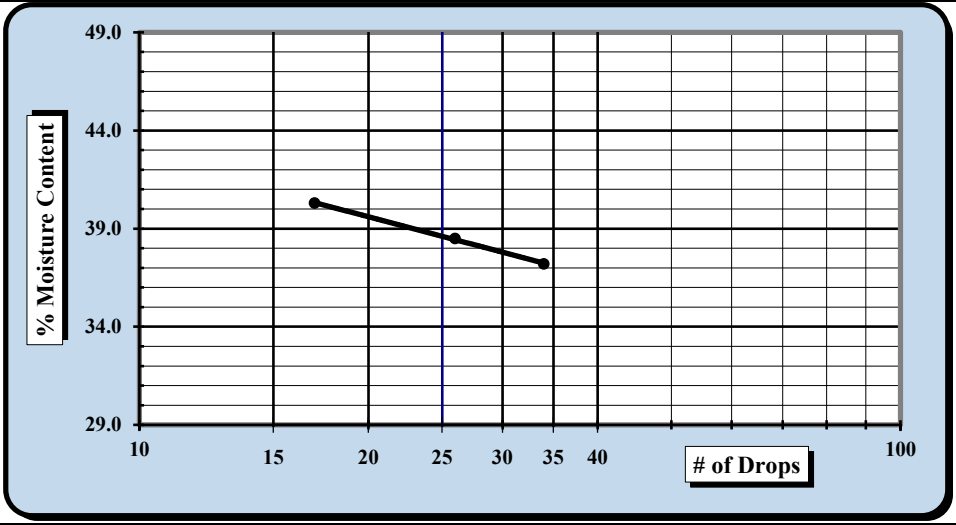
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/25/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/24/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-4	Type: Split-spoon	Depth: 6.0 - 8.0'
Sample Description:	clayey SAND [SC / A-6(5)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Z1	Z2	Z3				7	9	
A	Tare Weight	15.84	16.54	16.74				11.98	12.17	
B	Wet Soil Weight + A	25.95	27.01	27.15				21.16	21.48	
C	Dry Soil Weight + A	23.21	24.10	24.16				19.87	20.22	
D	Water Weight (B-C)	2.74	2.91	2.99				1.29	1.26	
E	Dry Soil Weight (C-A)	7.37	7.56	7.42				7.89	8.05	
F	% Moisture (D/E)*100	37.2%	38.5%	40.3%				16.3%	15.7%	
N	# OF DROPS	34	26	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							16.0%		



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**39**
Plastic Limit	**16**
Plastic Index	**23**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 40.5%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/25/25	Brian Vaughan, P.E.	7/25/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

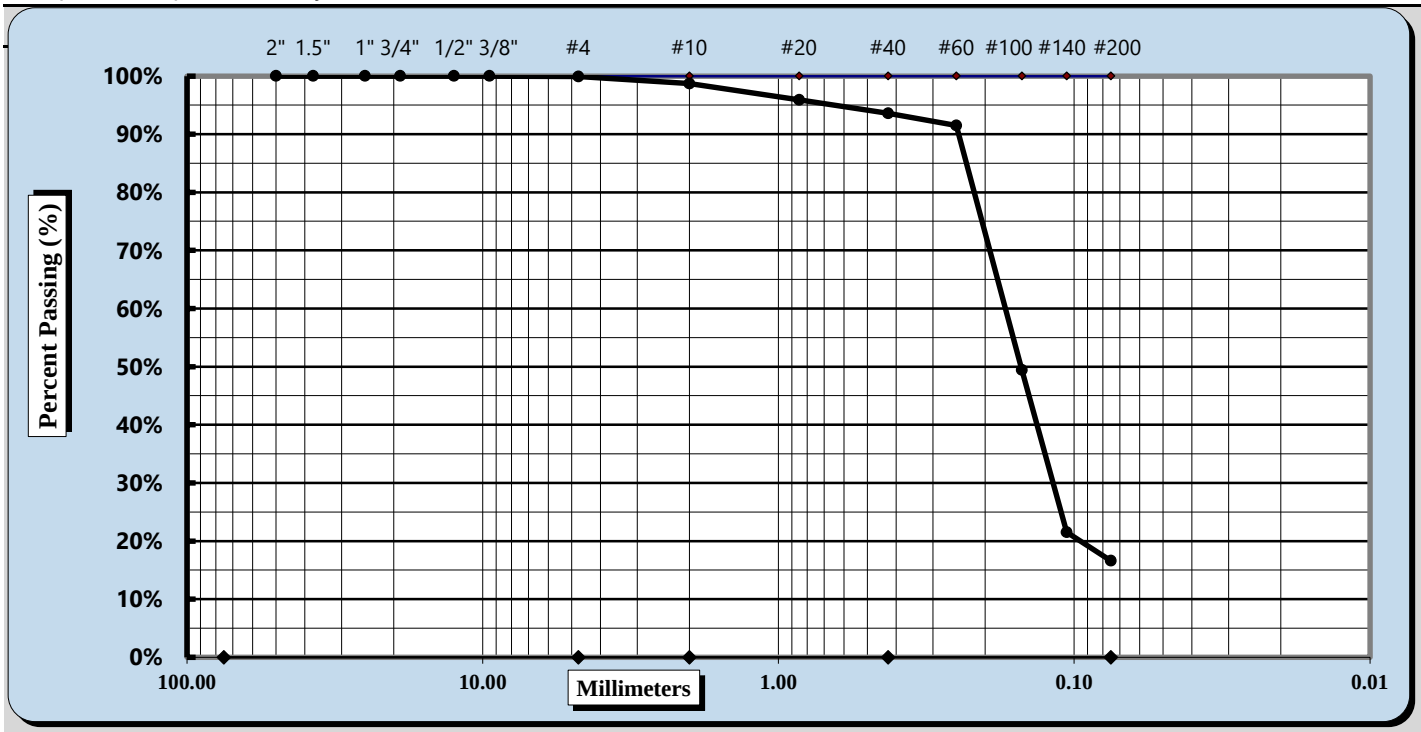
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-5	Type:	Split-spoon	Depth:	8.0 - 10.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	4.75 mm	Coarse Sand	1.2%	Fine Sand	77.0%
Gravel	0.1%	Medium Sand	5.1%	Silt & Clay	16.6%
Liquid Limit	26	Plastic Limit	25	Plastic Index	1
		Natural Moisture	35.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

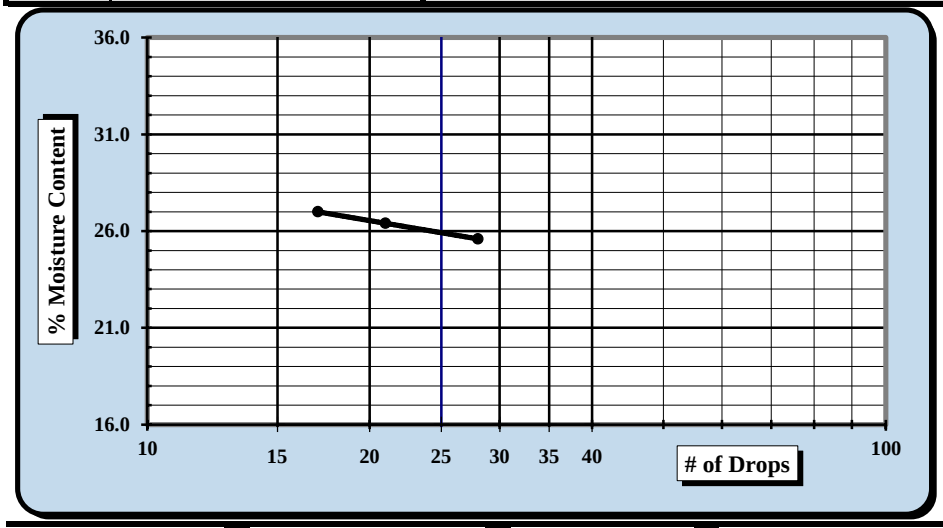
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/28/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/25/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-5	Type: Split-spoon	Depth: 8.0 - 10.0'
Sample Description:	silty SAND (SM / A-2-4)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Y4	Y5	Y6				20	21	
A	Tare Weight	16.77	16.68	15.89				12.09	12.04	
B	Wet Soil Weight + A	26.48	28.04	28.45				20.52	20.63	
C	Dry Soil Weight + A	24.50	25.67	25.78				18.83	18.93	
D	Water Weight (B-C)	1.98	2.37	2.67				1.69	1.70	
E	Dry Soil Weight (C-A)	7.73	8.99	9.89				6.74	6.89	
F	% Moisture (D/E)*100	25.6%	26.4%	27.0%				25.1%	24.7%	
N	# OF DROPS	28	21	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							24.9%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**26**
Plastic Limit	**25**
Plastic Index	**1**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 16.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/28/25	Brian Vaughan, P.E.	7/28/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

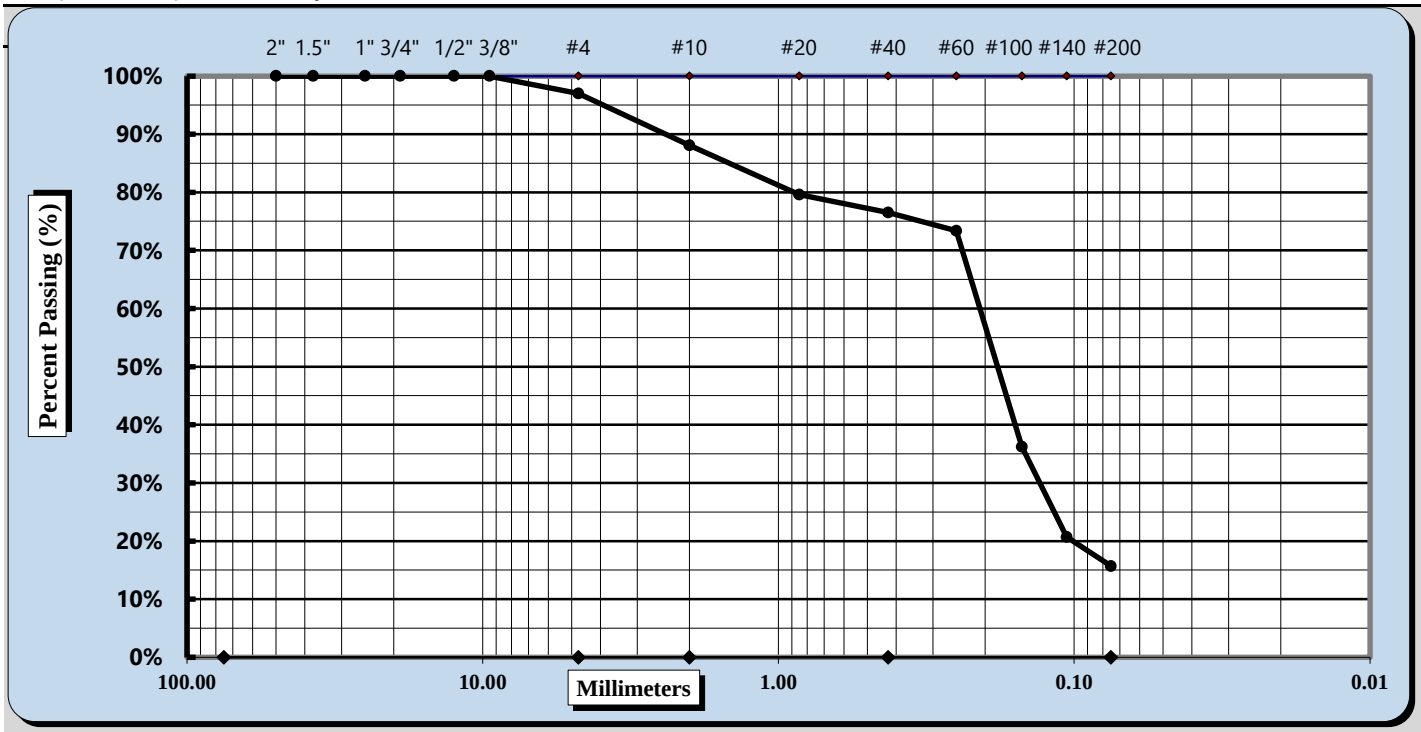
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-6	Type:	Split-spoon	Depth:	13.5 - 15.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	9.50 mm	Coarse Sand	8.9%	Fine Sand	60.8%
Gravel	3.0%	Medium Sand	11.6%	Silt & Clay	15.7%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	32.7%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

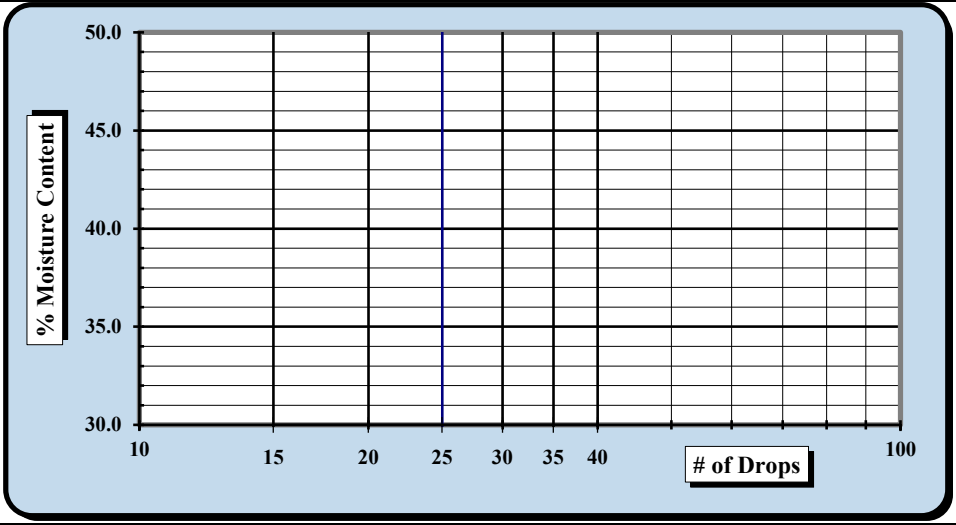
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/29/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/28/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-6	Type: Split-spoon	Depth: 13.5 - 15.0'
Sample Description:	silty SAND (SM / A-2-4)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 15.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/29/25	Brian Vaughan, P.E.	7/29/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

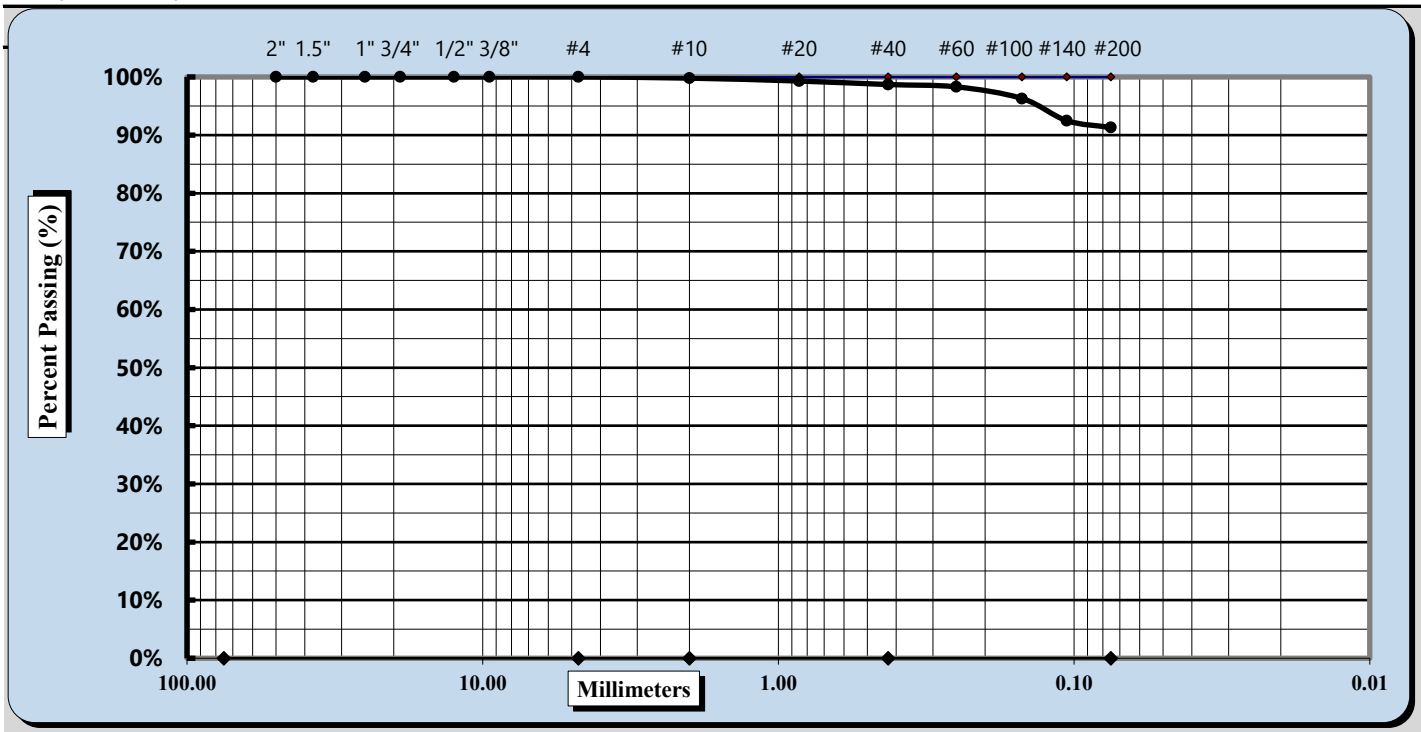
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-7	Type:	Split-spoon	Depth:	18.5 - 20.0'

Sample Description: fat CLAY [CH / A-7-6(41)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	0.85 mm	Coarse Sand	0.2%	Fine Sand	7.4%
Gravel	0.0%	Medium Sand	1.1%	Silt & Clay	91.3%
Liquid Limit	65	Plastic Limit	25	Plastic Index	40
		Natural Moisture	75.3%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

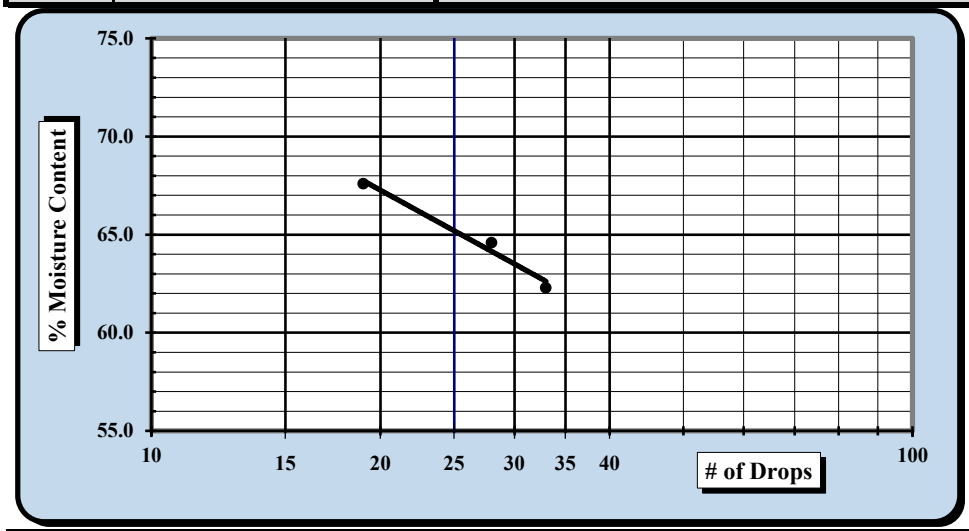
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/29/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/28/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-7	Type: Split-spoon	Depth: 18.5 - 20.0'
Sample Description:	fat CLAY [CH / A-7-6(41)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	P1	P2	P3				1	2	
A	Tare Weight	16.31	15.21	16.52				12.08	12.13	
B	Wet Soil Weight + A	25.32	24.15	25.84				20.07	20.30	
C	Dry Soil Weight + A	21.86	20.64	22.08				18.49	18.66	
D	Water Weight (B-C)	3.46	3.51	3.76				1.58	1.64	
E	Dry Soil Weight (C-A)	5.55	5.43	5.56				6.41	6.53	
F	% Moisture (D/E)*100	62.3%	64.6%	67.6%				24.6%	25.1%	
N	# OF DROPS	33	28	19				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							24.9%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**65**
Plastic Limit	**25**
Plastic Index	**40**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 91.3%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/29/25	Brian Vaughan, P.E.	7/29/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

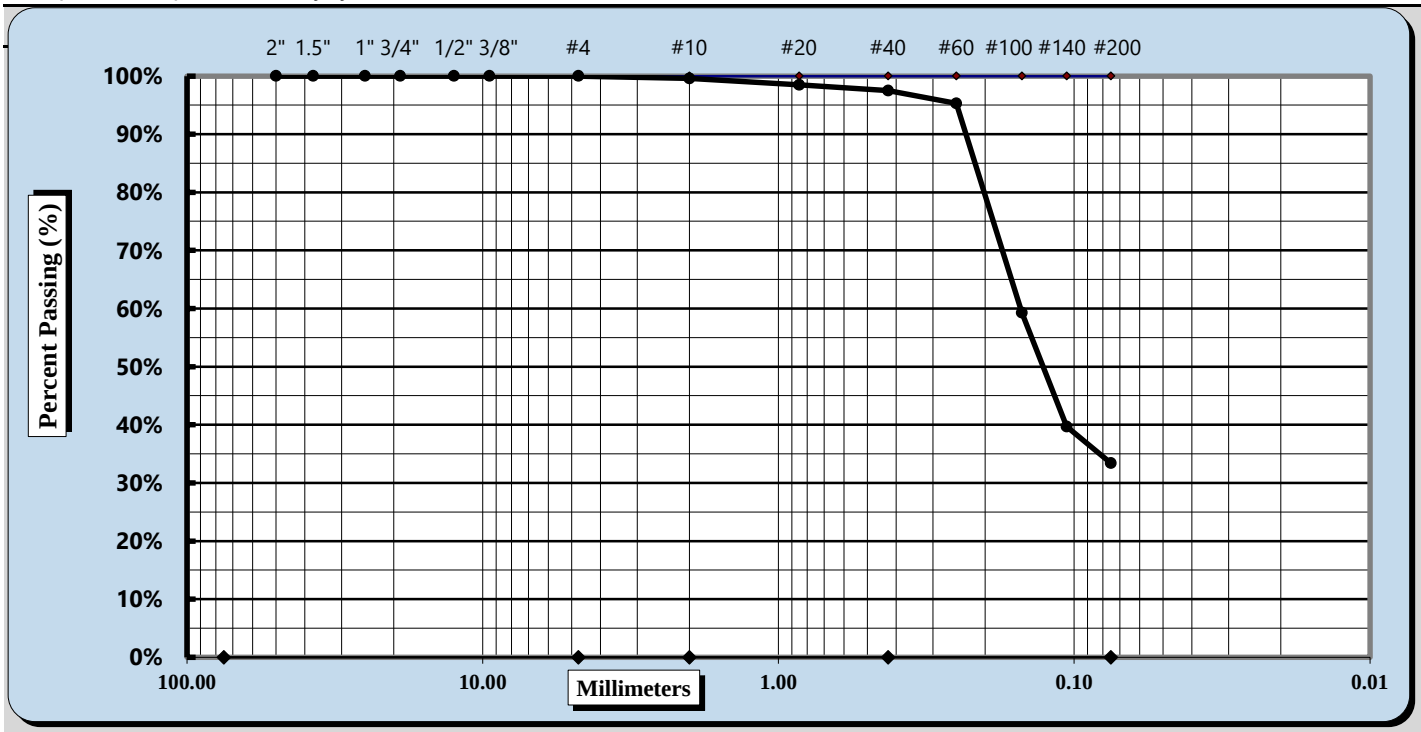
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-8	Type:	Split-spoon	Depth:	23.5 - 25.0'

Sample Description: clayey SAND (SC / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.4%	Fine Sand	64.1%
Gravel	0.0%	Medium Sand	2.1%	Silt & Clay	33.4%
Liquid Limit	28	Plastic Limit	20	Plastic Index	8
		Natural Moisture	53.4%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

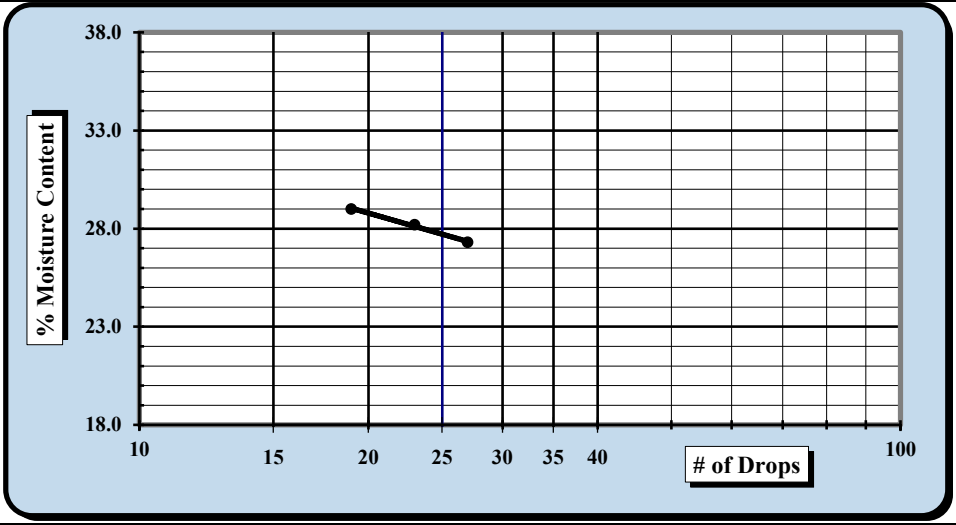
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/29/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/28/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-8	Type: Split-spoon	Depth: 23.5 - 25.0'
Sample Description:	clayey SAND (SC / A-2-4)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Q1	Q2	Q3				3	4	
A	Tare Weight	16.65	16.57	15.71				11.55	12.21	
B	Wet Soil Weight + A	28.97	28.49	24.82				21.00	22.10	
C	Dry Soil Weight + A	26.33	25.87	22.77				19.45	20.47	
D	Water Weight (B-C)	2.64	2.62	2.05				1.55	1.63	
E	Dry Soil Weight (C-A)	9.68	9.30	7.06				7.90	8.26	
F	% Moisture (D/E)*100	27.3%	28.2%	29.0%				19.6%	19.7%	
N	# OF DROPS	27	23	19				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							19.7%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**28**
Plastic Limit	**20**
Plastic Index	**8**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 33.4%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/29/25	Brian Vaughan, P.E.	7/29/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

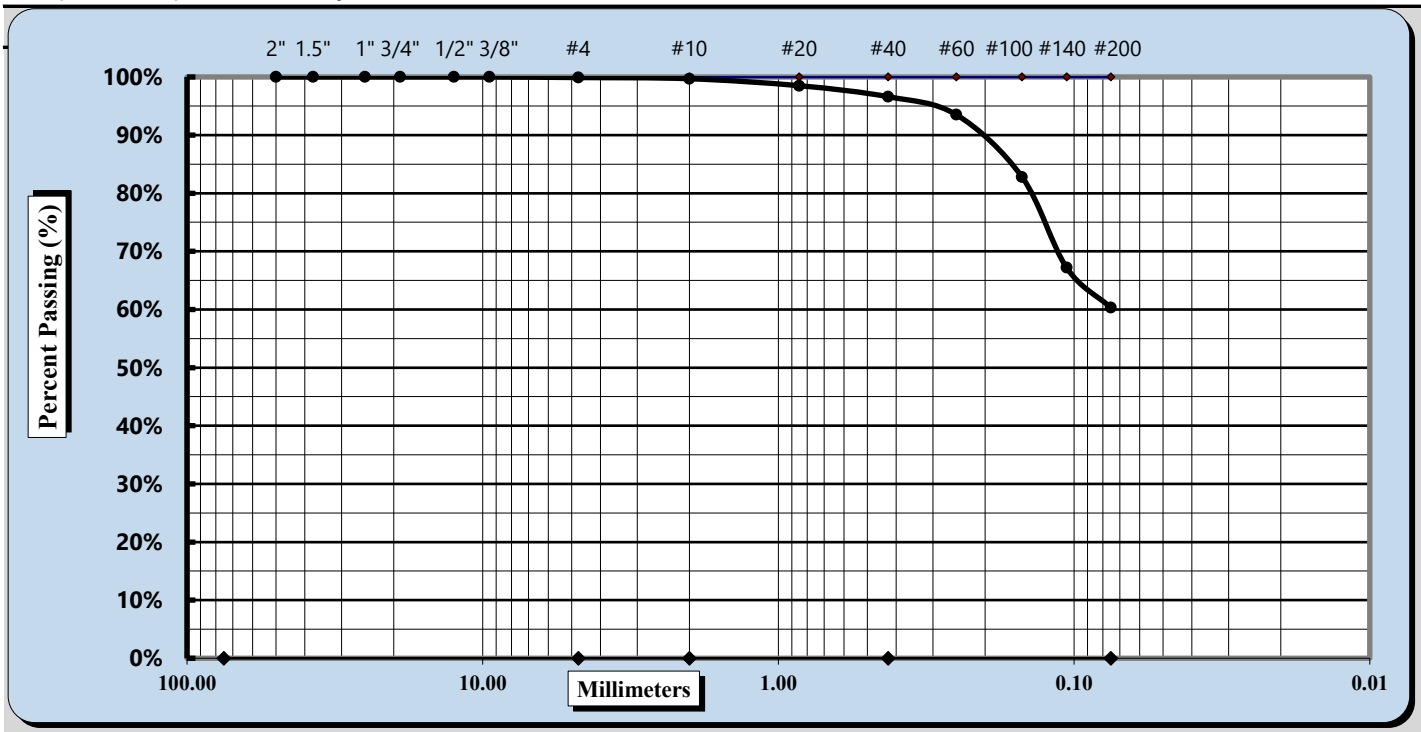
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-9	Type:	Split-spoon	Depth:	28.5 - 30.0'

Sample Description: sandy lean CLAY [CL / A-6(7)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.2%	Fine Sand	36.3%
Gravel	0.1%	Medium Sand	3.1%	Silt & Clay	60.3%
Liquid Limit	32	Plastic Limit	16	Plastic Index	16
		Natural Moisture	44.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

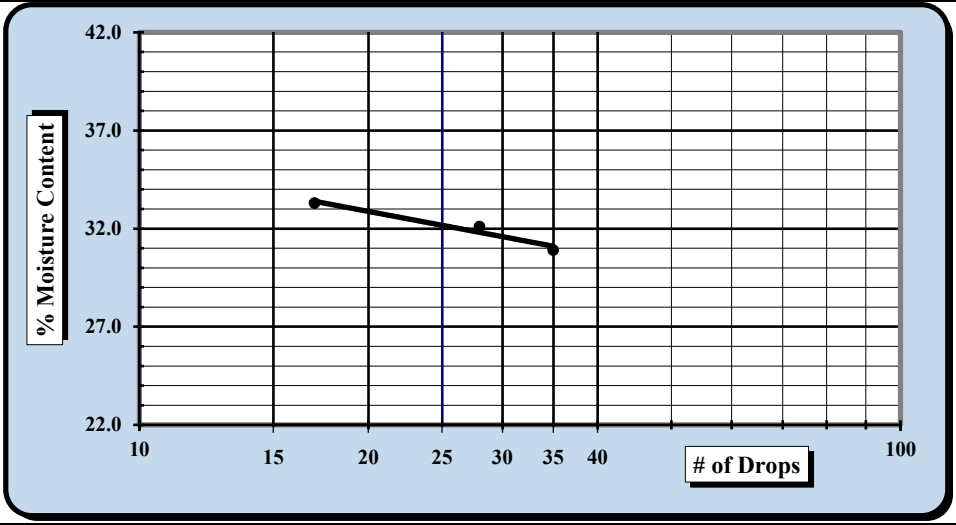
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/29/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/28/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-9	Type: Split-spoon	Depth: 28.5 - 30.0'
Sample Description:	sandy lean CLAY [CL / A-6(7)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Y1	Y2	Y3				5	6	
A	Tare Weight	16.36	16.39	16.95				12.07	12.28	
B	Wet Soil Weight + A	25.77	25.61	26.19				20.48	20.65	
C	Dry Soil Weight + A	23.55	23.37	23.88				19.30	19.50	
D	Water Weight (B-C)	2.22	2.24	2.31				1.18	1.15	
E	Dry Soil Weight (C-A)	7.19	6.98	6.93				7.23	7.22	
F	% Moisture (D/E)*100	30.9%	32.1%	33.3%				16.3%	15.9%	
N	# OF DROPS	35	28	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							16.1%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**32**
Plastic Limit	**16**
Plastic Index	**16**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 60.3%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/29/25	Brian Vaughan, P.E.	7/29/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

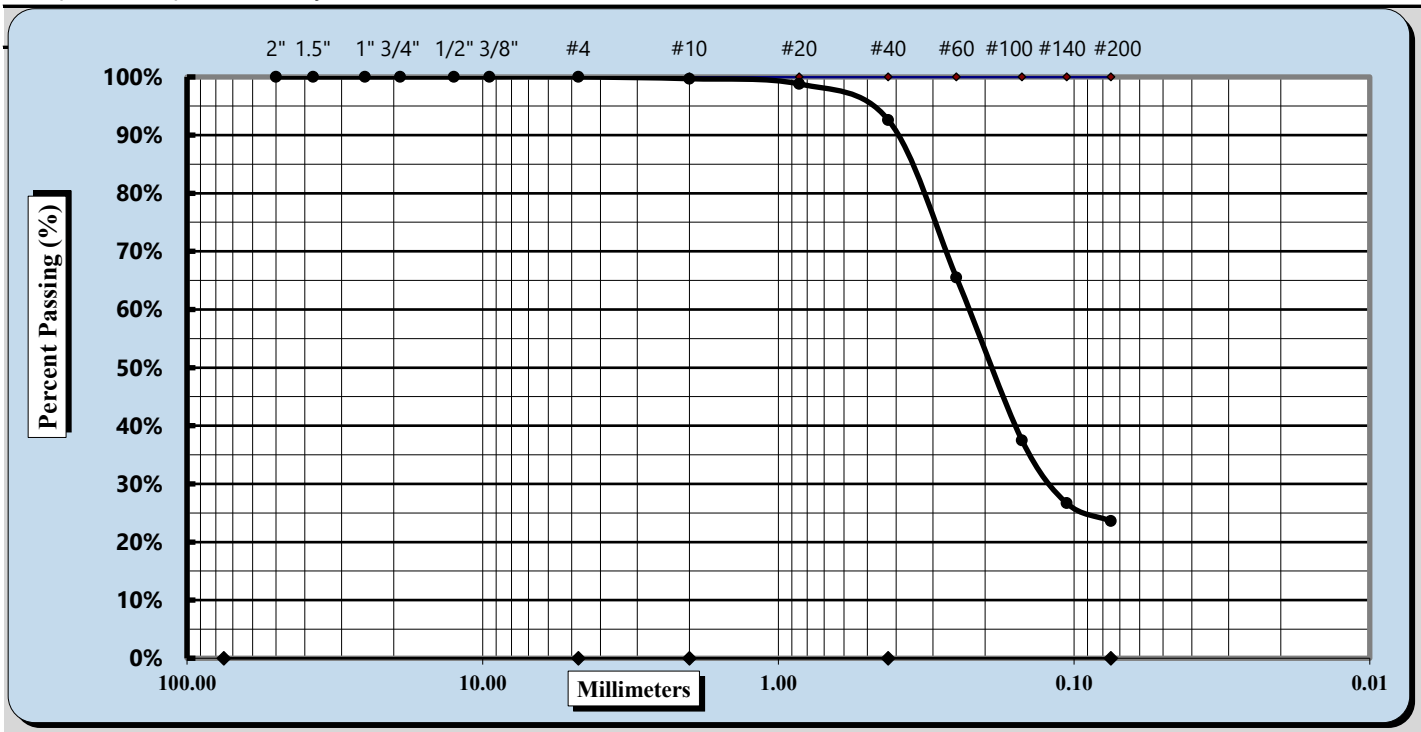
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-10	Type:	Split-spoon	Depth:	33.5 - 35.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.3%	Fine Sand	69.0%
Gravel	0.0%	Medium Sand	7.1%	Silt & Clay	23.6%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	34.8%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

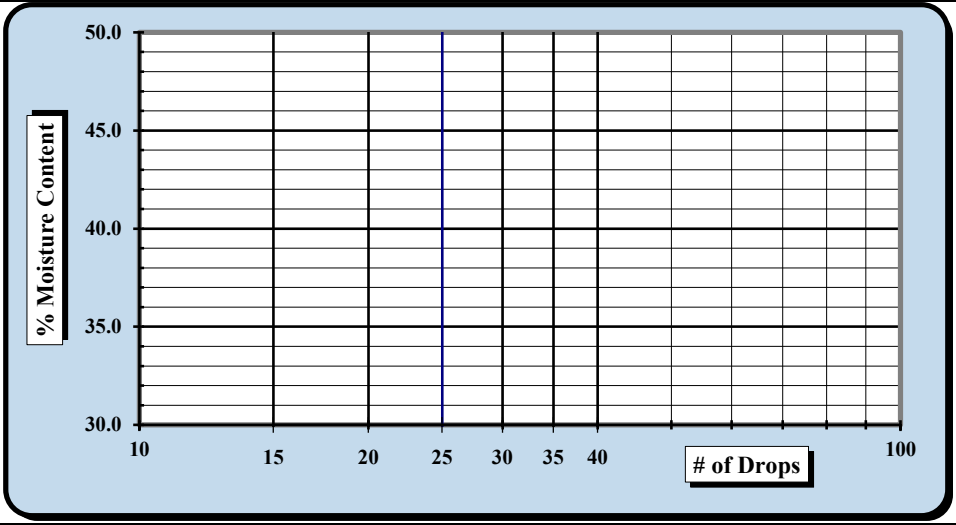
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/28/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/25/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-10	Type: Split-spoon	Depth: 33.5 - 35.0'
Sample Description:	silty SAND (SM / A-2-4)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 23.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/28/25	Brian Vaughan, P.E.	7/28/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

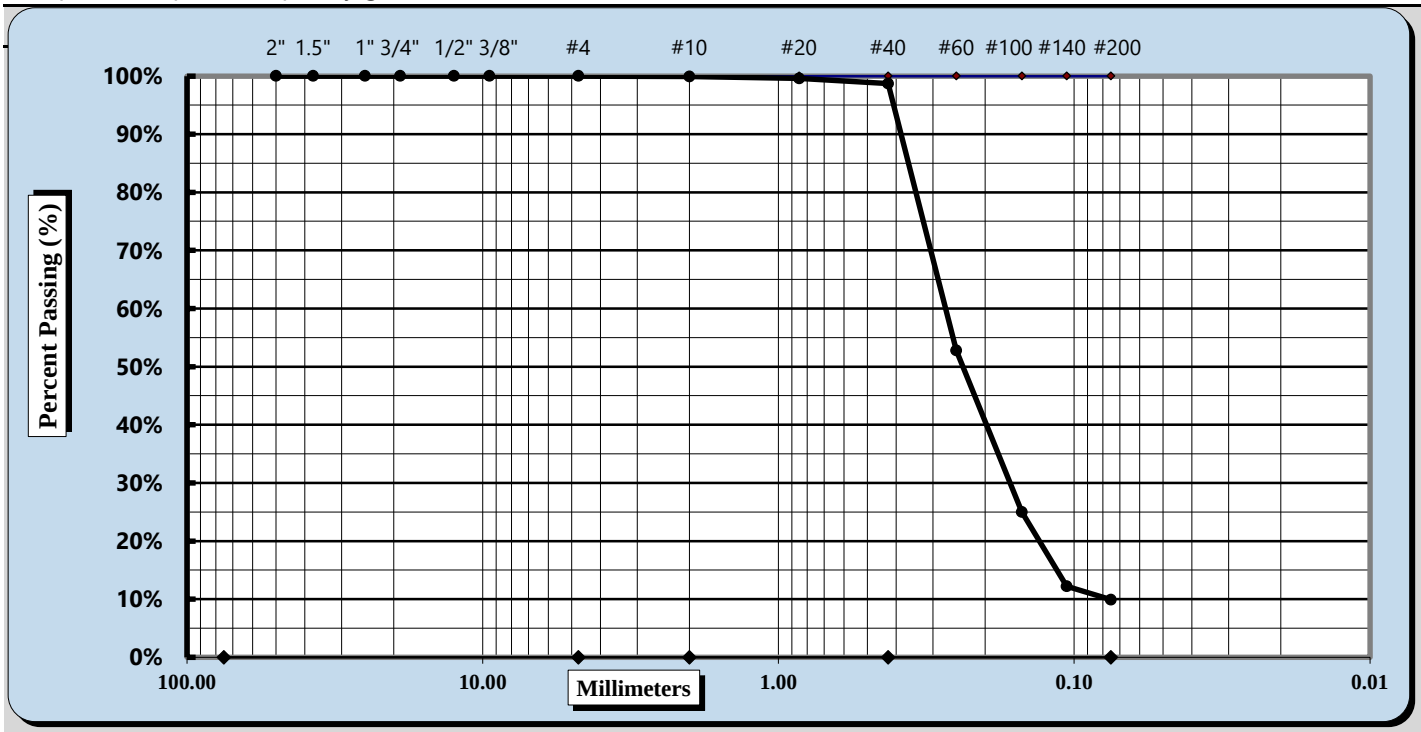
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-11	Type:	Split-spoon	Depth:	38.5 - 40.0'

Sample Description: poorly graded SAND with silt (SP-SM / A-3)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.1%	Fine Sand	88.8%
Gravel	0.0%	Medium Sand	1.2%	Silt & Clay	9.9%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	26.0%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

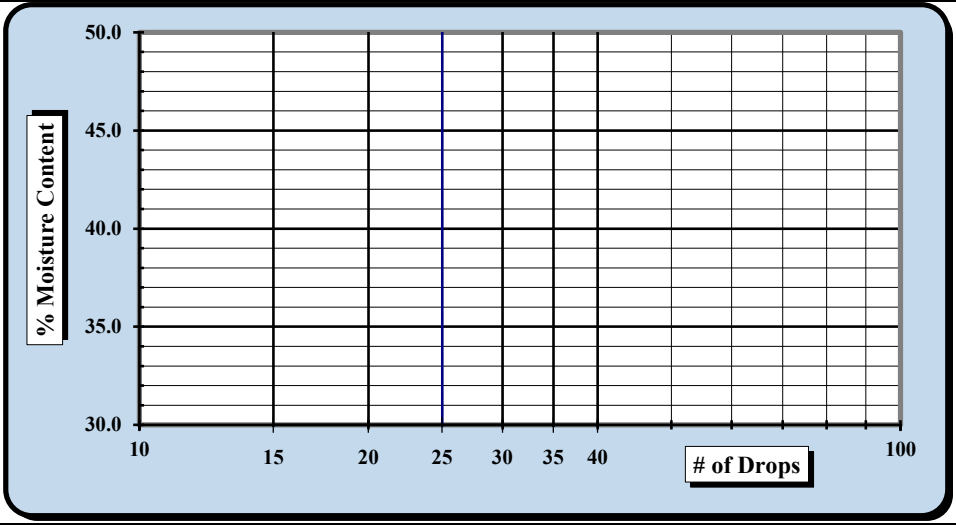
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/28/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/25/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-11	Type: Split-spoon	Depth: 38.5 - 40.0'
Sample Description:	poorly graded SAND with silt (SP-SM / A-3)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 9.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/28/25	Brian Vaughan, P.E.	7/28/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

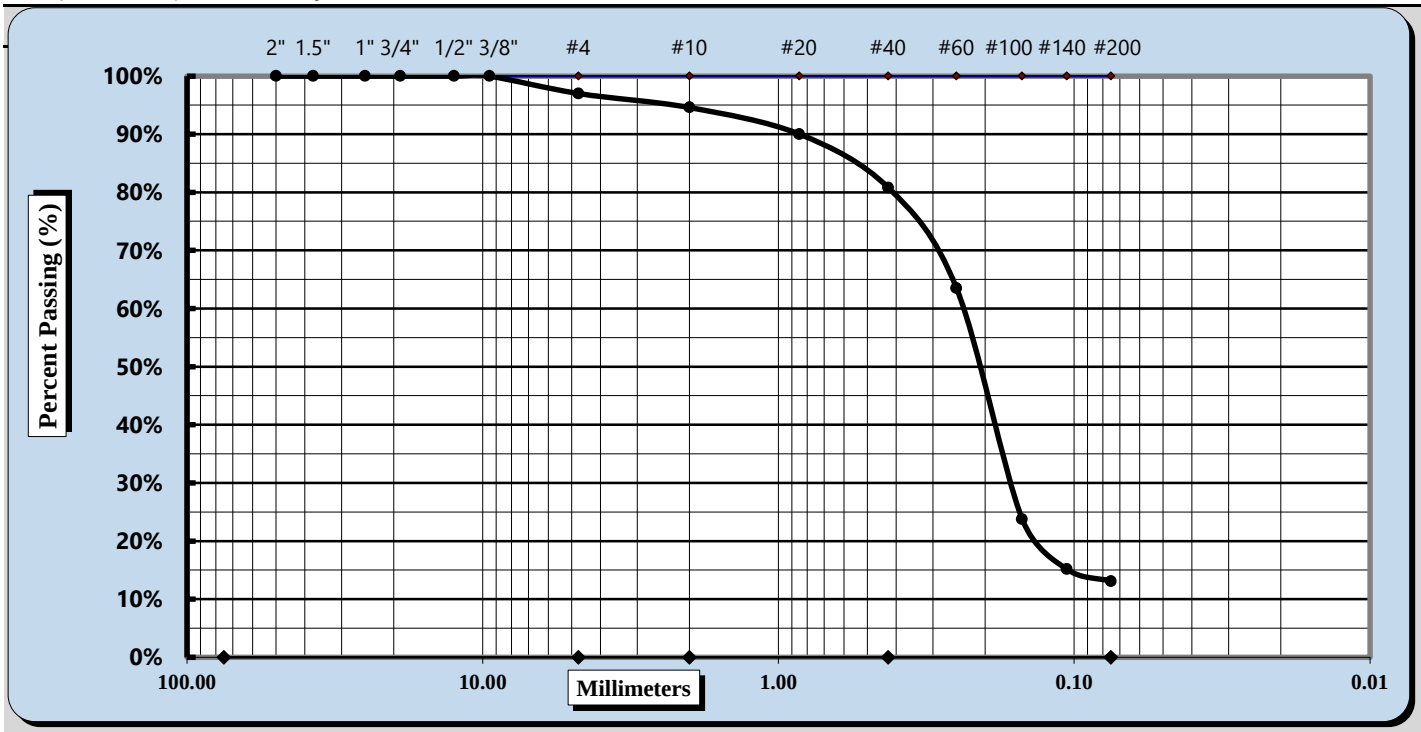
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-12	Type:	Split-spoon	Depth:	43.5 - 45.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	9.50 mm	Coarse Sand	2.4%	Fine Sand	67.7%
Gravel	3.0%	Medium Sand	13.8%	Silt & Clay	13.1%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	28.7%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

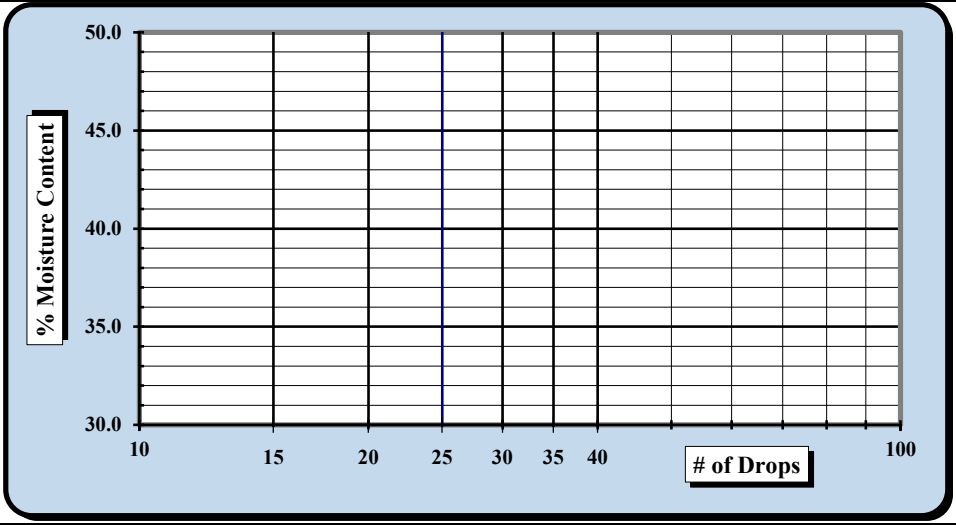
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/28/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/25/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-12	Type: Split-spoon	Depth: 43.5 - 45.0'
Sample Description:	silty SAND (SM / A-2-4)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 13.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/28/25	Brian Vaughan, P.E.	7/28/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

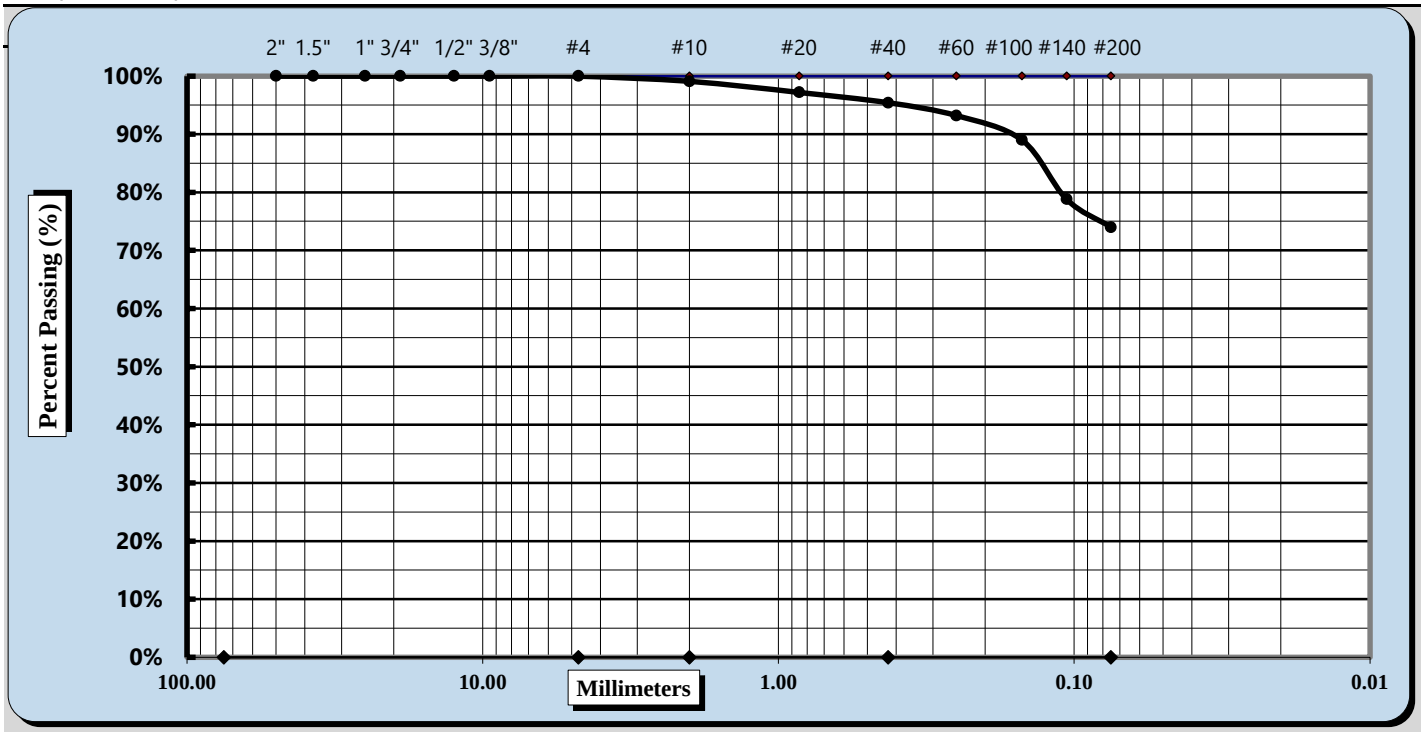
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-13	Type:	Split-spoon	Depth:	48.5 - 50.0'

Sample Description: fat CLAY with sand [CH / A-7-5(31)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.9%	Fine Sand	21.4%
Gravel	0.0%	Medium Sand	3.7%	Silt & Clay	74.0%
Liquid Limit	69	Plastic Limit	30	Plastic Index	39
		Natural Moisture	57.1%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

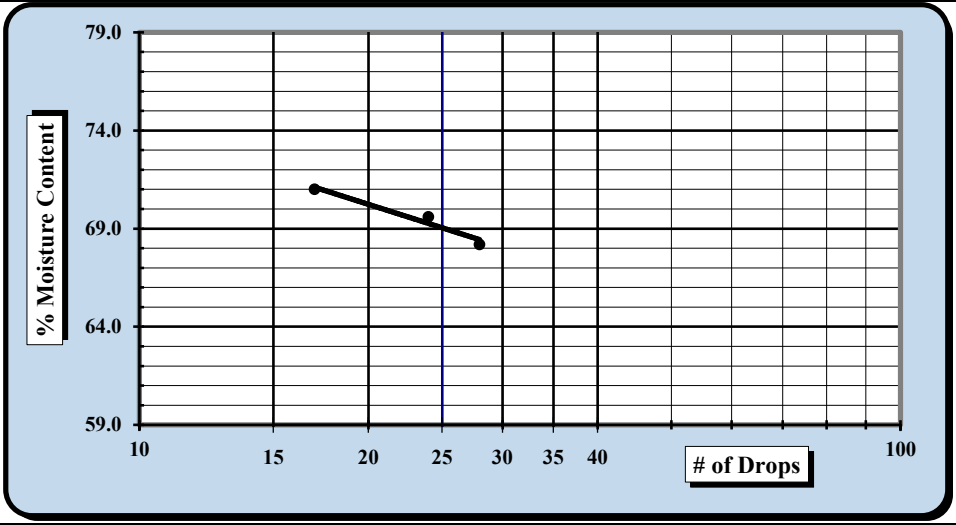
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/28/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/25/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-13	Type: Split-spoon	Depth: 48.5 - 50.0'
Sample Description:	fat CLAY with sand [CH / A-7-5(31)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Z4	Z5	Z6				22	23	
A	Tare Weight	15.72	15.53	16.91				11.89	12.03	
B	Wet Soil Weight + A	24.82	25.13	25.15				22.87	22.69	
C	Dry Soil Weight + A	21.13	21.19	21.73				20.35	20.25	
D	Water Weight (B-C)	3.69	3.94	3.42				2.52	2.44	
E	Dry Soil Weight (C-A)	5.41	5.66	4.82				8.46	8.22	
F	% Moisture (D/E)*100	68.2%	69.6%	71.0%				29.8%	29.7%	
N	# OF DROPS	28	24	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							29.8%		



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**69**
Plastic Limit	**30**
Plastic Index	**39**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 74.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/28/25	Brian Vaughan, P.E.	7/28/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

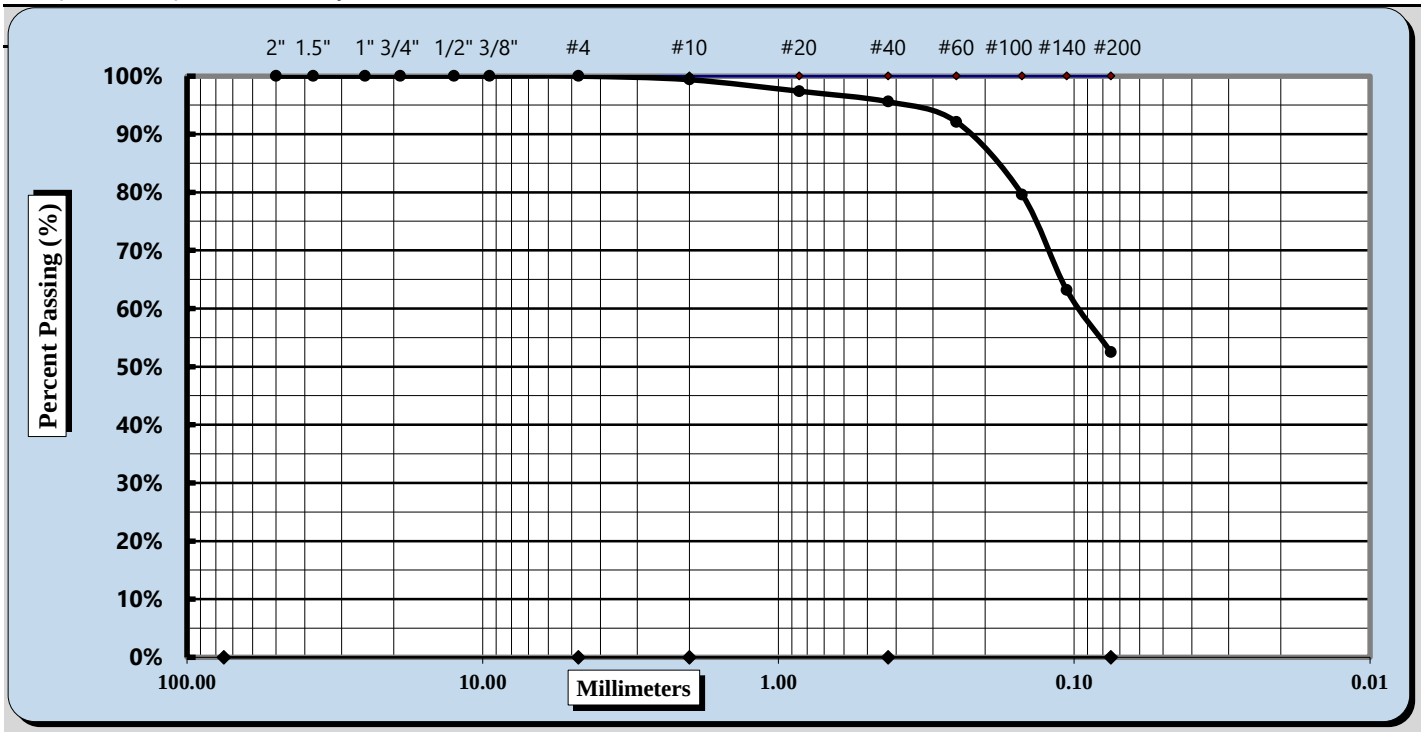
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-15	Type:	Split-spoon	Depth:	58.5 - 60.0'

Sample Description: sandy fat CLAY [CH / A-7-6(14)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.6%	Fine Sand	43.1%
Gravel	0.0%	Medium Sand	3.8%	Silt & Clay	52.5%
Liquid Limit	61	Plastic Limit	29	Plastic Index	32
		Natural Moisture	47.7%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

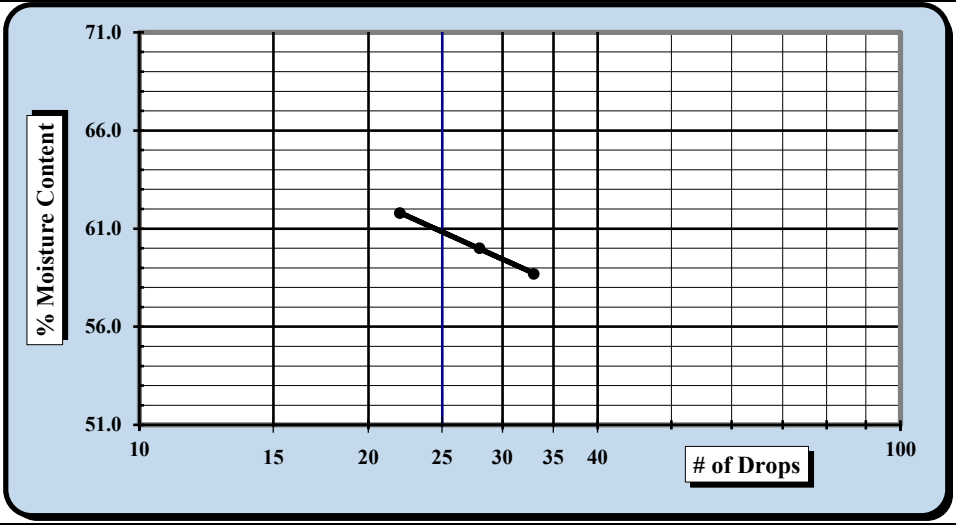
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/29/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/28/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-15	Type: Split-spoon	Depth: 58.5 - 60.0'
Sample Description:	sandy fat CLAY [CH / A-7-6(14)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Z1	Z2	Z3				7	9	
A	Tare Weight	15.89	16.58	16.79				11.97	12.20	
B	Wet Soil Weight + A	26.08	26.29	26.48				20.11	20.51	
C	Dry Soil Weight + A	22.31	22.65	22.78				18.26	18.63	
D	Water Weight (B-C)	3.77	3.64	3.70				1.85	1.88	
E	Dry Soil Weight (C-A)	6.42	6.07	5.99				6.29	6.43	
F	% Moisture (D/E)*100	58.7%	60.0%	61.8%				29.4%	29.2%	
N	# OF DROPS	33	28	22				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							29.3%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**61**
Plastic Limit	**29**
Plastic Index	**32**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 52.5%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/29/25	Brian Vaughan, P.E.	7/29/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

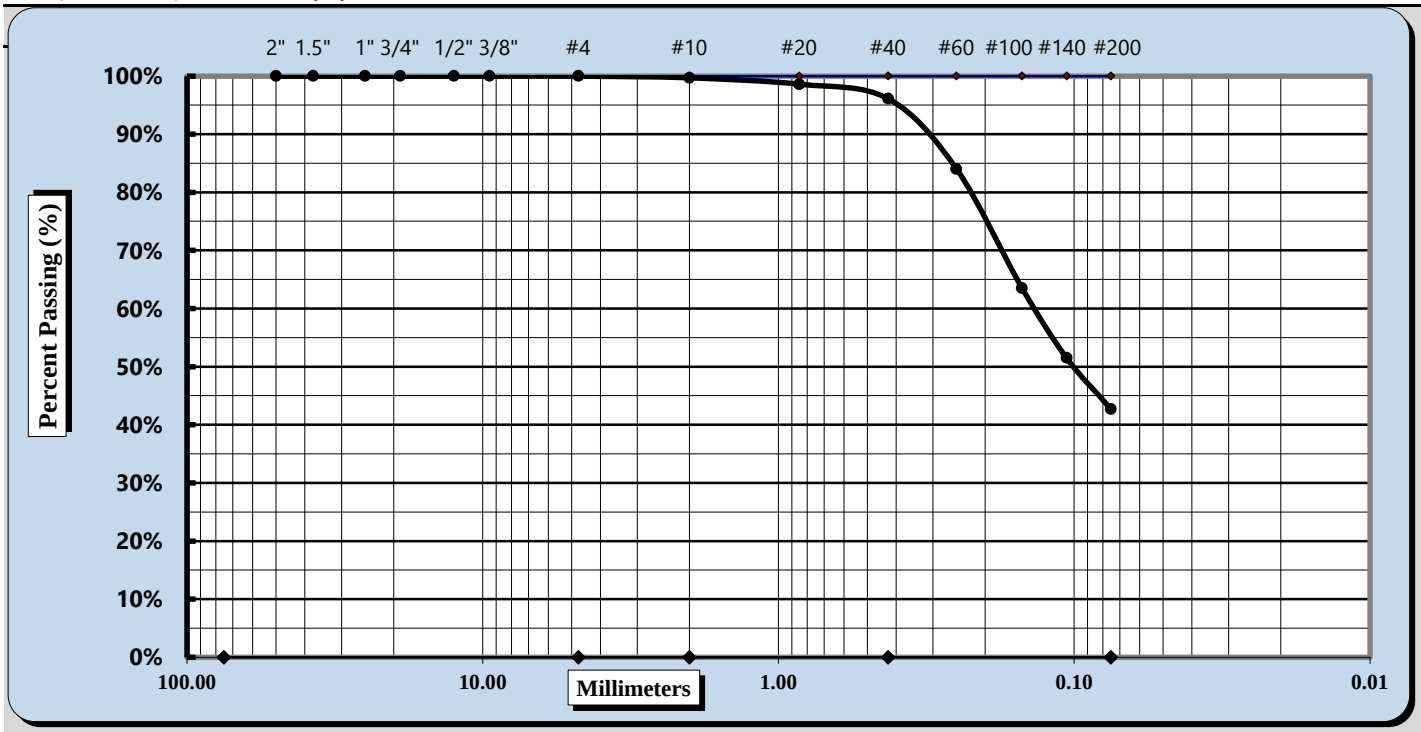
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-17	Type:	Split-spoon	Depth:	68.5 - 70.0'

Sample Description: clayey SAND [SC / A-7-6(5)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.3%	Fine Sand	53.4%
Gravel	0.0%	Medium Sand	3.6%	Silt & Clay	42.7%
Liquid Limit	50	Plastic Limit	28	Plastic Index	22
		Natural Moisture	40.0%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

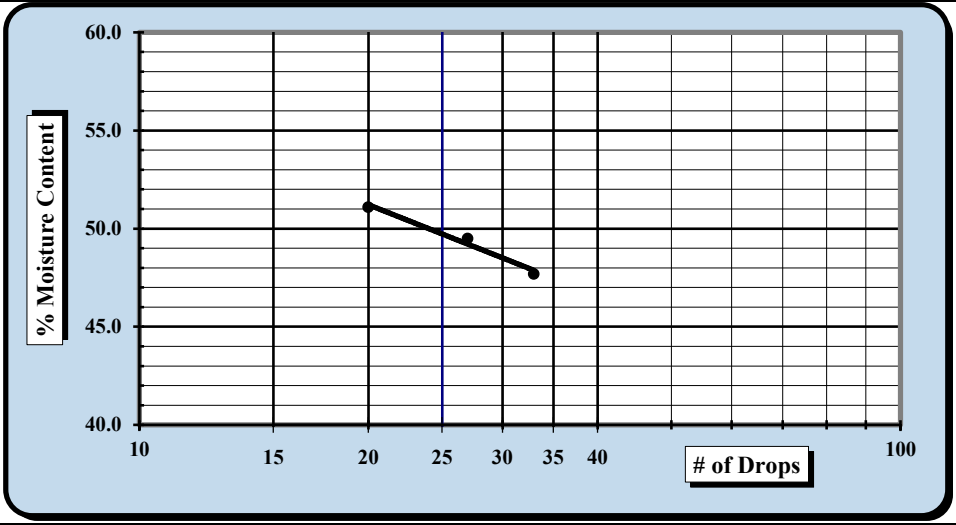
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/30/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/29/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-17	Type: Split-spoon	Depth: 68.5 - 70.0'
Sample Description:	clayey SAND [SC / A-7-6(5)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	P4	P5	P6				12	13	
A	Tare Weight	16.57	16.55	15.96				11.14	12.09	
B	Wet Soil Weight + A	26.29	26.21	25.95				20.24	21.74	
C	Dry Soil Weight + A	23.15	23.01	22.57				18.23	19.62	
D	Water Weight (B-C)	3.14	3.20	3.38				2.01	2.12	
E	Dry Soil Weight (C-A)	6.58	6.46	6.61				7.09	7.53	
F	% Moisture (D/E)*100	47.7%	49.5%	51.1%				28.3%	28.2%	
N	# OF DROPS	33	27	20				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							28.3%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**50**
Plastic Limit	**28**
Plastic Index	**22**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 42.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/30/25	Brian Vaughan, P.E.	7/30/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

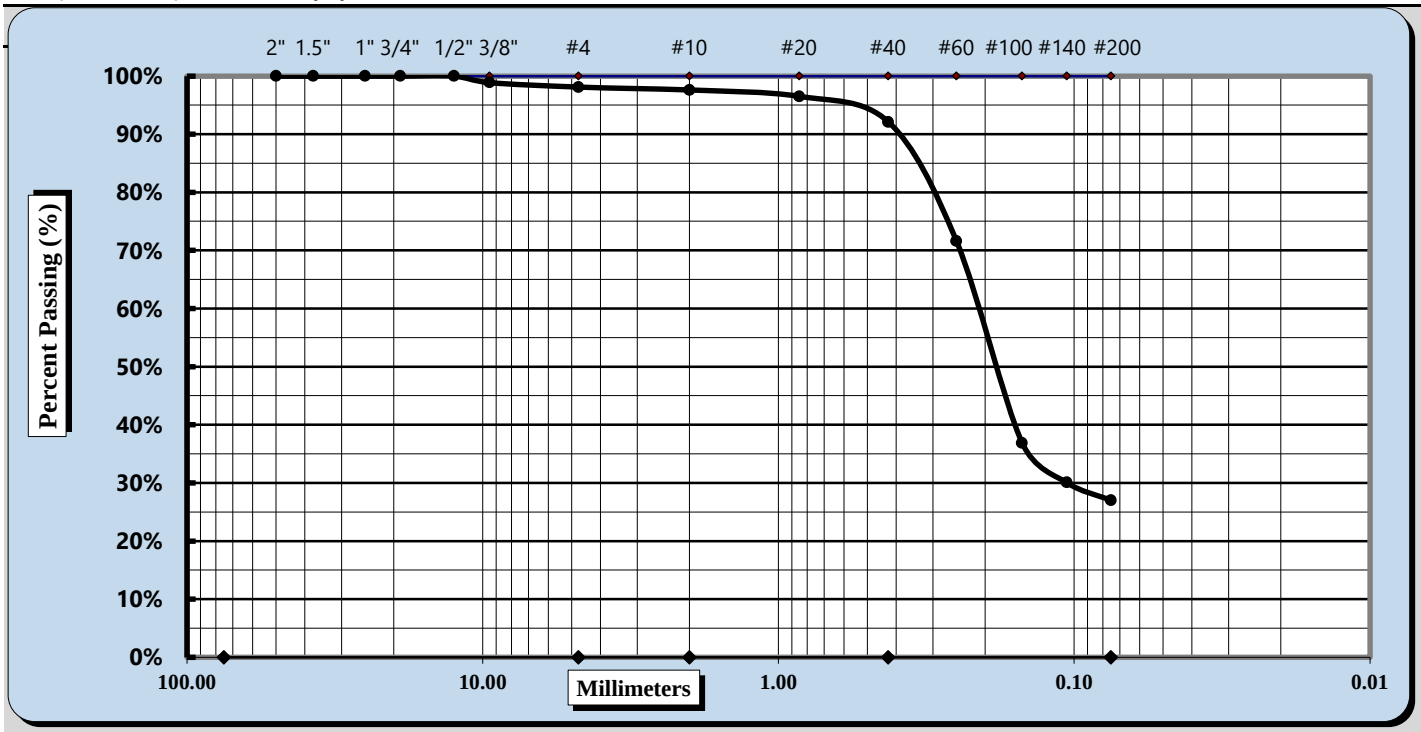
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-19	Type:	Split-spoon	Depth:	78.5 - 80.0'

Sample Description: clayey SAND [SC / A-2-7(2)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	19.0 mm	Coarse Sand	0.5%	Fine Sand	65.1%
Gravel	1.9%	Medium Sand	5.5%	Silt & Clay	27.0%
Liquid Limit	50	Plastic Limit	24	Plastic Index	26
		Natural Moisture	35.4%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

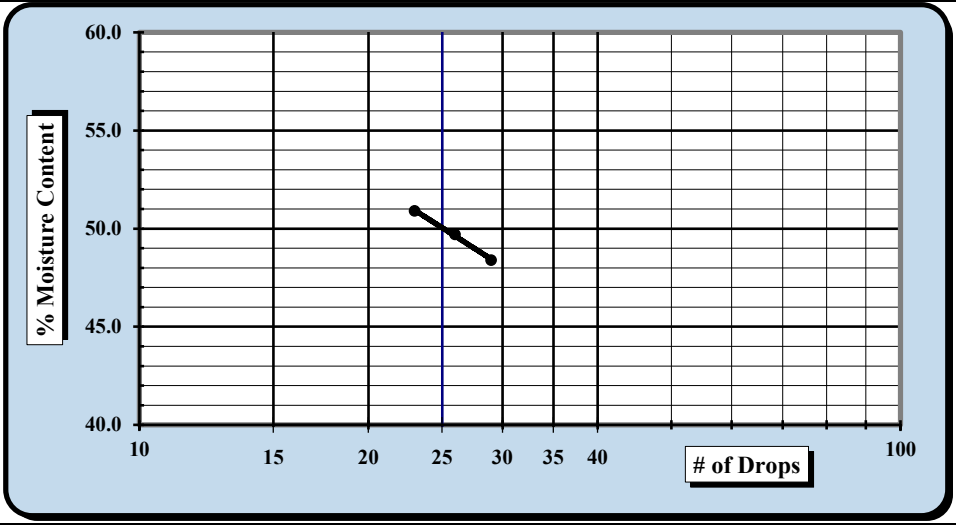
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/30/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/29/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-19	Type: Split-spoon	Depth: 78.5 - 80.0'
Sample Description:	clayey SAND [SC / A-2-7(2)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	Q4	Q5	Q6				17	18	
A	Tare Weight	16.62	16.75	16.76				12.10	12.09	
B	Wet Soil Weight + A	27.02	27.08	27.02				20.92	21.06	
C	Dry Soil Weight + A	23.63	23.65	23.56				19.24	19.34	
D	Water Weight (B-C)	3.39	3.43	3.46				1.68	1.72	
E	Dry Soil Weight (C-A)	7.01	6.90	6.80				7.14	7.25	
F	% Moisture (D/E)*100	48.4%	49.7%	50.9%				23.5%	23.7%	
N	# OF DROPS	29	26	23				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							23.6%		



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**50**
Plastic Limit	**24**
Plastic Index	**26**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 27.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/30/25	Brian Vaughan, P.E.	7/30/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

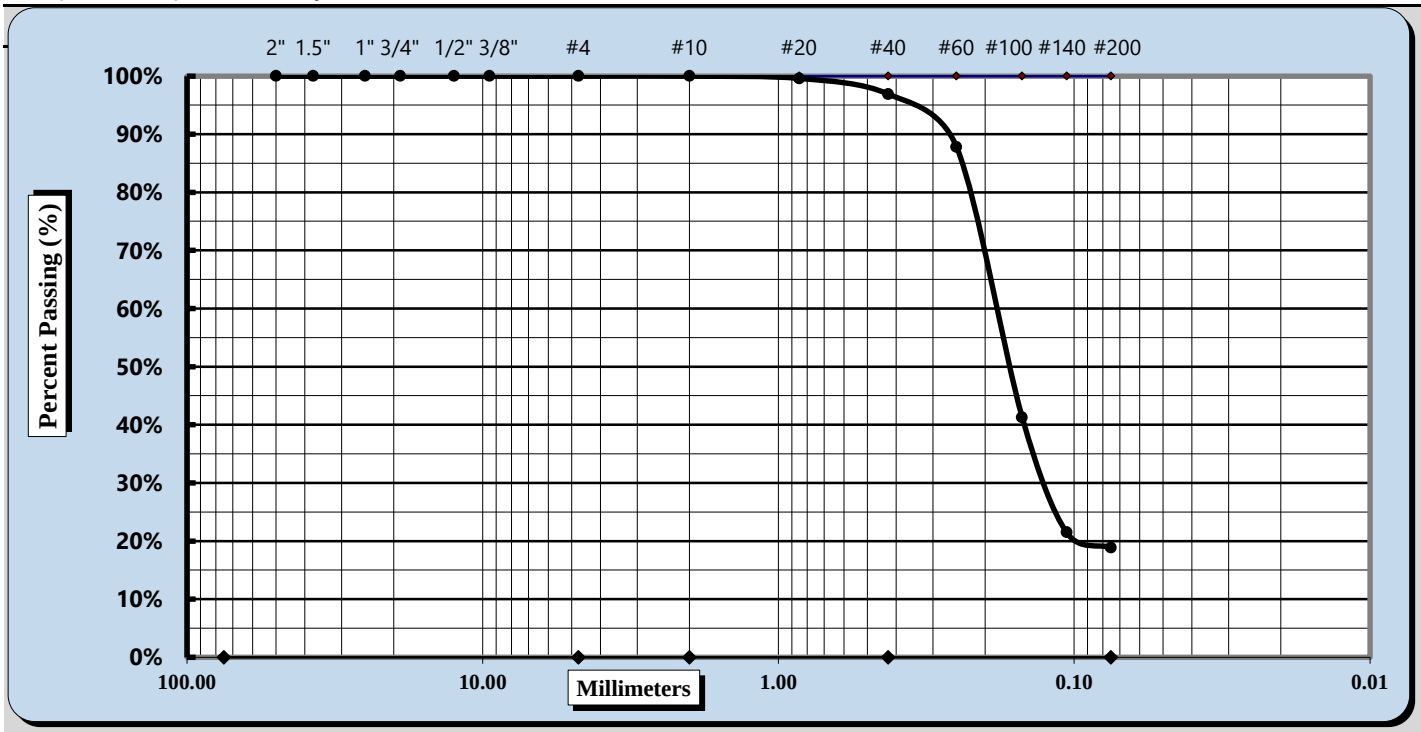
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/4/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	7/28 - 8/01/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	B-018	Log #:	39g	Sample Date(s):	6/17 - 6/24/25
Location:	SS-23	Type:	Split-spoon	Depth:	98.5 - 100.0'

Sample Description: silty SAND (SM / A-2-4)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.0%	Fine Sand	78.0%
Gravel	0.0%	Medium Sand	3.1%	Silt & Clay	18.9%
Liquid Limit	*ND	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	27.3%		

Notes / Deviations / References:

*ND=The Liquid Limit Could Not be Determined.

Brian Vaughan, P.E.		QA Supervisor	8/4/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

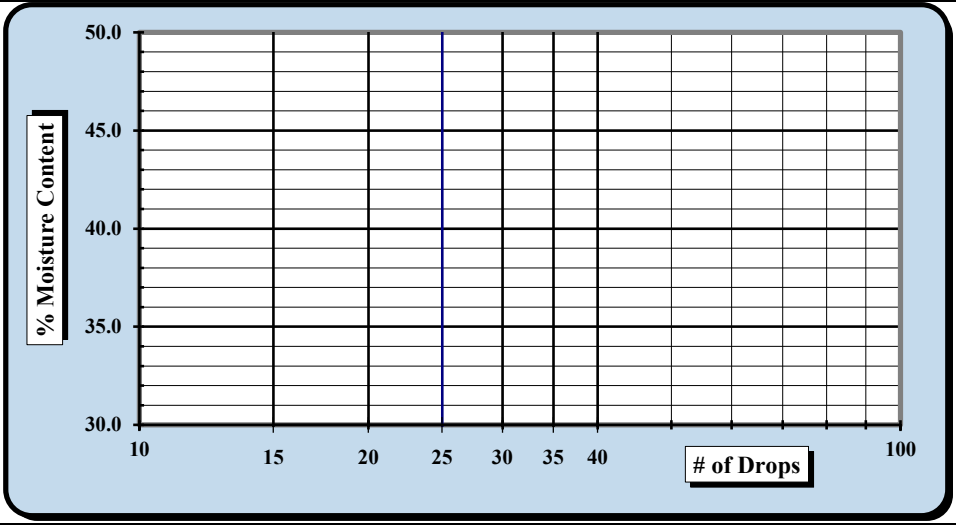
ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Spartanburg: 301 Zima Park Drive, Spartanburg, SC 29301

Project #:	200424A	Report Date:	7/30/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	7/29/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	B-018	Log #: 177	Sample Date(s): 6/17 - 6/24/25
Location:	SS-23	Type: Split-spoon	Depth: 98.5 - 100.0'
Sample Description:	silty SAND (SM / A-2-4)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	7537	1/31/2025	Grooving tool	34000	9/23/2024
LL Apparatus	13859	6/27/2025			
Oven	7313	7/29/2024			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.990	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 18..9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Jennifer Myers	7/30/25	Brian Vaughan, P.E.	7/30/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/02/23
Project Name:	526 Longpoint Road Interchange	Test Date(s):	5/15 - 5/16/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Sampled by:	Soil Consultants, Inc.	Sample Date(s):	3/02/23
Sampling Method:	Split-spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 13942 Calibration Date: 11/01/22 Oven ID. 13978 Calibration Date: 10/01/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft.		grams	grams	grams	grams	%	
EMB01	SS-1	0.0-2.0'	CL-3	61.87	369.17	316.34	52.83	20.8%	
EMB01	SS-2	2.0-4.0'	CL-2	68.76	374.03	314.54	59.49	24.2%	
EMB01	SS-3	4.0-6.0'	CL-1	92.48	387.39	304.19	83.20	39.3%	
EMB01	SS-4	6.0-8.0'	BK-9	111.59	376.48	313.08	63.40	31.5%	
EMB01	SS-5	8.0-10.0'	BK-13	103.83	421.39	336.65	84.74	36.4%	
EMB01	SS-6	13.5-15.0'	BK-5	103.98	402.50	299.45	103.05	52.7%	
EMB01	SS-7	18.5-20.0'	BK-13	99.75	403.17	287.61	115.56	61.5%	
EMB01	SS-8	23.5-25.0'	PC-1	109.08	401.06	325.63	75.43	34.8%	
EMB01	SS-9	28.5-30.0'	Y-3	131.66	387.98	319.54	68.44	36.4%	
EMB01	SS-10	33.5-35.0'	BK-8	109.41	417.96	310.37	107.59	53.5%	
EMB01	SS-11	38.5-40.0'	BJ-1	120.41	349.66	296.18	53.48	30.4%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Benjamin Kovaleski		NICET Lab Level III / 117226	6/02/23
Technician Name		*Certification Type / No.*	*Date*
Brian Vaughan, P.E.	Brian Vaughan	QA Supervisor	6/02/23
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

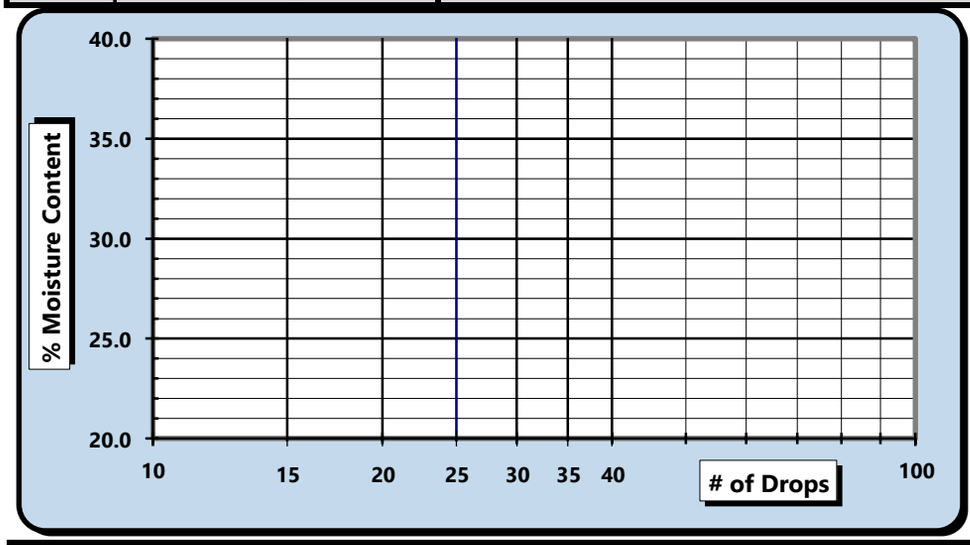
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/14/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/13/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB01	Log #: 52g	Sample Date: 3/02/23
Sample #:	SS-1	Type: Split-spoon	Depth: 0.0 - 2.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 27.3%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/14/23	Brian Vaughan, P.E.	6/14/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

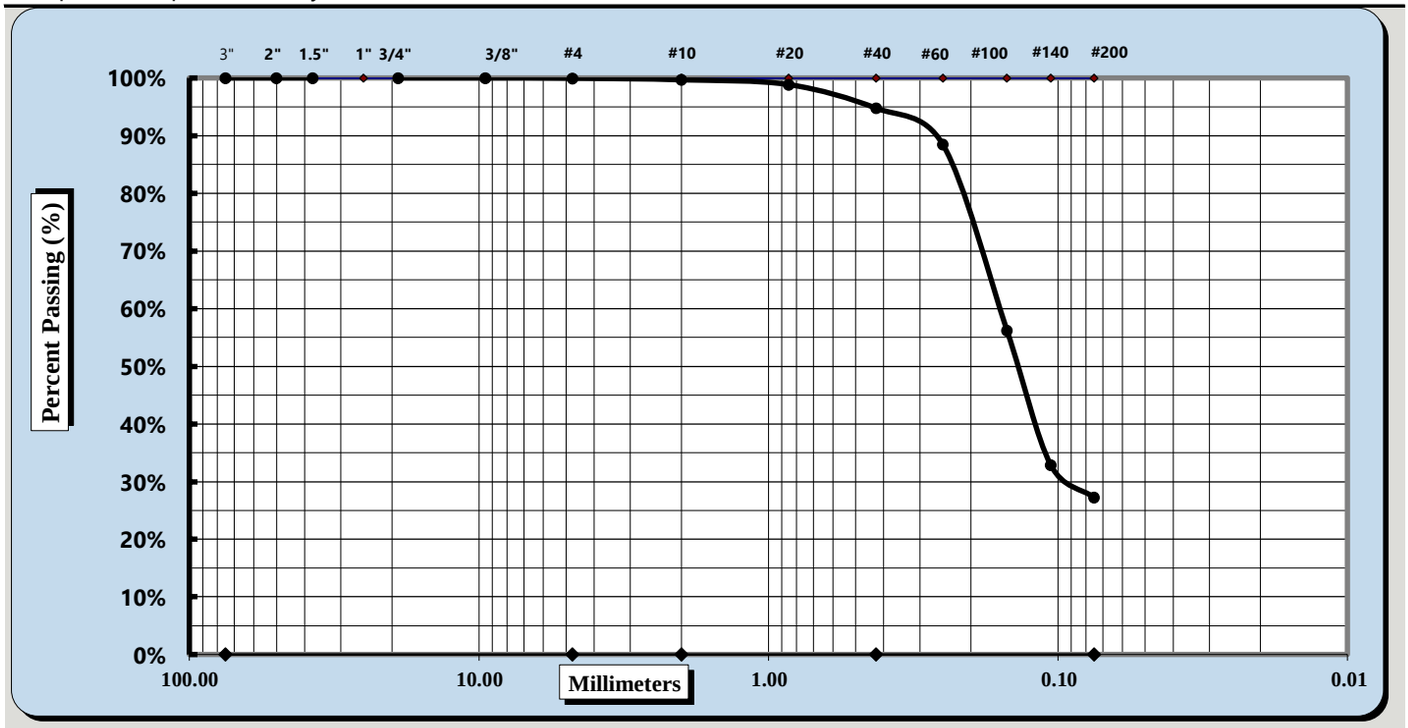
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/14/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/13 - 6/14/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-1	Type:	Split-spoon	Depth:	0.0 - 2.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.2%	Fine Sand	67.5%
Gravel	0.0%	Medium Sand	4.9%	Silt & Clay	27.3%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	20.8%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/14/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

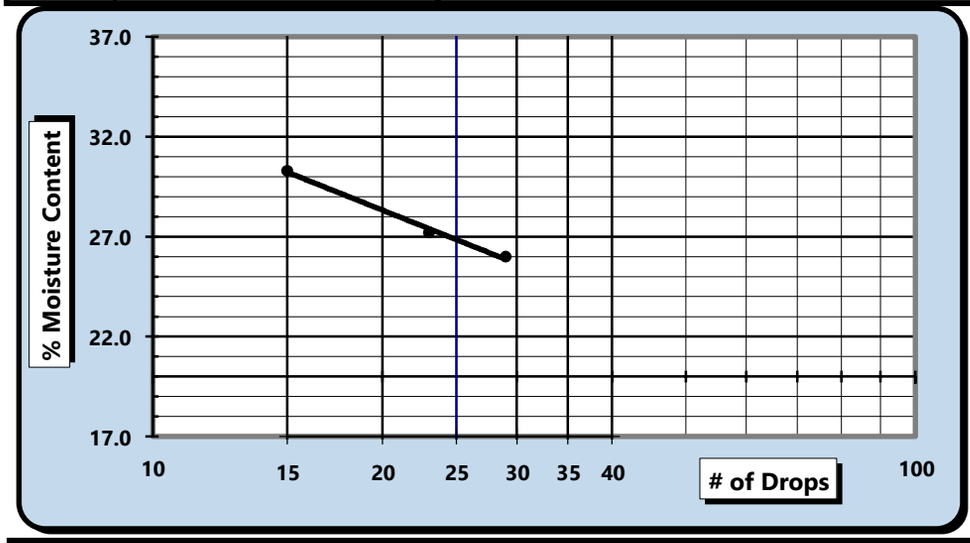
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/14/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/13/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB01	Log #: 52g	Sample Date: 3/02/23
Sample #:	SS-2	Type: Split-spoon	Depth: 2.0 - 4.0'
Sample Description:	silty clayey sand [SC-SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.71	26.51	26.36				25.91		
B	Wet Soil Weight + A	41.34	42.22	42.76				37.59		
C	Dry Soil Weight + A	38.32	38.86	38.95				35.47		
D	Water Weight (B-C)	3.02	3.36	3.81				2.12		
E	Dry Soil Weight (C-A)	11.61	12.35	12.59				9.56		
F	% Moisture (D/E)*100	26.0%	27.2%	30.3%				22.2%		
N	# OF DROPS	29	23	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							22.2%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**27**
Plastic Limit	**22**
Plastic Index	**5**
Group Symbol	**CL-ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 30.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/14/23	Brian Vaughan, P.E.	6/14/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

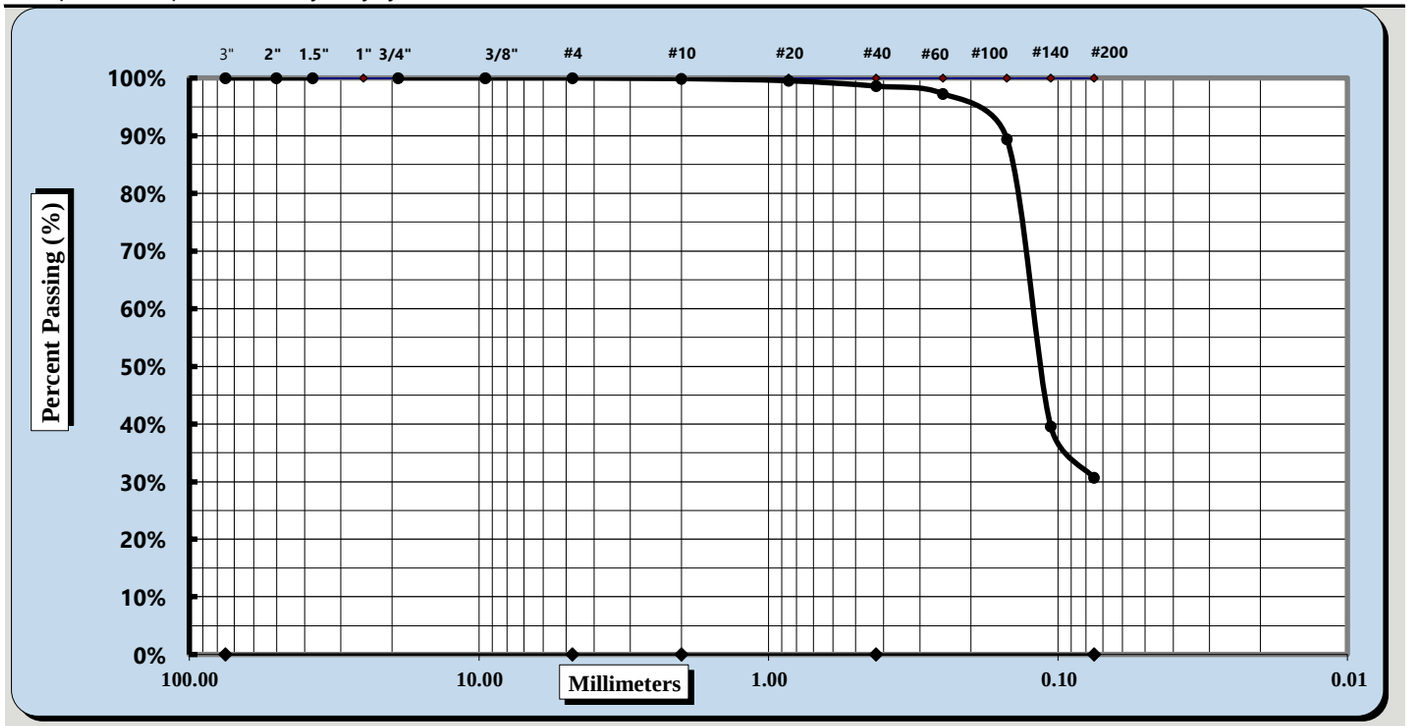
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/14/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/13 - 6/14/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-2	Type:	Split-spoon	Depth:	2.0 - 4.0'
Sample Description:	silty clayey sand [SC-SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.1%	Fine Sand	67.9%
Gravel	0.0%	Medium Sand	1.3%	Silt & Clay	30.7%
Liquid Limit	27	Plastic Limit	22	Plastic Index	5
		Natural Moisture	24.2%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/14/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

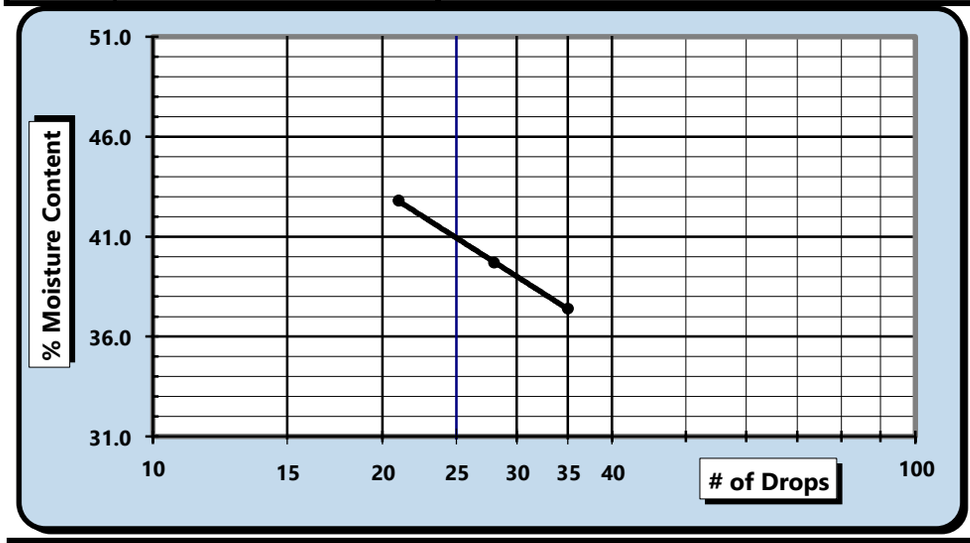
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/14/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/13/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB01	Log #: 52g	Sample Date: 3/02/23
Sample #:	SS-3	Type: Split-spoon	Depth: 4.0 - 6.0'
Sample Description:	sandy lean CLAY [CL / A-7-6(14)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	5	6	7				8		
A	Tare Weight	26.95	27.77	26.30				27.29		
B	Wet Soil Weight + A	41.72	41.06	42.05				40.31		
C	Dry Soil Weight + A	37.70	37.28	37.33				38.26		
D	Water Weight (B-C)	4.02	3.78	4.72				2.05		
E	Dry Soil Weight (C-A)	10.75	9.51	11.03				10.97		
F	% Moisture (D/E)*100	37.4%	39.7%	42.8%				18.7%		
N	# OF DROPS	35	28	21				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							18.7%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**41**
Plastic Limit	**19**
Plastic Index	**22**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 69.6%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/14/23	Brian Vaughan, P.E.	6/14/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

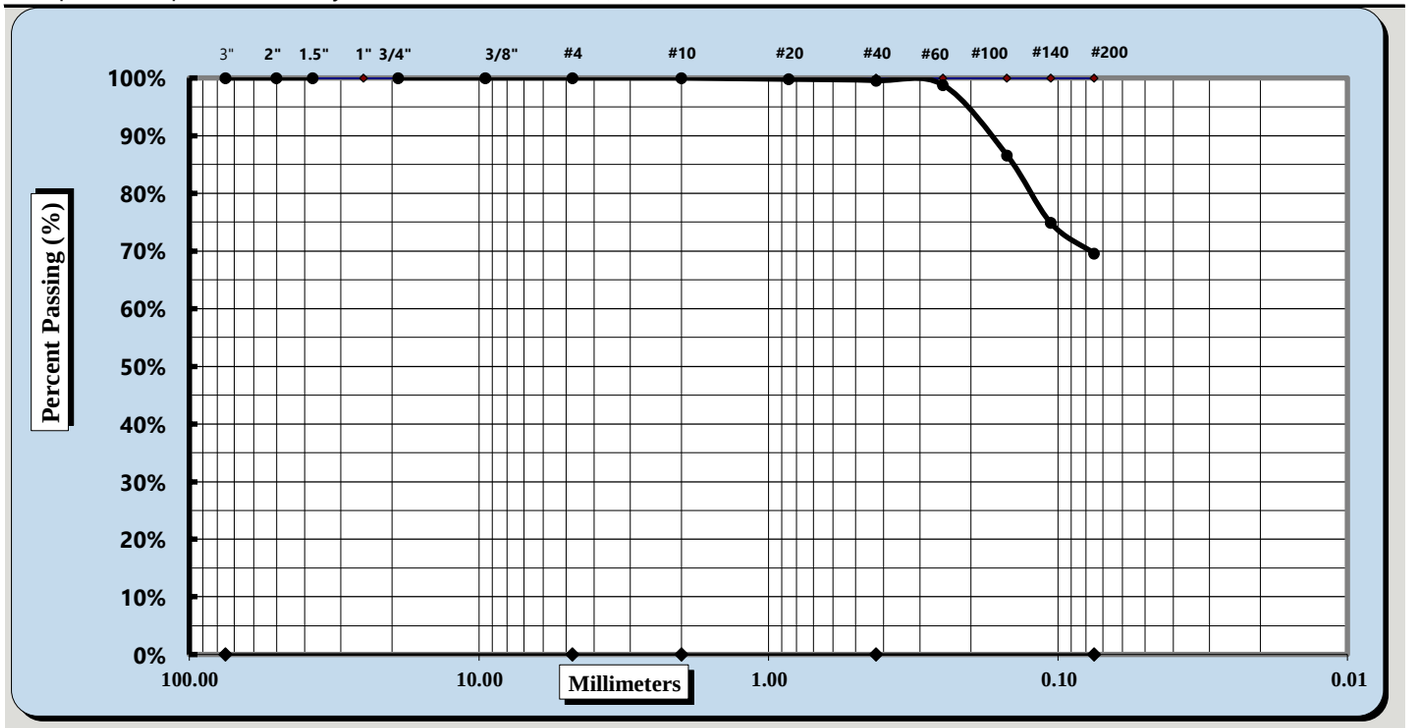
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/14/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/13 - 6/14/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-3	Type:	Split-spoon	Depth:	4.0 - 6.0'
Sample Description:	sandy lean CLAY [CL / A-7-6(14)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.425 mm	Coarse Sand	0.0%	Fine Sand	30.0%
Gravel	0.0%	Medium Sand	0.4%	Silt & Clay	69.6%
Liquid Limit	41	Plastic Limit	19	Plastic Index	22
		Natural Moisture	39.3%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/14/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

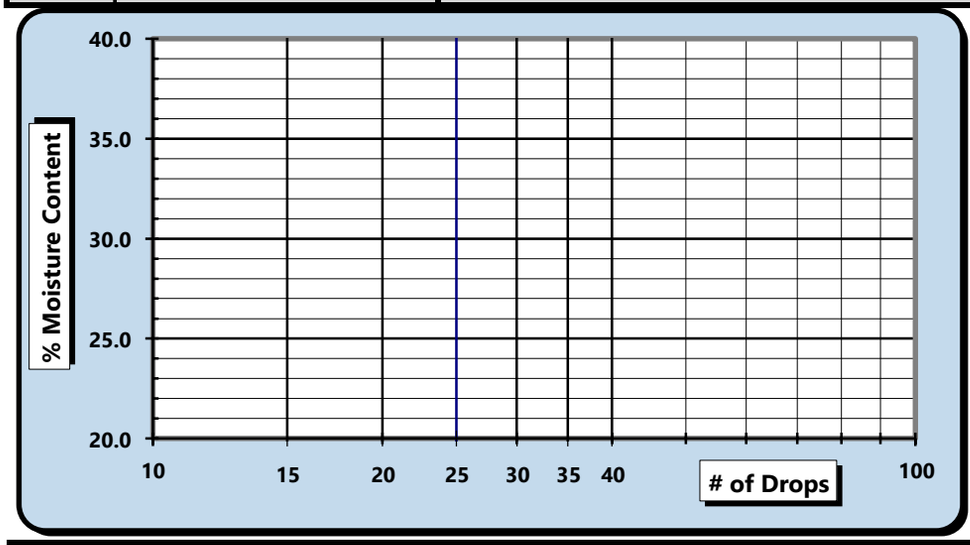
S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/14/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/13/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-4	Type:	Split-spoon	Depth:	6.0 - 8.0'
Sample Description:	silty SAND [SM / A-2-4]				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 17.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/14/23	Brian Vaughan, P.E.	6/14/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

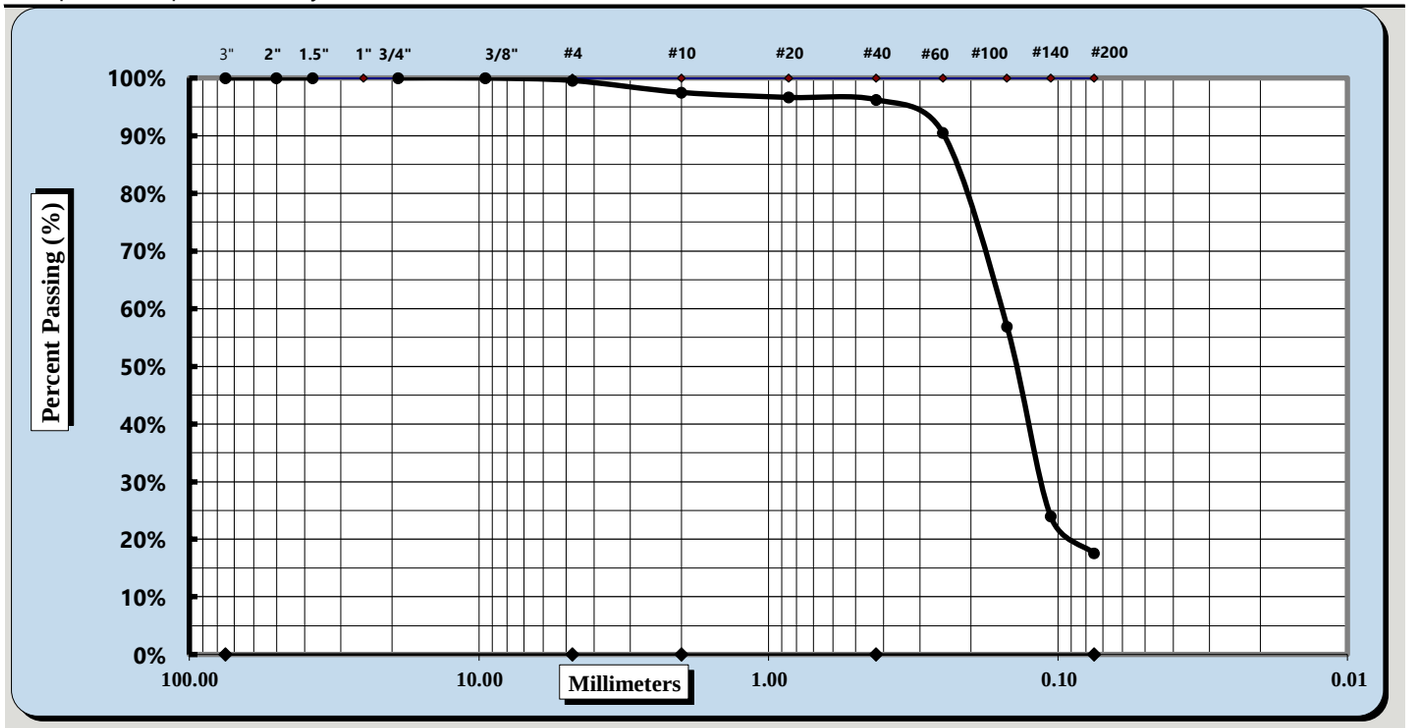
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/14/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/13 - 6/14/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-4	Type:	Split-spoon	Depth:	6.0 - 8.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	4.75 mm	Coarse Sand	2.1%	Fine Sand	78.6%
Gravel	0.4%	Medium Sand	1.3%	Silt & Clay	17.6%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	31.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/14/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

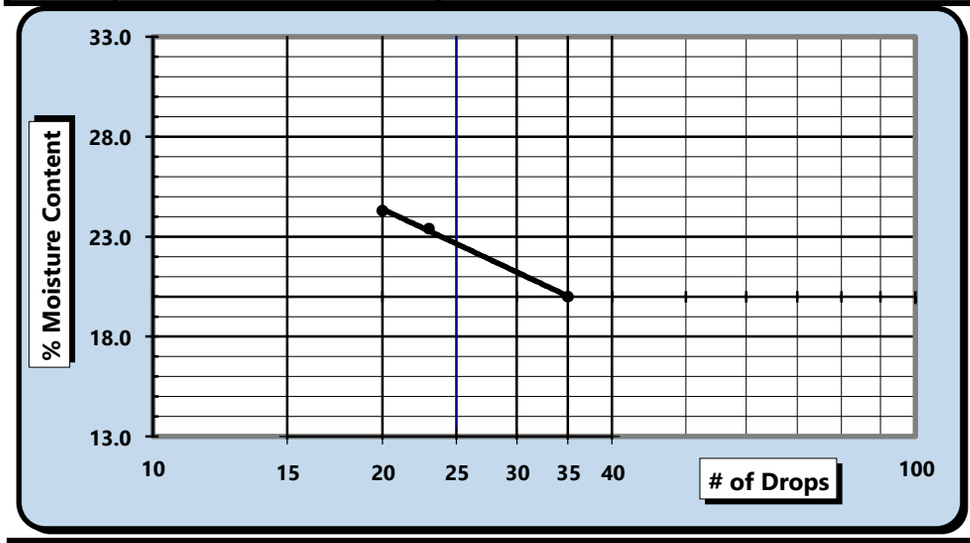
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/14/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/13/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB01	Log #: 52g	Sample Date: 3/02/23
Sample #:	SS-5	Type: Split-spoon	Depth: 8.0 - 10.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	9	10	11				12		
A	Tare Weight	26.83	26.75	26.67				26.63		
B	Wet Soil Weight + A	39.86	42.20	42.44				36.90		
C	Dry Soil Weight + A	37.69	39.27	39.36				35.13		
D	Water Weight (B-C)	2.17	2.93	3.08				1.77		
E	Dry Soil Weight (C-A)	10.86	12.52	12.69				8.50		
F	% Moisture (D/E)*100	20.0%	23.4%	24.3%				20.8%		
N	# OF DROPS	35	23	20				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							20.8%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**23**
Plastic Limit	**21**
Plastic Index	**2**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 21.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/14/23	Brian Vaughan, P.E.	6/14/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

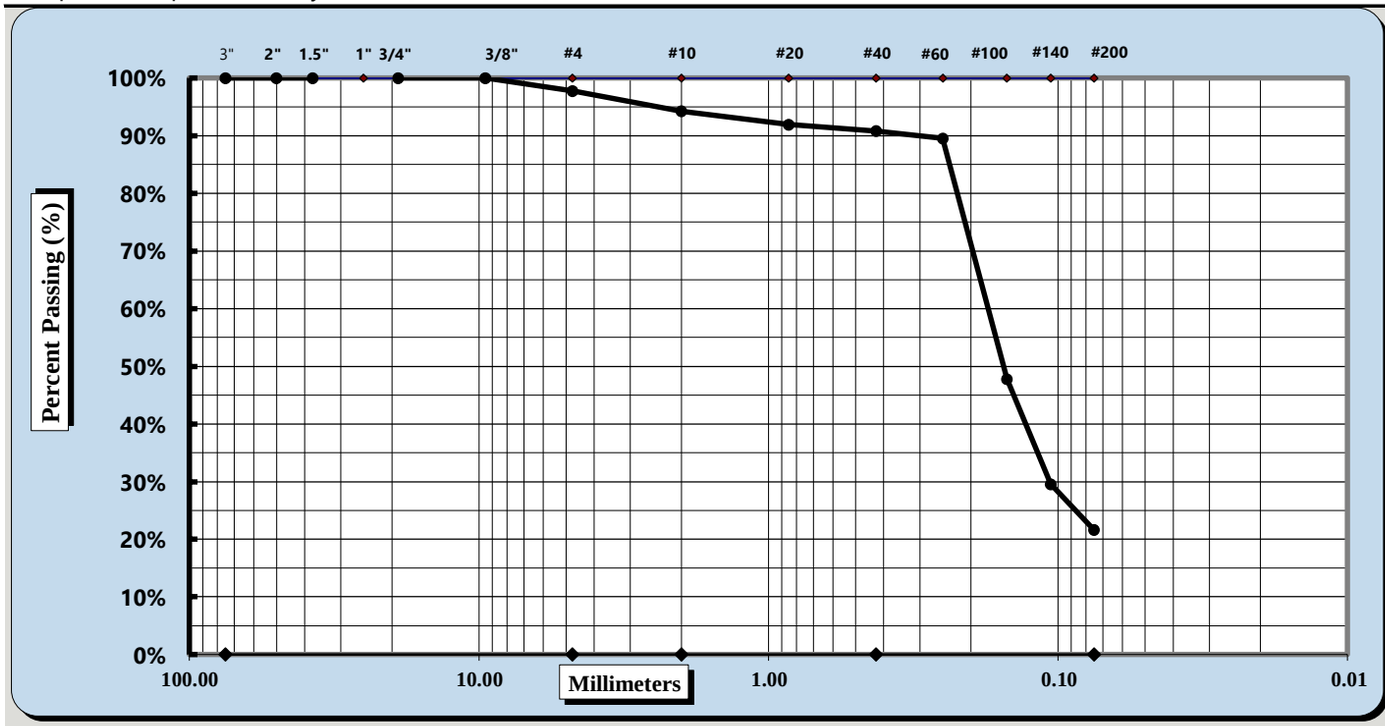
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/14/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/13 - 6/14/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-5	Type:	Split-spoon	Depth:	8.0 - 10.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	9.50 mm	Coarse Sand	3.5%	Fine Sand	69.2%
Gravel	2.2%	Medium Sand	3.4%	Silt & Clay	21.6%
Liquid Limit	23	Plastic Limit	21	Plastic Index	2
		Natural Moisture	36.4%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/14/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

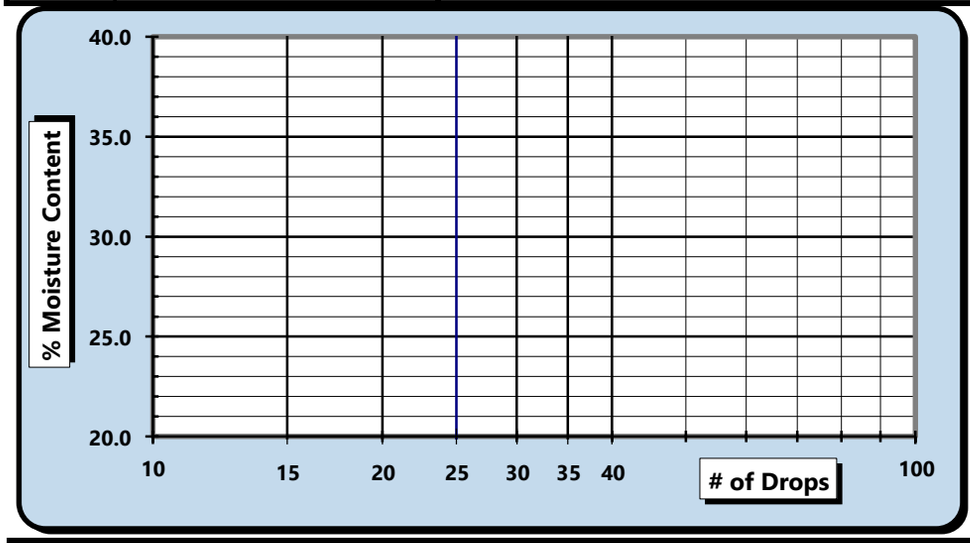
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/18/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/15/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB01	Log #: 52g	Sample Date: 3/02/23
Sample #:	SS-6	Type: Split-spoon	Depth: 13.5 - 15.0'
Sample Description:	silty SAND [SM / A-4(0)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 46.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/18/23	Brian Vaughan, P.E.	6/18/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

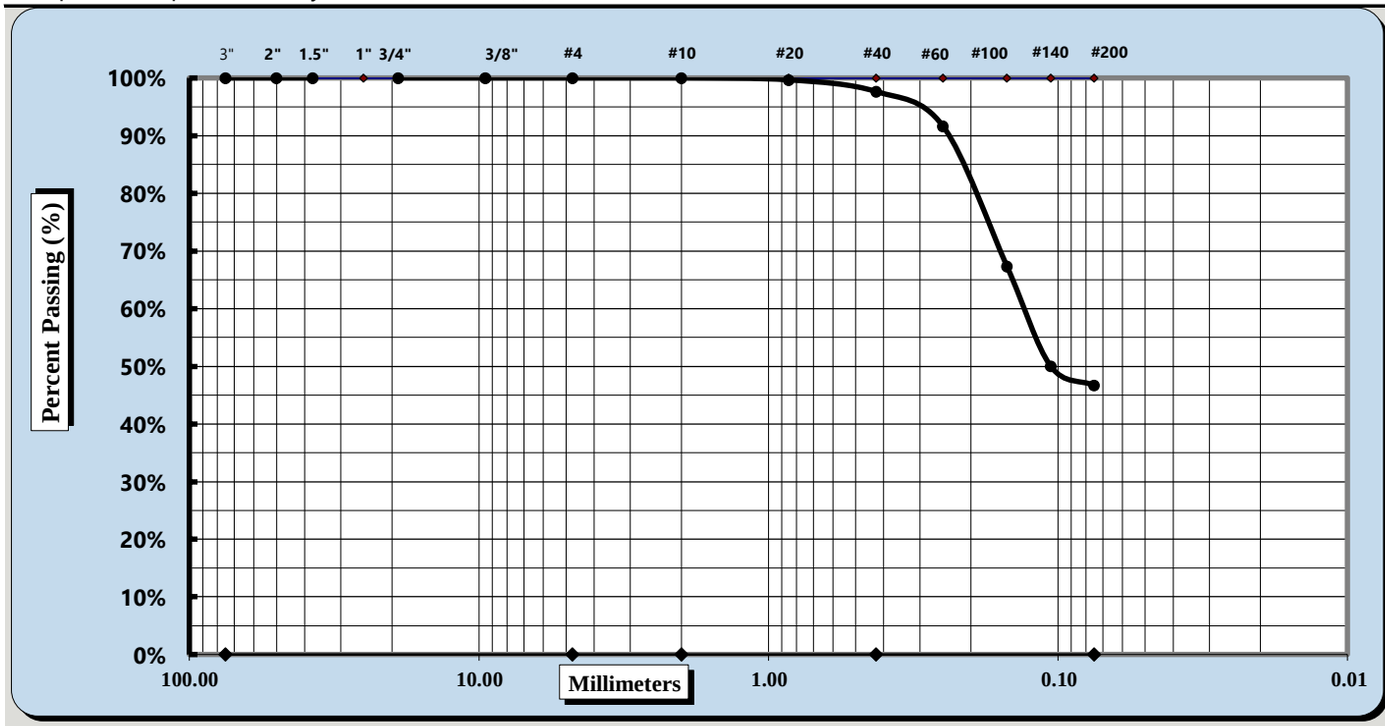
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/18/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/13 - 6/17/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-6	Type:	Split-spoon	Depth:	13.5 - 15.0'
Sample Description:	silty SAND [SM / A-4(0)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.0%	Fine Sand	51.0%
Gravel	0.0%	Medium Sand	2.3%	Silt & Clay	46.7%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	52.7%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/18/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

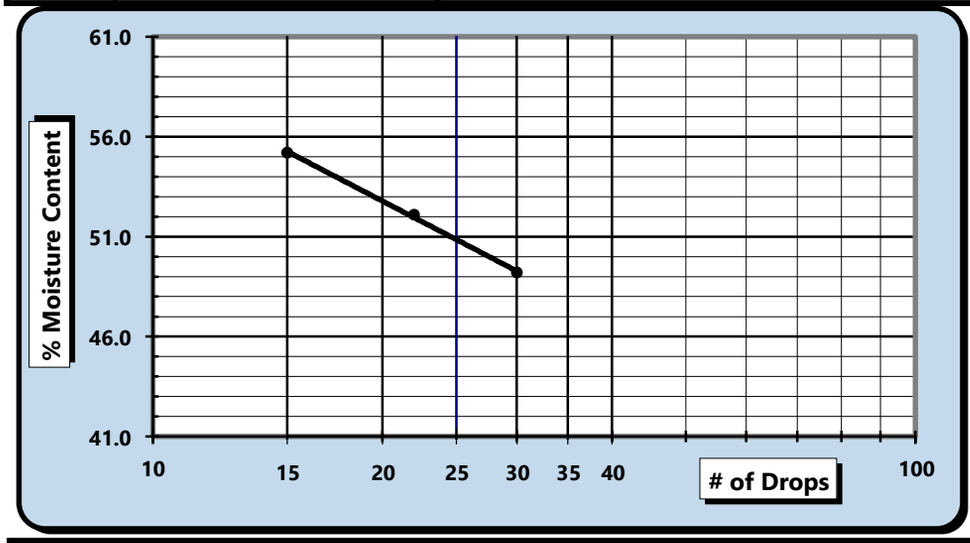
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/18/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/15/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB01	Log #: 52g	Sample Date: 3/02/23
Sample #:	SS-7	Type: Split-spoon	Depth: 18.5 - 20.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(21)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.69	26.51	26.35				25.91		
B	Wet Soil Weight + A	40.13	41.92	42.89				38.06		
C	Dry Soil Weight + A	35.70	36.64	37.01				35.86		
D	Water Weight (B-C)	4.43	5.28	5.88				2.20		
E	Dry Soil Weight (C-A)	9.01	10.13	10.66				9.95		
F	% Moisture (D/E)*100	49.2%	52.1%	55.2%				22.1%		
N	# OF DROPS	30	22	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							22.1%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**51**
Plastic Limit	**22**
Plastic Index	**29**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 73.6%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/18/23	Brian Vaughan, P.E.	6/18/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

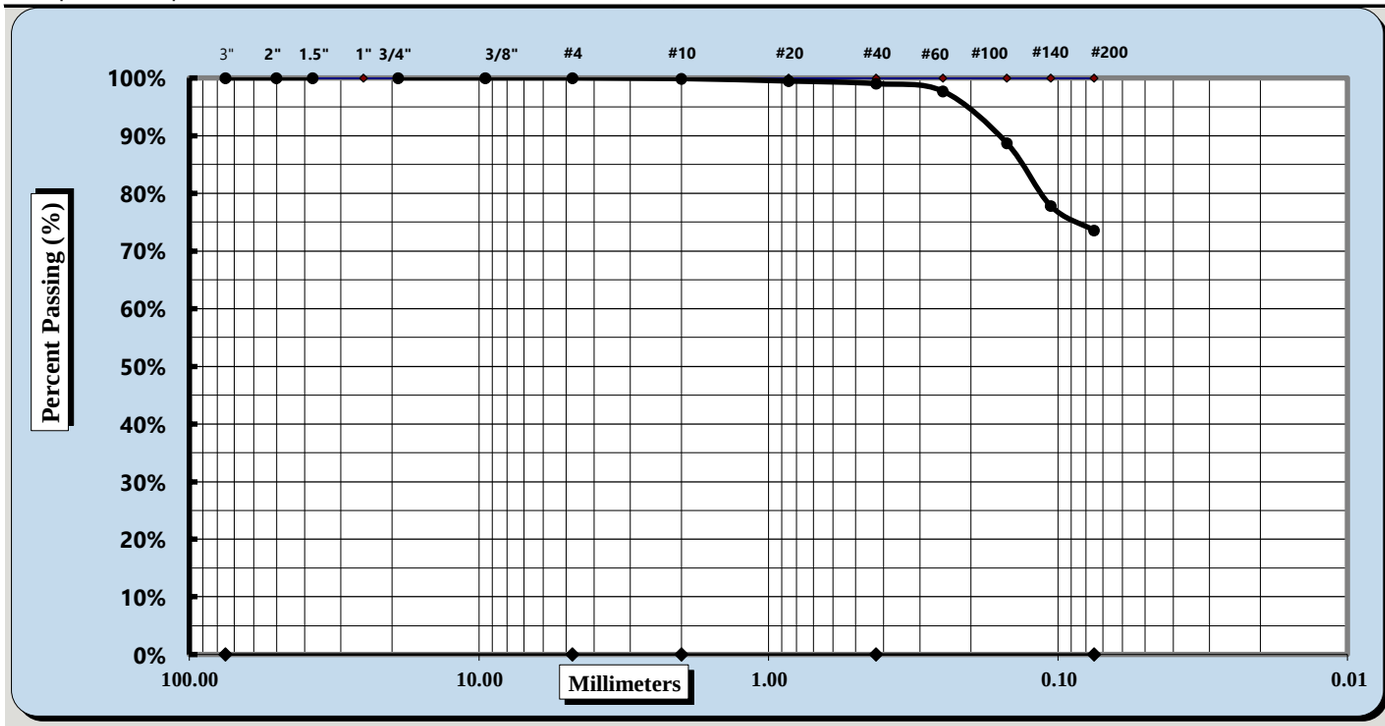
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/18/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/13 - 6/17/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-7	Type:	Split-spoon	Depth:	18.5 - 20.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(21)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.425 mm	Coarse Sand	0.1%	Fine Sand	25.5%
Gravel	0.0%	Medium Sand	0.9%	Silt & Clay	73.6%
Liquid Limit	51	Plastic Limit	22	Plastic Index	29
		Natural Moisture	61.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/18/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

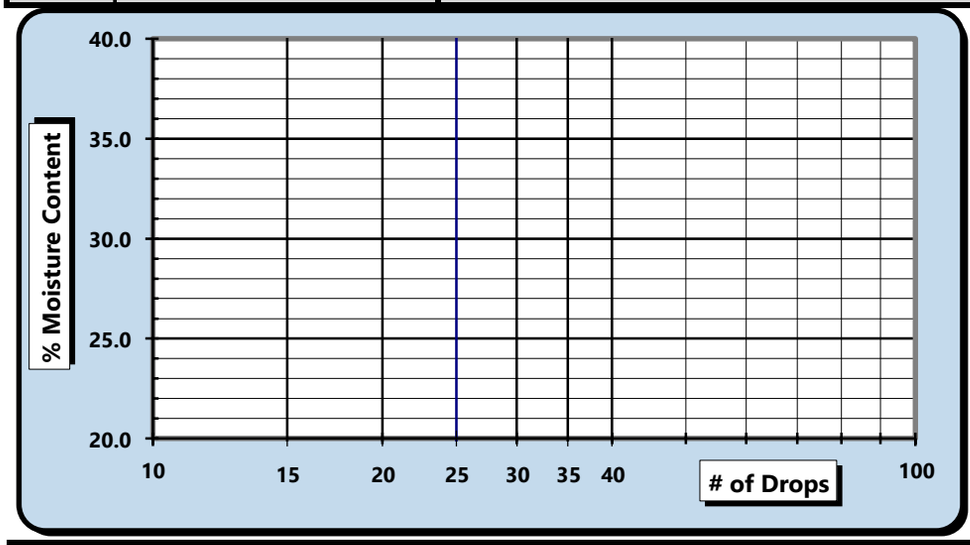
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/18/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/15/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB01	Log #: 52g	Sample Date: 3/02/23
Sample #:	SS-8	Type: Split-spoon	Depth: 23.5 - 25.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 13.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/18/23	Brian Vaughan, P.E.	6/18/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

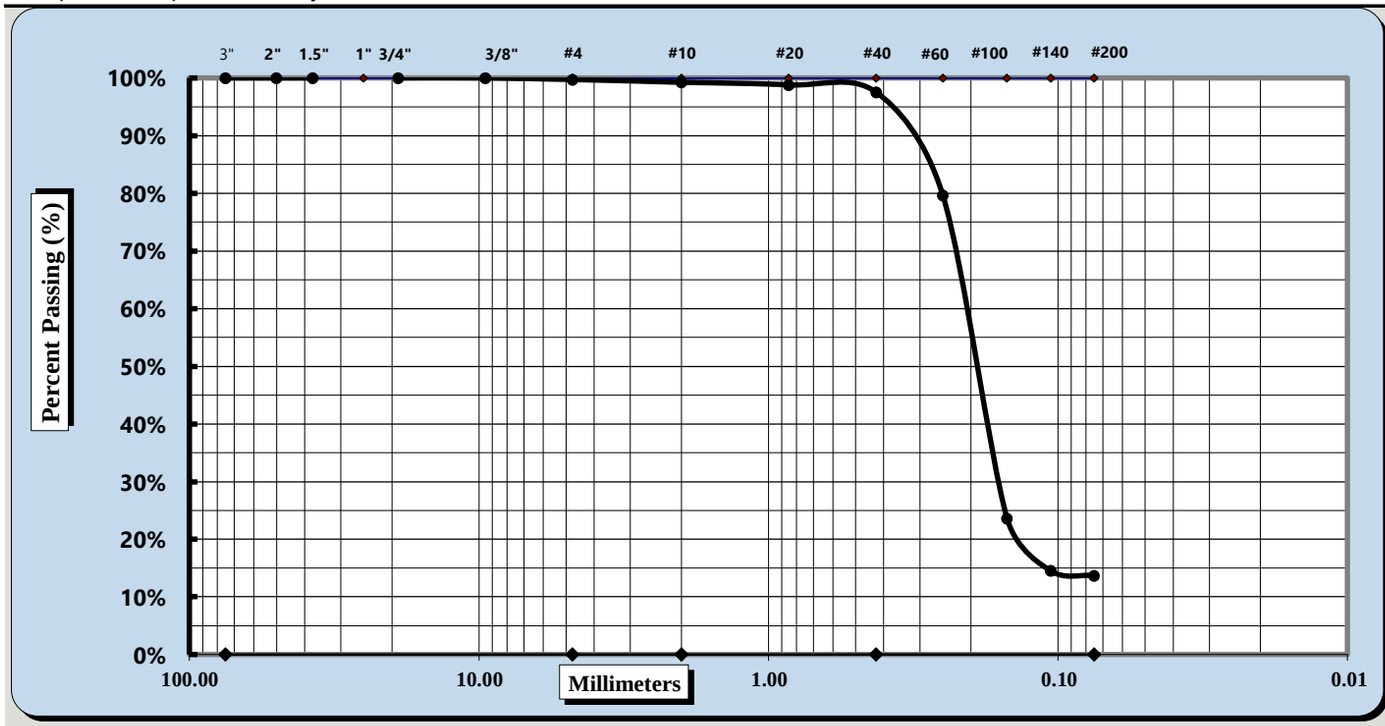
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/18/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/13 - 6/17/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-8	Type:	Split-spoon	Depth:	23.5 - 25.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.5%	Fine Sand	83.8%
Gravel	0.3%	Medium Sand	1.7%	Silt & Clay	13.7%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	34.8%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/18/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

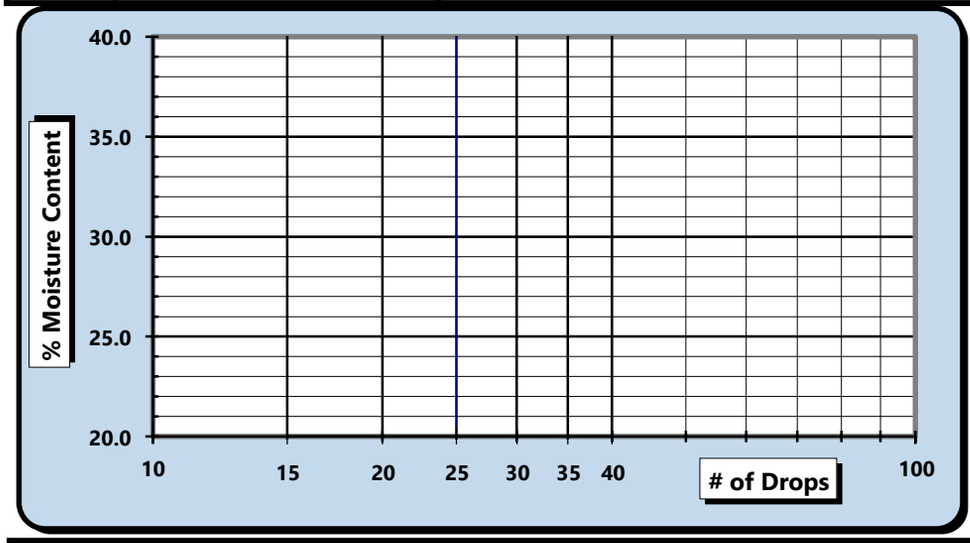
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/18/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/15/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB01	Log #: 52g	Sample Date: 3/02/23
Sample #:	SS-9	Type: Split-spoon	Depth: 28.5 - 30.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 28.2%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/18/23	Brian Vaughan, P.E.	6/18/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

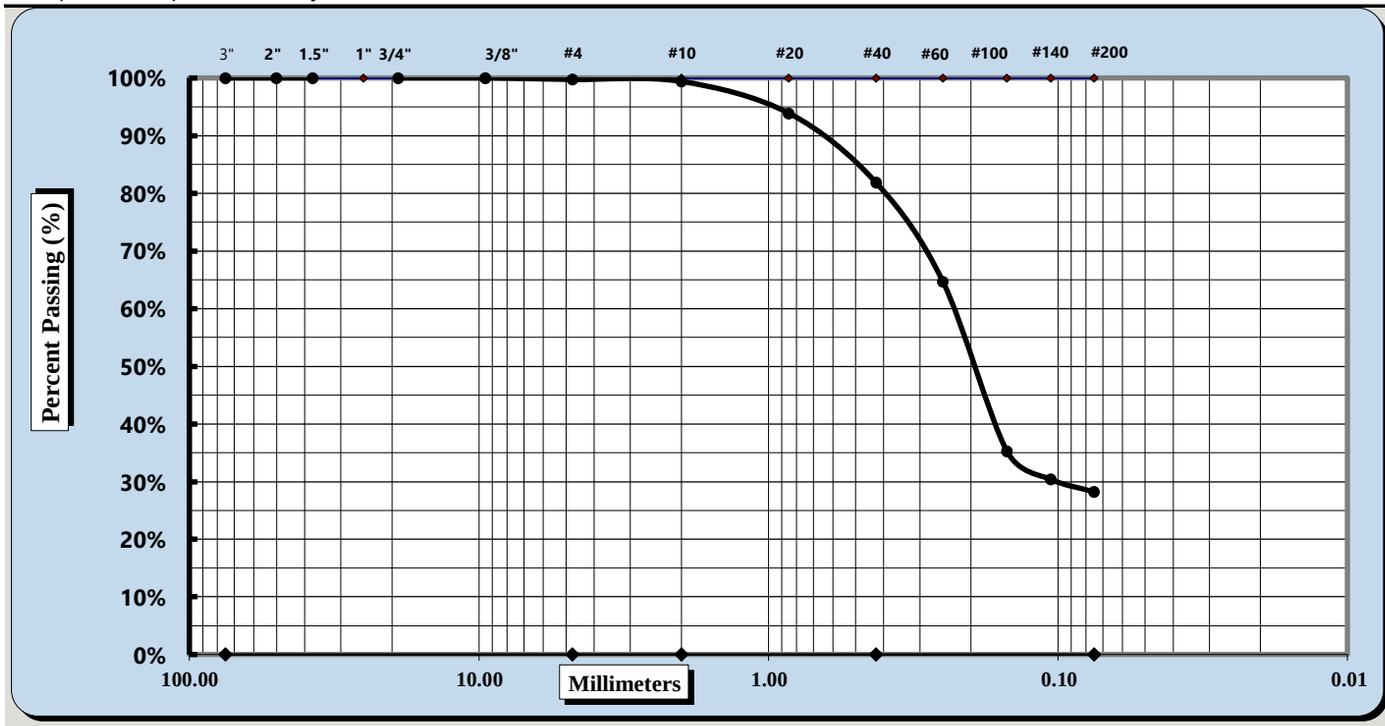
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/18/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/13 - 6/17/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-9	Type:	Split-spoon	Depth:	28.5 - 30.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.3%	Fine Sand	53.6%
Gravel	0.2%	Medium Sand	17.5%	Silt & Clay	28.2%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	36.4%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/18/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

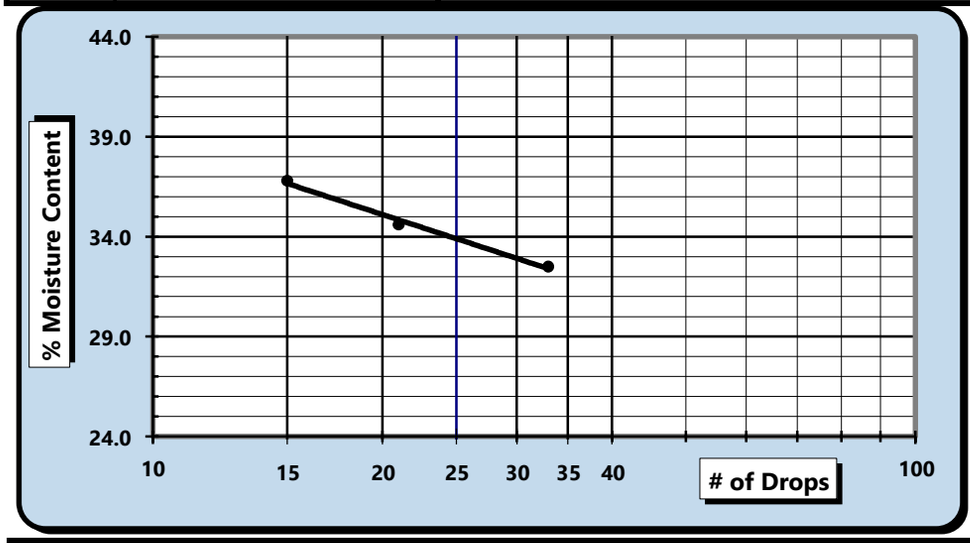
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/19/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/18/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB01	Log #: 52g	Sample Date: 3/02/23
Sample #:	SS-10	Type: Split-spoon	Depth: 33.5 - 35.0'
Sample Description:	sandy lean CLAY [CL / A-6(7)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.69	26.51	26.35				25.91		
B	Wet Soil Weight + A	40.38	39.96	40.21				39.24		
C	Dry Soil Weight + A	37.02	36.50	36.48				37.18		
D	Water Weight (B-C)	3.36	3.46	3.73				2.06		
E	Dry Soil Weight (C-A)	10.33	9.99	10.13				11.27		
F	% Moisture (D/E)*100	32.5%	34.6%	36.8%				18.3%		
N	# OF DROPS	33	21	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							18.3%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**34**
Plastic Limit	**18**
Plastic Index	**16**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 59.5%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/19/23	Brian Vaughan, P.E.	6/19/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

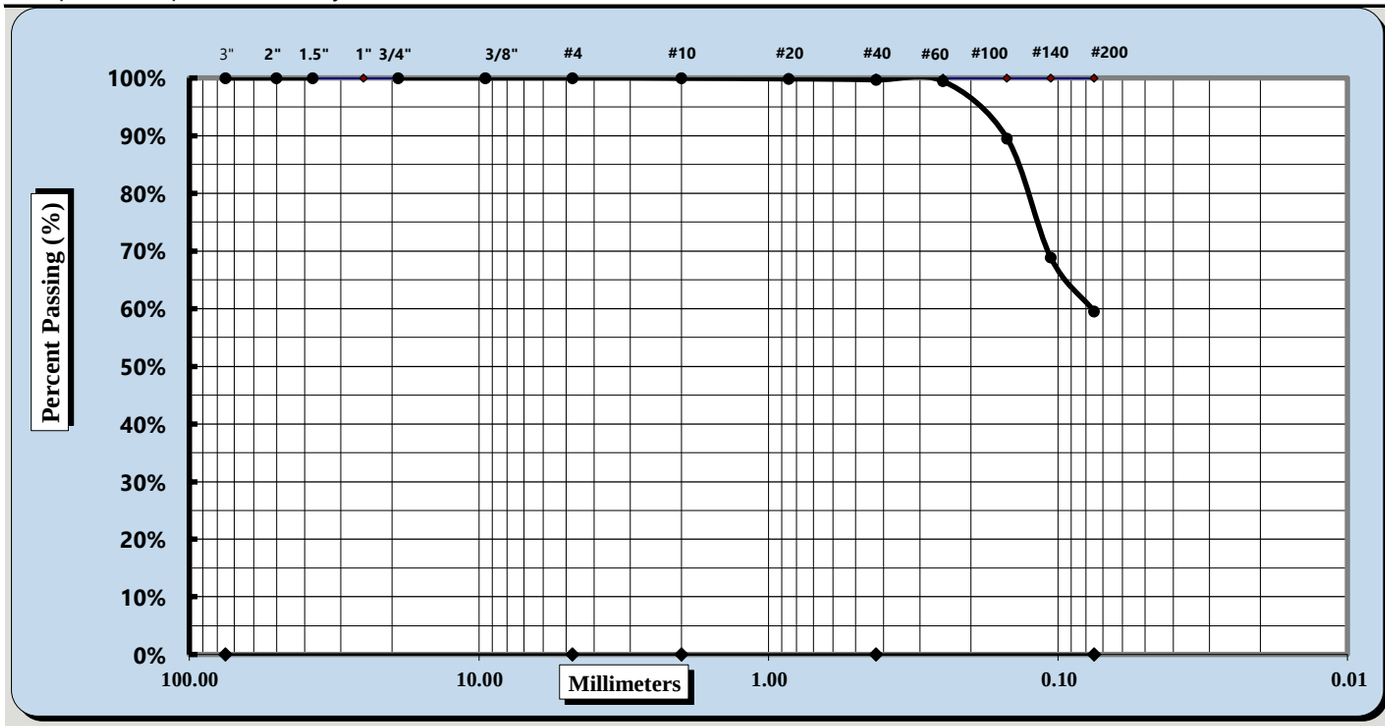
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/18/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/13 - 6/17/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-10	Type:	Split-spoon	Depth:	33.5 - 35.0'
Sample Description:	sandy lean CLAY [CL / A-6(7)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.25 mm	Coarse Sand	0.0%	Fine Sand	40.2%
Gravel	0.0%	Medium Sand	0.3%	Silt & Clay	59.5%
Liquid Limit	34	Plastic Limit	18	Plastic Index	16
		Natural Moisture	53.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/18/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

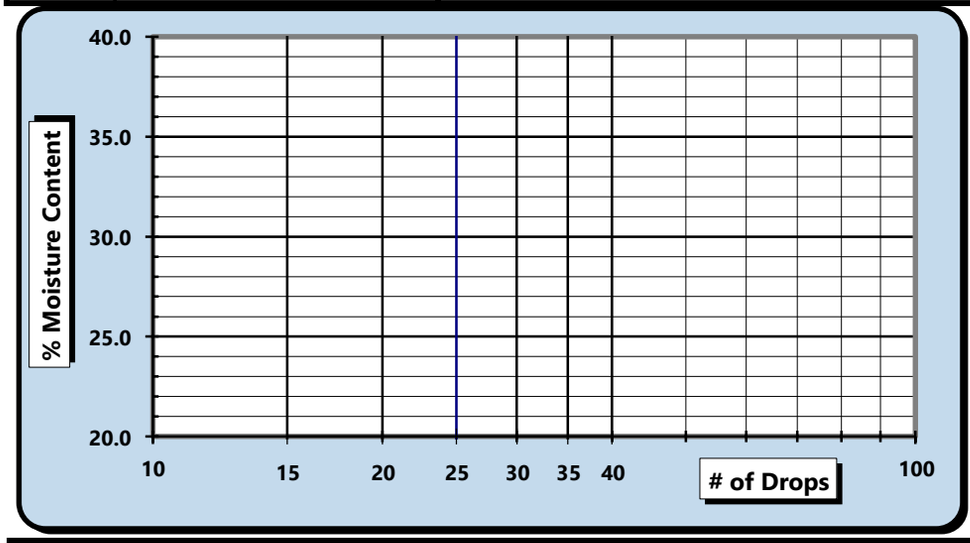
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/19/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/18/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB01	Log #: 52g	Sample Date: 3/02/23
Sample #:	SS-11	Type: Split-spoon	Depth: 38.5 - 40.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 12.8%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/19/23	Brian Vaughan, P.E.	6/19/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

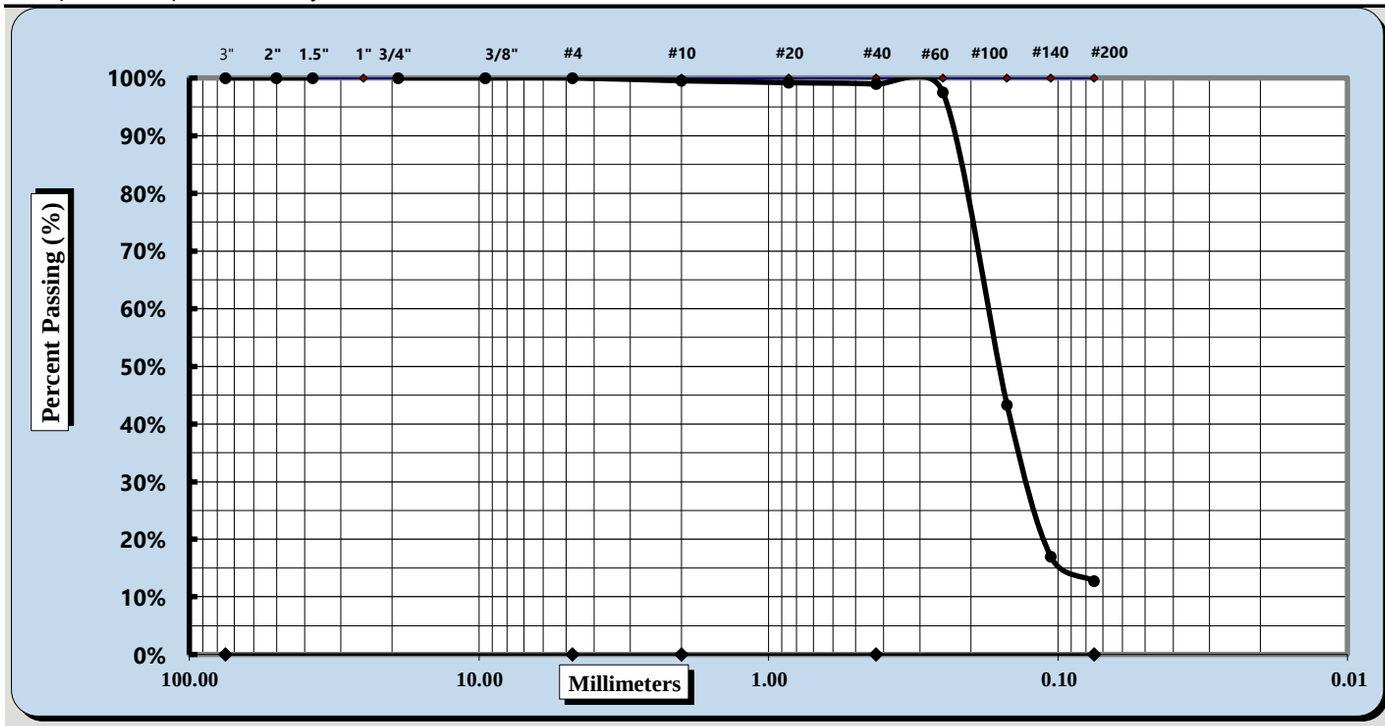
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/19/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/13 - 6/17/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB01	Log #:	52g	Sample Date:	3/02/23
Sample #:	SS-11	Type:	Split-spoon	Depth:	38.5 - 40.0'
Sample Description:	silty SAND (SM / A-2-4)				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.5%	Fine Sand	86.2%
Gravel	0.0%	Medium Sand	0.6%	Silt & Clay	12.8%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	30.4%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/19/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/03/23
Project Name:	526 Longpoint Road Interchange	Test Date(s):	6/01 - 6/02/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Sampled by:	Soil Consultants, Inc.	Sample Date(s):	3/24/23
Sampling Method:	Split-spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 13942 Calibration Date: 11/01/22 Oven ID. 13978 Calibration Date: 10/01/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft.		grams	grams	grams	grams	%	
EMB02	SS-1	0.0-2.0'	YM-3	96.86	400.91	344.31	56.60	22.9%	
EMB02	SS-2	2.0-4.0'	YM-8	97.57	405.36	350.28	55.08	21.8%	
EMB02	SS-3	4.0-6.0'	YM-2	91.09	406.01	331.20	74.81	31.2%	
EMB02	SS-4	6.0-8.0'	D-18	102.23	403.86	301.93	101.93	51.0%	
EMB02	SS-5	8.0-10.0'	D-19	94.76	407.94	299.95	107.99	52.6%	
EMB02	SS-6	10.0-12.0'	D-6	95.90	408.30	337.90	70.40	29.1%	
EMB02	SS-7	12.0-14.0'	YM-1	94.11	404.78	322.08	82.70	36.3%	
EMB02	SS-8	14.0-16.0'	D-13	90.38	367.14	266.23	100.91	57.4%	
EMB02	SS-9	16.0-18.0'	D-4	90.60	400.90	266.44	134.46	76.5%	
EMB02	SS-10	18.0-20.0'	D-7	96.43	404.32	260.13	144.19	88.1%	
EMB02	SS-11	20.0-22.0'	D-9	91.05	403.08	255.71	147.37	89.5%	
EMB02	SS-12	22.0-24.0'	16	83.32	404.76	325.72	79.04	32.6%	
EMB02	SS-13	24.0-26.0'	12	84.74	401.05	323.42	77.63	32.5%	
EMB02	SS-14	26.0-28.0'	2	83.72	410.27	317.74	92.53	39.5%	
EMB02	SS-15	28.0'-30.0'	17	83.13	268.83	219.67	49.16	36.0%	
EMB02	SS-16	30.0-32.0'	19	83.12	273.06	234.20	38.86	25.7%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Benjamin Kovaleski		NICET Lab Level III / 117226	6/03/23
Technician Name		*Certification Type / No.*	*Date*
Brian Vaughan, P.E.	Brian Vaughan	QA Supervisor	6/03/23
Technical Responsibility	*Signature*	*Position*	*Date*

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/03/23
Project Name:	526 Longpoint Road Interchange	Test Date(s):	6/01 - 6/02/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Sampled by:	Soil Consultants, Inc.	Sample Date(s):	3/24/23
Sampling Method:	Split-spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 13942 Calibration Date: 11/01/22 Oven ID. 13978 Calibration Date: 10/01/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft.		grams	grams	grams	grams	%	
EMB02	SS-17	32.0-34.0'	11	84.95	208.70	183.36	25.34	25.7%	
EMB02	SS-18	34.0-36.0'	14	84.82	400.48	269.47	131.01	71.0%	
EMB02	SS-19	36.0-38.0'	G-4	228.84	543.20	424.46	118.74	60.7%	
EMB02	SS-20	38.0-40.0'	G-3	225.79	543.51	419.36	124.15	64.1%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Benjamin Kovaleski		NICET Lab Level III / 117226	6/03/23
Technician Name		*Certification Type / No.*	*Date*
Brian Vaughan, P.E.	Brian Vaughan	QA Supervisor	6/03/23
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

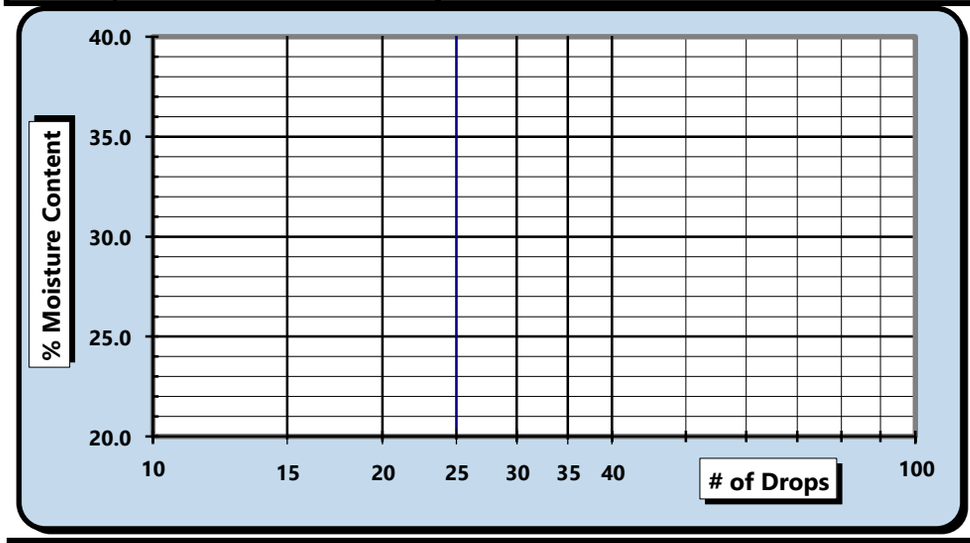
S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/28/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-1	Type:	Split-spoon	Depth:	0.0 - 2.0'
Sample Description:	silty SAND [SM / A-2-4]				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 25.5%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/31/23	Brian Vaughan, P.E.	7/31/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

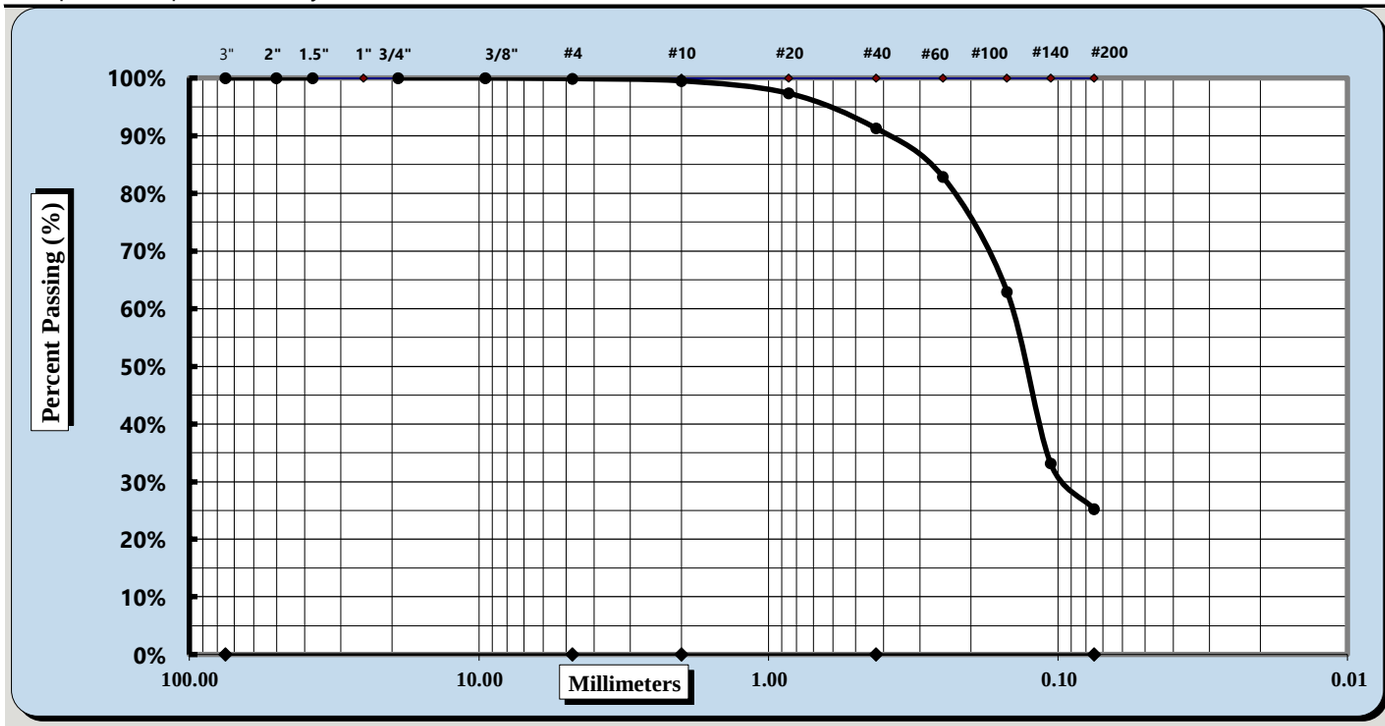
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 7/31/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-1	Type:	Split-spoon	Depth:	0.0 - 2.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.4%	Fine Sand	66.0%
Gravel	0.1%	Medium Sand	8.2%	Silt & Clay	25.3%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	22.9%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/31/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

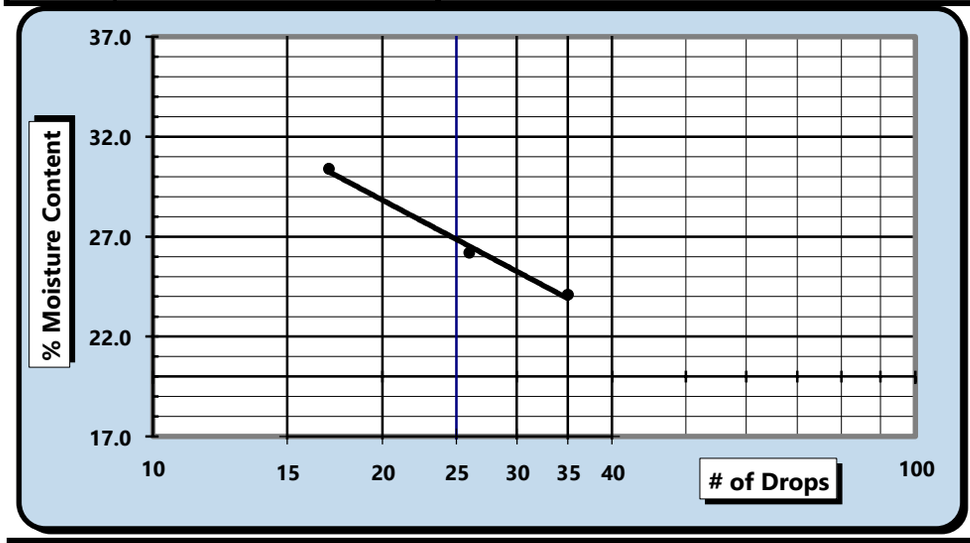
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/28/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-2	Type: Split-spoon	Depth: 2.0 - 4.0'
Sample Description:	clayey SAND [SC / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.70	26.50	26.35				25.91		
B	Wet Soil Weight + A	42.58	42.29	40.46				37.95		
C	Dry Soil Weight + A	39.50	39.01	37.17				36.17		
D	Water Weight (B-C)	3.08	3.28	3.29				1.78		
E	Dry Soil Weight (C-A)	12.80	12.51	10.82				10.26		
F	% Moisture (D/E)*100	24.1%	26.2%	30.4%				17.3%		
N	# OF DROPS	35	26	17				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							17.3%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**27**
Plastic Limit	**17**
Plastic Index	**10**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 25.5%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/31/23	Brian Vaughan, P.E.	7/31/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

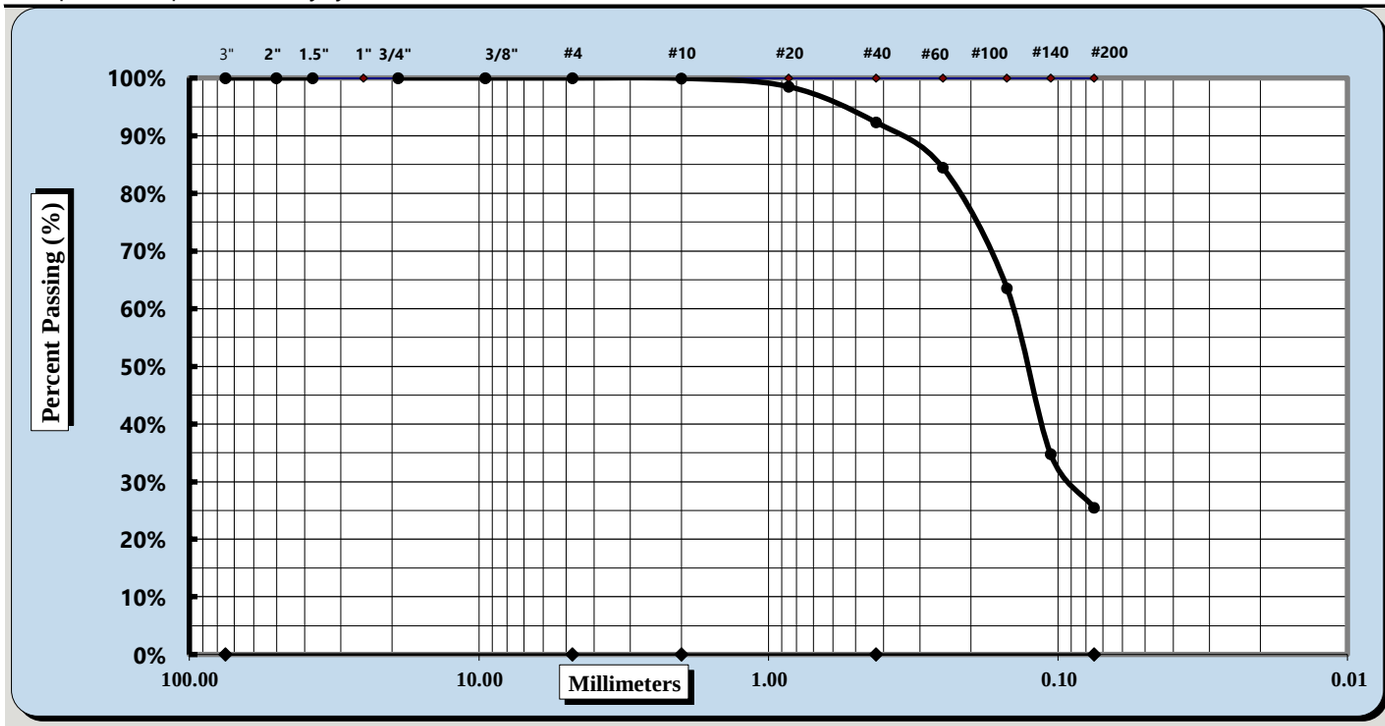
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 7/31/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-2	Type:	Split-spoon	Depth:	2.0 - 4.0'
Sample Description:	clayey SAND [SC / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.1%	Fine Sand	66.9%
Gravel	0.0%	Medium Sand	7.6%	Silt & Clay	25.5%
Liquid Limit	27	Plastic Limit	17	Plastic Index	10
		Natural Moisture	21.8%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/31/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

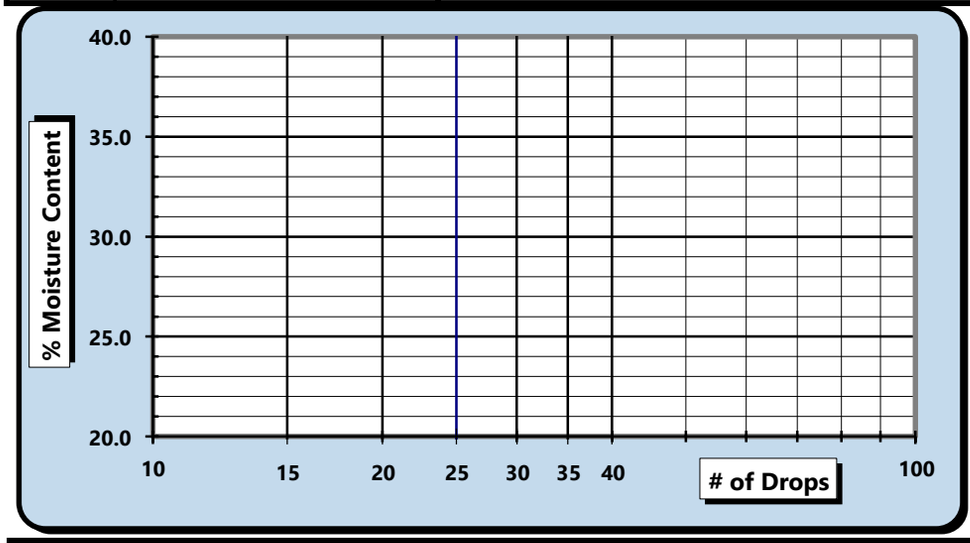
S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/28/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-3	Type:	Split-spoon	Depth:	4.0 - 6.0'
Sample Description:	silty SAND [SM / A-2-4]				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 21.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/31/23	Brian Vaughan, P.E.	7/31/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

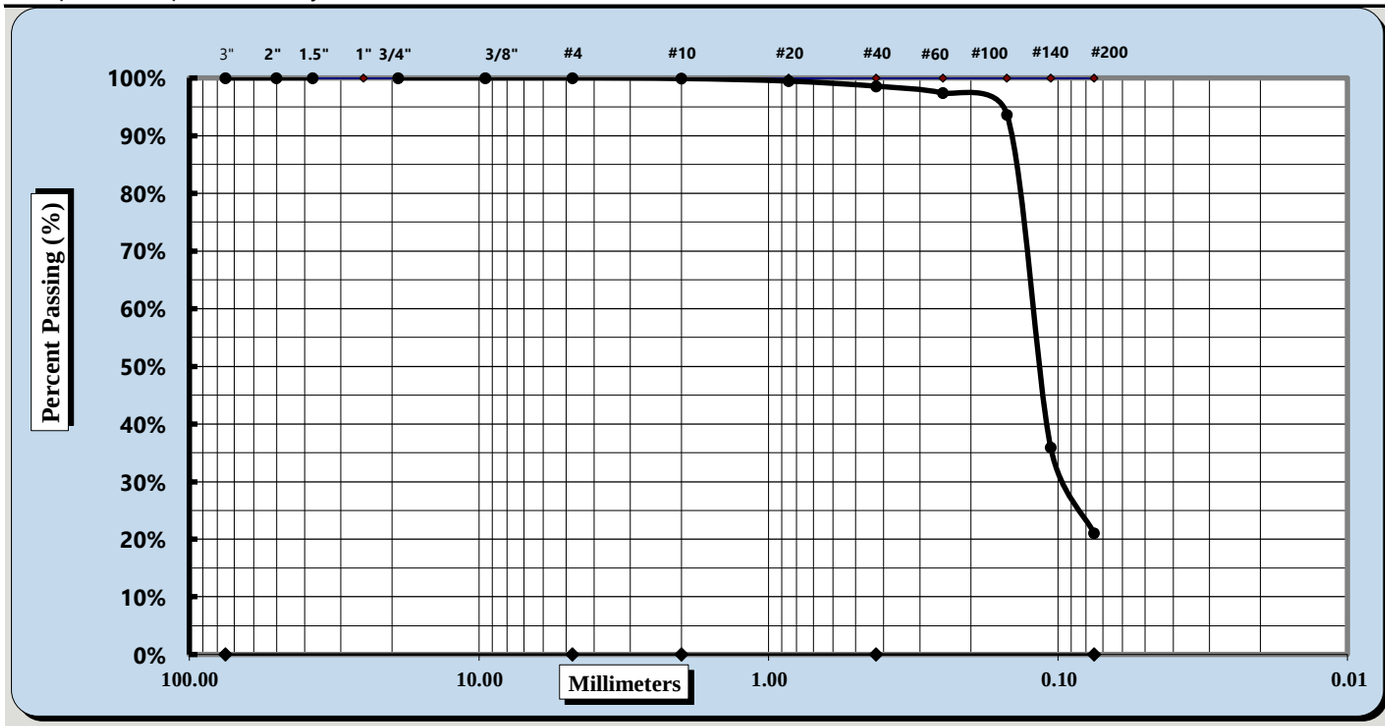
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 7/31/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-3	Type:	Split-spoon	Depth:	4.0 - 6.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.1%	Fine Sand	77.5%
Gravel	0.0%	Medium Sand	1.4%	Silt & Clay	21.0%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	31.2%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/31/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

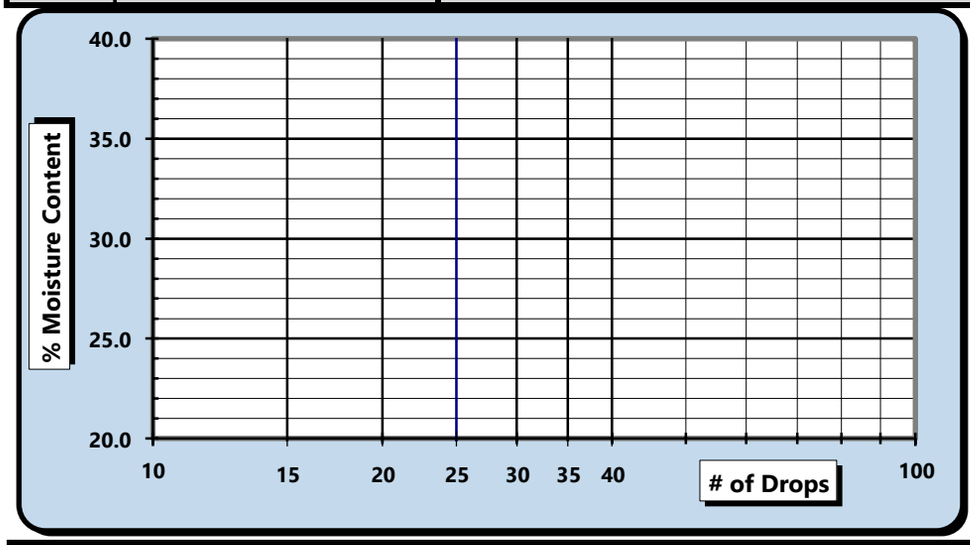
S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/28/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-4	Type:	Split-spoon	Depth:	6.0 - 8.0'
Sample Description:	silty SAND [SM / A-4]				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☑

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 49.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/31/23	Brian Vaughan, P.E.	7/31/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

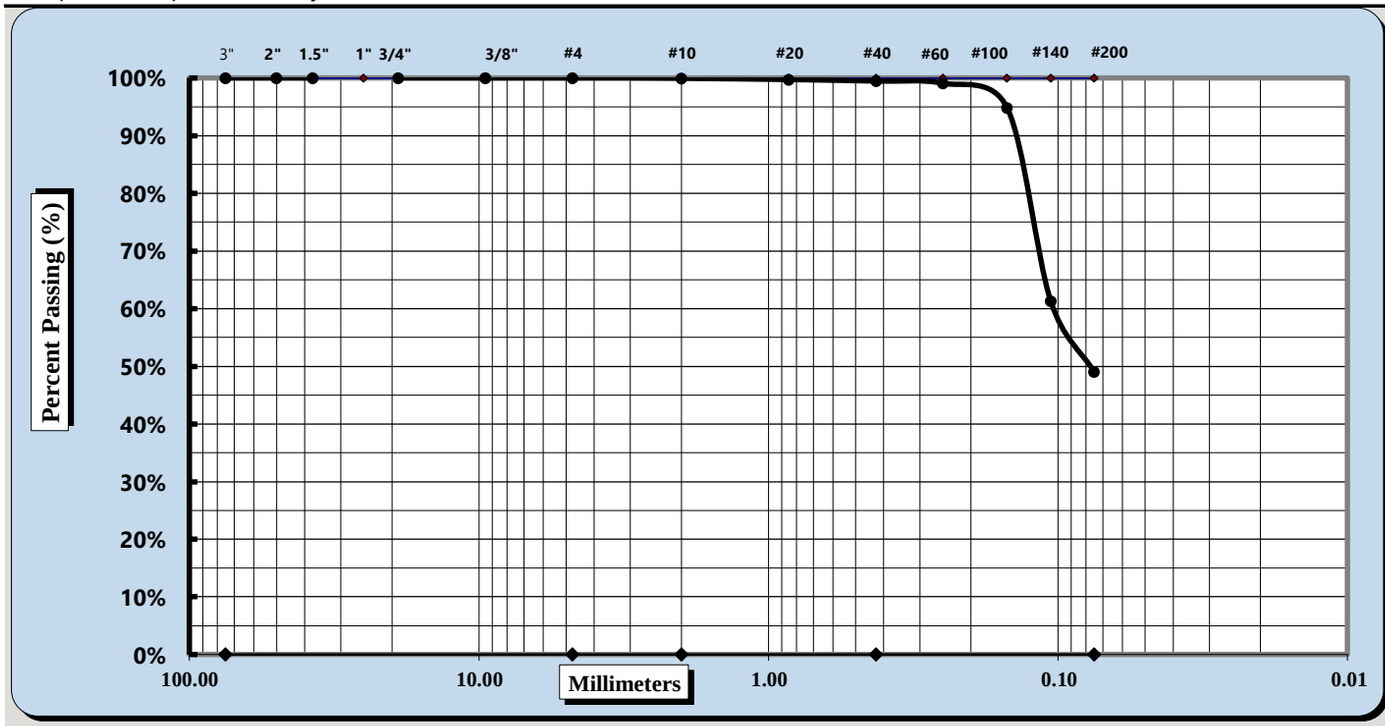
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 7/31/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-4	Type:	Split-spoon	Depth:	6.0 - 8.0'
Sample Description:	silty SAND [SM / A-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.25 mm	Coarse Sand	0.0%	Fine Sand	50.4%
Gravel	0.0%	Medium Sand	0.5%	Silt & Clay	49.1%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	51.0%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/31/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

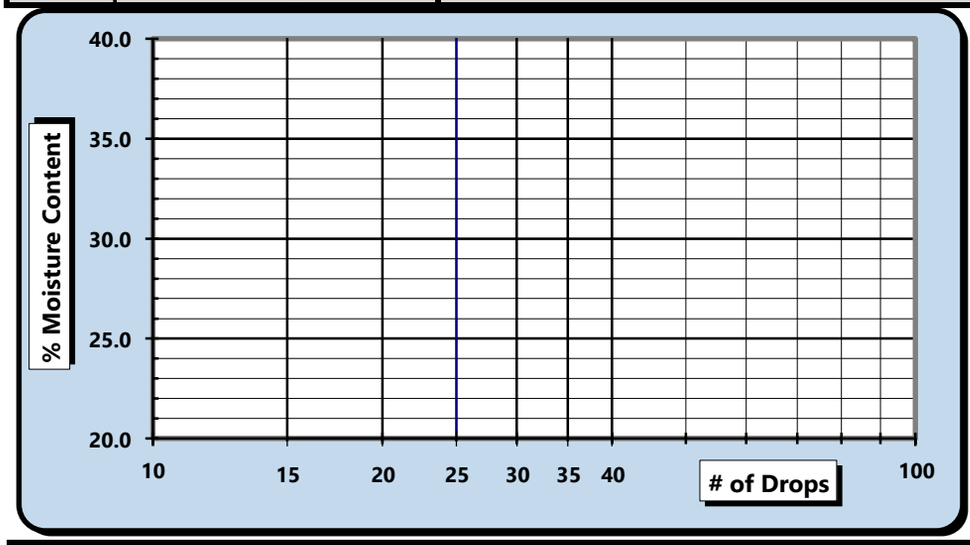
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/30/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-5	Type: Split-spoon	Depth: 8.0 - 10.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 33.5%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/31/23	Brian Vaughan, P.E.	7/31/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

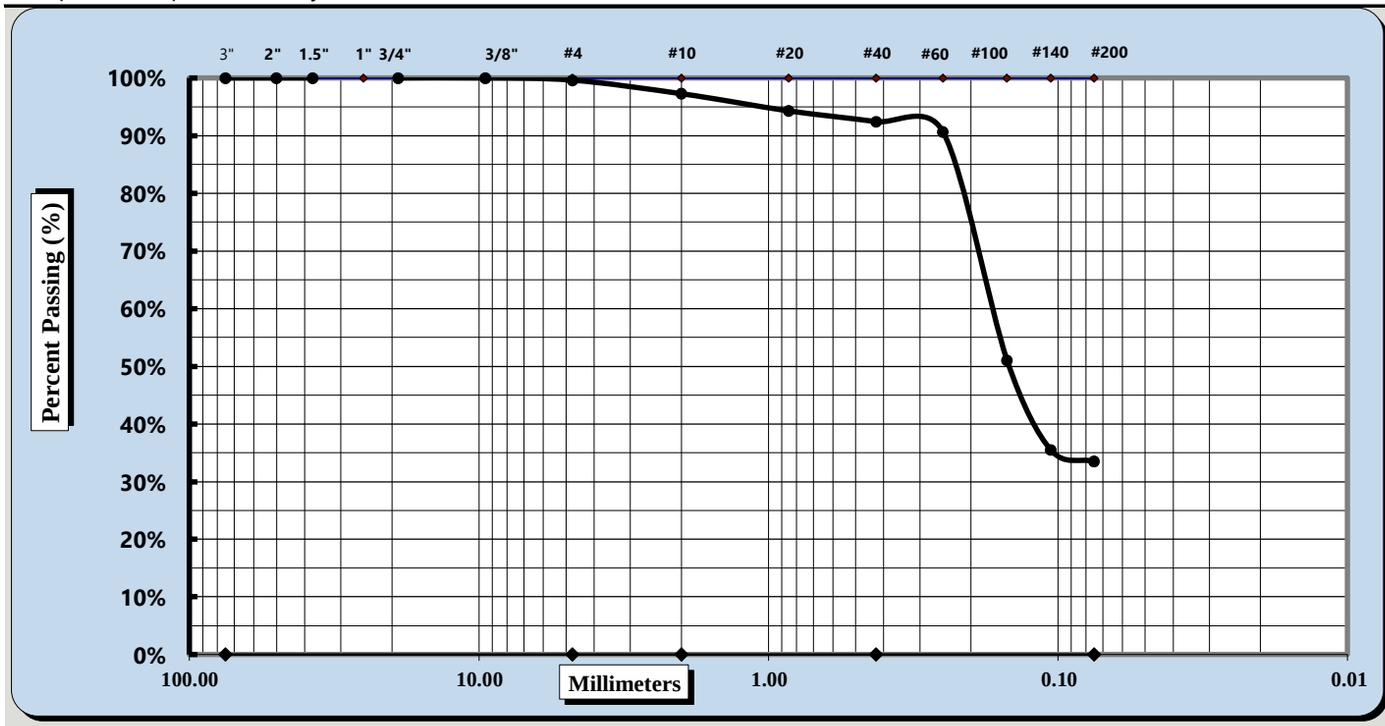
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 7/31/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-5	Type:	Split-spoon	Depth:	8.0 - 10.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	4.75 mm	Coarse Sand	2.3%	Fine Sand	58.9%
Gravel	0.4%	Medium Sand	4.9%	Silt & Clay	33.5%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	52.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/31/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

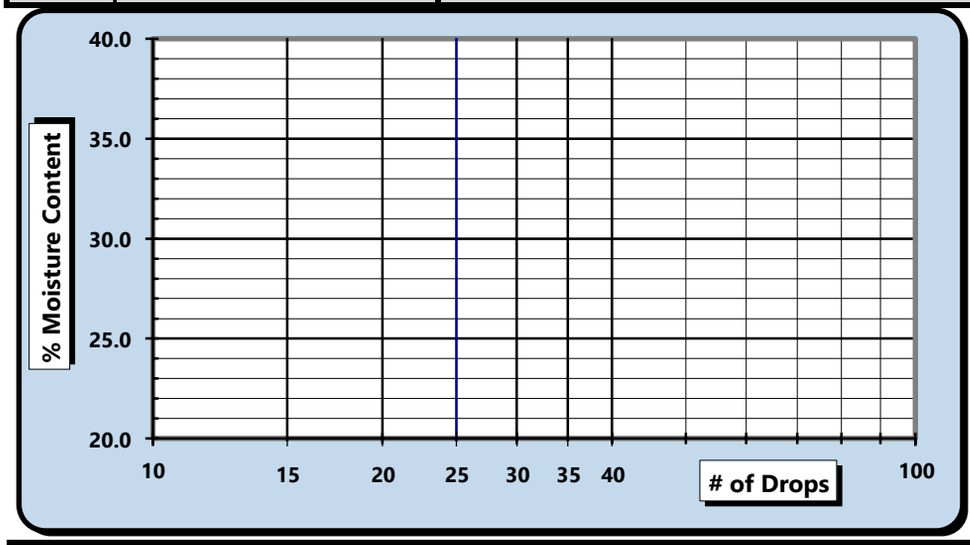
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/30/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-6	Type: Split-spoon	Depth: 10.0 - 12.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 13.2%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/31/23	Brian Vaughan, P.E.	7/31/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

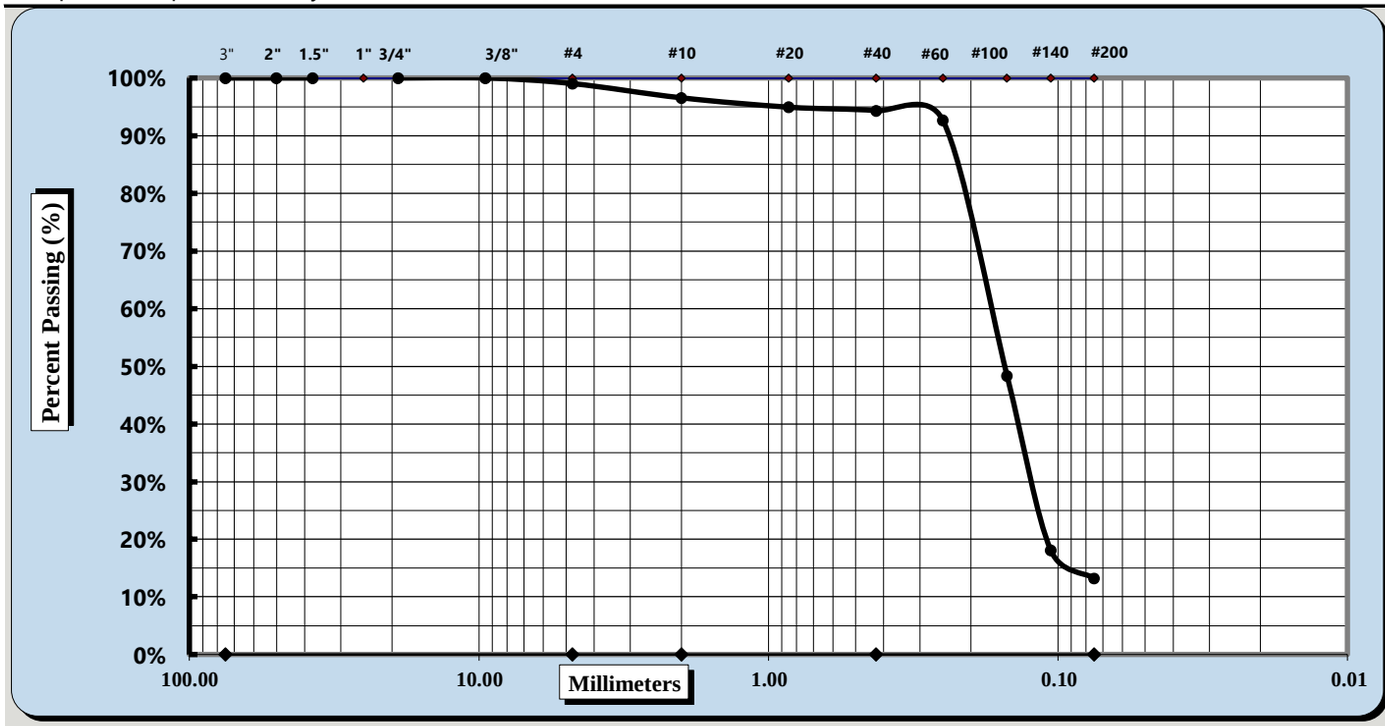
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 7/31/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-6	Type:	Split-spoon	Depth:	10.0 - 12.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	4.75 mm	Coarse Sand	2.5%	Fine Sand	81.1%
Gravel	1.0%	Medium Sand	2.2%	Silt & Clay	13.2%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	29.1%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/31/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

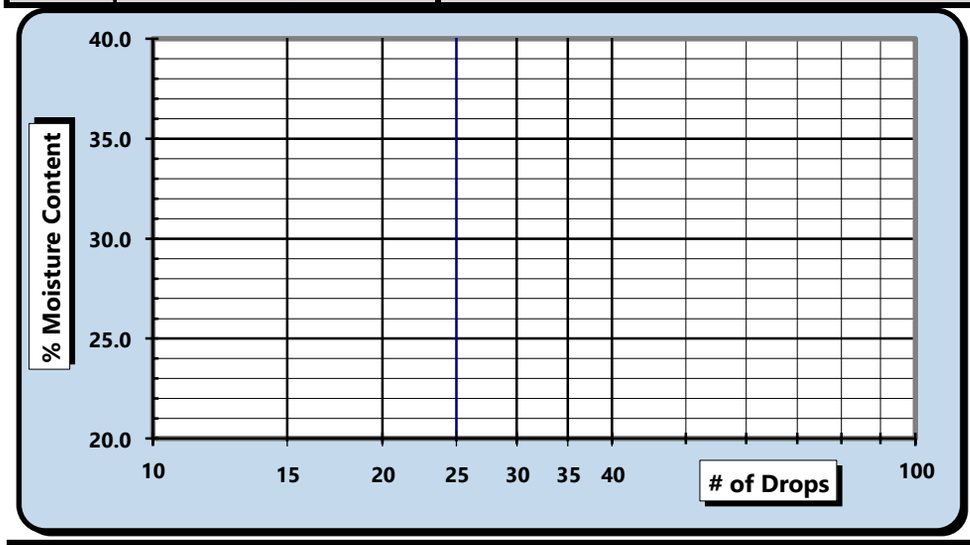
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/30/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-7	Type: Split-spoon	Depth: 12.0 - 14.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 18.3%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/31/23	Brian Vaughan, P.E.	7/31/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

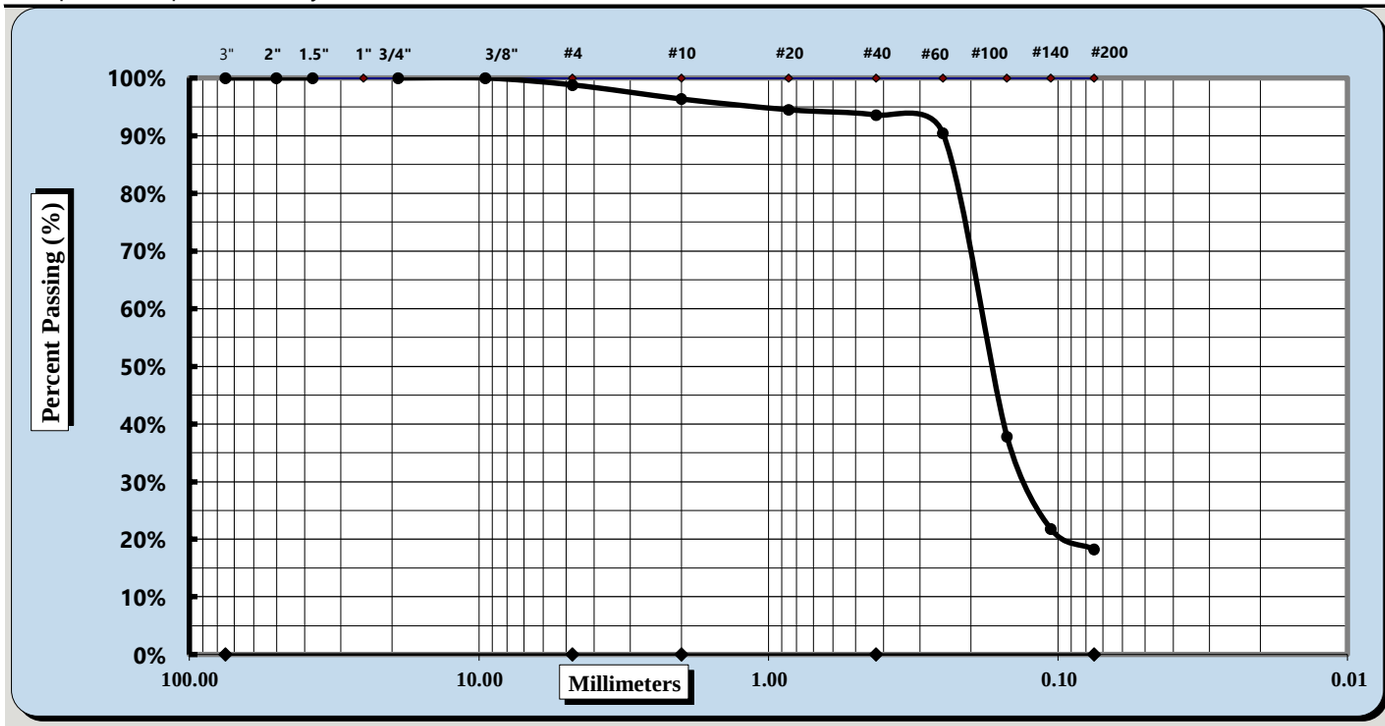
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 7/31/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-7	Type:	Split-spoon	Depth:	12.0 - 14.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	9.50 mm	Coarse Sand	2.4%	Fine Sand	75.3%
Gravel	1.2%	Medium Sand	2.8%	Silt & Clay	18.3%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	36.3%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/31/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

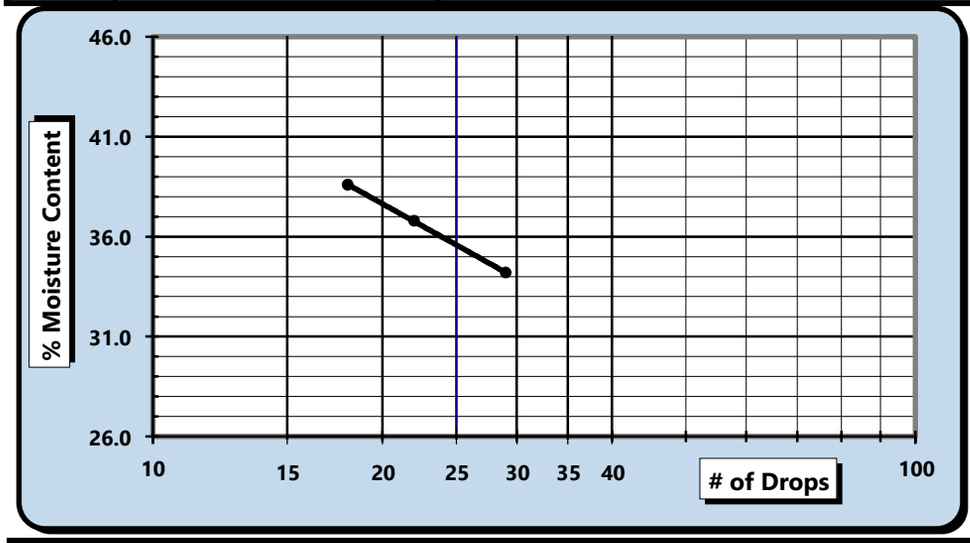
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/01/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/31/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-8	Type: Split-spoon	Depth: 14.0 - 16.0'
Sample Description:	lean CLAY with sand [CL / A-6(10)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.70	26.50	26.35				25.91		
B	Wet Soil Weight + A	42.75	41.22	39.06				38.95		
C	Dry Soil Weight + A	38.66	37.26	35.52				36.81		
D	Water Weight (B-C)	4.09	3.96	3.54				2.14		
E	Dry Soil Weight (C-A)	11.96	10.76	9.17				10.90		
F	% Moisture (D/E)*100	34.2%	36.8%	38.6%				19.6%		
N	# OF DROPS	29	22	18				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							19.6%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**36**
Plastic Limit	**20**
Plastic Index	**16**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 72.5%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	8/01/23	Brian Vaughan, P.E.	8/01/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

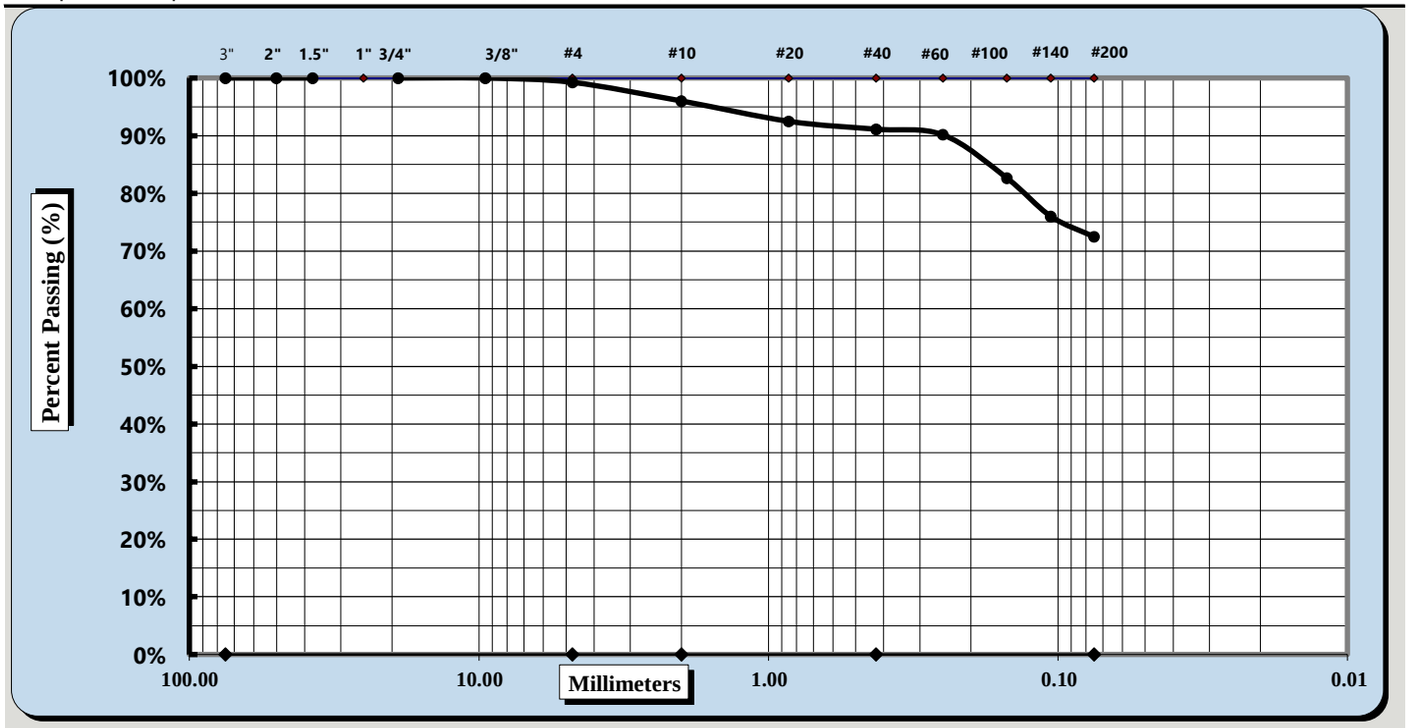
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/1/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 8/01/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-8	Type:	Split-spoon	Depth:	14.0 - 16.0'
Sample Description:	lean CLAY with sand [CL / A-6(10)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	4.75 mm	Coarse Sand	3.2%	Fine Sand	18.7%
Gravel	0.7%	Medium Sand	4.9%	Silt & Clay	72.5%
Liquid Limit	36	Plastic Limit	20	Plastic Index	16
		Natural Moisture	57.4%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/1/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

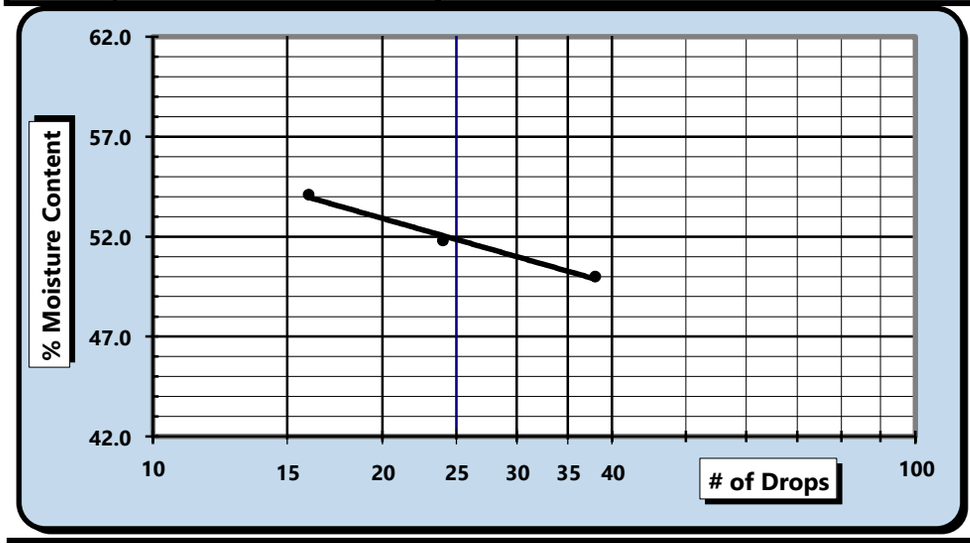
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/01/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/31/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-9	Type: Split-spoon	Depth: 16.0 - 18.0'
Sample Description:	fat CLAY [CH / A-7-6(28)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	5	6	7				8		
A	Tare Weight	26.96	27.79	26.30				27.29		
B	Wet Soil Weight + A	39.17	39.83	39.15				39.71		
C	Dry Soil Weight + A	35.10	35.72	34.64				37.22		
D	Water Weight (B-C)	4.07	4.11	4.51				2.49		
E	Dry Soil Weight (C-A)	8.14	7.93	8.34				9.93		
F	% Moisture (D/E)*100	50.0%	51.8%	54.1%				25.1%		
N	# OF DROPS	38	24	16				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							25.1%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**52**
Plastic Limit	**25**
Plastic Index	**27**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 92.3%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	8/01/23	Brian Vaughan, P.E.	8/01/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

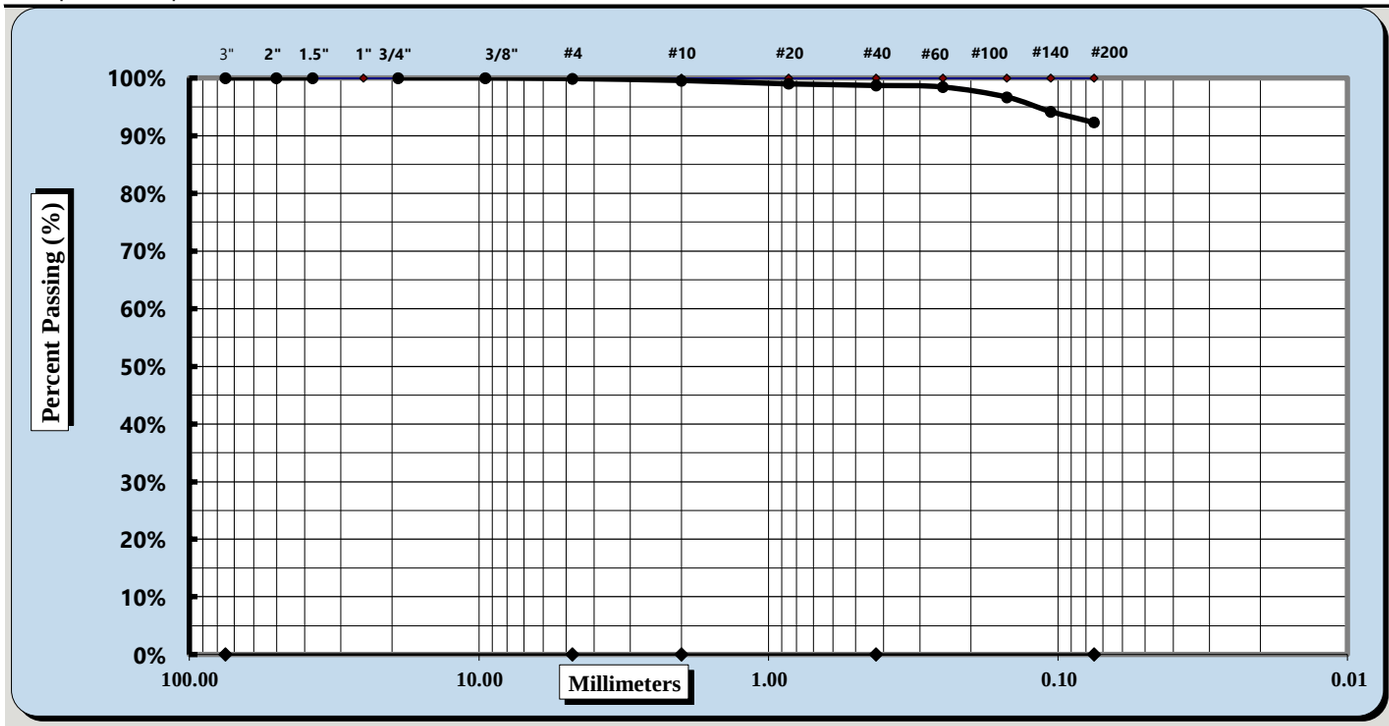
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/1/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 8/01/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-9	Type:	Split-spoon	Depth:	16.0 - 18.0'
Sample Description:	fat CLAY [CH / A-7-6(28)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.4%	Fine Sand	6.4%
Gravel	0.1%	Medium Sand	0.8%	Silt & Clay	92.3%
Liquid Limit	52	Plastic Limit	25	Plastic Index	27
		Natural Moisture	76.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/1/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

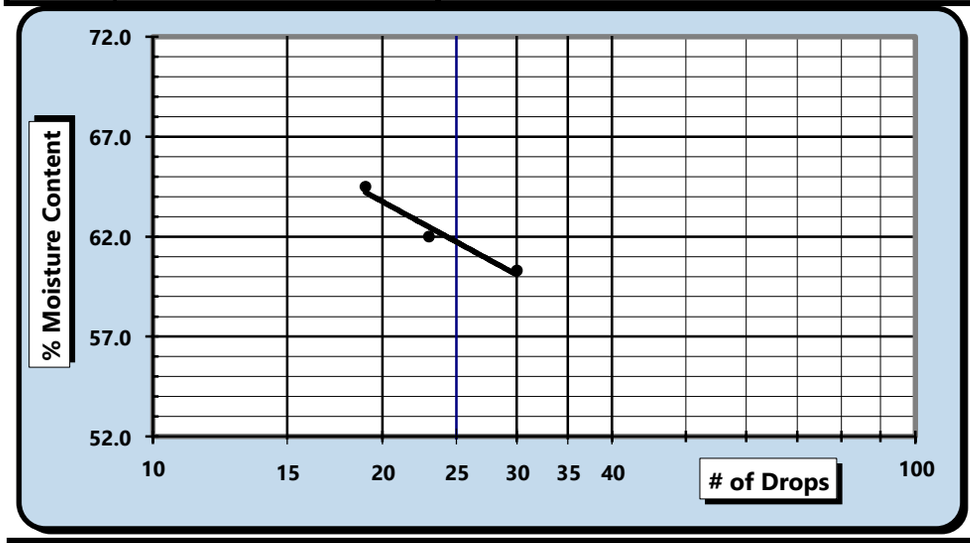
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/01/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/31/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-10	Type: Split-spoon	Depth: 18.0 - 20.0'
Sample Description:	elastic SILT [MH / A-7-5(35)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	9	10	11				12		
A	Tare Weight	26.83	26.75	26.67				26.64		
B	Wet Soil Weight + A	39.59	39.14	38.56				39.99		
C	Dry Soil Weight + A	34.79	34.40	33.90				36.75		
D	Water Weight (B-C)	4.80	4.74	4.66				3.24		
E	Dry Soil Weight (C-A)	7.96	7.65	7.23				10.11		
F	% Moisture (D/E)*100	60.3%	62.0%	64.5%				32.0%		
N	# OF DROPS	30	23	19				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							32.0%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**62**
Plastic Limit	**32**
Plastic Index	**30**
Group Symbol	**MH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 96.4%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	8/01/23	Brian Vaughan, P.E.	8/01/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

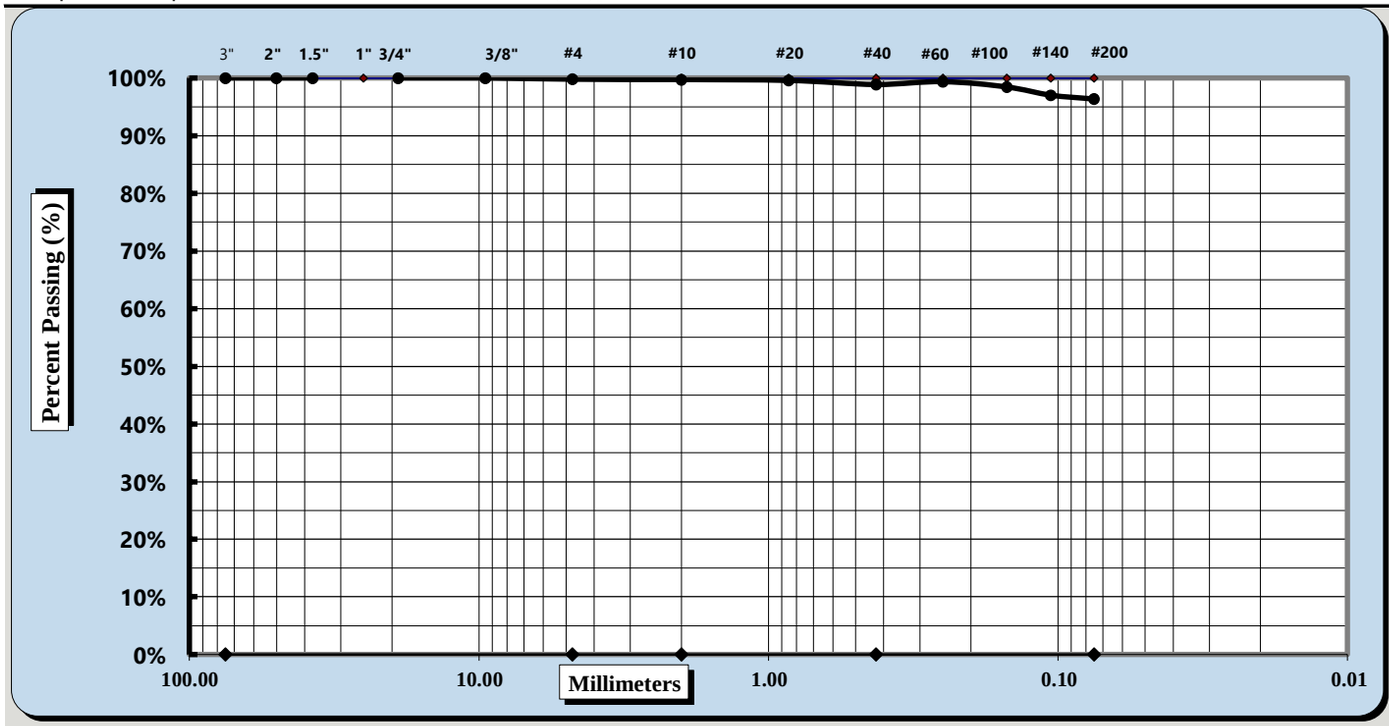
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/1/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 8/01/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-10	Type:	Split-spoon	Depth:	18.0 - 20.0'
Sample Description:	elastic SILT [MH / A-7-5(35)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.25 mm	Coarse Sand	0.1%	Fine Sand	2.5%
Gravel	0.2%	Medium Sand	0.8%	Silt & Clay	96.4%
Liquid Limit	62	Plastic Limit	32	Plastic Index	30
		Natural Moisture	88.1%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/1/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

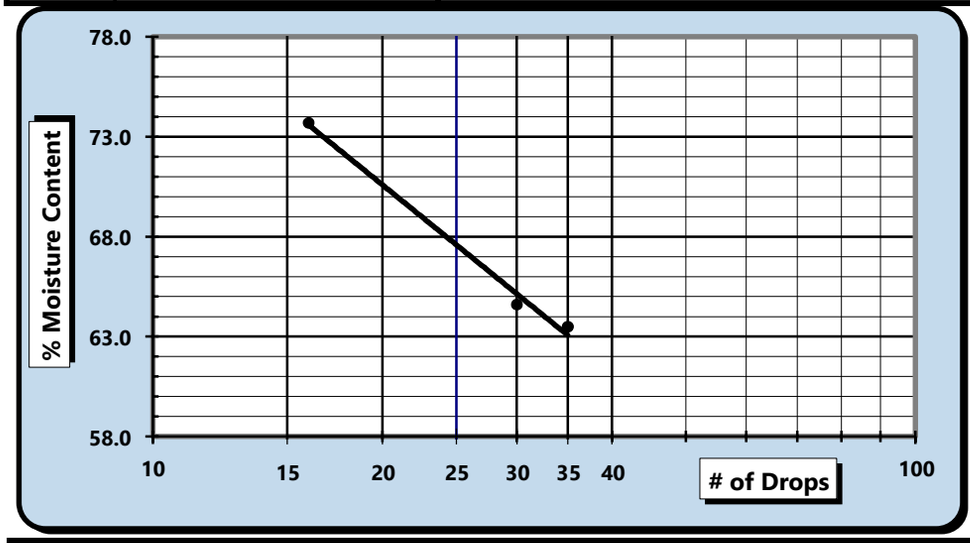
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/01/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/31/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-11	Type: Split-spoon	Depth: 20.0 - 22.0'
Sample Description:	elastic SILT [MH / A-7-5(36)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	13	14	15				16		
A	Tare Weight	26.75	26.62	27.60				26.58		
B	Wet Soil Weight + A	39.11	38.98	40.37				38.43		
C	Dry Soil Weight + A	34.31	34.13	34.95				35.31		
D	Water Weight (B-C)	4.80	4.85	5.42				3.12		
E	Dry Soil Weight (C-A)	7.56	7.51	7.35				8.73		
F	% Moisture (D/E)*100	63.5%	64.6%	73.7%				35.7%		
N	# OF DROPS	35	30	16				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							35.7%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**68**
Plastic Limit	**36**
Plastic Index	**32**
Group Symbol	**MH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 91.4%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	8/01/23	Brian Vaughan, P.E.	8/01/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

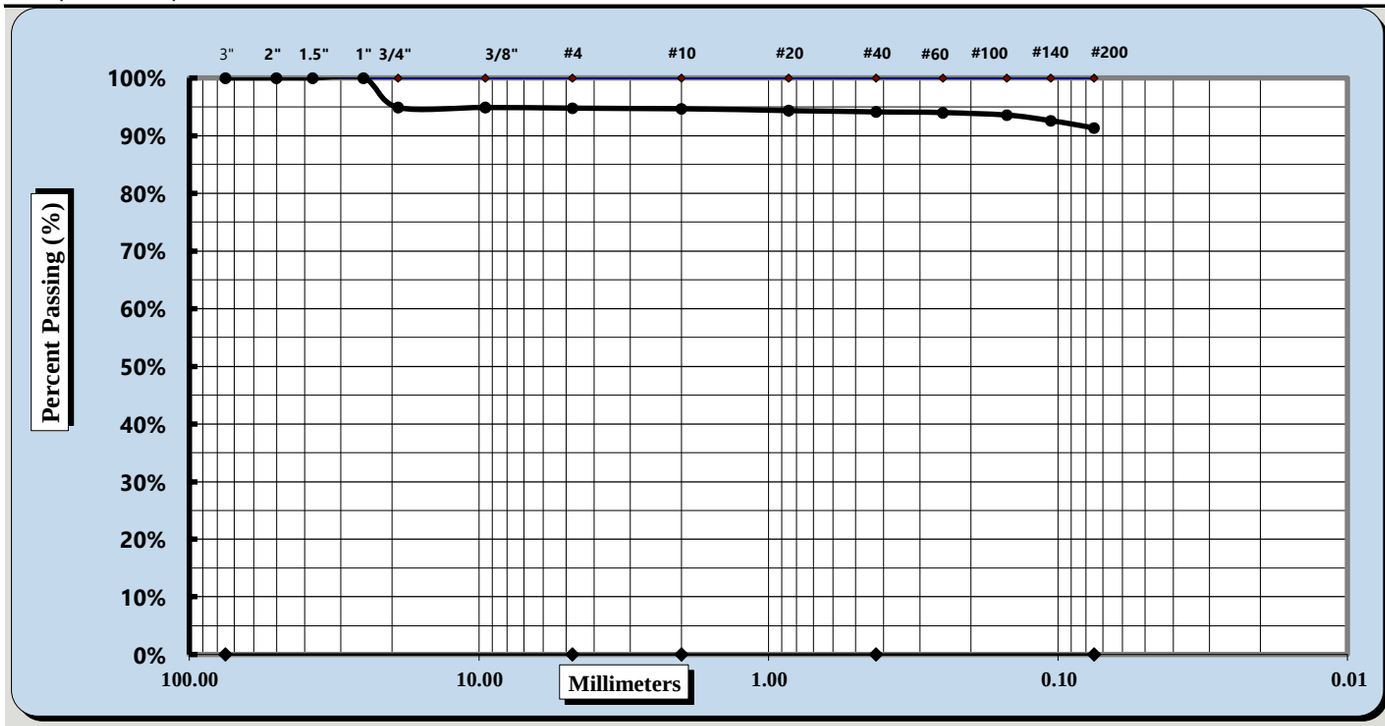
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/1/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 8/01/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-11	Type:	Split-spoon	Depth:	20.0 - 22.0'
Sample Description:	elastic SILT [MH / A-7-5(36)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	25.0 mm	Coarse Sand	0.1%	Fine Sand	2.8%
Gravel	5.2%	Medium Sand	0.5%	Silt & Clay	91.4%
Liquid Limit	68	Plastic Limit	36	Plastic Index	32
		Natural Moisture	89.5%		

Notes / Deviations / References:

Brian Vaughan, P.E. — *Technical Responsibility*
Brian Vaughan — *Signature*
QA Supervisor — *Position*
8/1/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

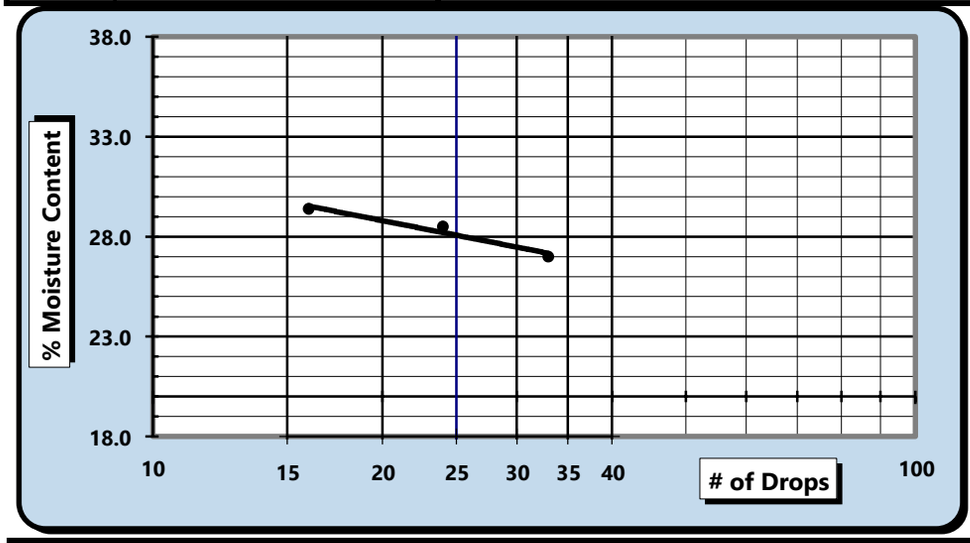
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/28/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-12	Type: Split-spoon	Depth: 22.0 - 24.0'
Sample Description:	sandy lean CLAY [CL / A-6(5)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	13	14	15				16		
A	Tare Weight	26.75	26.62	27.60				26.57		
B	Wet Soil Weight + A	41.11	41.28	39.87				37.28		
C	Dry Soil Weight + A	38.06	38.03	37.08				35.72		
D	Water Weight (B-C)	3.05	3.25	2.79				1.56		
E	Dry Soil Weight (C-A)	11.31	11.41	9.48				9.15		
F	% Moisture (D/E)*100	27.0%	28.5%	29.4%				17.0%		
N	# OF DROPS	33	24	16				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							17.0%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**28**
Plastic Limit	**17**
Plastic Index	**11**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 65.9%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/31/23	Brian Vaughan, P.E.	7/31/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

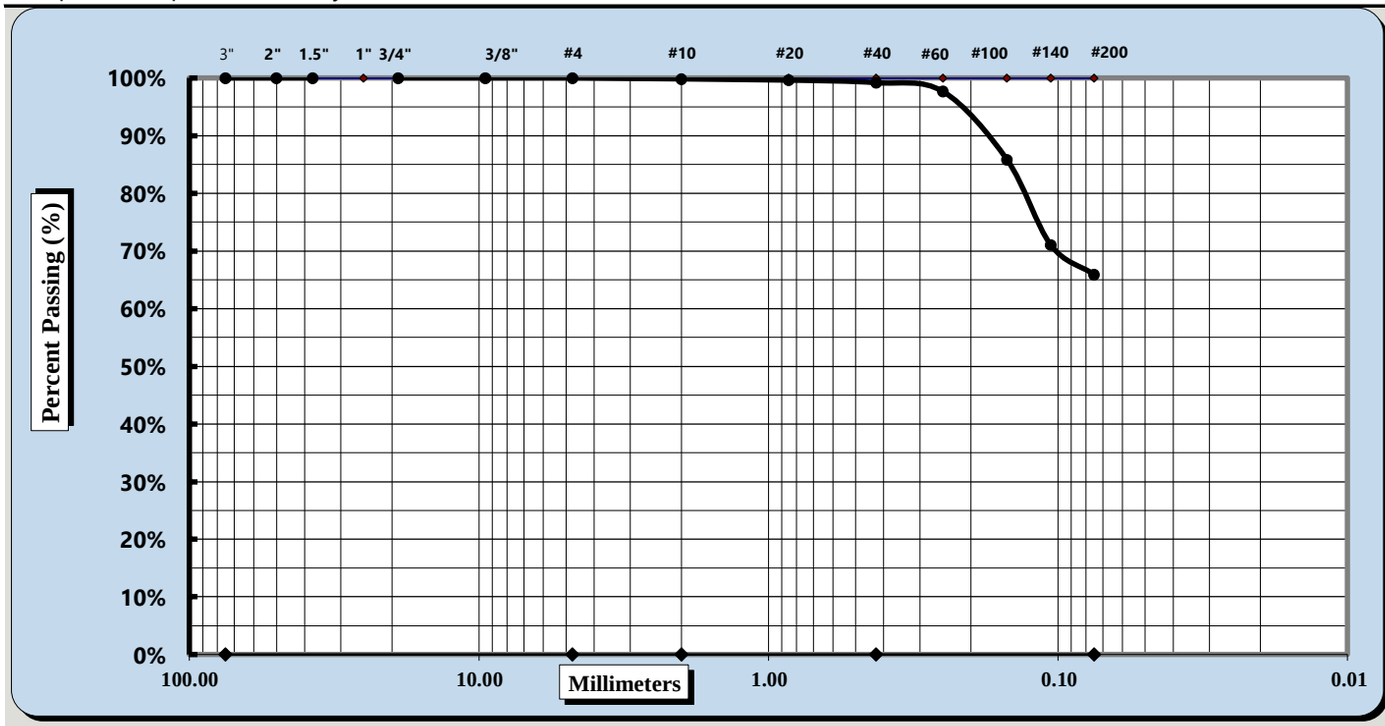
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 7/31/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-12	Type:	Split-spoon	Depth:	22.0 - 24.0'
Sample Description:	sandy lean CLAY [CL / A-6(5)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.425 mm	Coarse Sand	0.2%	Fine Sand	33.3%
Gravel	0.0%	Medium Sand	0.6%	Silt & Clay	65.9%
Liquid Limit	28	Plastic Limit	17	Plastic Index	11
		Natural Moisture	32.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/31/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

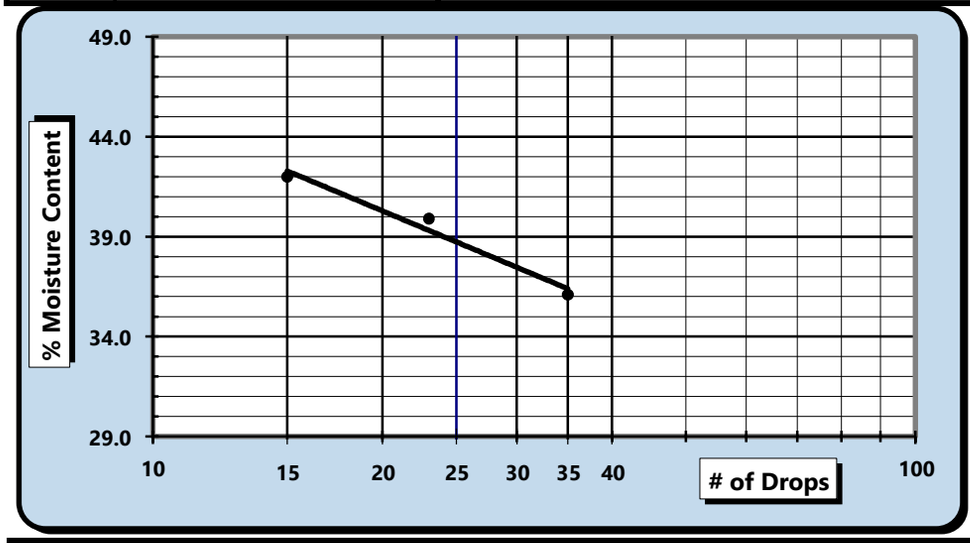
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/01/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/31/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-13	Type: Split-spoon	Depth: 24.0 - 26.0'
Sample Description:	sandy lean CLAY [CL / A-6(10)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	17	18	19				20		
A	Tare Weight	26.64	26.80	26.69				26.80		
B	Wet Soil Weight + A	40.22	40.37	40.44				41.05		
C	Dry Soil Weight + A	36.62	36.50	36.37				38.93		
D	Water Weight (B-C)	3.60	3.87	4.07				2.12		
E	Dry Soil Weight (C-A)	9.98	9.70	9.68				12.13		
F	% Moisture (D/E)*100	36.1%	39.9%	42.0%				17.5%		
N	# OF DROPS	35	23	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							17.5%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**39**
Plastic Limit	**18**
Plastic Index	**21**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 61.3%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	8/01/23	Brian Vaughan, P.E.	8/01/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

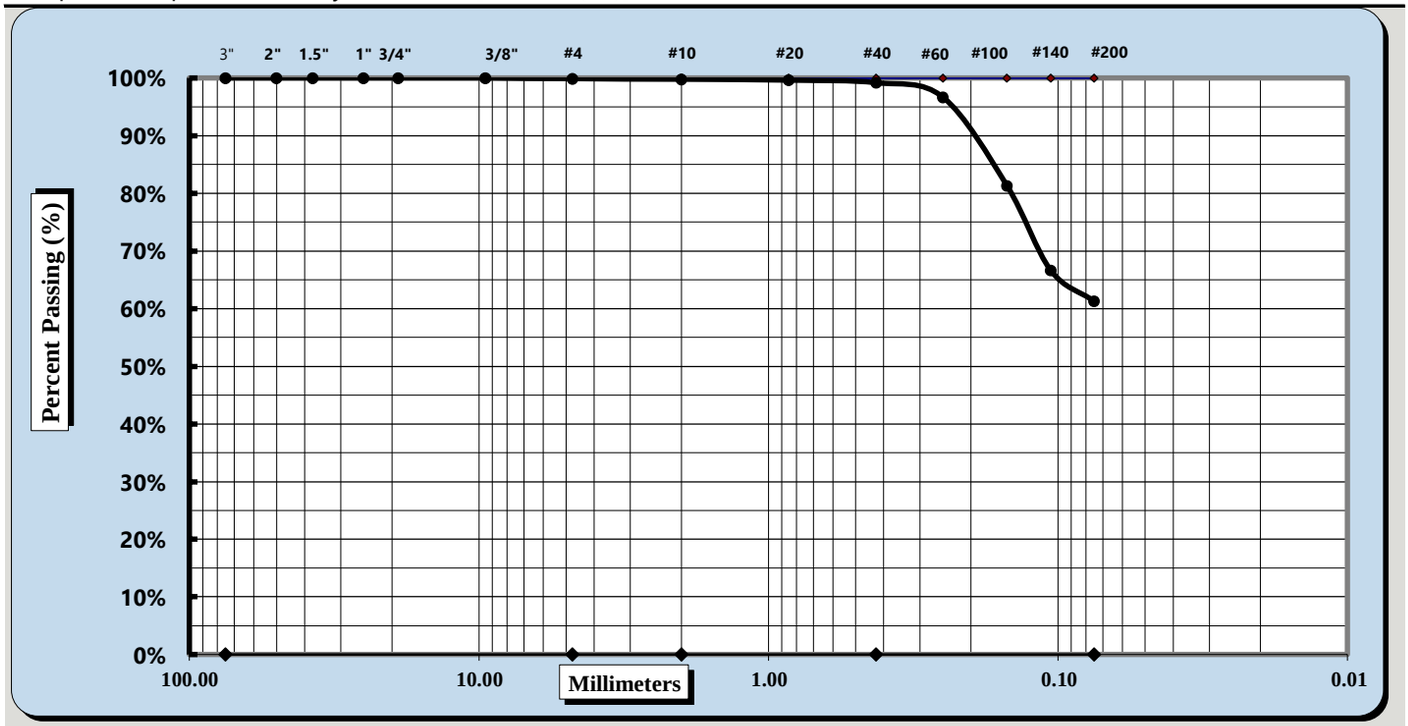
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/1/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 8/01/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-13	Type:	Split-spoon	Depth:	24.0 - 26.0'
Sample Description:	sandy lean CLAY [CL / A-6(10)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.425 mm	Coarse Sand	0.1%	Fine Sand	37.9%
Gravel	0.1%	Medium Sand	0.6%	Silt & Clay	61.3%
Liquid Limit	39	Plastic Limit	18	Plastic Index	21
		Natural Moisture	32.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/1/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

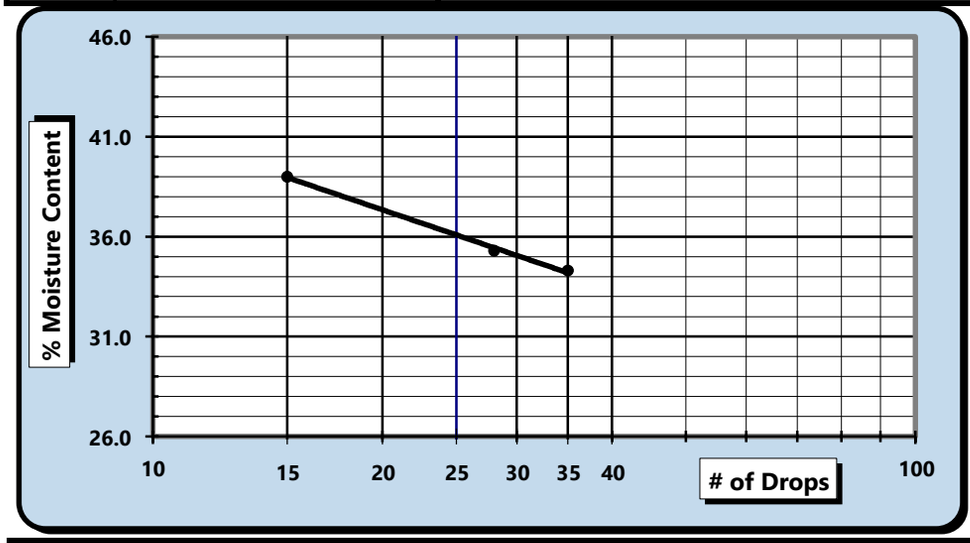
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/01/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/31/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-14	Type: Split-spoon	Depth: 26.0 - 28.0'
Sample Description:	clayey SAND [SC / A-6(5)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	21	22	23				24		
A	Tare Weight	28.08	25.65	27.24				25.96		
B	Wet Soil Weight + A	42.41	40.24	39.97				40.40		
C	Dry Soil Weight + A	38.75	36.43	36.40				38.08		
D	Water Weight (B-C)	3.66	3.81	3.57				2.32		
E	Dry Soil Weight (C-A)	10.67	10.78	9.16				12.12		
F	% Moisture (D/E)*100	34.3%	35.3%	39.0%				19.1%		
N	# OF DROPS	35	28	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							19.1%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**36**
Plastic Limit	**19**
Plastic Index	**17**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 49.3%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	8/01/23	Brian Vaughan, P.E.	8/01/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

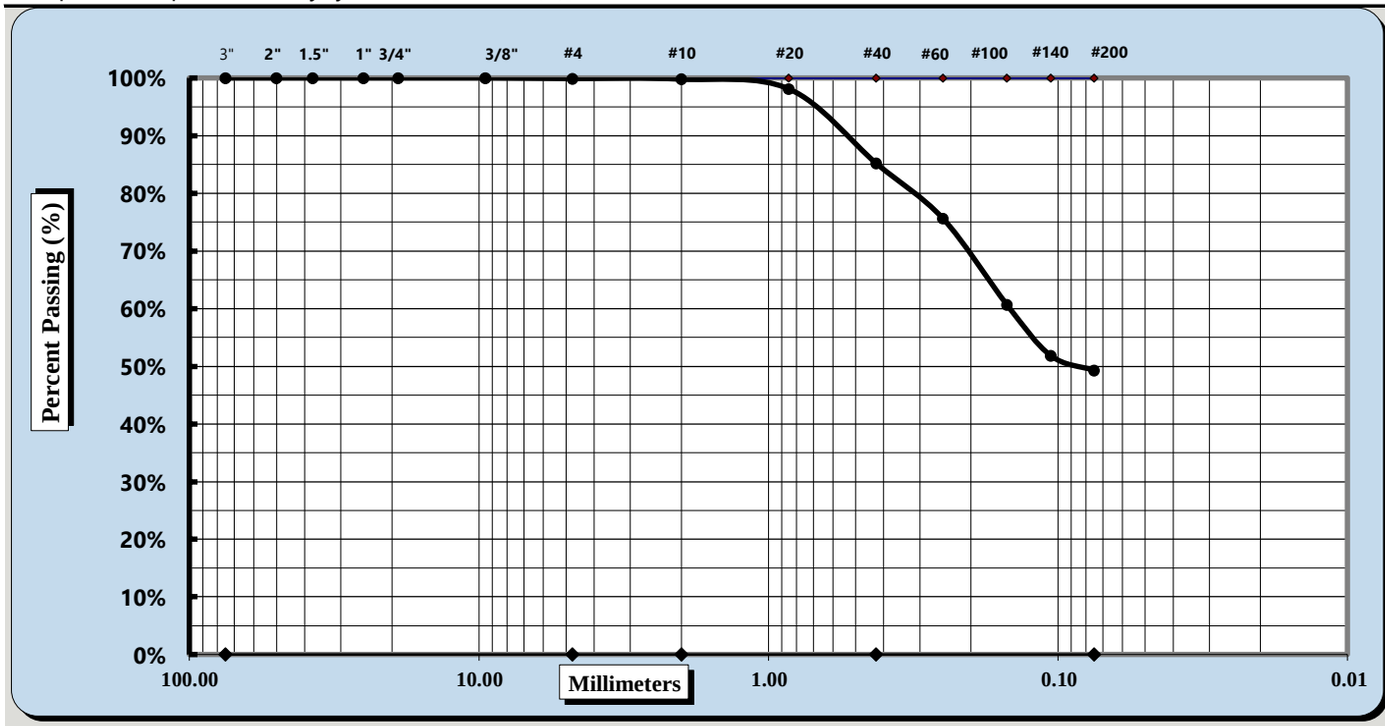
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/1/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 8/01/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-14	Type:	Split-spoon	Depth:	26.0 - 28.0'
Sample Description:	clayey SAND [SC / A-6(5)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.1%	Fine Sand	35.9%
Gravel	0.1%	Medium Sand	14.6%	Silt & Clay	49.3%
Liquid Limit	36	Plastic Limit	19	Plastic Index	17
		Natural Moisture	39.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/1/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

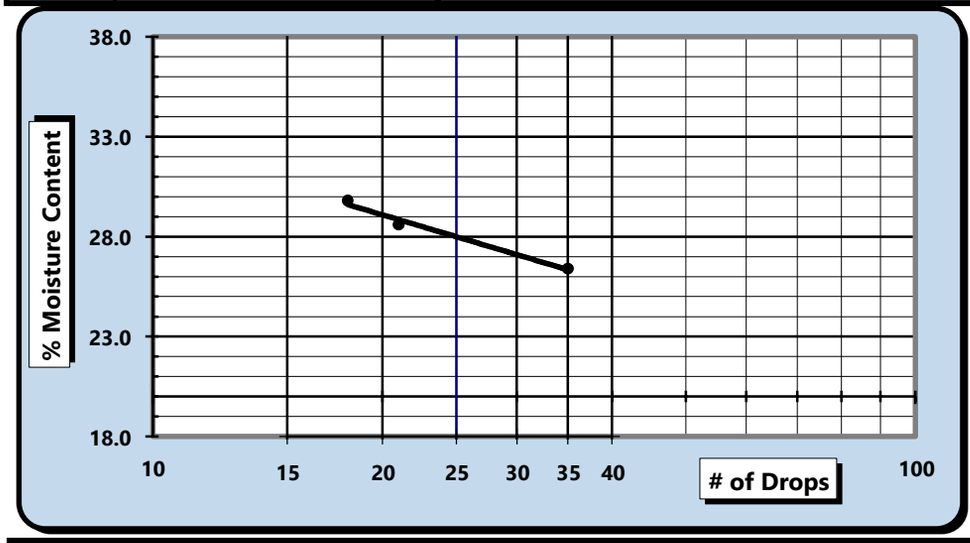
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/28/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-15	Type: Split-spoon	Depth: 28.0 - 30.0'
Sample Description:	clayey SAND [SC / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	5	6	7				8		
A	Tare Weight	26.98	27.78	26.29				27.29		
B	Wet Soil Weight + A	42.90	44.45	42.39				40.05		
C	Dry Soil Weight + A	39.57	40.74	38.69				37.91		
D	Water Weight (B-C)	3.33	3.71	3.70				2.14		
E	Dry Soil Weight (C-A)	12.59	12.96	12.40				10.62		
F	% Moisture (D/E)*100	26.4%	28.6%	29.8%				20.2%		
N	# OF DROPS	35	21	18				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							20.2%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**28**
Plastic Limit	**20**
Plastic Index	**8**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 25.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/31/23	Brian Vaughan, P.E.	7/31/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

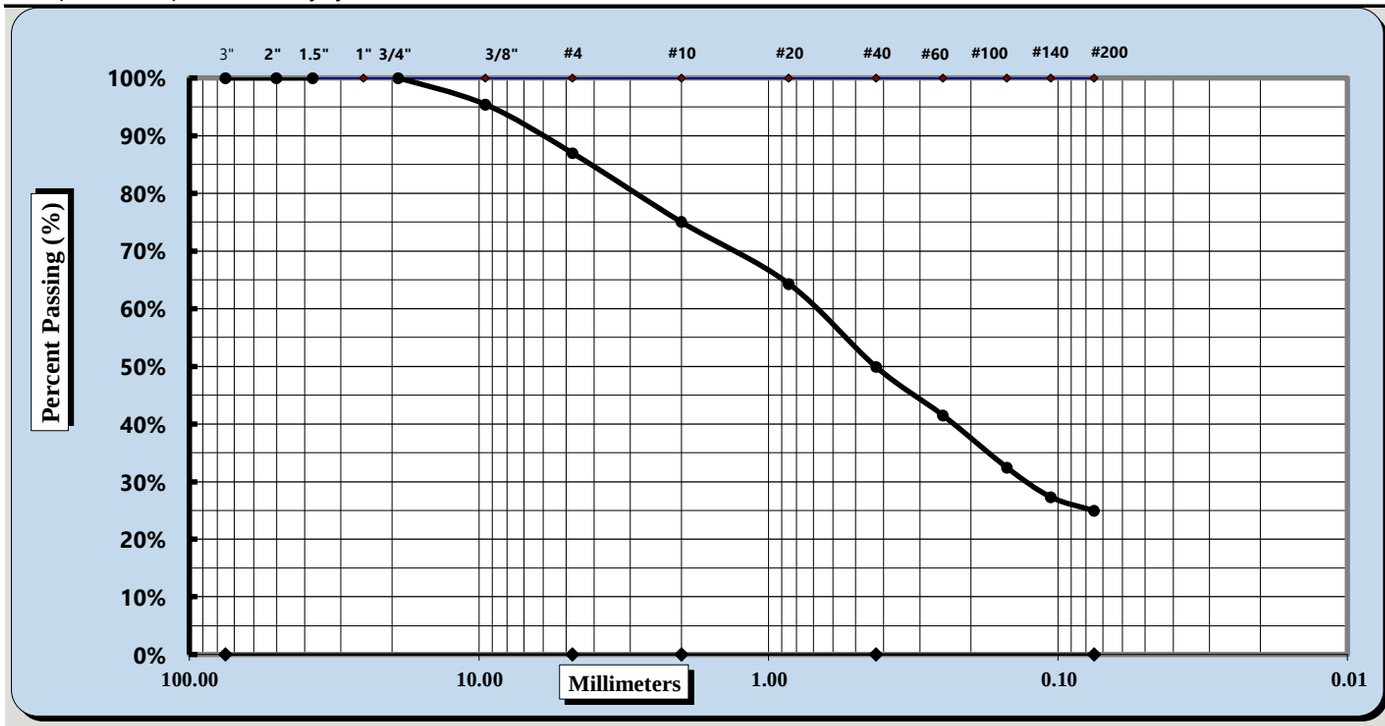
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 7/31/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-15	Type:	Split-spoon	Depth:	28.0 - 30.0'
Sample Description:	clayey SAND [SC / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	19.0 mm	Coarse Sand	12.0%	Fine Sand	24.9%
Gravel	13.0%	Medium Sand	25.2%	Silt & Clay	25.0%
Liquid Limit	28	Plastic Limit	20	Plastic Index	8
		Natural Moisture	36.0%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/31/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

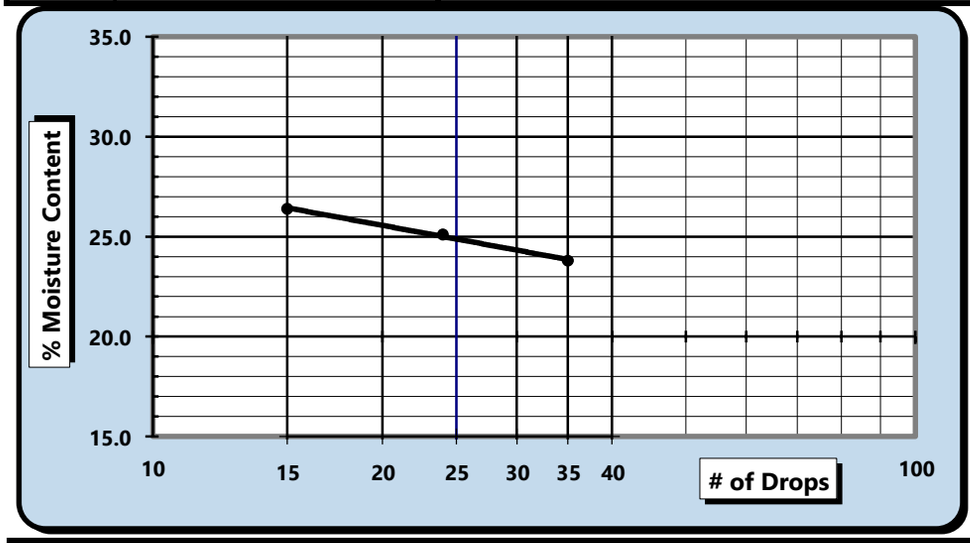
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/28/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-16	Type: Split-spoon	Depth: 30.0 - 32.0'
Sample Description:	silty clayey SAND [SC-SM / A-1-b]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	9	10	11				12		
A	Tare Weight	26.82	26.74	26.67				26.64		
B	Wet Soil Weight + A	43.86	42.20	42.59				37.61		
C	Dry Soil Weight + A	40.58	39.10	39.26				35.81		
D	Water Weight (B-C)	3.28	3.10	3.33				1.80		
E	Dry Soil Weight (C-A)	13.76	12.36	12.59				9.17		
F	% Moisture (D/E)*100	23.8%	25.1%	26.4%				19.6%		
N	# OF DROPS	35	24	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							19.6%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**25**
Plastic Limit	**20**
Plastic Index	**5**
Group Symbol	**CL-ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 12.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/31/23	Brian Vaughan, P.E.	7/31/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

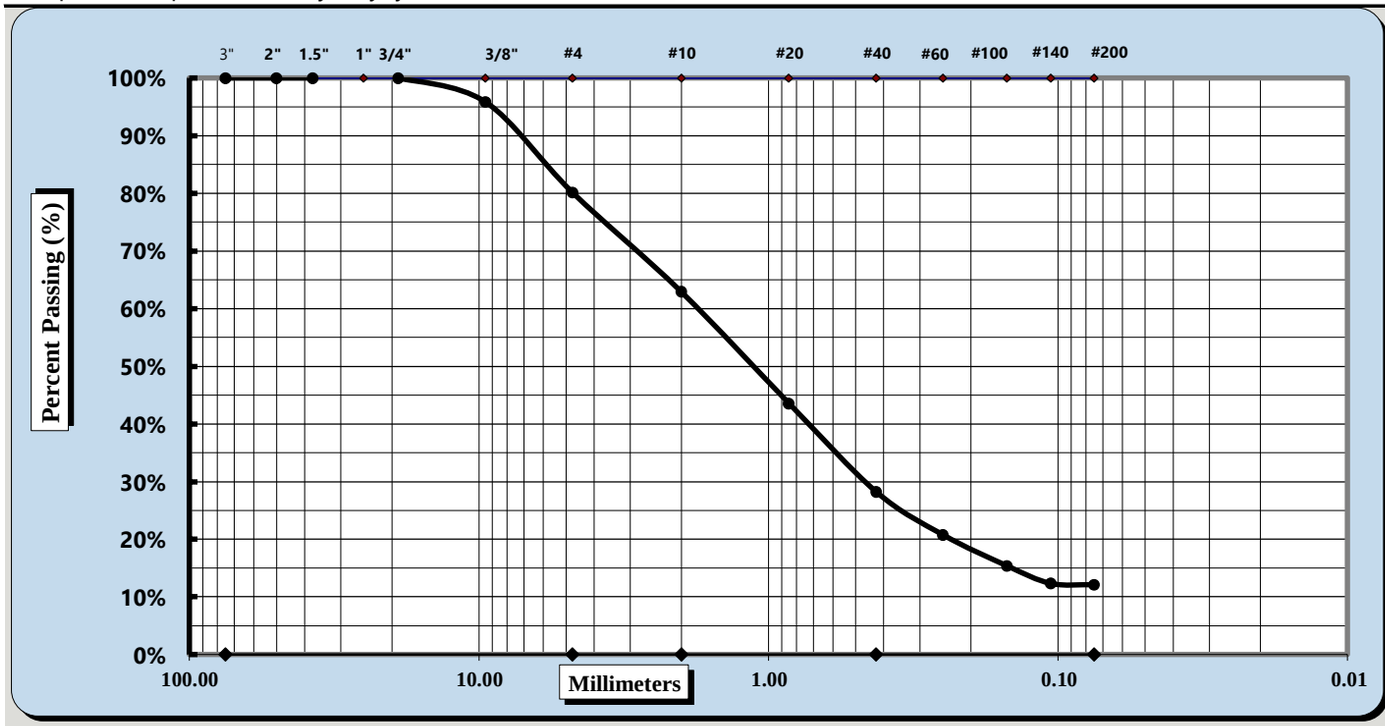
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/31/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 7/31/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-16	Type:	Split-spoon	Depth:	30.0 - 32.0'
Sample Description:	silty clayey SAND [SC-SM / A-1-b]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	19.0 mm	Coarse Sand	17.2%	Fine Sand	16.1%
Gravel	19.9%	Medium Sand	34.7%	Silt & Clay	12.1%
Liquid Limit	25	Plastic Limit	20	Plastic Index	5
		Natural Moisture	25.7%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/31/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

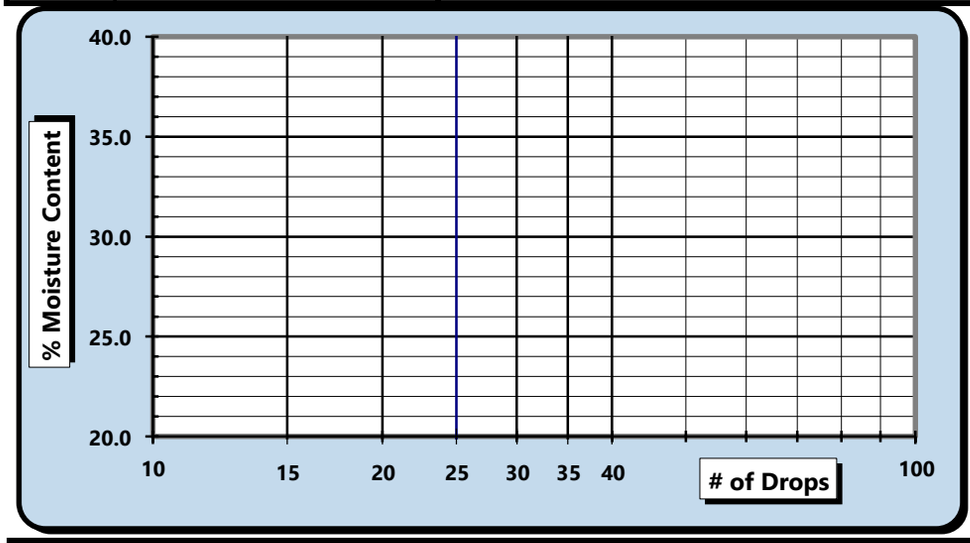
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/01/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/31/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-17	Type: Split-spoon	Depth: 32.0 - 34.0'
Sample Description:	silty SAND [SM / A-1-b]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 12.2%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	8/01/23	Brian Vaughan, P.E.	8/01/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

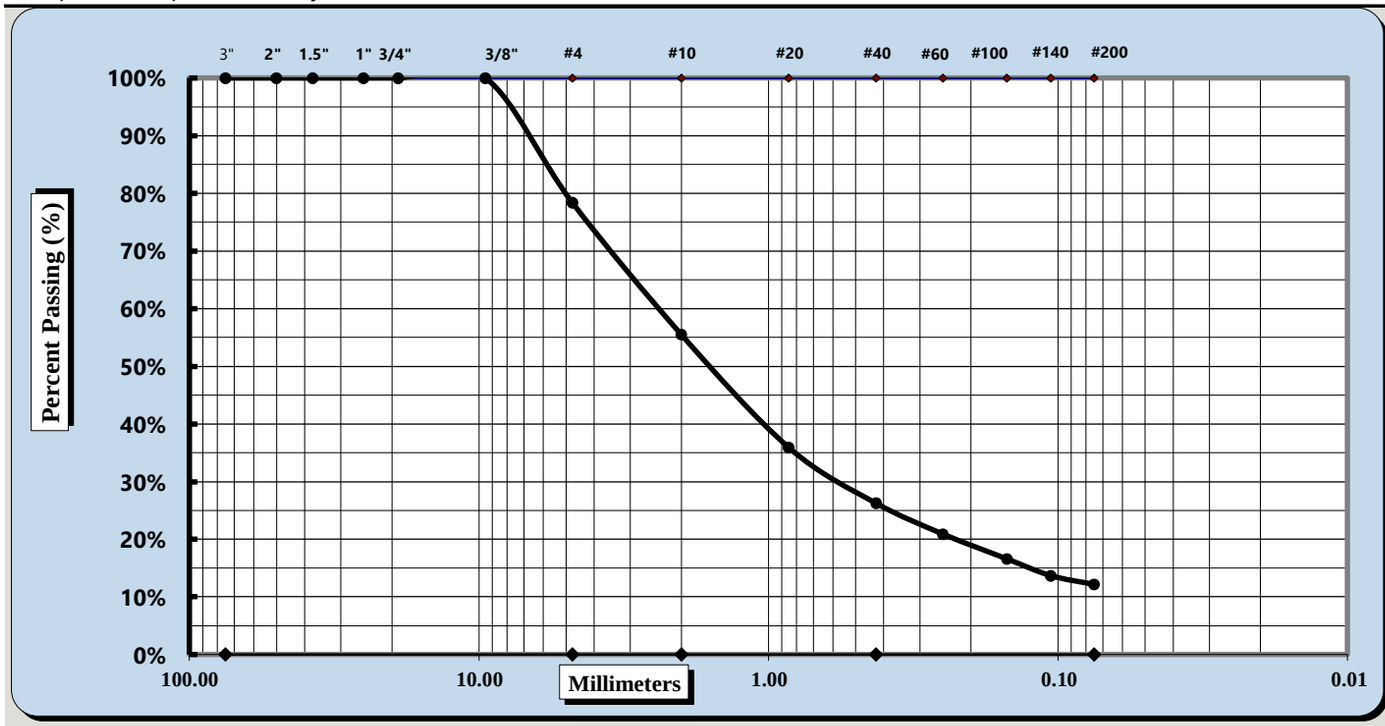
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/1/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 8/01/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-17	Type:	Split-spoon	Depth:	32.0 - 34.0'
Sample Description:	silty SAND [SM / A-1-b]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	9.50 mm	Coarse Sand	22.9%	Fine Sand	14.1%
Gravel	21.6%	Medium Sand	29.3%	Silt & Clay	12.2%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	25.7%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/1/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

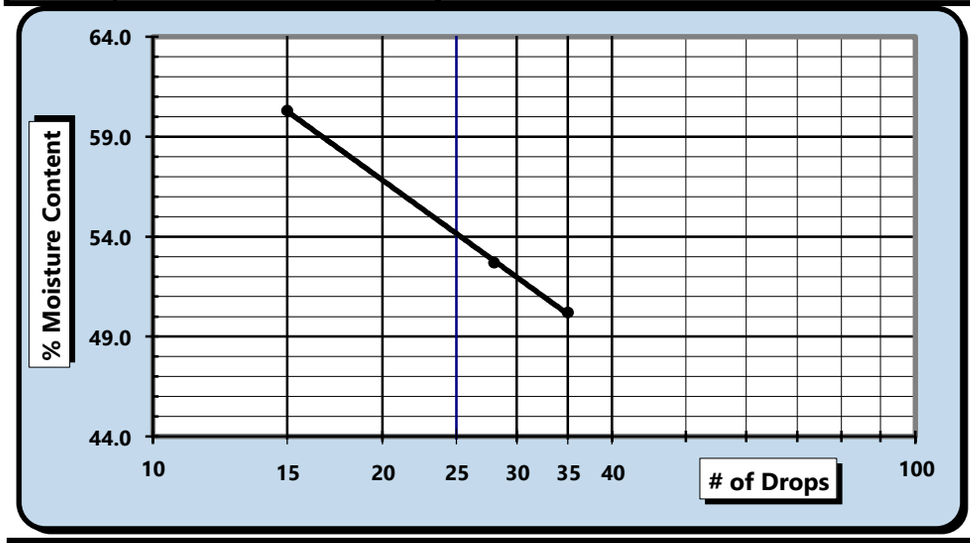
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/01/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/31/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-18	Type: Split-spoon	Depth: 34.0 - 36.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(27)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	25	26	27				28		
A	Tare Weight	26.78	27.33	26.93				26.79		
B	Wet Soil Weight + A	40.43	39.29	39.74				40.25		
C	Dry Soil Weight + A	35.87	35.16	34.92				37.67		
D	Water Weight (B-C)	4.56	4.13	4.82				2.58		
E	Dry Soil Weight (C-A)	9.09	7.83	7.99				10.88		
F	% Moisture (D/E)*100	50.2%	52.7%	60.3%				23.7%		
N	# OF DROPS	35	28	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							23.7%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**54**
Plastic Limit	**24**
Plastic Index	**30**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 83.8%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	8/01/23	Brian Vaughan, P.E.	8/01/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

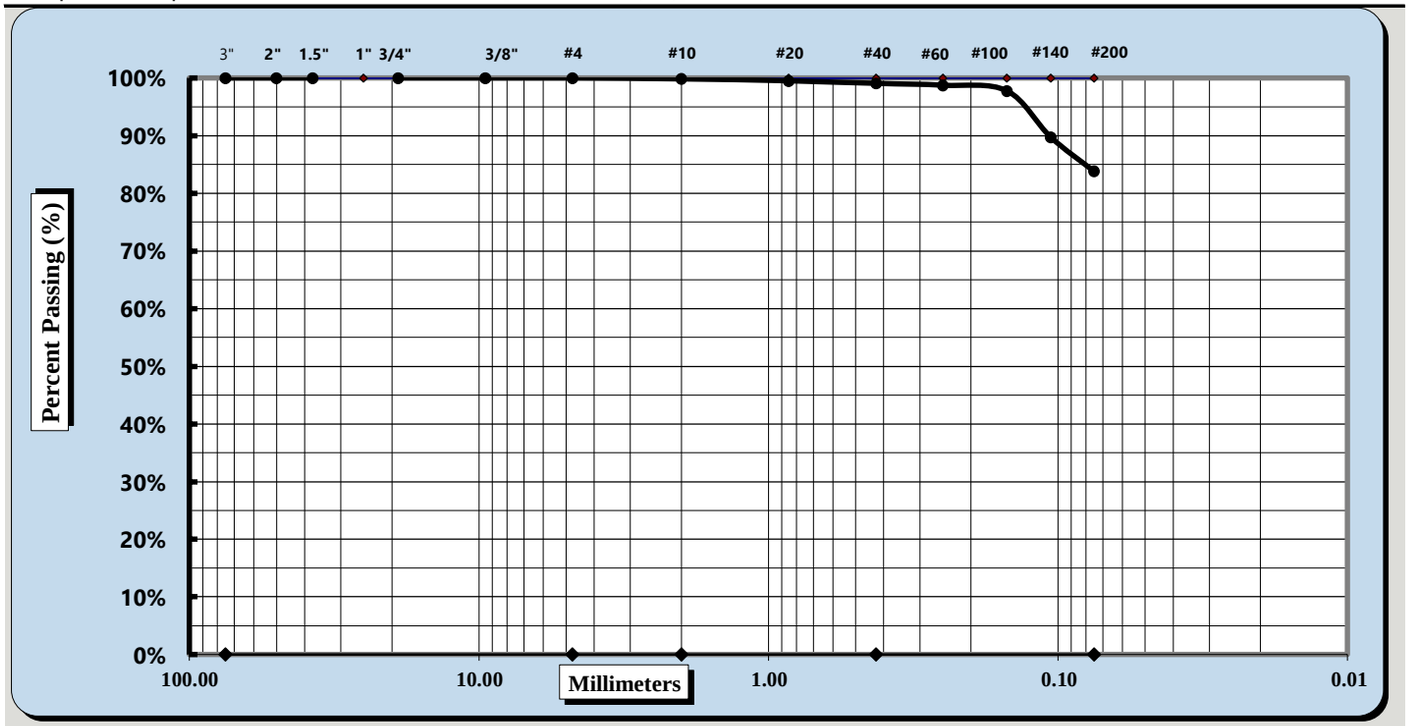
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/1/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 8/01/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-18	Type:	Split-spoon	Depth:	34.0 - 36.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(27)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.425 mm	Coarse Sand	0.1%	Fine Sand	15.2%
Gravel	0.0%	Medium Sand	0.8%	Silt & Clay	83.8%
Liquid Limit	54	Plastic Limit	24	Plastic Index	30
		Natural Moisture	71.0%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/1/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

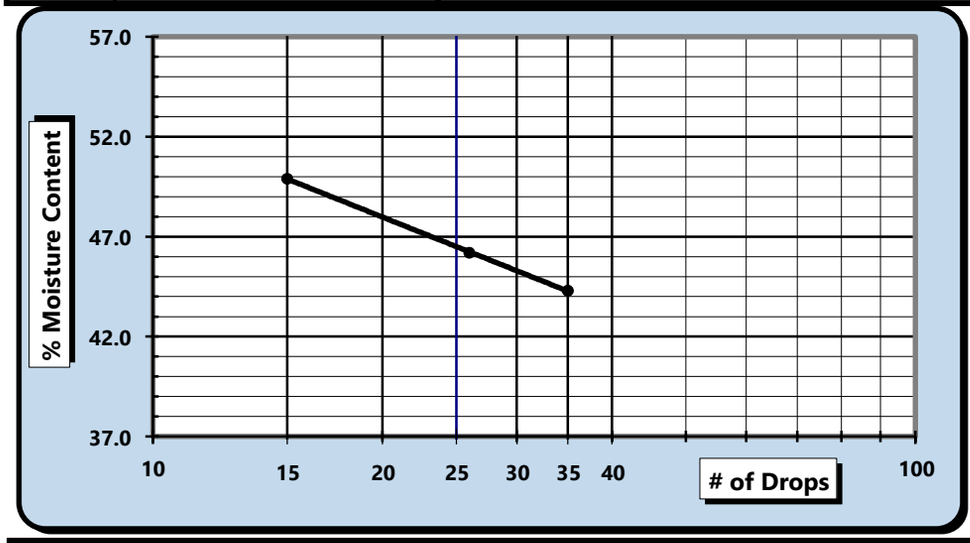
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/02/23
Project Name:	526 Longpoint Road Interchange	Test Date:	8/01/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-19	Type: Split-spoon	Depth: 36.0 - 38.0'
Sample Description:	lean CLAY with sand [CL / A-7-6(18)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	29	30	31				32		
A	Tare Weight	26.99	27.36	28.68				27.60		
B	Wet Soil Weight + A	42.11	41.98	39.98				39.75		
C	Dry Soil Weight + A	37.47	37.36	36.22				37.75		
D	Water Weight (B-C)	4.64	4.62	3.76				2.00		
E	Dry Soil Weight (C-A)	10.48	10.00	7.54				10.15		
F	% Moisture (D/E)*100	44.3%	46.2%	49.9%				19.7%		
N	# OF DROPS	35	26	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							19.7%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**47**
Plastic Limit	**20**
Plastic Index	**27**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 70.5%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	8/02/23	Brian Vaughan, P.E.	8/02/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

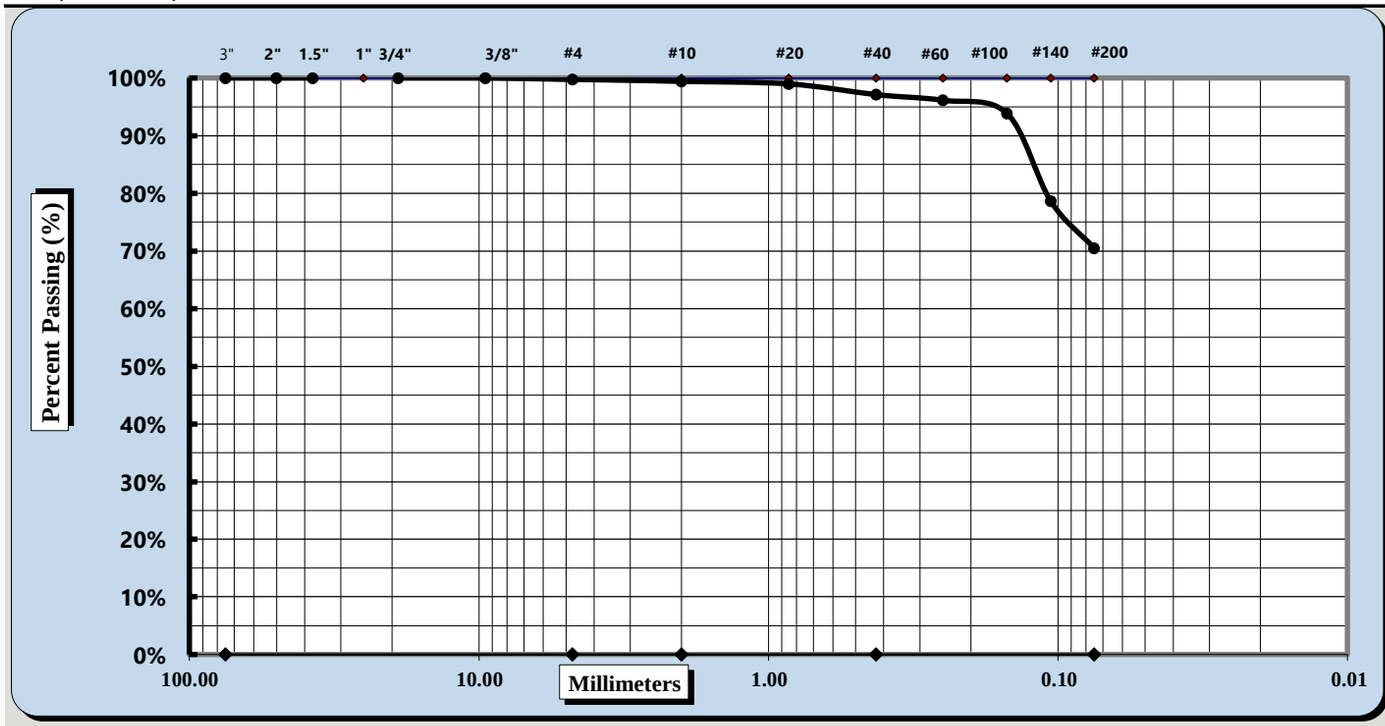
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/1/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 8/01/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-19	Type:	Split-spoon	Depth:	36.0 - 38.0'
Sample Description:	lean CLAY with sand [CL / A-7-6(18)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.3%	Fine Sand	26.6%
Gravel	0.2%	Medium Sand	2.3%	Silt & Clay	70.5%
Liquid Limit	47	Plastic Limit	20	Plastic Index	27
		Natural Moisture	60.7%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/1/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

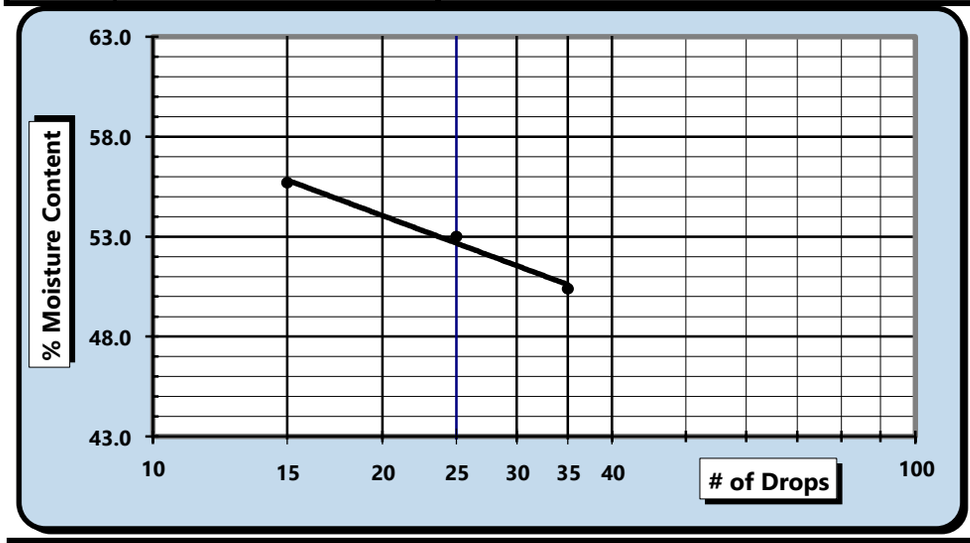
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/02/23
Project Name:	526 Longpoint Road Interchange	Test Date:	8/01/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB02	Log #: 52g	Sample Date: 3/24/23
Sample #:	SS-20	Type: Split-spoon	Depth: 38.0 - 40.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(27)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	33	34	35				36		
A	Tare Weight	26.70	28.26	26.95				25.65		
B	Wet Soil Weight + A	43.05	42.24	40.11				38.88		
C	Dry Soil Weight + A	37.57	37.40	35.40				36.65		
D	Water Weight (B-C)	5.48	4.84	4.71				2.23		
E	Dry Soil Weight (C-A)	10.87	9.14	8.45				11.00		
F	% Moisture (D/E)*100	50.4%	53.0%	55.7%				20.3%		
N	# OF DROPS	35	25	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							20.3%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**53**
Plastic Limit	**20**
Plastic Index	**33**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 79.9%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	8/02/23	Brian Vaughan, P.E.	8/02/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

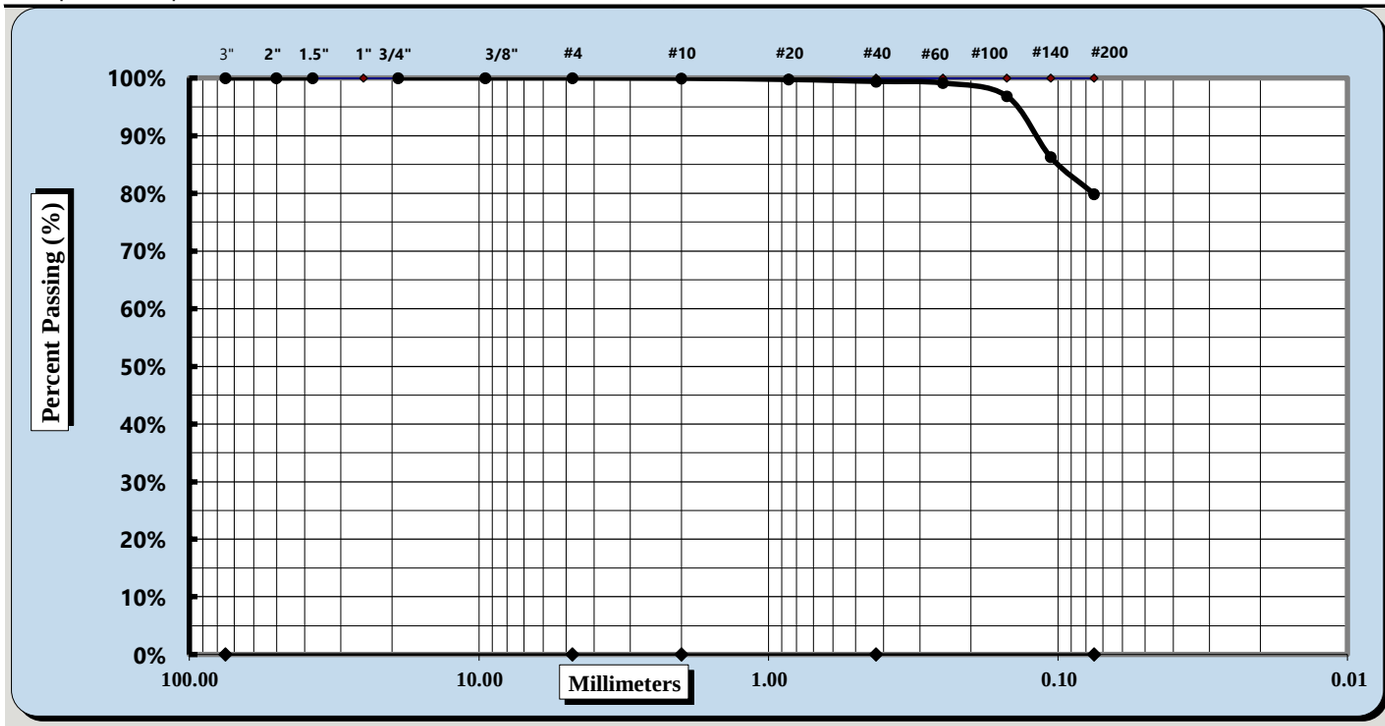
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/1/23
Project Name:	526 Longpoint Road Interchange			Test Date:	7/24 - 8/01/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB02	Log #:	52g	Sample Date:	3/24/23
Sample #:	SS-20	Type:	Split-spoon	Depth:	38.0 - 40.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(27)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.25 mm	Coarse Sand	0.1%	Fine Sand	19.5%
Gravel	0.0%	Medium Sand	0.5%	Silt & Clay	79.9%
Liquid Limit	53	Plastic Limit	20	Plastic Index	33
		Natural Moisture	64.1%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/1/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/03/23
Project Name:	526 Longpoint Road Interchange	Test Date(s):	5/16 - 5/17/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Sampled by:	Soil Consultants, Inc.	Sample Date(s):	3/07/23
Sampling Method:	Split-spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 13942 Calibration Date: 11/01/22 Oven ID. 13978 Calibration Date: 10/01/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft.		grams	grams	grams	grams	%	
EMB03	SS-1	0.0-2.0'	DM-3	114.63	421.98	378.77	43.21	16.4%	
EMB03	SS-4	6.0-8.0'	BK-7	104.34	424.83	360.21	64.62	25.3%	
EMB03	SS-5	8.0-10.0'	BK-3	105.44	405.89	327.50	78.39	35.3%	
EMB03	SS-6	13.5-15.0'	FB-1	127.66	439.19	343.98	95.21	44.0%	
EMB03	SS-7	18.5-20.0'	BK-12	102.26	407.74	260.03	147.71	93.6%	
EMB03	SS-8	23.5-25.0'	BK-2	123.20	426.50	327.34	99.16	48.6%	
EMB03	SS-9	28.5-30.0'	DM-10	118.52	419.40	338.92	80.48	36.5%	
EMB03	SS-10	33.5-35.0'	DC-A	116.49	421.26	313.17	108.09	55.0%	
EMB03	SS-11	38.5-40.0'	Y-6	109.72	413.95	300.68	113.27	59.3%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Benjamin Kovaleski		NICET Lab Level III / 117226	6/03/23
Technician Name		*Certification Type / No.*	*Date*
Brian Vaughan, P.E.	Brian Vaughan	QA Supervisor	6/03/23
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

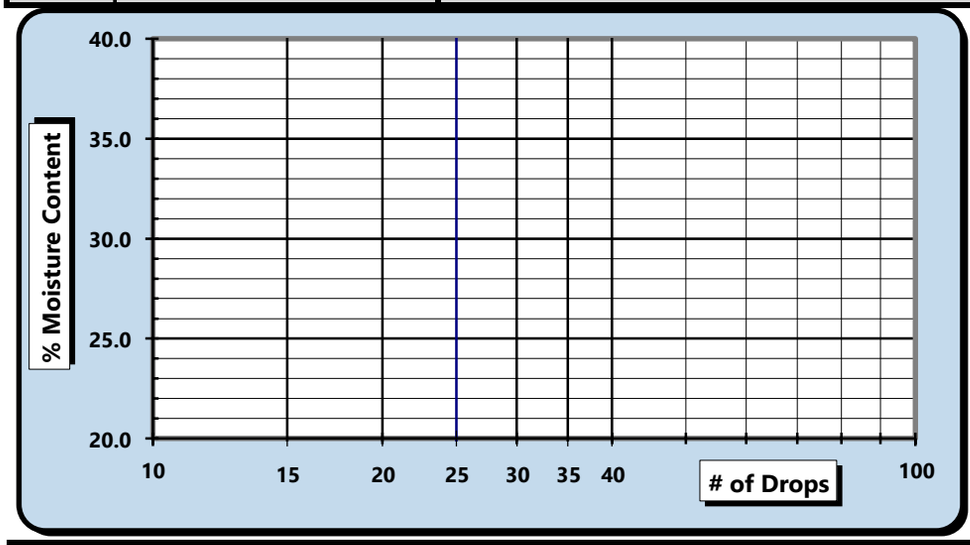
S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/18/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/17/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	EMB03	Log #:	52g	Sample Date:	3/07/23
Sample #:	SS-1	Type:	Split-spoon	Depth:	0.0 - 2.0'
Sample Description:	silty SAND [SM / A-2-4]				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 17.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/18/23	Brian Vaughan, P.E.	7/18/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

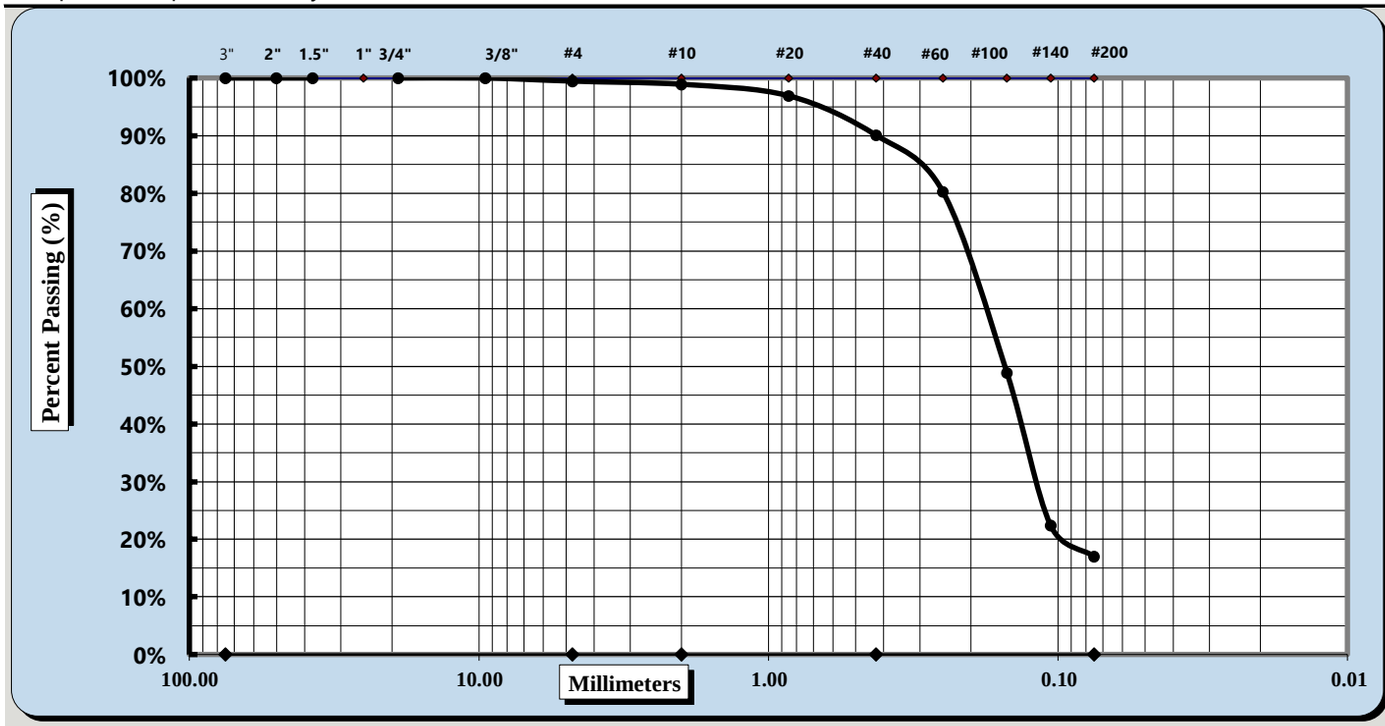
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/18/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/24 - 6/28/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB03	Log #:	52g	Sample Date:	3/07/23
Sample #:	SS-1	Type:	Split-spoon	Depth:	0.0 - 2.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	4.75 mm	Coarse Sand	0.6%	Fine Sand	73.1%
Gravel	0.5%	Medium Sand	8.8%	Silt & Clay	17.0%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	16.4%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/18/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

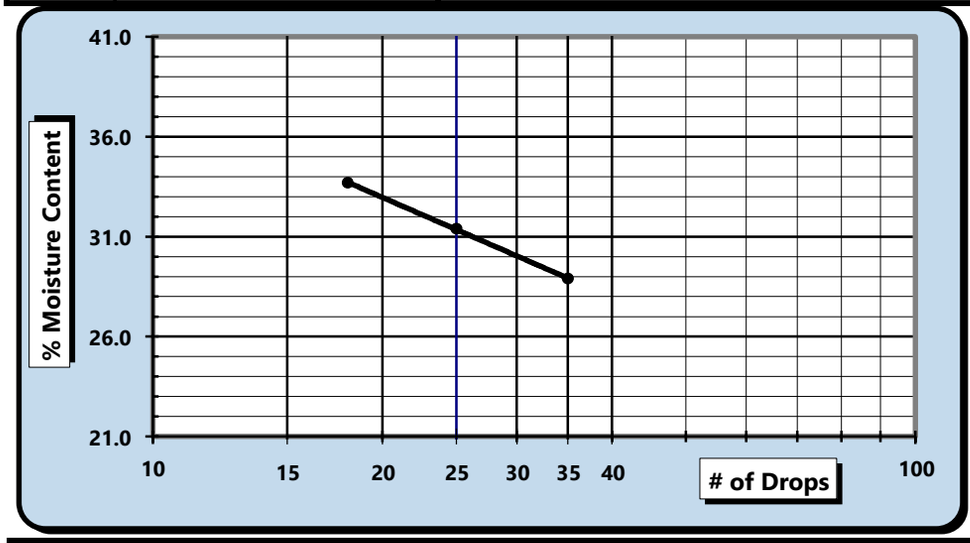
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/18/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/17/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB03	Log #: 52g	Sample Date: 3/07/23
Sample #:	SS-4	Type: Split-spoon	Depth: 6.0 - 8.0'
Sample Description:	clayey SAND [SC / A-6(1)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.70	26.50	26.36				25.93		
B	Wet Soil Weight + A	40.09	40.69	40.75				39.43		
C	Dry Soil Weight + A	37.09	37.30	37.12				37.42		
D	Water Weight (B-C)	3.00	3.39	3.63				2.01		
E	Dry Soil Weight (C-A)	10.39	10.80	10.76				11.49		
F	% Moisture (D/E)*100	28.9%	31.4%	33.7%				17.5%		
N	# OF DROPS	35	25	18				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							17.5%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**31**
Plastic Limit	**18**
Plastic Index	**13**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 38.3%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/18/23	Brian Vaughan, P.E.	7/18/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

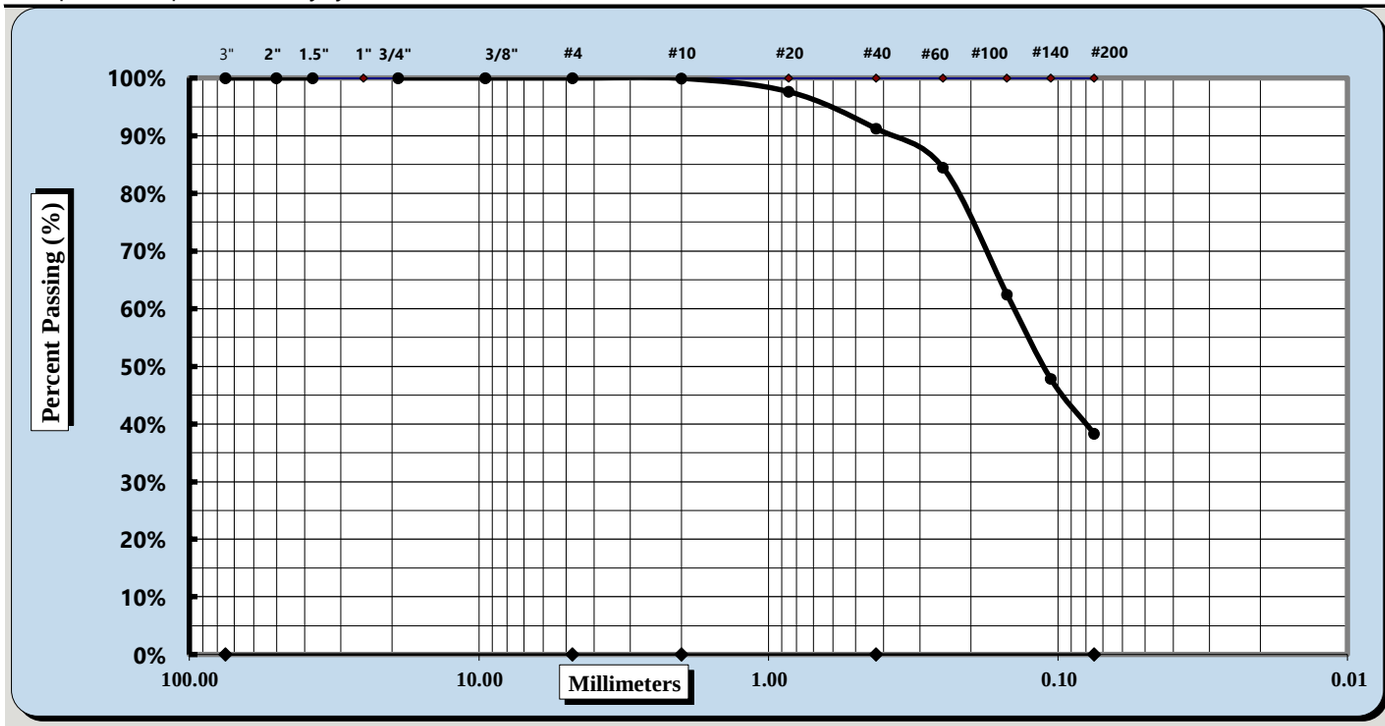
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/18/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/24 - 6/28/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB03	Log #:	52g	Sample Date:	3/07/23
Sample #:	SS-4	Type:	Split-spoon	Depth:	6.0 - 8.0'
Sample Description:	clayey SAND [SC / A-6(1)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.1%	Fine Sand	52.9%
Gravel	0.0%	Medium Sand	8.7%	Silt & Clay	38.3%
Liquid Limit	31	Plastic Limit	18	Plastic Index	13
		Natural Moisture	25.3%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/18/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

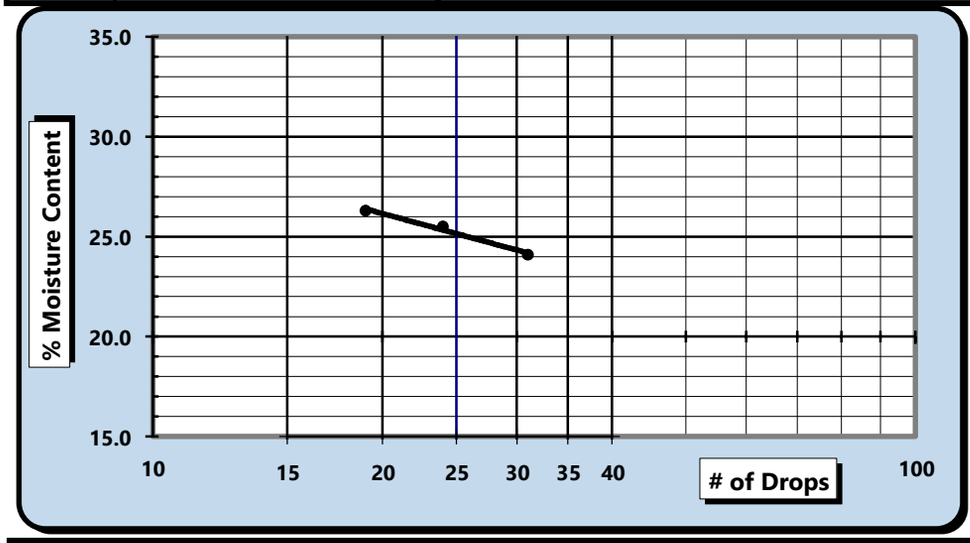
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/19/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/18/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB03	Log #: 52g	Sample Date: 3/07/23
Sample #:	SS-5	Type: Split-spoon	Depth: 8.0 - 10.0'
Sample Description:	sandy lean CLAY [CL / A-4(3)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.70	26.50	26.36				25.90		
B	Wet Soil Weight + A	40.82	42.07	42.08				37.46		
C	Dry Soil Weight + A	38.08	38.91	38.81				35.76		
D	Water Weight (B-C)	2.74	3.16	3.27				1.70		
E	Dry Soil Weight (C-A)	11.38	12.41	12.45				9.86		
F	% Moisture (D/E)*100	24.1%	25.5%	26.3%				17.2%		
N	# OF DROPS	31	24	19				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							17.2%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**25**
Plastic Limit	**17**
Plastic Index	**8**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 66.7%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/19/23	Brian Vaughan, P.E.	7/19/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

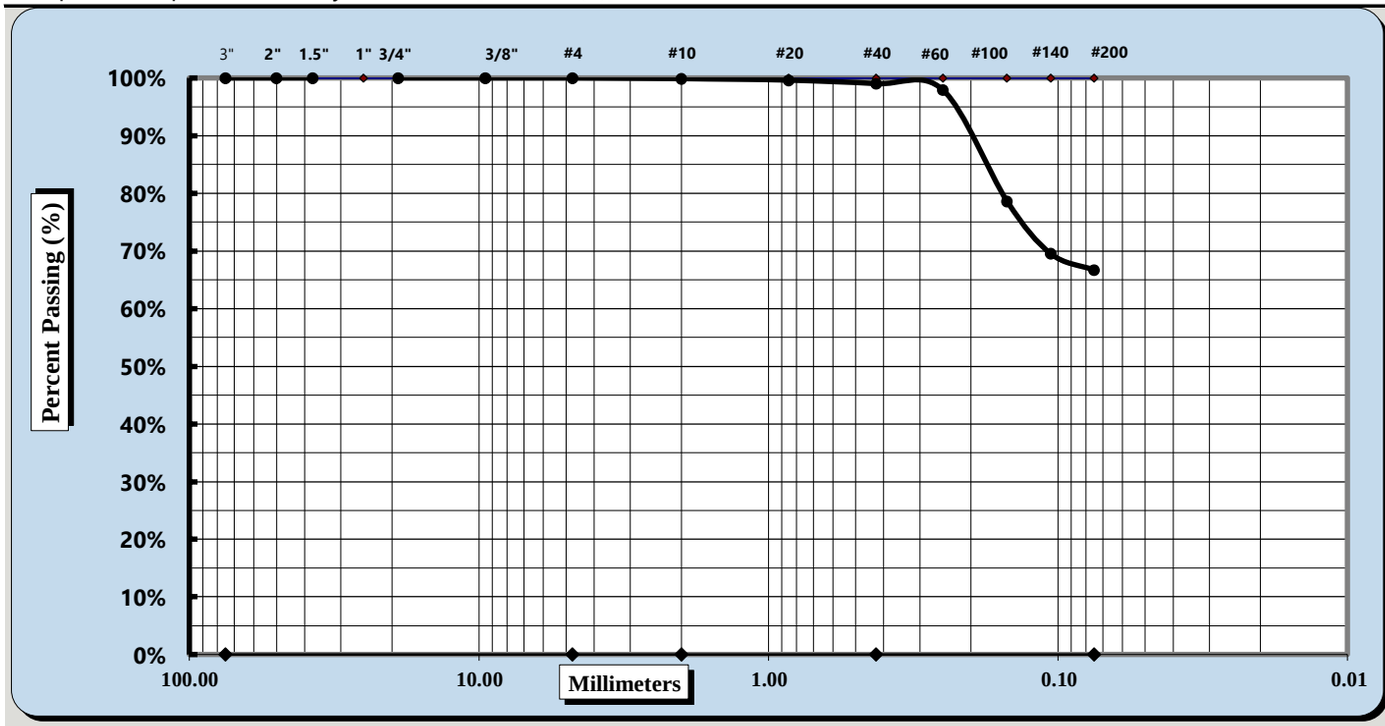
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/19/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/24 - 6/28/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB03	Log #:	52g	Sample Date:	3/07/23
Sample #:	SS-5	Type:	Split-spoon	Depth:	8.0 - 10.0'
Sample Description:	sandy lean CLAY [CL / A-4(3)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.425 mm	Coarse Sand	0.1%	Fine Sand	32.4%
Gravel	0.0%	Medium Sand	0.9%	Silt & Clay	66.7%
Liquid Limit	25	Plastic Limit	17	Plastic Index	8
		Natural Moisture	35.3%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/19/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

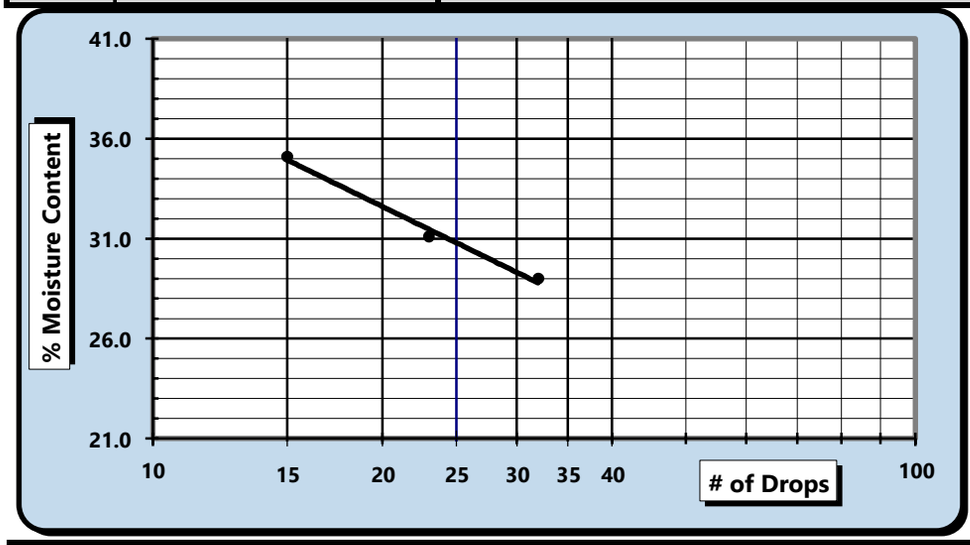
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/19/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/18/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB03	Log #: 52g	Sample Date: 3/07/23
Sample #:	SS-6	Type: Split-spoon	Depth: 13.5 - 15.0'
Sample Description:	clayey SAND [SC / A-6(3)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	5	6	7				8		
A	Tare Weight	26.97	27.79	26.32				27.29		
B	Wet Soil Weight + A	42.99	40.13	39.80				39.78		
C	Dry Soil Weight + A	39.39	37.20	36.30				37.71		
D	Water Weight (B-C)	3.60	2.93	3.50				2.07		
E	Dry Soil Weight (C-A)	12.42	9.41	9.98				10.42		
F	% Moisture (D/E)*100	29.0%	31.1%	35.1%				19.9%		
N	# OF DROPS	32	23	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							19.9%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**31**
Plastic Limit	**20**
Plastic Index	**11**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 48.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/19/23	Brian Vaughan, P.E.	7/19/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

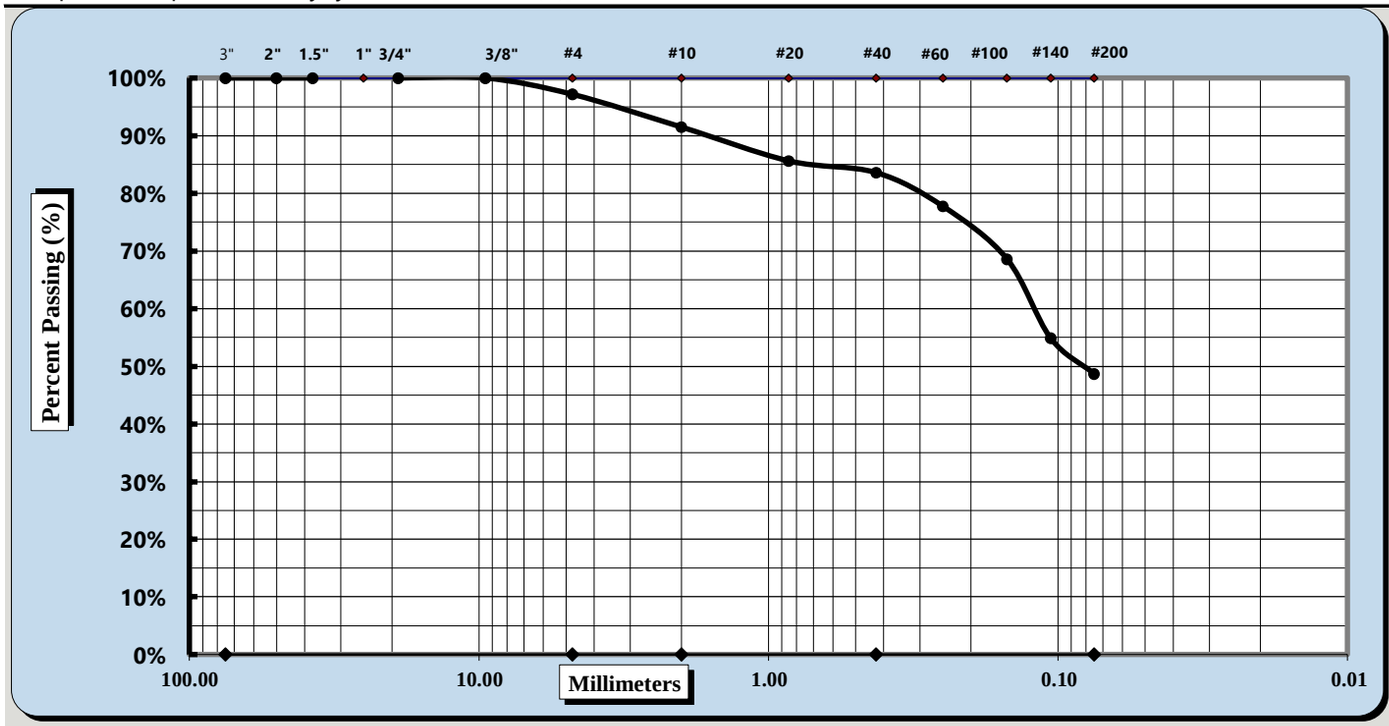
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/19/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/24 - 6/28/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB03	Log #:	52g	Sample Date:	3/07/23
Sample #:	SS-6	Type:	Split-spoon	Depth:	13.5 - 15.0'
Sample Description:	clayey SAND [SC / A-6(3)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	9.50 mm	Coarse Sand	5.7%	Fine Sand	34.9%
Gravel	2.8%	Medium Sand	7.9%	Silt & Clay	48.7%
Liquid Limit	31	Plastic Limit	20	Plastic Index	11
		Natural Moisture	44.0%		

Notes / Deviations / References:

Brian Vaughan, P.E. — *Technical Responsibility*
Brian Vaughan — *Signature*
QA Supervisor — *Position*
7/19/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

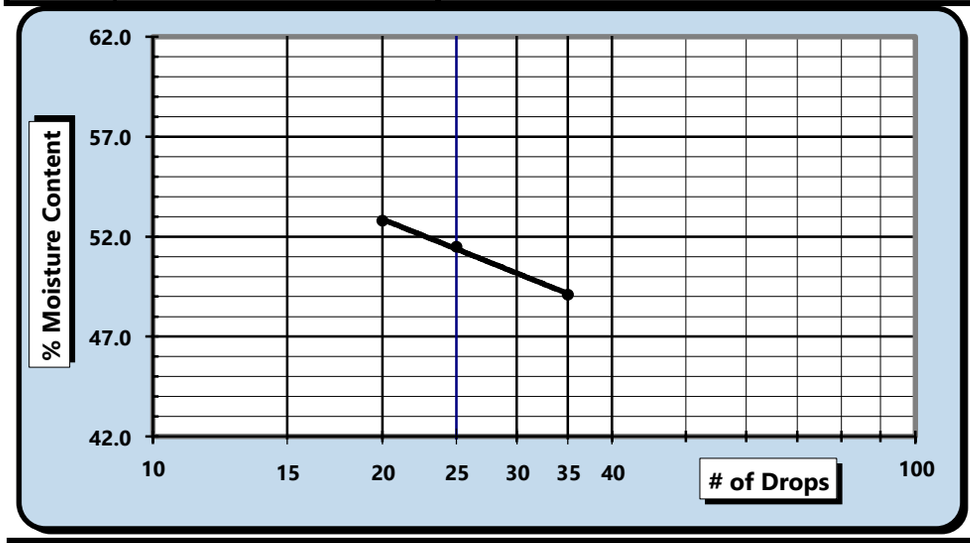
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/27/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/26/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB03	Log #: 52g	Sample Date: 3/07/23
Sample #:	SS-7	Type: Split-spoon	Depth: 18.5 - 20.0'
Sample Description:	fat CLAY [CH / A-7-6(27)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.70	26.50	26.35				25.90		
B	Wet Soil Weight + A	39.36	39.88	41.77				38.23		
C	Dry Soil Weight + A	35.19	35.33	36.44				35.67		
D	Water Weight (B-C)	4.17	4.55	5.33				2.56		
E	Dry Soil Weight (C-A)	8.49	8.83	10.09				9.77		
F	% Moisture (D/E)*100	49.1%	51.5%	52.8%				26.2%		
N	# OF DROPS	35	25	20				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							26.2%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**52**
Plastic Limit	**26**
Plastic Index	**26**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 92.2%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/27/23	Brian Vaughan, P.E.	7/27/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

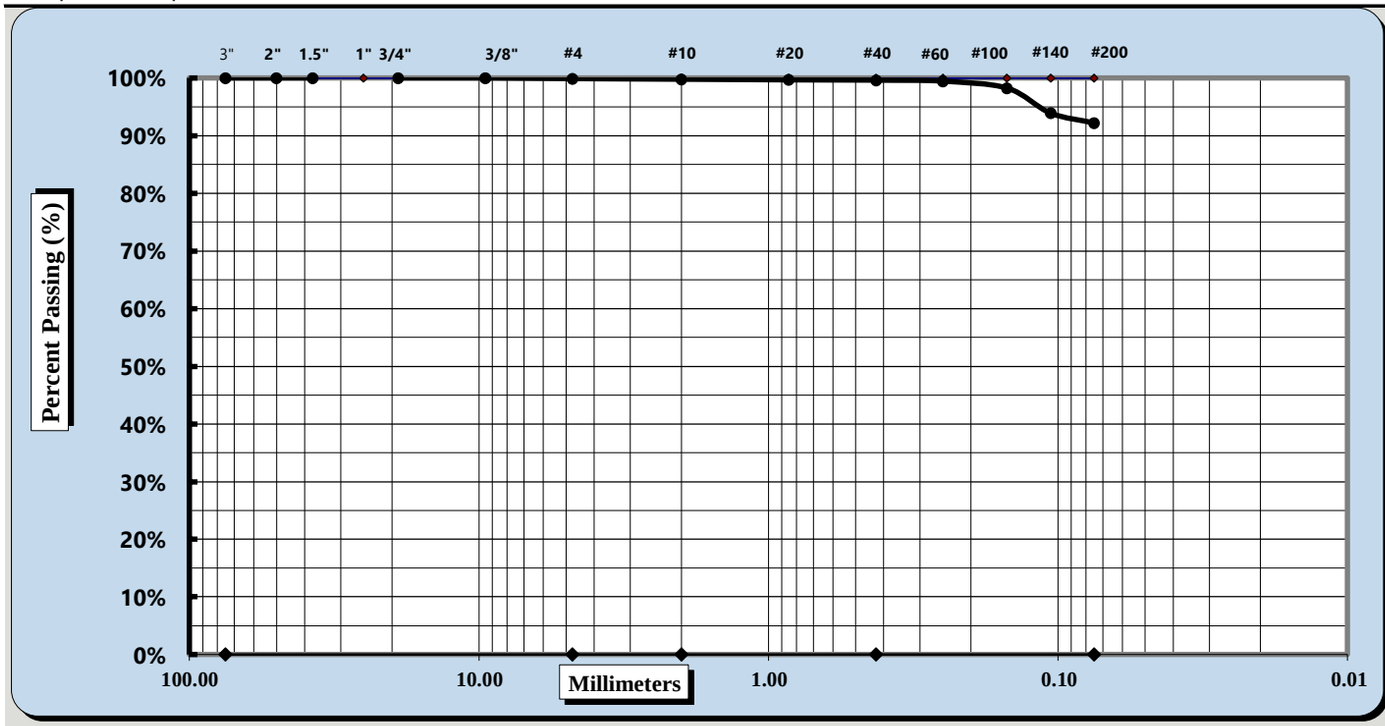
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/27/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/24 - 6/28/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB03	Log #:	52g	Sample Date:	3/07/23
Sample #:	SS-7	Type:	Split-spoon	Depth:	18.5 - 20.0'
Sample Description:	fat CLAY [CH / A-7-6(27)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.25 mm	Coarse Sand	0.1%	Fine Sand	7.4%
Gravel	0.1%	Medium Sand	0.2%	Silt & Clay	92.2%
Liquid Limit	52	Plastic Limit	26	Plastic Index	26
		Natural Moisture	93.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/27/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

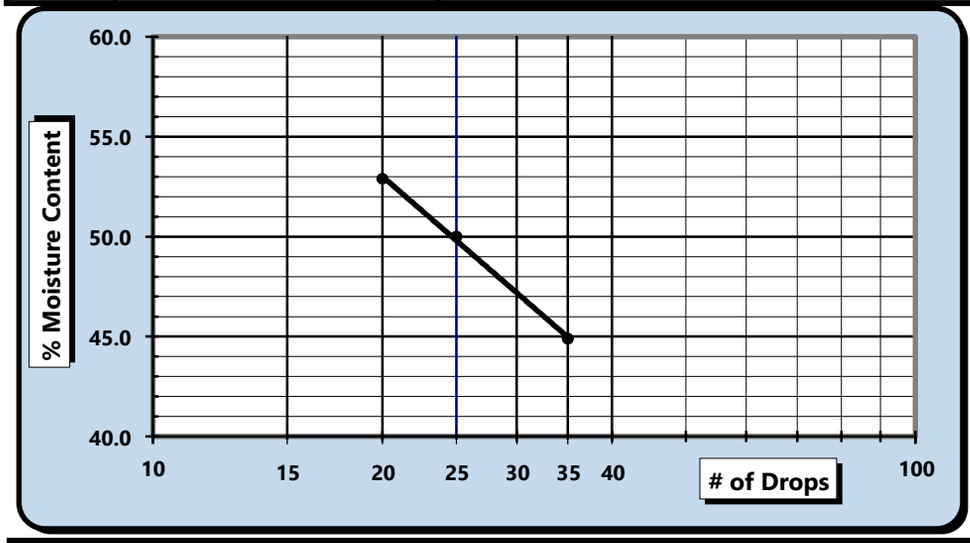
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/27/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/26/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB03	Log #: 52g	Sample Date: 3/07/23
Sample #:	SS-8	Type: Split-spoon	Depth: 23.5 - 25.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(20)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	5	6	7				8		
A	Tare Weight	26.96	27.79	26.31				27.30		
B	Wet Soil Weight + A	40.04	40.15	38.86				39.78		
C	Dry Soil Weight + A	35.99	36.03	34.52				37.78		
D	Water Weight (B-C)	4.05	4.12	4.34				2.00		
E	Dry Soil Weight (C-A)	9.03	8.24	8.21				10.48		
F	% Moisture (D/E)*100	44.9%	50.0%	52.9%				19.1%		
N	# OF DROPS	35	25	20				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							19.1%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**50**
Plastic Limit	**19**
Plastic Index	**31**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 70.1%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/27/23	Brian Vaughan, P.E.	7/27/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

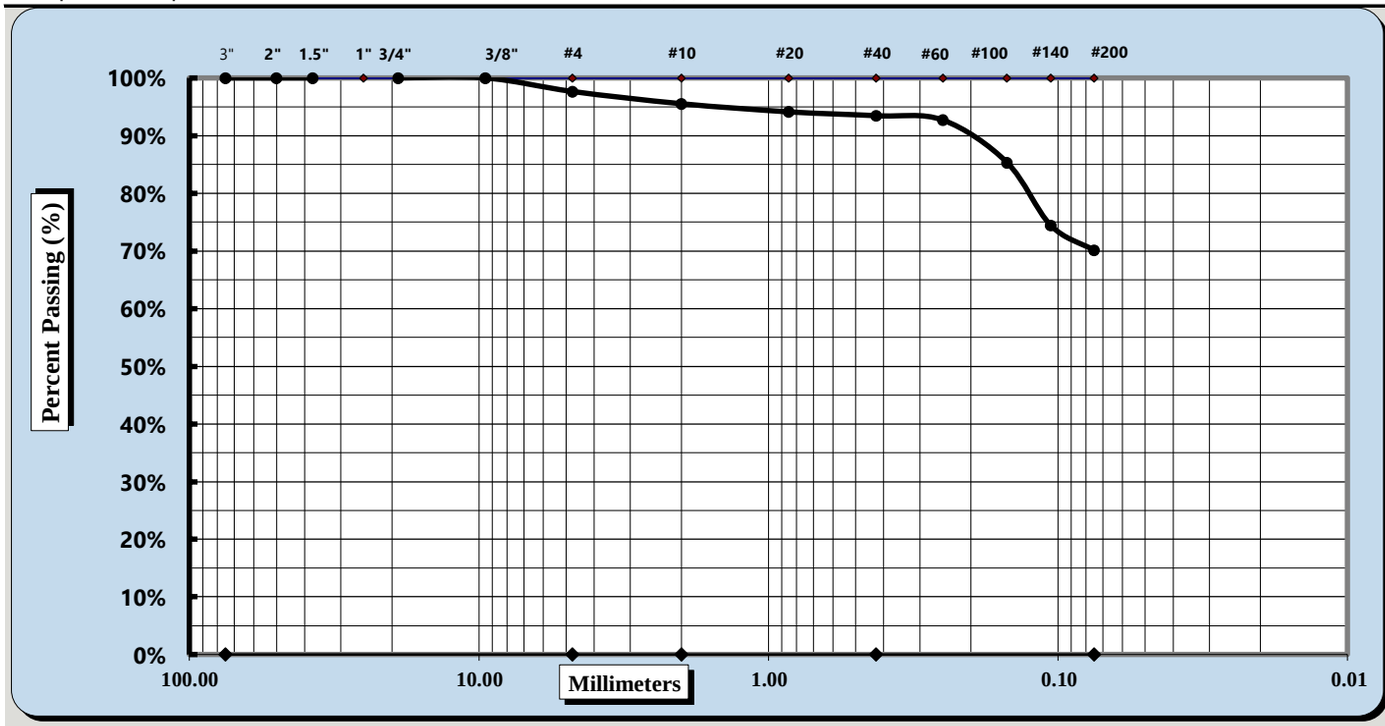
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/27/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/24 - 6/28/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB03	Log #:	52g	Sample Date:	3/07/23
Sample #:	SS-8	Type:	Split-spoon	Depth:	23.5 - 25.0'
Sample Description:	fat CLAY with sand [CH / A-7-6(20)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	9.50 mm	Coarse Sand	2.1%	Fine Sand	23.3%
Gravel	2.3%	Medium Sand	2.1%	Silt & Clay	70.1%
Liquid Limit	50	Plastic Limit	19	Plastic Index	31
		Natural Moisture	48.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/27/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

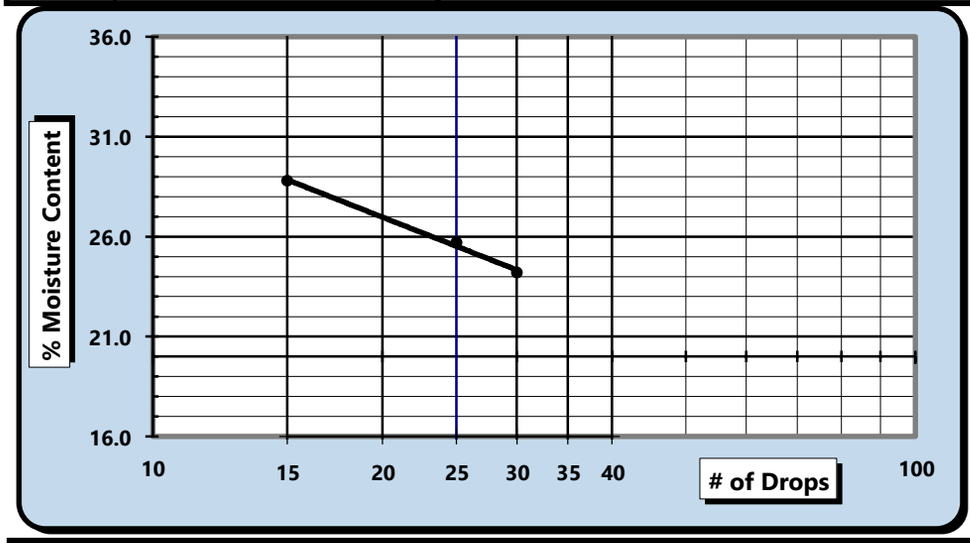
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/27/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/26/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB03	Log #: 52g	Sample Date: 3/07/23
Sample #:	SS-9	Type: Split-spoon	Depth: 28.5 - 30.0'
Sample Description:	clayey SAND [SC / A-4(0)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	9	10	11				12		
A	Tare Weight	26.83	26.74	26.66				26.64		
B	Wet Soil Weight + A	44.90	42.10	39.90				41.23		
C	Dry Soil Weight + A	41.38	38.96	36.94				39.15		
D	Water Weight (B-C)	3.52	3.14	2.96				2.08		
E	Dry Soil Weight (C-A)	14.55	12.22	10.28				12.51		
F	% Moisture (D/E)*100	24.2%	25.7%	28.8%				16.6%		
N	# OF DROPS	30	25	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							16.6%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**26**
Plastic Limit	**17**
Plastic Index	**9**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 38.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/27/23	Brian Vaughan, P.E.	7/27/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

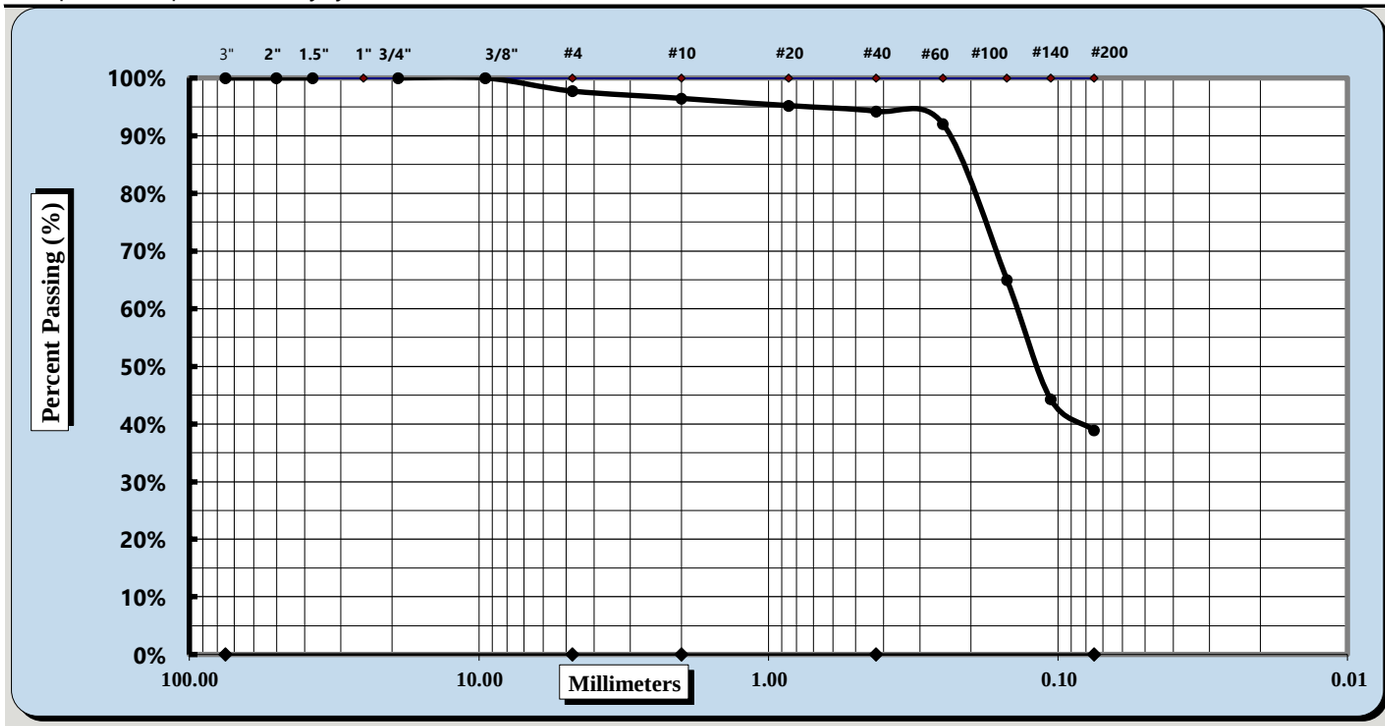
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/27/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/24 - 6/28/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB03	Log #:	52g	Sample Date:	3/07/23
Sample #:	SS-9	Type:	Split-spoon	Depth:	28.5 - 30.0'
Sample Description:	clayey SAND [SC / A-4(0)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	9.50 mm	Coarse Sand	1.3%	Fine Sand	55.3%
Gravel	2.3%	Medium Sand	2.2%	Silt & Clay	38.9%
Liquid Limit	26	Plastic Limit	17	Plastic Index	9
		Natural Moisture	36.5%		

Notes / Deviations / References:

Brian Vaughan, P.E. — *Technical Responsibility*
Brian Vaughan — *Signature*
QA Supervisor — *Position*
7/27/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

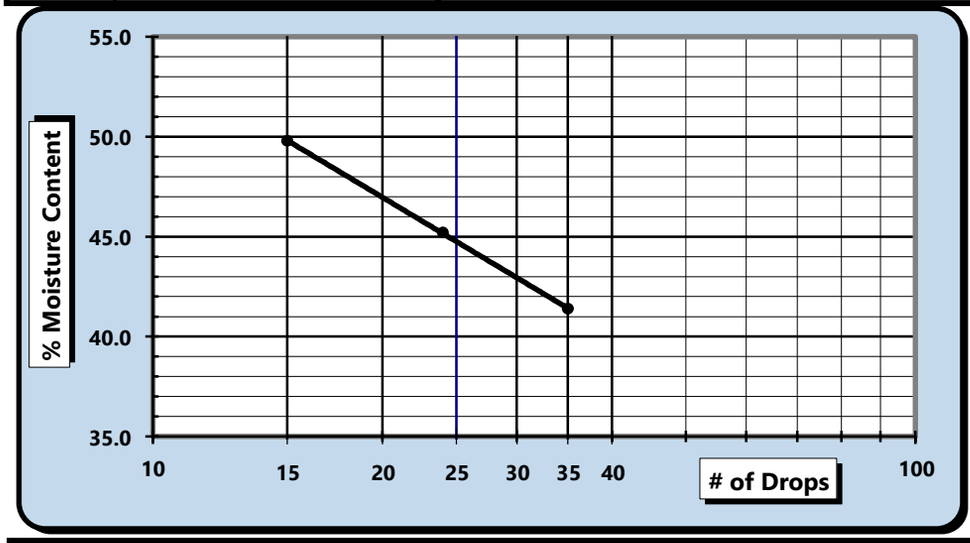
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/27/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/26/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB03	Log #: 52g	Sample Date: 3/07/23
Sample #:	SS-10	Type: Split-spoon	Depth: 33.5 - 35.0'
Sample Description:	sandy lean CLAY [CL / A-7-6(14)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	13	14	15				16		
A	Tare Weight	26.76	26.62	27.60				26.61		
B	Wet Soil Weight + A	39.87	41.13	40.23				41.27		
C	Dry Soil Weight + A	36.03	36.61	36.03				38.64		
D	Water Weight (B-C)	3.84	4.52	4.20				2.63		
E	Dry Soil Weight (C-A)	9.27	9.99	8.43				12.03		
F	% Moisture (D/E)*100	41.4%	45.2%	49.8%				21.9%		
N	# OF DROPS	35	24	15				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							21.9%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**45**
Plastic Limit	**22**
Plastic Index	**23**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 65.7%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/27/23	Brian Vaughan, P.E.	7/27/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

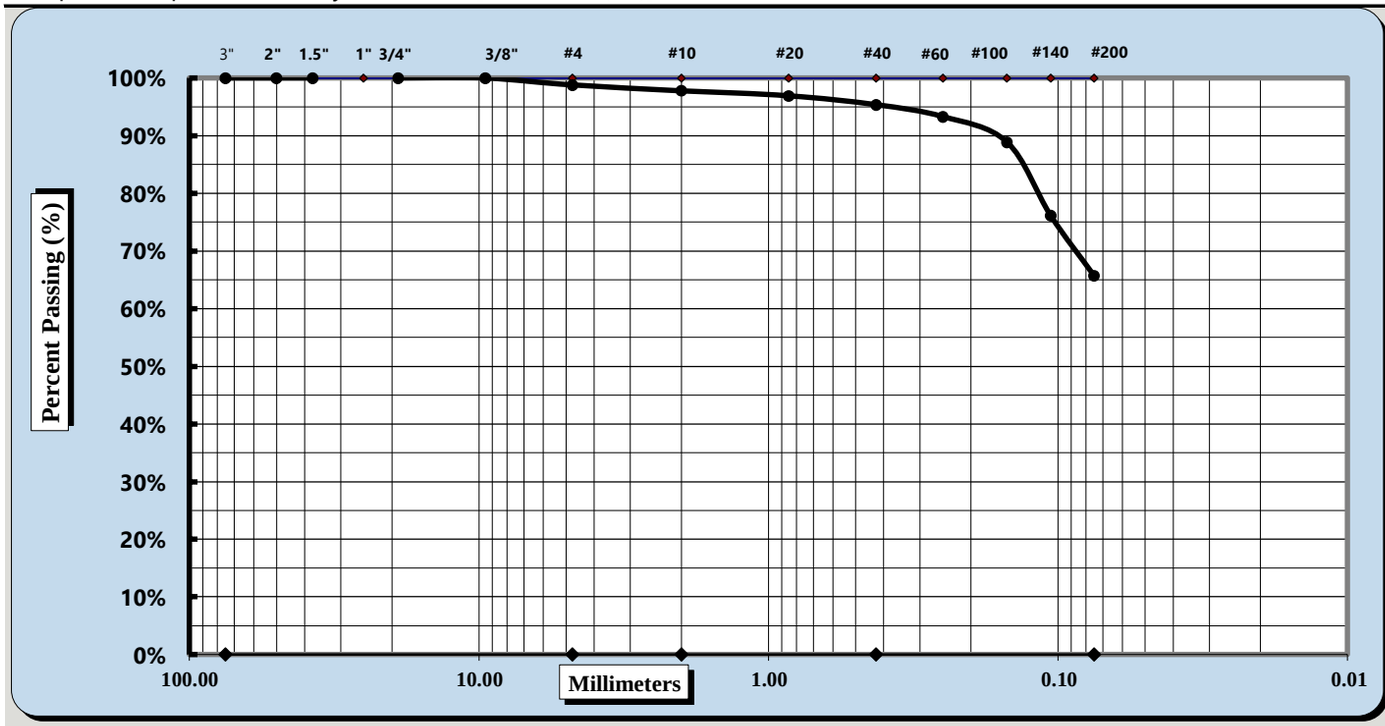
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/27/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/24 - 6/28/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB03	Log #:	52g	Sample Date:	3/07/23
Sample #:	SS-10	Type:	Split-spoon	Depth:	33.5 - 35.0'
Sample Description:	sandy lean CLAY [CL / A-7-6(14)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	9.50 mm	Coarse Sand	1.0%	Fine Sand	29.7%
Gravel	1.2%	Medium Sand	2.4%	Silt & Clay	65.7%
Liquid Limit	45	Plastic Limit	22	Plastic Index	23
		Natural Moisture	55.0%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/27/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

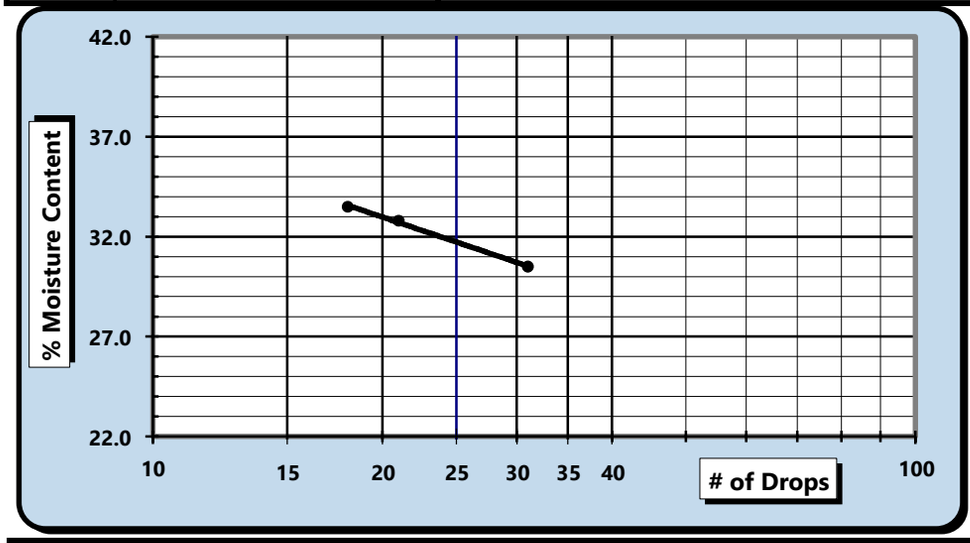
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	7/27/23
Project Name:	526 Longpoint Road Interchange	Test Date:	7/26/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB03	Log #: 52g	Sample Date: 3/07/23
Sample #:	SS-11	Type: Split-spoon	Depth: 38.5 - 40.0'
Sample Description:	sandy lean CLAY [CL / A-6(6)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	17	18	19				20		
A	Tare Weight	26.63	26.80	26.67				26.79		
B	Wet Soil Weight + A	43.51	42.76	40.67				39.65		
C	Dry Soil Weight + A	39.56	38.82	37.16				37.46		
D	Water Weight (B-C)	3.95	3.94	3.51				2.19		
E	Dry Soil Weight (C-A)	12.93	12.02	10.49				10.67		
F	% Moisture (D/E)*100	30.5%	32.8%	33.5%				20.5%		
N	# OF DROPS	31	21	18				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							20.5%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**32**
Plastic Limit	**21**
Plastic Index	**11**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 66.8%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	7/27/23	Brian Vaughan, P.E.	7/27/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

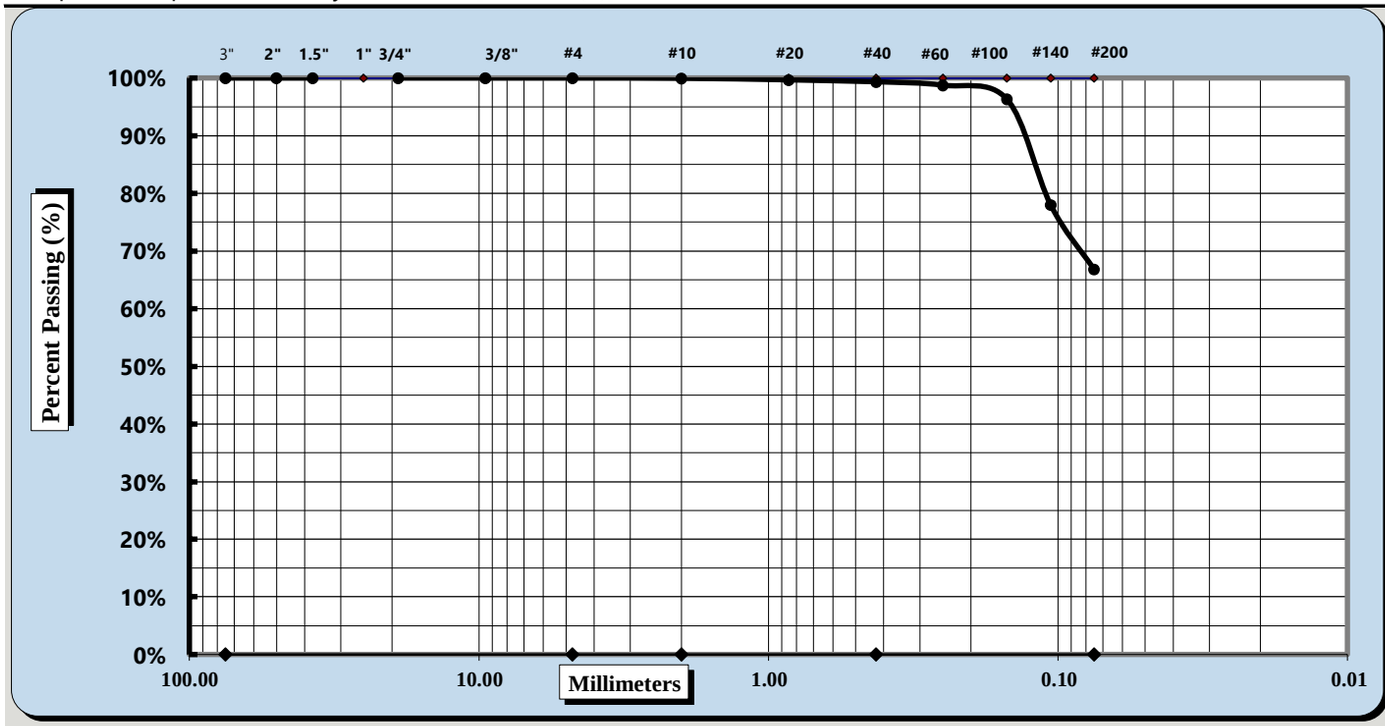
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	7/27/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/24 - 6/28/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB03	Log #:	52g	Sample Date:	3/07/23
Sample #:	SS-11	Type:	Split-spoon	Depth:	38.5 - 40.0'
Sample Description:	sandy lean CLAY [CL / A-6(6)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.425 mm	Coarse Sand	0.1%	Fine Sand	32.5%
Gravel	0.0%	Medium Sand	0.6%	Silt & Clay	66.8%
Liquid Limit	32	Plastic Limit	21	Plastic Index	11
		Natural Moisture	59.3%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	7/27/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/19/2023
Report Date: 06/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring EMB05 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82825-4

Client PO: 111563 **TEST RESULTS** **Report No:** 82825-EMB05
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
EMB05	SS-5	8.0	26.0		7.3	NP	NP	NP	SP-SM	A-3
EMB05	SS-7	18.5	37.4		21.2	31	25	6	SM	A-2-4
EMB05	SS-8	23.5	83.0		97.0	68	30	38	CH	A-7-5
EMB05	SS-10	33.5	44.6		56.7	63	25	38	CH	A-7-6
EMB05	SS-11	38.5	38.3		29.9	41	15	26	SC	A-2-7
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/19/2023
Report Date: 06/21/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring EMB05 **Order Number:**

Client: CDM SMITH

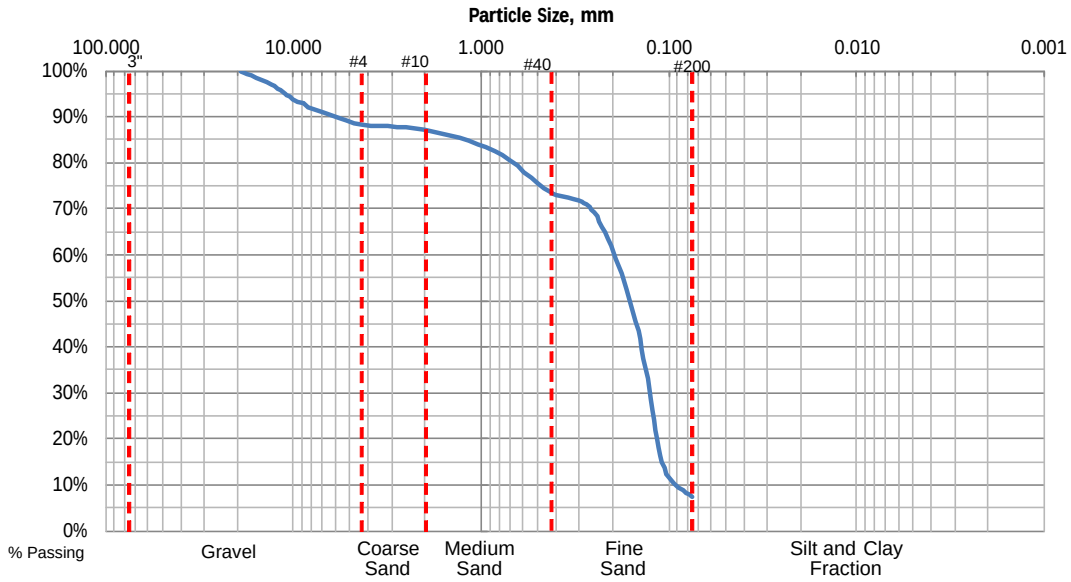
REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82825-4

Client PO: 111563 **TEST RESULTS** **Report No:** 82825-EMB05, SS-05
Page 1 of 1

Sample Identification
EMB05, SS-5, 8 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.	19.0	100
1/2 in.	12.5	97
3/8 in.	9.5	93
No. 4	4.75	89
No. 10	2.00	87
No. 20	0.85	83
No. 40	0.425	74
No. 60	0.25	69
No. 100	0.18	45
No. 140	0.106	14
No. 200	0.075	7.3
Coefficient of curvature, Cc		2.4
Coefficient of uniformity, Cu		0.9
Material		**%**
Gravel		11.2
Total Sand		81.4
Coarse Sand		1.5
Medium Sand		13.7
Fine Sand		66.3
Silt and Clay		7.3

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring EMB05**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-4**

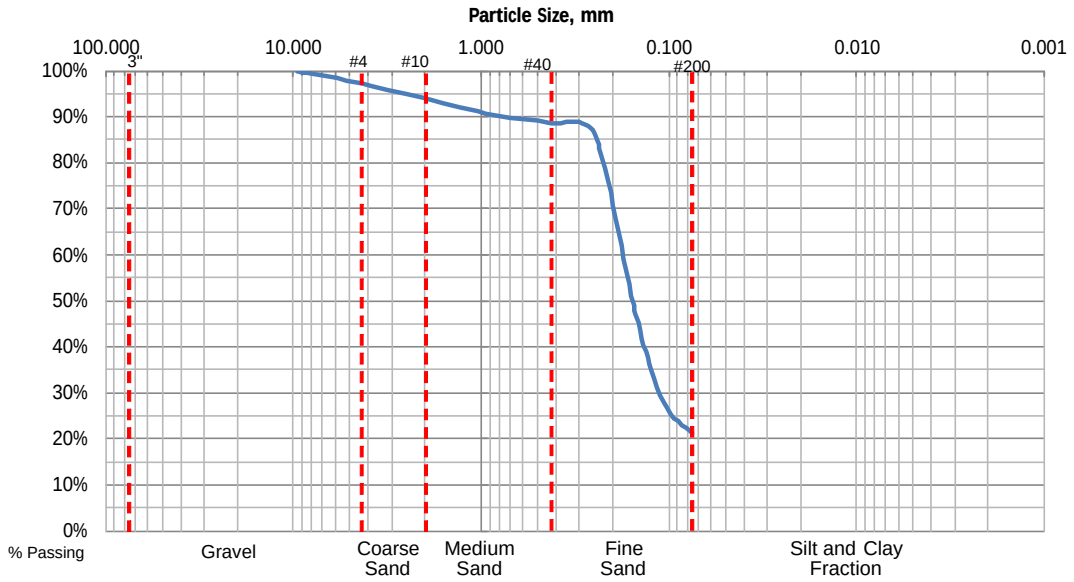
Client PO: 111563 **TEST RESULTS** **Report No: 82825-EMB05, SS-07**
Page 1 of 1

Sample Identification
EMB05, SS-7, 18.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	98
No. 10	2.00	94
No. 20	0.85	90
No. 40	0.425	89
No. 60	0.25	87
No. 100	0.18	47
No. 140	0.106	28
No. 200	0.075	21.2

Material	%
Gravel	2.3
Total Sand	76.5
Coarse Sand	3.7
Medium Sand	5.3
Fine Sand	67.5
Silt and Clay	21.2

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
31	25	6



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring EMB05**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-4**

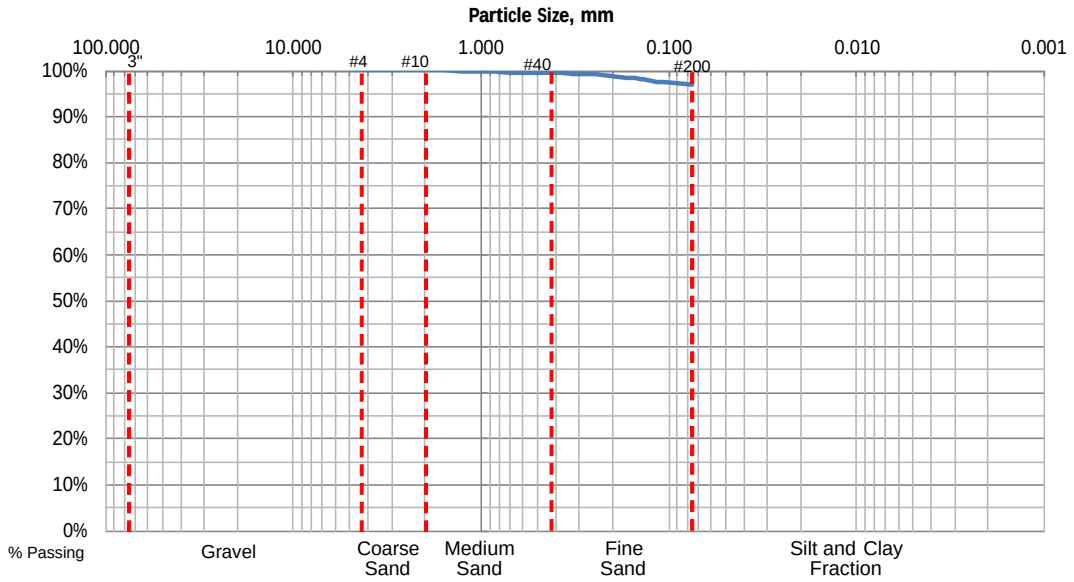
Client PO: 111563 **TEST RESULTS** **Report No: 82825-EMB05, SS-08**
Page 1 of 1

Sample Identification
EMB05, SS-8, 23.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	99
No. 60	0.25	99
No. 100	0.18	98
No. 140	0.106	98
No. 200	0.075	97.0

Material	%
Gravel	0.0
Total Sand	3.0
Coarse Sand	0.0
Medium Sand	0.6
Fine Sand	2.4
Silt and Clay	97.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
68	30	38



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-5

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring EMB05**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-4**

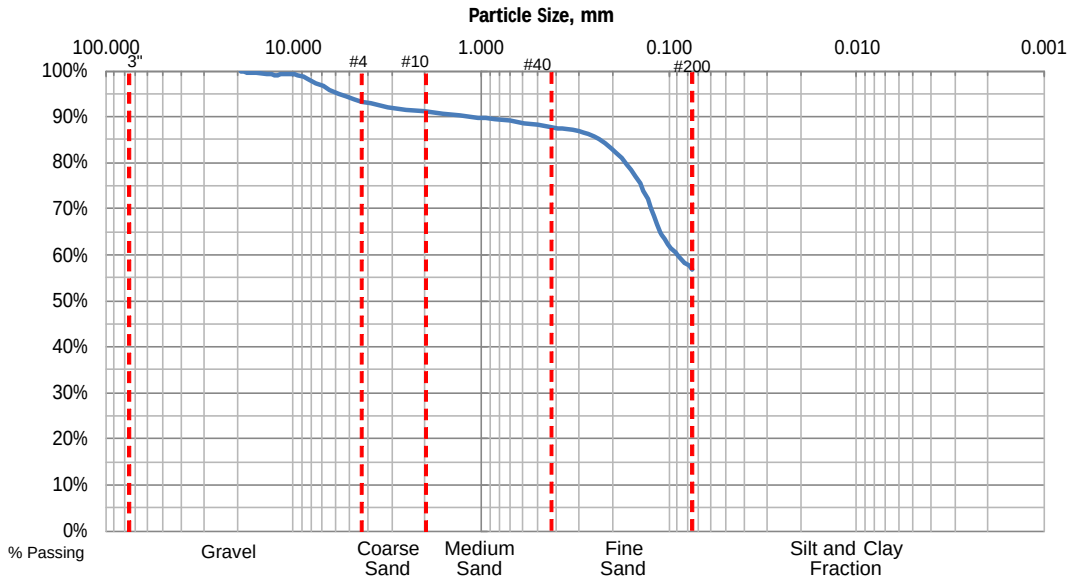
Client PO: 111563 **TEST RESULTS** **Report No: 82825-EMB05, SS-10**
Page 1 of 1

Sample Identification
EMB05, SS-10, 33.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.	19.0	100
1/2 in.	12.5	99
3/8 in.	9.5	99
No. 4	4.75	94
No. 10	2.00	91
No. 20	0.85	90
No. 40	0.425	88
No. 60	0.25	86
No. 100	0.18	77
No. 140	0.106	63
No. 200	0.075	56.7

Material	%
Gravel	6.2
Total Sand	37.1
Coarse Sand	2.6
Medium Sand	3.4
Fine Sand	31.1
Silt and Clay	56.7

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
63	25	38



Classification	
ASTM	Sandy Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring EMB05**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-4**

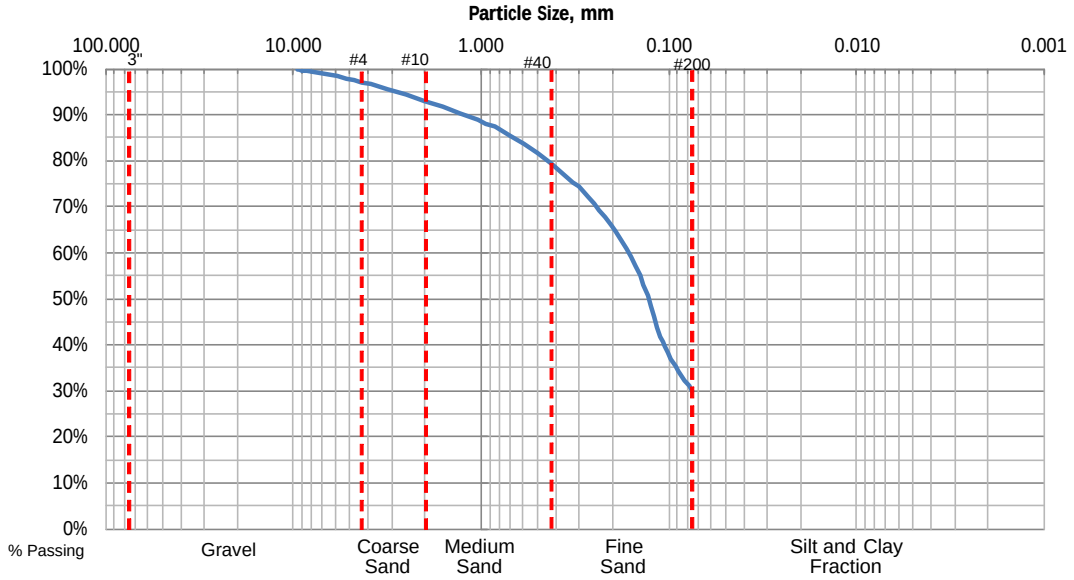
Client PO: 111563 **TEST RESULTS** **Report No: 82825-EMB05, SS-11**
Page 1 of 1

Sample Identification
EMB05, SS-11, 38.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	98
No. 10	2.00	93
No. 20	0.85	87
No. 40	0.425	80
No. 60	0.25	71
No. 100	0.18	57
No. 140	0.106	40
No. 200	0.075	29.9

Material	%
Gravel	2.3
Total Sand	67.8
Coarse Sand	4.5
Medium Sand	13.6
Fine Sand	49.7
Silt and Clay	29.9

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
41	15	26



Classification	
ASTM	Clayey Sand (SC)
AASHTO	A-2-7

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 06/21/2023
Report Date: 06/21/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring EMB06 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82825-5

Client PO: 111563 **TEST RESULTS** **Report No:** 82825-EMB06
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
EMB06	SS-4	6.0	24.6		7.2	NP	NP	NP	SP-SM	A-3
EMB06	SS-6	13.5	80.2		71.0	63	25	38	CH	A-7-6
EMB06	SS-8	23.5	56.3		83.9	55	20	35	CH	A-7-6
EMB06	SS-10	33.5	45.7		89.2	74	20	54	CH	A-7-6
EMB06	SS-11	38.5	70.2		94.4	99	28	71	CH	A-7-6
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 06/21/2023
Report Date: 06/21/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring EMB06 **Order Number:**

Client: CDM SMITH

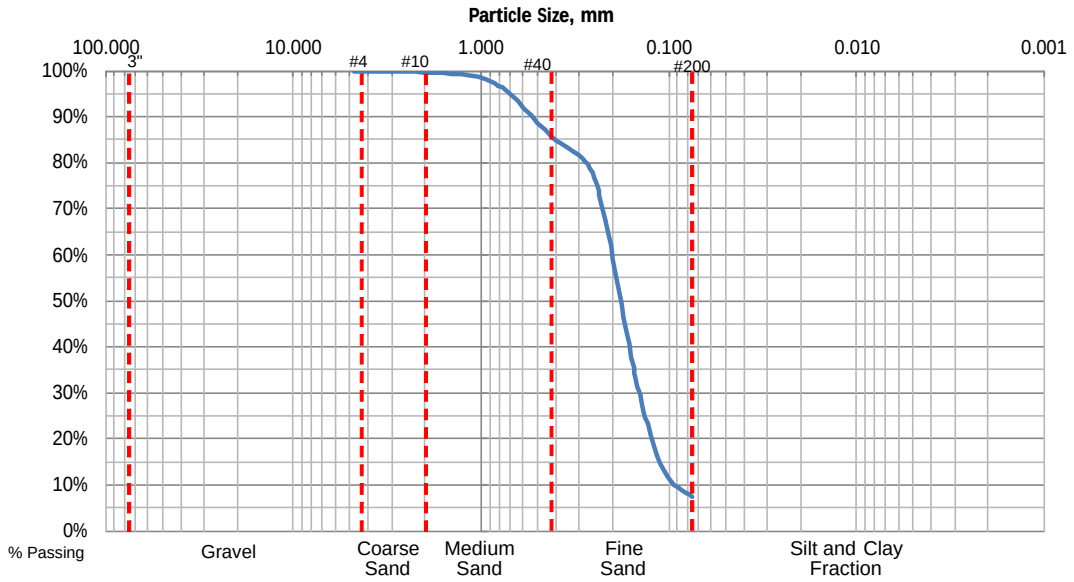
REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82825-5

Client PO: 111563 **TEST RESULTS** **Report No:** 82825-EMB06, SS-04
Page 1 of 1

Sample Identification
EMB06, SS-4, 6 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	97
No. 40	0.425	86
No. 60	0.25	77
No. 100	0.18	33
No. 140	0.106	13
No. 200	0.075	7.2
Coefficient of curvature, Cc		2.3
Coefficient of uniformity, Cu		1.1
Material		**%**
Gravel		0.0
Total Sand		92.8
Coarse Sand		0.2
Medium Sand		14.0
Fine Sand		78.6
Silt and Clay		7.2

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 06/21/2023
Report Date: 06/21/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring EMB06 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82825-5

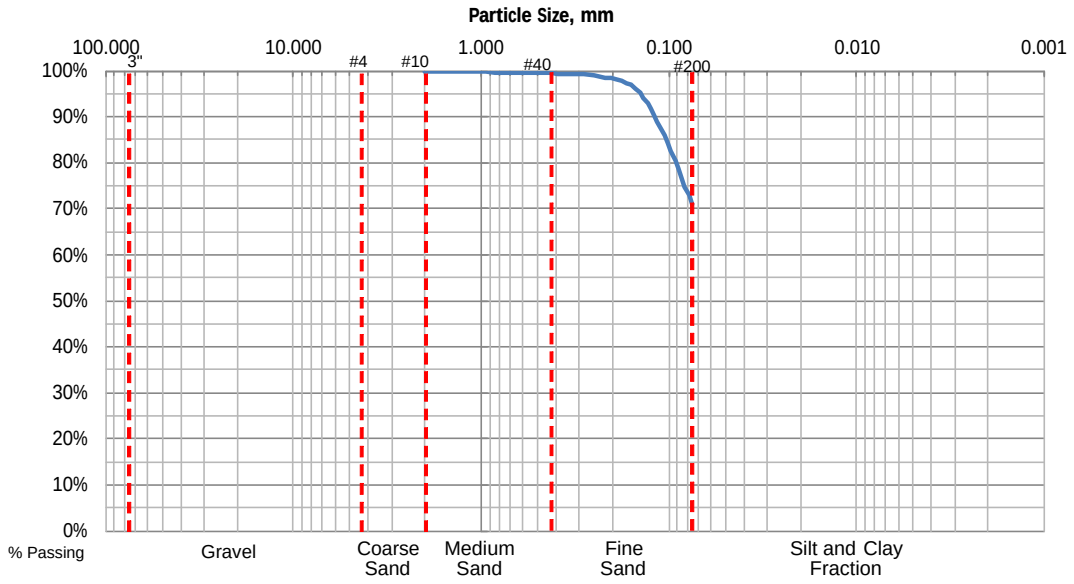
Client PO: 111563 **TEST RESULTS** **Report No:** 82825-EMB06, SS-06
Page 1 of 1

Sample Identification
EMB06, SS-6, 13.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4		
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	99
No. 100	0.18	96
No. 140	0.106	86
No. 200	0.075	71.0

Material	%
Gravel	0.0
Total Sand	29.0
Coarse Sand	0.0
Medium Sand	0.4
Fine Sand	28.6
Silt and Clay	71.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
63	25	38



Classification	
ASTM	Fat Clay with Sand (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 06/21/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring EMB06**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-5**

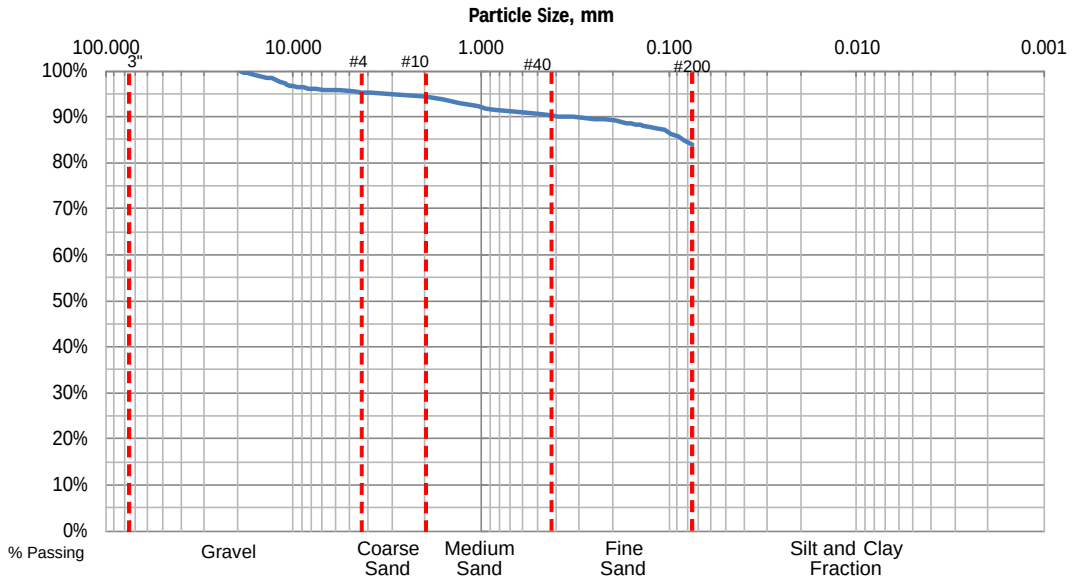
Client PO: 111563 **TEST RESULTS** **Report No: 82825-EMB06, SS-08**
Page 1 of 1

Sample Identification
EMB06, SS-8, 23.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.	19.0	100
1/2 in.	12.5	98
3/8 in.	9.5	97
No. 4	4.75	96
No. 10	2.00	94
No. 20	0.85	92
No. 40	0.425	90
No. 60	0.25	90
No. 100	0.18	88
No. 140	0.106	87
No. 200	0.075	83.9

Material	%
Gravel	4.5
Total Sand	11.6
Coarse Sand	1.2
Medium Sand	4.0
Fine Sand	6.4
Silt and Clay	83.9

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
55	20	35



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 06/21/2023
Report Date: 06/21/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring EMB06 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82825-5

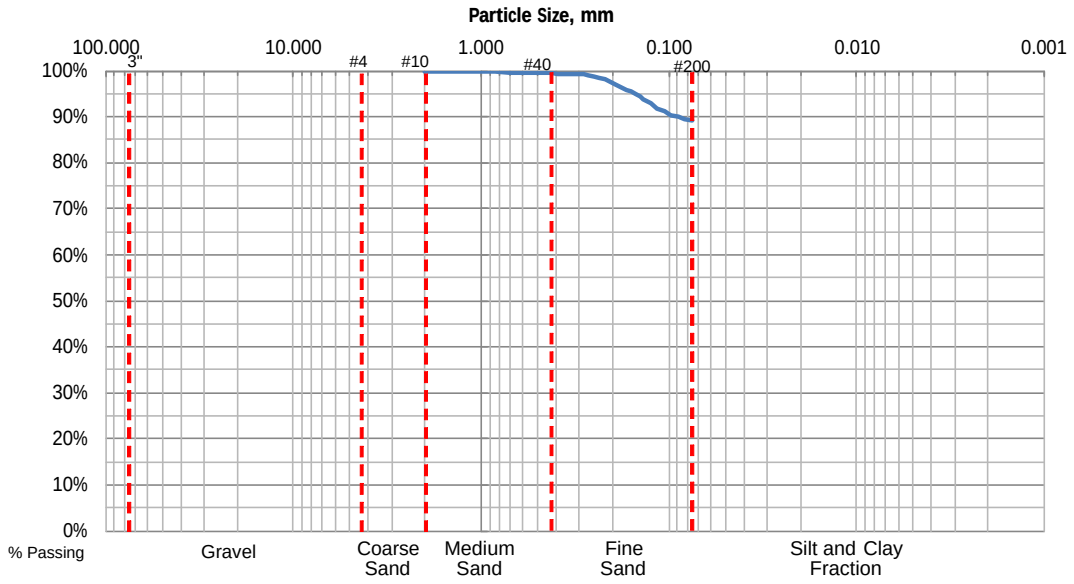
Client PO: 111563 **TEST RESULTS** **Report No:** 82825-EMB06, SS-10
Page 1 of 1

Sample Identification
EMB06, SS-10, 33.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4		
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	99
No. 100	0.18	95
No. 140	0.106	91
No. 200	0.075	89.2

Material	%
Gravel	0.0
Total Sand	10.8
Coarse Sand	0.0
Medium Sand	0.4
Fine Sand	10.4
Silt and Clay	89.2

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
74	20	54



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 06/21/2023**
Report Date:	**06/21/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring EMB06**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82825-5**

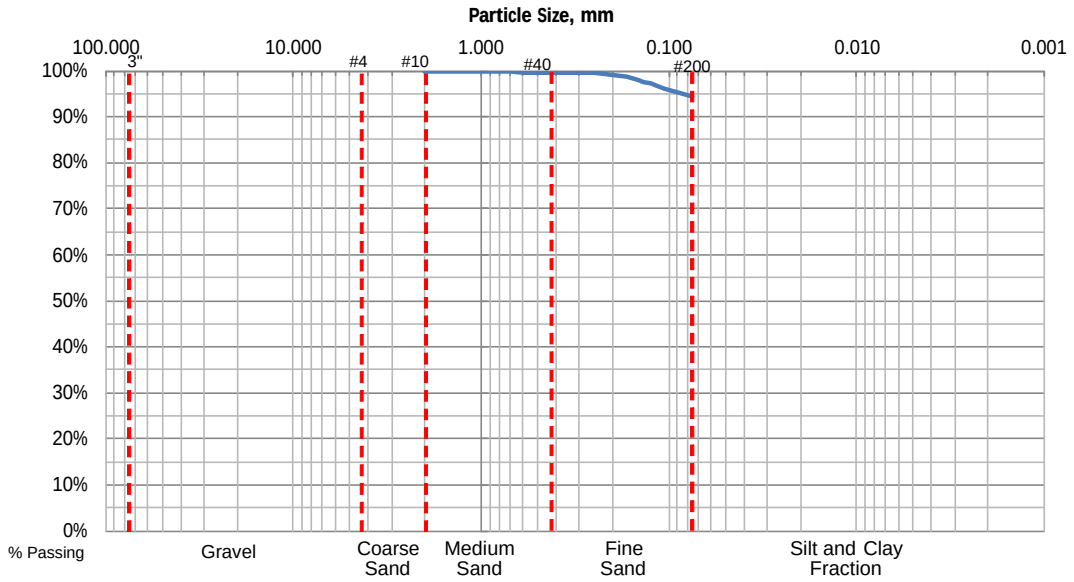
Client PO: 111563 **TEST RESULTS** **Report No: 82825-EMB06, SS-11**
Page 1 of 1

Sample Identification
EMB06, SS-11, 38.5 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4		
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	100
No. 100	0.18	98
No. 140	0.106	96
No. 200	0.075	94.4

Material	%
Gravel	0.0
Total Sand	5.6
Coarse Sand	0.0
Medium Sand	0.2
Fine Sand	5.4
Silt and Clay	94.4

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
99	28	71



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/21/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/03/23
Project Name:	526 Longpoint Road Interchange	Test Date(s):	5/15 - 5/16/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Sampled by:	Soil Consultants, Inc.	Sample Date(s):	3/15/23
Sampling Method:	Split-spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 13942 Calibration Date: 11/01/22 Oven ID. 13978 Calibration Date: 10/01/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft.		grams	grams	grams	grams	%	
EMB07	SS-1	0.0-2.0'	P-2	118.60	424.77	397.99	26.78	9.6%	
EMB07	SS-3	4.0-6.0'	BK-6	105.42	414.44	384.22	30.22	10.8%	
EMB07	SS-8	23.5-25.0'	B-3	144.88	400.25	363.01	37.24	17.1%	
EMB07	SS-10	28.5-30.0'	DM-20	108.78	361.87	306.75	55.12	27.8%	
EMB07	SS-11	38.5-40.0'	B-12	123.94	433.08	312.04	121.04	64.3%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Benjamin Kovaleski		NICET Lab Level III / 117226	6/03/23
Technician Name		*Certification Type / No.*	*Date*
Brian Vaughan, P.E.	Brian Vaughan	QA Supervisor	6/03/23
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

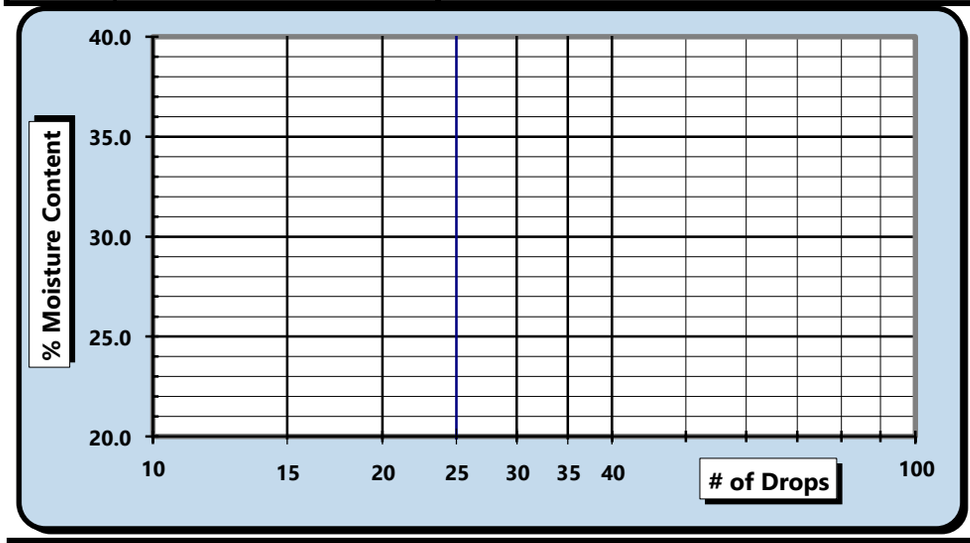
S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/27/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/26/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	EMB07	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-1	Type:	Split-spoon	Depth:	0.0 - 2.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 7.8%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/27/23	Brian Vaughan, P.E.	6/27/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

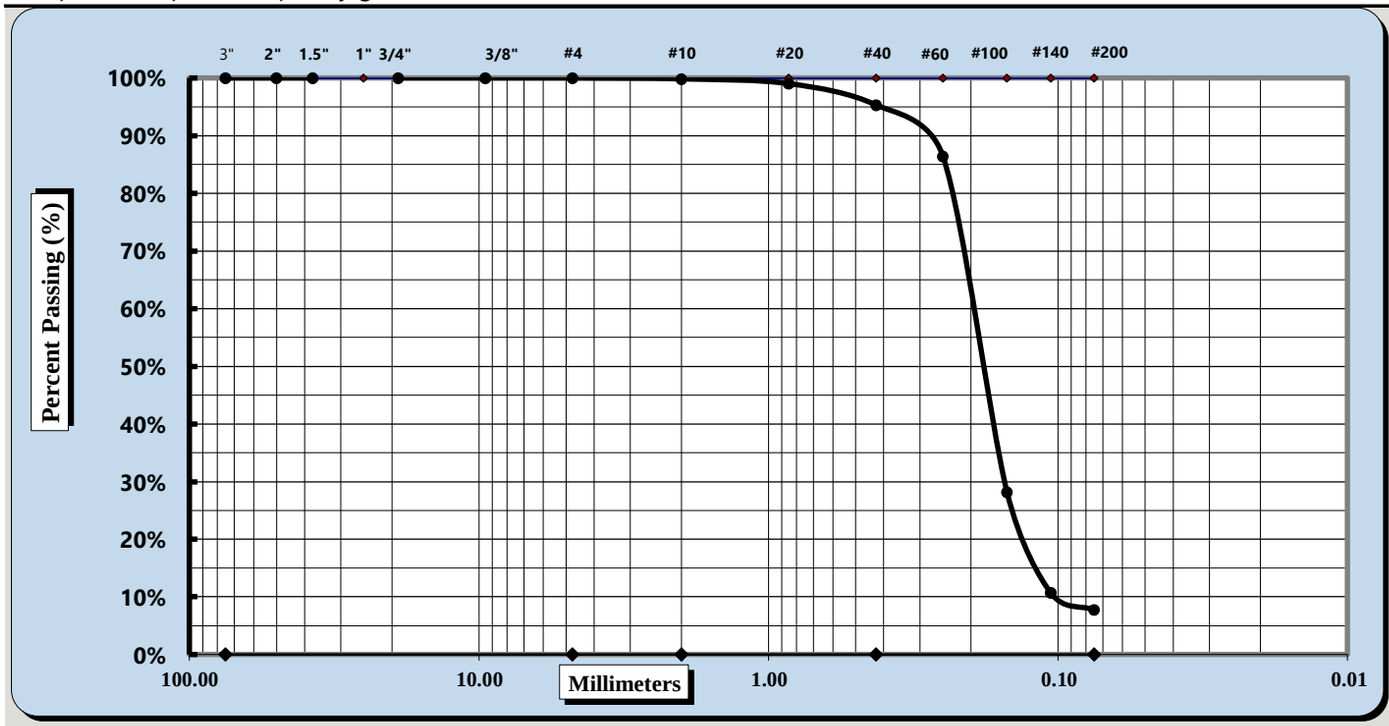
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/27/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/22 - 6/27/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB07	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-1	Type:	Split-spoon	Depth:	0.0 - 2.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.1%	Fine Sand	87.6%
Gravel	0.0%	Medium Sand	4.5%	Silt & Clay	7.8%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	9.6%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/27/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

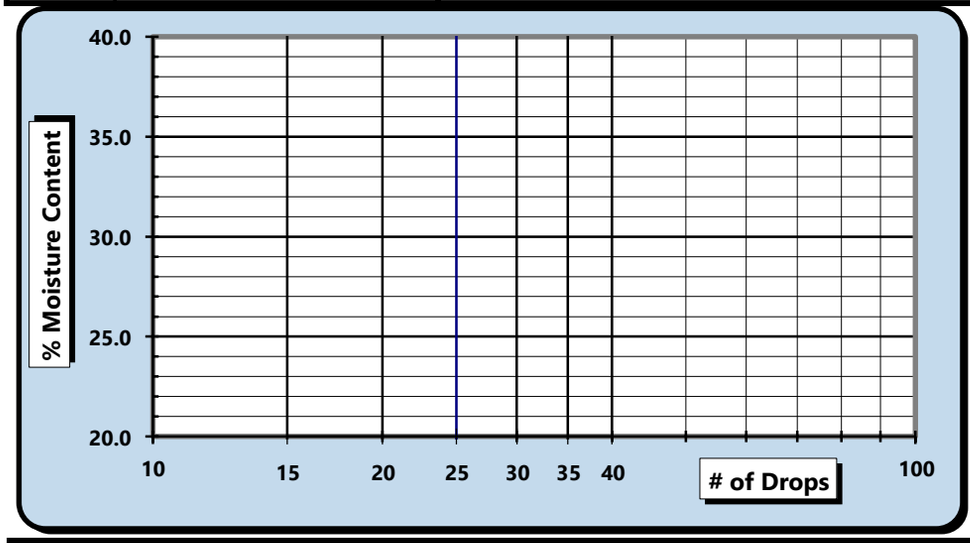
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/27/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/26/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB07	Log #: 52g	Sample Date: 3/15/23
Sample #:	SS-3	Type: Split-spoon	Depth: 4.0 - 6.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 9.1%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/27/23	Brian Vaughan, P.E.	6/27/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

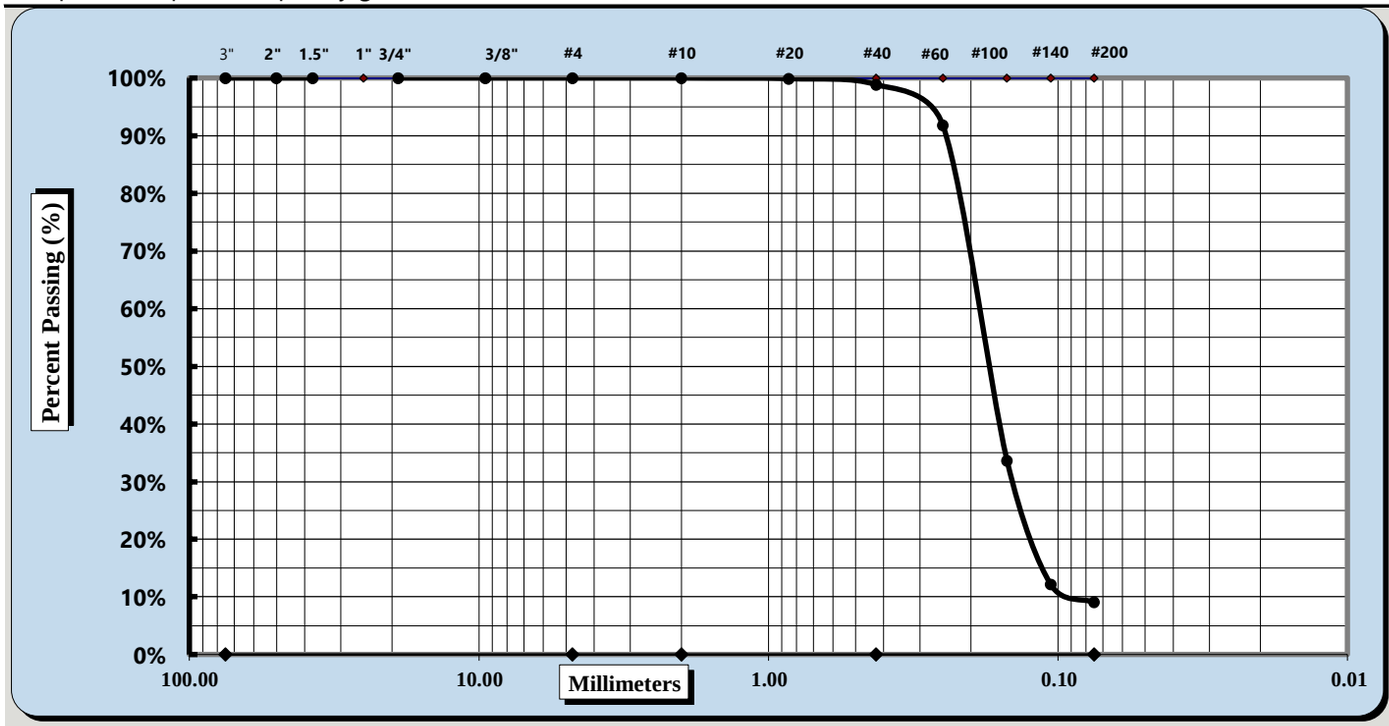
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/27/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/22 - 6/27/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB07	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-3	Type:	Split-spoon	Depth:	4.0 - 6.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.0%	Fine Sand	89.8%
Gravel	0.0%	Medium Sand	1.1%	Silt & Clay	9.1%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	10.8%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/27/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

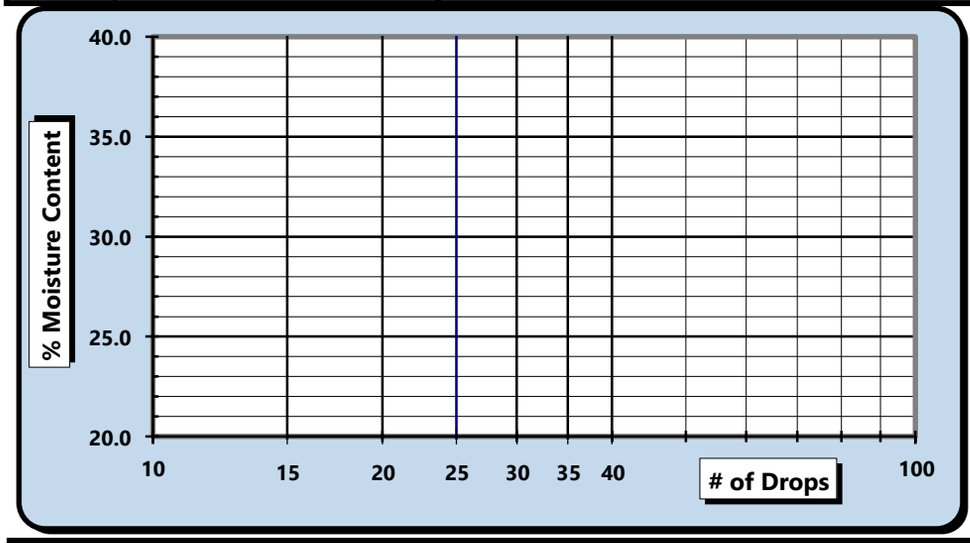
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/27/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/26/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB07	Log #: 52g	Sample Date: 3/15/23
Sample #:	SS-8	Type: Split-spoon	Depth: 23.5 - 25.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 14.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/27/23	Brian Vaughan, P.E.	6/27/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

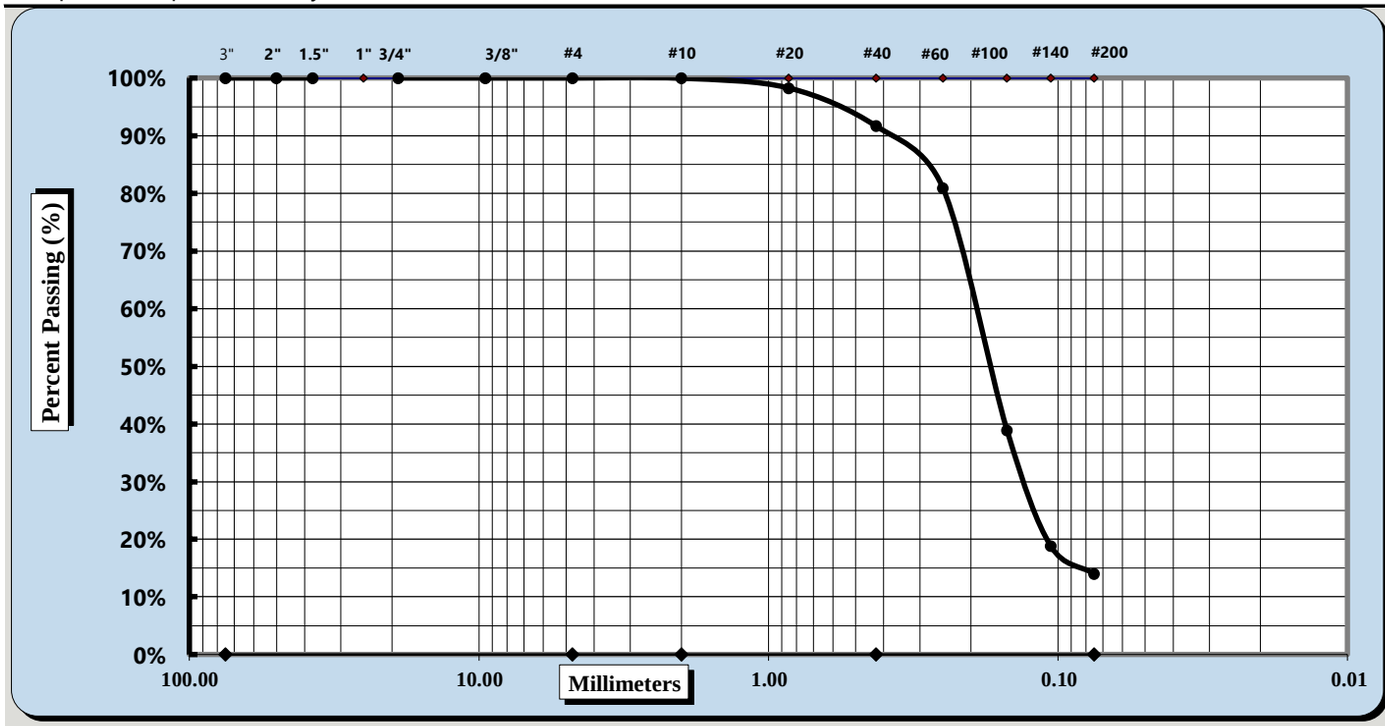
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/27/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/22 - 6/27/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB07	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-8	Type:	Split-spoon	Depth:	23.5 - 25.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.0%	Fine Sand	77.7%
Gravel	0.0%	Medium Sand	8.3%	Silt & Clay	14.0%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	17.1%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/27/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

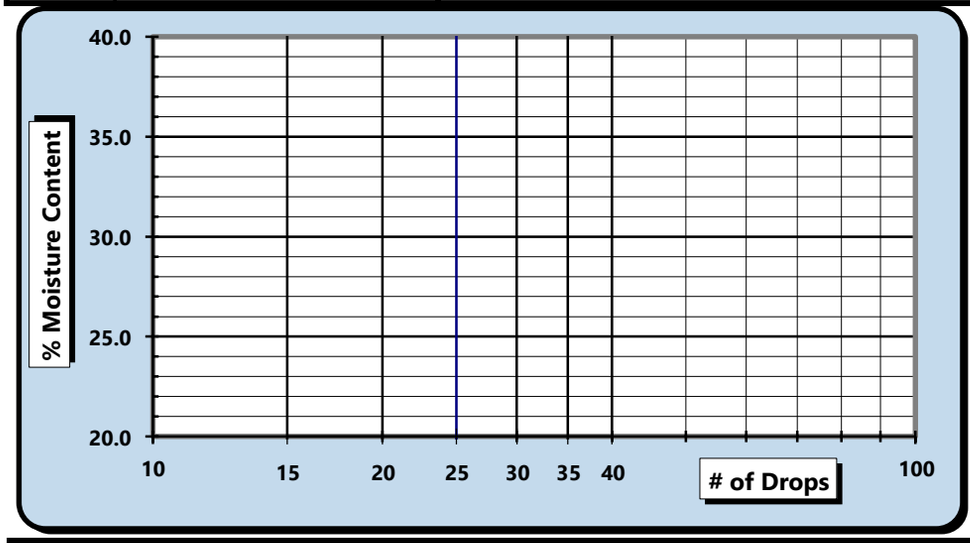
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/27/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/26/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB07	Log #: 52g	Sample Date: 3/15/23
Sample #:	SS-10	Type: Split-spoon	Depth: 28.5 - 30.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 12.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/27/23	Brian Vaughan, P.E.	6/27/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

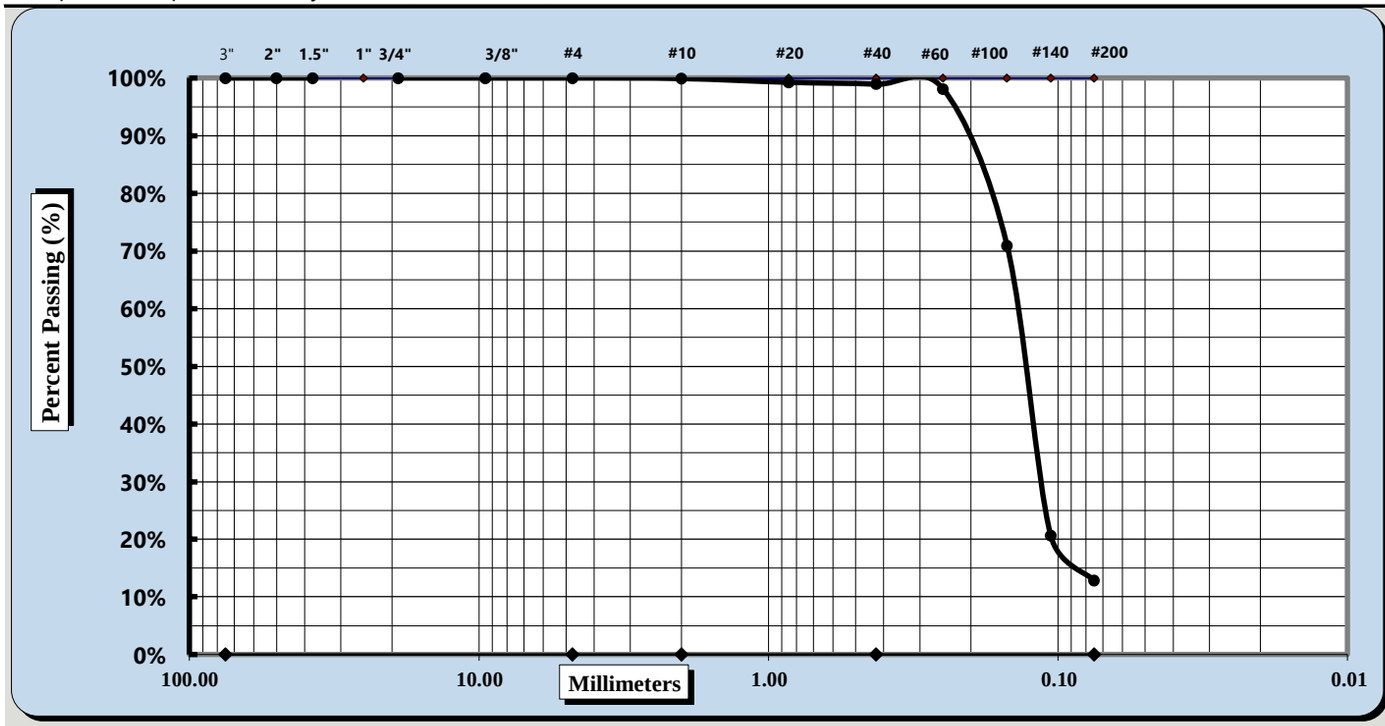
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/27/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/22 - 6/27/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB07	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-10	Type:	Split-spoon	Depth:	28.5 - 30.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.85 mm	Coarse Sand	0.1%	Fine Sand	86.1%
Gravel	0.0%	Medium Sand	1.0%	Silt & Clay	12.9%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	27.8%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/27/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

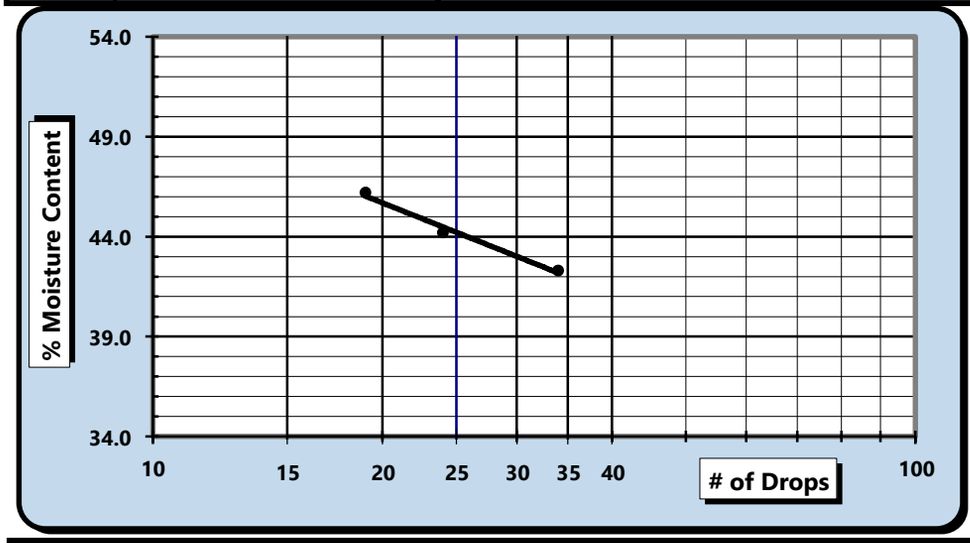
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/27/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/26/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB07	Log #: 52g	Sample Date: 3/15/23
Sample #:	SS-11	Type: Split-spoon	Depth: 38.5 - 40.0'
Sample Description:	lean CLAY [CL / A-7-6(18)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.71	26.51	26.37				25.90		
B	Wet Soil Weight + A	38.29	40.05	39.85				39.43		
C	Dry Soil Weight + A	34.85	35.90	35.59				36.68		
D	Water Weight (B-C)	3.44	4.15	4.26				2.75		
E	Dry Soil Weight (C-A)	8.14	9.39	9.22				10.78		
F	% Moisture (D/E)*100	42.3%	44.2%	46.2%				25.5%		
N	# OF DROPS	34	24	19				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							25.5%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**44**
Plastic Limit	**26**
Plastic Index	**18**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 90.8%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/27/23	Brian Vaughan, P.E.	6/27/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

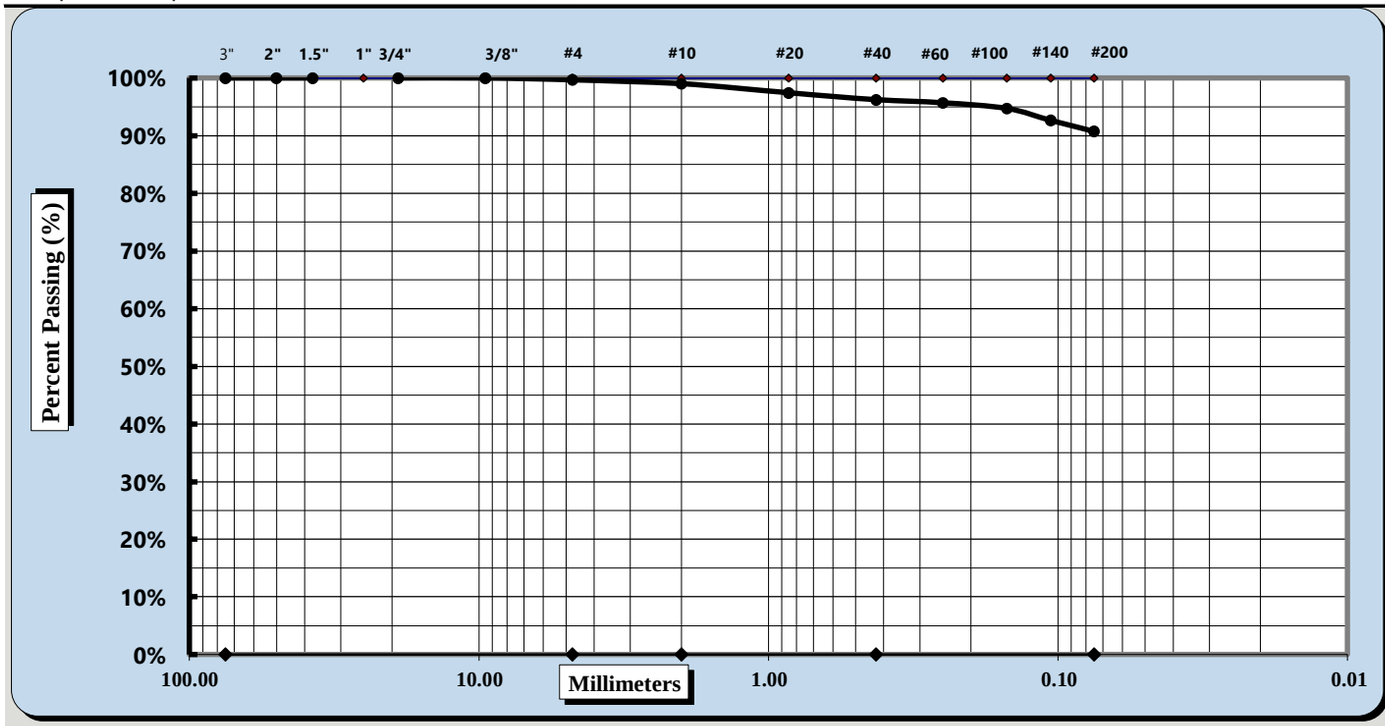
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/27/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/22 - 6/27/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB07	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-11	Type:	Split-spoon	Depth:	38.5 - 40.0'
Sample Description:	lean CLAY [CL / A-7-6(18)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.7%	Fine Sand	5.5%
Gravel	0.3%	Medium Sand	2.8%	Silt & Clay	90.8%
Liquid Limit	44	Plastic Limit	26	Plastic Index	18
		Natural Moisture	64.3%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/27/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/03/23
Project Name:	526 Longpoint Road Interchange	Test Date(s):	5/15 - 5/16/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Sampled by:	Soil Consultants, Inc.	Sample Date(s):	3/15/23
Sampling Method:	Split-spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 13942 Calibration Date: 11/01/22 Oven ID. 13978 Calibration Date: 10/01/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft.		grams	grams	grams	grams	%	
EMB08	SS-1	0.0-2.0'	P-5	130.14	446.76	409.14	37.62	13.5%	
EMB08	SS-5	8.0-10.0'	DM-5	120.15	412.64	375.62	37.02	14.5%	
EMB08	SS-6	13.5-15.0'	T-25	144.84	410.37	377.59	32.78	14.1%	
EMB08	SS-9	28.5-30.0'	BJ-4	129.79	271.08	247.55	23.53	20.0%	
EMB08	SS-10	33.5-35.0'	T-1	143.11	446.05	346.72	99.33	48.8%	
EMB08	SS-11	38.5-40.0'	FB-4	132.61	450.81	372.45	78.36	32.7%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Benjamin Kovaleski		NICET Lab Level III / 117226	6/03/23
Technician Name		*Certification Type / No.*	*Date*
Brian Vaughan, P.E.	Brian Vaughan	QA Supervisor	6/03/23
Technical Responsibility	*Signature*	*Position*	*Date*

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

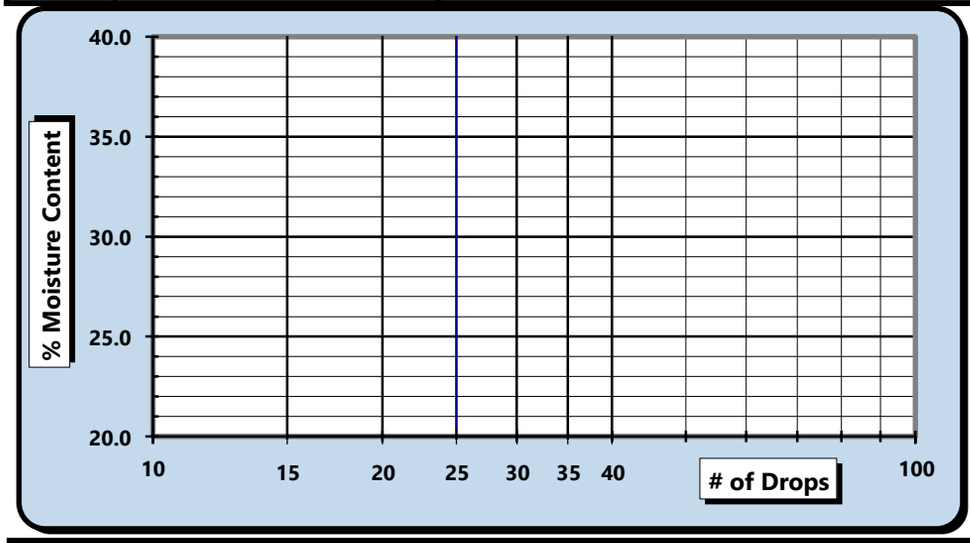
S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/20/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	EMB08	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-1	Type:	Split-spoon	Depth:	0.0 - 2.0'
Sample Description:	silty SAND [SM / A-2-4]				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 14.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/21/23	Brian Vaughan, P.E.	6/21/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

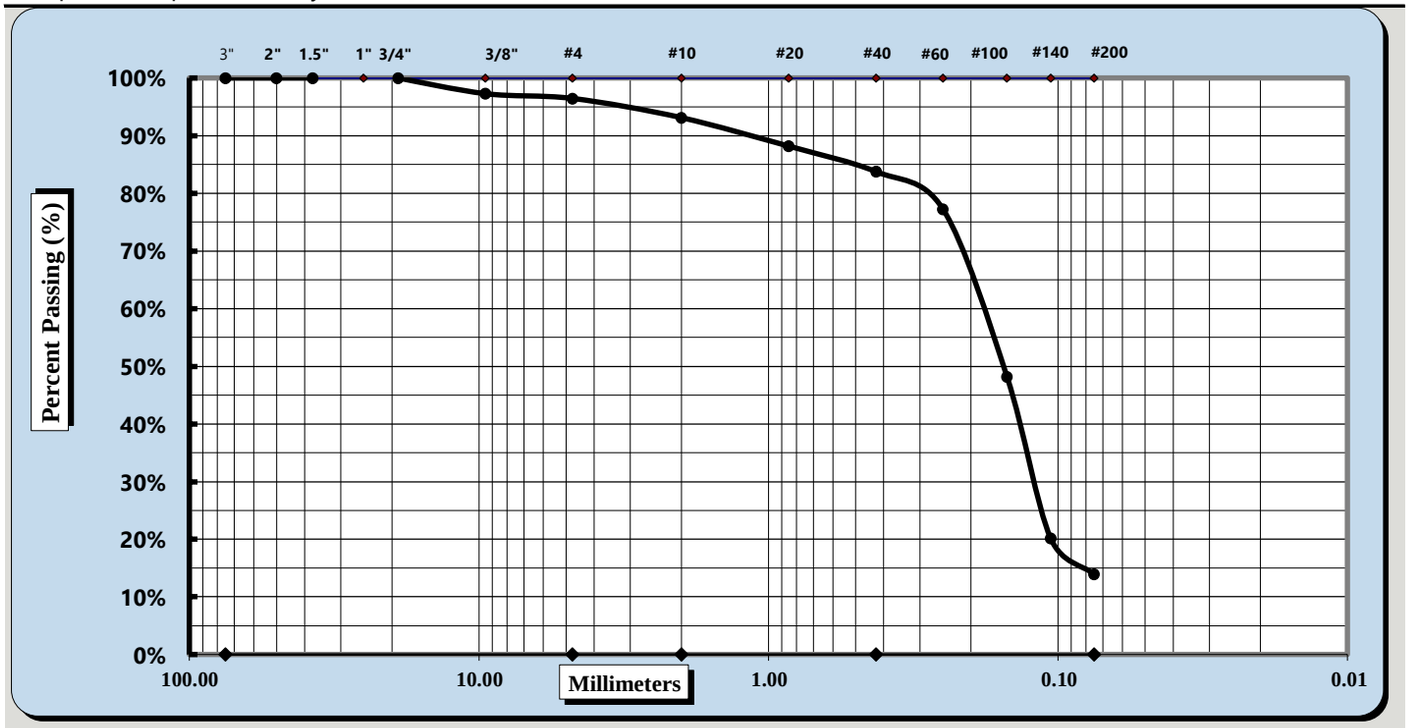
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/19 - 6/21/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB08	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-1	Type:	Split-spoon	Depth:	0.0 - 2.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	19.0 mm	Coarse Sand	3.3%	Fine Sand	69.8%
Gravel	3.5%	Medium Sand	9.4%	Silt & Clay	14.0%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	13.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/21/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

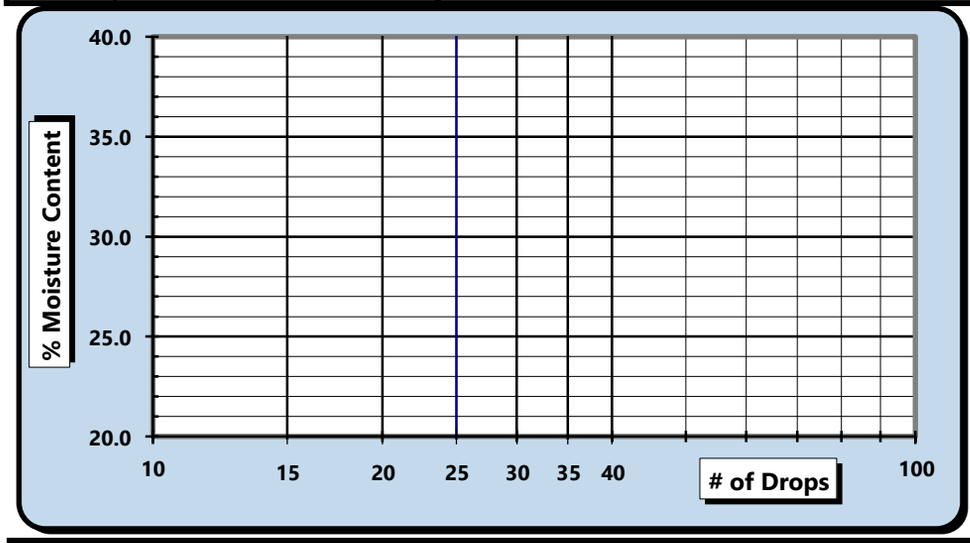
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/20/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB08	Log #: 52g	Sample Date: 3/15/23
Sample #:	SS-5	Type: Split-spoon	Depth: 8.0 - 10.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 7.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/21/23	Brian Vaughan, P.E.	6/21/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

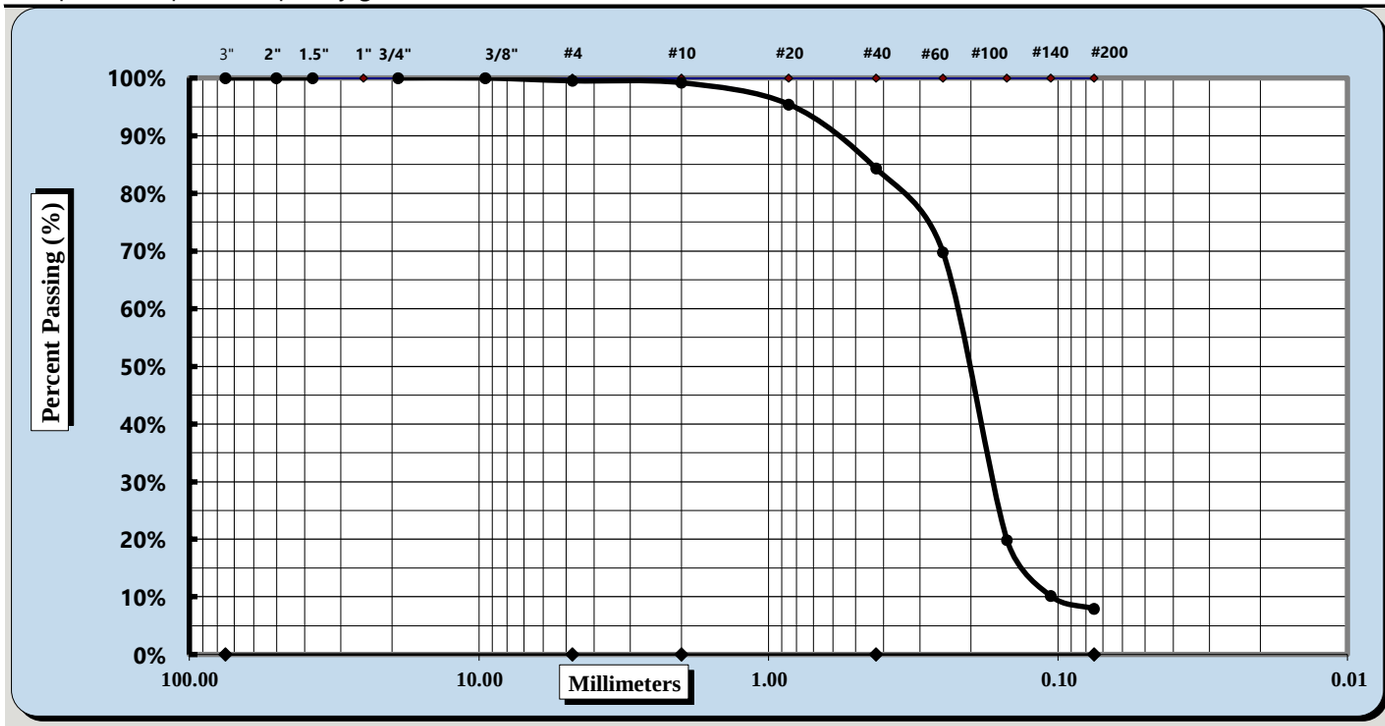
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/19 - 6/21/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB08	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-5	Type:	Split-spoon	Depth:	8.0 - 10.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.3%	Fine Sand	76.4%
Gravel	0.5%	Medium Sand	14.9%	Silt & Clay	7.9%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	14.5%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/21/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

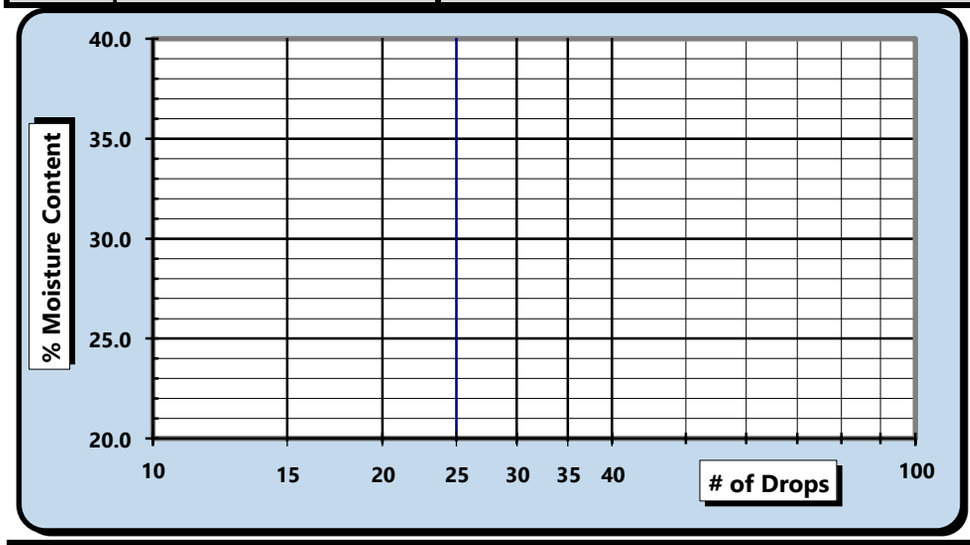
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/20/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB08	Log #: 52g	Sample Date: 3/15/23
Sample #:	SS-6	Type: Split-spoon	Depth: 13.5 - 15.0'
Sample Description:	silty SAND [SM / A-2-4]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 13.2%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/21/23	Brian Vaughan, P.E.	6/21/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

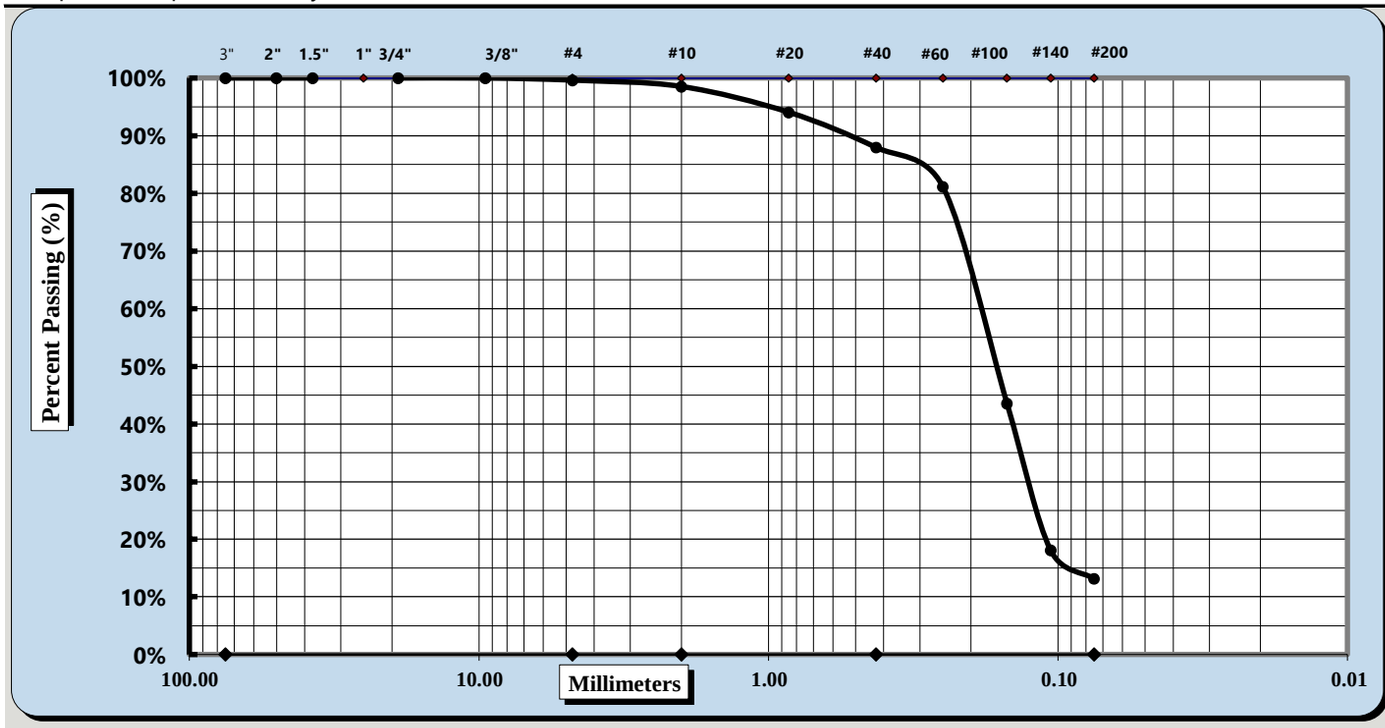
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/19 - 6/21/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB08	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-6	Type:	Split-spoon	Depth:	13.5 - 15.0'
Sample Description:	silty SAND [SM / A-2-4]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	4.75 mm	Coarse Sand	1.1%	Fine Sand	74.8%
Gravel	0.4%	Medium Sand	10.6%	Silt & Clay	13.2%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	14.1%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/21/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

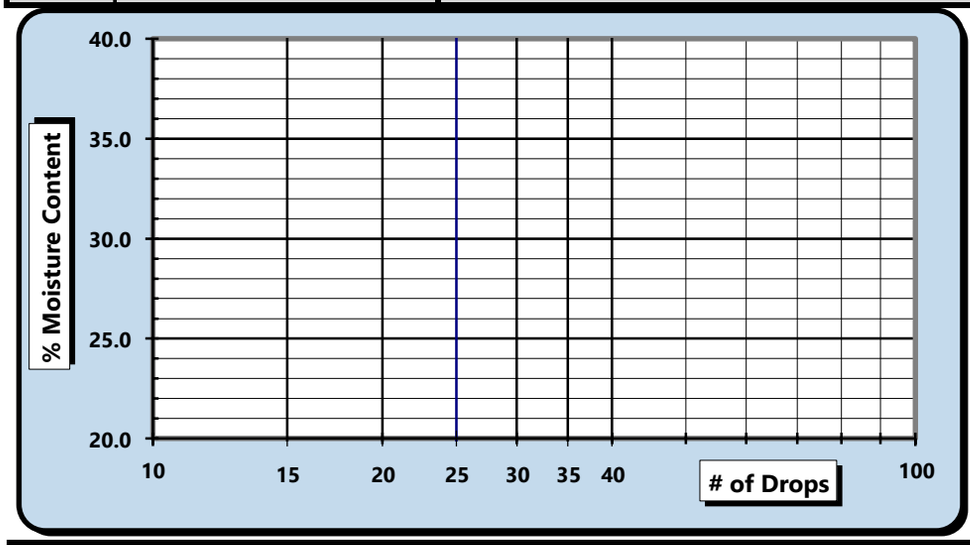
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/20/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB08	Log #: 52g	Sample Date: 3/15/23
Sample #:	SS-9	Type: Split-spoon	Depth: 28.5 - 30.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 7.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/21/23	Brian Vaughan, P.E.	6/21/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

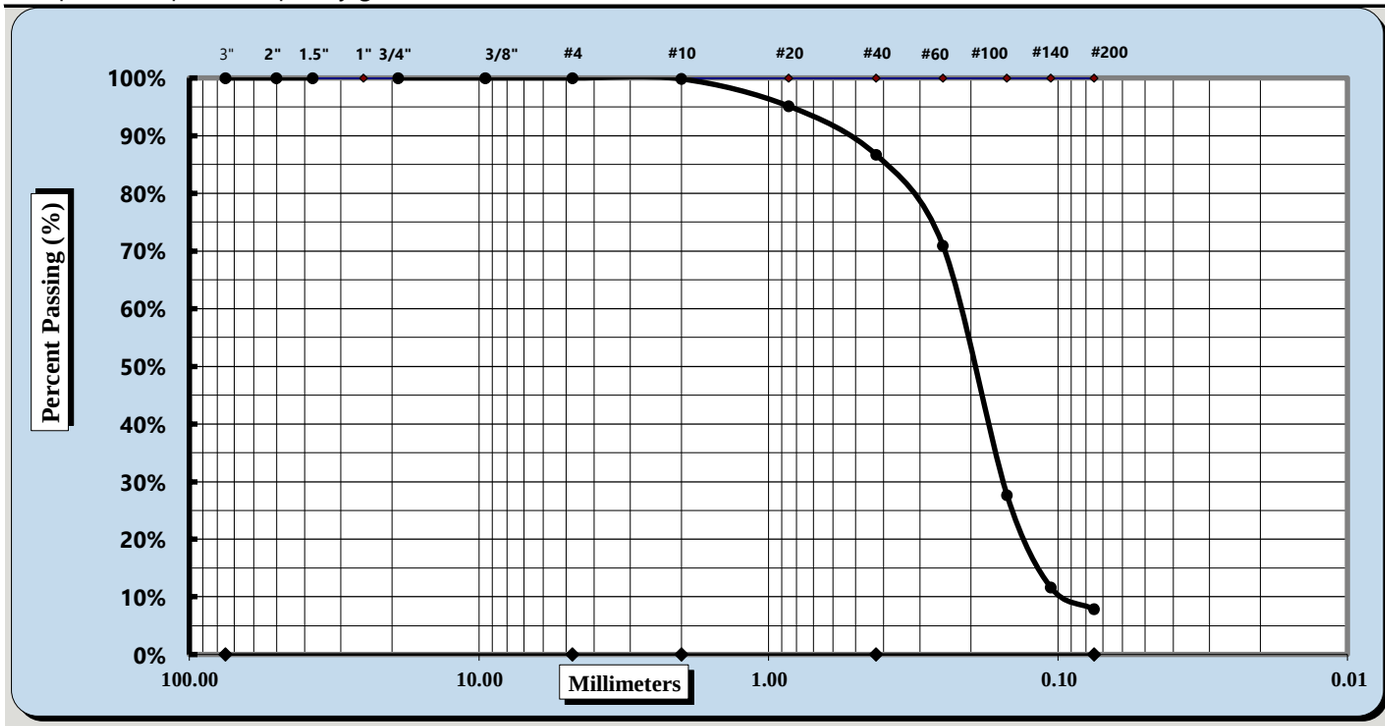
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/19 - 6/21/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB08	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-9	Type:	Split-spoon	Depth:	28.5 - 30.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	2.00 mm	Coarse Sand	0.1%	Fine Sand	78.8%
Gravel	0.0%	Medium Sand	13.2%	Silt & Clay	7.9%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	20.0%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/21/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

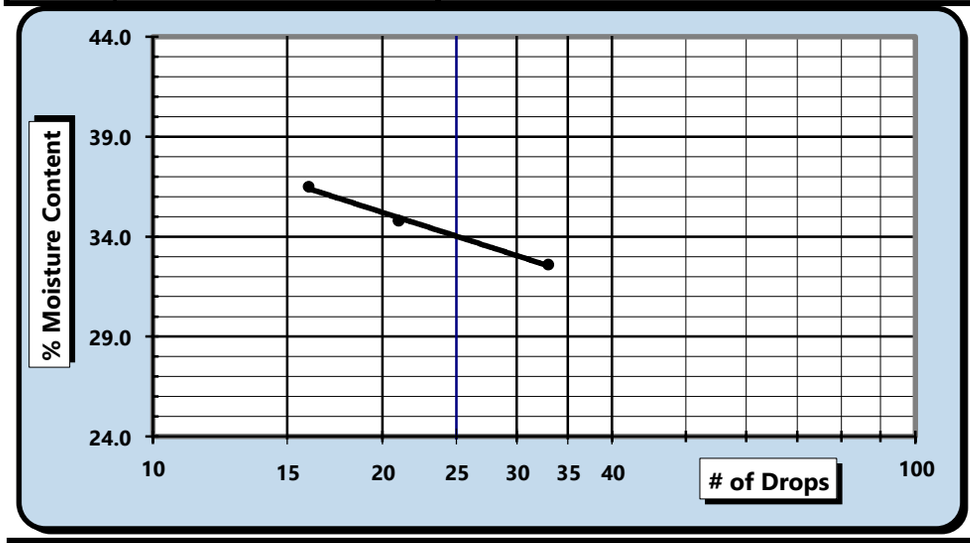
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/20/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB08	Log #: 52g	Sample Date: 3/15/23
Sample #:	SS-10	Type: Split-spoon	Depth: 33.5 - 35.0'
Sample Description:	SILT with sand [ML / A-4(6)]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4		
A	Tare Weight	26.70	26.50	26.36				25.90		
B	Wet Soil Weight + A	42.22	41.93	39.10				37.25		
C	Dry Soil Weight + A	38.40	37.95	35.69				34.90		
D	Water Weight (B-C)	3.82	3.98	3.41				2.35		
E	Dry Soil Weight (C-A)	11.70	11.45	9.33				9.00		
F	% Moisture (D/E)*100	32.6%	34.8%	36.5%				26.1%		
N	# OF DROPS	33	21	16				*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							26.1%		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**34**
Plastic Limit	**26**
Plastic Index	**8**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 77.7%

Notes / Deviations / References:

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/21/23	Brian Vaughan, P.E.	6/21/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

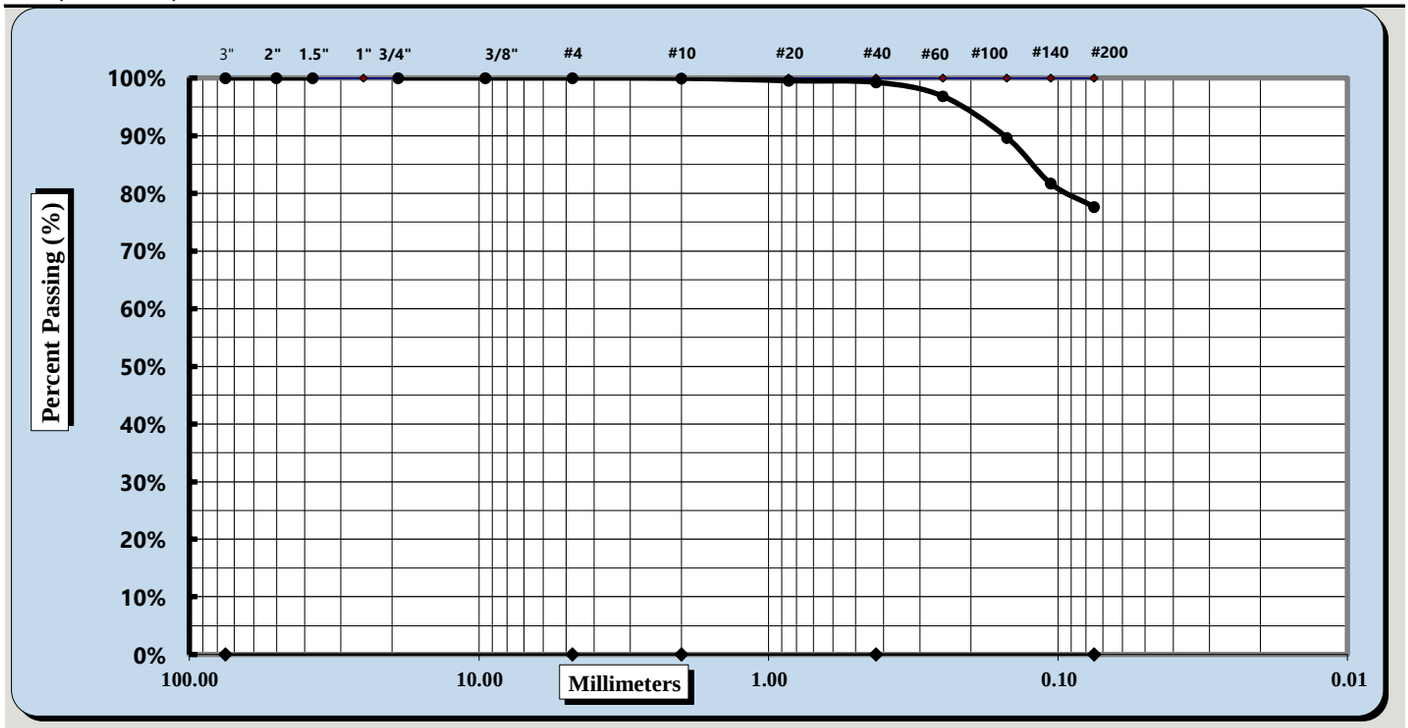
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/19 - 6/21/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB08	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-10	Type:	Split-spoon	Depth:	33.5 - 35.0'
Sample Description:	SILT with sand [ML / A-4(6)]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	0.425 mm	Coarse Sand	0.0%	Fine Sand	21.6%
Gravel	0.0%	Medium Sand	0.7%	Silt & Clay	77.7%
Liquid Limit	34	Plastic Limit	26	Plastic Index	8
		Natural Moisture	48.8%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/21/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

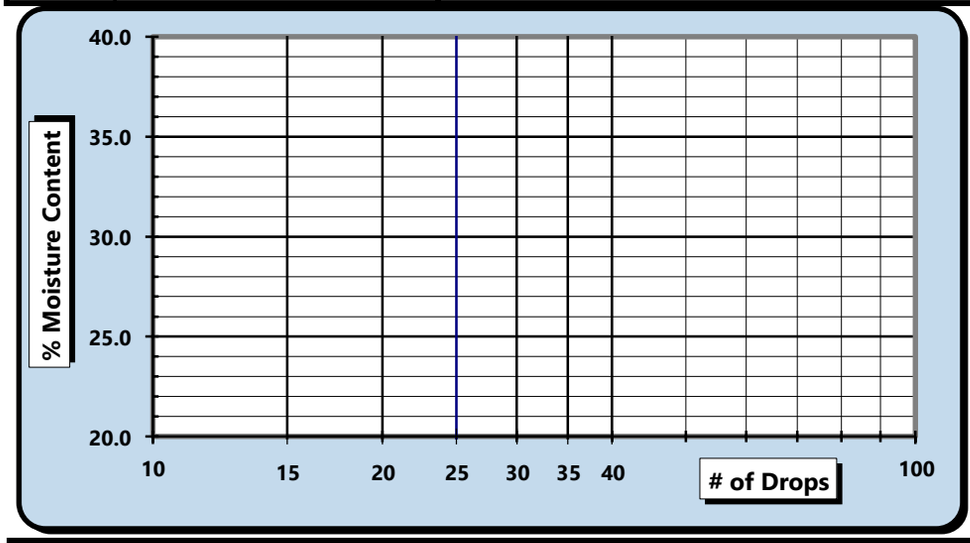
ASTM D 4318 ☐ *AASHTO T 89* ☒ *AASHTO T 90* ☒

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange	Test Date:	6/20/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		
Boring #:	EMB08	Log #: 52g	Sample Date: 3/15/23
Sample #:	SS-11	Type: Split-spoon	Depth: 38.5 - 40.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	11/1/2022	AASHTO Grooving tool	22925	7/18/2022
LL Apparatus	23158	7/18/2022			
Oven	13978	10/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by AASHTO T 265*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	---
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 9.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

AASHTO T 90: Determining the Plastic Limit & Plastic Index of Soils *AASHTO T 89: Determining the Liquid Limit of Soils*

Benjamin Kovaleski	6/21/23	Brian Vaughan, P.E.	6/21/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

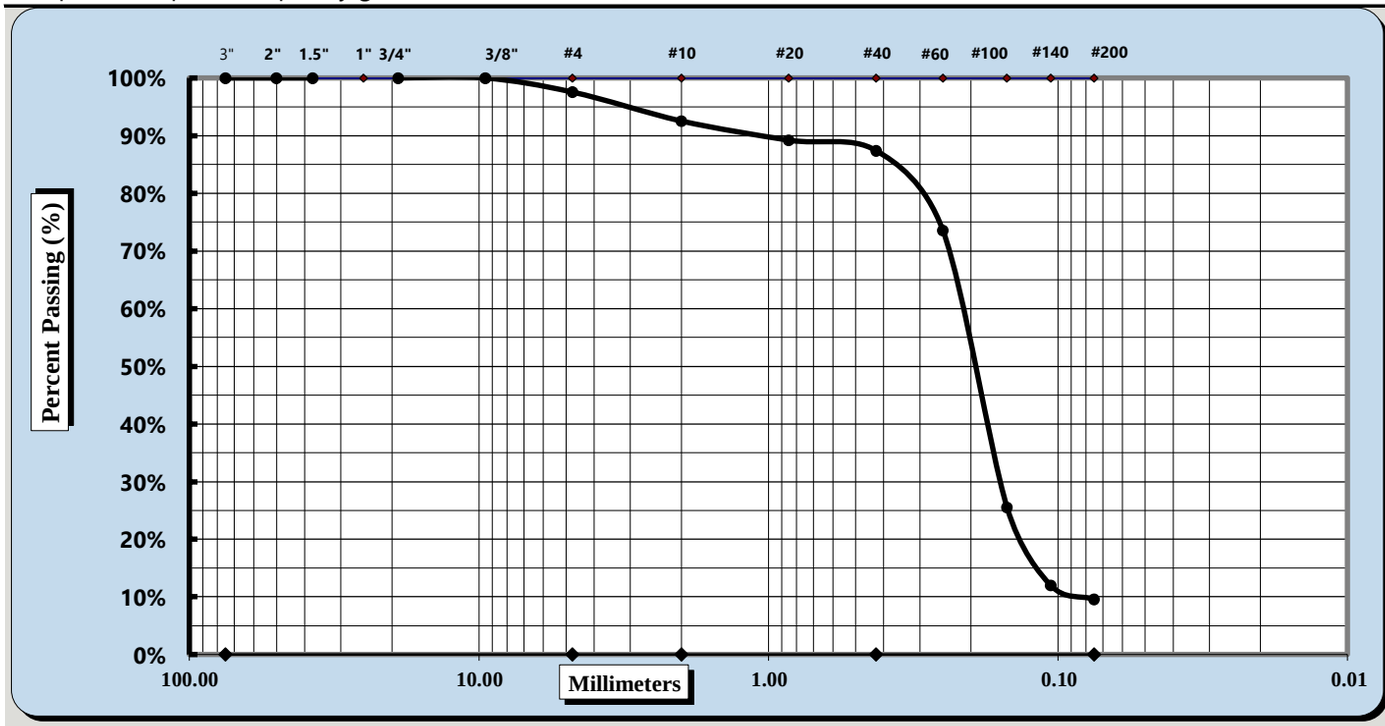
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville: 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	6/21/23
Project Name:	526 Longpoint Road Interchange			Test Date:	6/19 - 6/21/23
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB08	Log #:	52g	Sample Date:	3/15/23
Sample #:	SS-11	Type:	Split-spoon	Depth:	38.5 - 40.0'
Sample Description:	poorly graded SAND with silt [SP-SM / A-3]				



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist Dispersion Process: Dispersant

Maximum Particle Size	9.50 mm	Coarse Sand	5.0%	Fine Sand	77.8%
Gravel	2.4%	Medium Sand	5.1%	Silt & Clay	9.6%
Liquid Limit	---	Plastic Limit	NP	Plastic Index	NP
		Natural Moisture	32.7%		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	6/21/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-2
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/5/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s):	5/4 - 5/5/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Sample by:	Soil Consultants, Inc.	Sample Date(s):	3/13/23
Sampling Method:	Split Spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 20977 Calibration Date: 3/2/23 Oven ID. 1454 Calibration Date: 9/1/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture
		ft.		grams	grams	grams	grams	%
EMB09	SS-2	2-4		7.06	120.94	112.06	8.88	8.5%
EMB09	SS-4	6-8		6.96	185.21	168.43	16.78	10.4%
EMB09	SS-7	18.5-20		6.86	211.85	173.90	37.95	22.7%
EMB09	SS-8	23.5-25		6.99	219.72	157.52	62.20	41.3%
EMB09	SS-9	28.5-30		7.09	257.97	186.88	71.09	39.5%
EMB09	SS-10	33.5-35		6.97	186.29	131.46	54.83	44.0%
EMB09	SS-11	38.5-40		6.78	193.43	134.99	58.44	45.6%

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Mal Krajan, ET		Laboratory Manager	5/5/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

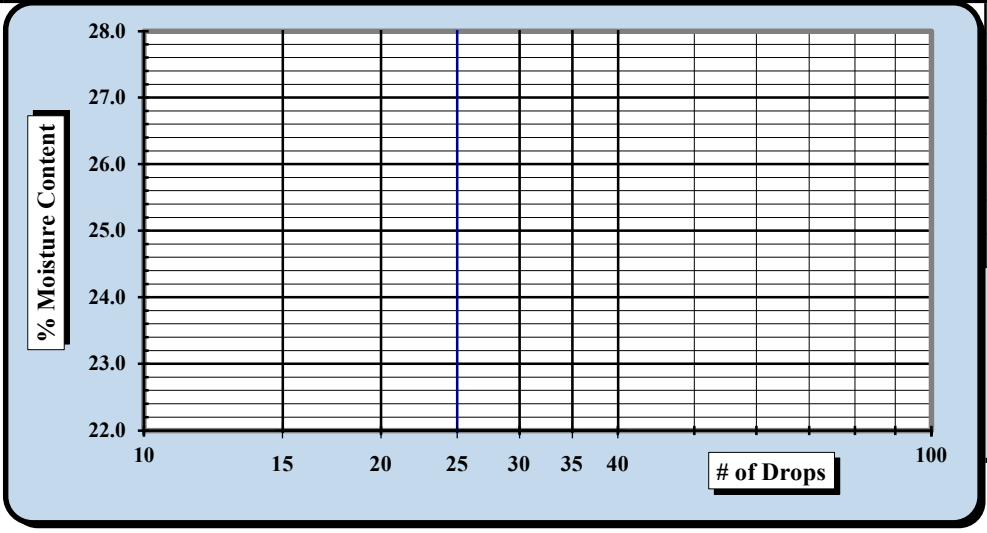
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB09	Sample #: SS-2		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 2-4	
Sample Description:				Brown Poorly Graded SAND (SP) A-2-4 (1)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight	12.99								
B	Wet Soil Weight + A	23.15								
C	Dry Soil Weight + A	22.00								
D	Water Weight (B-C)	1.15								
E	Dry Soil Weight (C-A)	9.01								
F	% Moisture (D/E)*100	12.8%								
N	# OF DROPS	5						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**N.P.**
Plastic Index	**N.P.**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 6.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

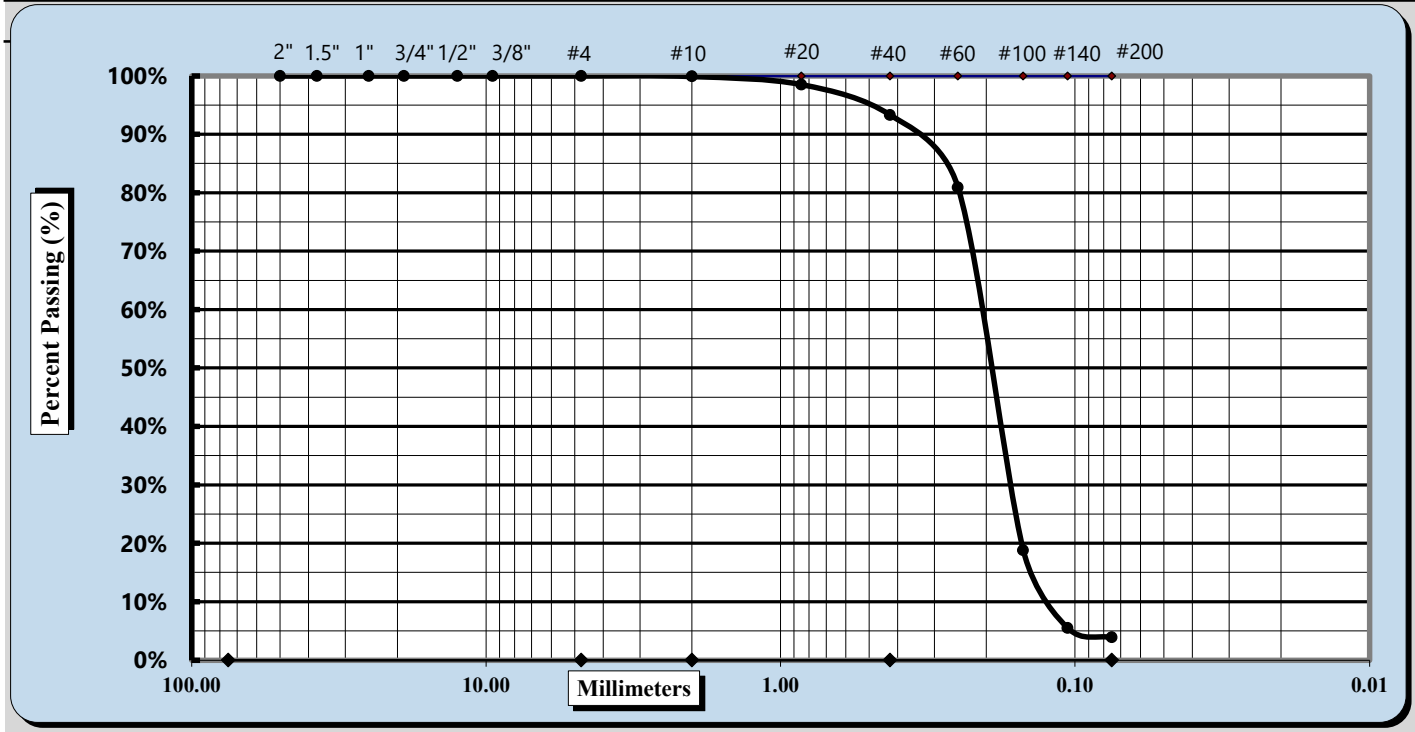
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	4/21/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB09	Sample #: SS-2
Log/Sample Id.		Type: SS	Elev/Depth (ft): 2-4
Sample Description:		Brown Poorly Graded SAND (SP)	A-2-4 (1)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.1%	Fine Sand	89.4%
Gravel	0.0%	Medium Sand	6.6%	Silt & Clay	3.9%
Liquid Limit	*ND	Plastic Limit	N.P.	Plastic Index	N.P.
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	8.5%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

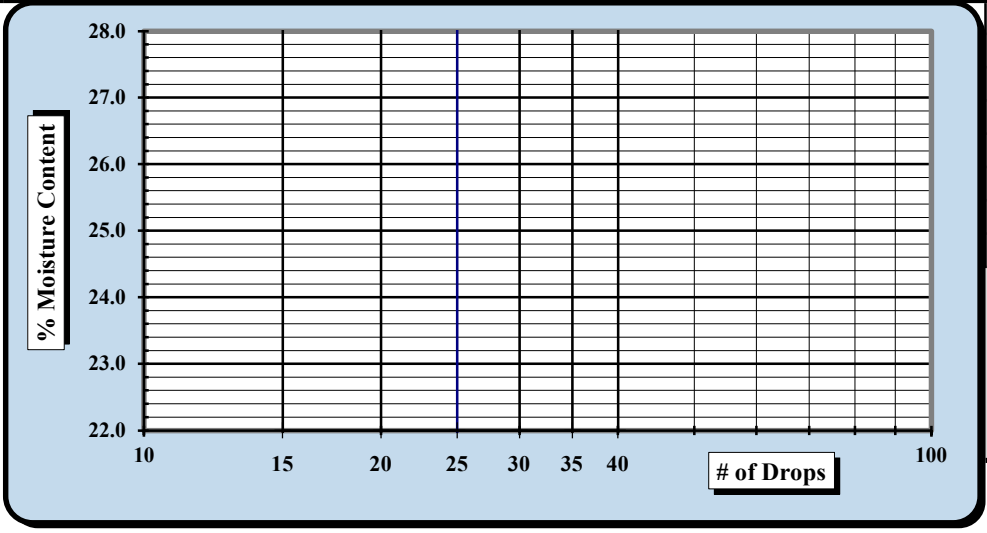
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB09	Sample #: SS-4		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 6-8	
Sample Description:		Brown Poorly Graded SAND with Silt (SP-SM) A-2-4 (0)			

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	810								
A	Tare Weight	12.45								
B	Wet Soil Weight + A	27.06								
C	Dry Soil Weight + A	24.60								
D	Water Weight (B-C)	2.46								
E	Dry Soil Weight (C-A)	12.15								
F	% Moisture (D/E)*100	20.2%								
N	# OF DROPS	12						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**N.P.**
Plastic Index	**N.P.**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 29.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

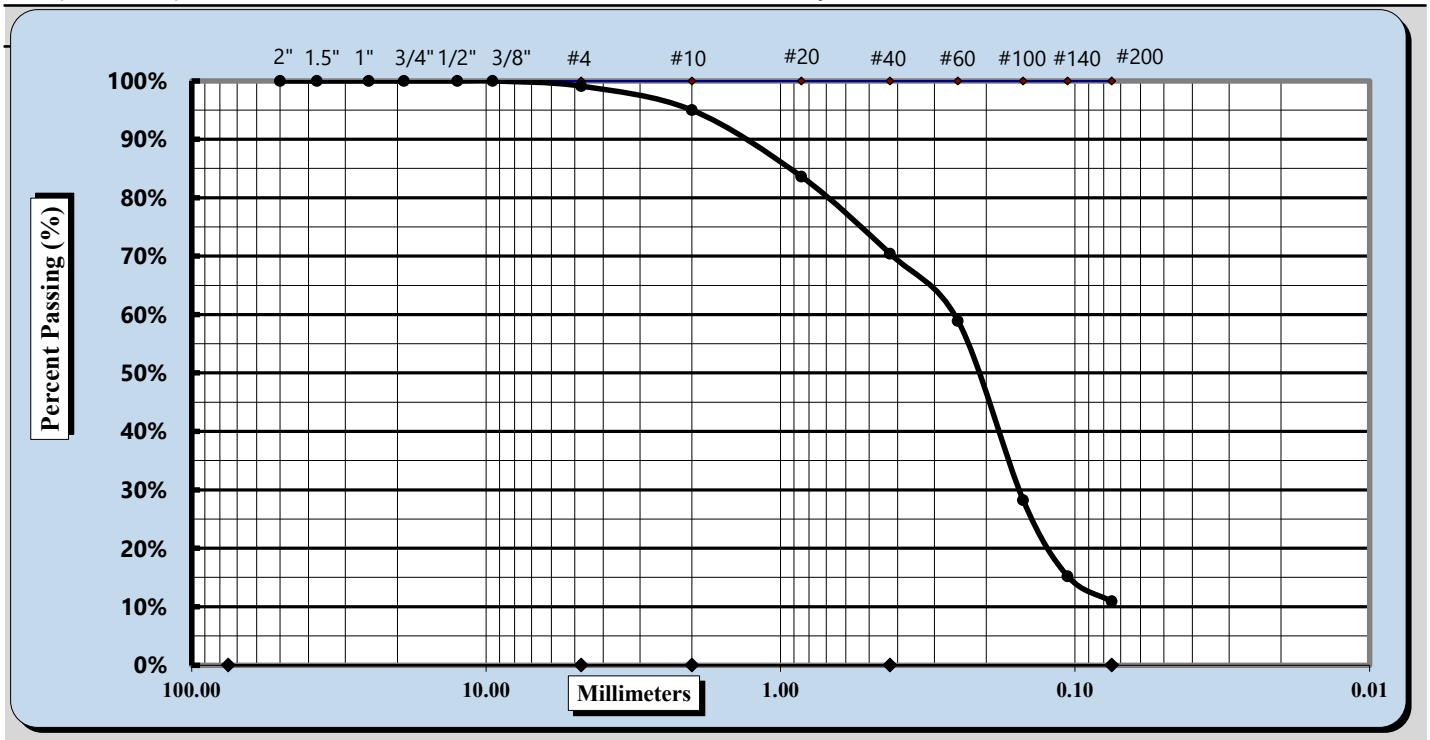
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	4/21/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB09	Sample #: SS-4
Log/Sample Id.		Type: SS	Elev/Depth (ft): 6-8
Sample Description:		Brown Poorly Graded SAND with Silt (SP-SM)	A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	4.1%	Fine Sand	59.5%
Gravel	0.9%	Medium Sand	24.6%	Silt & Clay	10.9%
Liquid Limit	*ND	Plastic Limit	N.P.	Plastic Index	N.P.
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	10.4%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

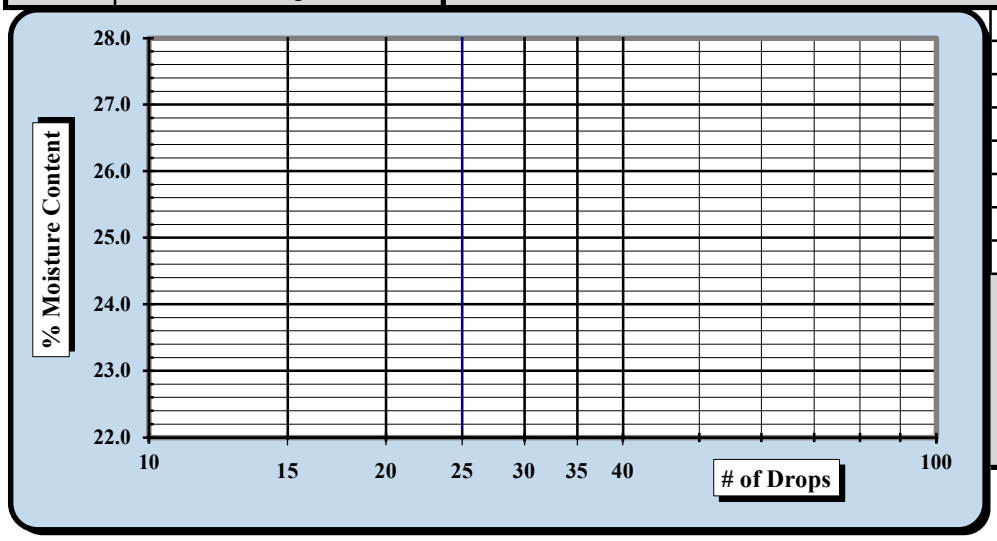
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB09	Sample #: SS-7	Sample Date: 3/13/2023
Location:	Site-Borehole	Offset: N/A	Depth (ft): 18.5-20
Sample Description:	Tan-Brown Poorly Graded SAND with Silt (SP-SM) A-2-4 (1)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	112								
A	Tare Weight	11.12								
B	Wet Soil Weight + A	23.14								
C	Dry Soil Weight + A	21.84								
D	Water Weight (B-C)	1.30								
E	Dry Soil Weight (C-A)	10.72								
F	% Moisture (D/E)*100	12.1%								
N	# OF DROPS	9						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**N.P.**
Plastic Index	**N.P.**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 5.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

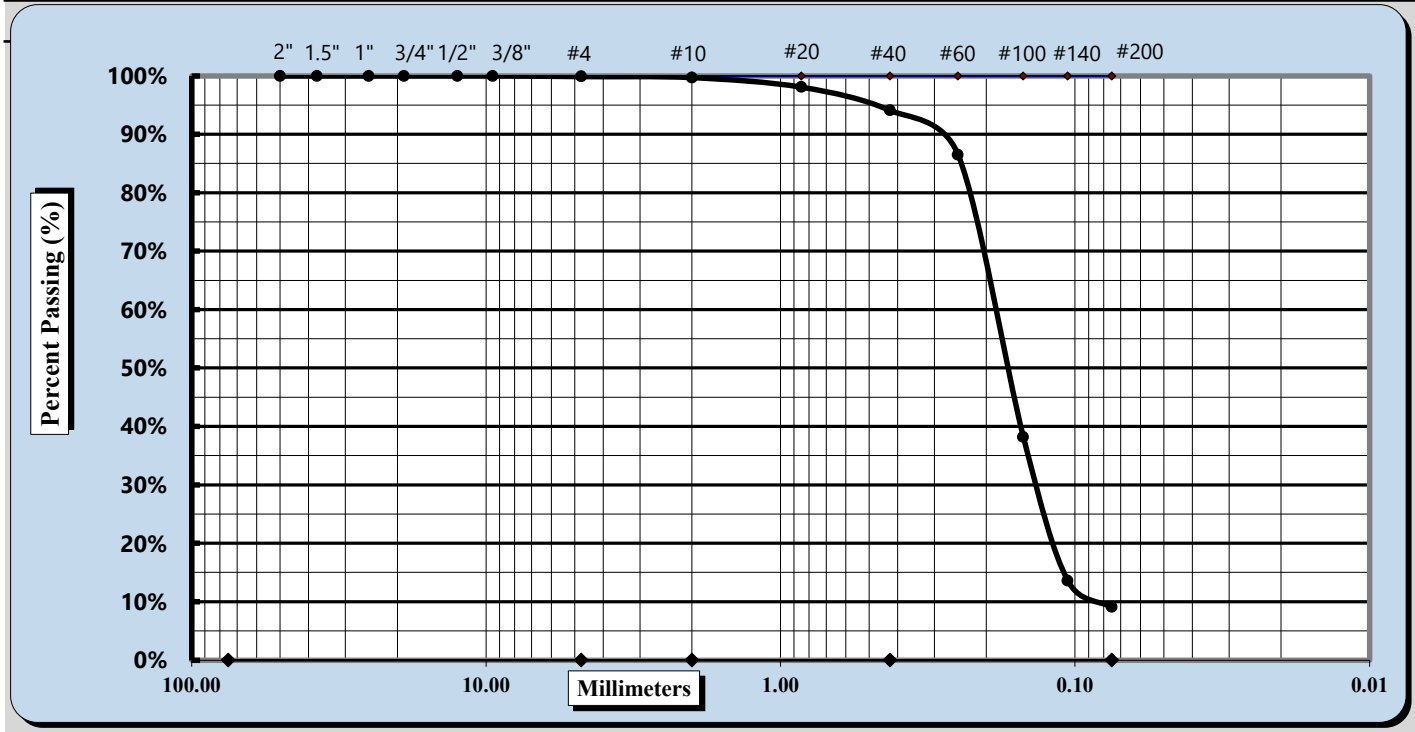
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	4/21/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB09	Sample #: SS-7
Log/Sample Id.		Type: SS	Elev/Depth (ft): 18.5-20
Sample Description:		Tan-Brown Poorly Graded SAND with Silt (SP-SM)	A-2-4 (1)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	0.2%	Fine Sand	85.0%
Gravel	0.1%	Medium Sand	5.6%	Silt & Clay	9.1%
Liquid Limit	*ND	Plastic Limit	N.P.	Plastic Index	N.P.
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	22.7%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

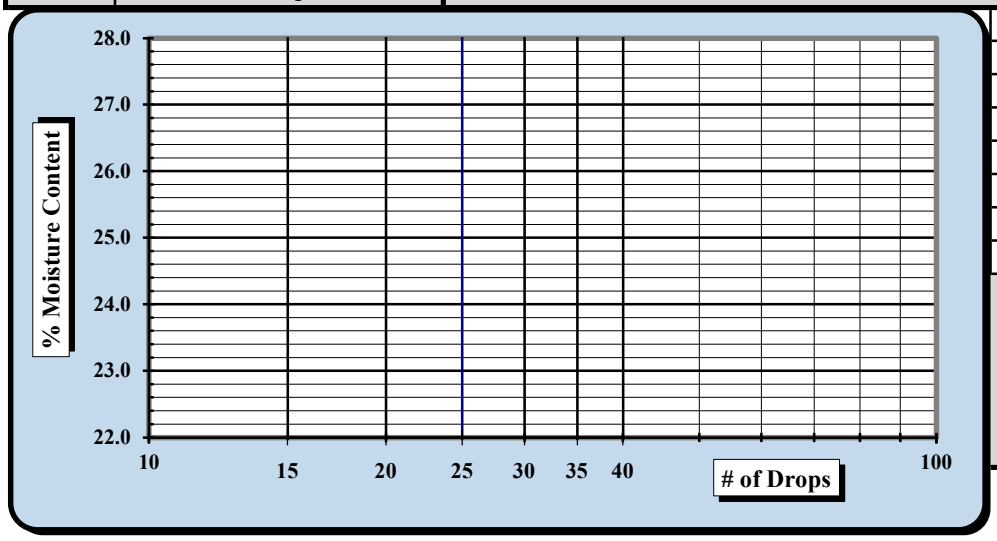
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB09	Sample #: SS-8		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 23.5-25	
Sample Description:				Gray Poorly Graded SAND (SP) A-2-4 (1)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	34								
A	Tare Weight	12.36								
B	Wet Soil Weight + A	29.08								
C	Dry Soil Weight + A	26.33								
D	Water Weight (B-C)	2.75								
E	Dry Soil Weight (C-A)	13.97								
F	% Moisture (D/E)*100	19.7%								
N	# OF DROPS	13						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**N.P.**
Plastic Index	**N.P.**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 30.3%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

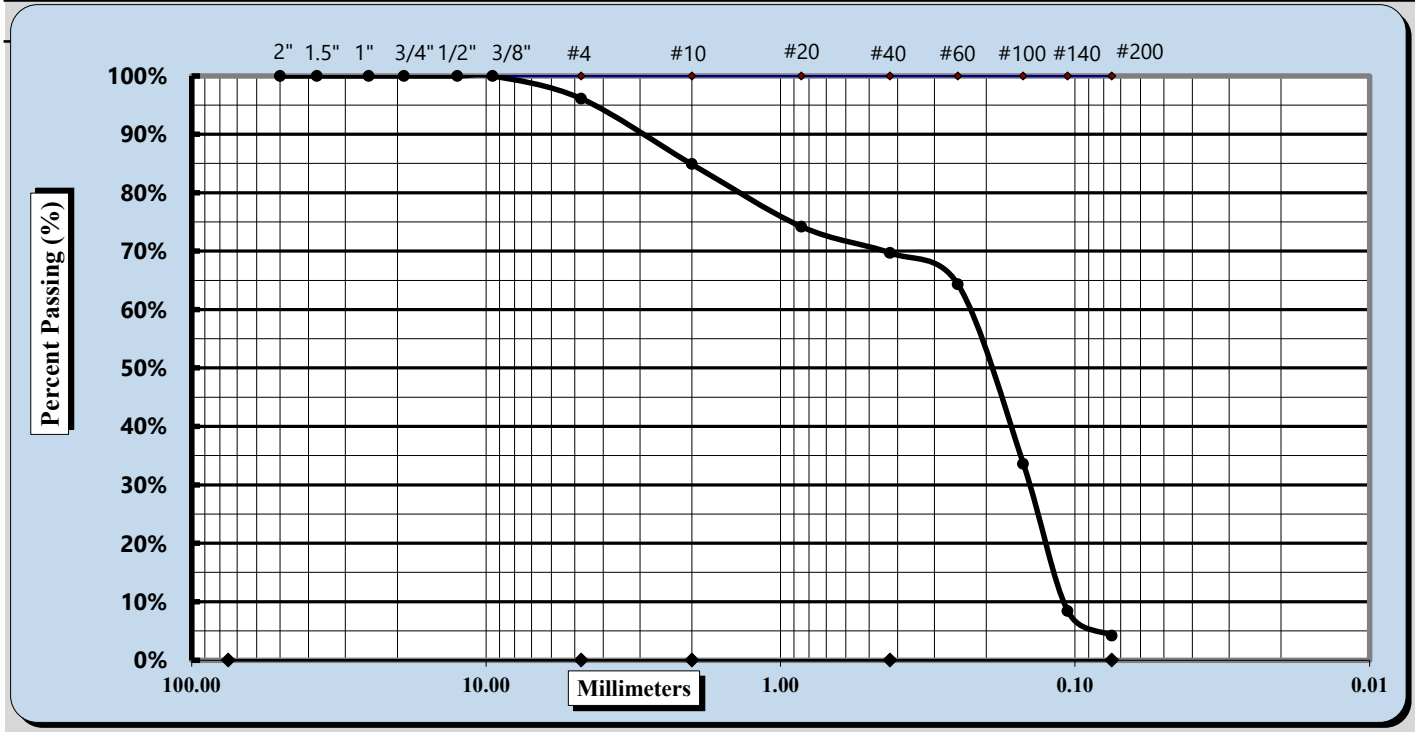
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	4/21/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB09	Sample #: SS-8
Log/Sample Id.		Type: SS	Elev/Depth (ft): 23.5-25
Sample Description:		Gray Poorly Graded SAND (SP)	A-2-4 (1)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	11.2%	Fine Sand	65.5%
Gravel	3.9%	Medium Sand	15.2%	Silt & Clay	4.2%
Liquid Limit	*ND	Plastic Limit	N.P.	Plastic Index	N.P.
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	41.3%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

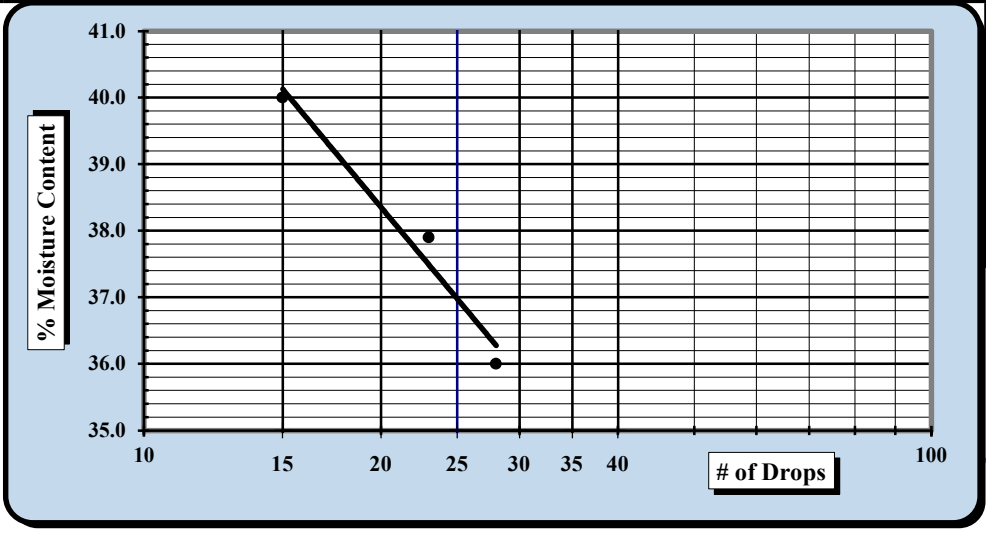
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB09	Sample #: SS-9		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 28.5-30	
Sample Description:				Gray Sandy CLAY (CL) A-6 (9)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	23	62	1				43	44	
A	Tare Weight	12.32	14.11	12.20				12.19	12.27	
B	Wet Soil Weight + A	24.38	24.92	24.13				18.53	19.49	
C	Dry Soil Weight + A	21.19	21.95	20.72				17.74	18.55	
D	Water Weight (B-C)	3.19	2.97	3.41				0.79	0.94	
E	Dry Soil Weight (C-A)	8.87	7.84	8.52				5.55	6.28	
F	% Moisture (D/E)*100	36.0%	37.9%	40.0%				14.2%	15.0%	
N	# OF DROPS	28	23	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**14.6%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**37**
Plastic Limit	**15**
Plastic Index	**22**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 0.5%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

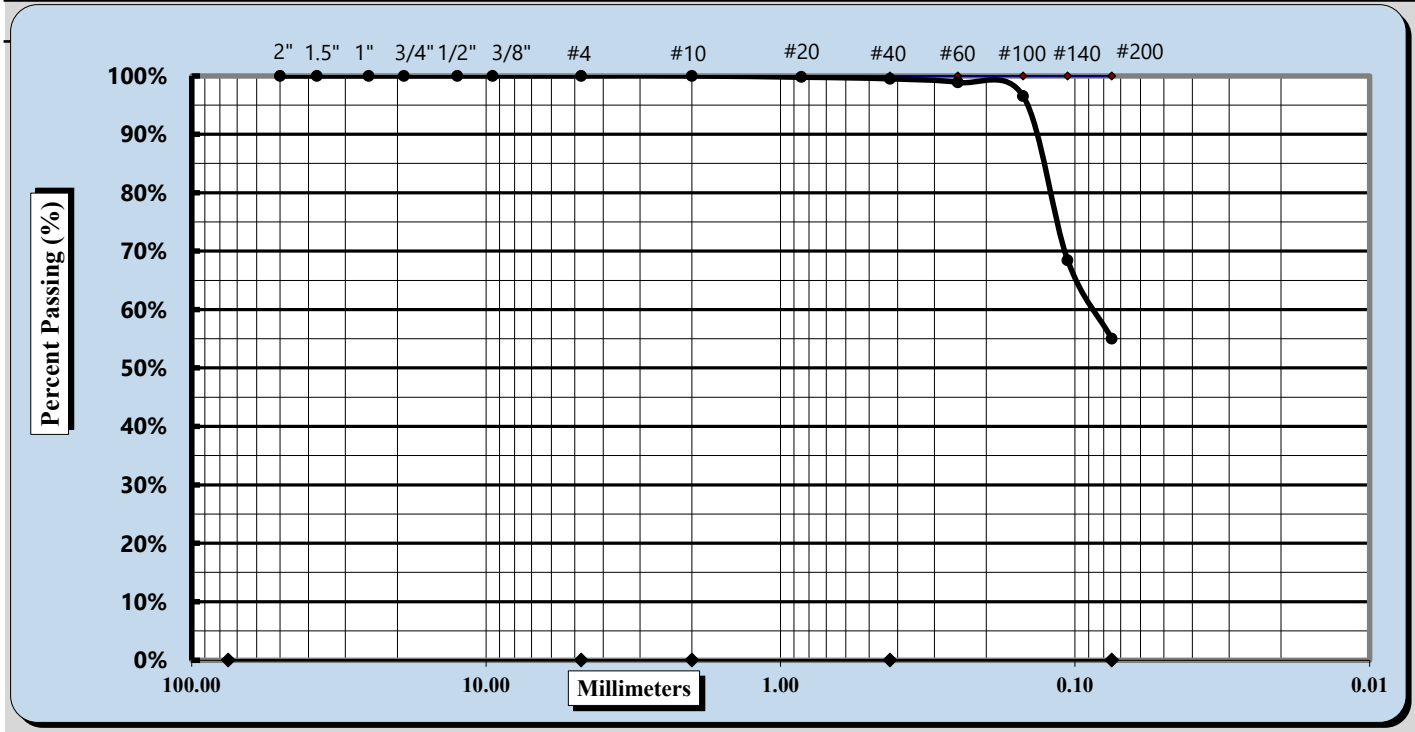
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	4/21/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB09	Sample #: SS-9
Log/Sample Id.		Type: SS	Elev/Depth (ft): 28.5-30
Sample Description:		Gray Sandy CLAY (CL)	A-6 (9)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	0.0%	Fine Sand	44.5%
Gravel	0.0%	Medium Sand	0.5%	Silt & Clay	55.0%
Liquid Limit	37	Plastic Limit	15	Plastic Index	22
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	39.5%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

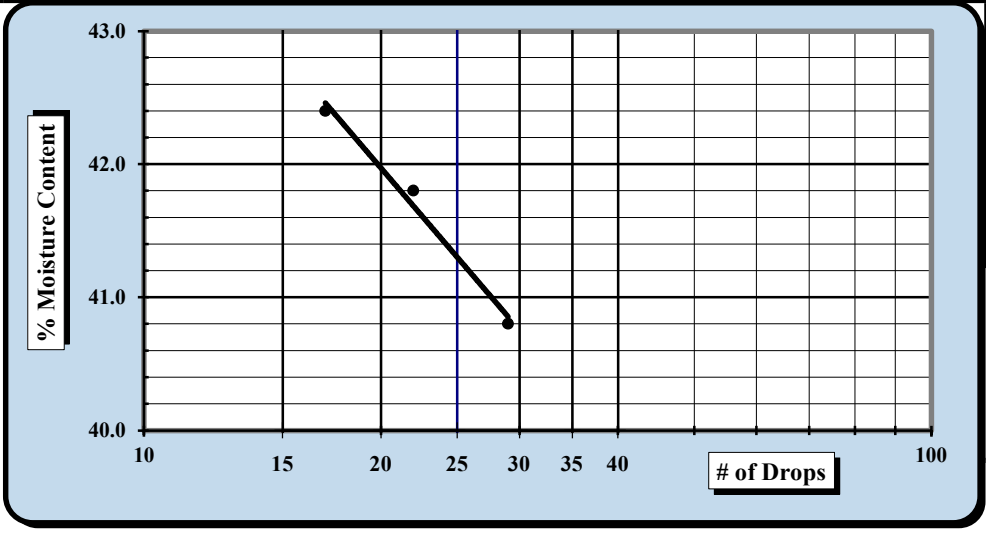
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB09	Sample #: SS-10		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 33.5-35	
Sample Description:				Gray Clayey SAND (SC) A-7-6 (8)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	31	3	6				4	56	
A	Tare Weight	12.35	12.19	12.23				12.13	13.97	
B	Wet Soil Weight + A	21.54	22.31	23.48				18.56	21.38	
C	Dry Soil Weight + A	18.83	19.38	20.13				17.63	20.35	
D	Water Weight (B-C)	2.71	2.93	3.35				0.93	1.03	
E	Dry Soil Weight (C-A)	6.48	7.19	7.90				5.50	6.38	
F	% Moisture (D/E)*100	41.8%	40.8%	42.4%				16.9%	16.1%	
N	# OF DROPS	22	29	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**16.5%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**41**
Plastic Limit	**17**
Plastic Index	**24**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 11.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

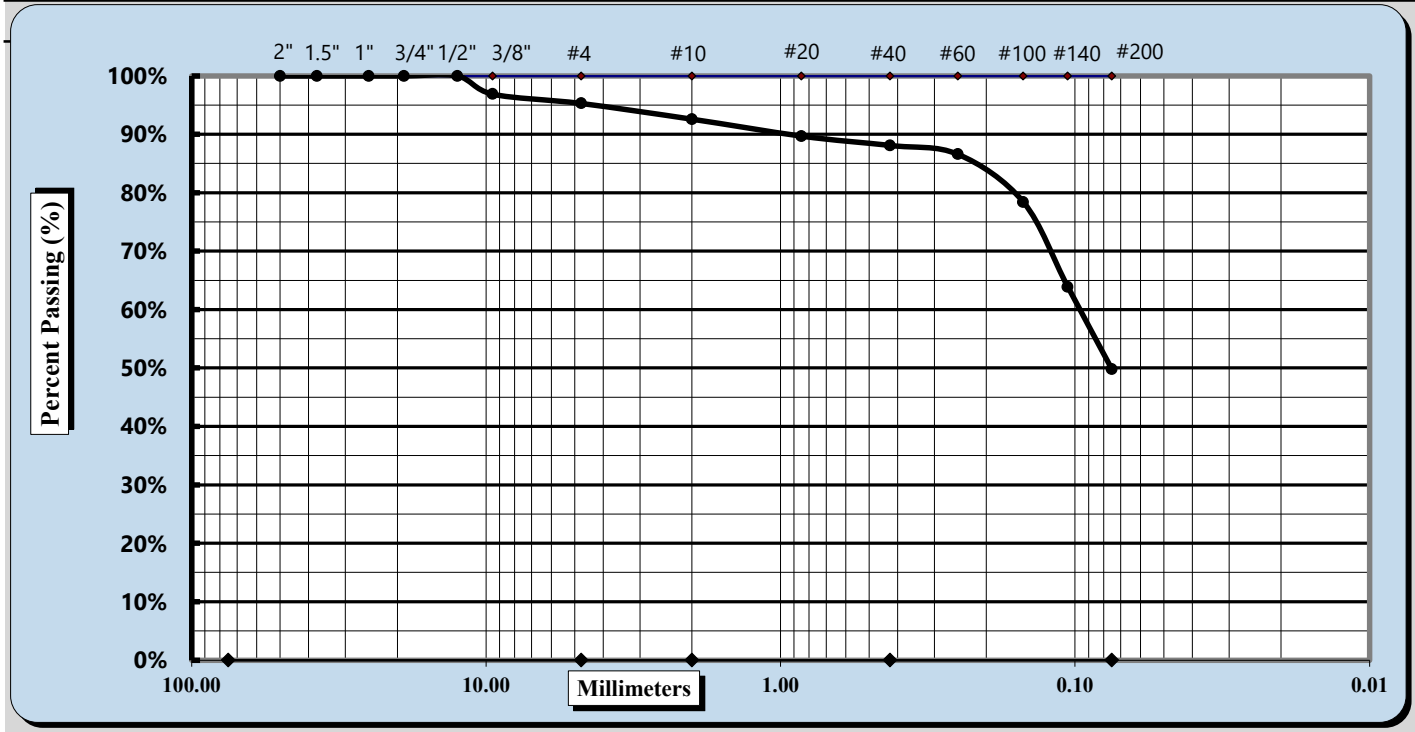
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	4/21/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB09	Sample #: SS-10
Log/Sample Id.		Type: SS	Elev/Depth (ft): 33.5-35
Sample Description:		Gray Clayey SAND (SC)	A-7-6 (8)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/4"	Coarse Sand	2.7%	Fine Sand	38.3%
Gravel	4.7%	Medium Sand	4.5%	Silt & Clay	49.8%
Liquid Limit	41	Plastic Limit	17	Plastic Index	24
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	44.0%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

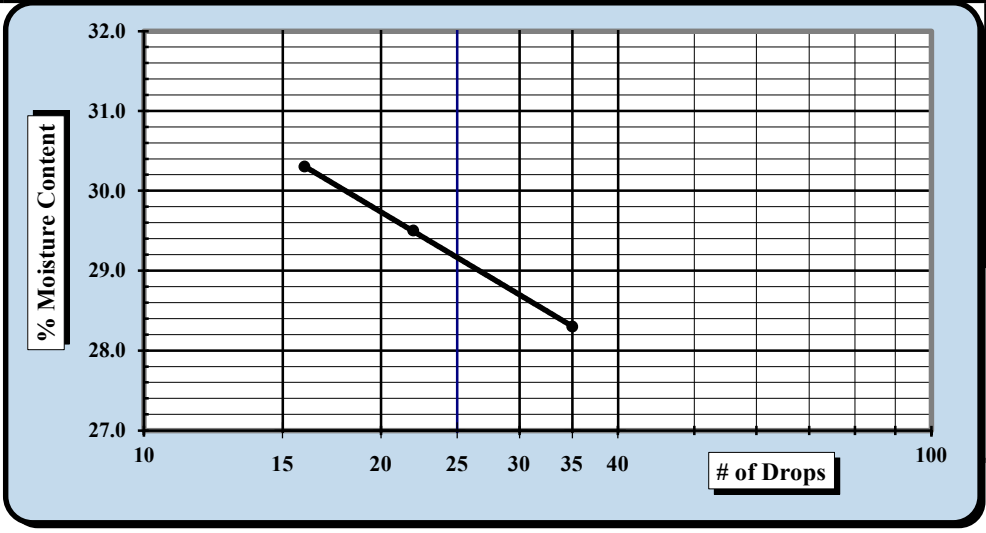
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB09	Sample #: SS-11		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 38.5-40	
Sample Description:				Gray Sandy CLAY (CL) A-6 (6)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	78	13	59				81	65	
A	Tare Weight	14.13	12.27	13.91				14.09	13.90	
B	Wet Soil Weight + A	24.01	20.75	24.35				21.08	21.63	
C	Dry Soil Weight + A	21.76	18.88	21.92				20.28	20.77	
D	Water Weight (B-C)	2.25	1.87	2.43				0.80	0.86	
E	Dry Soil Weight (C-A)	7.63	6.61	8.01				6.19	6.87	
F	% Moisture (D/E)*100	29.5%	28.3%	30.3%				12.9%	12.5%	
N	# OF DROPS	22	35	16				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**12.7%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**29**
Plastic Limit	**13**
Plastic Index	**16**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 1.0%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

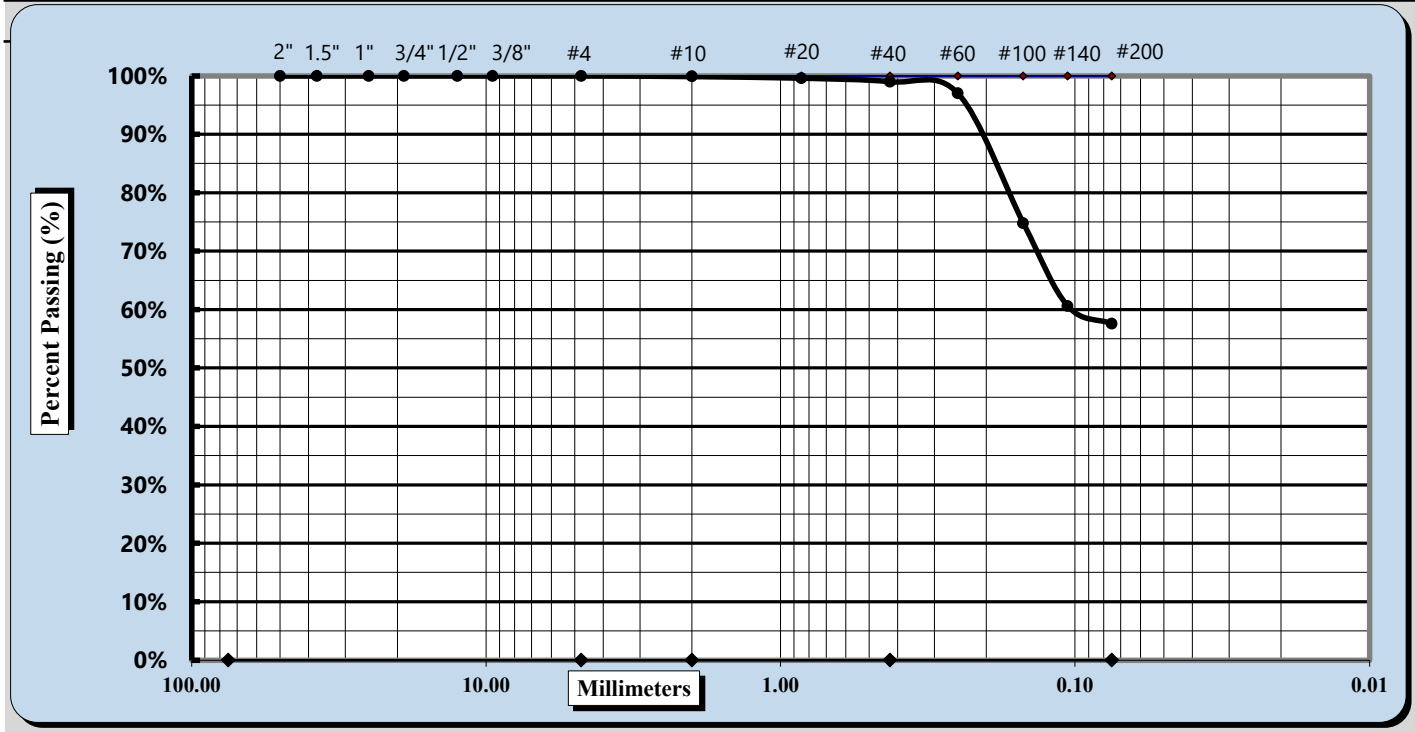
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	4/21/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB09	Sample #: SS-11
Log/Sample Id.		Type: SS	Elev/Depth (ft): 38.5-40
Sample Description:			Gray Sandy CLAY (CL) A-6 (6)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.1%	Fine Sand	41.4%
Gravel	0.0%	Medium Sand	0.9%	Silt & Clay	57.6%
Liquid Limit	29	Plastic Limit	13	Plastic Index	16
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	45.6%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-2
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☐ *AASHTO T 265* ☑

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/5/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s):	5/4 - 5/5/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Sample by:	Soil Consultants, Inc.	Sample Date(s):	3/13/23
Sampling Method:	Split Spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 20977 Calibration Date: 3/2/23 Oven ID. 1454 Calibration Date: 9/1/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture
		ft.		grams	grams	grams	grams	%
EMB10	SS-1	0-2		6.97	199.50	167.84	31.66	19.7%
EMB10	SS-2	2-4		6.95	191.65	161.38	30.27	19.6%
EMB10	SS-4	6-8		7.15	258.21	215.23	42.98	20.7%
EMB10	SS-5	8-10		7.16	204.79	172.42	32.37	19.6%
EMB10	SS-6	13.5-15		7.02	163.43	97.49	65.94	72.9%
EMB10	SS-7	18.5-20		7.07	305.35	232.26	73.09	32.5%
EMB10	SS-8	23.5-25		7.04	158.54	98.31	60.23	66.0%
EMB10	SS-10	33.5-35		6.94	194.89	137.97	56.92	43.4%
EMB10	SS-11	38.5-40		7.04	255.86	196.11	59.75	31.6%

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Mal Krajan, ET		Laboratory Manager	5/5/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

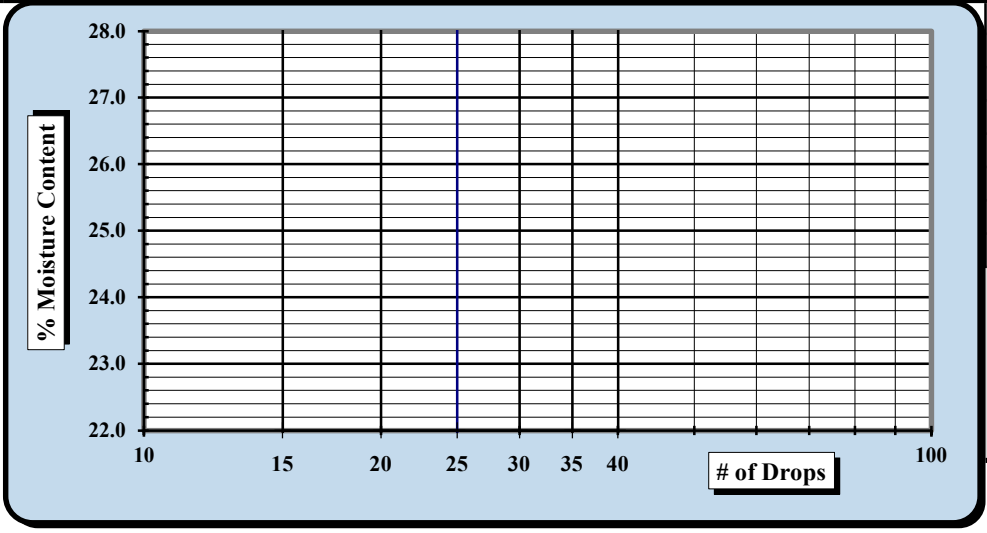
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB10	Sample #: SS-1	Sample Date: 3/13/2023
Location:	Site-Borehole	Offset: N/A	Depth (ft): 0-2
Sample Description:			Dark Gray Silty SAND (SM) A-2-4 (0)

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	27								
A	Tare Weight	12.16								
B	Wet Soil Weight + A	22.08								
C	Dry Soil Weight + A	20.66								
D	Water Weight (B-C)	1.42								
E	Dry Soil Weight (C-A)	8.50								
F	% Moisture (D/E)*100	16.7%								
N	# OF DROPS	14						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**N.P.**
Plastic Index	**N.P.**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 9.7%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

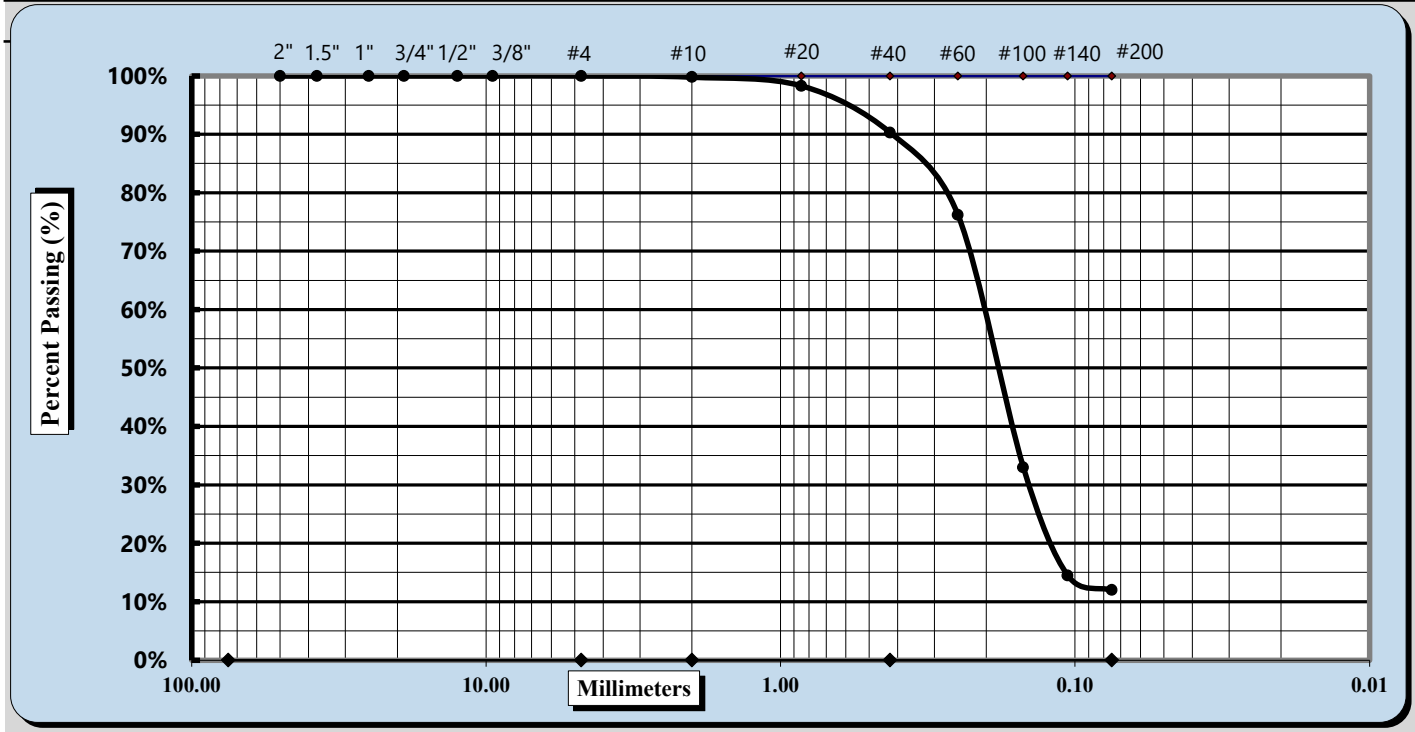
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB10	Sample #: SS-1
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 0-2
Sample Description:		Dark Gray Silty SAND (SM)	A-2-4 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.2%	Fine Sand	78.3%
Gravel	0.0%	Medium Sand	9.5%	Silt & Clay	12.0%
Liquid Limit	*ND	Plastic Limit	N.P.	Plastic Index	N.P.
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	19.7%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

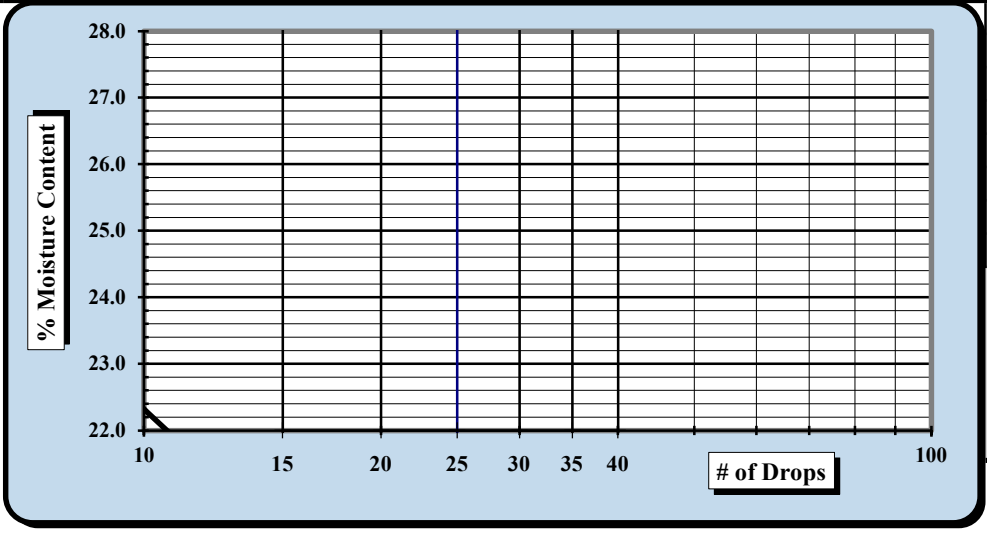
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB10	Sample #: SS-2		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 2-4	
Sample Description:		Brown Poorly Graded SAND with Silt (SP-SM) A-2-4 (1)			

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	15								
A	Tare Weight	13.58								
B	Wet Soil Weight + A	32.34								
C	Dry Soil Weight + A	28.61								
D	Water Weight (B-C)	3.73								
E	Dry Soil Weight (C-A)	15.03								
F	% Moisture (D/E)*100	24.8%								
N	# OF DROPS	6						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**N.P.**
Plastic Index	**N.P.**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 11.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

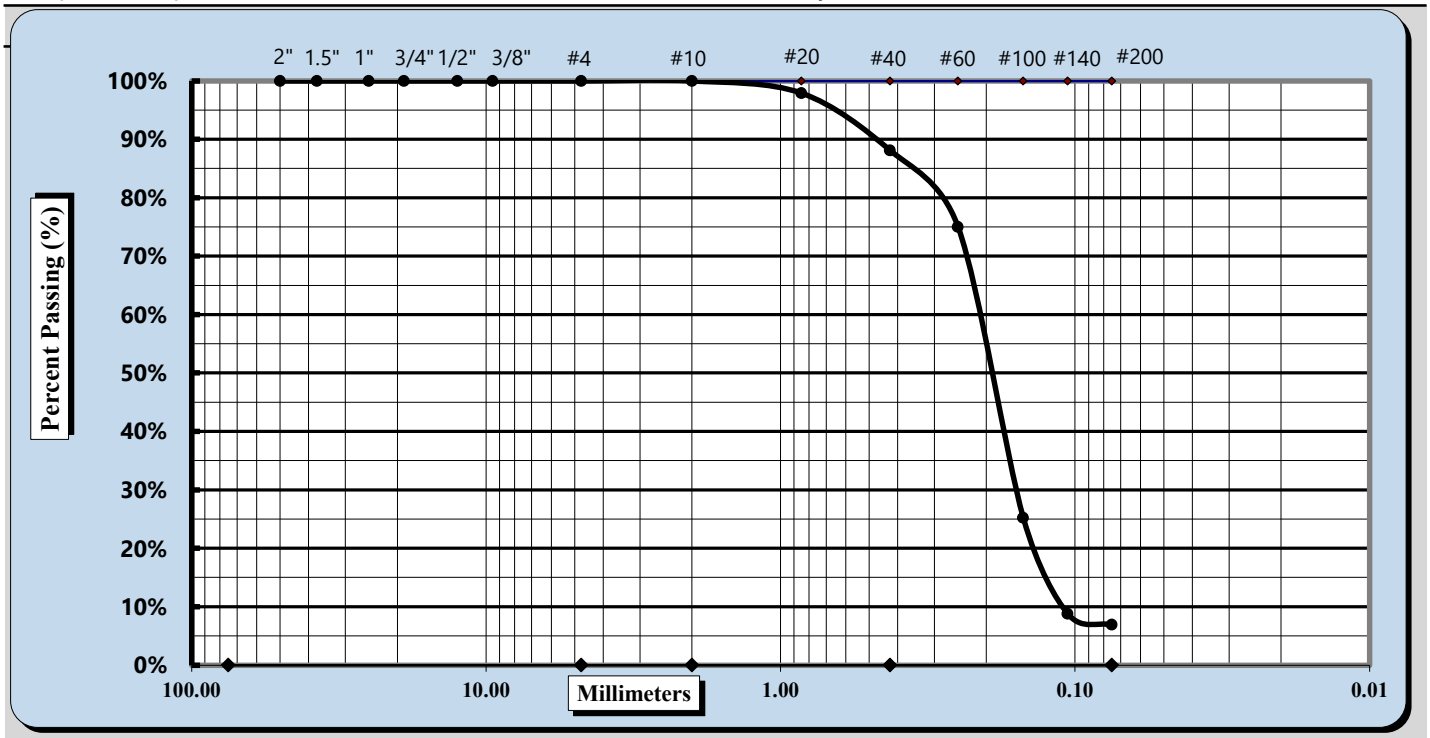
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB10	Sample #: SS-2
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 2-4
Sample Description:	Brown Poorly Graded SAND with Silt (SP-SM)		A-2-4 (1)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#10	Coarse Sand	0.0%	Fine Sand	81.2%
Gravel	0.0%	Medium Sand	11.9%	Silt & Clay	6.9%
Liquid Limit	*ND	Plastic Limit	N.P.	Plastic Index	N.P.
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	19.6%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

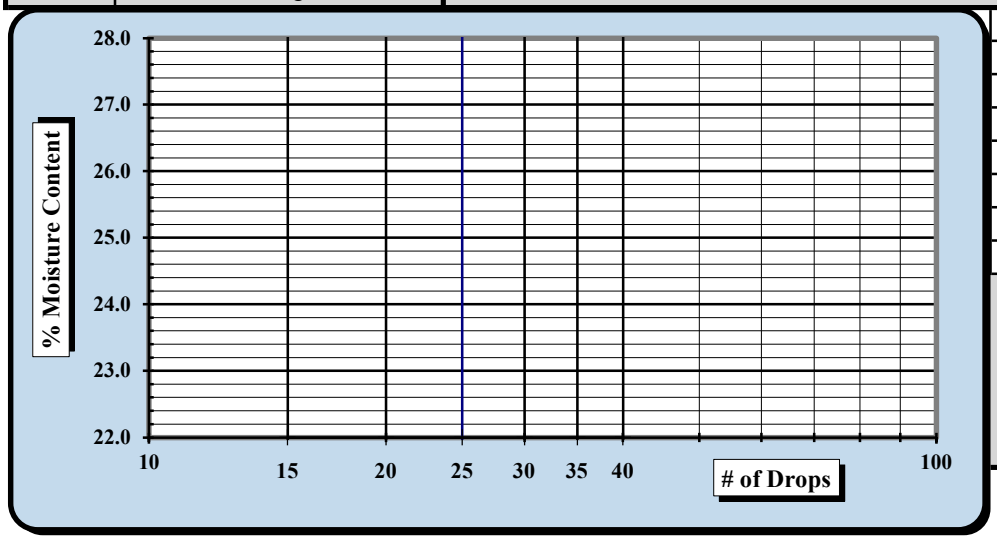
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB10	Sample #: SS-4		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 6-8	
Sample Description:		Tan Poorly Graded SAND with Silt (SP-SM) A-2-4 (1)			

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	B-4								
A	Tare Weight	21.25								
B	Wet Soil Weight + A	36.25								
C	Dry Soil Weight + A	34.25								
D	Water Weight (B-C)	2.00								
E	Dry Soil Weight (C-A)	13.00								
F	% Moisture (D/E)*100	15.4%								
N	# OF DROPS	8						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**N.P.**
Plastic Index	**N.P.**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 17.6%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

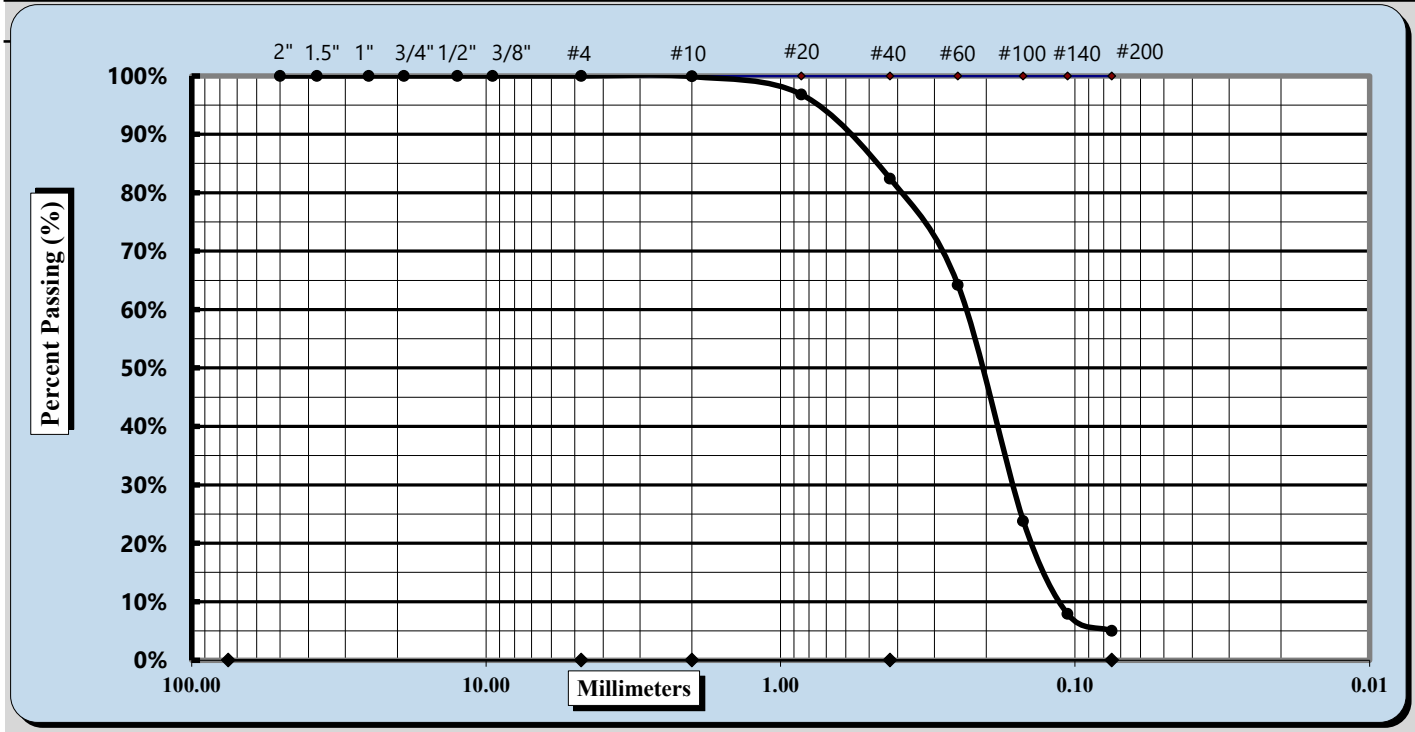
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB10	Sample #: SS-4
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 6-8
Sample Description:	Tan Poorly Graded SAND with Silt (SP-SM)		A-2-4 (1)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.1%	Fine Sand	77.4%
Gravel	0.0%	Medium Sand	17.5%	Silt & Clay	5.0%
Liquid Limit	*ND	Plastic Limit	N.P.	Plastic Index	N.P.
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	20.7%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

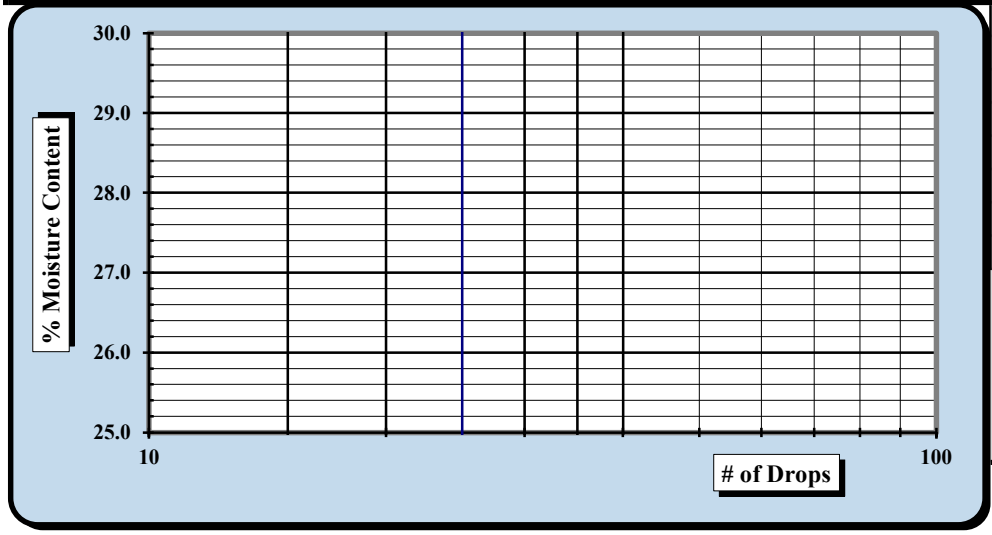
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB10	Sample #: SS-5		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 8-10	
Sample Description:				Gray Poorly Graded SAND (SP) A-2-4 (1)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	B-2								
A	Tare Weight	21.29								
B	Wet Soil Weight + A	38.08								
C	Dry Soil Weight + A	34.99								
D	Water Weight (B-C)	3.09								
E	Dry Soil Weight (C-A)	13.70								
F	% Moisture (D/E)*100	22.6%								
N	# OF DROPS	14						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic	☒
Liquid Limit	***ND**
Plastic Limit	**N.P.**
Plastic Index	**N.P.**
Group Symbol	**ML**
Multipoint Method	☑
One-point Method	☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 10.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

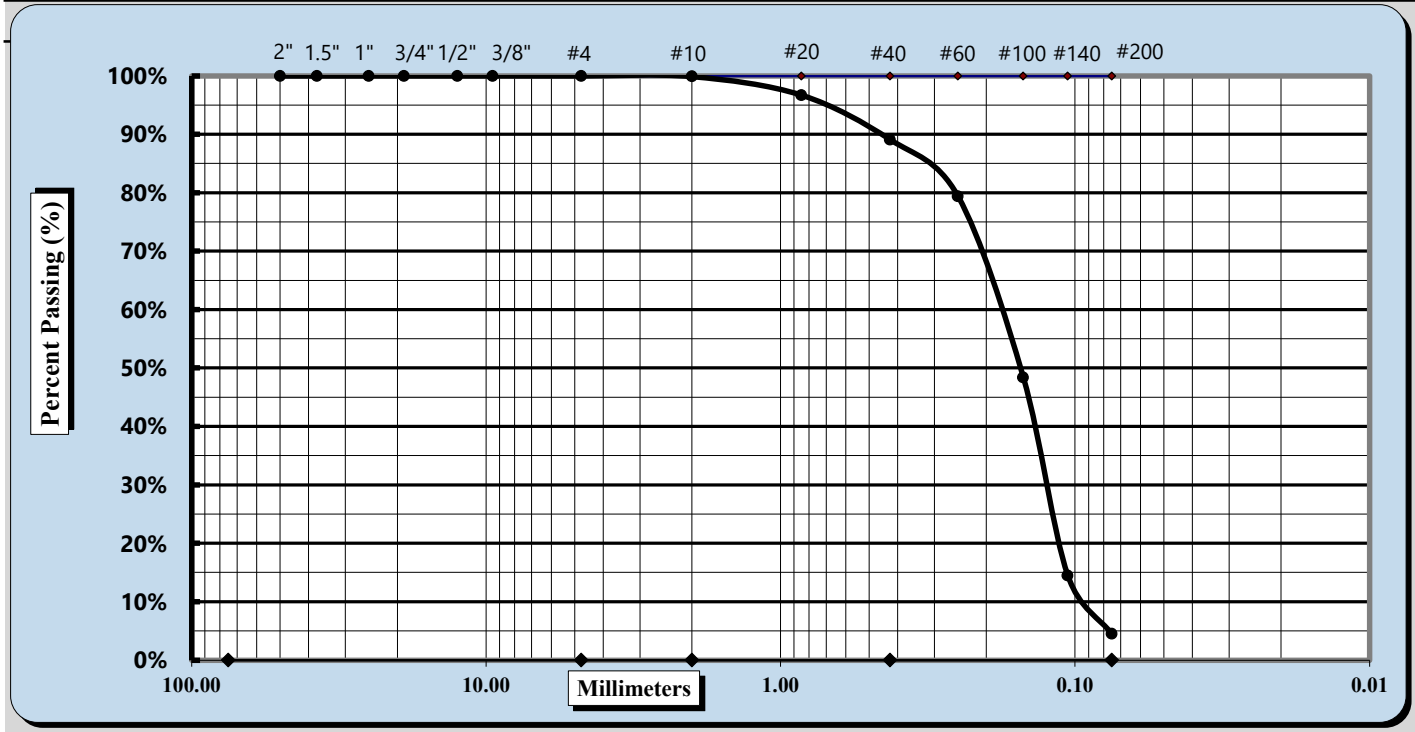
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB10	Sample #: SS-5
Log/Sample Id.		Type: SS	Elev/Depth (ft): 8-10
Sample Description:		Gray Poorly Graded SAND (SP)	A-2-4 (1)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.1%	Fine Sand	84.6%
Gravel	0.0%	Medium Sand	10.8%	Silt & Clay	4.5%
Liquid Limit	*ND	Plastic Limit	N.P.	Plastic Index	N.P.
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	19.6%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

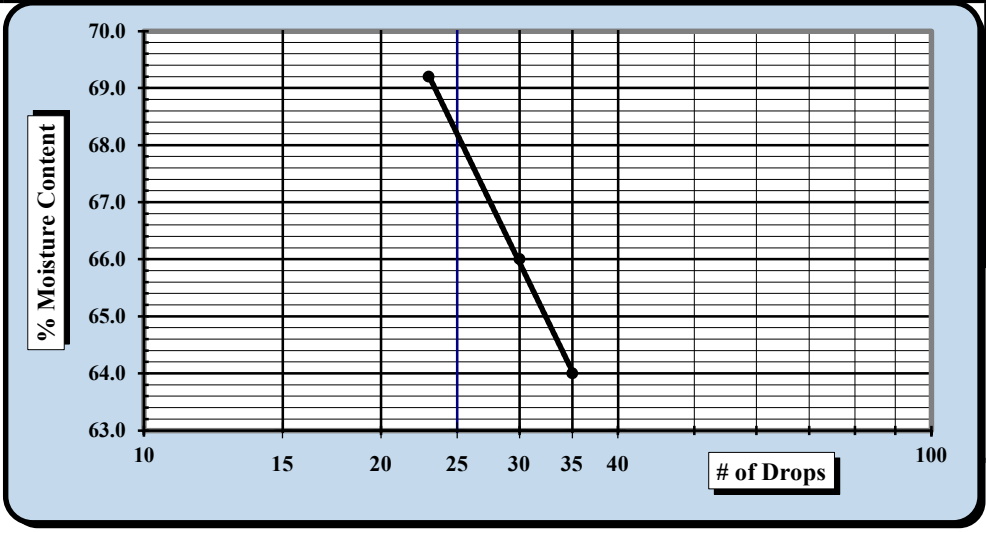
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB10	Sample #: SS-6		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 13.5-15	
Sample Description:				Gray CLAY (CH) A-7-6 (45)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	33	93	18				79	60	
A	Tare Weight	12.31	13.93	12.33				13.97	14.07	
B	Wet Soil Weight + A	20.56	22.28	21.94				21.49	20.16	
C	Dry Soil Weight + A	17.34	18.96	18.01				20.19	19.15	
D	Water Weight (B-C)	3.22	3.32	3.93				1.30	1.01	
E	Dry Soil Weight (C-A)	5.03	5.03	5.68				6.22	5.08	
F	% Moisture (D/E)*100	64.0%	66.0%	69.2%				20.9%	19.9%	
N	# OF DROPS	35	30	23				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**20.4%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**68**
Plastic Limit	**20**
Plastic Index	**48**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 1.1%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

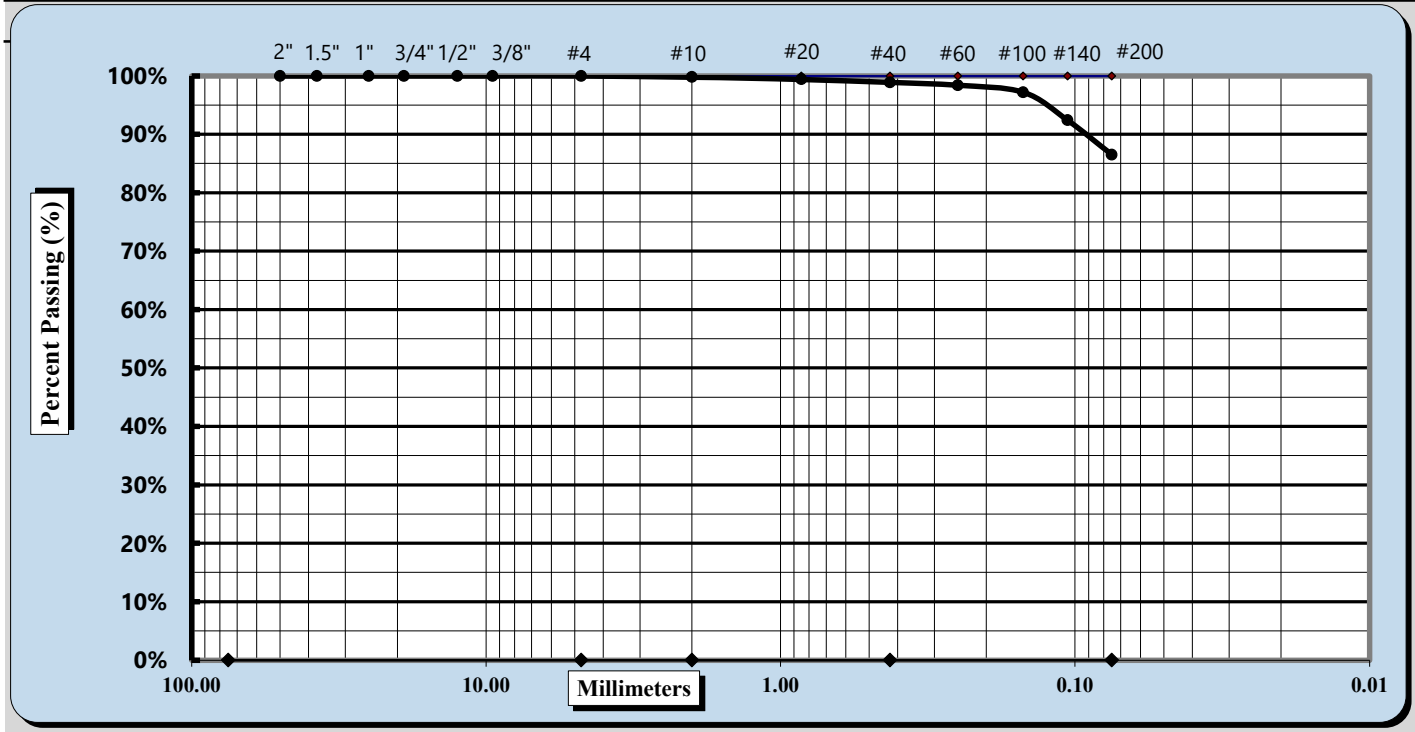
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB10	Sample #: SS-6
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 13.5-15
Sample Description:			Gray CLAY (CH) A-7-6 (45)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.2%	Fine Sand	12.4%
Gravel	0.0%	Medium Sand	0.9%	Silt & Clay	86.5%
Liquid Limit	68	Plastic Limit	20	Plastic Index	48
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	72.9%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

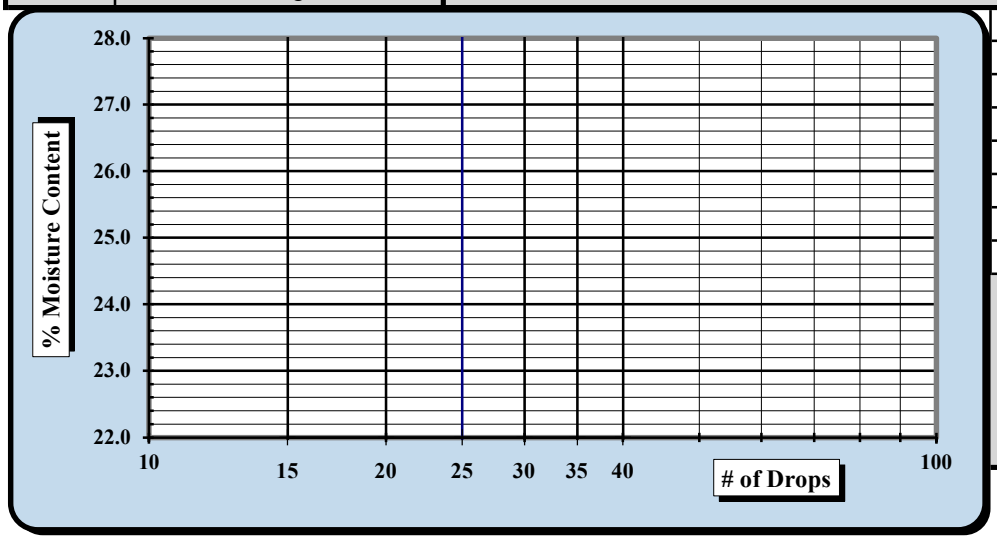
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB10	Sample #: SS-7		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 18.5-20	
Sample Description:		Gray Poorly Graded SAND with Silt (SP-SM) A-2-4 (1)			

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	C-3								
A	Tare Weight	21.32								
B	Wet Soil Weight + A	32.60								
C	Dry Soil Weight + A	30.83								
D	Water Weight (B-C)	1.77								
E	Dry Soil Weight (C-A)	9.51								
F	% Moisture (D/E)*100	18.6%								
N	# OF DROPS	14						*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	***ND**
Plastic Limit	**N.P.**
Plastic Index	**N.P.**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 5.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

*ND=The Liquid Limit Could Not be Determined.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

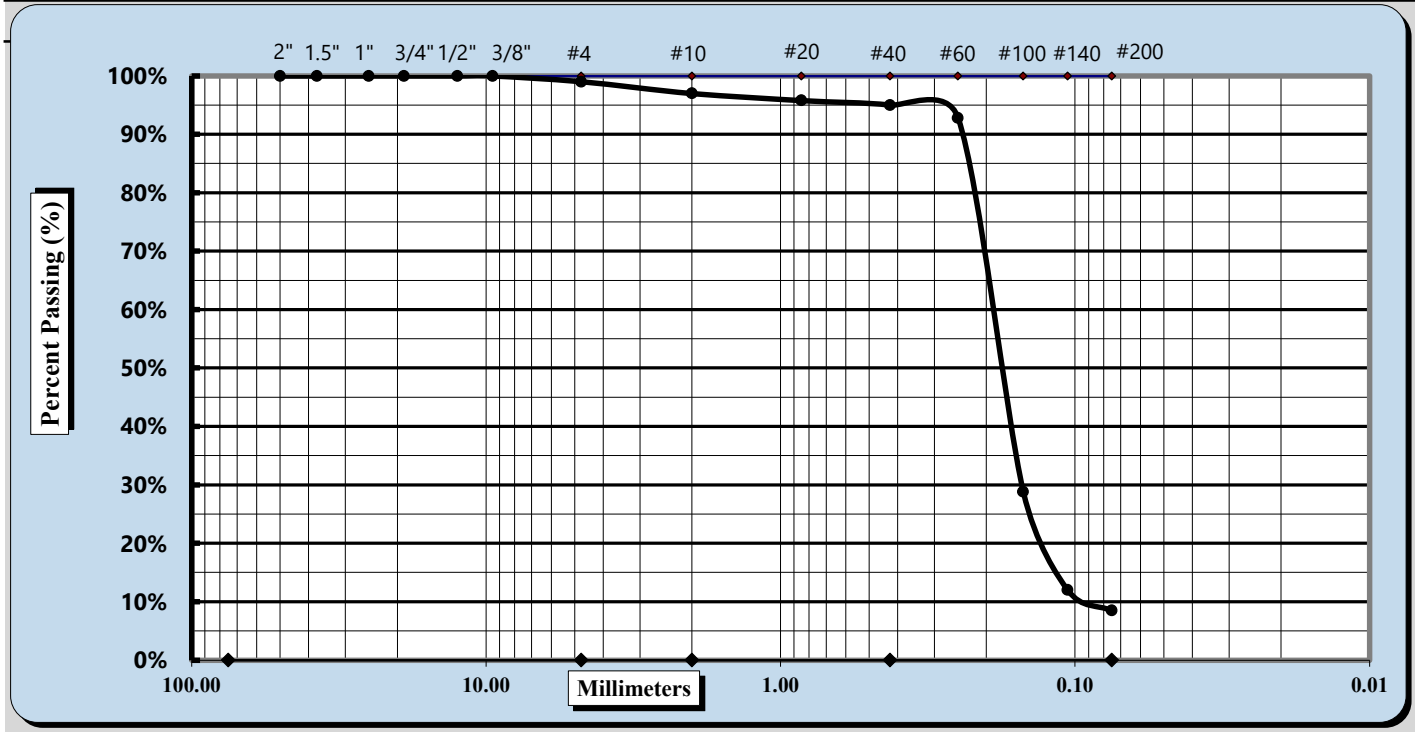
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB10	Sample #: SS-7
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 18.5-20
Sample Description:		Gray Poorly Graded SAND with Silt (SP-SM)	A-2-4 (1)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/8"	Coarse Sand	2.0%	Fine Sand	86.5%
Gravel	1.0%	Medium Sand	2.0%	Silt & Clay	8.5%
Liquid Limit	*ND	Plastic Limit	N.P.	Plastic Index	N.P.
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	32.5%		

Notes / Deviations / References: *ND=The Liquid Limit Could Not be Determined.

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

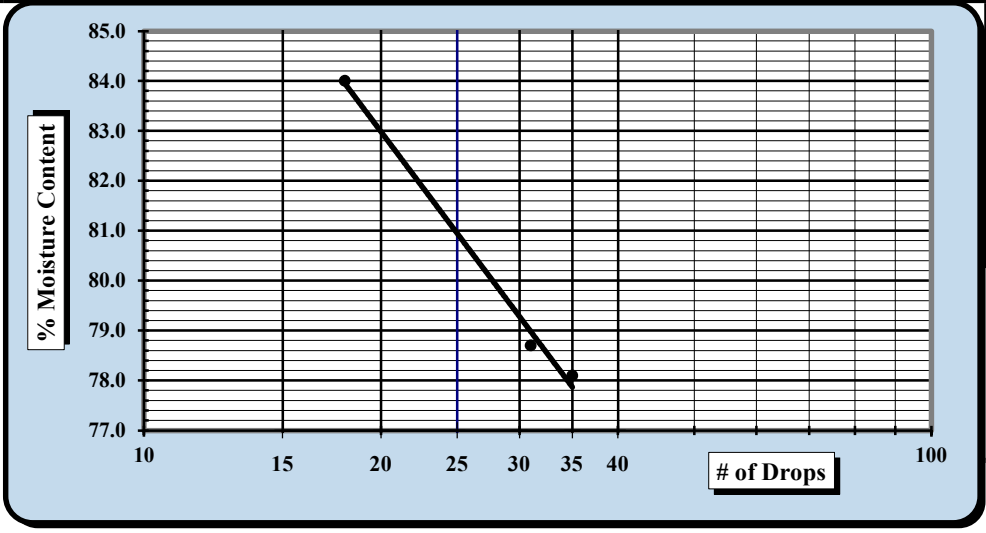
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB10	Sample #: SS-8		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 23.5-25	
Sample Description:				Gray CLAY (CH) A-7-6 (63)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	89	95	37				17	58	
A	Tare Weight	14.13	13.85	12.37				12.34	13.98	
B	Wet Soil Weight + A	22.41	22.23	20.65				20.44	20.44	
C	Dry Soil Weight + A	18.78	18.54	16.87				18.91	19.22	
D	Water Weight (B-C)	3.63	3.69	3.78				1.53	1.22	
E	Dry Soil Weight (C-A)	4.65	4.69	4.50				6.57	5.24	
F	% Moisture (D/E)*100	78.1%	78.7%	84.0%				23.3%	23.3%	
N	# OF DROPS	35	31	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**23.3%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**81**
Plastic Limit	**23**
Plastic Index	**58**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 0.9%

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

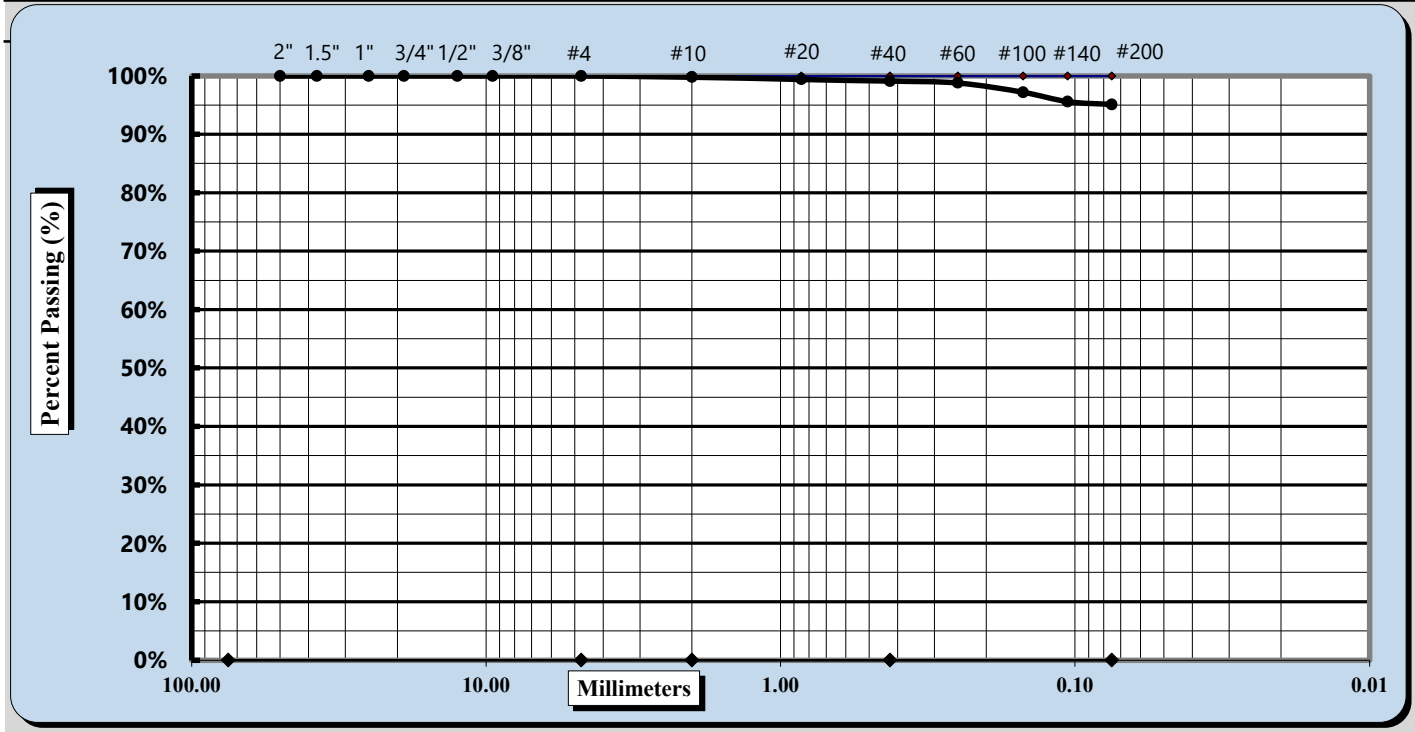
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB10	Sample #: SS-8
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 23.5-25
Sample Description:			Gray CLAY (CH) A-7-6 (63)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	#4	Coarse Sand	0.2%	Fine Sand	4.0%
Gravel	0.0%	Medium Sand	0.7%	Silt & Clay	95.1%
Liquid Limit	81	Plastic Limit	23	Plastic Index	58
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	66.0%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

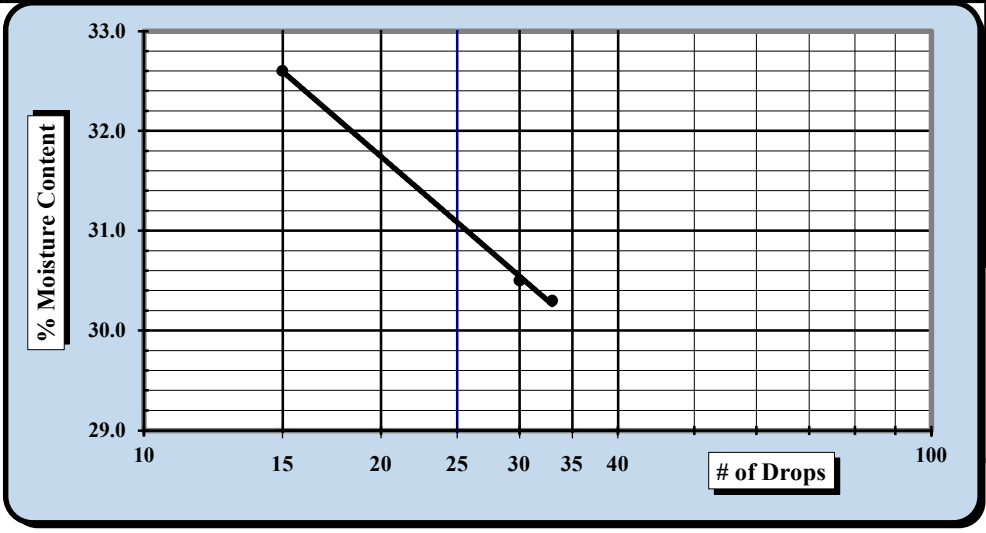
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB10	Sample #: SS-10		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 33.5-35	
Sample Description:				Gray Clayey SAND (SC) A-6 (3)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	39	64	14				54	15	
A	Tare Weight	12.32	14.16	12.26				13.96	12.29	
B	Wet Soil Weight + A	21.86	26.73	27.07				22.44	18.98	
C	Dry Soil Weight + A	19.64	23.79	23.43				21.34	18.15	
D	Water Weight (B-C)	2.22	2.94	3.64				1.10	0.83	
E	Dry Soil Weight (C-A)	7.32	9.63	11.17				7.38	5.86	
F	% Moisture (D/E)*100	30.3%	30.5%	32.6%				14.9%	14.2%	
N	# OF DROPS	33	30	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**14.6%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**31**
Plastic Limit	**15**
Plastic Index	**16**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 18.0%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

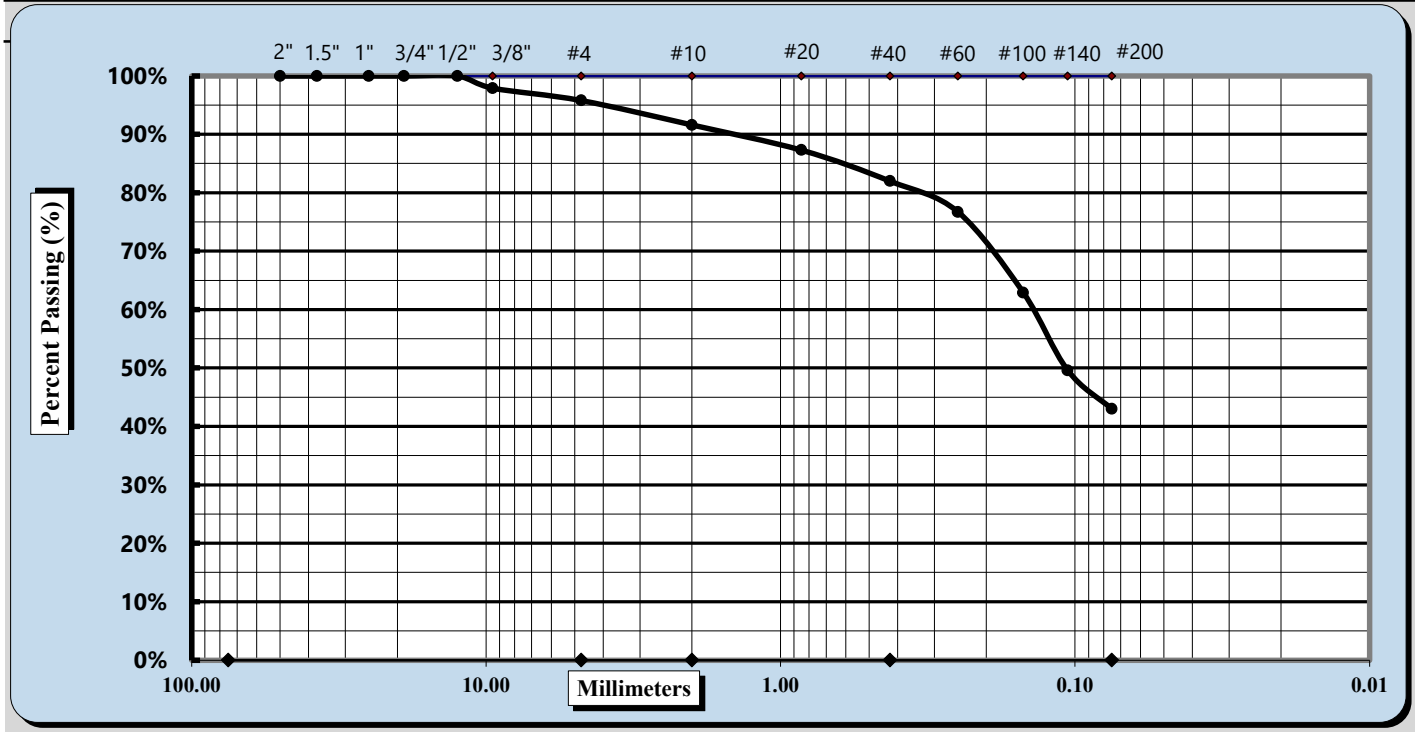
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB10	Sample #: SS-10
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 33.5-35
Sample Description:		Gray Clayey SAND (SC)	A-6 (3)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/4"	Coarse Sand	4.2%	Fine Sand	39.0%
Gravel	4.2%	Medium Sand	9.6%	Silt & Clay	43.0%
Liquid Limit	31	Plastic Limit	15	Plastic Index	16
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	43.4%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No.
Revision Date: 8/28/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

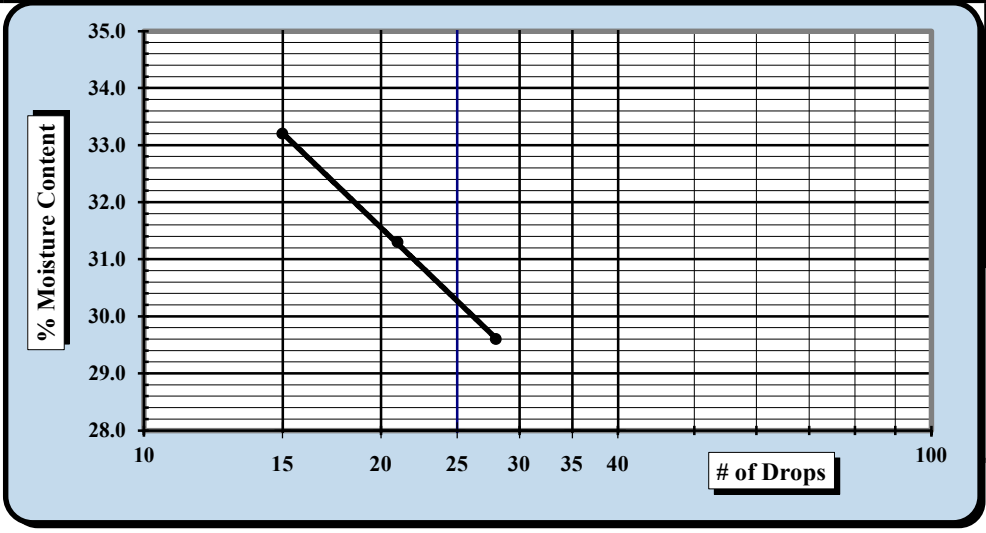
S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Report Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Test Date(s)	5/5/23 to 5/12/23
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		

Boring #:	EMB10	Sample #: SS-11		Sample Date: 3/13/2023	
Location:	Site-Borehole	Offset: N/A		Depth (ft): 38.5-40	
Sample Description:				Gray Clayey SAND (SC) A-2-6 (0)	

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	20977	3/2/2023	Grooving tool	1801	7/28/2022
LL Apparatus	1803	8/2/2022			
Oven	1454	9/1/2022			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	28	48	5				84	16	
A	Tare Weight	12.39	12.25	12.31				14.01	12.27	
B	Wet Soil Weight + A	20.93	22.79	25.75				21.61	19.73	
C	Dry Soil Weight + A	18.98	20.28	22.40				20.61	18.80	
D	Water Weight (B-C)	1.95	2.51	3.35				1.00	0.93	
E	Dry Soil Weight (C-A)	6.59	8.03	10.09				6.60	6.53	
F	% Moisture (D/E)*100	29.6%	31.3%	33.2%				15.2%	14.2%	
N	# OF DROPS	28	21	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**14.7%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**30**
Plastic Limit	**15**
Plastic Index	**15**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☐ Air Dried ☑ *Estimate the % Retained on the #40 Sieve:* 42.4%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

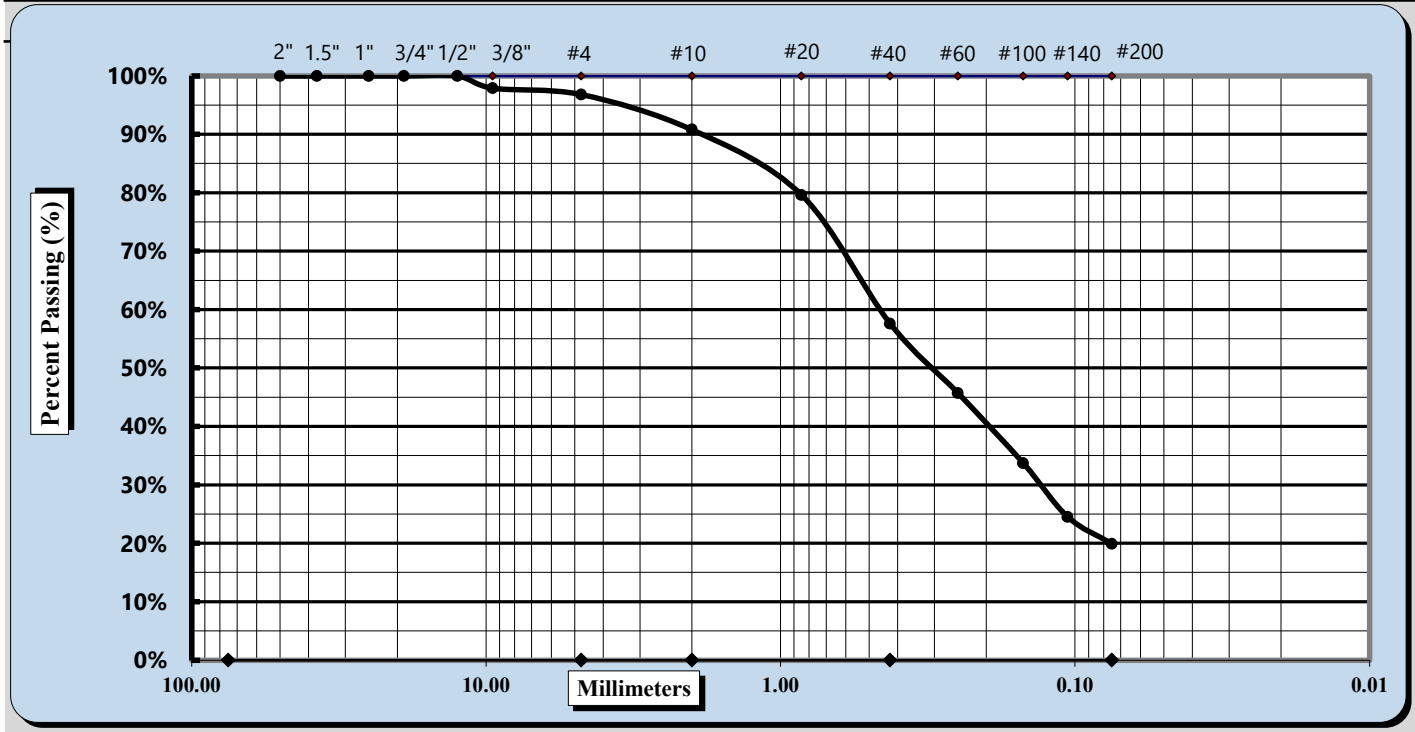
Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

SIEVE ANALYSIS OF SOIL

Single sieve set ASTM D6913

S&ME, Inc. Raleigh: 3201 Spring Forest Road, Raleigh, NC 27616

Project #:	200424A	Record Date:	5/12/2023
Project Name:	526 Longpoint Road Interchange	Lab Report #:	1
Client Name:	CDM Smith	Date Received:	4/21/2023
Client Address:	1441 Main Street, Suite 1000, Columbia, SC 29201		
Received By:	Lab Tech	Sampled by: S&ME, Inc.	Date Sampled: 3/13/2023
Location:	Site-Borehole	Boring #: EMB10	Sample #: SS-11
Log/Sample Id.	143	Type: SS	Elev/Depth (ft): 38.5-40
Sample Description:		Gray Clayey SAND (SC)	A-2-6 (0)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	3/4"	Coarse Sand	6.0%	Fine Sand	37.7%
Gravel	3.2%	Medium Sand	33.2%	Silt & Clay	19.9%
Liquid Limit	30	Plastic Limit	15	Plastic Index	15
Maximum Dry Density	N/A	Bulk Gravity (C127)	N/A	% Absorption	N/A
Optimum Moisture	N/A	Natural Moisture	31.6%		

Notes / Deviations / References:

Mal Krajan, ET		Laboratory Manager	5/12/2023
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s):	5/1-9/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		
Sample by:	Soil Consultants, Inc.	Sample Date(s):	March 2023
Sampling Method:	Split Spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 06976 Calibration Date: 1/3/23 Oven ID. 13796 Calibration Date: 9/27/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft. or m.		grams	grams	grams	grams	%	
EMB11	SS-1	0-2	25	60.91	298.54	253.36	45.18	23.5%	
EMB11	SS-2	2-4	41	61.79	287.22	254.86	32.36	16.8%	
EMB11	SS-4	6-8	20	60.05	291.65	245.00	46.65	25.2%	
EMB11	SS-5	8-10	92	59.92	300.38	243.79	56.59	30.8%	
EMB11	SS-6	13.5-15	1	60.85	267.32	183.99	83.33	67.7%	
EMB11	SS-7	18.5-20	26	61.19	294.06	245.51	48.55	26.3%	
EMB11	SS-8	23.5-25	31	60.83	294.19	246.70	47.49	25.6%	
EMB11	SS-9	28.5-30	94	60.10	277.02	194.33	82.69	61.6%	
EMB11	SS-10	33.5-35	32	61.25	287.95	214.88	73.07	47.6%	

Notes / Deviations / References

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Dawn Tomberlin — *Technician Name* — 6/8/23 *Date*

Marc D. Cerino — *Technical Responsibility* — Senior Engineer *Position* — 6/8/23 *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

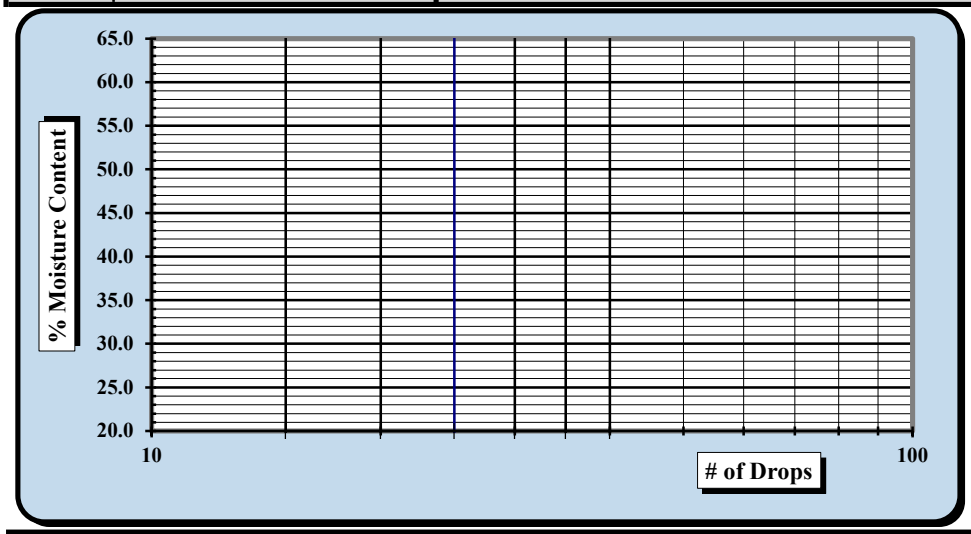
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/1-4/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB11	Sample #: SS-1		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 0-2	
Sample Description:	Dark Brown Poorly Graded SAND with silt (SP-SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

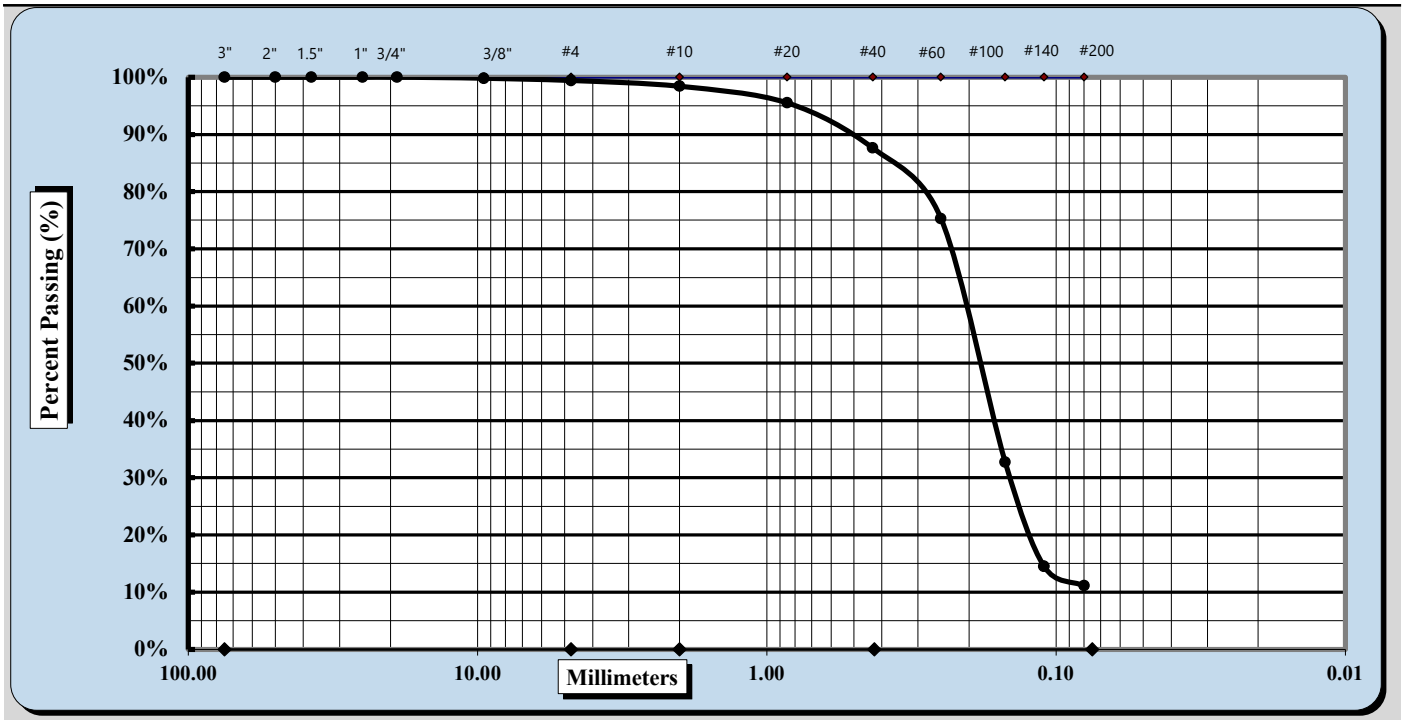
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB11	Sample #: SS-1	Depth: 0-2
Sample Description:	Dark Brown Poorly Graded SAND with silt (SP-SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	3/8"	Coarse Sand	1%	Fine Sand	77%
Gravel	1%	Medium Sand	11%	Silt & Clay	NP
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	23.5%	CBR	ML

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

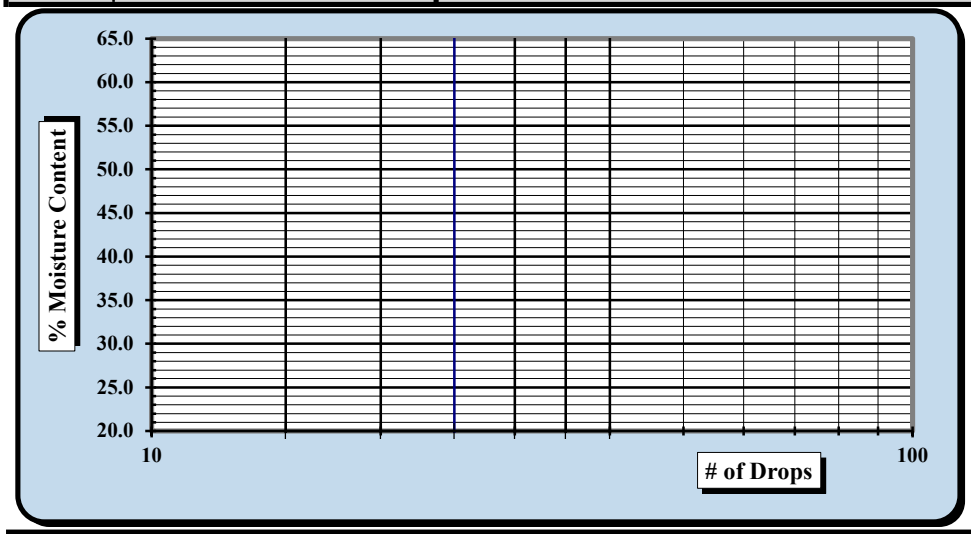
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/1-4/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB11	Sample #: SS-2		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 2-4	
Sample Description:	Dark Brown Silty SAND (SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

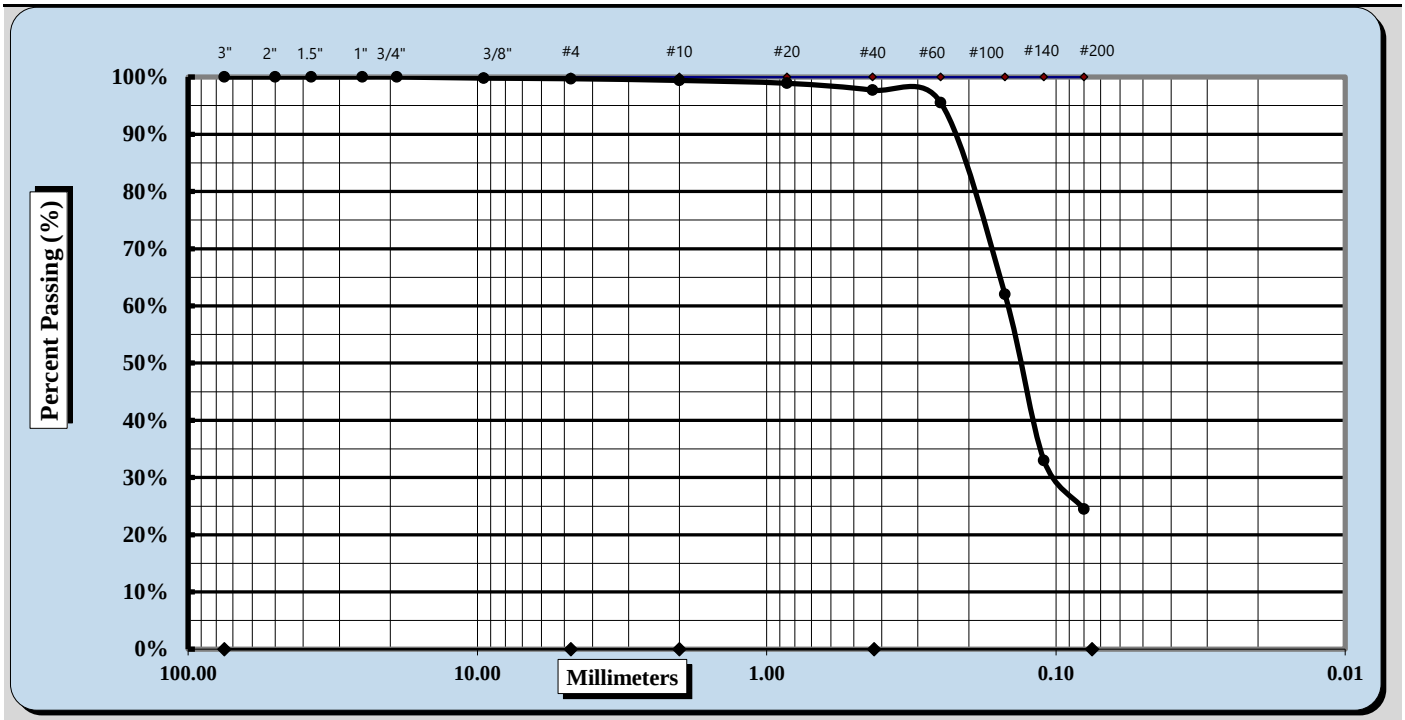
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB11	Sample #: SS-2	Depth: 2-4
Sample Description:	Dark Brown Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	3/8"	Coarse Sand	0%	Fine Sand	73%
Gravel	0%	Medium Sand	2%	Silt & Clay	25%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	16.8%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

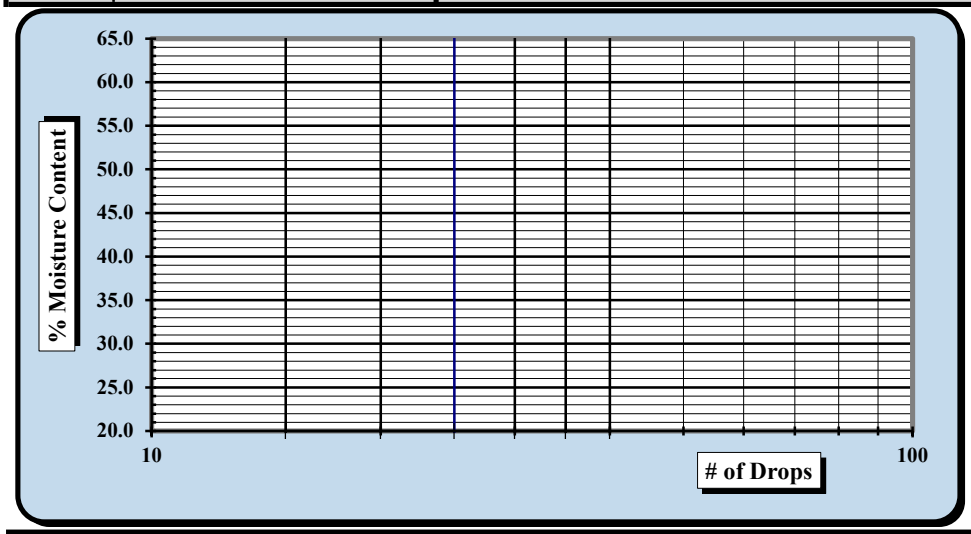
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/1-4/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB11	Sample #: SS-4		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 6-8	
Sample Description:	Light Orange Gray Poorly Graded SAND with silt (SP-SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

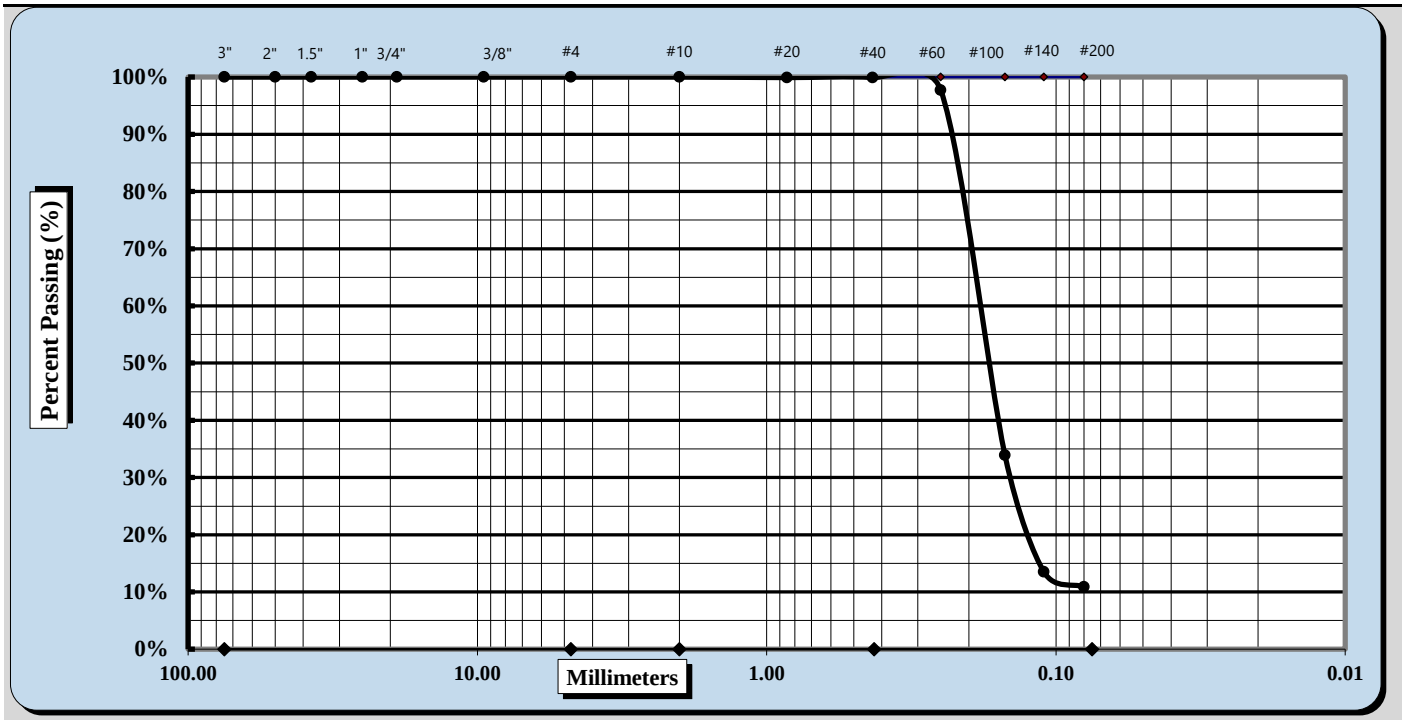
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB11	Sample #: SS-4	Depth: 6-8
Sample Description:	Light Orange Gray Poorly Graded SAND with silt (SP-SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#20	Coarse Sand	0%	Fine Sand	89%
Gravel	0%	Medium Sand	0%	Silt & Clay	11%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	25.2%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

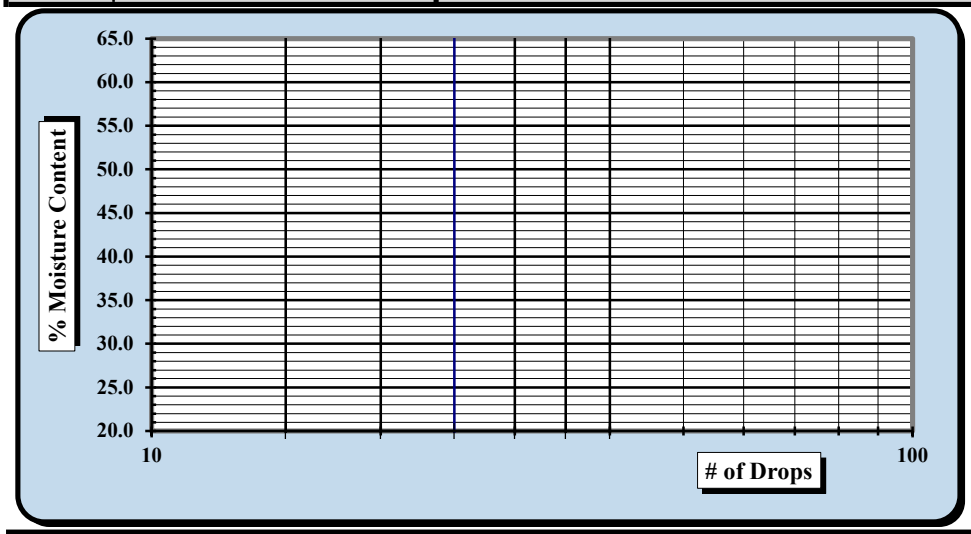
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/1-4/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB11	Sample #: SS-5		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 8-10	
Sample Description:	Light Brown Silty SAND (SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

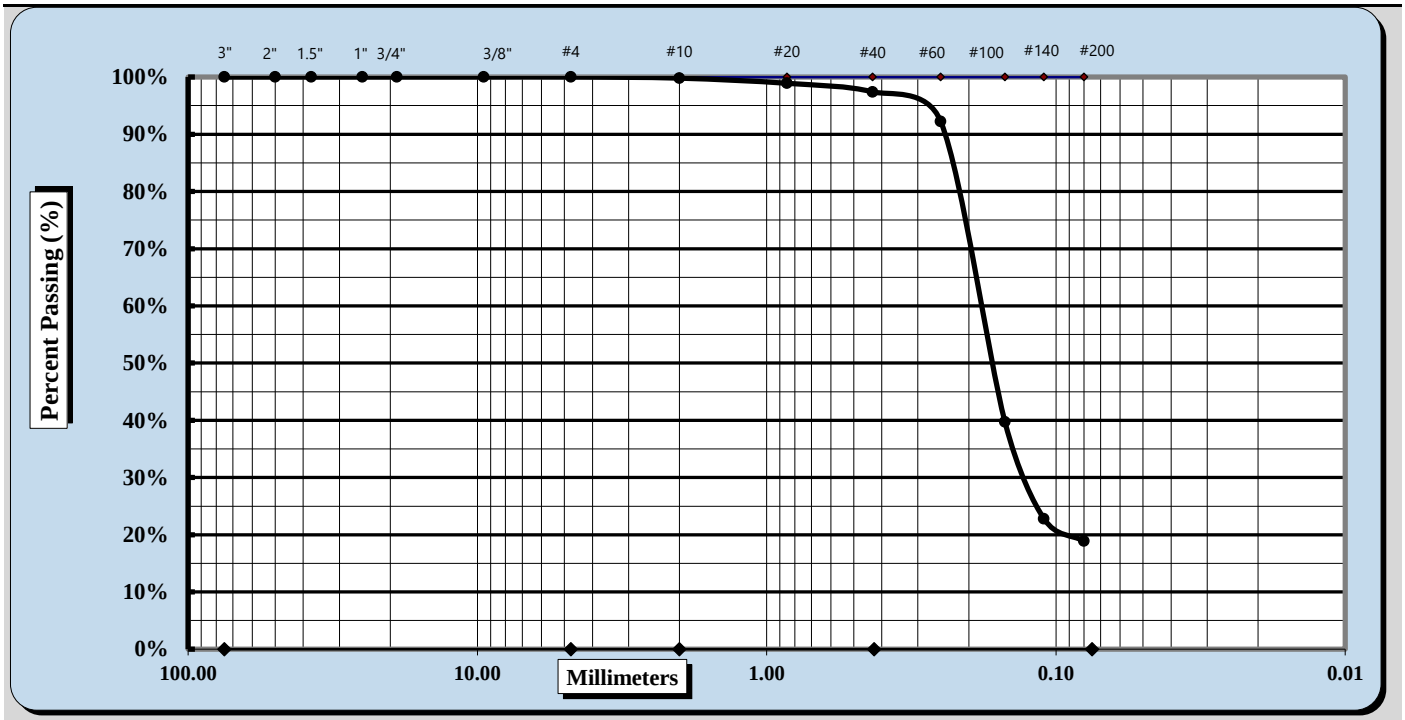
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB11	Sample #: SS-5	Depth: 8-10
Sample Description:	Light Brown Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	79%
Gravel	0%	Medium Sand	2%	Silt & Clay	19%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	30.8%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

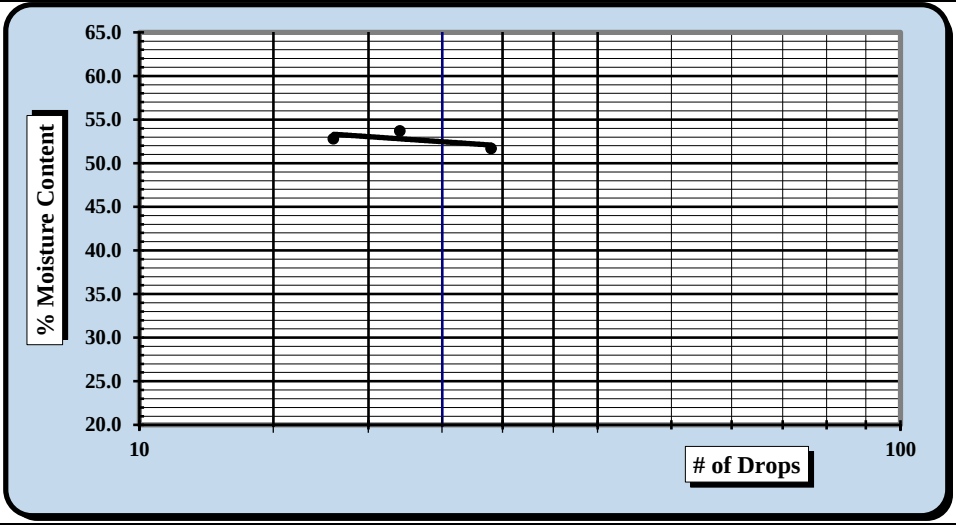
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/1-4/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB11	Sample #: SS-6	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 13.5-15
Sample Description:	Dark Gray Fat CLAY (CH)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	3	08	NTZ				U6	F8	
A	Tare Weight	21.42	20.52	20.25				20.17	19.62	
B	Wet Soil Weight + A	33.62	31.85	34.20				25.16	23.86	
C	Dry Soil Weight + A	29.46	27.89	29.38				24.15	22.93	
D	Water Weight (B-C)	4.16	3.96	4.82				1.01	0.93	
E	Dry Soil Weight (C-A)	8.04	7.37	9.13				3.98	3.31	
F	% Moisture (D/E)*100	51.7%	53.7%	52.8%				25.4%	28.1%	
N	# OF DROPS	29	22	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**26.8%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**52**
Plastic Limit	**27**
Plastic Index	**25**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

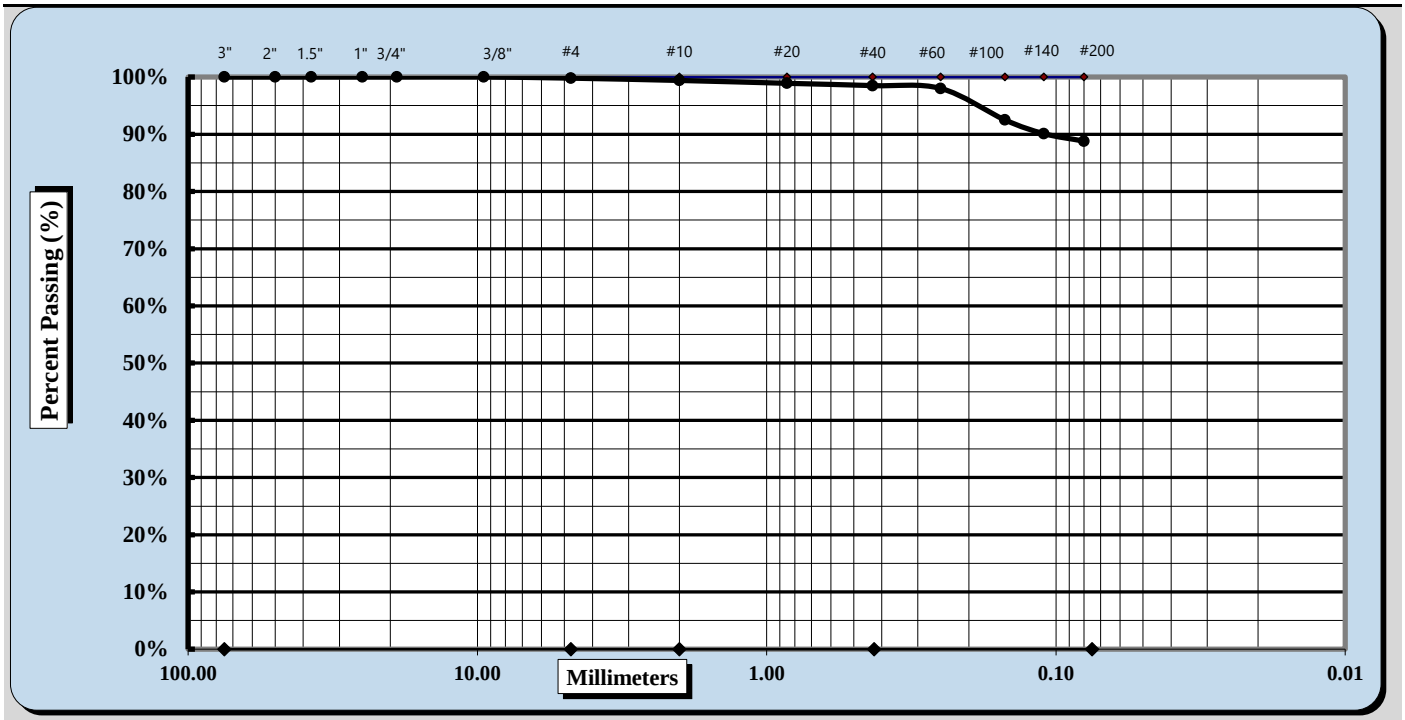
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB11	Sample #: SS-6	Depth: 13.5-15
Sample Description:	Dark Gray Fat CLAY (CH)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	10%
Gravel	0%	Medium Sand	1%	Silt & Clay	89%
Liquid Limit	52	Plastic Limit	27	Plastic Index	25
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	67.7%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

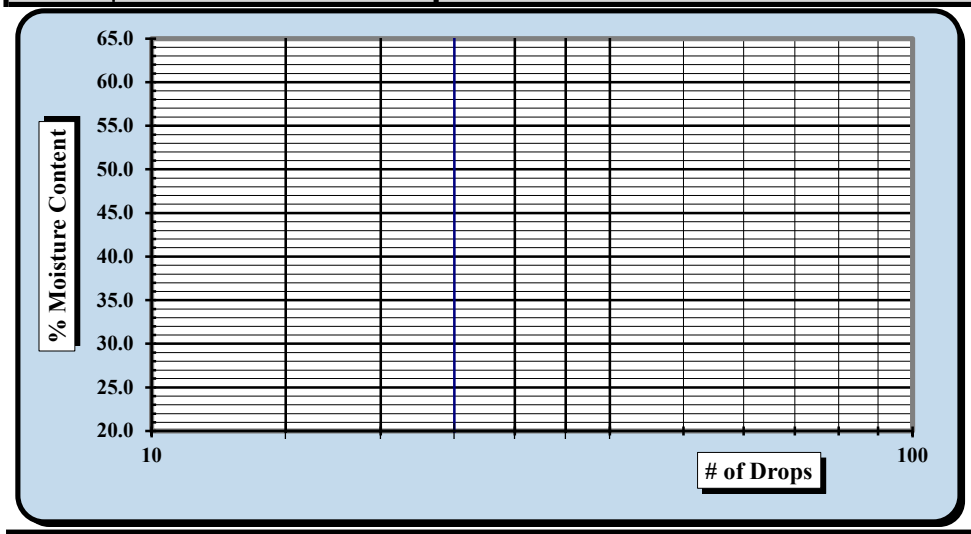
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/1-4/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB11	Sample #: SS-7		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 18.5-20	
Sample Description:	Bluish Brown Silty SAND (SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

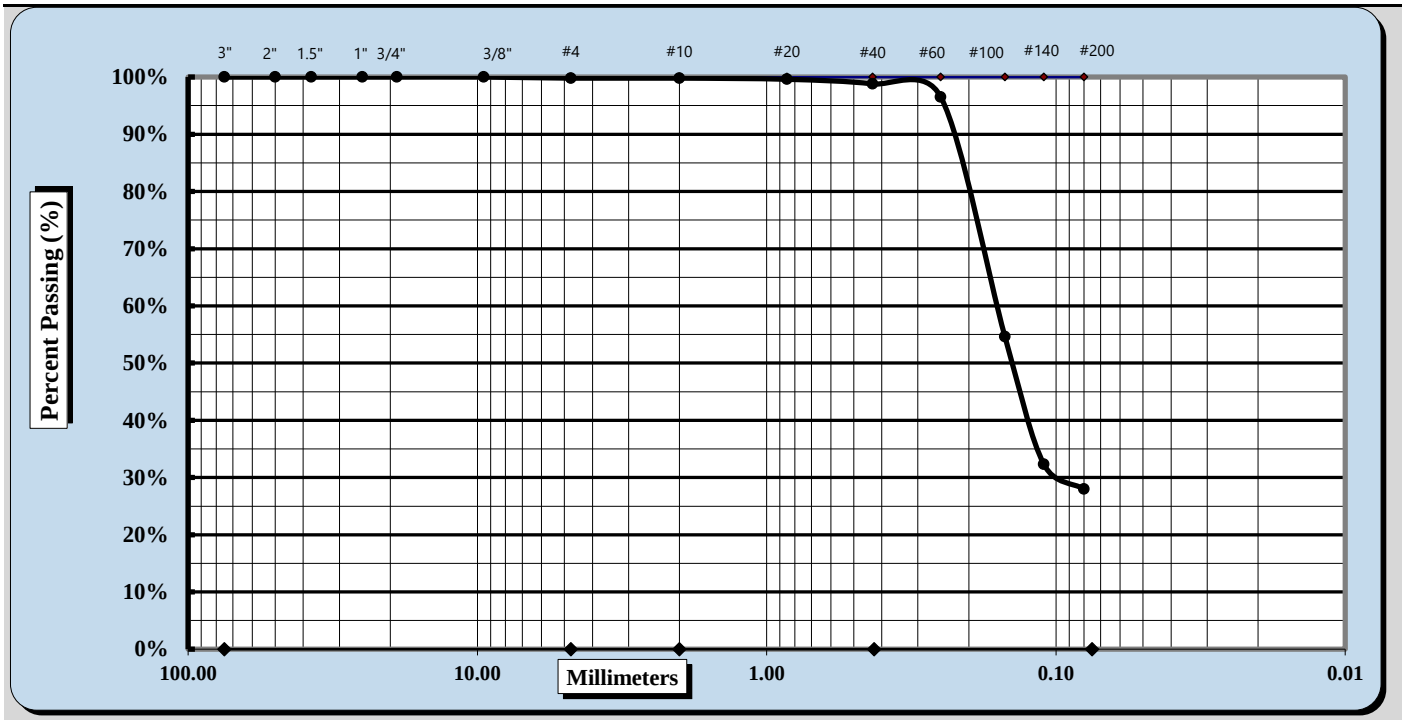
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB11	Sample #: SS-7	Depth: 18.5-20
Sample Description:	Bluish Brown Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	71%
Gravel	0%	Medium Sand	1%	Silt & Clay	28%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	26.3%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

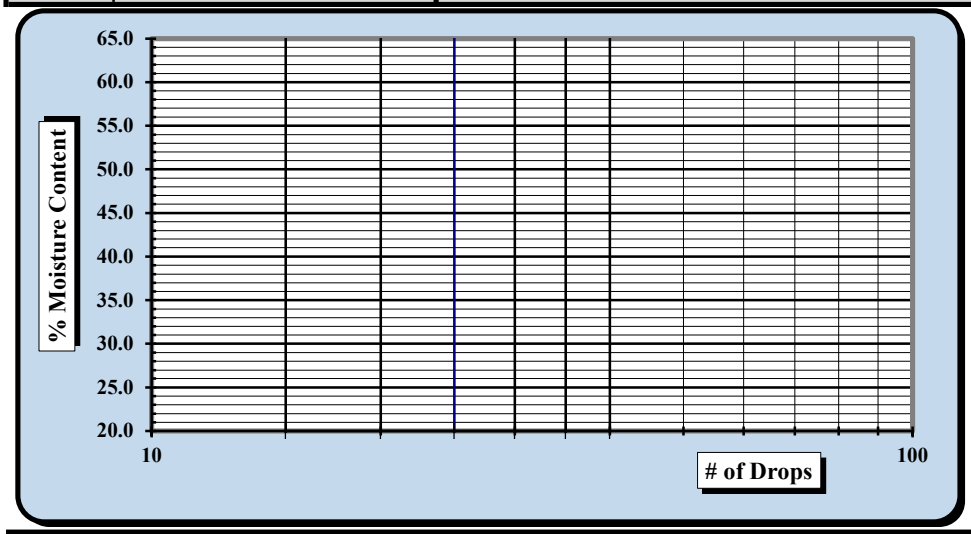
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/1-4/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB11	Sample #: SS-8		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 23.5-25	
Sample Description:	Gray Silty SAND (SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

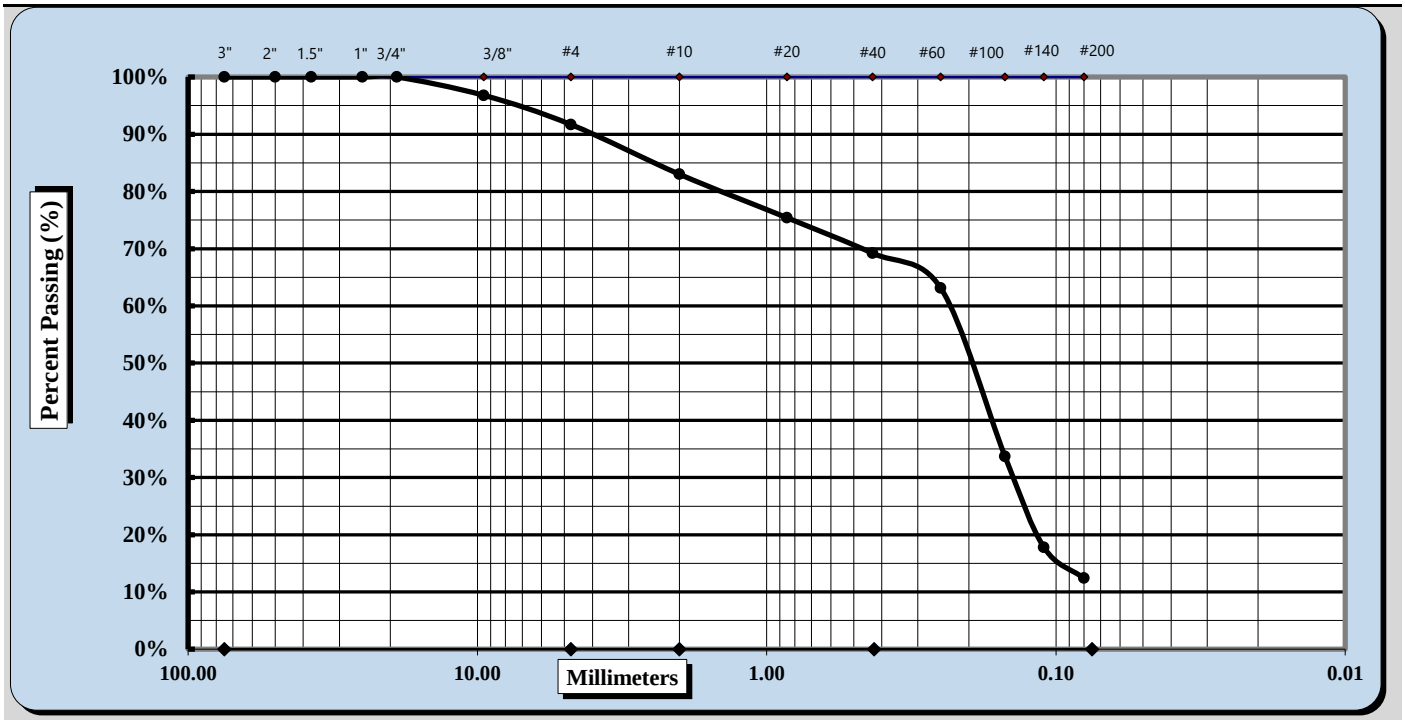
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB11	Sample #: SS-8	Depth: 23.5-25
Sample Description:	Gray Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	3/8"	Coarse Sand	9%	Fine Sand	57%
Gravel	8%	Medium Sand	14%	Silt & Clay	12%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	25.6%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

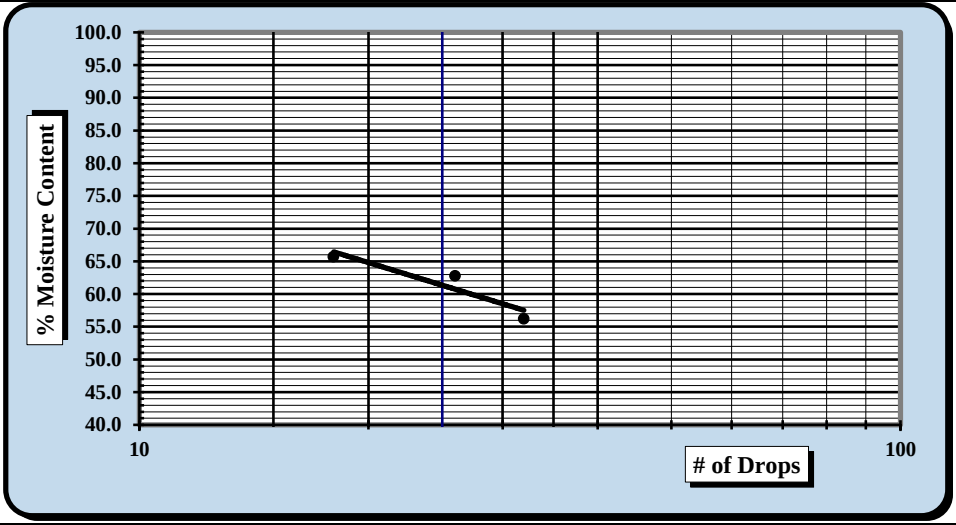
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/1-4/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB11	Sample #: SS-9		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 28.5-30	
Sample Description:	Bluish Gray Fat CLAY with sand (CH)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	c3	000	e7				u6	ntz	
A	Tare Weight	26.63	20.31	20.75				20.71	20.77	
B	Wet Soil Weight + A	35.11	31.33	33.89				25.12	25.83	
C	Dry Soil Weight + A	32.06	27.08	28.68				24.18	24.88	
D	Water Weight (B-C)	3.05	4.25	5.21				0.94	0.95	
E	Dry Soil Weight (C-A)	5.43	6.77	7.93				3.47	4.11	
F	% Moisture (D/E)*100	56.2%	62.8%	65.7%				27.1%	23.1%	
N	# OF DROPS	32	26	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**25.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**61**
Plastic Limit	**25**
Plastic Index	**36**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

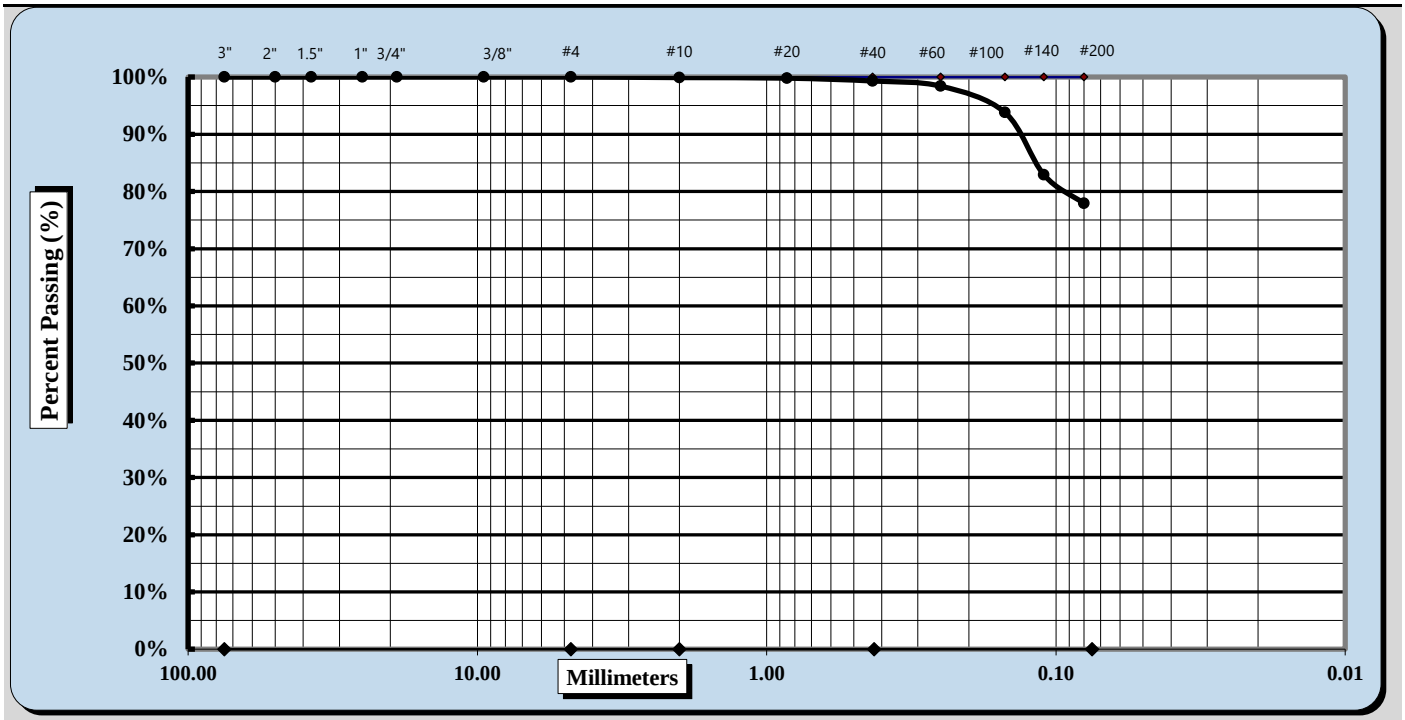
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB11	Sample #: SS-9	Depth: 28.5-30
Sample Description:	Bluish Gray Fat CLAY with sand (CH)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	21%
Gravel	0%	Medium Sand	1%	Silt & Clay	78%
Liquid Limit	61	Plastic Limit	25	Plastic Index	36
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	61.6%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

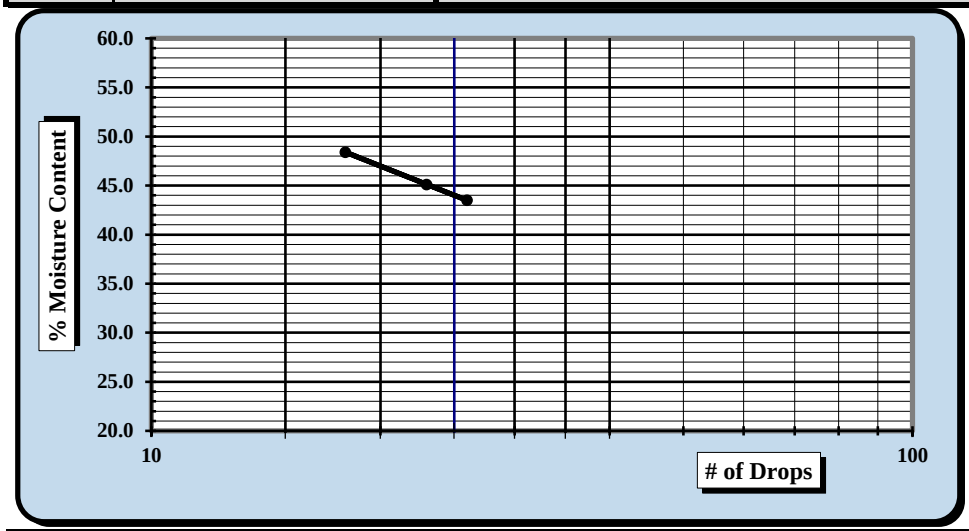
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/1-4/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB11	Sample #: SS-10	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 33.5-35
Sample Description:	Bluish Gray Clayey SAND (SC)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	aa	a2	d8				t4	3	
A	Tare Weight	21.89	21.65	20.54				19.46	21.44	
B	Wet Soil Weight + A	32.84	37.54	30.02				27.53	26.92	
C	Dry Soil Weight + A	29.52	32.60	26.93				26.07	25.92	
D	Water Weight (B-C)	3.32	4.94	3.09				1.46	1.00	
E	Dry Soil Weight (C-A)	7.63	10.95	6.39				6.61	4.48	
F	% Moisture (D/E)*100	43.5%	45.1%	48.4%				22.1%	22.3%	
N	# OF DROPS	26	23	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**22.2%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**44**
Plastic Limit	**22**
Plastic Index	**22**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB11	Sample #: SS-10	Depth: 33.5-35
Sample Description:	Bluish Gray Clayey SAND (SC)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	3%	Fine Sand	38%
Gravel	3%	Medium Sand	8%	Silt & Clay	49%
Liquid Limit	44	Plastic Limit	22	Plastic Index	22
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	47.6%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s):	5/1-9/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		
Sample by:	Soil Consultants, Inc.	Sample Date(s):	March 2023
Sampling Method:	Split Spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 06976 Calibration Date: 1/3/23 Oven ID. 13796 Calibration Date: 9/27/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft. or m.		grams	grams	grams	grams	%	
EMB12	SS-2	2-4	10	60.28	277.66	238.78	38.88	21.8%	
EMB12	SS-3	4-6	78	61.60	347.93	285.97	61.96	27.6%	
EMB12	SS-4	6-8	82	61.39	251.38	211.92	39.46	26.2%	
EMB12	SS-5	8-10	6	59.90	269.74	166.30	103.44	97.2%	
EMB12	SS-6	13.5-15	80	61.03	313.96	228.71	85.25	50.8%	
EMB12	SS-7	18.5-20	13	60.04	329.97	273.57	56.40	26.4%	
EMB12	SS-8	23.5-25	AB	61.33	453.41	354.86	98.55	33.6%	
EMB12	SS-9	28.5-30	96	60.07	362.93	289.27	73.66	32.1%	
EMB12	SS-10	33.5-35	34	61.08	296.18	223.79	72.39	44.5%	
EMB12	SS-11	38.5-40	16	60.59	329.26	255.91	73.35	37.6%	

Notes / Deviations / References

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Dawn Tomberlin — *Technician Name* — 6/8/23 *Date*

Marc D. Cerino — *Technical Responsibility* — Senior Engineer *Position* — 6/8/23 *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

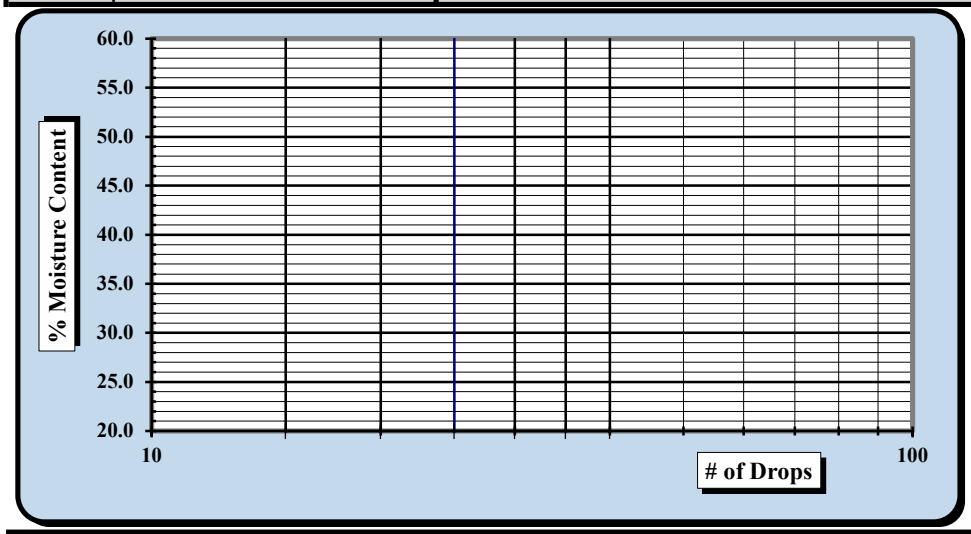
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/5-10/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB12	Sample #: SS-2		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 2-4	
Sample Description:	Brown Orange Poorly Graded SAND with silt (SP-SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

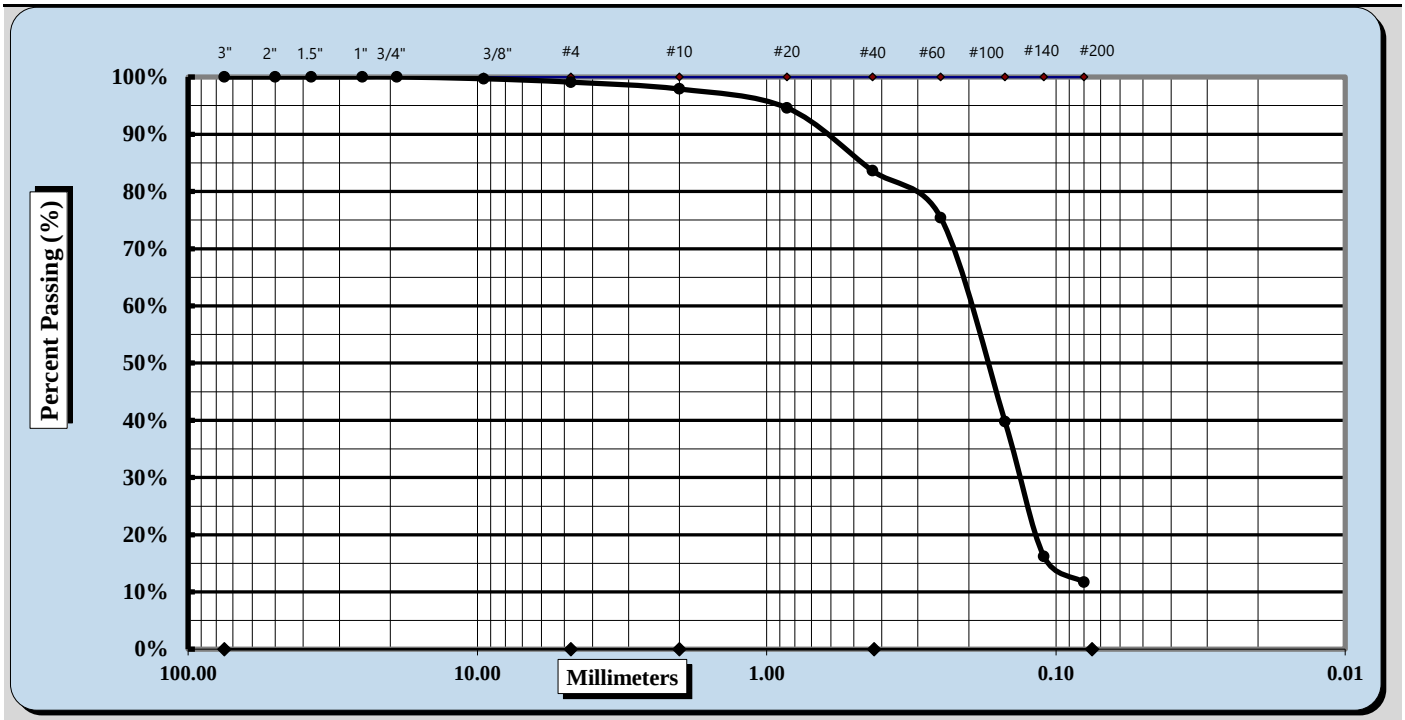
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB12	Sample #: SS-2	Depth: 2-4
Sample Description:	Brown Orange Poorly Graded SAND with silt (SP-SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	3/8"	Coarse Sand	1%	Fine Sand	72%
Gravel	1%	Medium Sand	14%	Silt & Clay	12%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	21.8%	CBR	ND

Notes / Deviations / References:

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

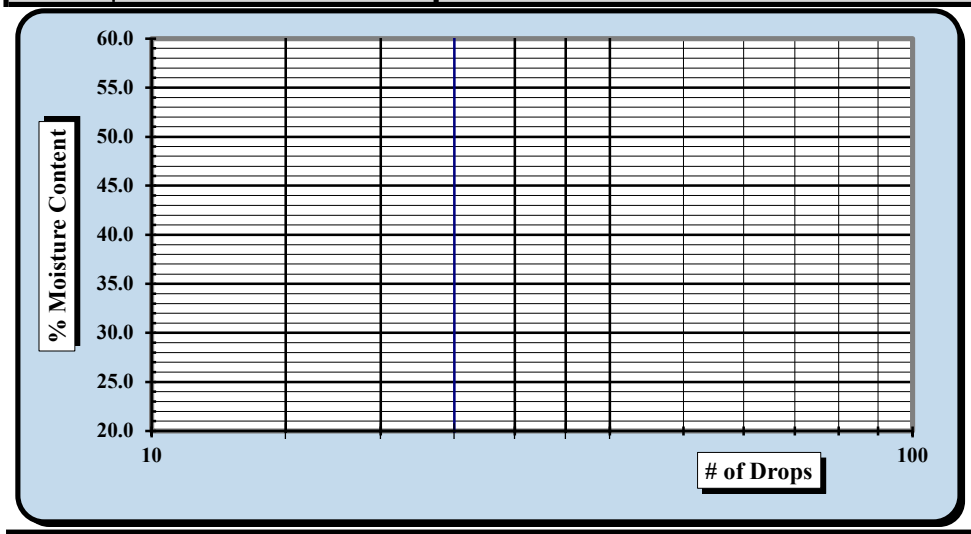
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/5-10/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB12	Sample #: SS-3		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 4-6	
Sample Description:	Gray Orange Silty SAND (SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

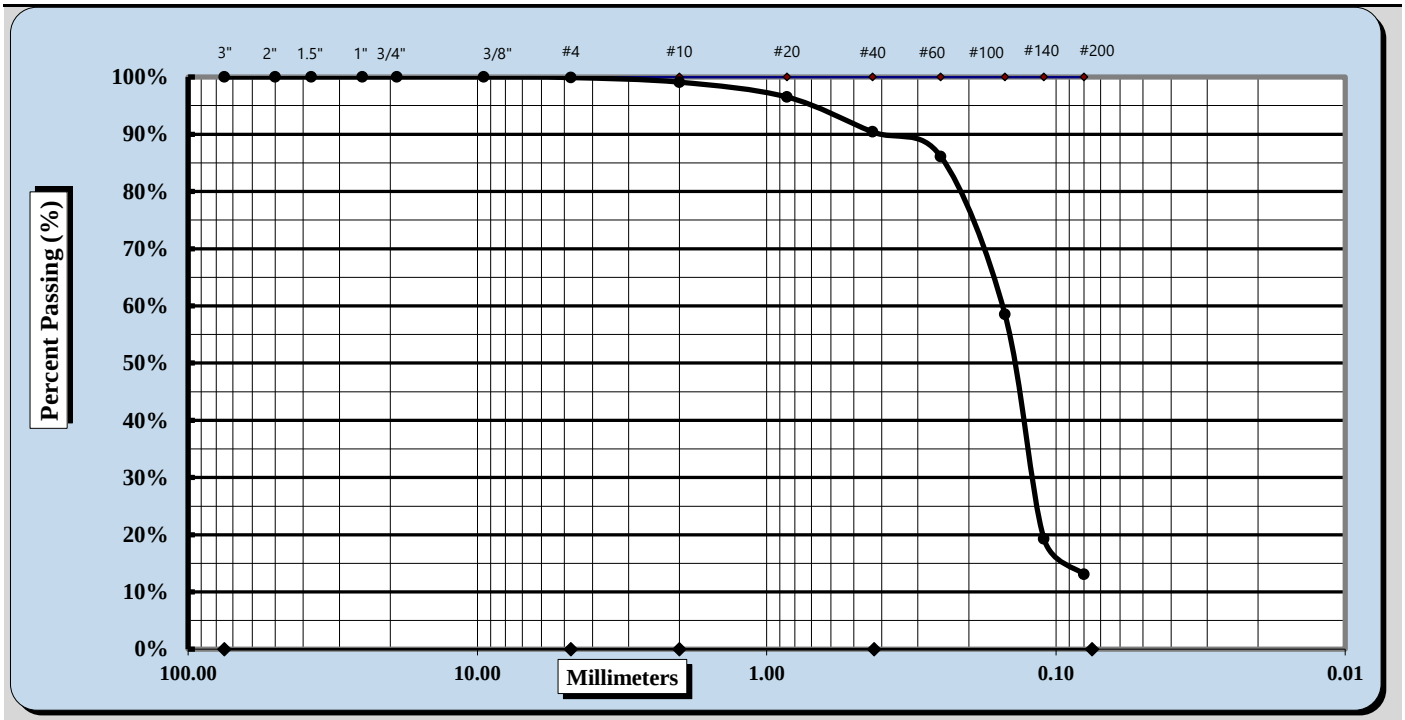
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB12	Sample #: SS-3	Depth: 4-6
Sample Description:	Gray Orange Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	77%
Gravel	0%	Medium Sand	9%	Silt & Clay	13%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	27.6%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

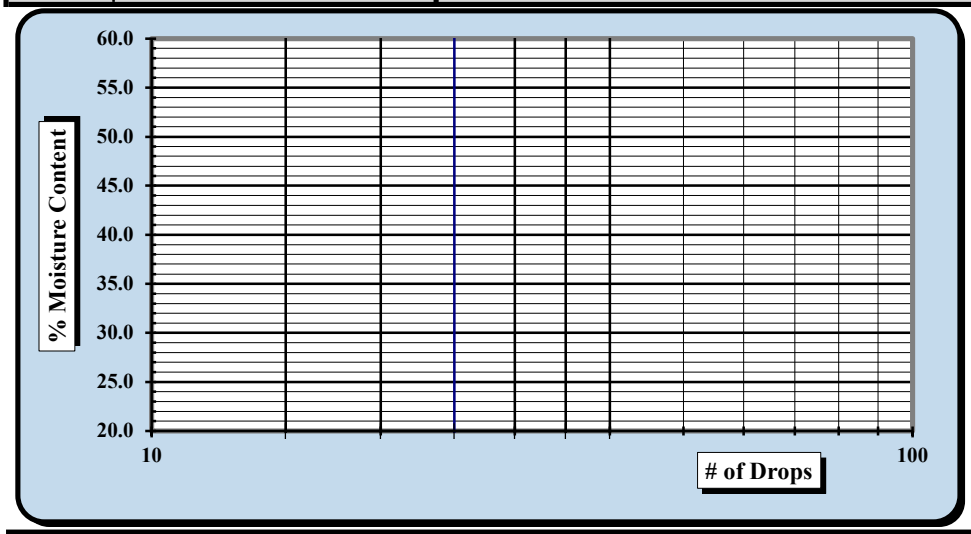
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/5-10/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB12	Sample #: SS-4	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 6-8
Sample Description:	Light Brown Orange Silty SAND (SM)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

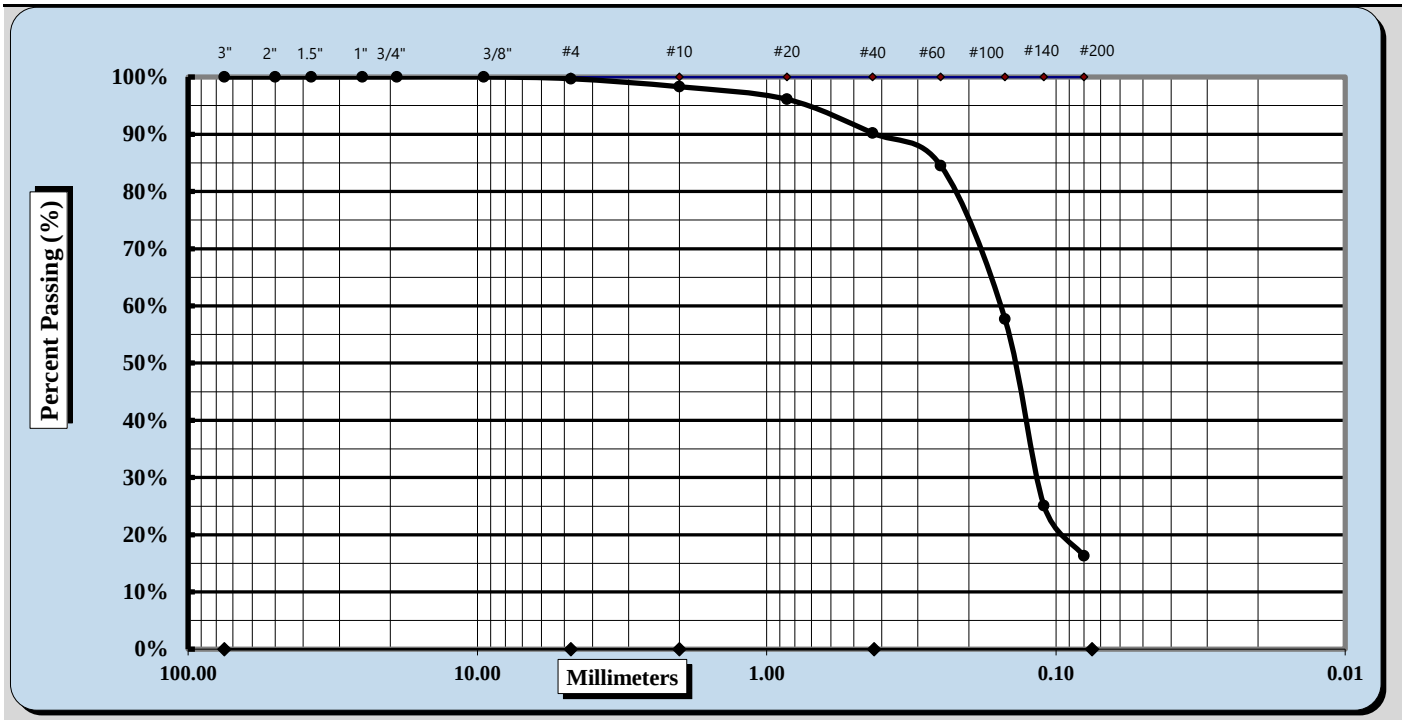
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB12	Sample #: SS-4	Depth: 6-8
Sample Description:	Light Brown Orange Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	74%
Gravel	0%	Medium Sand	8%	Silt & Clay	16%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	26.2%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

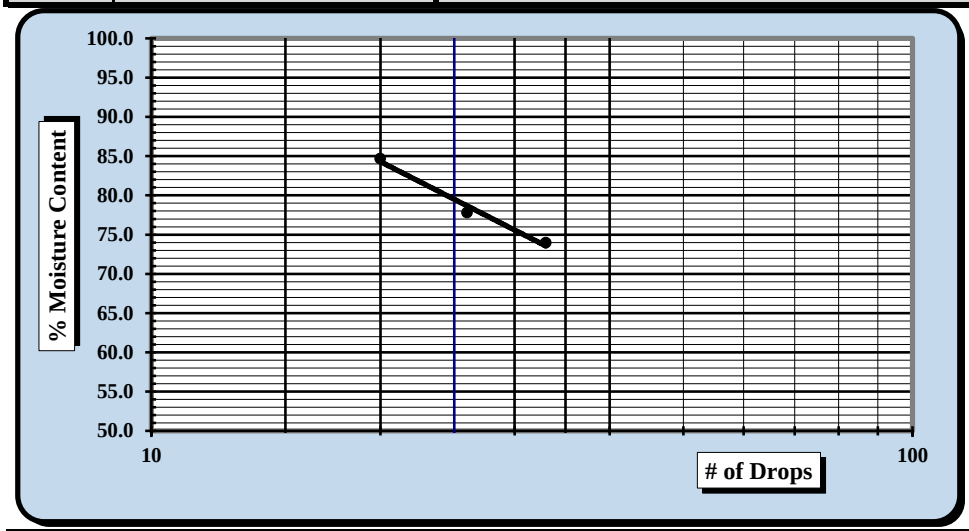
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/5-10/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB12	Sample #: SS-5		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 8-10	
Sample Description:	Black Brown Silty SAND with gravel and shells (SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	jjj	s8	jj				n7	vb	
A	Tare Weight	20.48	20.60	19.88				19.85	19.71	
B	Wet Soil Weight + A	33.27	36.25	33.88				25.12	25.96	
C	Dry Soil Weight + A	27.83	29.40	27.46				23.54	24.10	
D	Water Weight (B-C)	5.44	6.85	6.42				1.58	1.86	
E	Dry Soil Weight (C-A)	7.35	8.80	7.58				3.69	4.39	
F	% Moisture (D/E)*100	74.0%	77.8%	84.7%				42.8%	42.4%	
N	# OF DROPS	33	26	20				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**42.6%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**79**
Plastic Limit	**43**
Plastic Index	**36**
Group Symbol	**MH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB12	Sample #: SS-5	Depth: 8-10
Sample Description:	Black Brown Silty SAND with gravel and shells (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	3/8"	Coarse Sand	12%	Fine Sand	6%
Gravel	26%	Medium Sand	9%	Silt & Clay	46%
Liquid Limit	79	Plastic Limit	43	Plastic Index	36
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	97.2%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

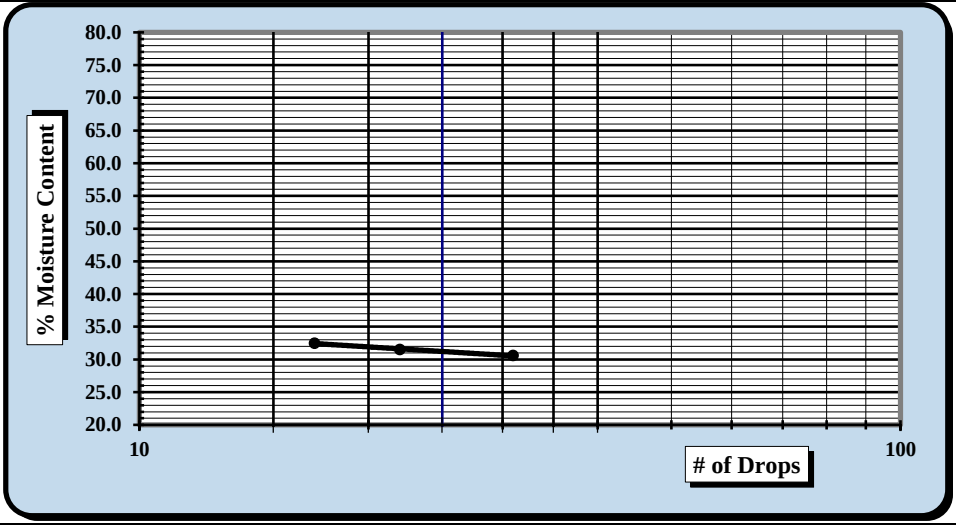
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/5-10/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB12	Sample #: SS-6		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 13.5-15	
Sample Description:	Dark Gray Clayey SAND (SC)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	t24	a7	16				26	f8	
A	Tare Weight	22.16	20.12	20.59				19.03	19.60	
B	Wet Soil Weight + A	41.25	38.76	40.54				26.04	26.76	
C	Dry Soil Weight + A	36.78	34.29	35.65				24.80	25.55	
D	Water Weight (B-C)	4.47	4.47	4.89				1.24	1.21	
E	Dry Soil Weight (C-A)	14.62	14.17	15.06				5.77	5.95	
F	% Moisture (D/E)*100	30.6%	31.5%	32.5%				21.5%	20.3%	
N	# OF DROPS	31	22	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**20.9%**		



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**31**
Plastic Limit	**21**
Plastic Index	**10**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB12	Sample #: SS-6	Depth: 13.5-15
Sample Description:	Dark Gray Clayey SAND (SC)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	4%	Fine Sand	41%
Gravel	1%	Medium Sand	6%	Silt & Clay	48%
Liquid Limit	31	Plastic Limit	21	Plastic Index	10
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	50.8%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

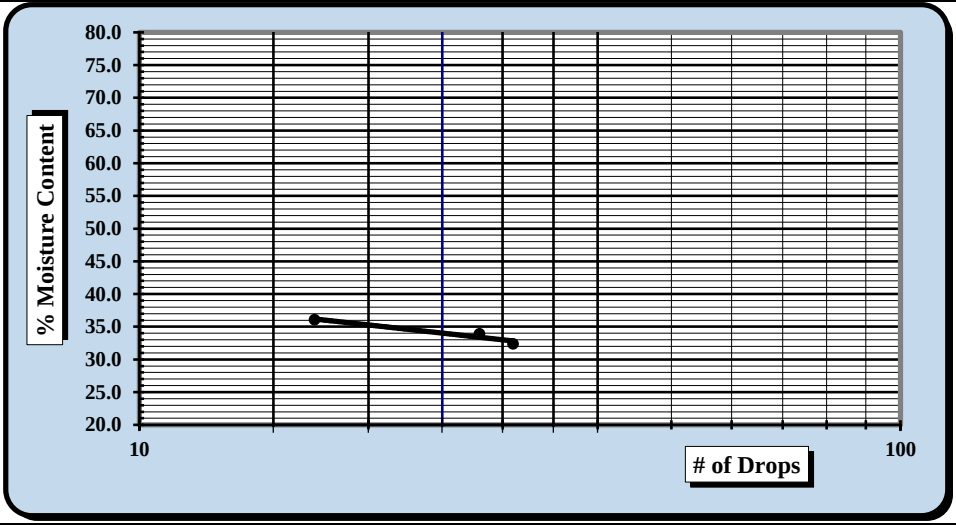
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/5-10/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB12	Sample #: SS-7		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 18.5-20	
Sample Description:	Dark Brown and Green Clayey SAND (SC)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	r5	13	01				j5	25	
A	Tare Weight	19.89	20.86	21.30				13.22	14.92	
B	Wet Soil Weight + A	37.79	38.12	39.48				20.11	20.74	
C	Dry Soil Weight + A	33.41	33.75	34.66				19.06	19.85	
D	Water Weight (B-C)	4.38	4.37	4.82				1.05	0.89	
E	Dry Soil Weight (C-A)	13.52	12.89	13.36				5.84	4.93	
F	% Moisture (D/E)*100	32.4%	33.9%	36.1%				18.0%	18.1%	
N	# OF DROPS	31	28	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**18.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**34**
Plastic Limit	**18**
Plastic Index	**16**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

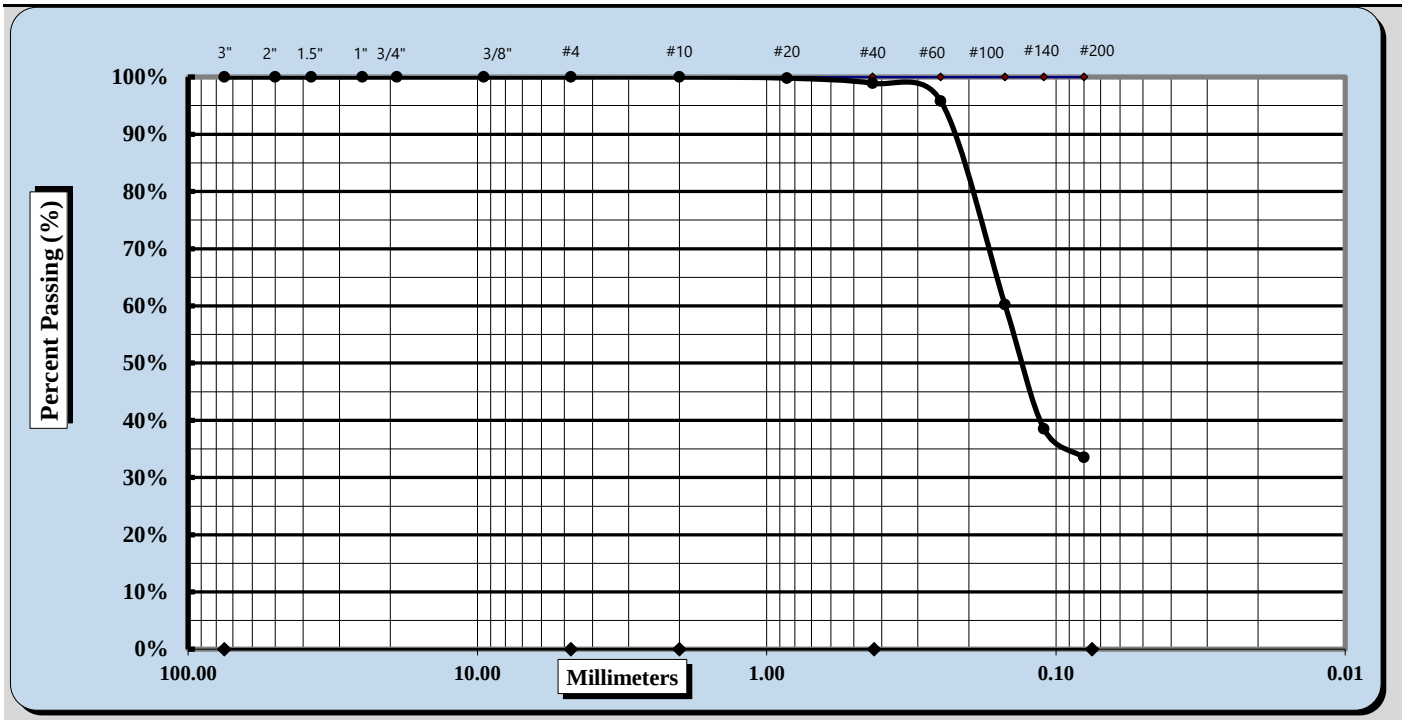
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB12	Sample #: SS-7	Depth: 18.5-20
Sample Description:	Dark Brown and Green Clayey SAND (SC)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#20	Coarse Sand	0%	Fine Sand	65%
Gravel	0%	Medium Sand	1%	Silt & Clay	34%
Liquid Limit	34	Plastic Limit	18	Plastic Index	16
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	26.4%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

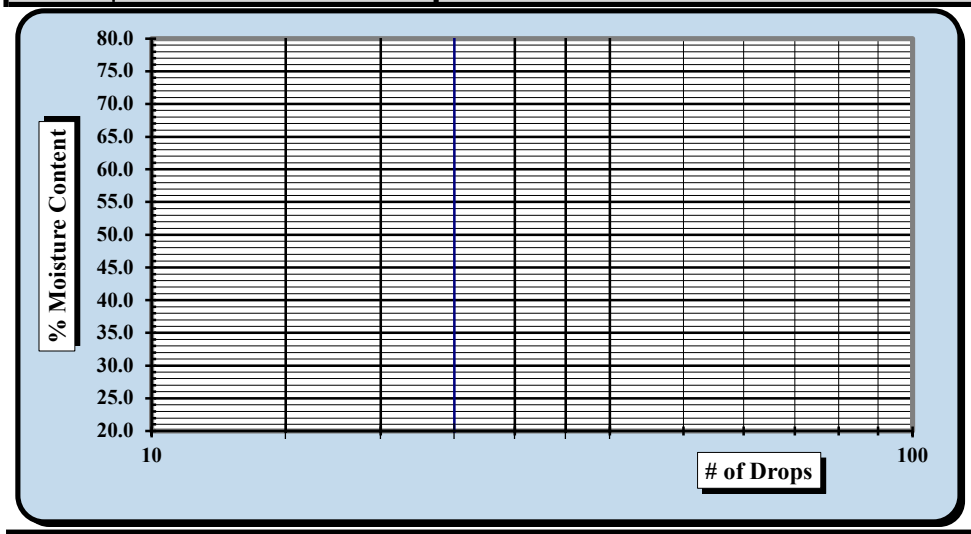
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/5-10/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB12	Sample #: SS-8		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 23.5-25	
Sample Description:	Bluish Gray SAND with shells (SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

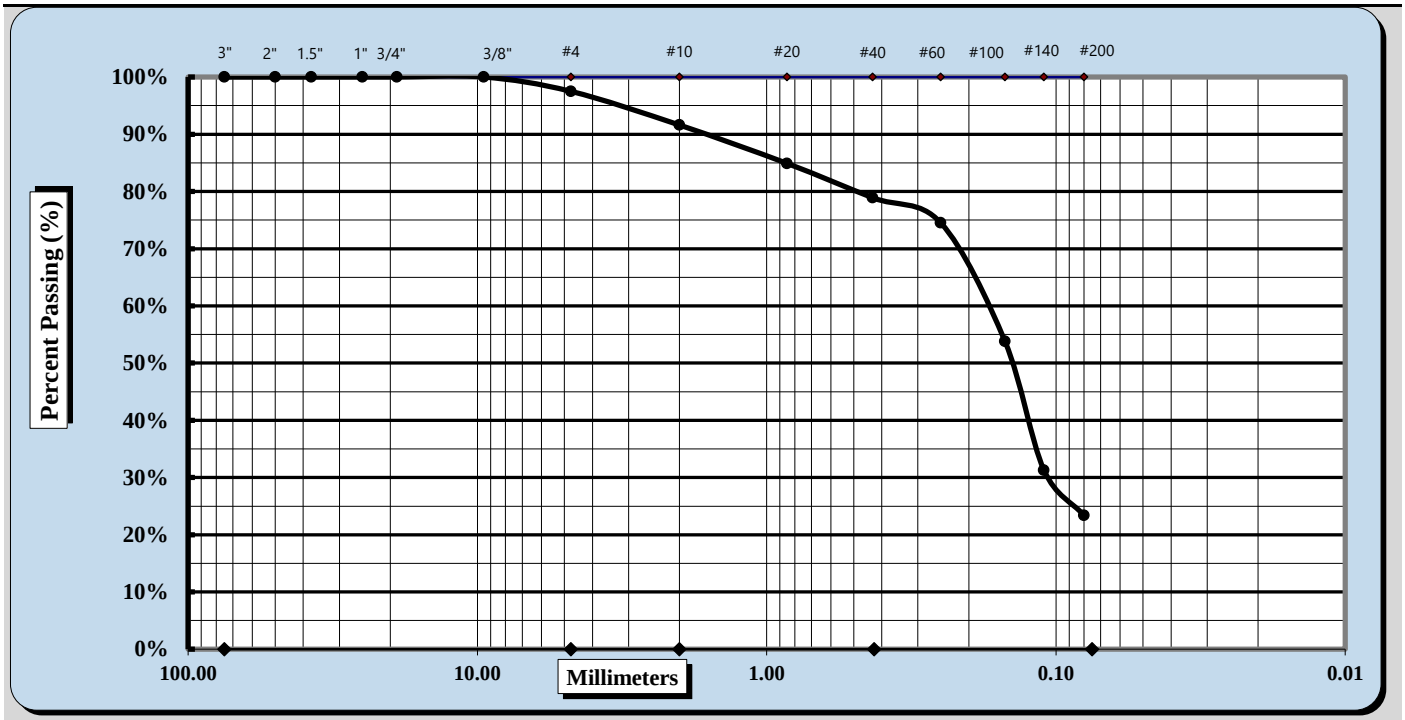
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB12	Sample #: SS-8	Depth: 23.5-25
Sample Description:	Bluish Gray SAND with shells (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	6%	Fine Sand	56%
Gravel	3%	Medium Sand	13%	Silt & Clay	23%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	33.6%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

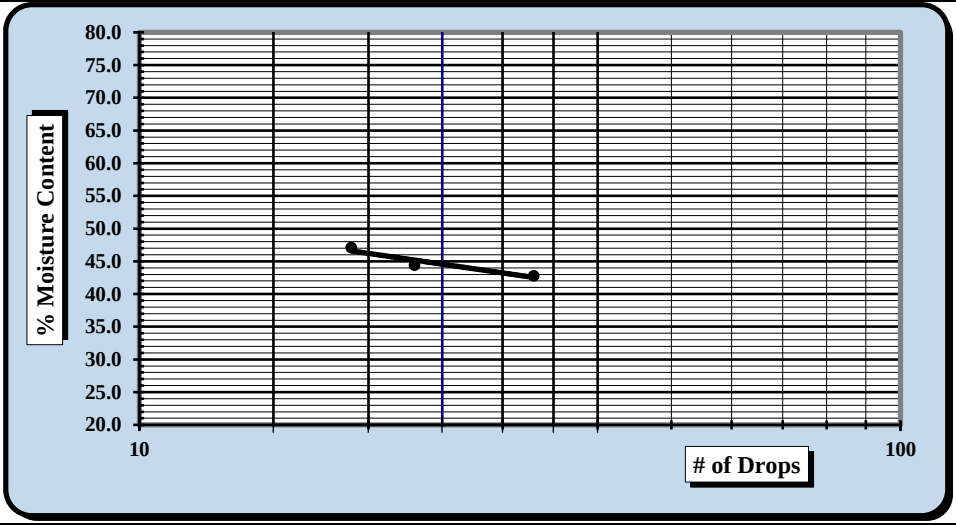
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/5-10/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB12	Sample #: SS-10	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 33.5-35
Sample Description:	Gray Blue Sandy Lean CLAY (CL)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	0000	t17	2B				bbb	07	
A	Tare Weight	20.36	21.48	21.28				21.65	20.92	
B	Wet Soil Weight + A	39.23	37.36	38.33				28.76	26.59	
C	Dry Soil Weight + A	33.57	32.48	32.87				27.45	25.54	
D	Water Weight (B-C)	5.66	4.88	5.46				1.31	1.05	
E	Dry Soil Weight (C-A)	13.21	11.00	11.59				5.80	4.62	
F	% Moisture (D/E)*100	42.8%	44.4%	47.1%				22.6%	22.7%	
N	# OF DROPS	33	23	19				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**22.7%**		



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**45**
Plastic Limit	**23**
Plastic Index	**22**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

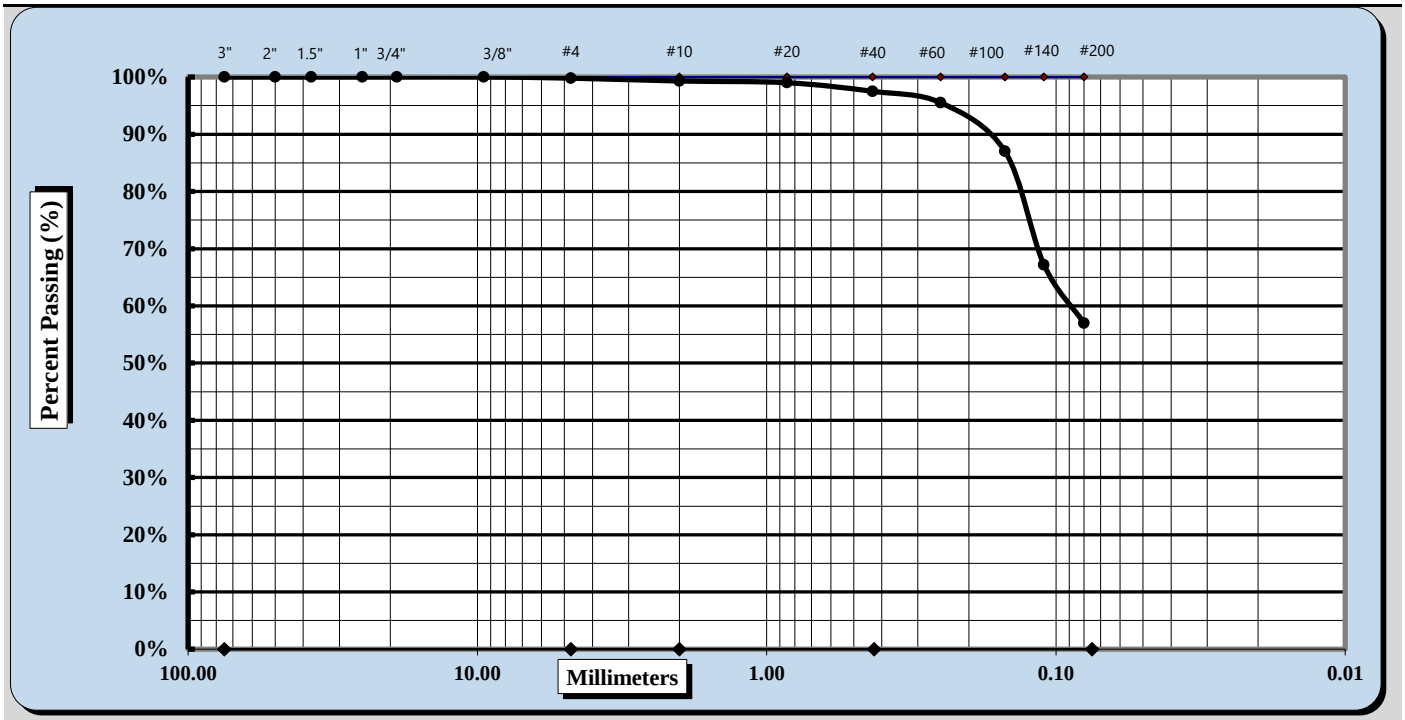
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB12	Sample #: SS-10	Depth: 33.5-35
Sample Description:	Gray Blue Sandy Lean CLAY (CL)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	41%
Gravel	0%	Medium Sand	2%	Silt & Clay	57%
Liquid Limit	45	Plastic Limit	23	Plastic Index	22
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	44.5%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

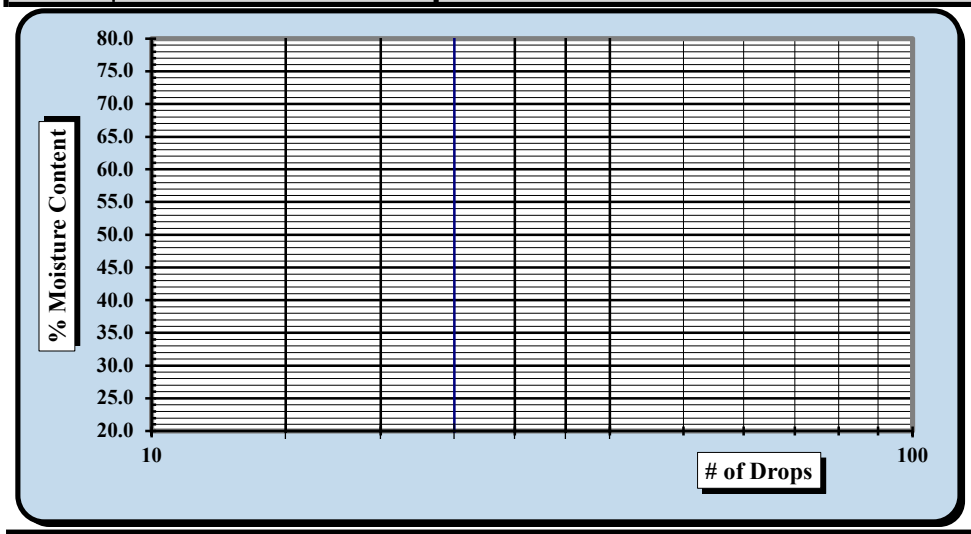
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/5-10/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB12	Sample #: SS-11		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 38.5-40	
Sample Description:	Blue Gray Silty SAND (SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

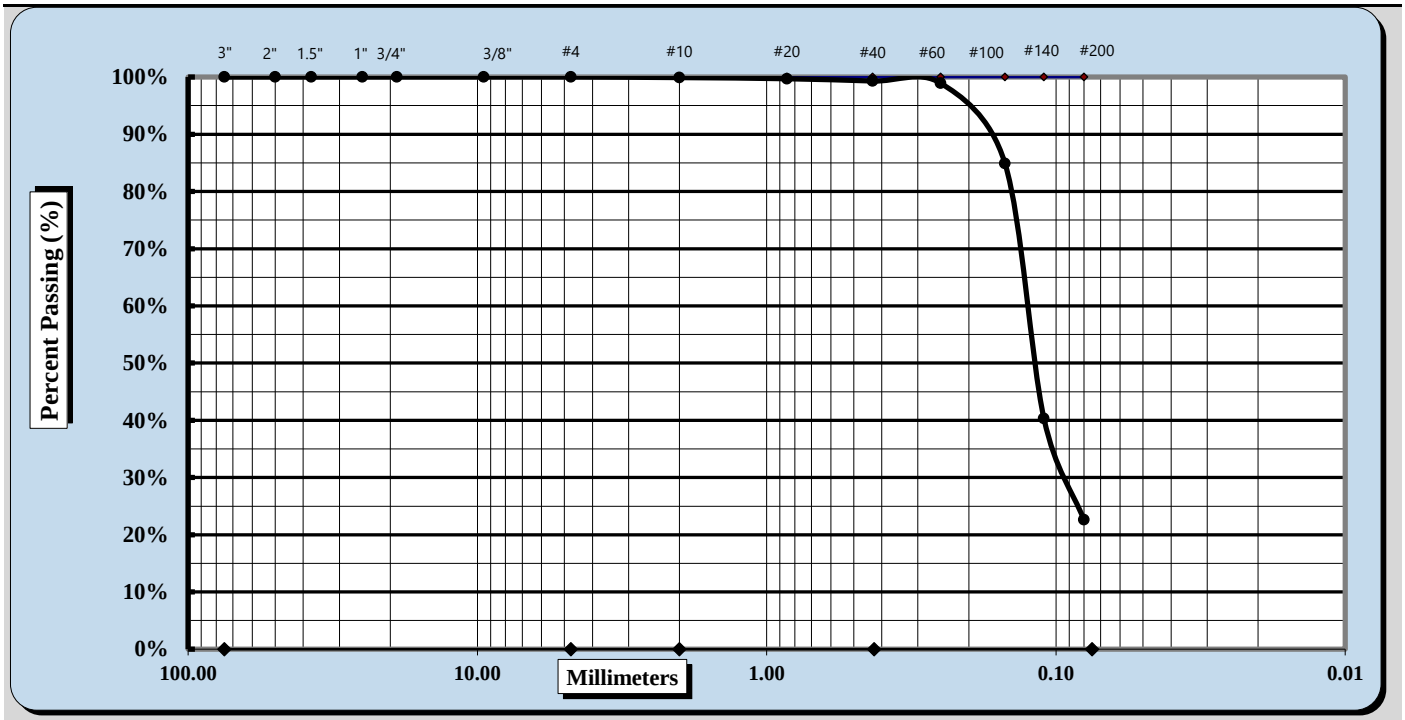
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB12	Sample #: SS-11	Depth: 38.5-40
Sample Description:	Blue Gray Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	77%
Gravel	0%	Medium Sand	1%	Silt & Clay	23%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	37.6%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino		Senior Engineer	6/8/23
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s):	5/1-9/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		
Sample by:	Soil Consultants, Inc.	Sample Date(s):	March 2023
Sampling Method:	Split Spoon		

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 06976 Calibration Date: 1/3/23 Oven ID. 13796 Calibration Date: 9/27/22

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft. or m.		grams	grams	grams	grams	%	
EMB13	SS-1	0-2	86	60.96	330.72	291.25	39.47	17.1%	
EMB13	SS-2	2-4	36	61.30	326.47	286.07	40.40	18.0%	
EMB13	SS-3	4-6	89	60.49	276.79	237.75	39.04	22.0%	
EMB13	SS-4	6-8	14	60.43	286.44	241.88	44.56	24.6%	
EMB13	SS-5	8-10	85	61.35	314.31	263.23	51.08	25.3%	
EMB13	SS-6	10-12	17	60.41	311.03	252.13	58.90	30.7%	
EMB13	SS-7	12-14	11	60.76	268.68	194.25	74.43	55.8%	
EMB13	SS-8	14-16	25	60.88	276.04	211.25	64.79	43.1%	
EMB13	SS-9	16-18	41	61.80	263.17	164.77	98.40	95.6%	
EMB13	SS-10	18-20	4	60.49	268.80	188.90	79.90	62.2%	
EMB13	SS-11	20-22	20	60.05	272.61	225.70	46.91	28.3%	
EMB13	SS-12	22-24	12	60.22	271.58	222.56	49.02	30.2%	
EMB13	SS-13	24-26	2	60.18	306.84	244.11	62.73	34.1%	
EMB13	SS-14	26-28	I	40.61	243.48	166.96	76.52	60.6%	
EMB13	SS-15	28-30	1	60.82	264.38	174.99	89.39	78.3%	

Notes / Deviations / References

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Dawn Tomberlin — *Technician Name* — 6/8/23 *Date*

Marc D. Cerino — *Technical Responsibility* — Senior Engineer *Position* — 6/8/23 *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #: 200424A Report Date: 6/8/23

Project Name: I-526/Longpoint Rd. Interchange

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft. or m.		grams	grams	grams	grams	%	
EMB13	SS-16	30-32	87	60.65	266.88	166.77	100.11	94.3%	
EMB13	SS-17	32-34	10	60.27	285.93	177.92	108.01	91.8%	
EMB13	SS-18	34-36	32	61.24	268.18	222.24	45.94	28.5%	
EMB13	SS-19	36-38	84	61.11	263.94	176.56	87.38	75.7%	
EMB13	SS-20	38-40	31	60.80	265.05	174.88	90.17	79.0%	

Notes / Deviations / References

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

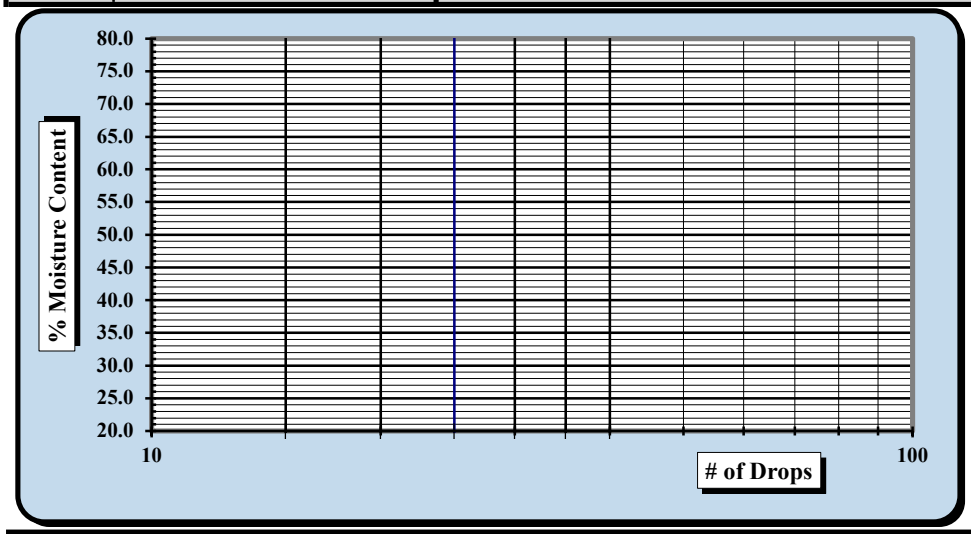
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-1	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 0-2
Sample Description:	Dark Brown Silty SAND (SM)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

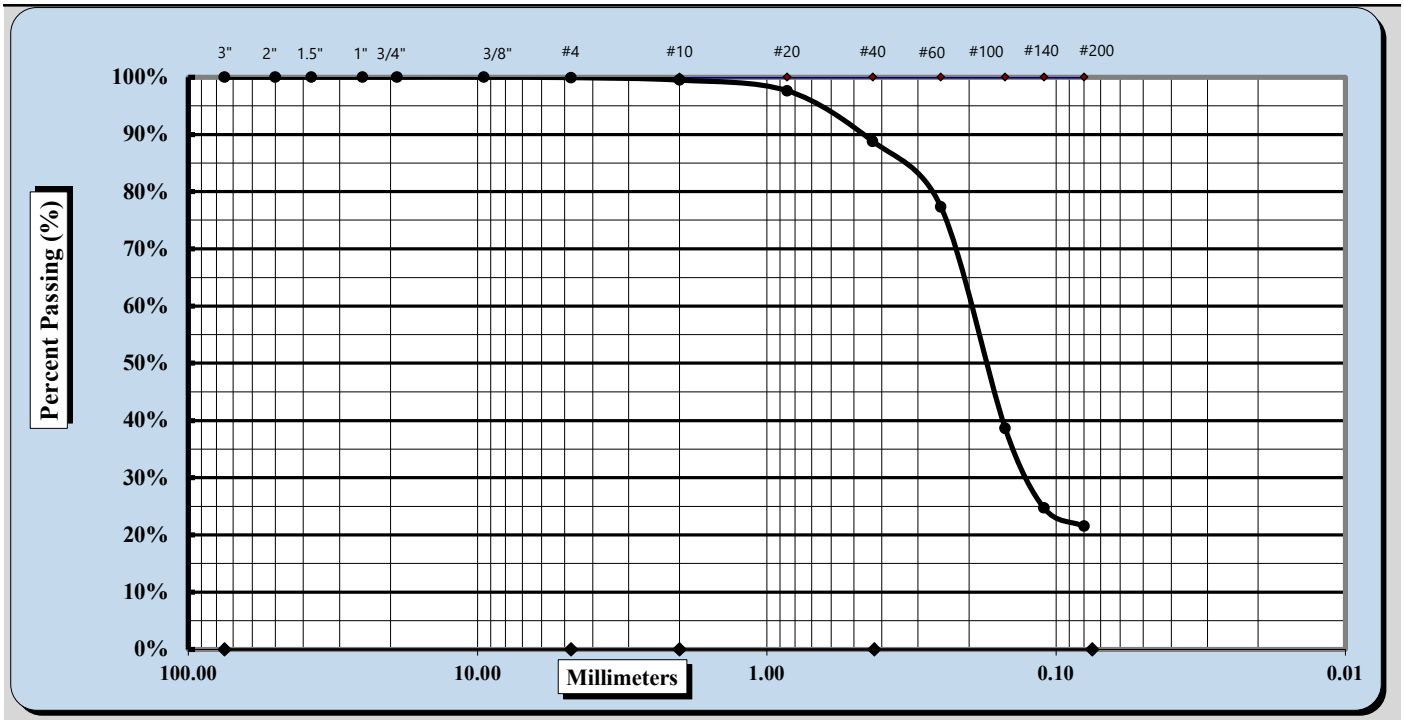
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-1	Depth: 0-2
Sample Description:	Dark Brown Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	67%
Gravel	0%	Medium Sand	11%	Silt & Clay	22%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	17.1%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

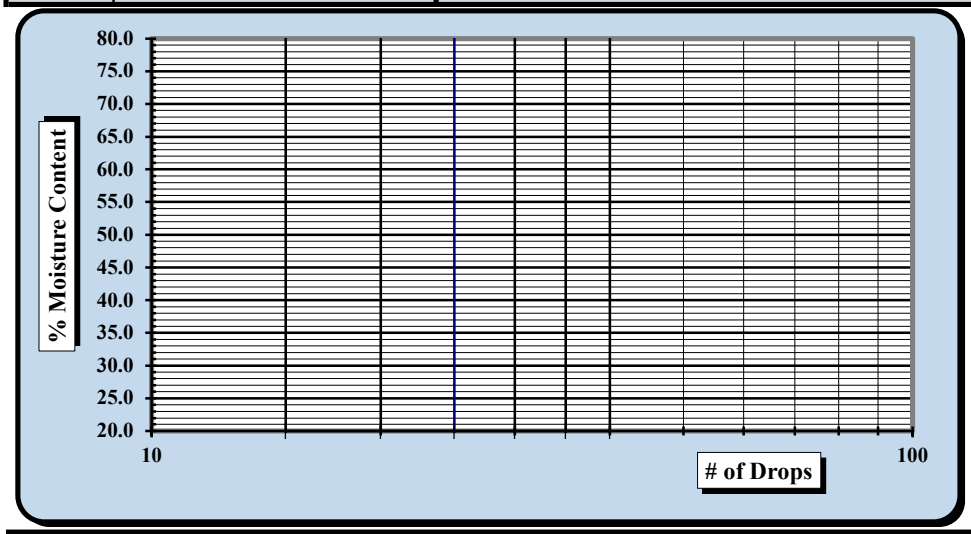
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-2	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 2-4
Sample Description:	Brown Silty SAND (SM)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

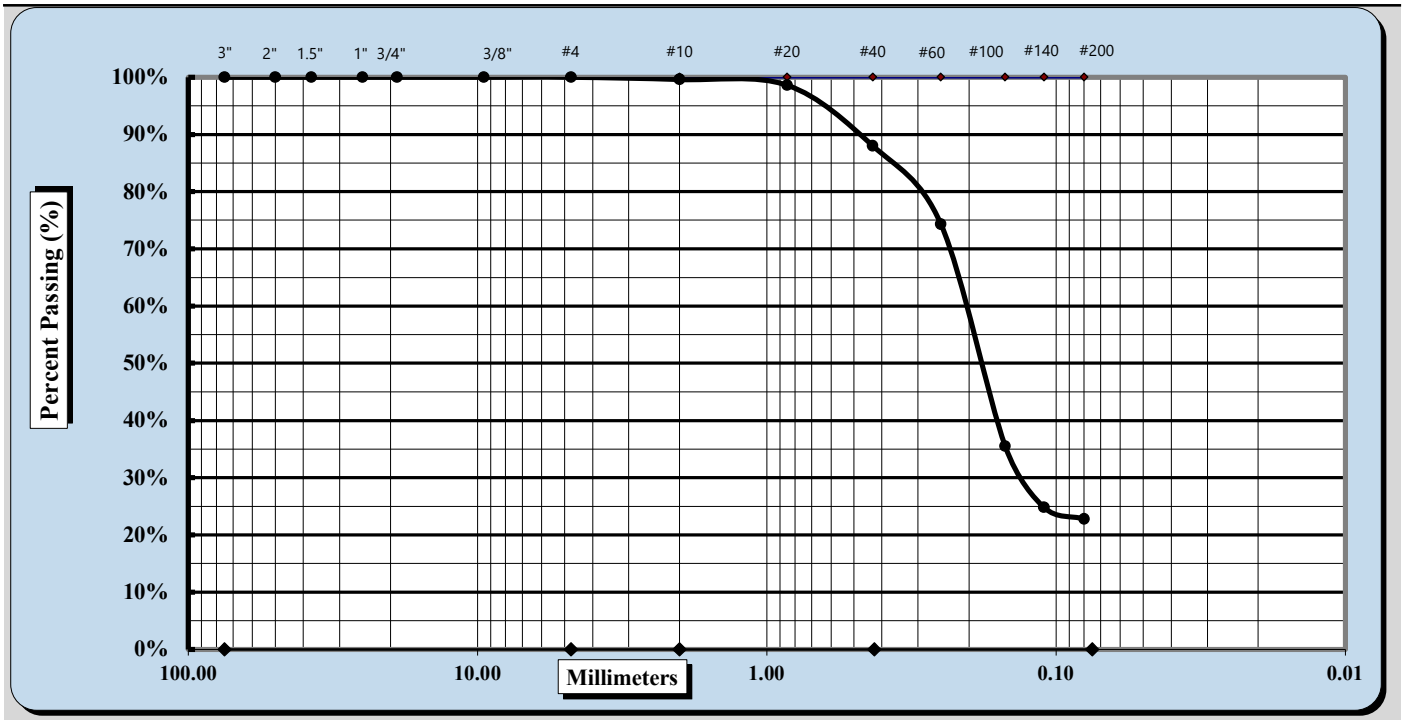
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-2	Depth: 2-4
Sample Description:	Brown Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	65%
Gravel	0%	Medium Sand	12%	Silt & Clay	23%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	18.0%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

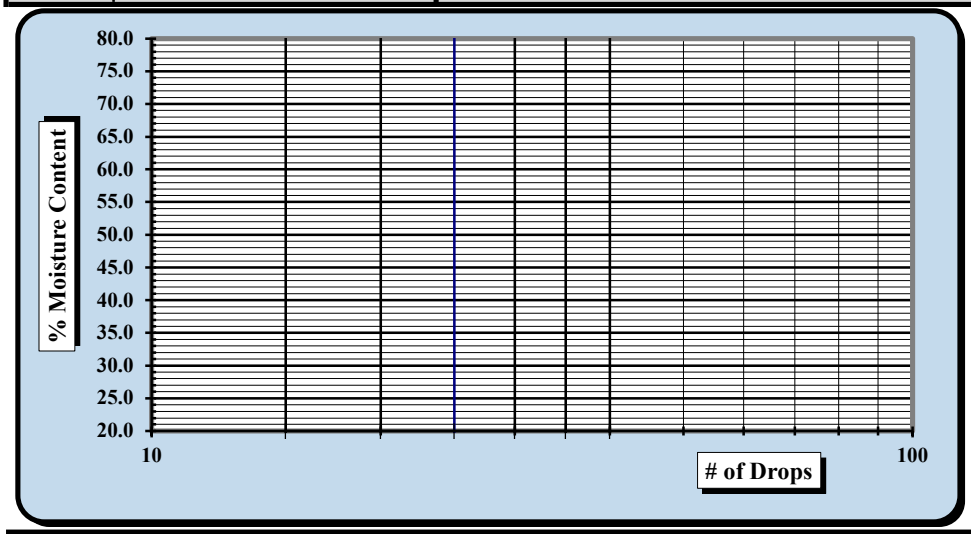
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-3	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 4-6
Sample Description:	Light Brown Poorly Graded Sand with Silt (SP-SM)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

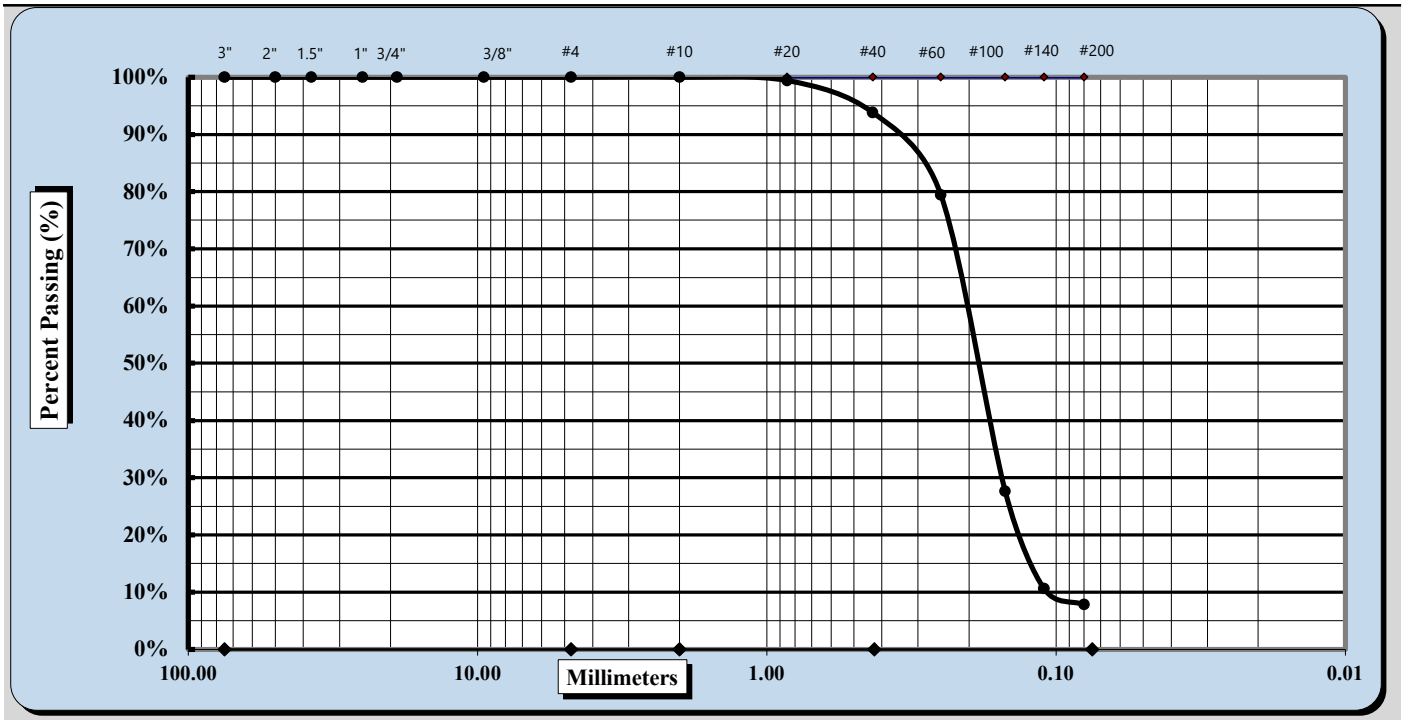
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-3	Depth: 4-6
Sample Description:	Light Brown Poorly Graded Sand with Silt (SP-SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#20	Coarse Sand	0%	Fine Sand	86%
Gravel	0%	Medium Sand	6%	Silt & Clay	8%
Liquid Limit	0.08	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	22.0%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

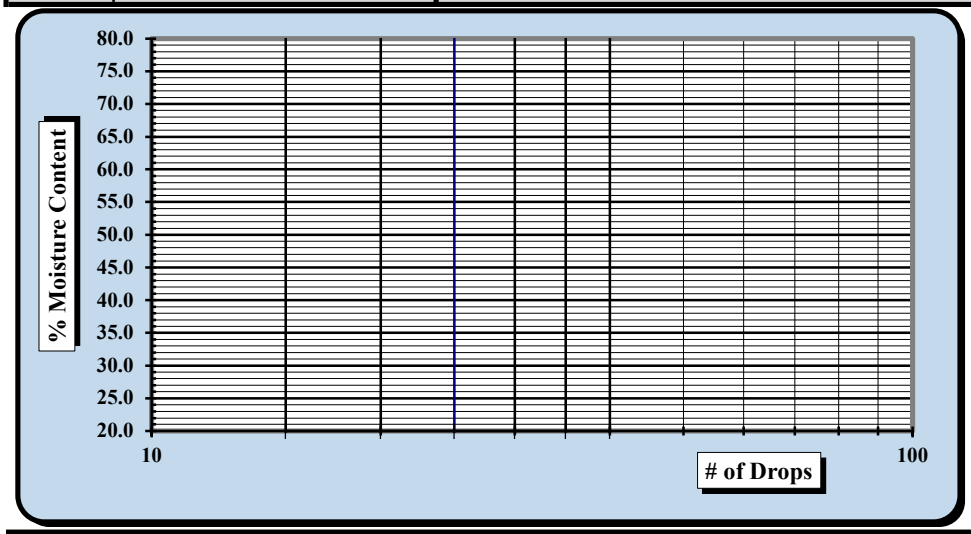
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-4	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 6-8
Sample Description:	Light Brown Gray Poorly Graded SAND with silt (SP-SM)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

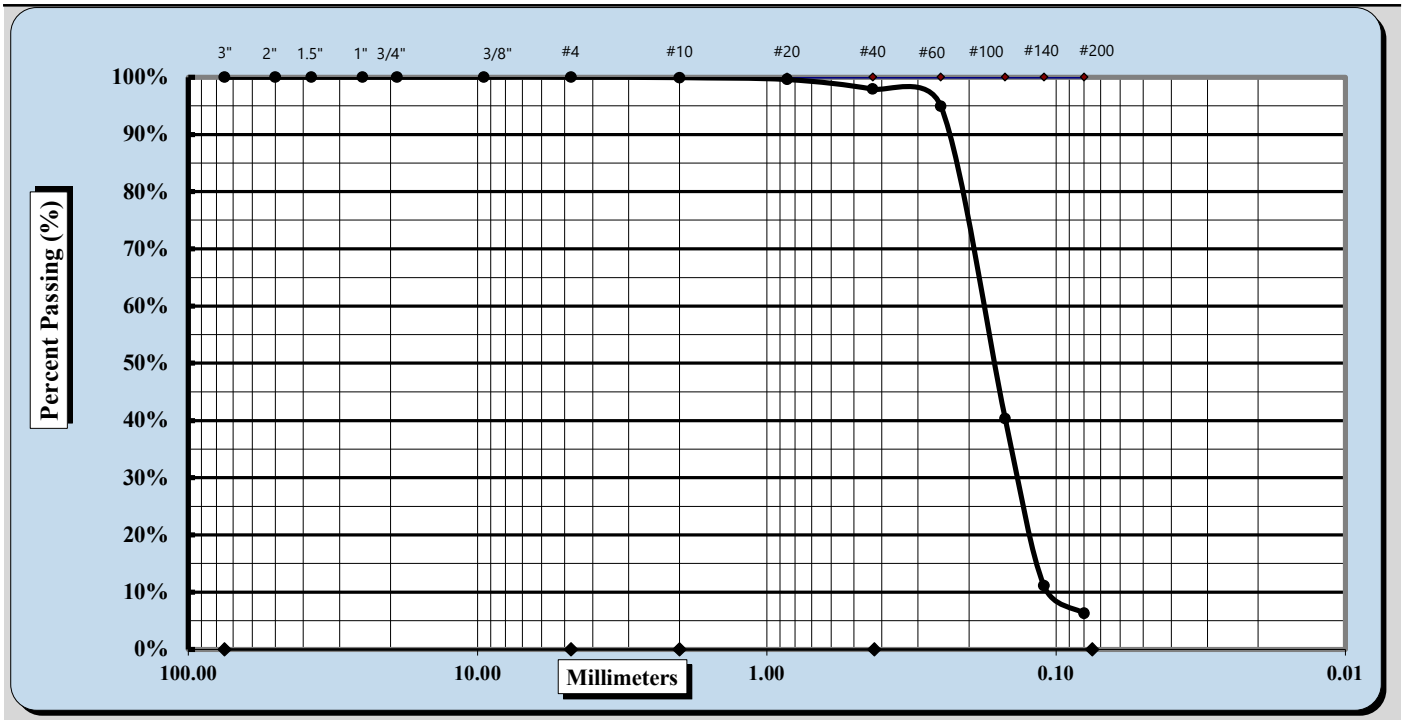
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-4	Depth: 6-8
Sample Description:	Light Brown Gray Poorly Graded SAND with silt (SP-SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	92%
Gravel	0%	Medium Sand	2%	Silt & Clay	6%
Liquid Limit	0.06	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	24.6%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

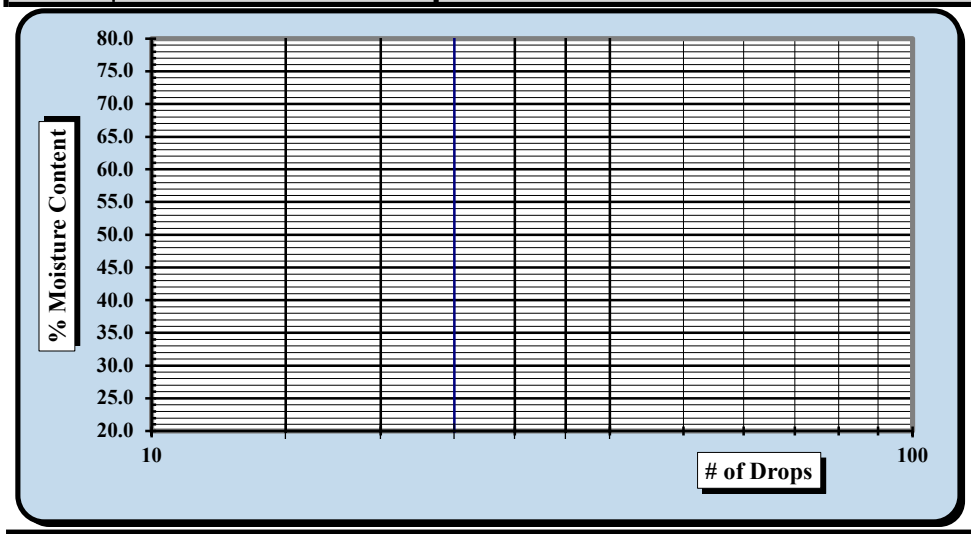
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-5	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 8-10
Sample Description:	Gray Orange Poorly Graded SAND with silt (SP-SM)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

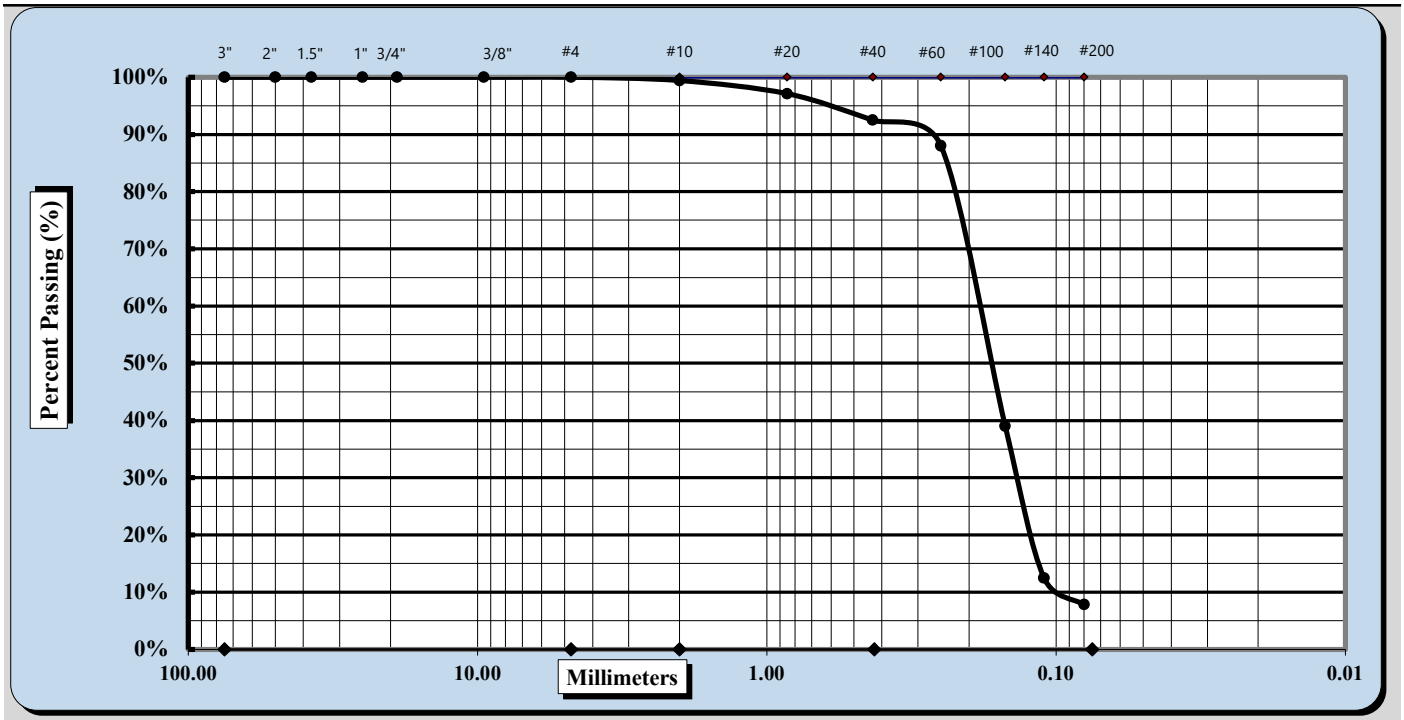
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-5	Depth: 8-10
Sample Description:	Gray Orange Poorly Graded SAND with silt (SP-SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#10	Coarse Sand	1%	Fine Sand	85%
Gravel	0%	Medium Sand	7%	Silt & Clay	8%
Liquid Limit	0.08	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	25.3%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

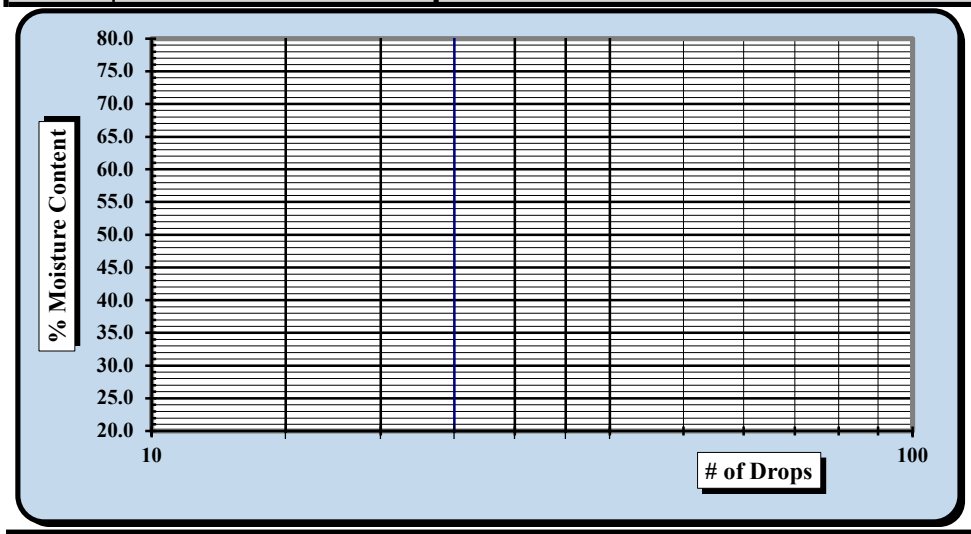
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-6		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 10-12	
Sample Description:	Gray Blue Poorly Graded SAND with silt (SP-SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

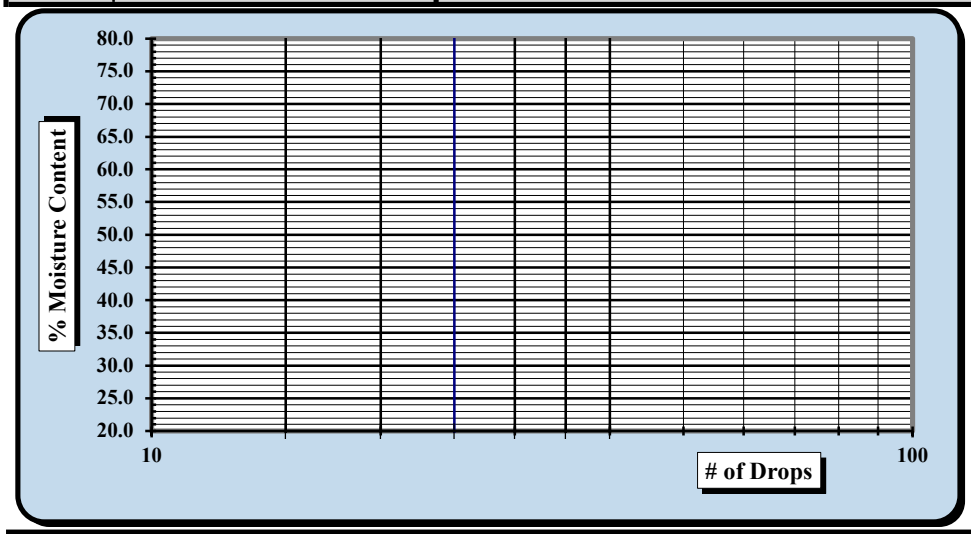
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-6	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 10-12
Sample Description:	Gray Blue Poorly Graded SAND with silt (SP-SM)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**12%**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ND**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

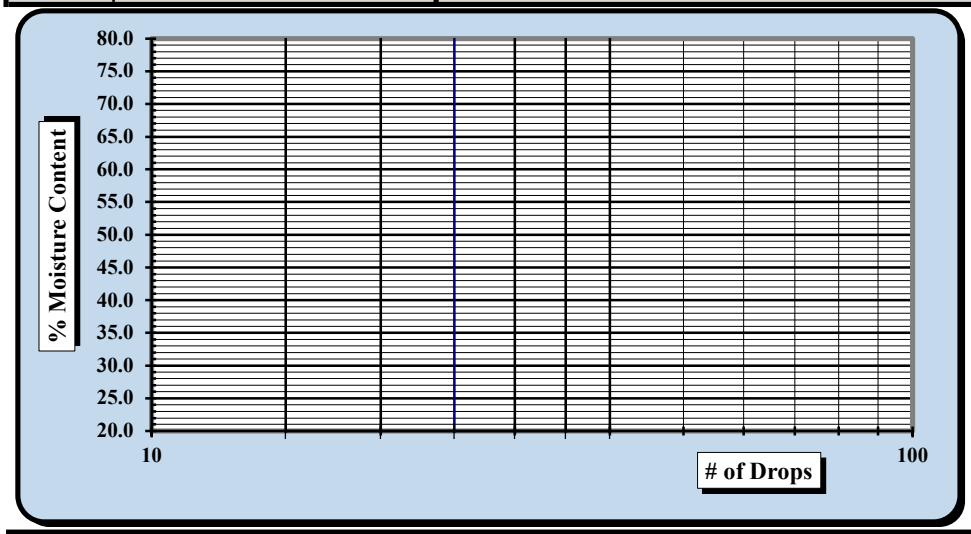
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-7	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 12-14
Sample Description:	Blue Gray Silty SAND (SM)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

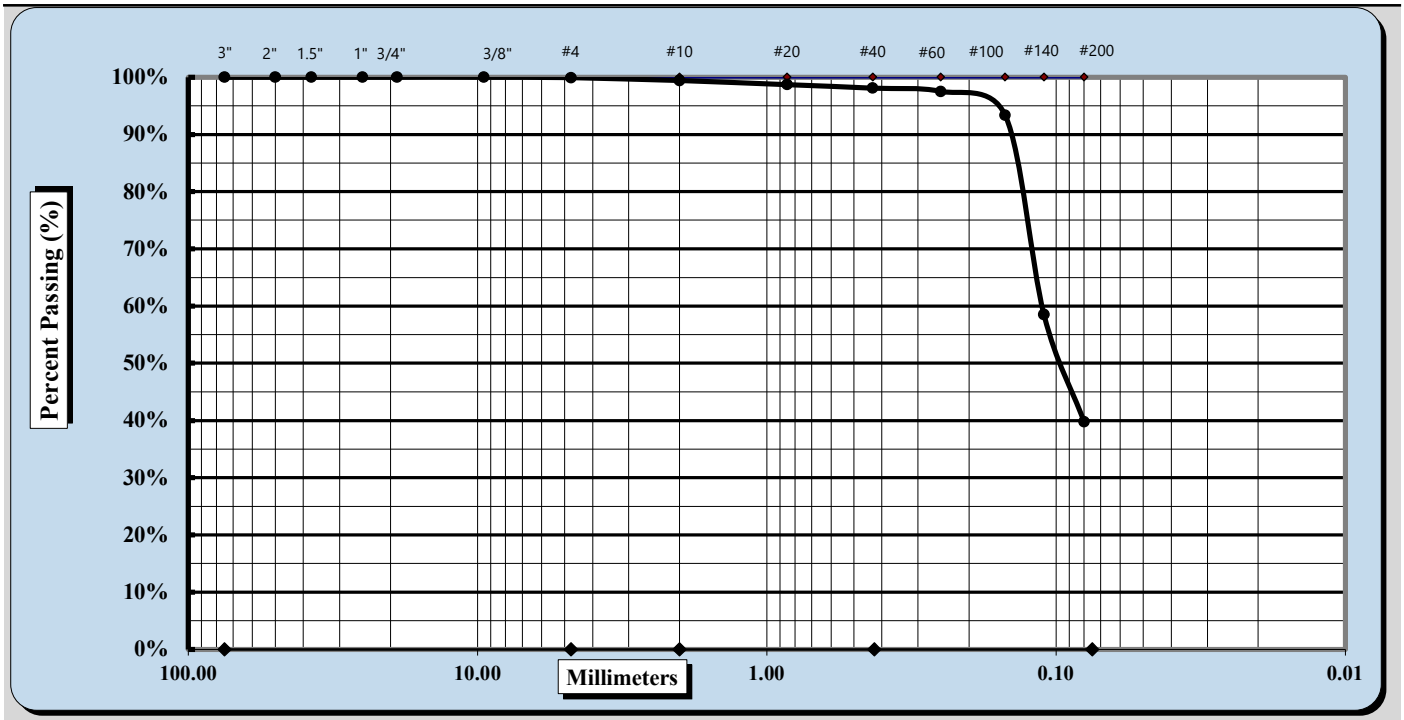
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-7	Depth: 12-14
Sample Description:	Blue Gray Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	58%
Gravel	0%	Medium Sand	1%	Silt & Clay	40%
Liquid Limit	0.4	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	55.8%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

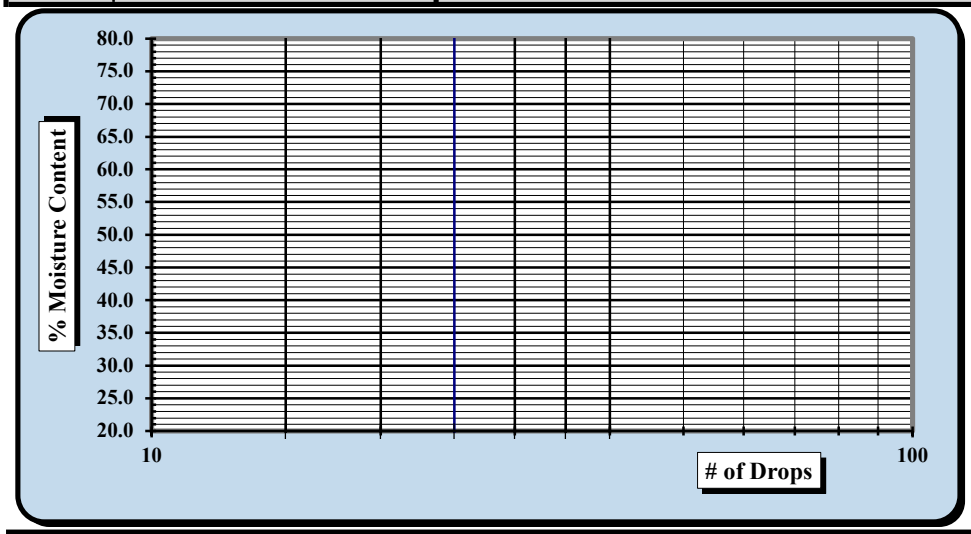
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-8	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 14-16
Sample Description:	Blue Gray Silty SAND (SM)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

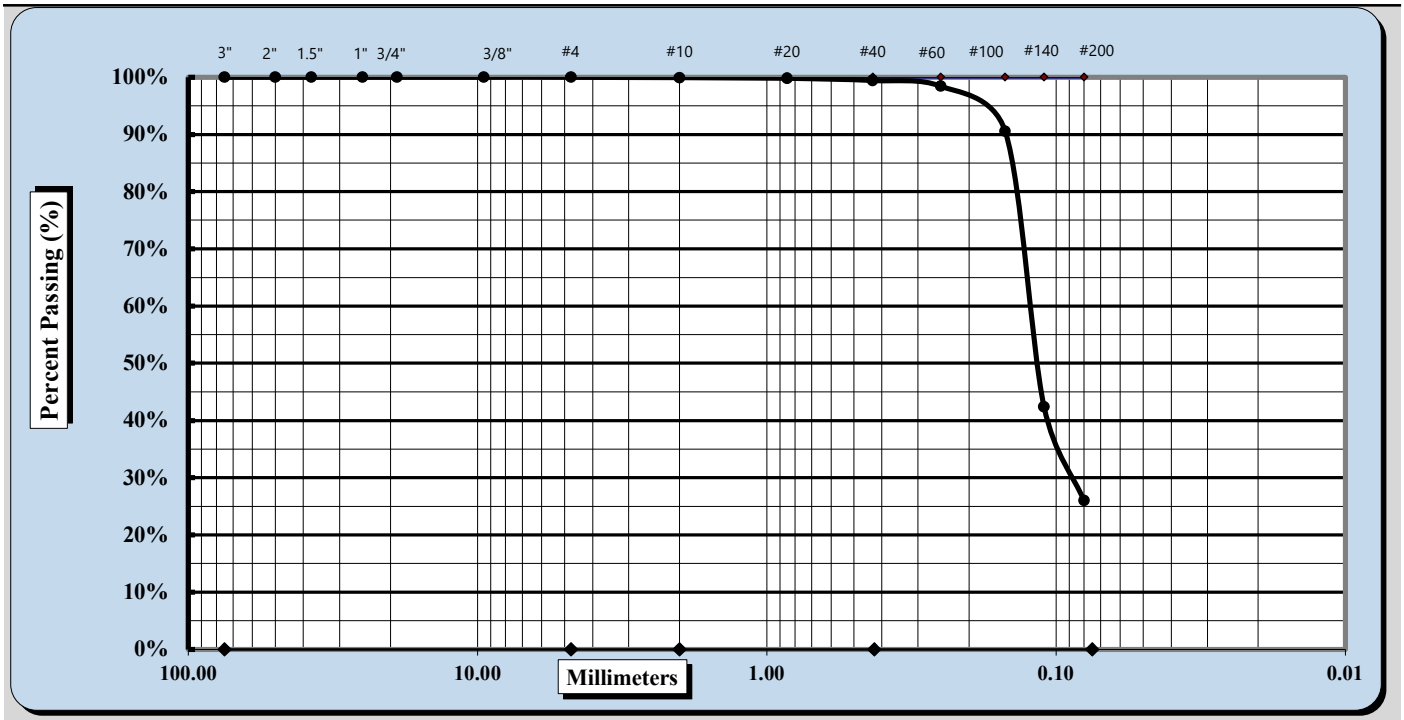
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-8	Depth: 14-16
Sample Description:	Blue Gray Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	73%
Gravel	0%	Medium Sand	1%	Silt & Clay	26%
Liquid Limit	0.26	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	43.1%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

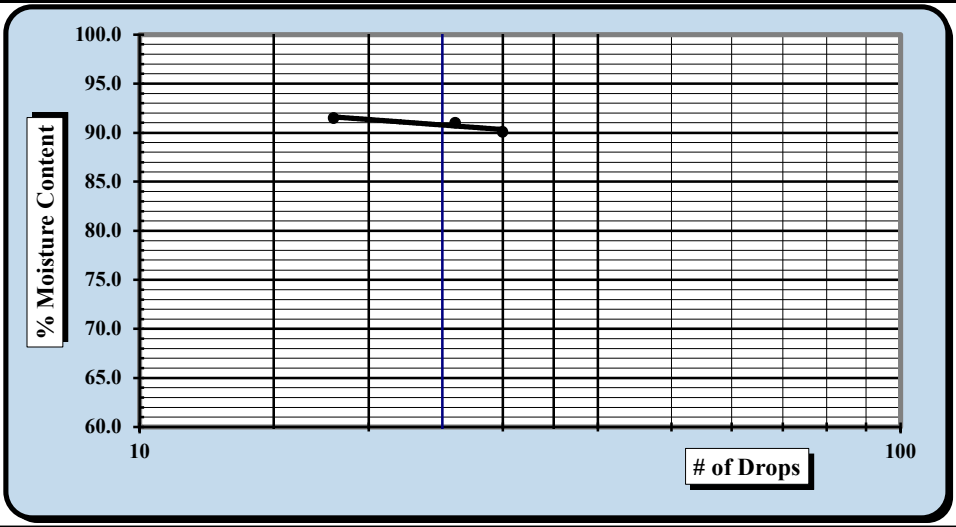
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-9		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 16-18	
Sample Description:	Blue Gray Sandy Fat CLAY(CH)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	hhh	nnn	k6				ppp	05	
A	Tare Weight	20.32	20.50	20.34				20.30	19.76	
B	Wet Soil Weight + A	37.16	37.02	37.31				24.05	25.94	
C	Dry Soil Weight + A	29.18	29.15	29.20				23.04	24.36	
D	Water Weight (B-C)	7.98	7.87	8.11				1.01	1.58	
E	Dry Soil Weight (C-A)	8.86	8.65	8.86				2.74	4.60	
F	% Moisture (D/E)*100	90.1%	91.0%	91.5%				36.9%	34.3%	
N	# OF DROPS	30	26	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**35.6%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**91**
Plastic Limit	**36**
Plastic Index	**55**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

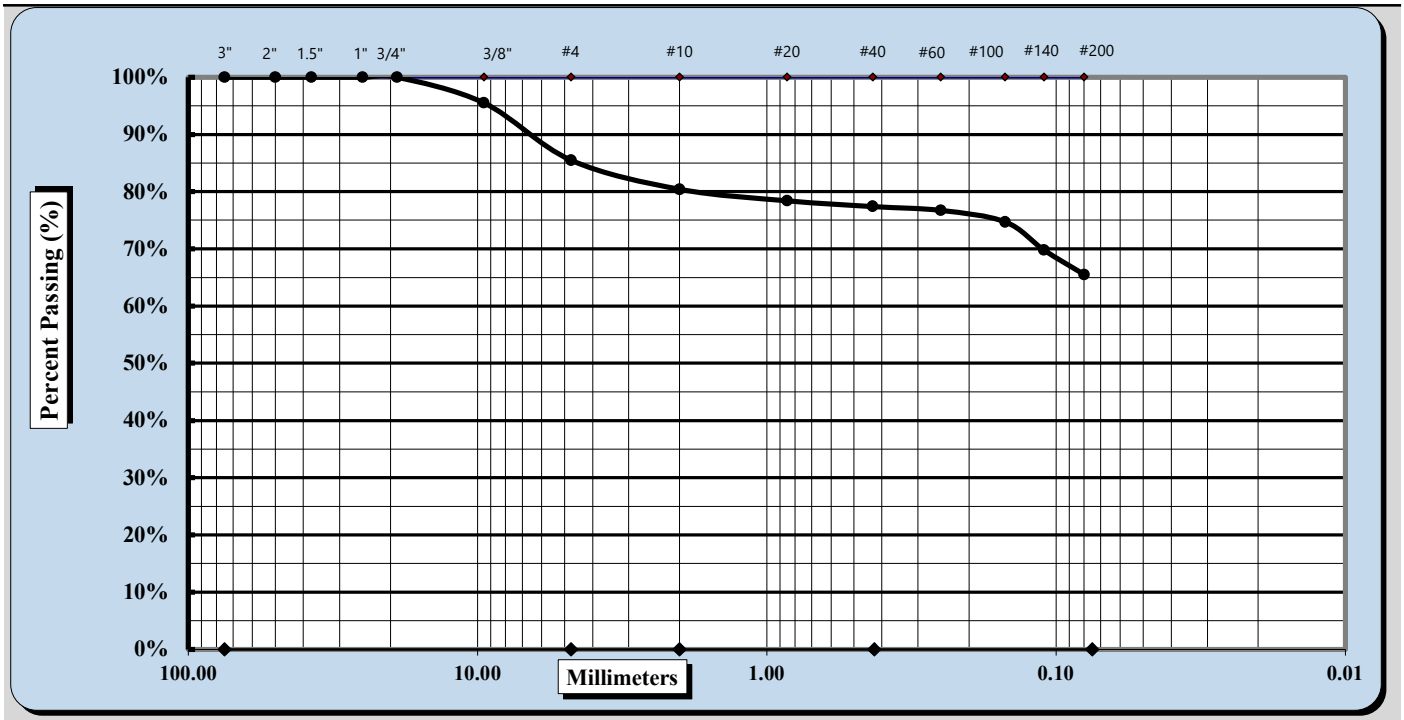
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-9	Depth: 16-18
Sample Description:	Blue Gray Sandy Fat CLAY(CH)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	3/8"	Coarse Sand	5%	Fine Sand	12%
Gravel	15%	Medium Sand	3%	Silt & Clay	66%
Liquid Limit	91	Plastic Limit	36	Plastic Index	55
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	95.6%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino	Senior Engineer	6/8/23
Technical Responsibility	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

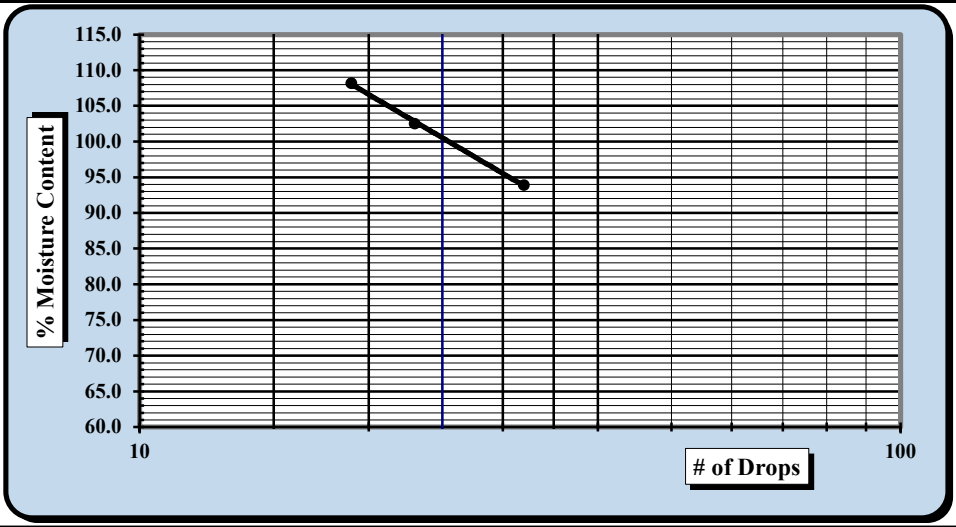
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-10		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 18-20	
Sample Description:	Dark Gray Sandy Fat CLAY (CH)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	0000	bbb	c3				n7	28	
A	Tare Weight	20.30	21.62	21.63				19.82	21.30	
B	Wet Soil Weight + A	32.48	36.38	32.58				24.23	26.71	
C	Dry Soil Weight + A	26.58	28.91	26.89				23.10	25.25	
D	Water Weight (B-C)	5.90	7.47	5.69				1.13	1.46	
E	Dry Soil Weight (C-A)	6.28	7.29	5.26				3.28	3.95	
F	% Moisture (D/E)*100	93.9%	102.5%	108.2%				34.5%	37.0%	
N	# OF DROPS	32	23	19				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**35.8%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**100**
Plastic Limit	**36**
Plastic Index	**64**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

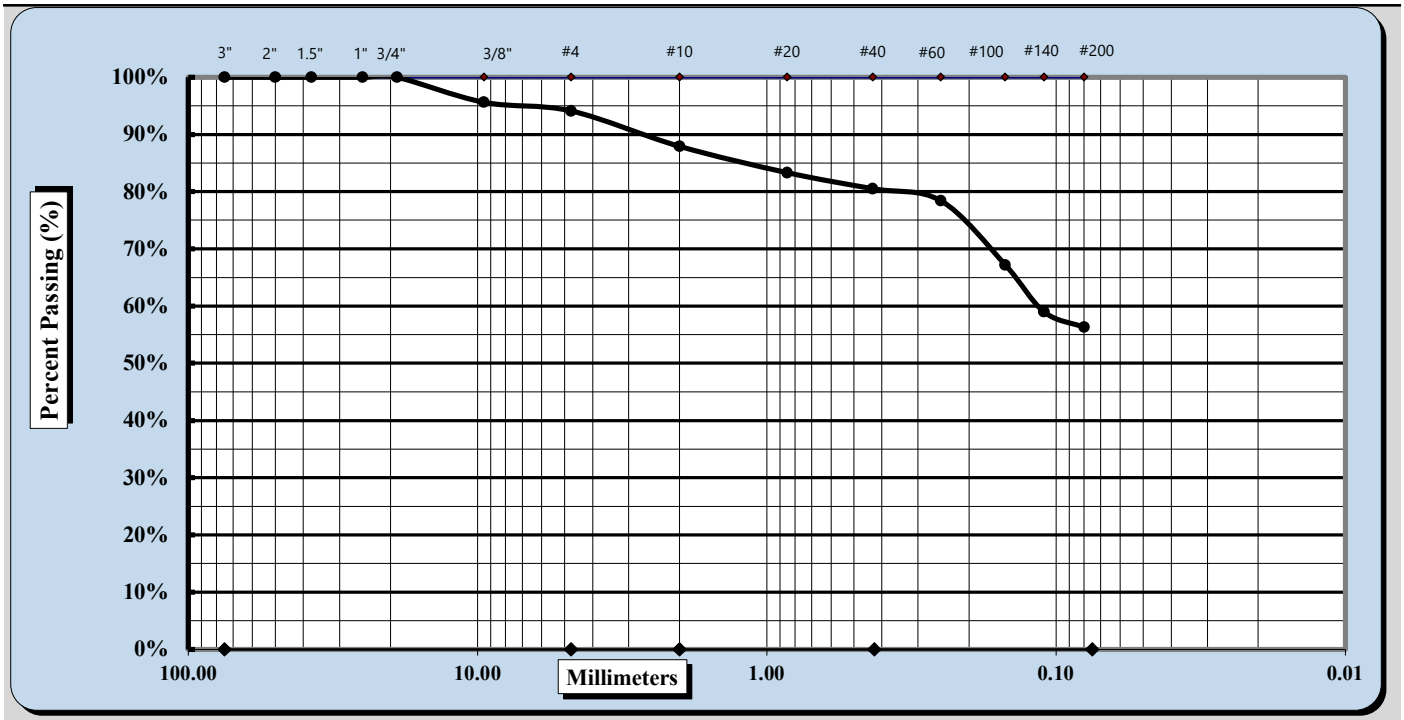
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-10	Depth: 18-20
Sample Description:	Dark Gray Sandy Fat CLAY (CH)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	3/8"	Coarse Sand	6%	Fine Sand	24%
Gravel	6%	Medium Sand	7%	Silt & Clay	56%
Liquid Limit	100	Plastic Limit	36	Plastic Index	64
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	62.2%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

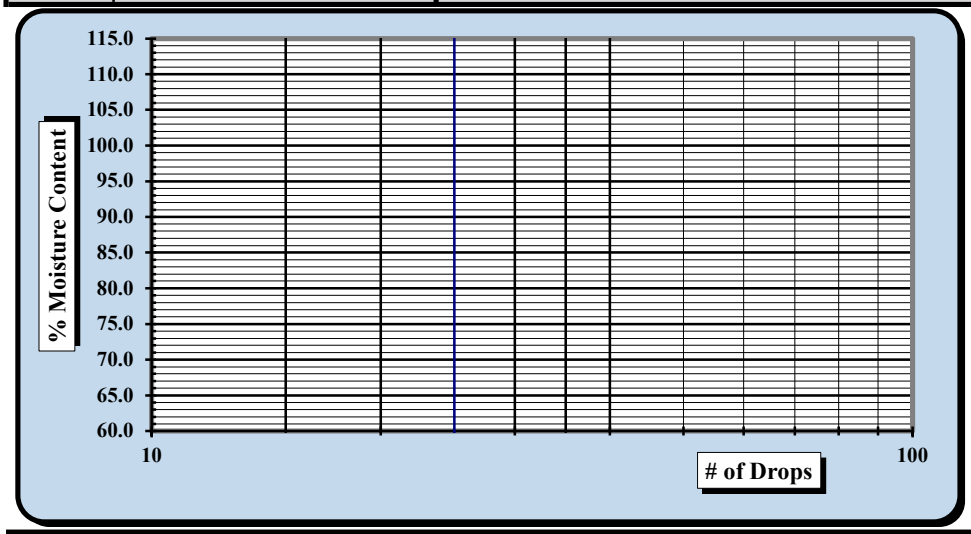
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-11		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 20-22	
Sample Description:	Blue Gray Poorly Graded SAND with silt (SP-SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

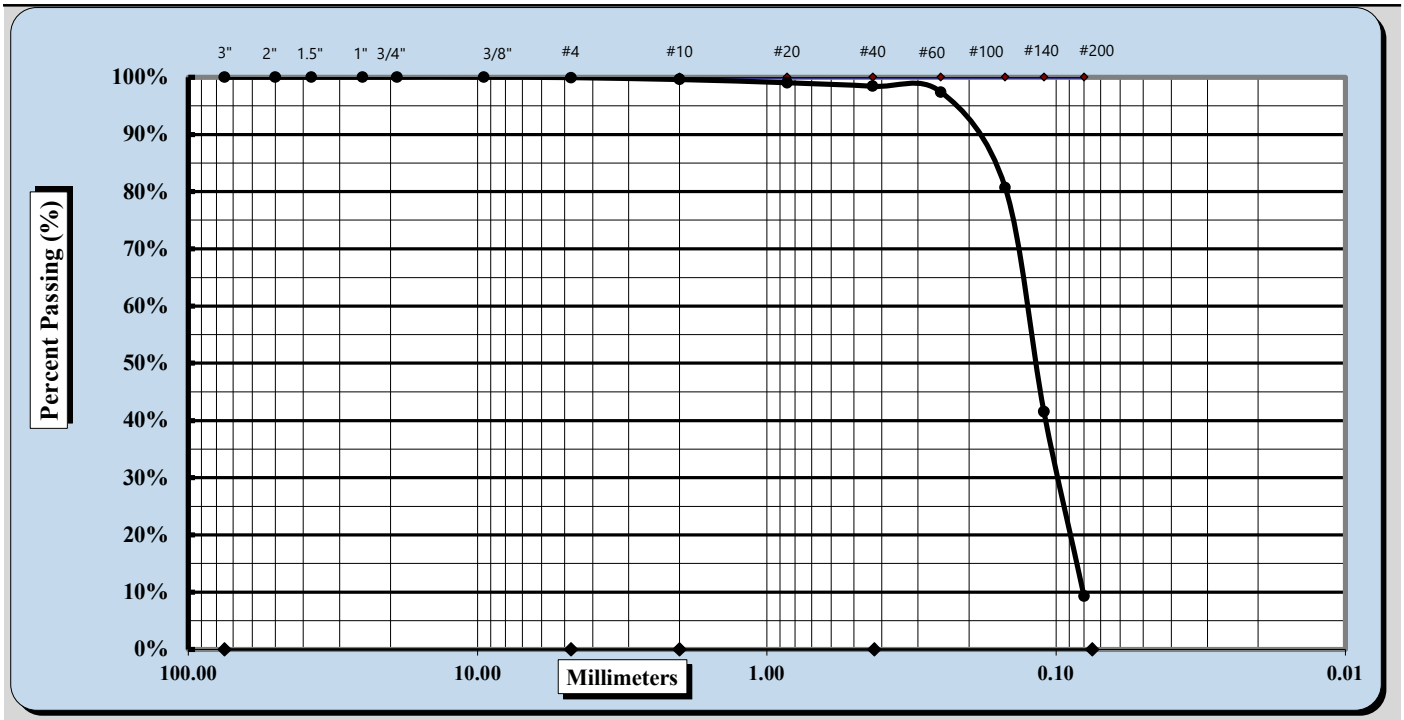
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-11	Depth: 20-22
Sample Description:	Blue Gray Poorly Graded SAND with silt (SP-SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	89%
Gravel	0%	Medium Sand	1%	Silt & Clay	9%
Liquid Limit	0.09	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	28.3%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

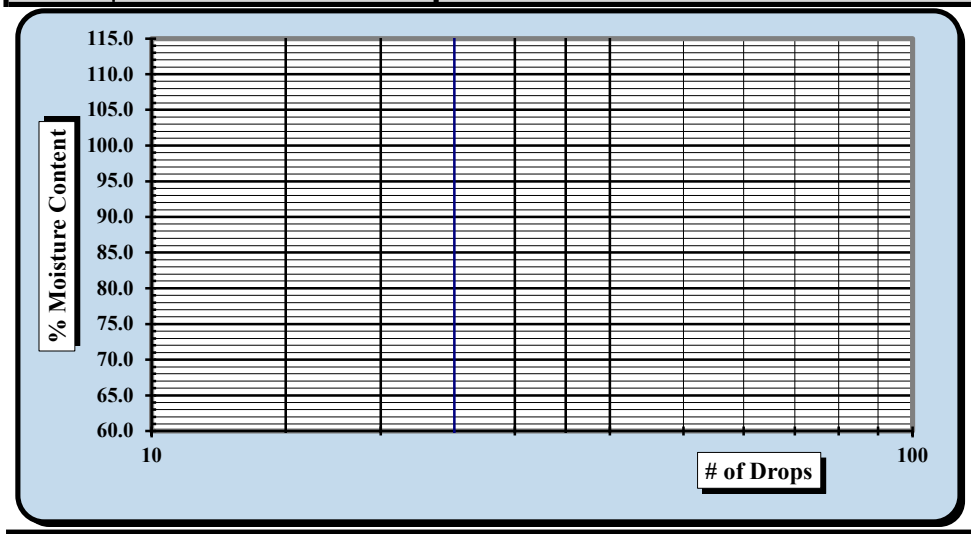
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-12		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 22-24	
Sample Description:	Blue Gray Poorly Graded SAND with silt (SP-SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

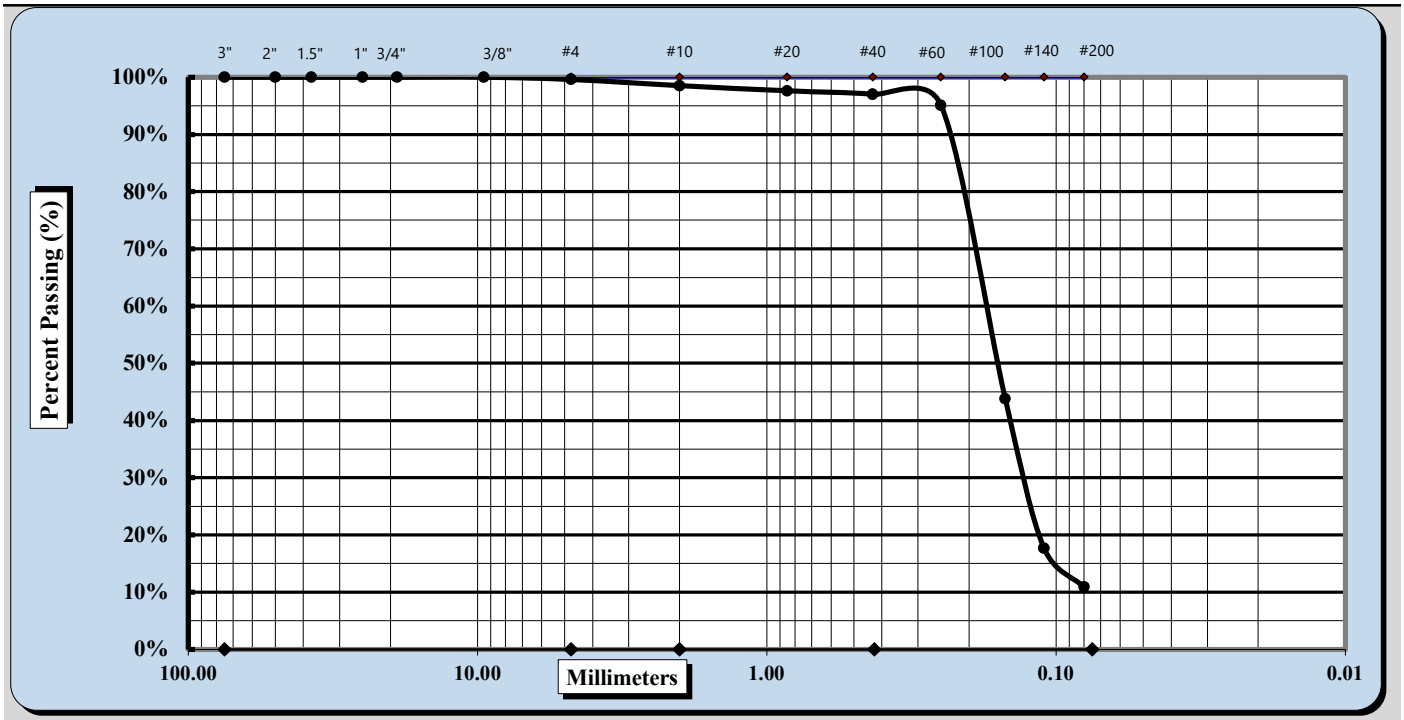
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-12	Depth: 22-24
Sample Description:	Blue Gray Poorly Graded SAND with silt (SP-SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	86%
Gravel	0%	Medium Sand	2%	Silt & Clay	11%
Liquid Limit	0.11	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	30.2%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

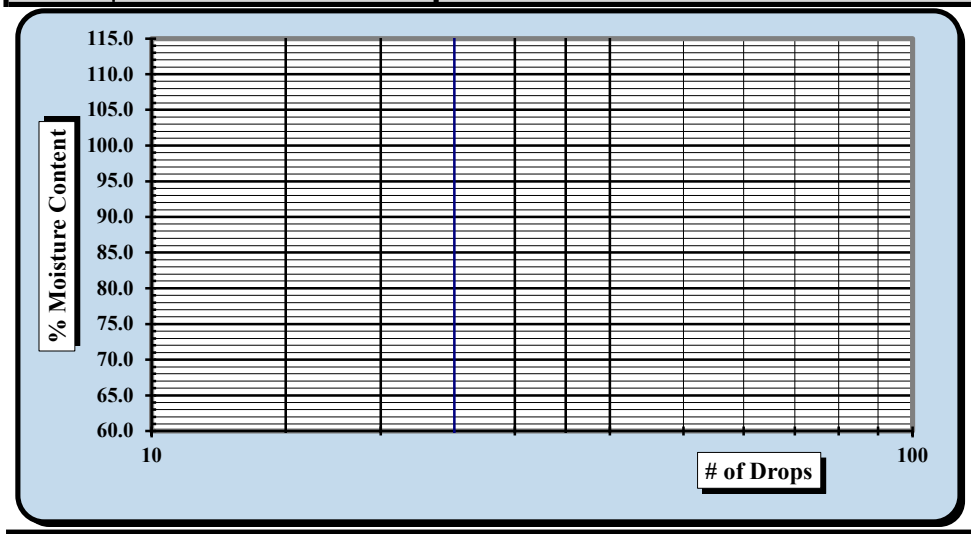
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-13		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 24-26	
Sample Description:	Gray Poorly Graded SAND with silt (SP-SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

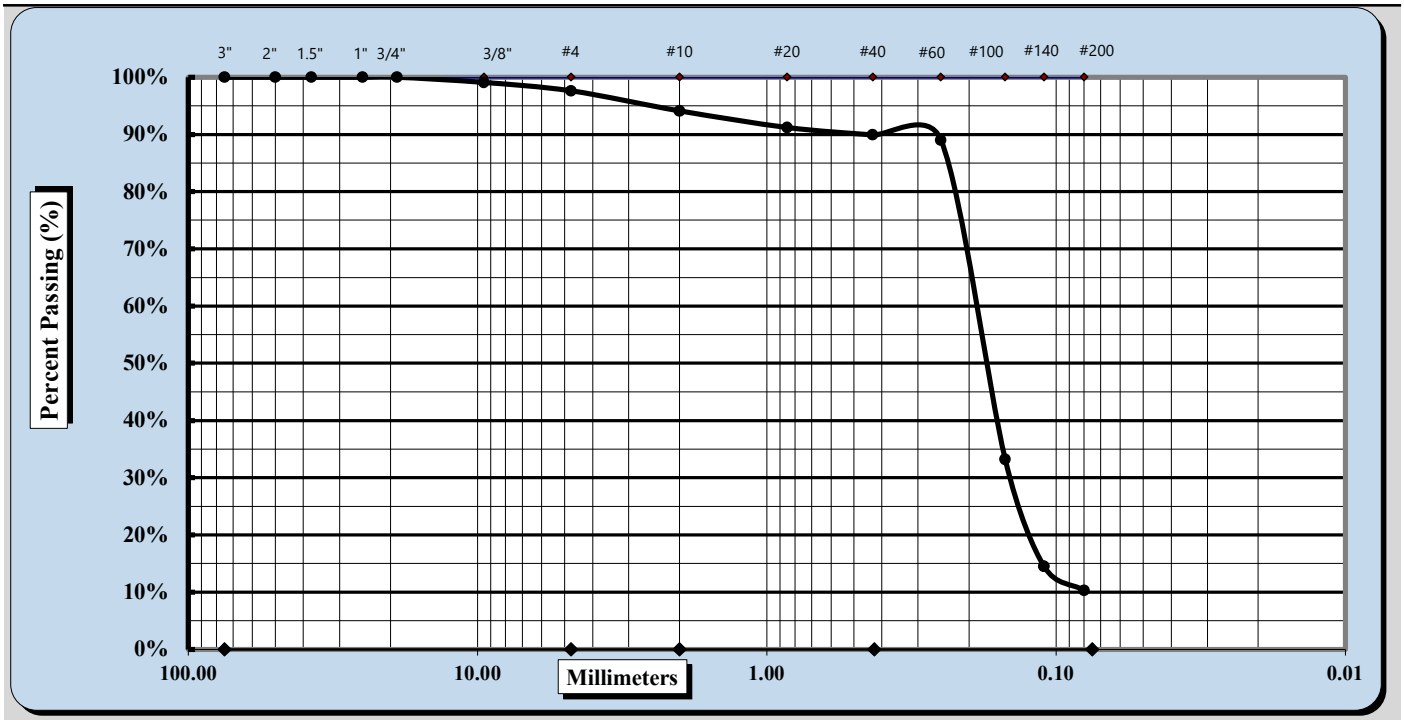
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-13	Depth: 24-26
Sample Description:	Gray Poorly Graded SAND with silt (SP-SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	3/8"	Coarse Sand	4%	Fine Sand	80%
Gravel	2%	Medium Sand	4%	Silt & Clay	10%
Liquid Limit	NP	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	34.1%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

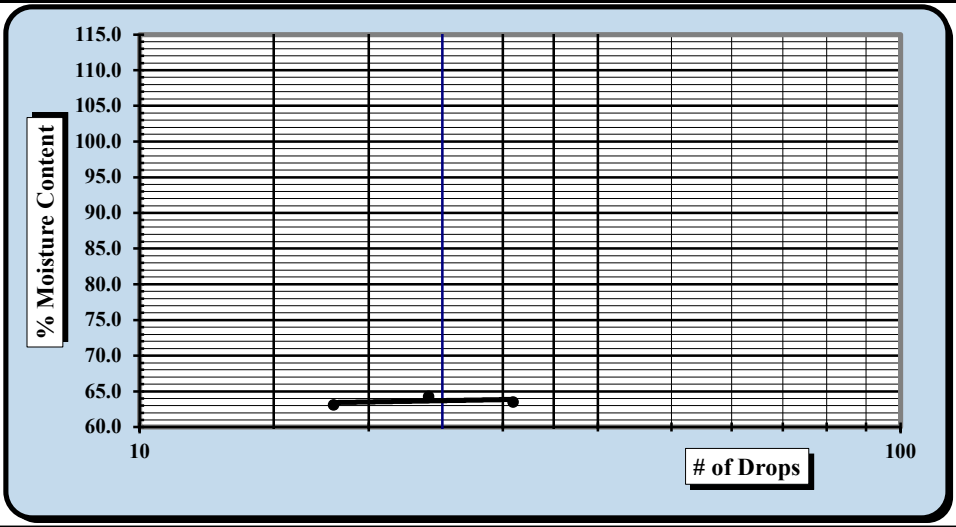
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-14	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 26-28
Sample Description:	Blue Gray Fat CLAY with sand (CH)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	AA	16	000				u6	a7	
A	Tare Weight	21.86	20.84	20.31				20.15	20.09	
B	Wet Soil Weight + A	36.69	40.20	40.94				25.48	25.85	
C	Dry Soil Weight + A	30.95	32.62	32.93				24.33	24.70	
D	Water Weight (B-C)	5.74	7.58	8.01				1.15	1.15	
E	Dry Soil Weight (C-A)	9.09	11.78	12.62				4.18	4.61	
F	% Moisture (D/E)*100	63.1%	64.3%	63.5%				27.5%	24.9%	
N	# OF DROPS	18	24	31				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**26.2%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**64**
Plastic Limit	**26**
Plastic Index	**38**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

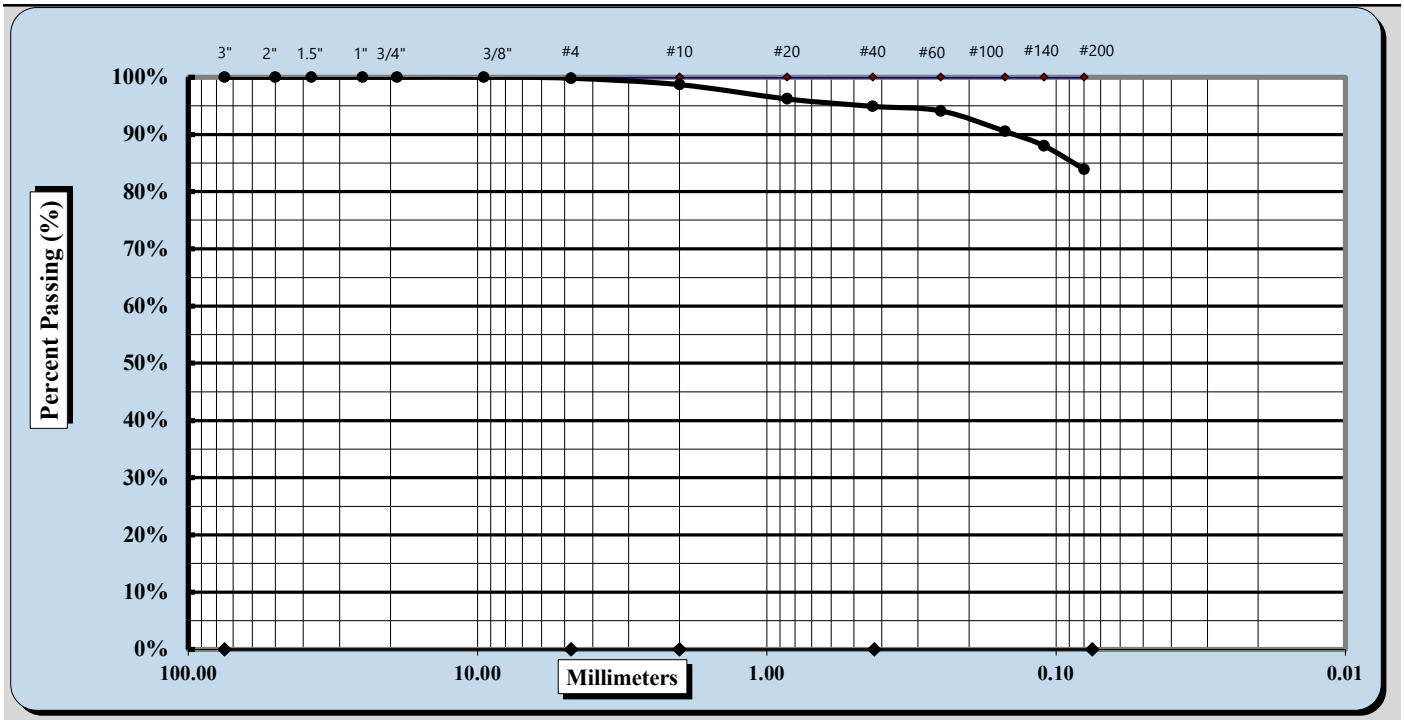
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-14	Depth: 26-28
Sample Description:	Blue Gray Fat CLAY with sand (CH)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	11%
Gravel	0%	Medium Sand	4%	Silt & Clay	84%
Liquid Limit	64	Plastic Limit	26	Plastic Index	38
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	60.6%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

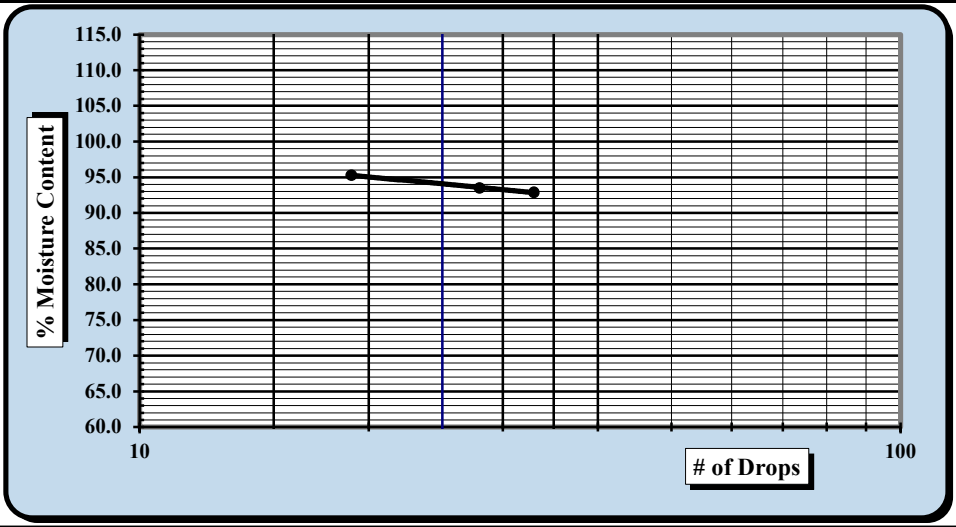
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-15		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 28-30	
Sample Description:	Blue Gray Fat CLAY with sand (CH)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	jjj	13	07				f8	3	
A	Tare Weight	20.40	20.71	20.90				19.63	21.45	
B	Wet Soil Weight + A	31.32	33.58	33.44				24.68	25.36	
C	Dry Soil Weight + A	26.06	27.36	27.32				23.33	24.31	
D	Water Weight (B-C)	5.26	6.22	6.12				1.35	1.05	
E	Dry Soil Weight (C-A)	5.66	6.65	6.42				3.70	2.86	
F	% Moisture (D/E)*100	92.9%	93.5%	95.3%				36.5%	36.7%	
N	# OF DROPS	33	28	19				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**36.6%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**94**
Plastic Limit	**37**
Plastic Index	**57**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

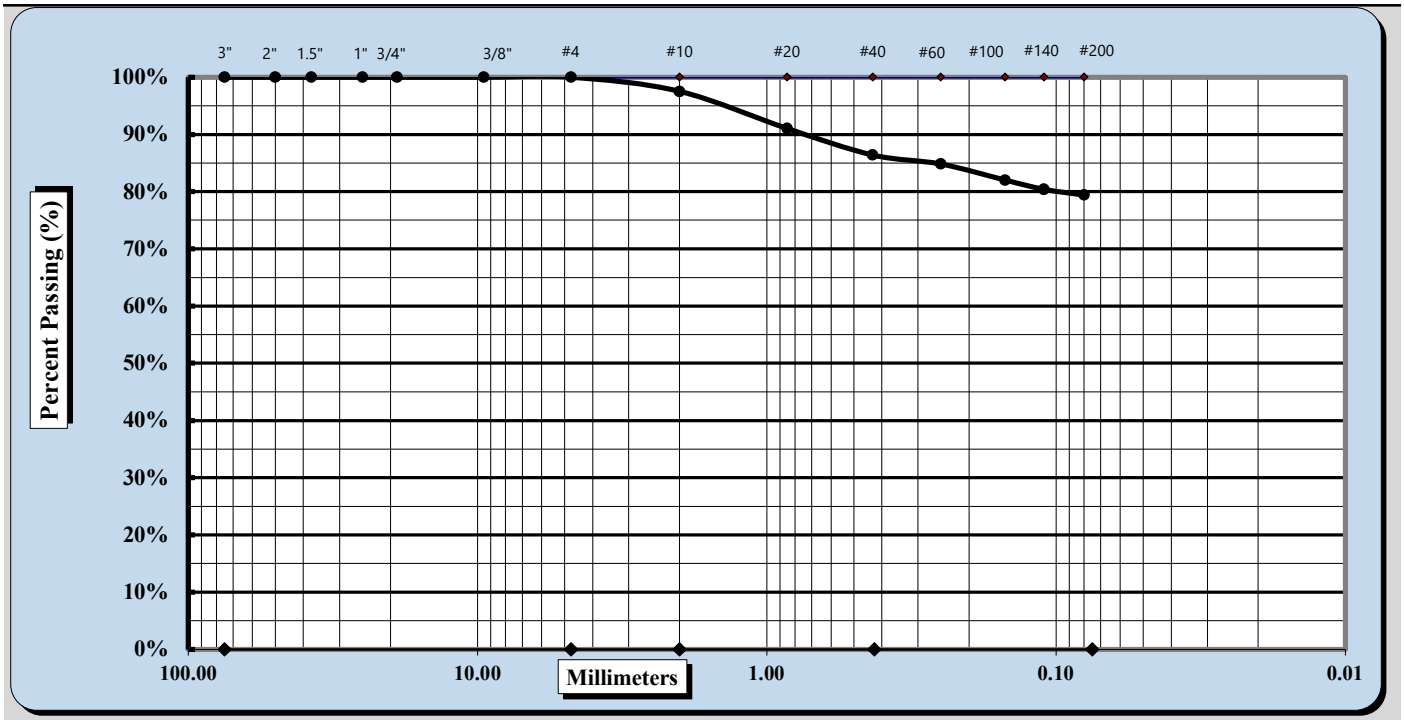
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-15	Depth: 28-30
Sample Description:	Blue Gray Fat CLAY with sand (CH)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#10	Coarse Sand	3%	Fine Sand	7%
Gravel	0%	Medium Sand	11%	Silt & Clay	79%
Liquid Limit	94	Plastic Limit	37	Plastic Index	57
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	78.3%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino	Senior Engineer	6/8/23
Technical Responsibility	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

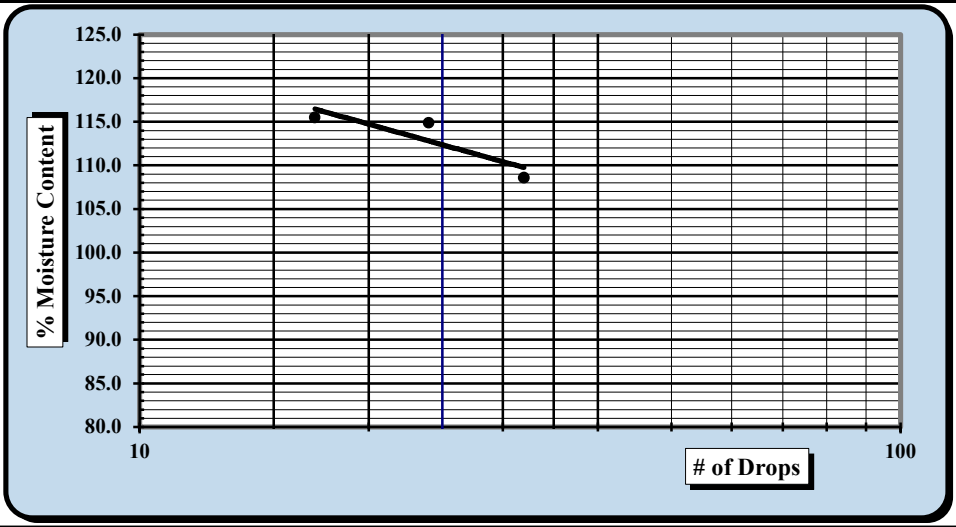
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-16		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 30-32	
Sample Description:	Blue Gray Fat CLAY (CH)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	58	t24	ntz				vb	26	
A	Tare Weight	20.65	22.21	20.77				19.71	19.04	
B	Wet Soil Weight + A	35.61	38.37	39.13				24.90	23.90	
C	Dry Soil Weight + A	27.82	29.73	29.29				23.37	22.51	
D	Water Weight (B-C)	7.79	8.64	9.84				1.53	1.39	
E	Dry Soil Weight (C-A)	7.17	7.52	8.52				3.66	3.47	
F	% Moisture (D/E)*100	108.6%	114.9%	115.5%				41.8%	40.1%	
N	# OF DROPS	32	24	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**41.0%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**113**
Plastic Limit	**41**
Plastic Index	**72**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

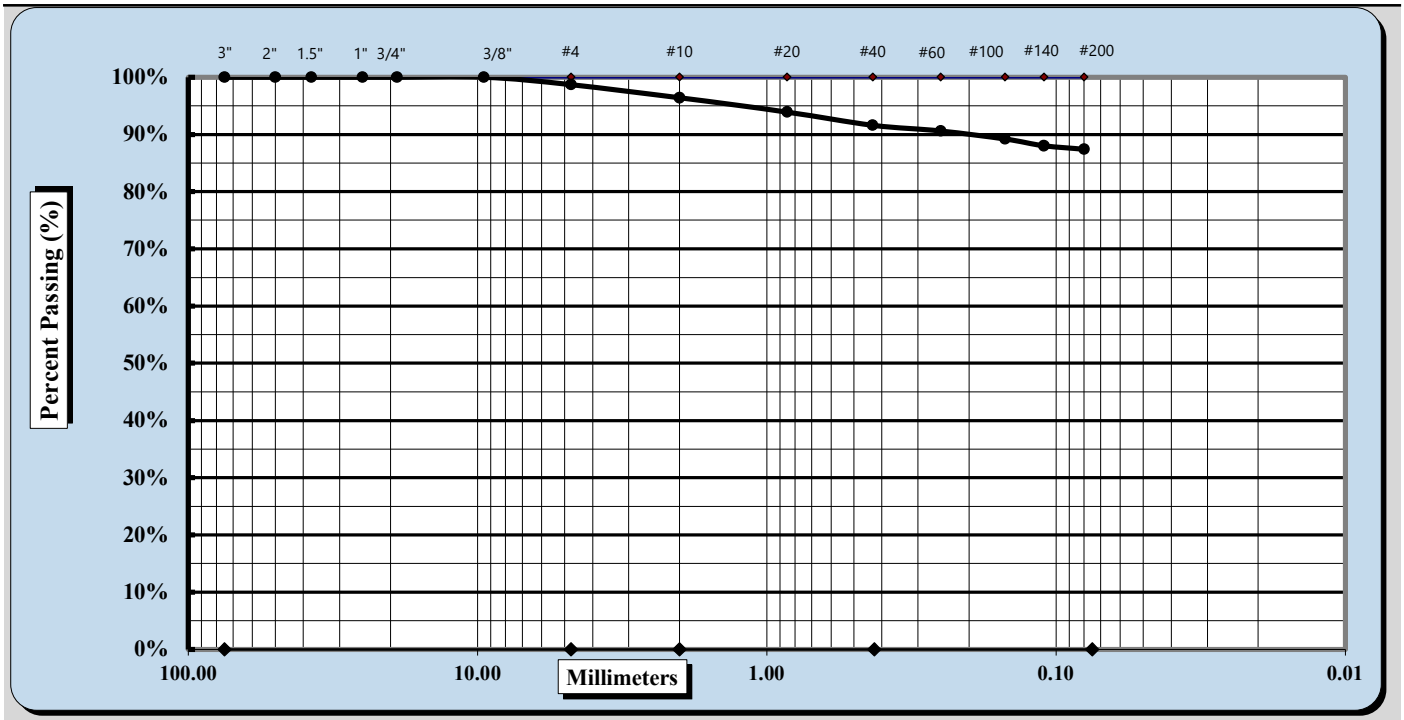
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-16	Depth: 30-32
Sample Description:	Blue Gray Fat CLAY (CH)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	2%	Fine Sand	4%
Gravel	1%	Medium Sand	5%	Silt & Clay	87%
Liquid Limit	113	Plastic Limit	41	Plastic Index	72
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	94.3%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

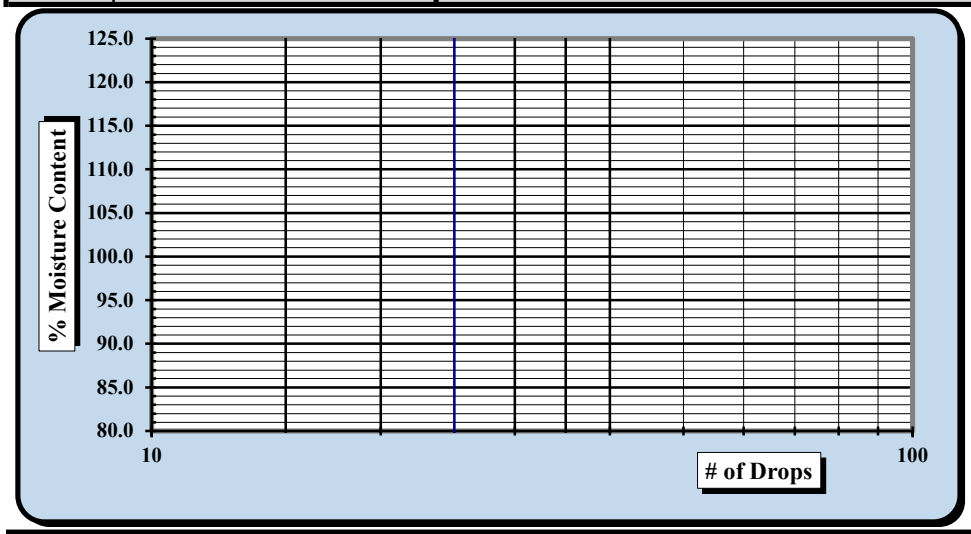
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-17	Sample Date: March 2023
Location:	Embankment	Offset: N/A	Depth: 32-34
Sample Description:	Black and Gray Silty SAND (SM)		

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan # / Tare #:	Liquid Limit						Plastic Limit		
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

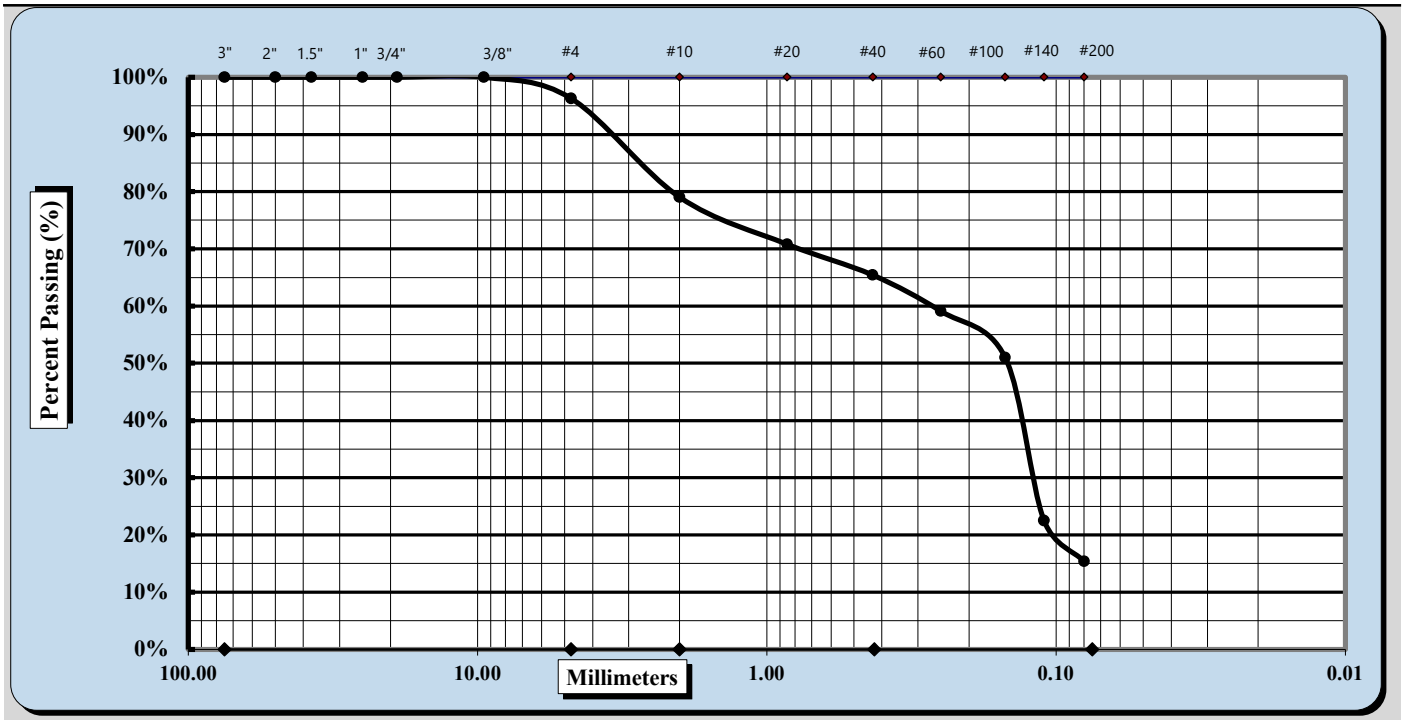
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-17	Depth: 32-34
Sample Description:	Black and Gray Silty SAND (SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	17%	Fine Sand	50%
Gravel	4%	Medium Sand	14%	Silt & Clay	15%
Liquid Limit	0.15	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	91.8%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

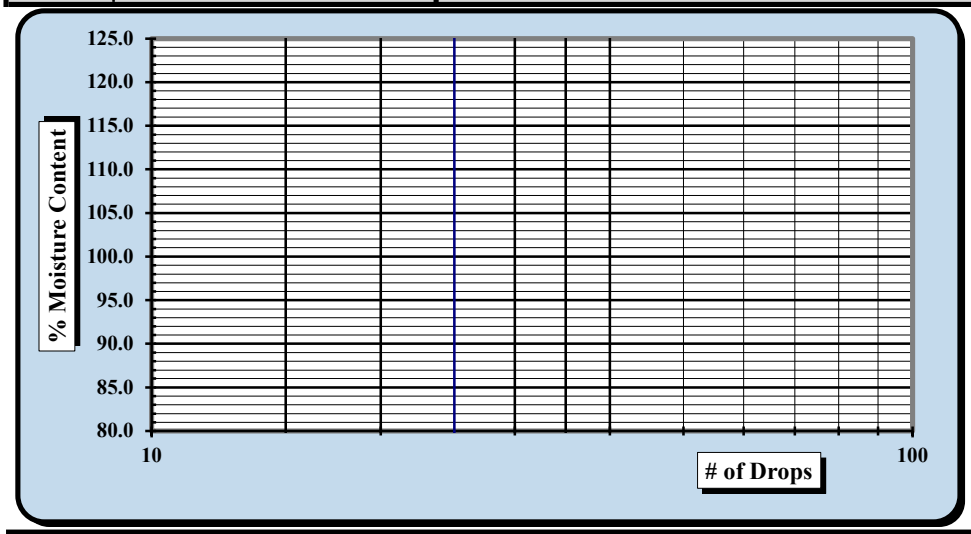
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-18		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 34-36	
Sample Description:	Dark Brown and Black Poorly Graded SAND (SP-SM)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

		Liquid Limit						Plastic Limit		
Pan #	Tare #:									
A	Tare Weight									
B	Wet Soil Weight + A									
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*									



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☒

Liquid Limit	**NP**
Plastic Limit	**NP**
Plastic Index	**NP**
Group Symbol	**ML**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

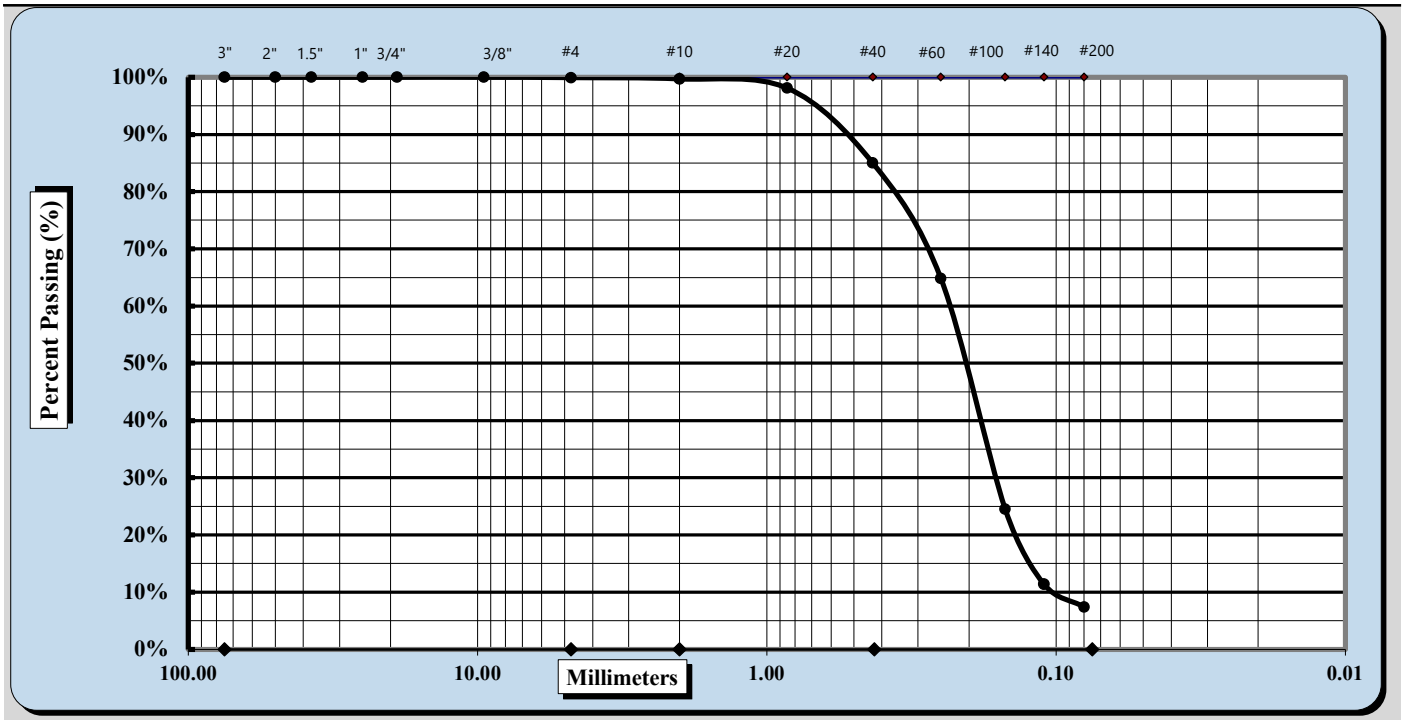
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-18	Depth: 34-36
Sample Description:	Dark Brown and Black Poorly Graded SAND (SP-SM)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	0%	Fine Sand	78%
Gravel	0%	Medium Sand	15%	Silt & Clay	7%
Liquid Limit	0.07	Plastic Limit	NP	Plastic Index	NP
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	NP
Optimum Moisture	ND	Natural Moisture	28.5%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

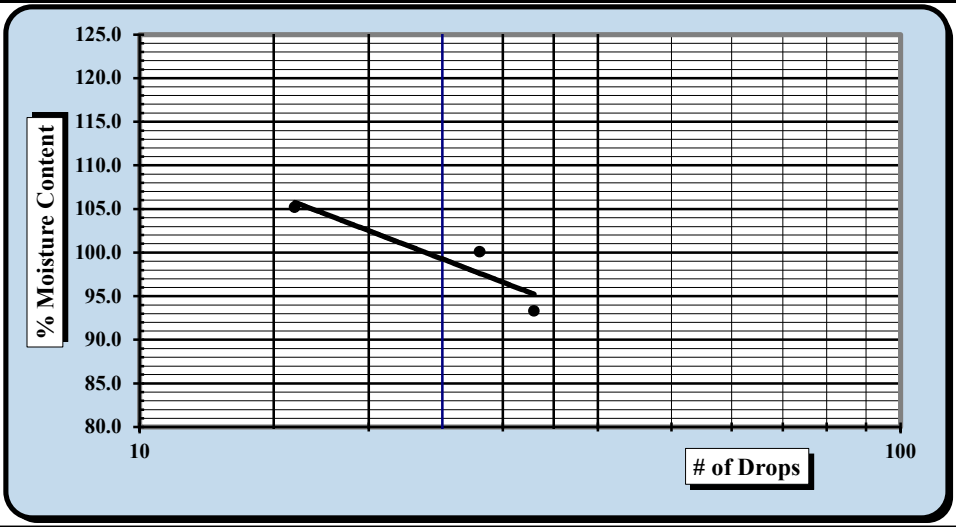
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-19		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 36-38	
Sample Description:	Gray Orange Sandy Fat CLAY (CH)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	k6	bbb	c3				07	13	
A	Tare Weight	20.58	21.62	21.64				20.89	20.70	
B	Wet Soil Weight + A	38.38	39.01	36.93				25.69	25.04	
C	Dry Soil Weight + A	29.79	30.31	29.09				24.30	23.78	
D	Water Weight (B-C)	8.59	8.70	7.84				1.39	1.26	
E	Dry Soil Weight (C-A)	9.21	8.69	7.45				3.41	3.08	
F	% Moisture (D/E)*100	93.3%	100.1%	105.2%				40.8%	40.9%	
N	# OF DROPS	33	28	16				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**40.9%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**99**
Plastic Limit	**41**
Plastic Index	**58**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

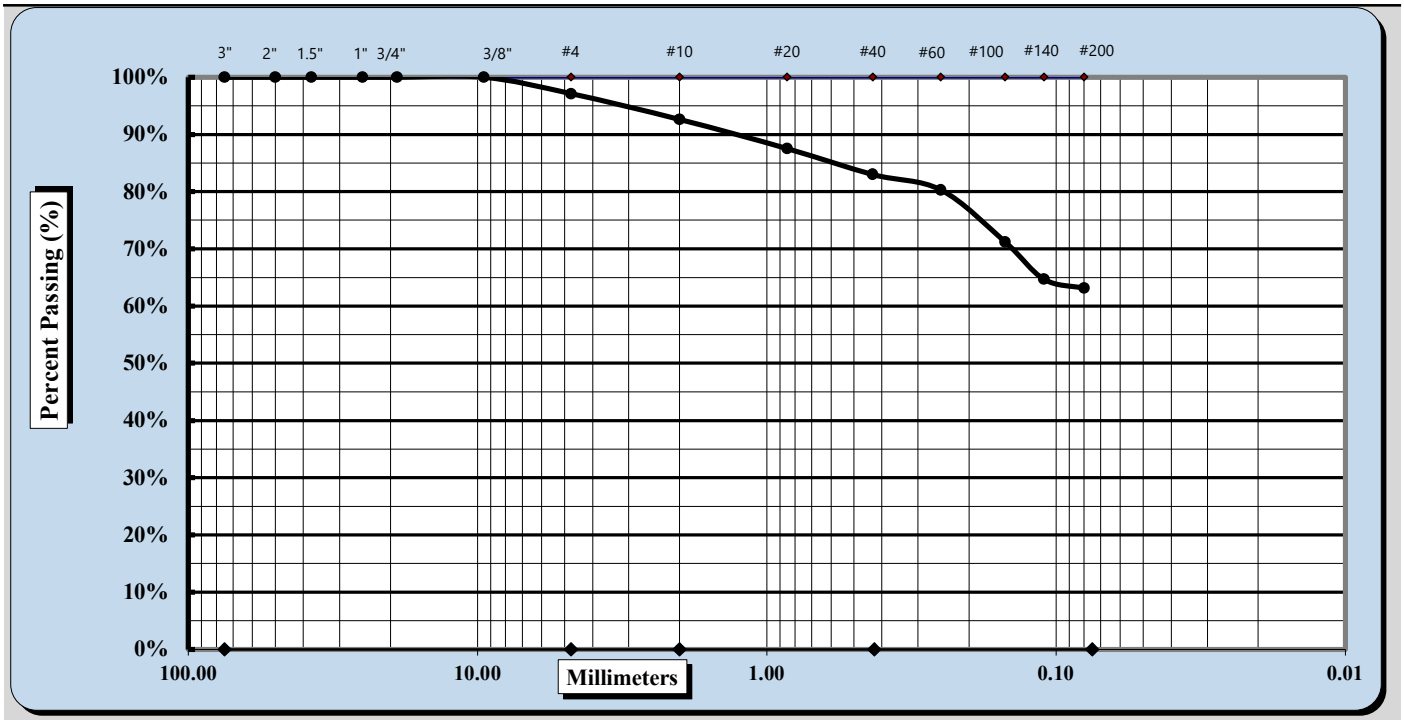
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-19	Depth: 36-38
Sample Description:	Gray Orange Sandy Fat CLAY (CH)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#4	Coarse Sand	4%	Fine Sand	20%
Gravel	3%	Medium Sand	10%	Silt & Clay	63%
Liquid Limit	99	Plastic Limit	41	Plastic Index	58
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	75.7%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

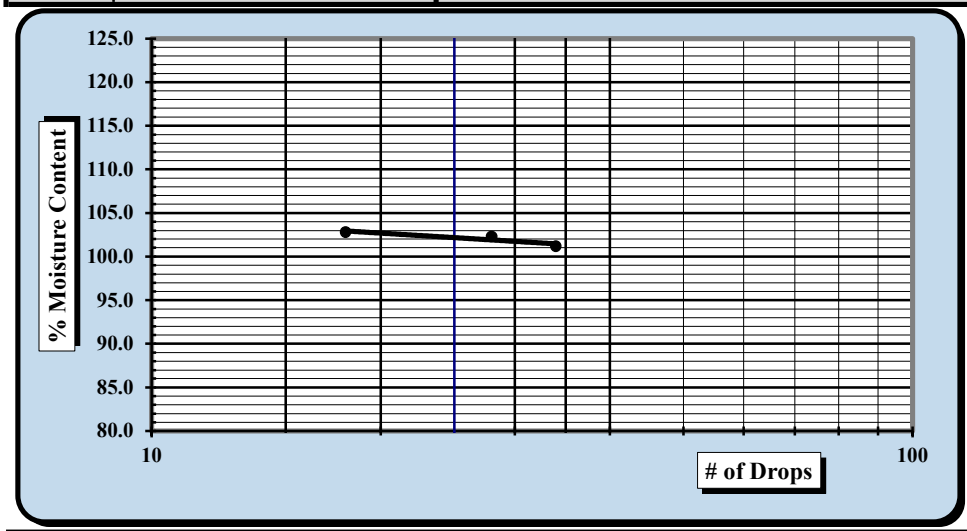
S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Report Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Test Date(s)	5/18-31/23
Client Name:	CDM Smith		
Client Address:	1441 Main St., Suite 1000, Columbia SC 29201		

Boring #:	EMB13	Sample #: SS-20		Sample Date: March 2023	
Location:	Embankment	Offset: N/A		Depth: 38-40	
Sample Description:	Dark Gray Orange Sandy Fat CLAY (CH)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	06976	1/3/2023	Grooving tool	36037	8/17/2022
LL Apparatus	06238	7/31/2022	Grooving tool	36038	8/17/2022
Oven	13796	9/27/2022	Grooving tool		

	Pan #	Liquid Limit						Plastic Limit		
	Tare #:	3	a7	jjj				j9	00	
A	Tare Weight	21.45	20.08	20.41				20.87	20.56	
B	Wet Soil Weight + A	33.38	33.23	32.90				25.55	24.98	
C	Dry Soil Weight + A	27.38	26.58	26.57				24.25	23.75	
D	Water Weight (B-C)	6.00	6.65	6.33				1.30	1.23	
E	Dry Soil Weight (C-A)	5.93	6.50	6.16				3.38	3.19	
F	% Moisture (D/E)*100	101.2%	102.3%	102.8%				38.5%	38.6%	
N	# OF DROPS	34	28	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**38.6%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**102**
Plastic Limit	**39**
Plastic Index	**63**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☑ Dry Preparation ☐ Air Dried ☐

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Dawn Tomberlin	6/8/23	Marc D. Cerino	6/8/23
Technician Name	*Date*	*Technical Responsibility*	*Date*

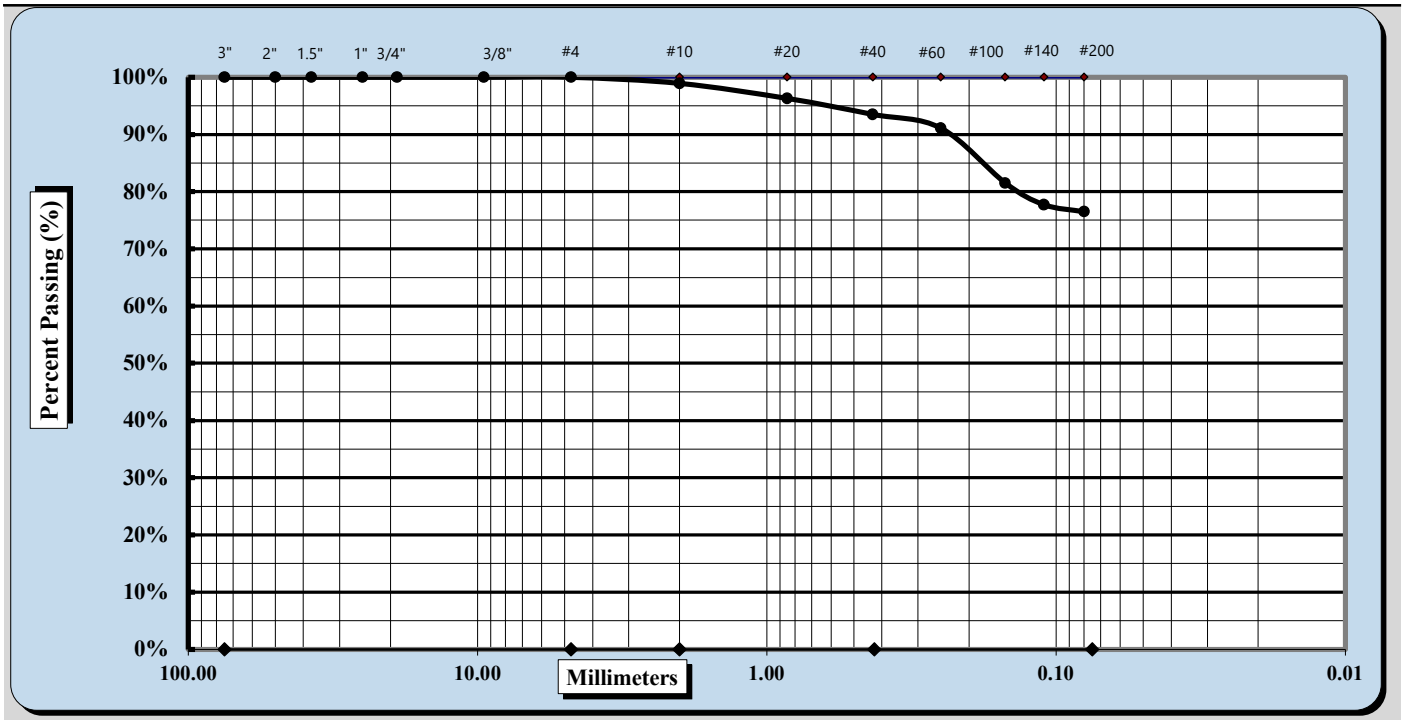
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Charleston: 620 Wando Park Boulevard, Mt. Pleasant, SC 29464

Project #:	200424A	Record Date:	6/8/23
Project Name:	I-526/Longpoint Rd. Interchange	Lab Report #:	
Client Name:	CDM Smith	Date Received:	5/1/23
Received By:	lab	Sampled by: Soil Consultants, Inc.	Date Sampled: March 2023
Location:	Embankment		
Boring #:	EMB13	Sample #: SS-20	Depth: 38-40
Sample Description:	Dark Gray Orange Sandy Fat CLAY (CH)		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: oven-dried Dispersion Process: without dispersant

Maximum Particle Size	#10	Coarse Sand	1%	Fine Sand	17%
Gravel	0%	Medium Sand	5%	Silt & Clay	77%
Liquid Limit	102	Plastic Limit	39	Plastic Index	63
Maximum Dry Density	ND	Bulk Gravity (C127)	ND	% Absorption	ND
Optimum Moisture	ND	Natural Moisture	79.0%	CBR	ND

Notes / Deviations / References: ND = not determined, NP = non plastic

Marc D. Cerino — *Technical Responsibility*
Senior Engineer — *Position*
6/8/23 — *Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D2216-T265-1
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s):	8/14/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		
Sample by:	S&ME	Sample Date(s):	8/13/2025

Method: **A (1%)** ☐ **B (0.1%)** ☑ Balance ID. 33377 Calibration Date: 2/10/25 Oven ID. 17745 Calibration Date: 9/27/24

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture	Note
		ft. or m.		grams	grams	grams	grams	%	
EMB-14 SPT	S-8	28.5'-30'	VWX	82.0	142.7	113.8	28.90	90.9%	
EMB-14 SPT	S-10	38.5'-40'	NNN	82.0	201.8	167.2	34.60	40.6%	
EMB-14 SPT	S-13	53.5'-55'	JKL	80.5	222.7	185.6	37.10	35.3%	
EMB-14 SPT	S-14	58.5'-60'	Aimee	76.9	166.7	136.8	29.90	49.9%	

Notes / Deviations / References

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Jason S. McGough	*Jason S. Mcgough*	Lab Supervisor	8/22/2025
		Position	*Date*
Andrew Fiehler, PE		Sr. Engineer	8/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No TR-D6913-GR-01
Revision No. 1
Revision Date: 9/5/17

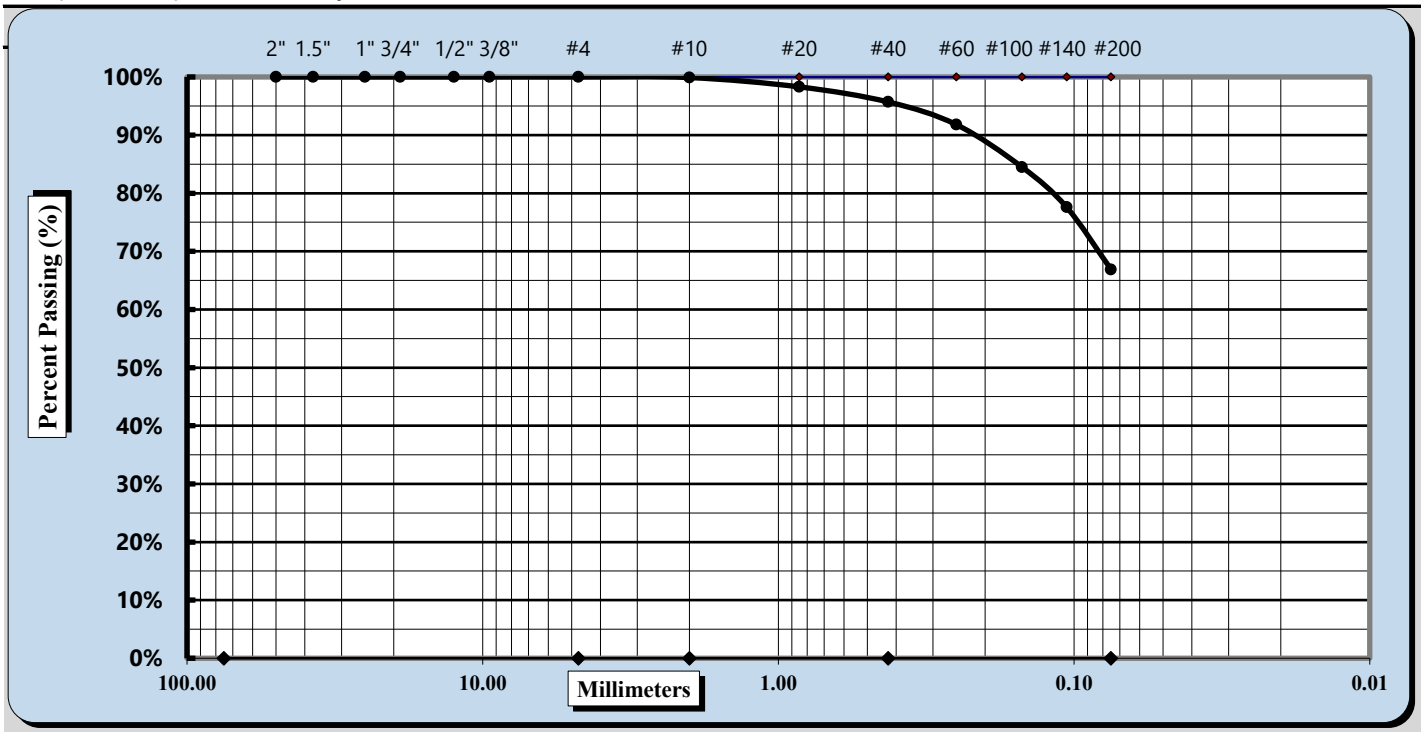
SIEVE ANALYSIS OF SOIL

Single sieve set *ASTM D 6913*

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A			Report Date:	8/26/25
Project Name:	I-526 / Long Point Road Interchange			Test Date(s):	8/25 - 8/26/25
Client Name:	CDM Smith				
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201				
Boring #:	EMB 14	Log #:	40g	Sample Date(s):	6/17 - 6/24/25
Location:	Undisturbed	Type:	Undisturbed	Depth:	25 - 27'

Sample Description: sandy lean CLAY [CL / A-7-6(13)]



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: B Procedure for obtaining Specimen: Moist

Maximum Particle Size	2.00 mm	Coarse Sand	0.1%	Fine Sand	28.8%
Gravel	0.0%	Medium Sand	4.2%	Silt & Clay	66.9%
Liquid Limit	47	Plastic Limit	26	Plastic Index	21
		Natural Moisture	N/A		

Notes / Deviations / References:

Brian Vaughan, P.E.		QA Supervisor	8/26/25
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ *AASHTO T 89* ☐ *AASHTO T 90* ☐

S&ME, Inc. - Greenville 48 Brookfield Oaks Dr., Suite F Greenville, SC 29607

Project #:	200424A	Report Date:	8/26/25
Project Name:	I-526 / Long Point Road Interchange	Test Date:	8/26/25
Client Name:	CDM Smith		
Client Address:	1441 Main Street, Suite 1000 Columbia, SC 29201		

Boring #:	EMB 14	Log #:	40g	Sample Date:	6/17 - 6/24/25
Location:	Undisturbed	Type:	Undisturbed	Depth:	25 - 27'

Sample Description: sandy lean CLAY [CL / A-7-6(13)]

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	13942	10/30/2024	Grooving tool	23119	10/15/2024
LL Apparatus	23158	7/18/2024			
Oven	13978	10/1/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4	5	
A	Tare Weight	26.70	26.50	26.33				25.90	26.92	
B	Wet Soil Weight + A	43.81	42.44	42.77				32.47	33.04	
C	Dry Soil Weight + A	38.55	37.37	37.25				31.11	31.77	
D	Water Weight (B-C)	5.26	5.07	5.52				1.36	1.27	
E	Dry Soil Weight (C-A)	11.85	10.87	10.92				5.21	4.85	
F	% Moisture (D/E)*100	44.4%	46.6%	50.5%				26.1%	26.2%	
N	# OF DROPS	35	25	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**26.2%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**47**
Plastic Limit	**26**
Plastic Index	**21**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑ *% Passing the #200 Sieve:* 66.9%

Notes / Deviations / References: Group symbol for minus No. 40 sieve portion only.

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

Benjamin J. Kovaleski	8/26/25	Brian Vaughan, P.E.	8/26/25
Technician Name	*Date*	*Technical Responsibility*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

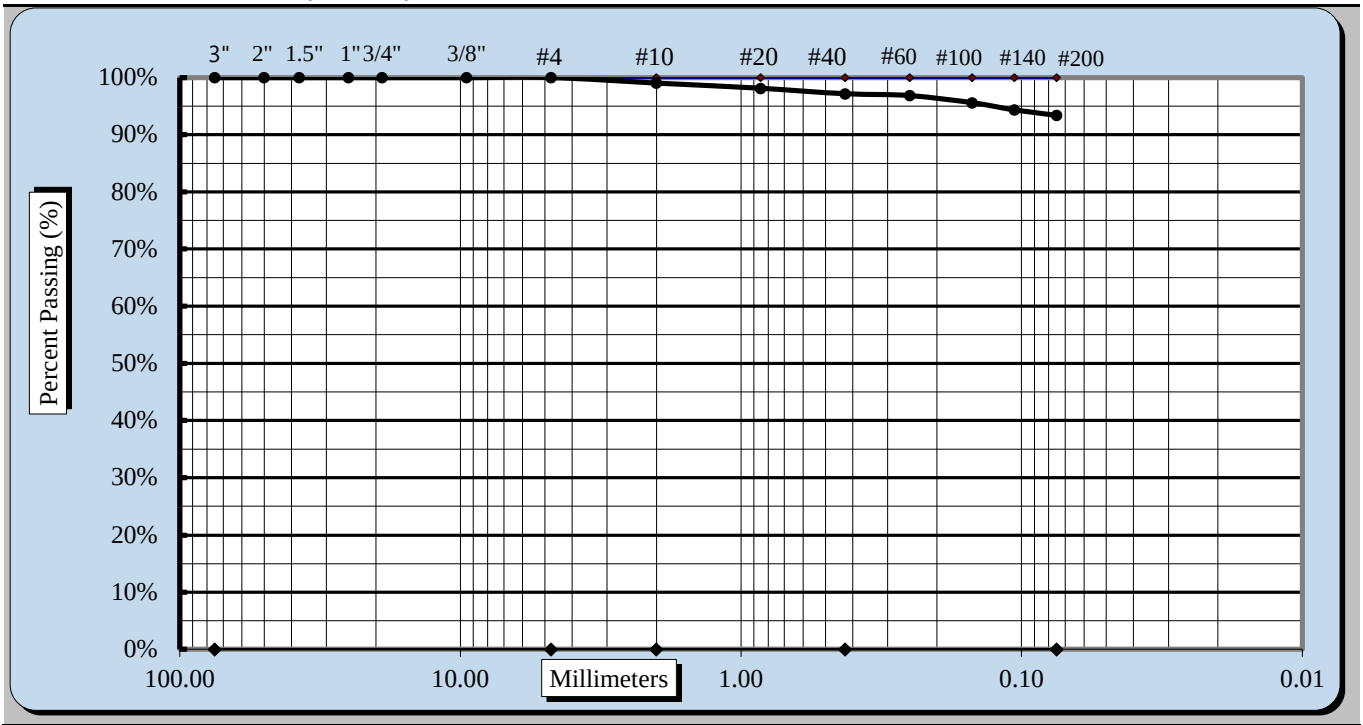
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	EMB-14 Sample #: S-8	Depth:	28.5'-30'
Location:	SPT		
Sample Description:	Gray Fat Clay (CH) A-7-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	4%
Gravel	0%	Medium Sand	2%	Silt & Clay	93%
Liquid Limit	68	Plastic Limit	32	Plastic Index	36
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	90.9%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/7/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	EMB-14	Sample #:	S-8	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	28.5'-30'
Sample Description:	Gray Fat Clay (CH) A-7-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	36	88	15				43	58	
A	Tare Weight	14.58	14.62	14.61				14.57	14.60	
B	Wet Soil Weight + A	31.55	31.62	31.77				21.94	21.99	
C	Dry Soil Weight + A	24.88	24.72	24.64				20.13	20.19	
D	Water Weight (B-C)	6.67	6.90	7.13				1.81	1.80	
E	Dry Soil Weight (C-A)	10.30	10.10	10.03				5.56	5.59	
F	% Moisture (D/E)*100	64.8%	68.3%	71.1%				32.6%	32.2%	
N	# OF DROPS	33	26	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**32.4%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**68**
Plastic Limit	**32**
Plastic Index	**36**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

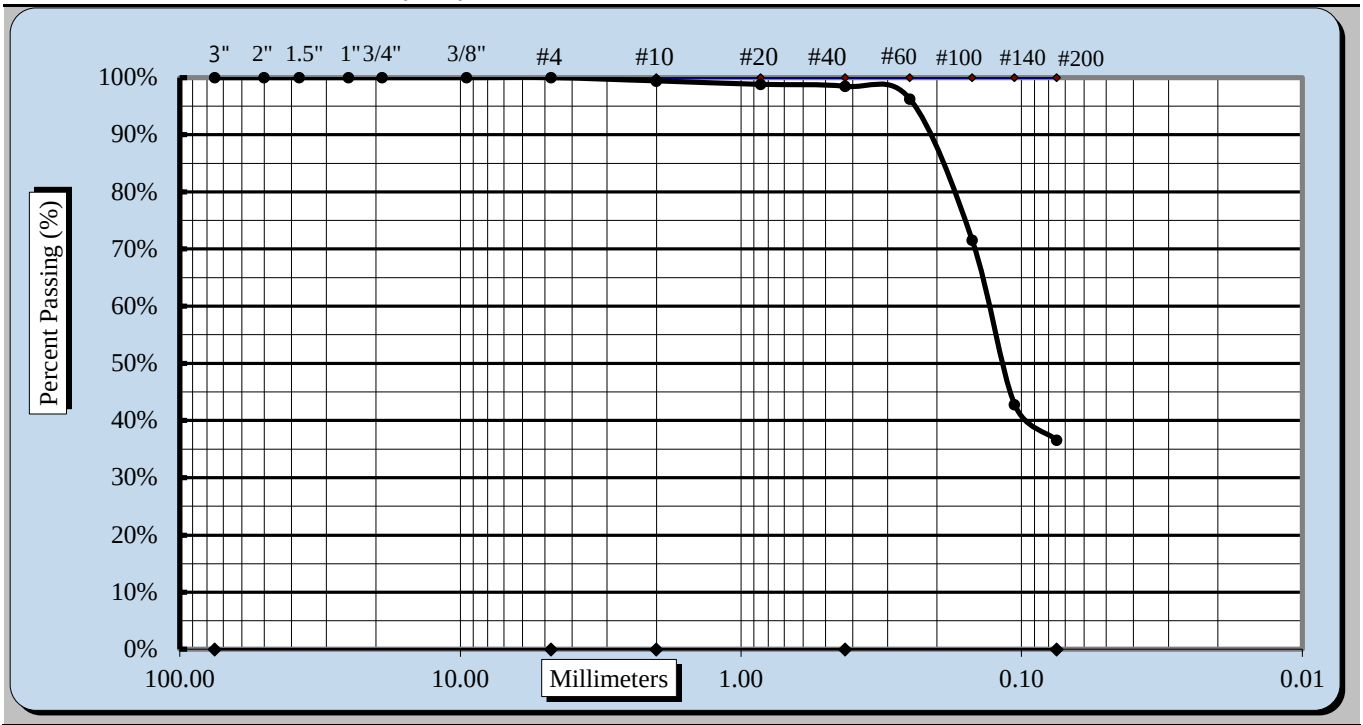
This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	EMB-14 Sample #: S-10	Depth:	38.5'-40'
Location:	SPT		
Sample Description:	Brown Sandy Clay (SC) A-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	1%	Fine Sand	62%
Gravel	0%	Medium Sand	1%	Silt & Clay	37%
Liquid Limit	35	Plastic Limit	18	Plastic Index	17
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	40.6%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	8/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

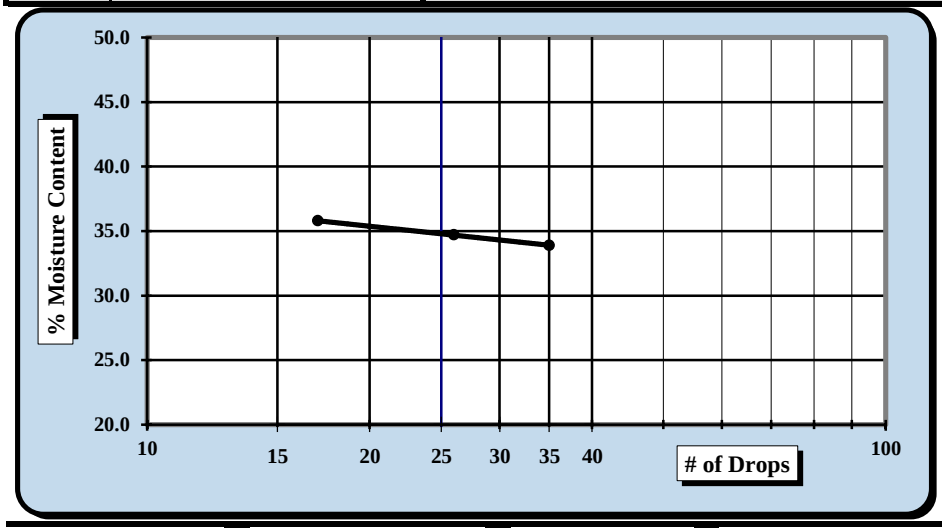
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/8/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	EMB-14	Sample #:	S-10	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	38.5'-40'
Sample Description:	Brown Sandy Clay (SC) A-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	2	19	37				21	5	
A	Tare Weight	14.58	14.57	14.56				14.57	14.57	
B	Wet Soil Weight + A	31.58	31.62	31.71				21.88	21.89	
C	Dry Soil Weight + A	27.28	27.23	27.19				20.76	20.77	
D	Water Weight (B-C)	4.30	4.39	4.52				1.12	1.12	
E	Dry Soil Weight (C-A)	12.70	12.66	12.63				6.19	6.20	
F	% Moisture (D/E)*100	33.9%	34.7%	35.8%				18.1%	18.1%	
N	# OF DROPS	35	26	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**18.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**35**
Plastic Limit	**18**
Plastic Index	**17**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr Engineer	8/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

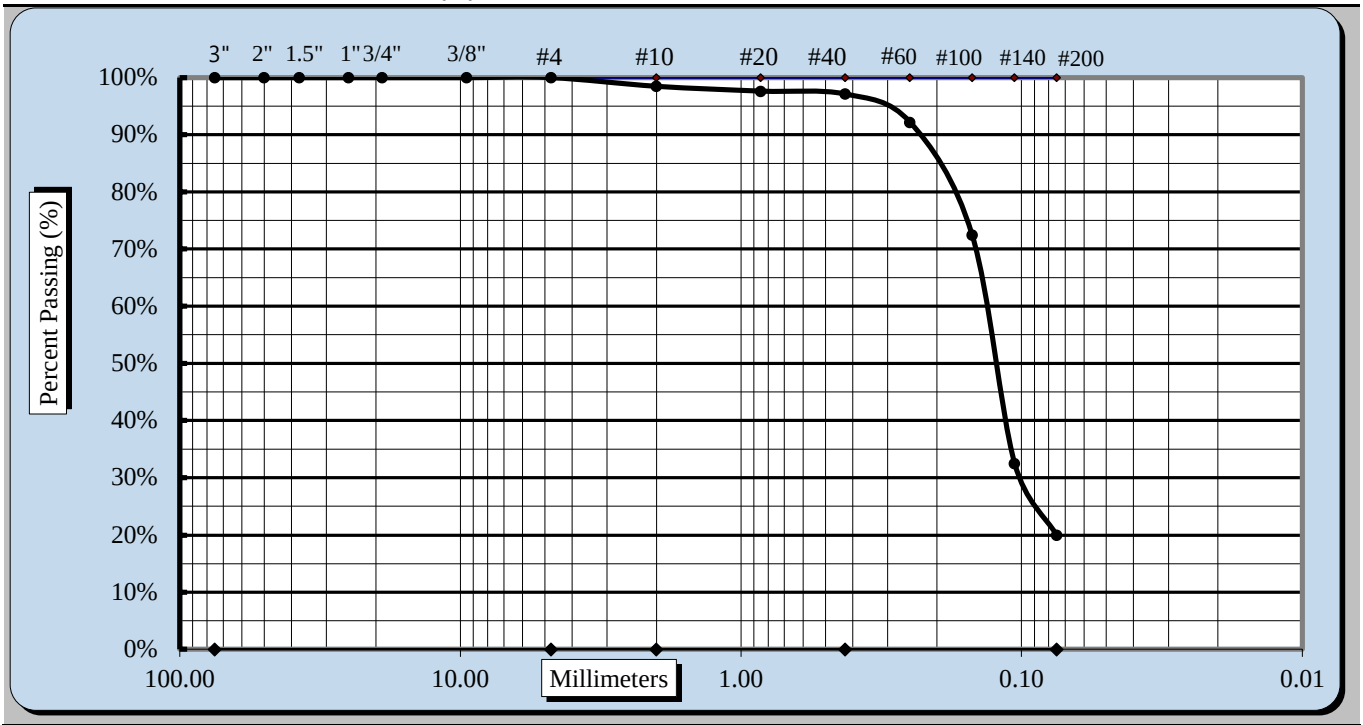
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	EMB-14 Sample #: S-13	Depth:	53.5'-55'
Location:	SPT		
Sample Description:	Dark Brown Clayey Sand (SC) A-2-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#4	Coarse Sand	2%	Fine Sand	77%
Gravel	0%	Medium Sand	1%	Silt & Clay	20%
Liquid Limit	29	Plastic Limit	11	Plastic Index	18
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	35.3%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

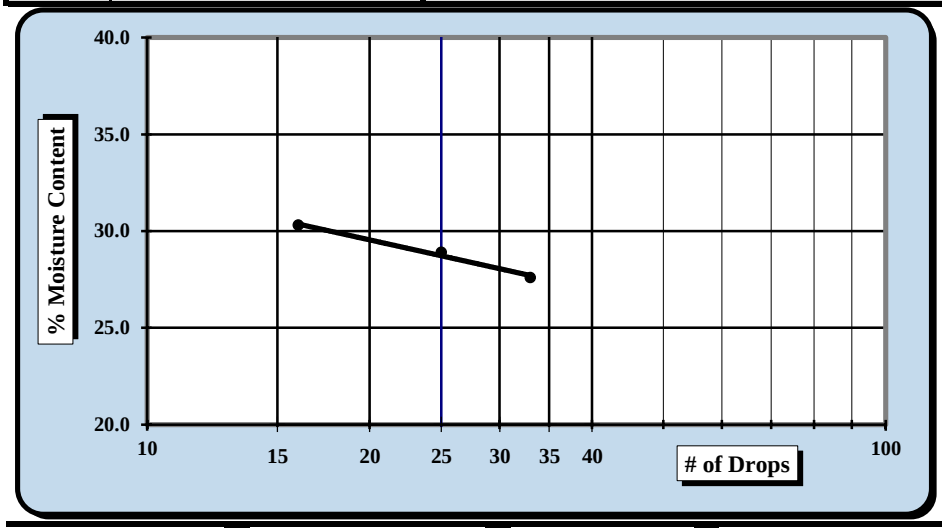
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/8/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	EMB-14	Sample #:	S-13	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	53.5'-55'
Sample Description:	Dark Brown Clayey Sand (SC) A-2-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	41	86	108				3	64	
A	Tare Weight	14.58	14.57	14.62				14.61	14.58	
B	Wet Soil Weight + A	31.84	31.92	32.07				21.64	21.66	
C	Dry Soil Weight + A	28.11	28.03	28.01				20.94	20.96	
D	Water Weight (B-C)	3.73	3.89	4.06				0.70	0.70	
E	Dry Soil Weight (C-A)	13.53	13.46	13.39				6.33	6.38	
F	% Moisture (D/E)*100	27.6%	28.9%	30.3%				11.1%	11.0%	
N	# OF DROPS	33	25	16				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**11.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**29**
Plastic Limit	**11**
Plastic Index	**18**
Group Symbol	**SC**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

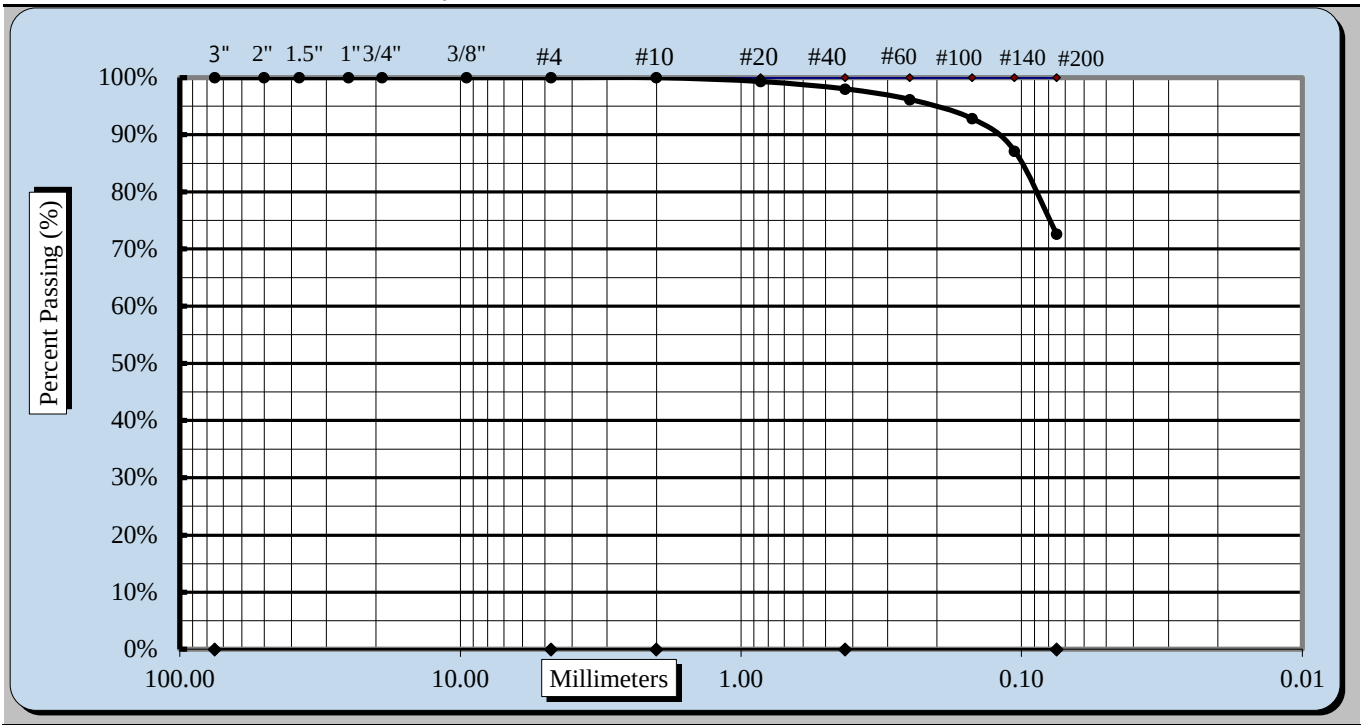
Form No TR-D6913-GR-01
Revision No. 2
Revision Date: 6/26/2025

SIEVE ANALYSIS OF SOIL

ASTM D6913

S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Record Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Lab #:	2085
Client Name:	CDM Smith	Test Date:	8/18/2025
Client Address:	1441 Main St; Columbia,	Date Sampled:	8/13/2025
Boring #:	EMB-14 Sample #: S-14	Depth:	58.5'-60'
Location:	SPT		
Sample Description:	Brown Lean Clay (CL) A-7-6		



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and >2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Method: A Procedure for obtaining Specimen: Moist Dispersion Process: ultrasonic apparatus

Maximum Particle Size	#10	Coarse Sand	0%	Fine Sand	25%
Gravel	0%	Medium Sand	2%	Silt & Clay	73%
Liquid Limit	48	Plastic Limit	15	Plastic Index	33
Maximum Dry Density	--	Bulk Gravity (C127)	--	% Absorption	--
Optimum Moisture	--	Natural Moisture	49.9%	CBR	--

Notes / Deviations / References:

Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

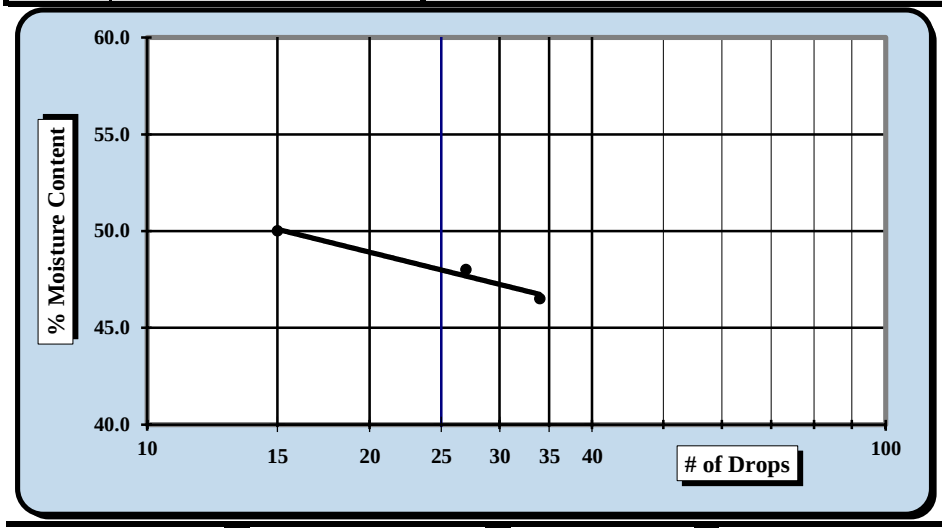
S&ME, Inc. - Myrtle Beach: 1330 Highway 501 Business, Conway, SC 29526

Project #:	200424A	Report Date:	8/22/2025
Project Name:	I-526 Longpoint Road Interchange	Test Date(s)	8/8/2025
Client Name:	CDM Smith		
Client Address:	1441 Main St; Columbia, SC 29201		

Boring #:	EMB-14	Sample #:	S-14	Sample Date:	8/13/2025
Location:	SPT	LAB #:	2085	Depth:	58.5'-60'
Sample Description:	Brown Lean Clay (CL) A-7-6				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	36158	10/3/2024	Grooving tool	36156	8/10/2025
LL Apparatus	18801	2/5/2025			
Oven	17745	9/25/2024			

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	71	18	54				82	109	
A	Tare Weight	14.61	14.60	14.57				14.58	14.59	
B	Wet Soil Weight + A	31.58	31.62	31.77				21.58	21.62	
C	Dry Soil Weight + A	26.19	26.10	26.04				20.66	20.67	
D	Water Weight (B-C)	5.39	5.52	5.73				0.92	0.95	
E	Dry Soil Weight (C-A)	11.58	11.50	11.47				6.08	6.08	
F	% Moisture (D/E)*100	46.5%	48.0%	50.0%				15.1%	15.6%	
N	# OF DROPS	34	27	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**15.4%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**48**
Plastic Limit	**15**
Plastic Index	**33**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation ☐ Dry Preparation ☑ Air Dried ☑

Notes / Deviations / References:

Jason S. McGough	*Jason S. McGough*	Lab Supervisor	8/22/2025
Technician	*Signature*	*Position*	*Date*
Andrew Fiehler, PE		Sr. Engineer	2/25/2025
Technical Responsibility	*Signature*	*Position*	*Date*

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/18/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring R01 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82517-6

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-R01
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
R01	SS-1	0.0	10.9		14.7	NP	NP	NP	SM	A-2-4
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring R01**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-6**

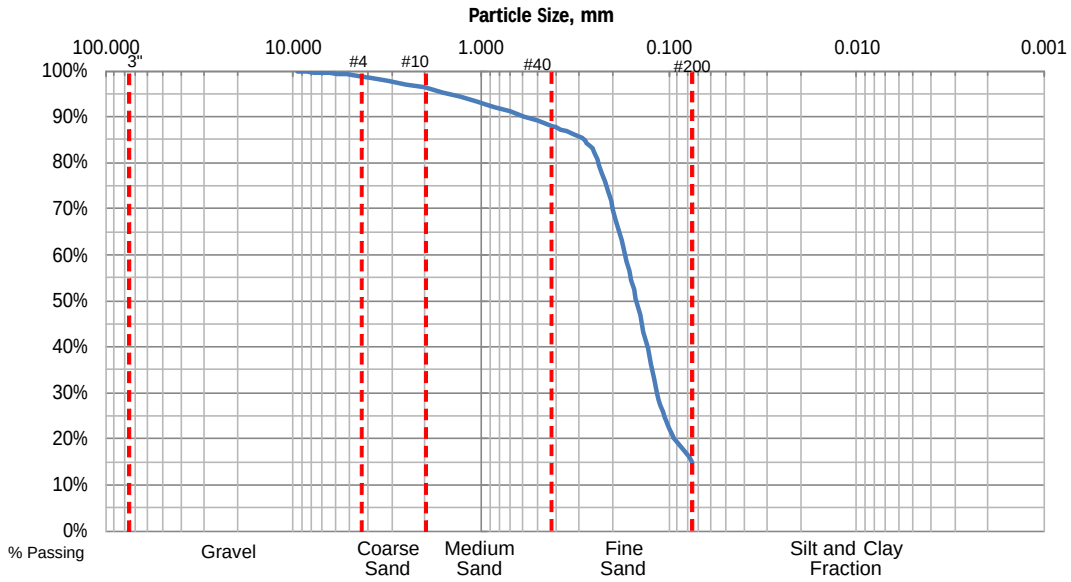
Client PO: 111563 **TEST RESULTS** **Report No: 82517-R01, SS-01**
Page 1 of 1

Sample Identification
R01, SS-1, 0 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	99
No. 10	2.00	96
No. 20	0.85	92
No. 40	0.425	88
No. 60	0.25	82
No. 100	0.18	51
No. 140	0.106	25
No. 200	0.075	14.7

Material	%
Gravel	0.9
Total Sand	84.4
Coarse Sand	2.7
Medium Sand	8.3
Fine Sand	73.4
Silt and Clay	14.7

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Silty Sand (SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring R05 **Order Number:**

Client: CDM SMITH

REPORT: Geotechnical Index Testing **LAB NO:** 82517-7

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-R05
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
R05	SS-1	0.0	11.8		11.0	NP	NP	NP	SP-SM	A-2-4
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring R05 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-7

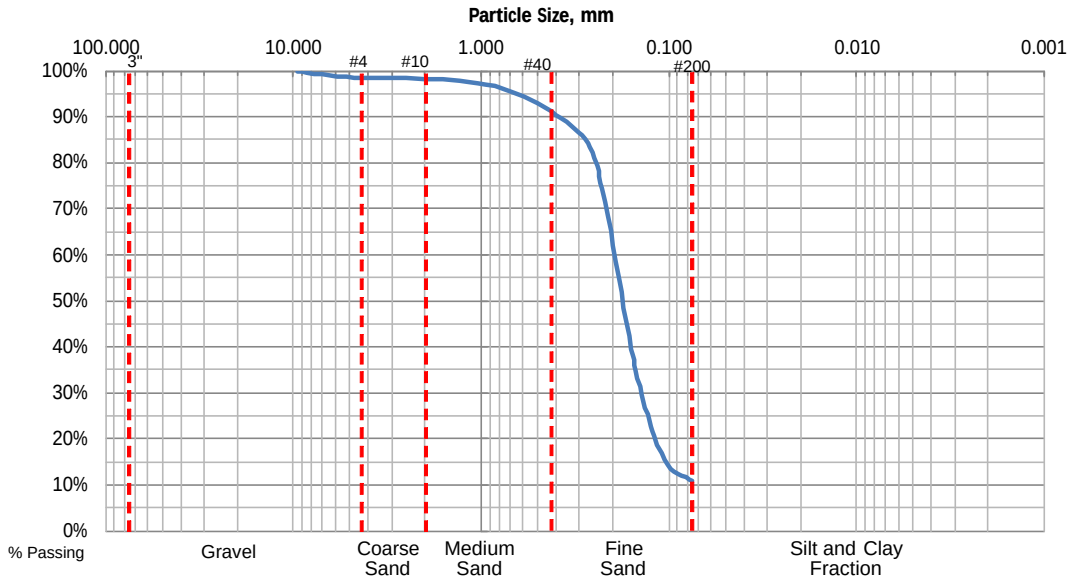
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-R05, SS-01
Page 1 of 1

Sample Identification
R05, SS-1, 0 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	99
No. 10	2.00	98
No. 20	0.85	97
No. 40	0.425	91
No. 60	0.25	81
No. 100	0.18	35
No. 140	0.106	16
No. 200	0.075	11.0
Coefficient of curvature, Cc		#DIV/0!
Coefficient of uniformity, Cu		#DIV/0!

Material	%
Gravel	1.3
Total Sand	87.7
Coarse Sand	0.3
Medium Sand	7.2
Fine Sand	80.3
Silt and Clay	11.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/18/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring R16 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82517-8

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-R16
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
R16	SS-1	0.0	17.7		10.7	NP	NP	NP	SP-SM	A-2-4
R16	SS-2	2.0	24.3		5.8	NP	NP	NP	SP-SM	A-3
R16	SS-3	4.0	35.2		13.6	NP	NP	NP	SM	A-2-4
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring R16 **Order Number:**

Client: CDM SMITH

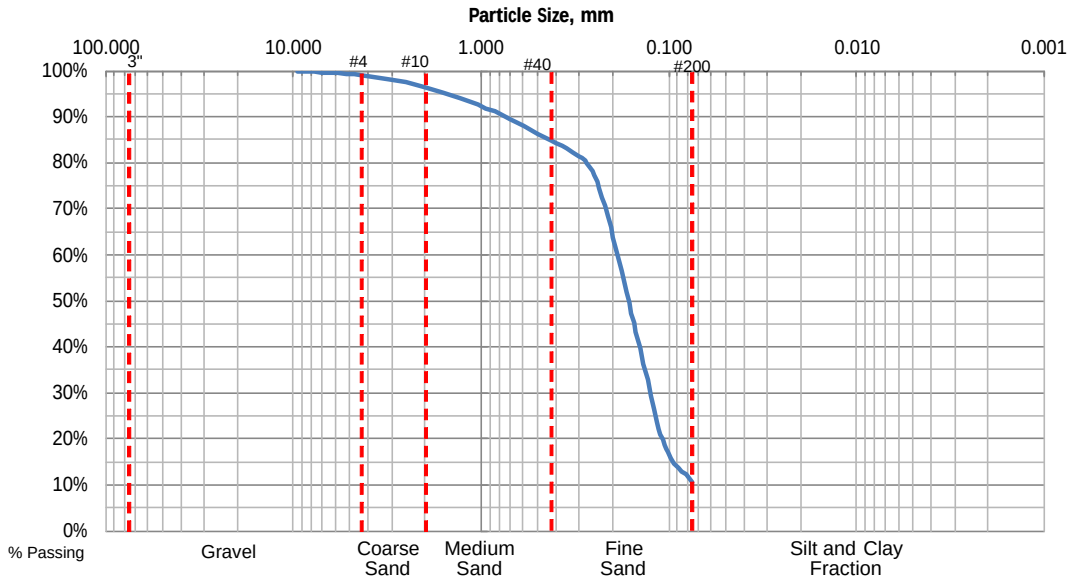
REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-8

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-R16, SS-01
Page 1 of 1

Sample Identification
R16, SS-1, 0 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	99
No. 10	2.00	97
No. 20	0.85	91
No. 40	0.425	85
No. 60	0.25	78
No. 100	0.18	43
No. 140	0.106	19
No. 200	0.075	10.7
Coefficient of curvature, Cc		2.8
Coefficient of uniformity, Cu		1.1
Material		**%**
Gravel		0.6
Total Sand		88.7
Coarse Sand		2.7
Medium Sand		11.8
Fine Sand		74.2
Silt and Clay		10.7

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-2-4

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/19/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring R16 **Order Number:**

Client: CDM SMITH

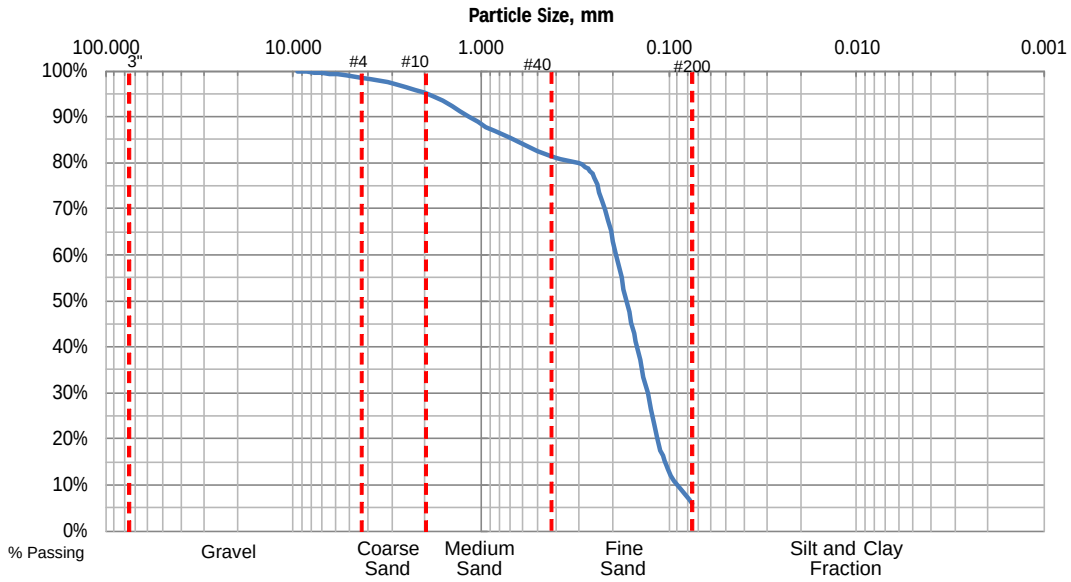
REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-8

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-R16, SS-02
Page 1 of 1

Sample Identification
R16, SS-2, 2 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.	9.5	100
No. 4	4.75	99
No. 10	2.00	95
No. 20	0.85	87
No. 40	0.425	81
No. 60	0.25	77
No. 100	0.18	41
No. 140	0.106	15
No. 200	0.075	5.8
Coefficient of curvature, Cc		2.3
Coefficient of uniformity, Cu		1.0
Material		**%**
Gravel		1.1
Total Sand		93.2
Coarse Sand		3.6
Medium Sand		13.8
Fine Sand		75.7
Silt and Clay		5.8

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/19/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring R16**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-8**

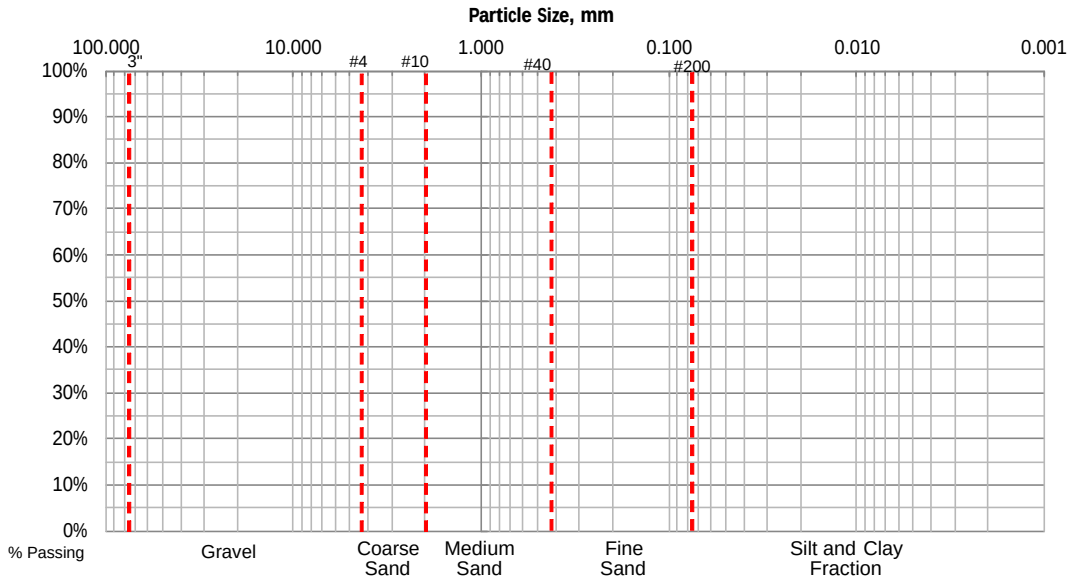
Client PO: 111563 **TEST RESULTS** **Report No: 82517-R16, SS-03**
Page 1 of 1

Sample Identification

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4		
No. 10		
No. 20		
No. 40		
No. 60		
No. 100		
No. 140		
No. 200		

Material	%
Gravel	0.0
Total Sand	0.0
Coarse Sand	0.0
Medium Sand	0.0
Fine Sand	0.0
Silt and Clay	

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)



Classification	
ASTM	
AASHTO	

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

05/19/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

Table 3: Laboratory Bulk Sample Testing Summary								
Boring / Sample Number	Sample Depth (ft)	Percent Finer #200 (%)	Atterberg		Max. Dry Density (pcf)	Optimum Moisture (%)	Percent Compaction	Corrected CBR Value
			LL	PI				
R01 (BS-01)	0 - 5	7.4	NP	NP	103.3	14.4	95%	6.3
R05 (BS-02)	0 - 5	4.0	NP	NP	107.6	13.1	95%	9.1

Notes:
NP = Non-Plastic

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/19/2023
Report Date: 06/28/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring R01 & R05 **Order Number:**

Client: CDM SMITH

REPORT: Geotechnical Index Testing **LAB NO:** 82825-7

Client PO: 111563 **TEST RESULTS** **Report No:** 82825-R01, R05
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
R01	BS-1	0.0	8.7		7.4	NP	NP	NP	SP-SM	A-3
R05	BS-2	0.0	15.8		4.0	NP	NP	NP	SP	A-3
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/29/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/19/2023
Report Date: 06/29/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring R01 & R05 **Order Number:**

Client: CDM SMITH

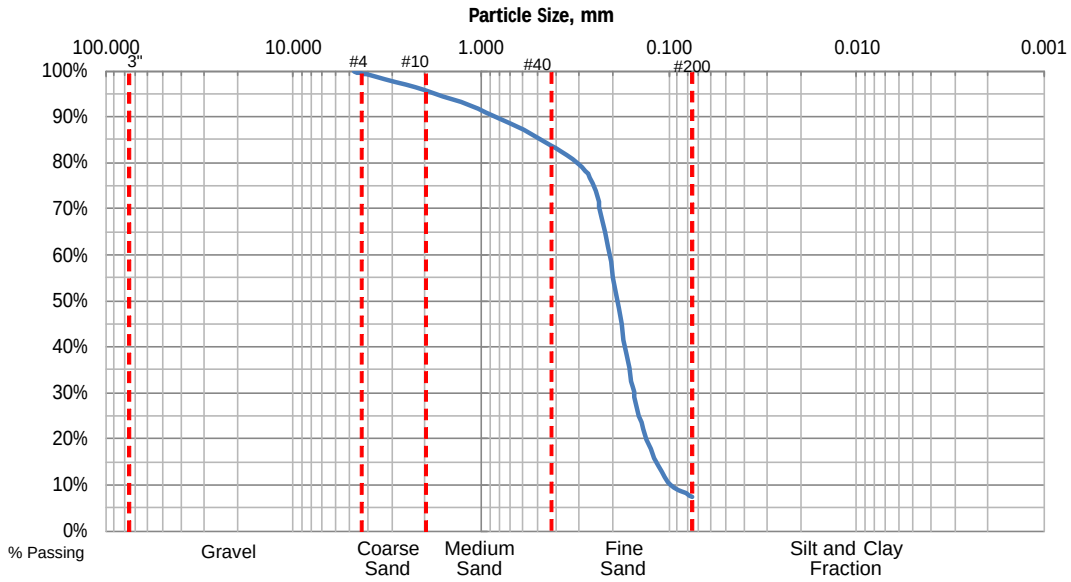
REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82825-7

Client PO: 111563 **TEST RESULTS** **Report No:** 82825-R01, BS-01
Page 1 of 1

Sample Identification
R01, BS-1, 0 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	96
No. 20	0.85	90
No. 40	0.425	84
No. 60	0.25	75
No. 100	0.18	28
No. 140	0.106	12
No. 200	0.075	7.4
Coefficient of curvature, Cc		2.3
Coefficient of uniformity, Cu		1.2
Material		**%**
Gravel		0.0
Total Sand		92.6
Coarse Sand		4.1
Medium Sand		12.1
Fine Sand		76.4
Silt and Clay		7.4

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand with silt (SP-SM)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/29/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

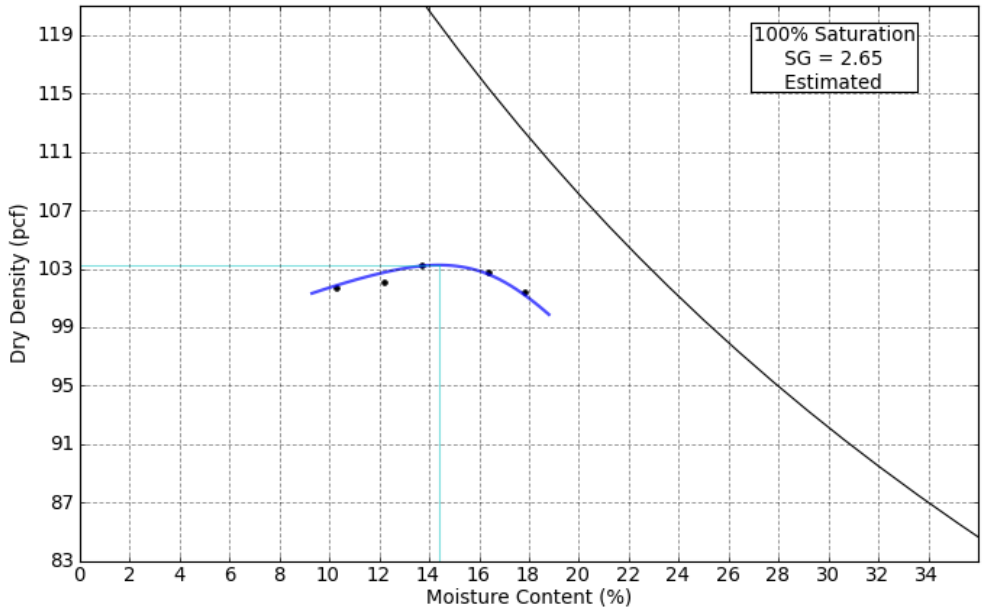
Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/20/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**R01-Bulk Sample 1**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Proctor**		**LAB NO: 82825-2**
Material:	**In Situ**		**Test Method: See Below**
Client PO:	**111563**	**TEST RESULTS**	**Report No: 82825-R01 Proctor**
			Page 1 of 1

Visual Classification: Brown Poorly-graded Sand with Silt
Supplier: On site Material
Material Application: In Situ

Rammer Type: Manual
Prep. Method: Dry

Test Results:
Maximum Dry Unit Weight: 103.3 pcf
Optimum Water Content: 14.4 %



Properties:
Liquid Limit: NP
Plastic Limit: NP
Plasticity Index: NP
Group Symbol: SP-SM
AASHTO: A-3

Test Methods: ASTM D698 Method-A

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

06/29/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/29/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**R01-Bulk Sample 1**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**California Bearing Ratio (CBR)**		**LAB NO: 82825-2**
			Test Method: See Below
Client PO:	**111563**	**TEST RESULTS**	**Report No: 82825-R01 CBR**
			Page 1 of 2

As requested, Soil Consultants, Inc. performed CBR testing. Results are attached.
Test Method ASTM D1883

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

06/29/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI | SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

CALIFORNIA BEARING RATIO
ASTM D1883

Client	CDM Smith		
Project Name	I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC	**Test Date**	6/26/2023
Project Number	230024 (CDM Smith Project 222690)	**Work Order**	82825

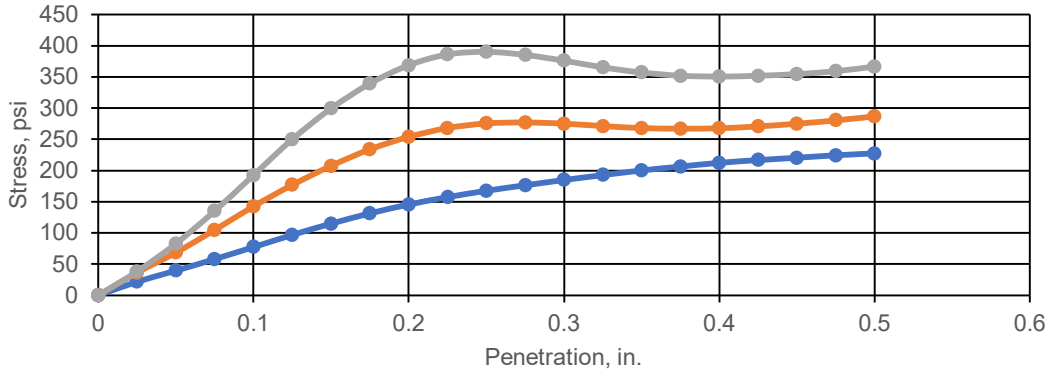
Sample Data

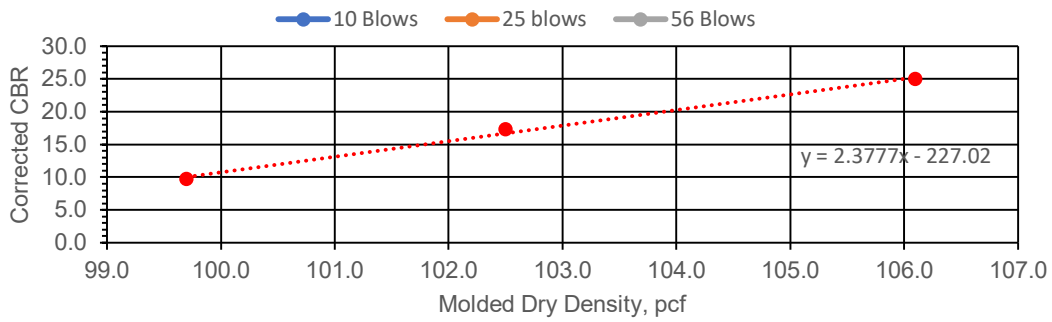
Boring	Depth (ft)	Type	Visual Description
R01, BS-01	0 - 5	Remolded	Poorly-graded Sand with Silt

Soil Properties

As Received Moisture Content, %	Fines Content, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	Moisture-Density Test Method ASTM	Maximum Dry Density, lb/ft^3	Optimum Moisture Content, %
8.7	7.4	NP	NP	NP	SP-SM/A-3	ASTM D698 A	103.3	14.4

Specimen Number	1	2	3
Number of Blows	10	25	56
Dry Density (pcf) as compacted	99.7	102.5	106.1
Water Content (%) as compacted	14.6	14.8	14.8
Sample Type	soaked	soaked	soaked
Immersion Period (hours)	96	96	96
Water Content (%) top 1 in. after soaking	19.8	18.0	17.3
Swell (%)	-0.1	-0.2	-0.2
Surcharge Weight, lb	10.0	10.0	10.0
Bearing ratio (corrected) @ 0.2 in. penetration	9.7	17.3	25.0
Corrected CBR at 95% maximum dry density		6.3	





SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/19/2023
Report Date: 06/29/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring R01 & R05 **Order Number:**

Client: CDM SMITH

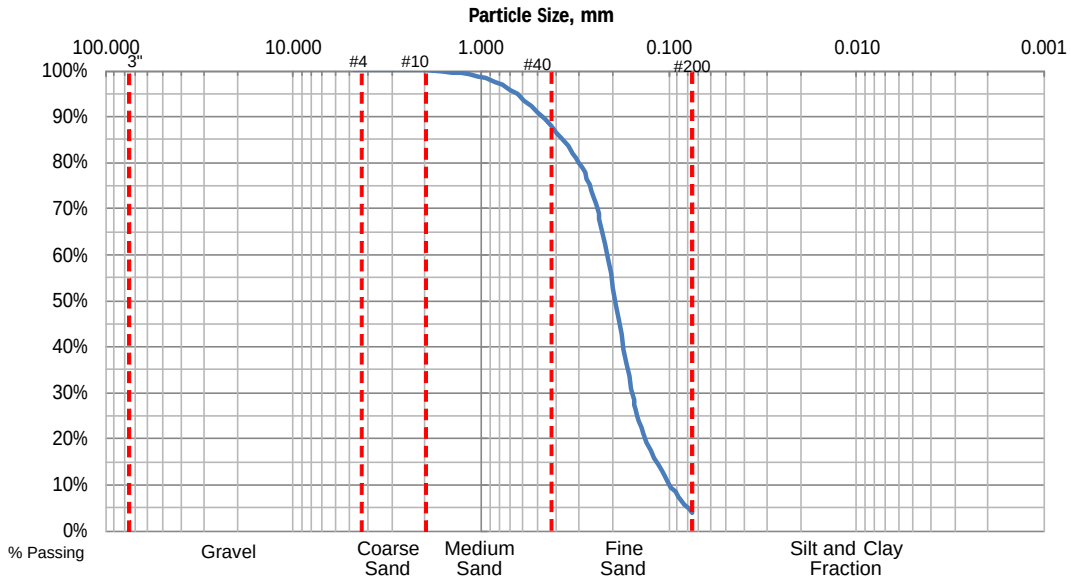
REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82825-7

Client PO: 111563 **TEST RESULTS** **Report No:** 82825-R05, BS-02
Page 1 of 1

Sample Identification
R05, BS-2, 0 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	98
No. 40	0.425	88
No. 60	0.25	72
No. 100	0.18	27
No. 140	0.106	12
No. 200	0.075	4.0
Coefficient of curvature, Cc		2.3
Coefficient of uniformity, Cu		1.1
Material		**%**
Gravel		0.0
Total Sand		96.0
Coarse Sand		0.1
Medium Sand		12.1
Fine Sand		83.8
Silt and Clay		4.0

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
NP	NP	NP



Classification	
ASTM	Poorly-graded Sand (SP)
AASHTO	A-3

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/29/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

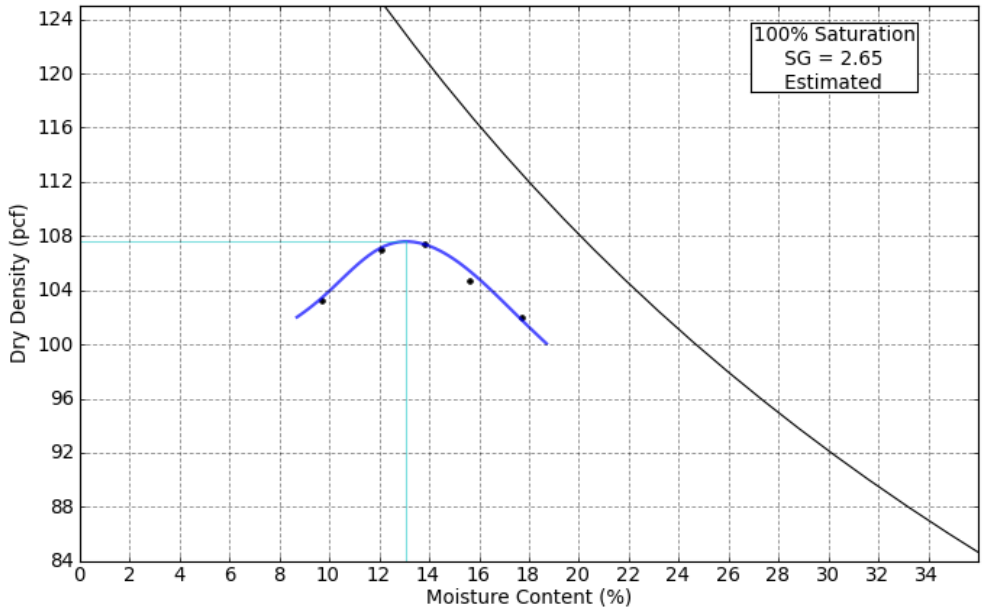
Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/20/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**R05-Bulk Sample 2**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Proctor**		**LAB NO: 82825-3**
Material:	**In Situ**		**Test Method: See Below**
Client PO:	**111563**	**TEST RESULTS**	**Report No: 82825-R05 Proctor**
			Page 1 of 1

Visual Classification: Gray Poorly-graded Sand
Supplier: On Site Material
Material Application: In Situ

Rammer Type: Manual
Prep. Method: Dry

Test Results:
Maximum Dry Unit Weight: 107.6 pcf
Optimum Water Content: 13.1 %



Properties:
Liquid Limit: NP
Plastic Limit: NP
Plasticity Index: NP
Group Symbol: SP
AASHTO: A-3

Test Methods: ASTM D698 Method-A

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

06/29/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/19/2023**
Report Date:	**06/29/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**R05-Bulk Sample 2**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**California Bearing Ratio (CBR)**		**LAB NO: 82825-3**
			Test Method: See Below
Client PO:	**111563**	**TEST RESULTS**	**Report No: 82825-R05 CBR**
			Page 1 of 2

As requested, Soil Consultants, Inc. performed CBR testing. Results are attached.
Test Method ASTM D1883

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

06/29/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI | SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

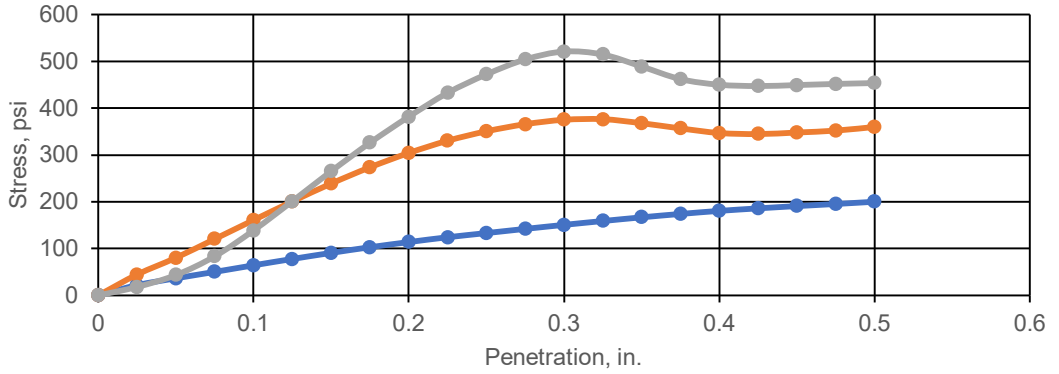
CALIFORNIA BEARING RATIO
ASTM D1883

Client	CDM Smith		
Project Name	I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC,	**Test Date**	6/26/2023
Project Number	230024 (CDM Smith Project 222690)	**Work Order**	82825

Sample Data			
Boring	Depth (ft)	Type	Visual Description
R05, BS-02	0 - 5	Remolded	Poorly-graded Sand

Soil Properties								
As Received Moisture Content, %	Fines Content, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	Moisture-Density Test Method ASTM	Maximum Dry Density, lb/ft^3	Optimum Moisture Content, %
15.8	4	NP	NP	NP	SP / A-3	ASTM D698 A	107.6	13.1

Specimen Number	1	2	3
Number of Blows	10	25	56
Dry Density (pcf) as compacted	101.6	106.6	110.5
Water Content (%) as compacted	13.4	13.3	13.3
Sample Type	soaked	soaked	soaked
Immersion Period (hours)	96	96	96
Water Content (%) top 1 in. after soaking	18.3	16.1	14.3
Swell (%)	-0.1	-0.2	0.0
Surcharge Weight, lb	10.0	10.0	10.0
Bearing ratio (corrected) @ 0.2 in. penetration	7.6	20.3	31.0
Corrected CBR at 95% maximum dry density		9.1	



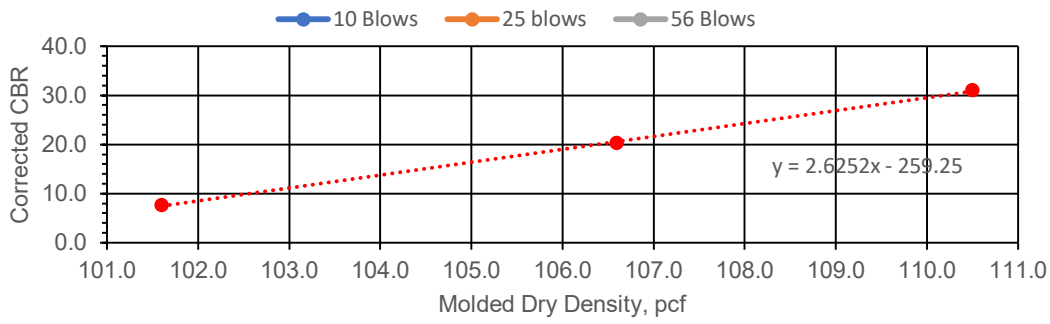


Table 4: Laboratory Undisturbed Sample Consolidation Testing Summary										
Boring Number	Sample Number	Sample Depth (ft)	Atterberg Limits		Percent Finer #200 (%)	USCS	AASHTO	Initial Void Ratio	Final Void Ratio	Estimated Pre-Consolidation Pressure (ksf)
			LL	PI						
B01	UD-1	15 - 17	116	94	93.3	CH	A-7-6	2.67	0.91	2.0
B08	UD-1	20 - 22	80	53	82.4	CH	A-7-6	2.04	1.23	5.6
B12	UD-1	15 - 17	66	44	95.3	CH	A-7-6	1.90	0.90	4.0
B14	UD-1	14-16	47	26	67.8	CL	A-7-6	2.26	1.79	1.3
EMB14	UD-1	25-27	47	26	66.9	CL	A-7-6	1.98	1.58	3.1

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/24/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B01 UD-1 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82517-9

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B01, UD-01
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
B-01	UD-1	15.0	92.9		93.3	116	22	94	CH	A-7-6
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B01 UD-1**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-9**

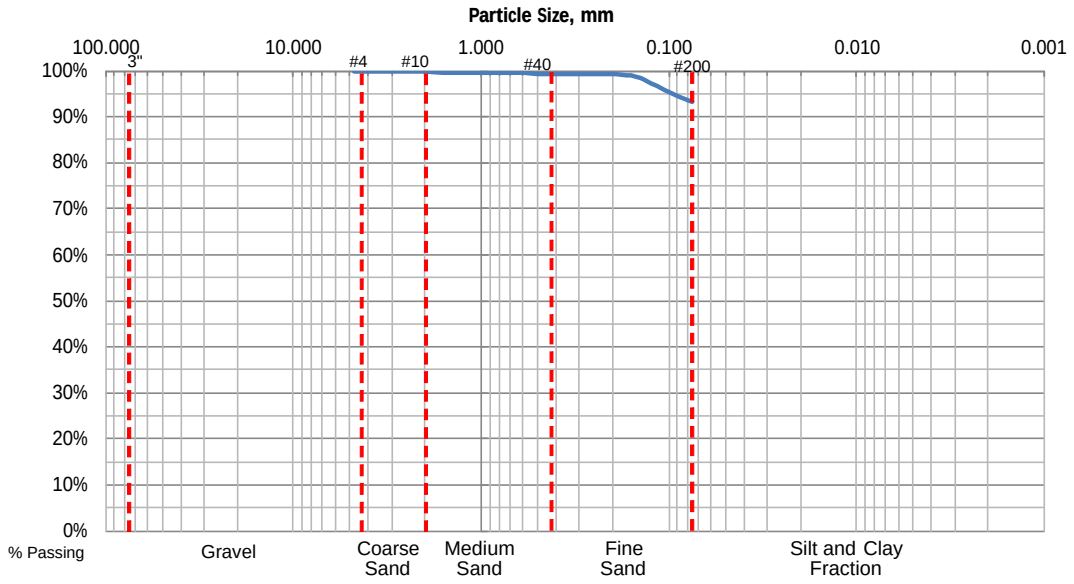
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B01, UD-01 Sieve**
Page 1 of 1

Sample Identification
B-01, UD-1, 15 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	100
No. 40	0.425	100
No. 60	0.25	99
No. 100	0.18	99
No. 140	0.106	96
No. 200	0.075	93.3

Material	%
Gravel	0.0
Total Sand	6.7
Coarse Sand	0.1
Medium Sand	0.4
Fine Sand	6.2
Silt and Clay	93.3

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
116	22	94



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B01 UD-1**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**One-Dimensional Consolidation Properties of Soils**		**LAB NO: 82517-9**
Client PO:	**111563**	**TEST RESULTS**	**Report No: 82517-B01, UD-01 Cons**

As requested, Soil Consultants, Inc. performed one-dimensional consolidation testing. Results are attached.

Test Method (As Applicable): ASTM D2435

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI | SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

ONE DIMENSIONAL CONSOLIDATION PROPERTIES OF SOILS
ASTM D2435

Client CDM Smith
Project Name I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC
Project Number 230024 (CDM Smith Project 222690) **Work Order** 82517

SAMPLE INFORMATION	Specimen Number	1
	Specimen ID	UD-1
	Boring No.	B01
	Depth (ft)	15-17
	Sample Type	Thin-walled tube
	Location	
	Fines Content, %	93.3
	Liquid Limit	116
	Plastic Limit	22
	Specific Gravity (ASSUMED)	2.72
	USCS Classification	CH / A-7-6
	Color	Gray
	Visual Description	Fat Clay
	Visual Classification	
TEST PROCEDURE	Starting Date	5/3/2023
	Apparatus	Consolidation Load Frame #1
	Technician	A. Chubb
	Preparation procedure	Ring lined sampler
	Condition of test	Inundated
	Stress at inundation	0.025 tsf
	Test water	Potable tap water
	Test method	Method A
	Coefficient of consolidation method	Methods 1 and 2
INITIAL CONDITIONS	Average Diameter, in.	2.499
	Average Height, in.	1.000
	Water Content, %	92.9
	Source of Water Content Sample	Cuttings
	Wet Density, pcf	89.2
	Dry Density, pcf	46.2
	Saturation, %	94.48
	Void Ratio, eo	2.674
FINAL CONDITIONS	Water Content, %	37.7
	Source of Water Content Sample	Full sample
	Wet Density, pcf	122.1
	Dry Density, pcf	88.7
	Saturation, %	112.09
	Void Ratio, eo	0.914
	Final Differential Height, in.	0.005
	Preconsolidation Pressure (estimated)	1.00 tsf
REMARKS	Based on the e-log p diagram, SCI interpreted the preconsolidation pressure. The geotechnical engineer of record should independently determine the preconsolidation pressure for specific use.	

SCI | SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Client CDM Smith
Project Name I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC
Project Number 230024 (CDM Smith Project 222690) **Work Order** 82517
Test One Dimensional Consolidation Properties of Soils **Method** ASTM D2435

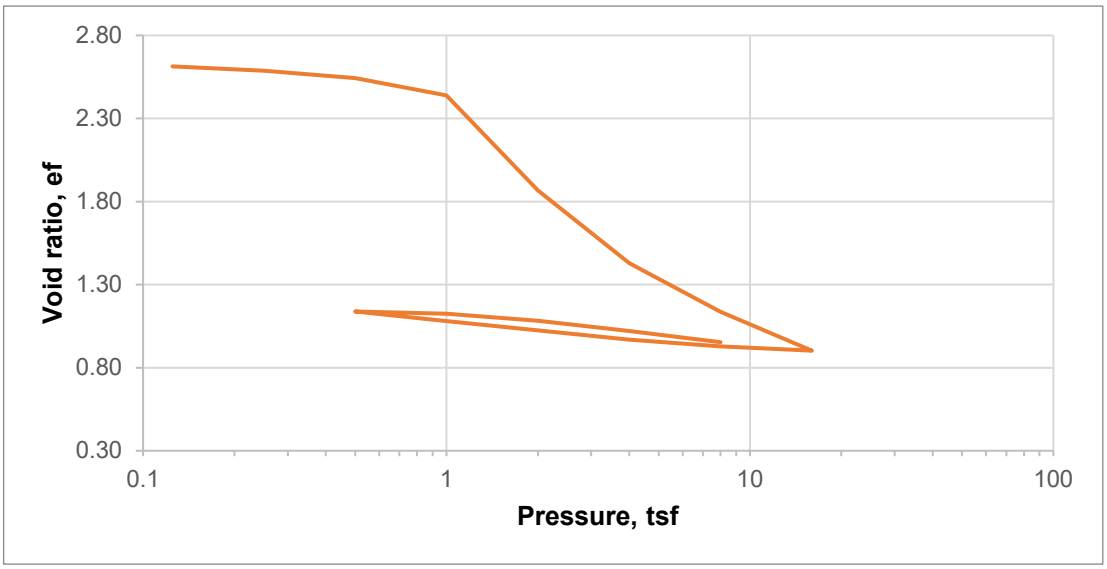
TEST DATA SUMMARY

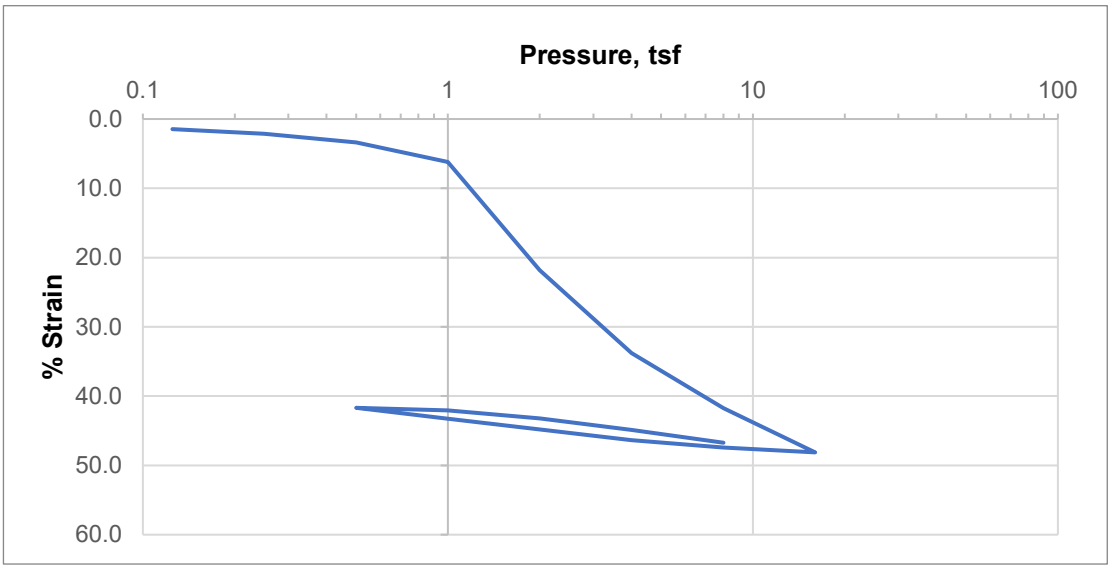
Load, tsf	Cumulative Change in Height, in.	Specimen Height, in.	Void Height, in.	Vertical Strain, %	Void Ratio, e_f	Logarithm of Time Method		Square Root of Time Method	
						Time t_{90}, hr	$c_{v\,90}$, in^2/min	Time t_{50}, hr	$c_{v\,50}$, in^2/min
0.125	0.0146	0.9854	0.713	1.4600	2.614	0.1571	0.0873	0.1210	0.0264
0.25	0.0215	0.9785	0.706	2.1500	2.588	0.0561	0.2410	0.0758	0.0415
0.5	0.0339	0.9661	0.693	3.3900	2.543	0.0586	0.2251	0.0910	0.0337
1	0.0620	0.9380	0.665	6.2000	2.440	0.0277	0.4481	0.0097	0.2974
2	0.2182	0.7818	0.509	21.8200	1.867	7.9259	0.0011	1.7254	0.0008
4	0.3378	0.6622	0.390	33.7800	1.428	13.1634	0.0005	1.3997	0.0003
8	0.4174	0.5826	0.310	41.7400	1.136	3.4252	0.0014	0.6061	0.0018
16	0.4812	0.5188	0.246	48.1200	0.903	1.5291	0.0025	0.5162	0.0017
8	0.4744	0.5256	0.253	47.4400	0.927				
4	0.4634	0.5366	0.264	46.3400	0.968				
1	0.4325	0.5675	0.295	43.2500	1.081				
0.5	0.417	0.5830	0.310	41.7000	1.138				
1	0.42069998	0.5793	0.307	42.0700	1.124	0.9594	0.0049	0.2182	0.0004
2	0.43200001	0.56799996	0.295	43.2000	1.083	2.7180	0.0017	0.6374	0.0001
4	0.44869998	0.55130005	0.279	44.8700	1.022	1.9493	0.0022	0.5240	0.0019
8	0.46719998	0.53280002	0.260	46.7200	0.954	1.3094	0.0031	0.3002	0.0001

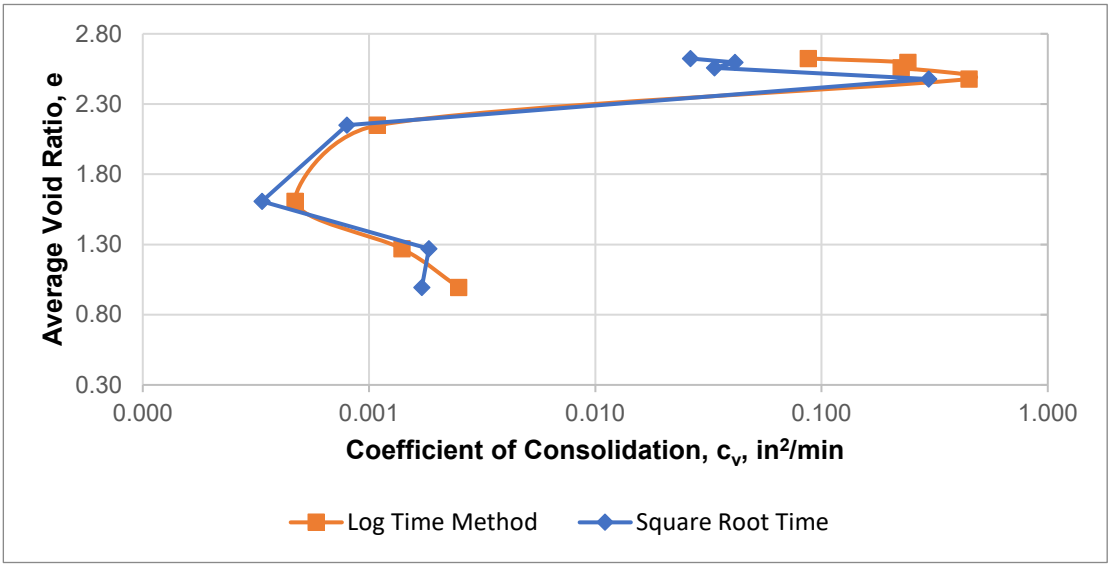
REMARKS

The coefficient of consolidation was generated by HUMBOLDT consolidation software.

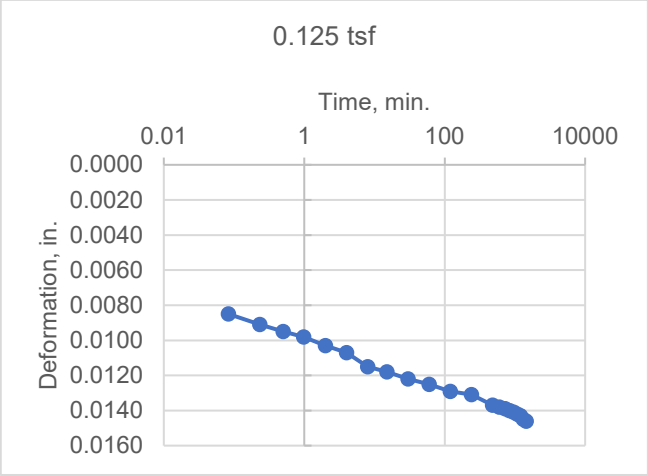
PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

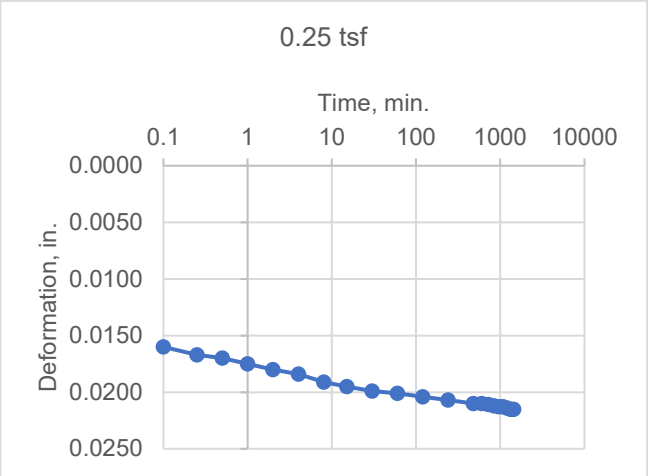


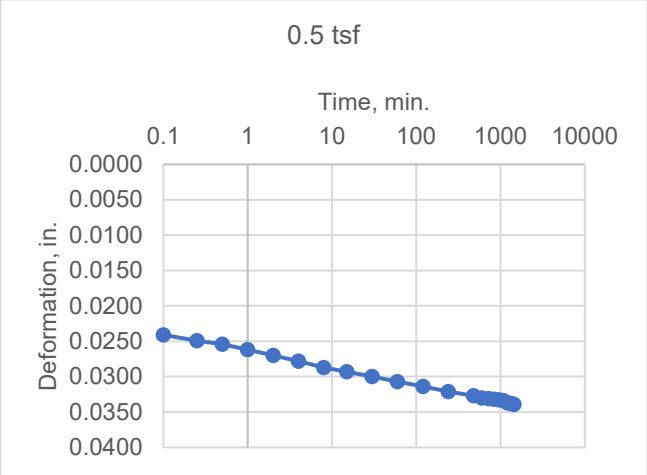


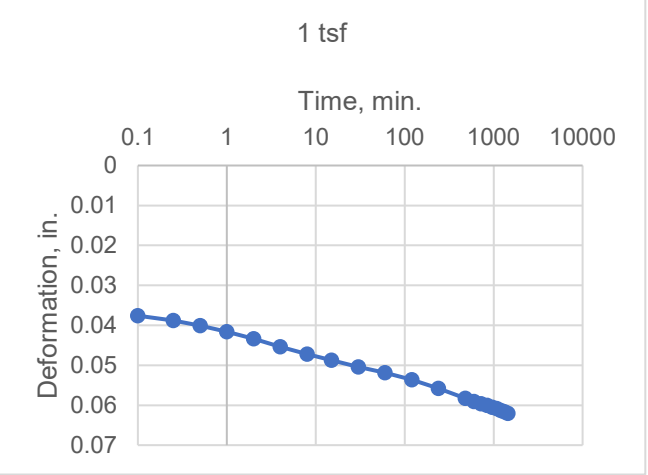


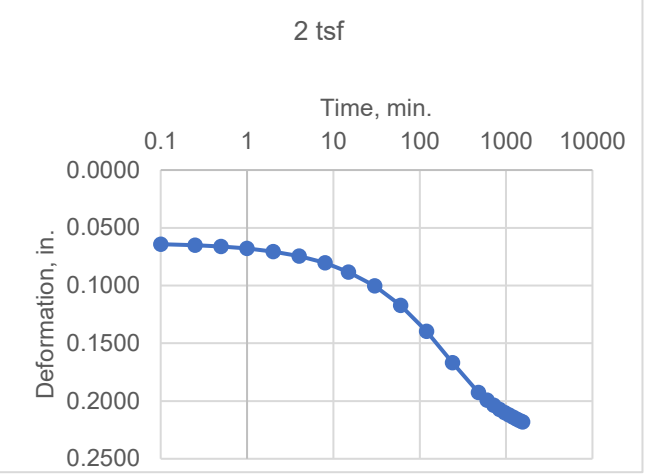
PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

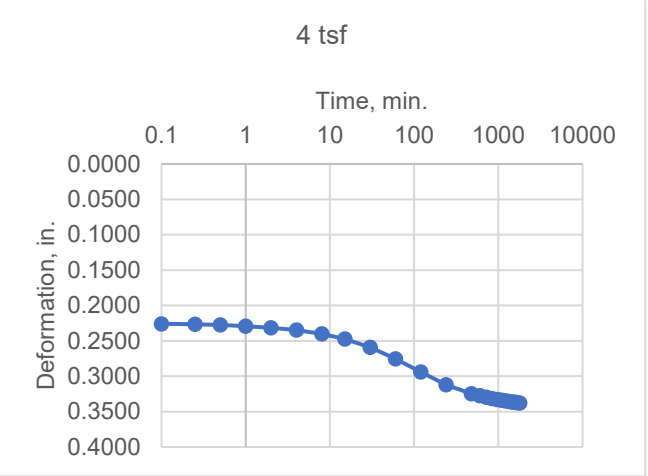




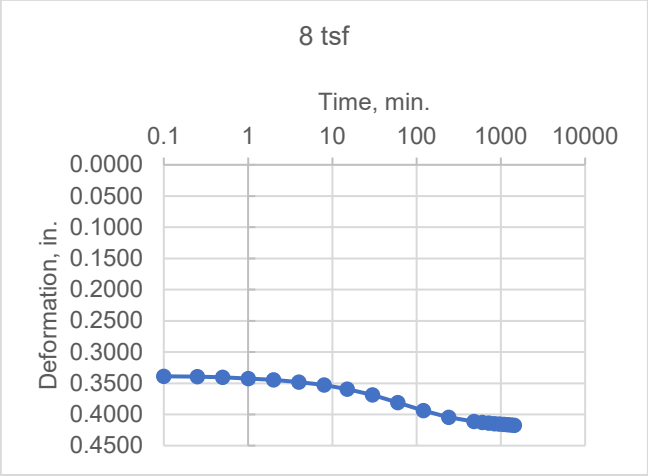


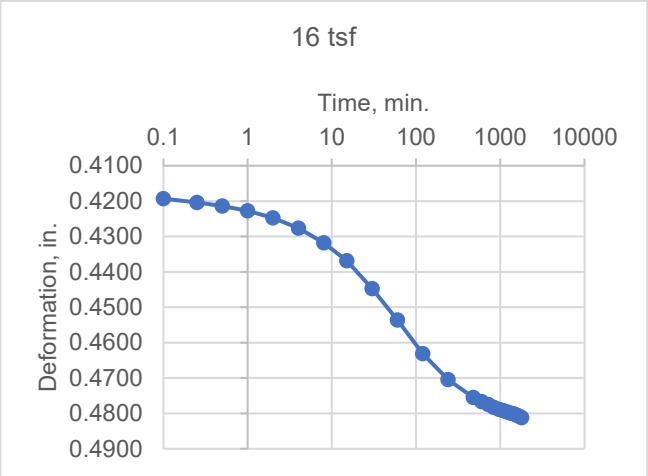


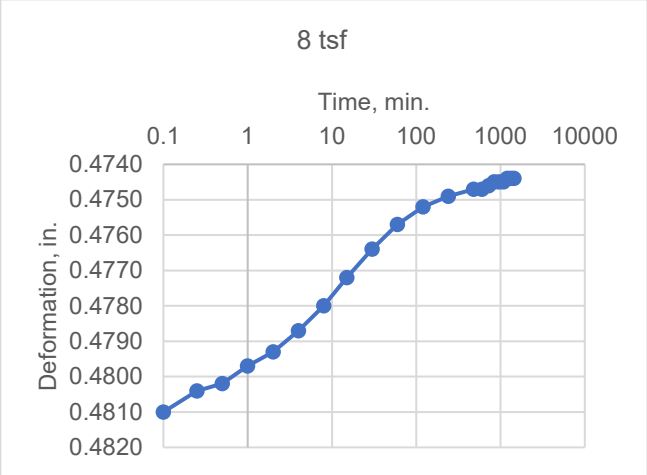


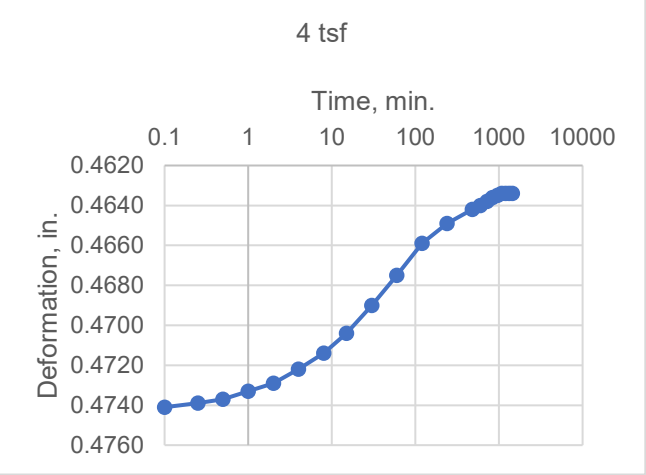


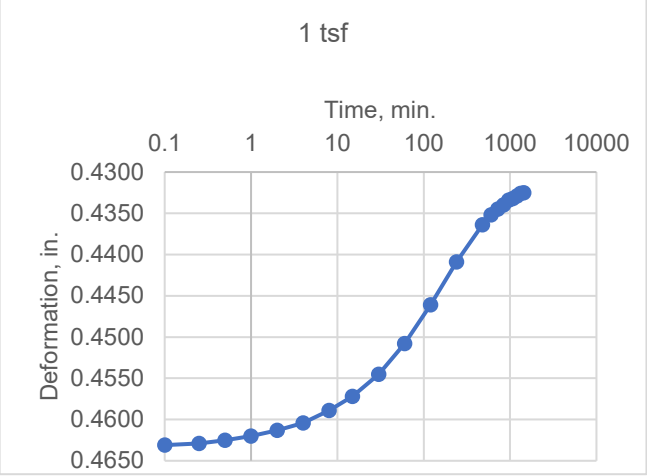
PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

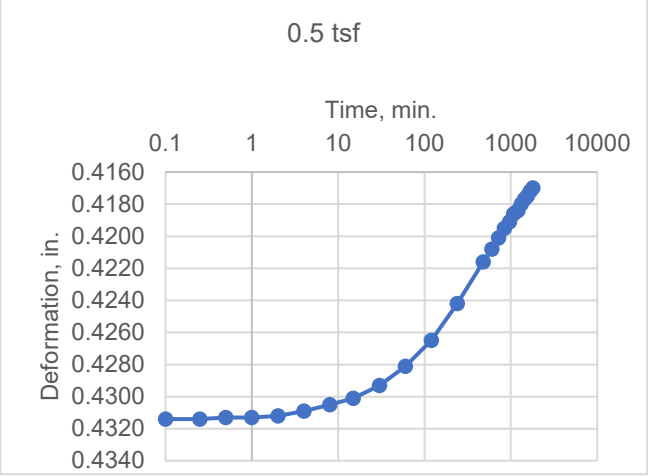






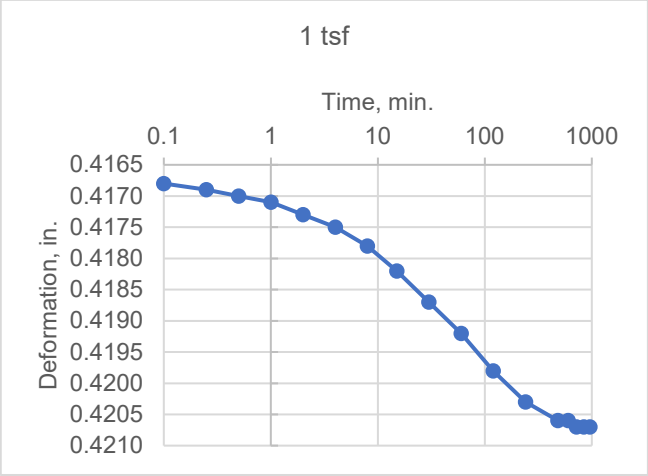


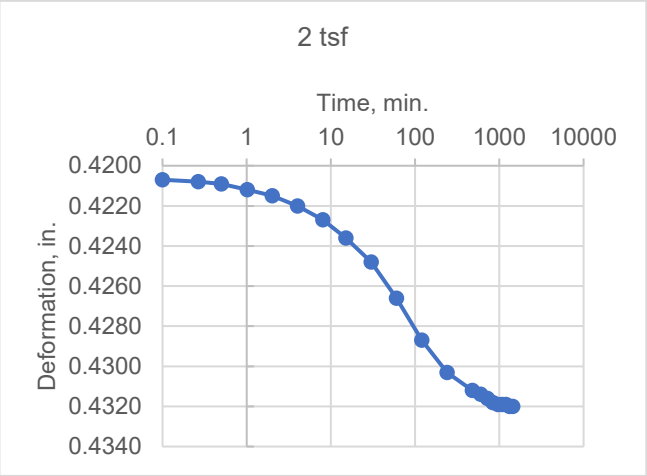


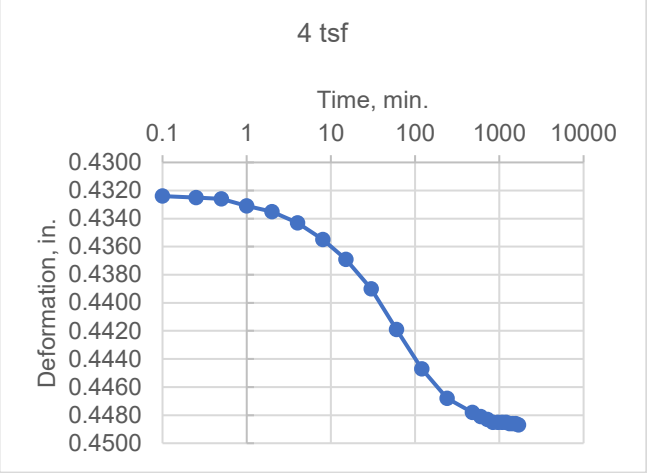


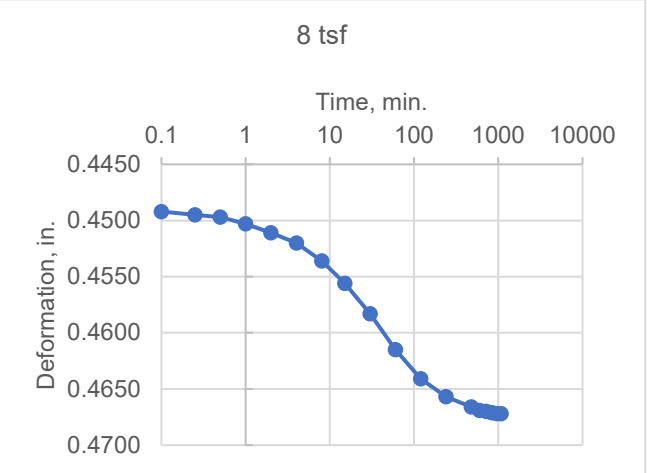
SCI | SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com









SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/24/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B08, UD-1 **Order Number:**

Client: CDM SMITH

REPORT: Geotechnical Index Testing **LAB NO:** 82517-10

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B08, UD-01
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
B-08	UD-1	20.0	73.4		82.4	80	27	53	CH	A-7-6
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B08, UD-1**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**Soil Classification (Gradation & Atterberg Limits)**		**LAB NO: 82517-10**

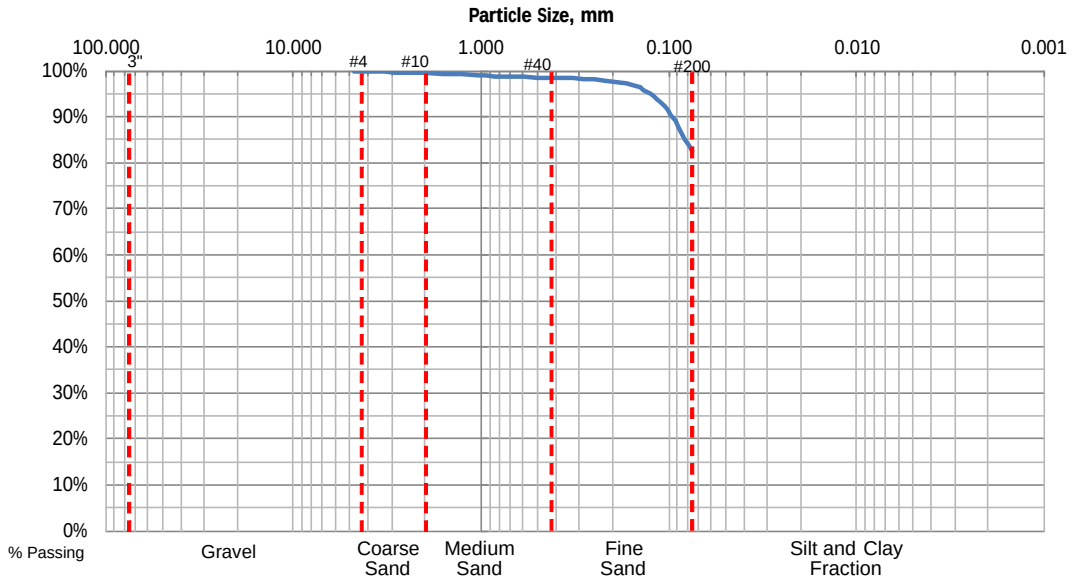
Client PO: 111563 **TEST RESULTS** **Report No: 82517-B08, UD-01 Sieve**
Page 1 of 1

Sample Identification
B-08, UD-1, 20 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	99
No. 60	0.25	98
No. 100	0.18	97
No. 140	0.106	92
No. 200	0.075	82.4

Material	%
Gravel	0.0
Total Sand	17.6
Coarse Sand	0.3
Medium Sand	1.1
Fine Sand	16.2
Silt and Clay	82.4

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
80	27	53



Classification	
ASTM	Fat Clay with Sand (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B08, UD-1**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**One-Dimensional Consolidation Properties of Soils**		**LAB NO: 82517-10**
Client PO:	**111563**	**TEST RESULTS**	**Report No: 82517-B08, UD-01 Cons**

As requested, Soil Consultants, Inc. performed one-dimensional consolidation testing. Results are attached.

Test Method (As Applicable): ASTM D2435

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI | SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

ONE DIMENSIONAL CONSOLIDATION PROPERTIES OF SOILS
ASTM D2435

Client CDM Smith
Project Name I-526 Lowcountry Corridor Phase 2, Mt.Pleasant, SC
Project Number 230024 (CDM Smith Project No. 222690) **Work Order** 82517

SAMPLE INFORMATION	Specimen Number	1
	Specimen ID	UD-1
	Boring No.	B08
	Depth (ft)	20-22
	Sample Type	Thin-walled tube
	Location	
	Fines Content, %	82.4
	Liquid Limit	80
	Plastic Limit	27
	Specific Gravity (ASSUMED)	2.72
	USCS Classification	CH / A-7-6
	Color	Gray
	Visual Description	Fat Clay with Sand
	Visual Classification	
TEST PROCEDURE	Starting Date	5/3/2023
	Apparatus	Consolidation Load Frame #1
	Technician	A. Chubb
	Preparation procedure	Ring lined sampler
	Condition of test	Inundated
	Stress at inundation	0.025 tsf
	Test water	Potable tap water
	Test method	Method A
	Coefficient of consolidation method	Methods 1 and 2
INITIAL CONDITIONS	Average Diameter, in.	2.500
	Average Height, in.	1.000
	Water Content, %	73.4
	Source of Water Content Sample	Cuttings
	Wet Density, pcf	96.8
	Dry Density, pcf	55.8
	Saturation, %	97.85
	Void Ratio, eo	2.041
FINAL CONDITIONS	Water Content, %	45.7
	Source of Water Content Sample	Full sample
	Wet Density, pcf	111.0
	Dry Density, pcf	76.2
	Saturation, %	101.04
	Void Ratio, eo	1.229
	Final Differential Height, in.	0.002
	Preconsolidation Pressure (estimated)	2.8 tsf
REMARKS	Based on the e-log p diagram, SCI interpreted the preconsolidation pressure. The geotechnical engineer of record should independently determine the preconsolidation pressure for specific use.	

SCI | SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Client CDM Smith
Project Name I-526 Lowcountry Corridor Phase 2, Mt.Pleasant, SC
Project Number 230024 (CDM Smith Project No. 222690) **Work Order** 82517
Test One Dimensional Consolidation Properties of Soils **Method** ASTM D2435

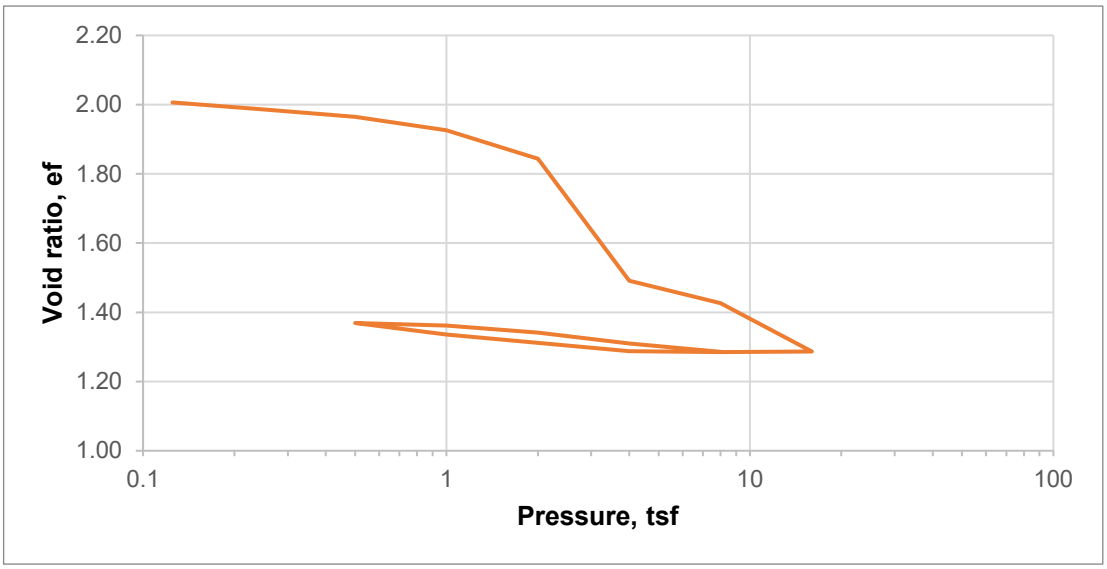
TEST DATA SUMMARY

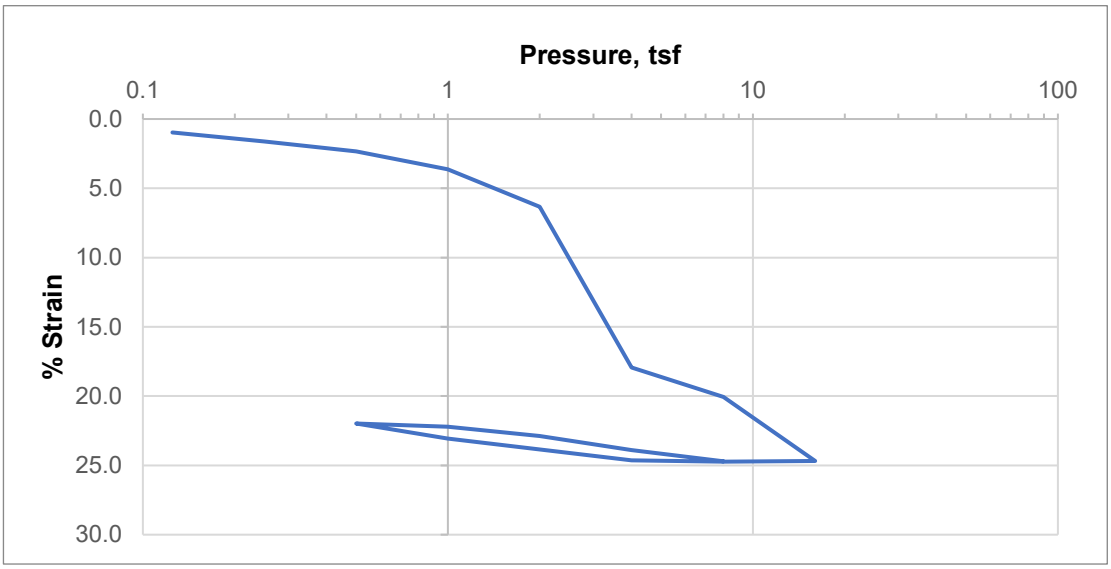
Load, tsf	Cumulative Change in Height, in.	Specimen Height, in.	Void Height, in.	Vertical Strain, %	Void Ratio, e_f	Logarithm of Time Method		Square Root of Time Method	
						Time t_{90}, hr	$c_{v\,90}$, in^2/min	Time t_{50}, hr	$c_{v\,50}$, in^2/min
0.125	0.0097	0.9903	0.661	0.9700	2.006	0.0626	0.2214	0.0118	0.2697
0.25	0.0163	0.9837	0.654	1.6300	1.986	0.0490	0.2793	0.2552	0.0124
0.5	0.0234	0.9766	0.647	2.3400	1.965	0.2845	0.0474	0.0286	0.1093
1	0.0362	0.9638	0.634	3.6200	1.926	0.0164	0.8010	0.0263	0.1161
2	0.0634	0.9366	0.607	6.3400	1.843	0.0437	0.2840	0.0462	0.0624
4	0.1793	0.8207	0.491	17.9300	1.491	0.9136	0.0104	0.2975	0.0074
8	0.2006	0.7994	0.470	20.0600	1.427	0.0185	0.4894	0.0077	0.2738
16	0.2468	0.7532	0.424	24.6800	1.287	0.0582	0.1379	0.0120	0.1551
8	0.2473	0.7527	0.423	24.7300	1.285				
4	0.2464	0.7536	0.424	24.6400	1.288				
1	0.2306	0.7694	0.440	23.0600	1.336				
0.5	0.21969999	0.7803	0.451	21.9700	1.369				
1	0.22209999	0.7779	0.448	22.2100	1.362	0.4060	0.0211	0.0657	0.0155
2	0.2287	0.77130002	0.44189745	22.8699989	1.3415118	0.2111	0.0398	0.0474	0.0207
4	0.23900001	0.76099998	0.43159741	23.9000015	1.310243	0.3837	0.0213	0.0516	0.0369
8	0.24699999	0.75300002	0.42359746	24.6999989	1.2859567	0.0771	0.1039	0.0309	0.0602

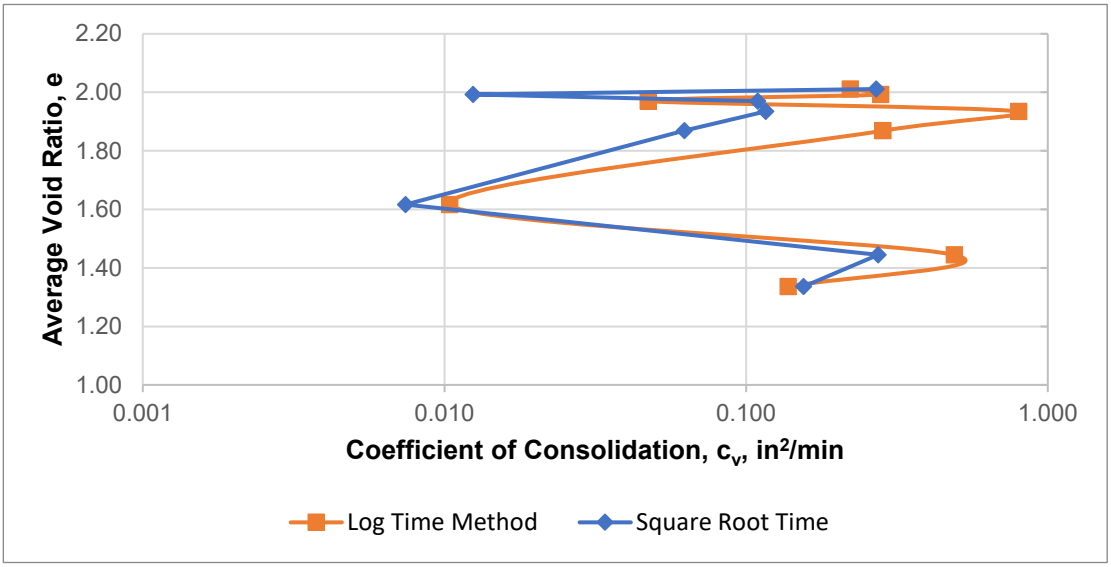
REMARKS

The coefficient of consolidation was generated by HUMBOLDT consolidation software.

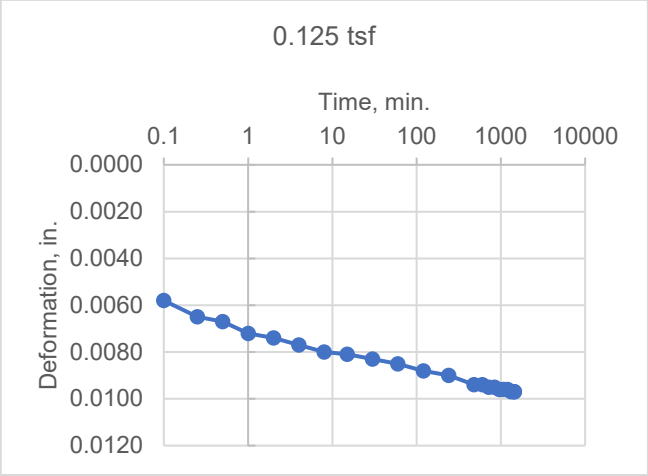
PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

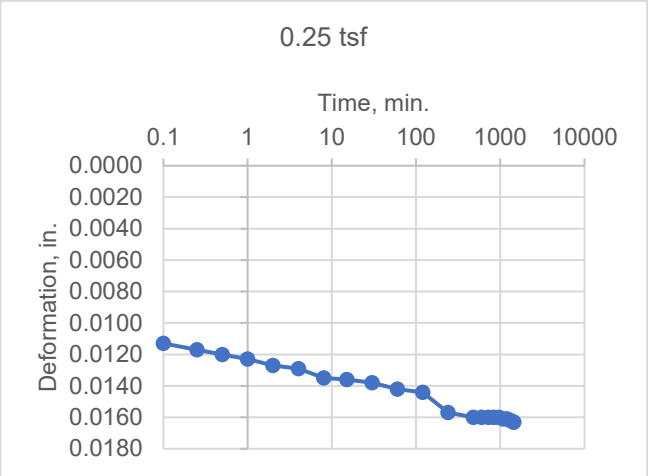


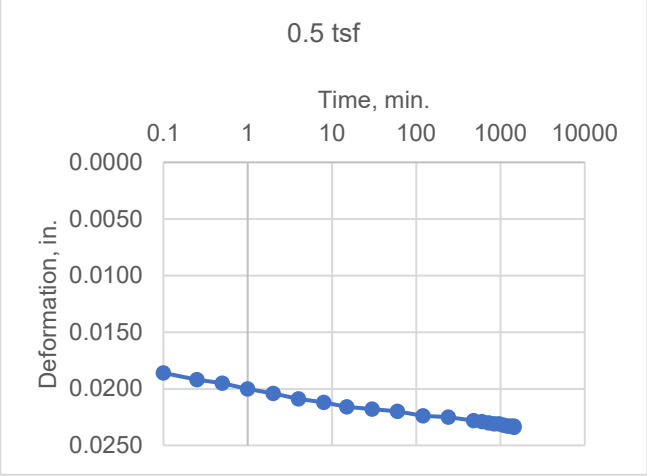


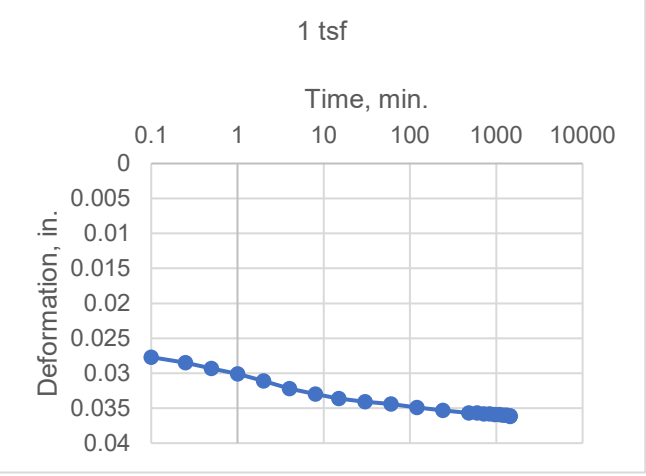


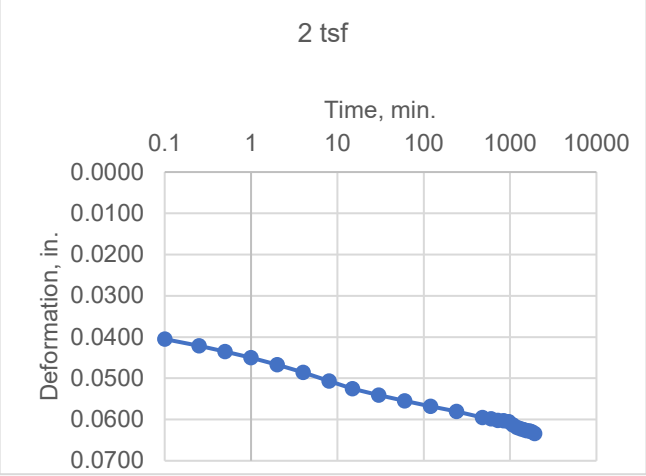
PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

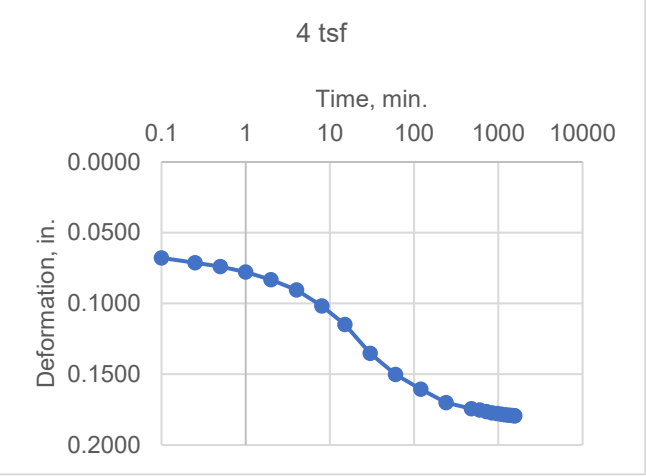




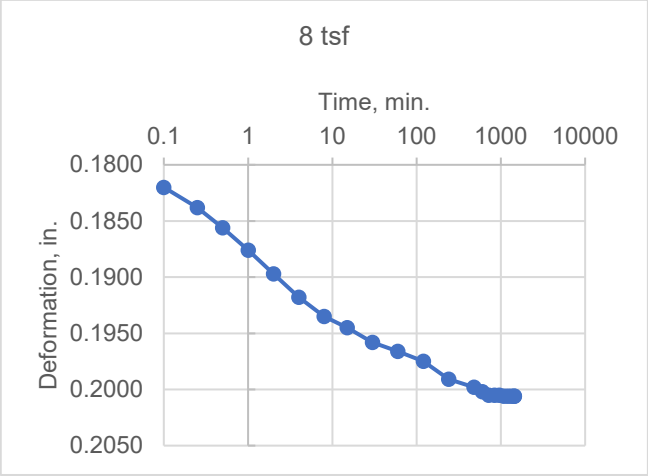


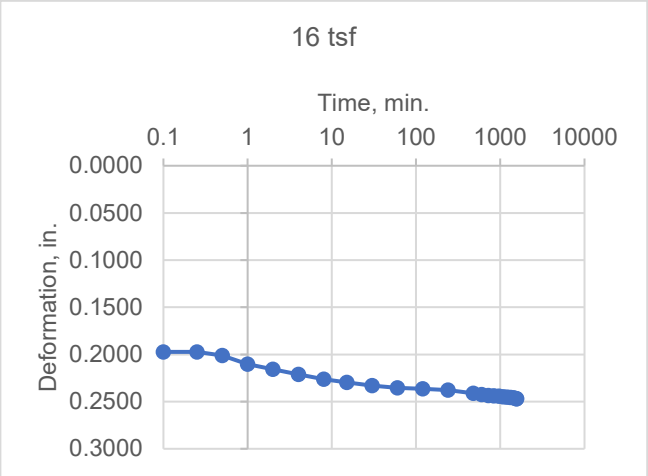


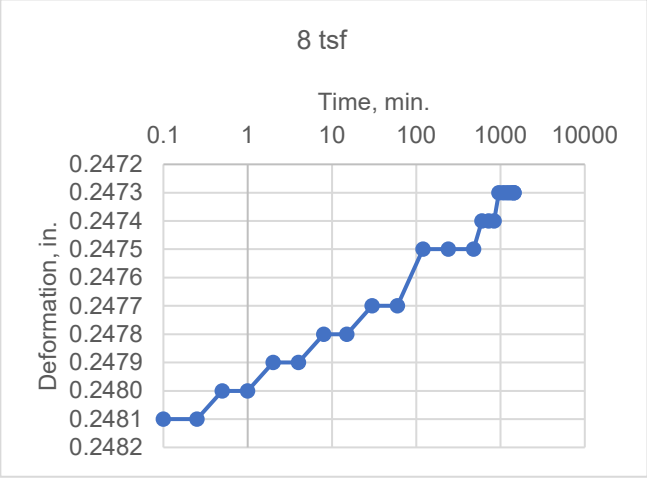


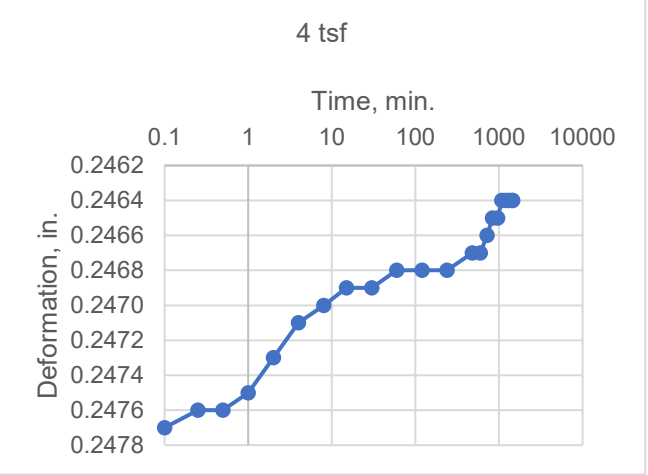


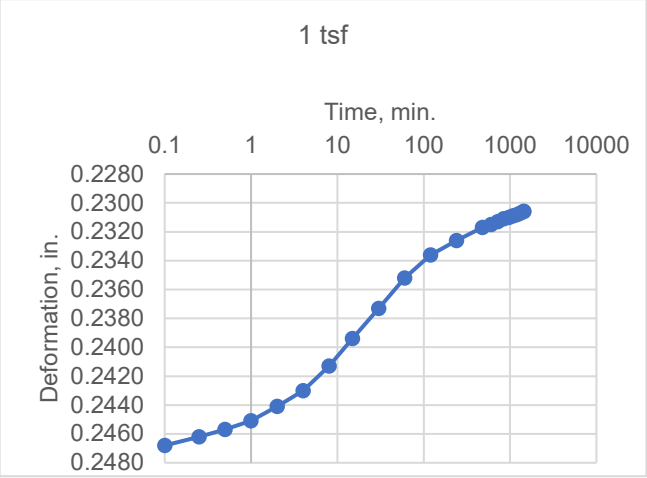
PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

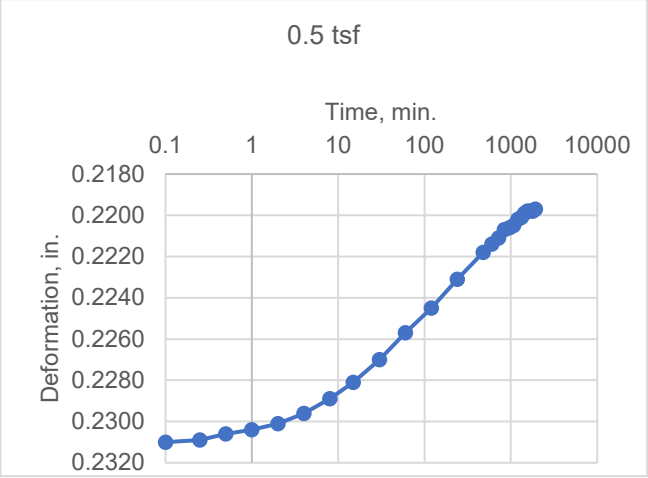




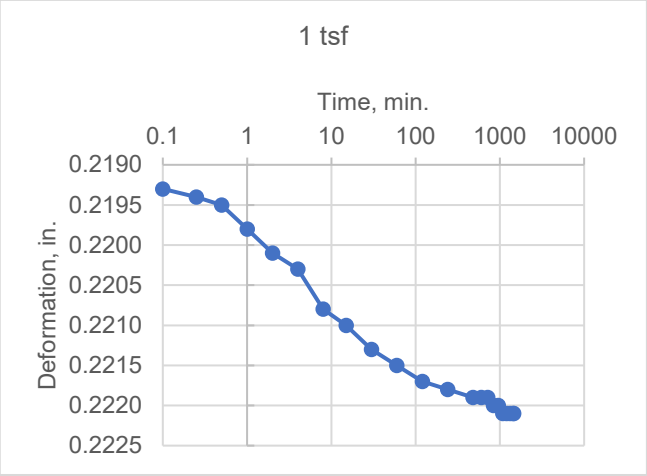


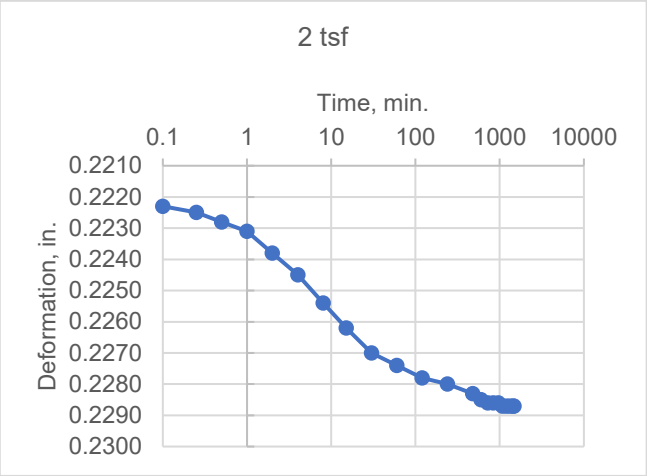


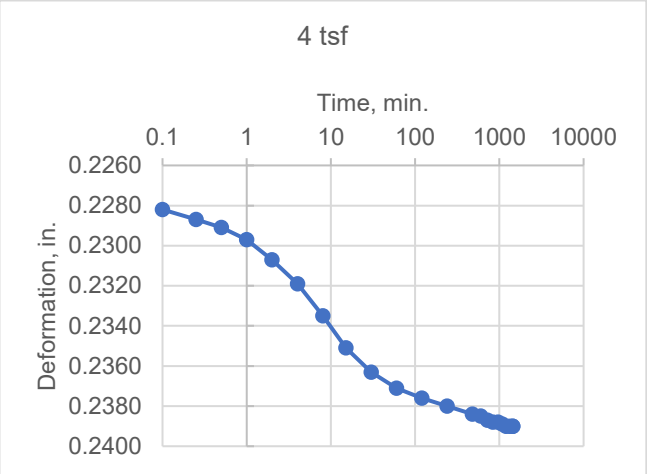


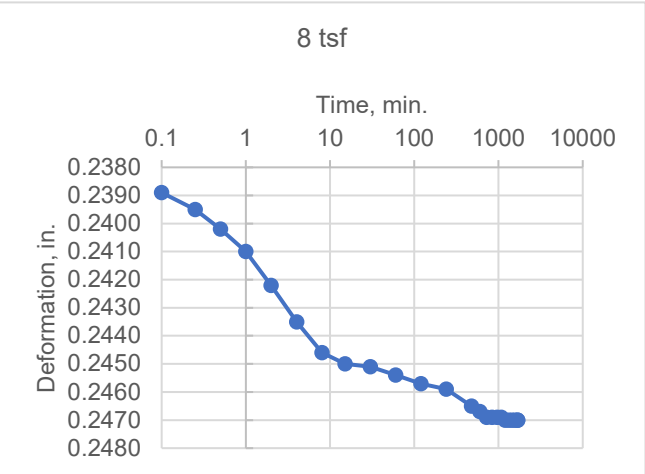


PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com









SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/24/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B12, UD-1 **Order Number:**

Client: CDM SMITH
REPORT: Geotechnical Index Testing **LAB NO:** 82517-11

Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B12, UD-01
Page 1 of 1

Boring	Sample	Top of Interval, ft	Moisture Content, %	Organic Content, %	Finer than No. 200 Sieve, %	Liquid Limit, LL	Plastic Limit, PL	Plasticity Index, PI	USCS Symbol	AASHTO Symbol
B-12	UD-1	15.0	66.6		95.3	66	22	44	CH	A-7-6
Comments										

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2216, ASTM D2437, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No: CD002 **Project No:** 230024 **Date Sampled:** 05/02/2023
Report Date: 05/24/2023 **Sampled By:** SCI
Project: I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690 **By Order Of:** Client
Location: Boring B12, UD-1 **Order Number:**

Client: CDM SMITH

REPORT: Soil Classification (Gradation & Atterberg Limits) **LAB NO:** 82517-11

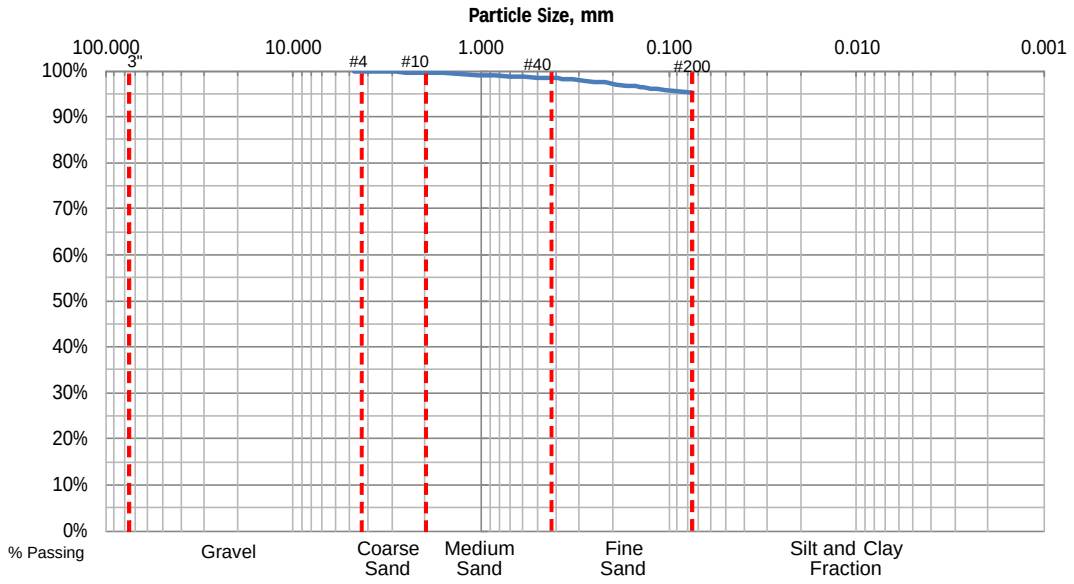
Client PO: 111563 **TEST RESULTS** **Report No:** 82517-B12, UD-01 Sieve
Page 1 of 1

Sample Identification
B-12, UD-1, 15 ft

Sieve	Size, mm	% Passing
3 in.		
2 in.		
1-1/2 in.		
1 in.		
3/4 in.		
1/2 in.		
3/8 in.		
No. 4	4.75	100
No. 10	2.00	100
No. 20	0.85	99
No. 40	0.425	99
No. 60	0.25	98
No. 100	0.18	97
No. 140	0.106	96
No. 200	0.075	95.3

Material	%
Gravel	0.0
Total Sand	4.7
Coarse Sand	0.3
Medium Sand	1.2
Fine Sand	3.2
Silt and Clay	95.3

Plasticity Characteristics		
Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
66	22	44



Classification	
ASTM	Fat Clay (CH)
AASHTO	A-7-6

Test Method (As Applicable): ASTM D6913, ASTM D1140, ASTM D4318, ASTM D2487, AASHTO M145

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

David J. Hale, P.E.
Project Engineer

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, South Carolina 29402
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Acct. No:	**CD002**	**Project No: 230024**	**Date Sampled: 05/02/2023**
Report Date:	**05/24/2023**		**Sampled By: SCI**
Project:	**I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC, CDM Smith Project No. 222690**		**By Order Of: Client**
Location:	**Boring B12, UD-1**		**Order Number:**
Client:	**CDM SMITH**		
REPORT:	**One-Dimensional Consolidation Properties of Soils**		**LAB NO: 82517-11**
Client PO:	**111563**	**TEST RESULTS**	**Report No: 82517-B12, UD-01 Cons**

As requested, Soil Consultants, Inc. performed one-dimensional consolidation testing. Results are attached.

Test Method (As Applicable): ASTM D2435

Orig: CDM SMITH Attn: Mr Thomas Evans
E-Mail: evanste@cdmsmith.com (1-ec copy)

Respectfully Submitted,
SOIL CONSULTANTS, INC.

AASHTO ACCREDITED

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 25082 DAVID JAMES HALE

David J. Hale, P.E.
Project Engineer

05/24/2023

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT WRITTEN PERMISSION.

SCI | SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

ONE DIMENSIONAL CONSOLIDATION PROPERTIES OF SOILS
ASTM D2435

Client CDM Smith
Project Name I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC
Project Number 230024 (CDM Smith Project 222690) **Work Order** 82517

SAMPLE INFORMATION	Specimen Number	1
	Specimen ID	UD-1
	Boring No.	B12
	Depth (ft)	15-17
	Sample Type	Thin-walled tube
	Location	
	Fines Content, %	95.3
	Liquid Limit	66
	Plastic Limit	22
	Specific Gravity (ASSUMED)	2.72
	USCS Classification	CH / A-7-6
	Color	Gray
	Visual Description	Fat Clay
	Visual Classification	
TEST PROCEDURE	Starting Date	5/3/2023
	Apparatus	Consolidation Load Frame #1
	Technician	A. Chubb
	Preparation procedure	Ring lined sampler
	Condition of test	Inundated
	Stress at inundation	0.025 tsf
	Test water	Potable tap water
	Test method	Method A
	Coefficient of consolidation method	Methods 1 and 2
INITIAL CONDITIONS	Average Diameter, in.	2.499
	Average Height, in.	1.000
	Water Content, %	66.6
	Source of Water Content Sample	Cuttings
	Wet Density, pcf	97.6
	Dry Density, pcf	58.6
	Saturation, %	95.38
	Void Ratio, eo	1.899
FINAL CONDITIONS	Water Content, %	36.6
	Source of Water Content Sample	Full sample
	Wet Density, pcf	121.9
	Dry Density, pcf	89.2
	Saturation, %	110.25
	Void Ratio, eo	0.903
	Final Differential Height, in.	-0.025
	Preconsolidation Pressure (estimated)	2.0 tsf
REMARKS	Based on the e-log p diagram, SCI interpreted the preconsolidation pressure. The geotechnical engineer of record should independently determine the preconsolidation pressure for specific use.	

SCI | SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

Construction Materials | Geotechnical | Nondestructive | Special Inspections

Client CDM Smith
Project Name I-526 Lowcountry Corridor Phase 2, Mt. Pleasant, SC
Project Number 230024 (CDM Smith Project 222690) **Work Order** 82517
Test One Dimensional Consolidation Properties of Soils **Method** ASTM D2435

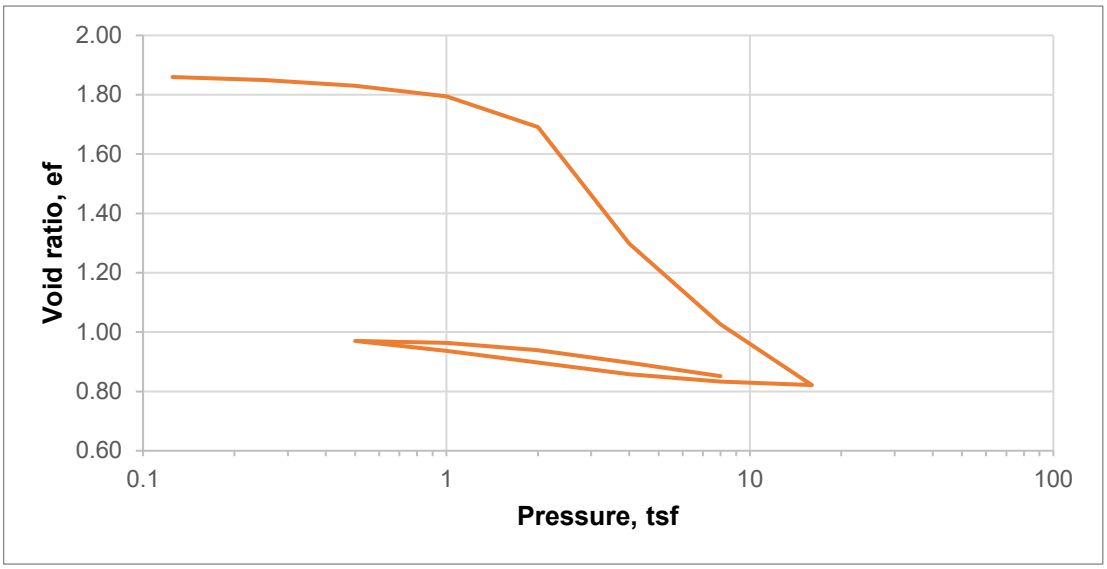
TEST DATA SUMMARY

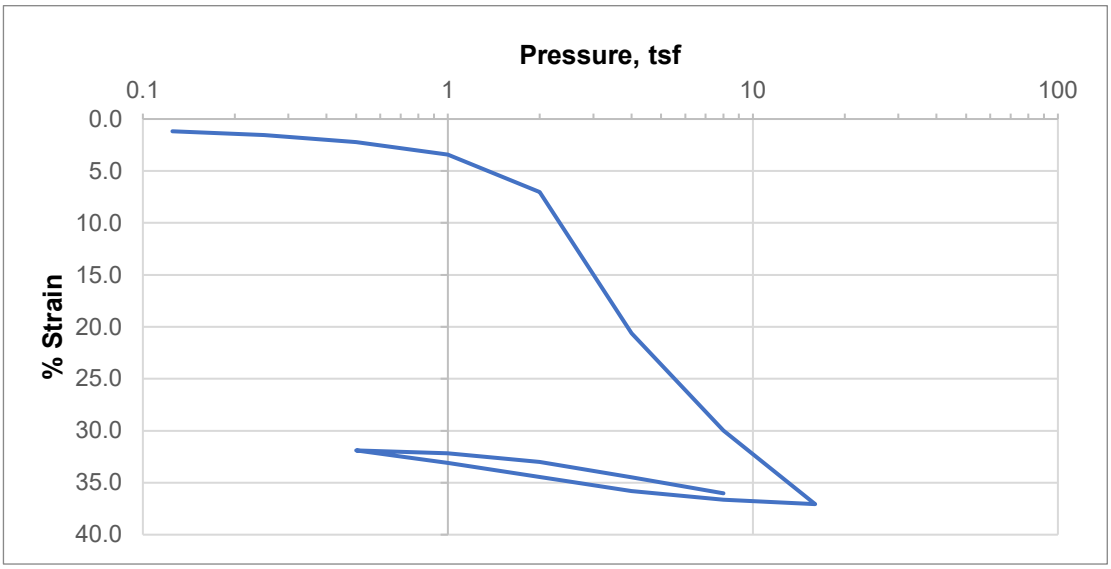
Load, tsf	Cumulative Change in Height, in.	Specimen Height, in.	Void Height, in.	Vertical Strain, %	Void Ratio, e_f	Logarithm of Time Method		Square Root of Time Method	
						Time t_{90}, hr	$c_{v\,90}$, in^2/min	Time t_{50}, hr	$c_{v\,50}$, in^2/min
0.125	0.0118	0.9882	0.643	1.1800	1.860	0.2295	0.0601	0.0454	0.0690
0.25	0.0154	0.9846	0.639	1.5400	1.849	0.0865	0.1584	0.0160	0.1933
0.5	0.0221	0.9779	0.632	2.2100	1.830	0.1912	0.0707	0.0326	0.0964
1	0.0341	0.9659	0.620	3.4100	1.795	0.1462	0.0902	0.0976	0.0314
2	0.0702	0.9298	0.584	7.0200	1.691	0.2144	0.0570	0.0553	0.0468
4	0.2060	0.7940	0.448	20.6000	1.298	2.2484	0.0040	0.6262	0.0033
8	0.2998	0.7002	0.355	29.9800	1.026	1.3108	0.0053	0.4631	0.0035
16	0.3706	0.6294	0.284	37.0600	0.821	1.0065	0.0056	0.3905	0.0033
8	0.3664	0.6336	0.288	36.6400	0.834				
4	0.3580	0.6420	0.296	35.8000	0.858				
1	0.3309	0.6691	0.324	33.0900	0.936				
0.5	0.31900001	0.6810	0.335	31.9000	0.971				
1	0.32159999	0.6784	0.333	32.1600	0.963	1.6903	0.0038	0.0067	0.2264
2	0.3301	0.6699	0.32433617	33.0099983	0.938571	0.9362	0.0068	0.3128	0.0047
4	0.34469998	0.65530002	0.30973619	34.4699974	0.8963212	0.5872	0.0103	0.1379	0.0024
8	0.3601	0.63989997	0.29433617	36.0099983	0.8517563	0.6167	0.0094	0.2172	0.0062

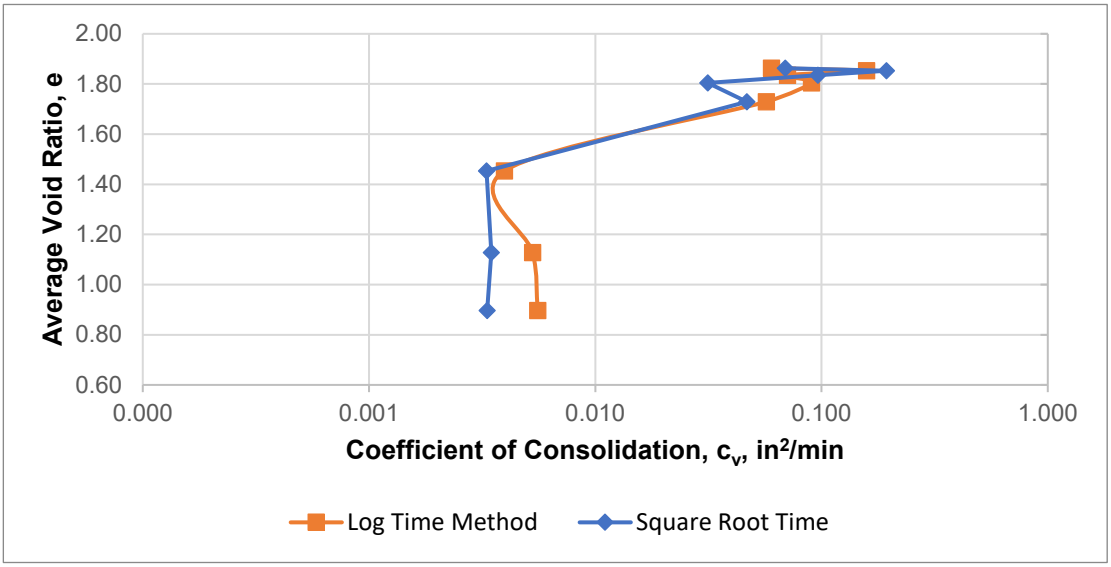
REMARKS

The coefficient of consolidation was generated by HUMBOLDT consolidation software.

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

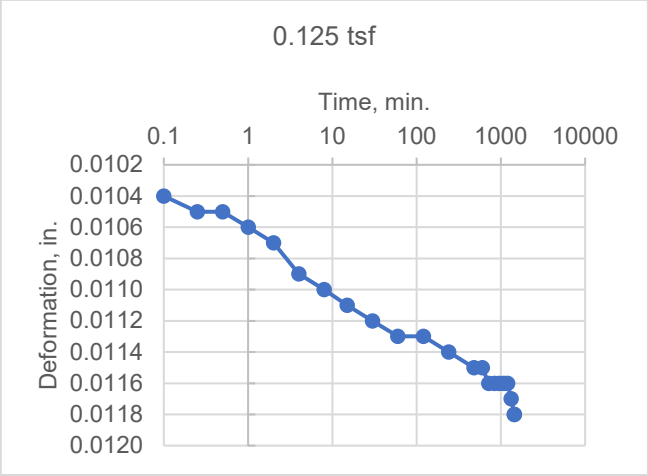


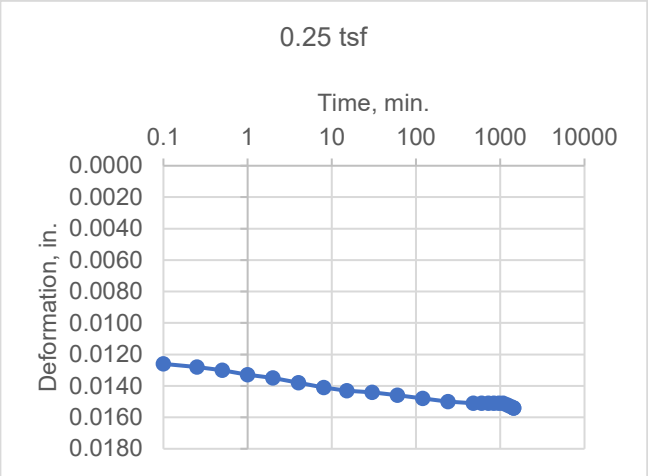


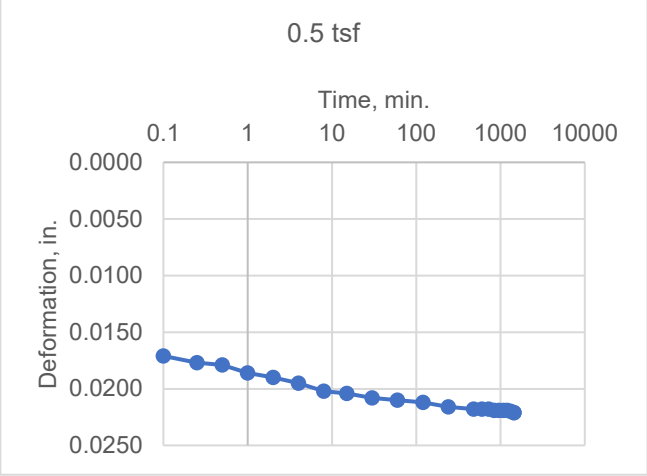


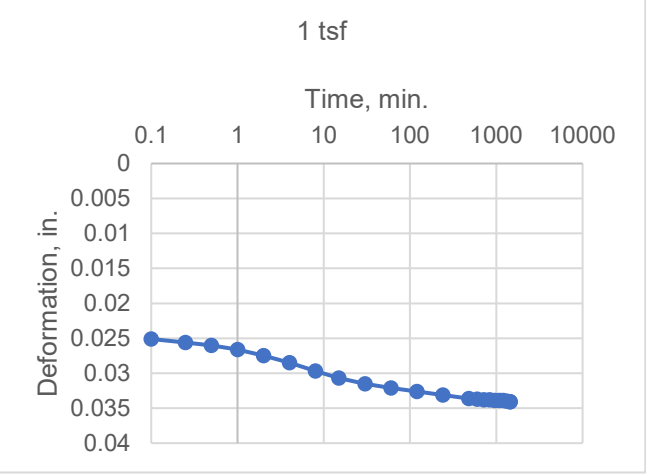
SCI
SOIL CONSULTANTS, INC.
Engineering and Testing
Since 1951

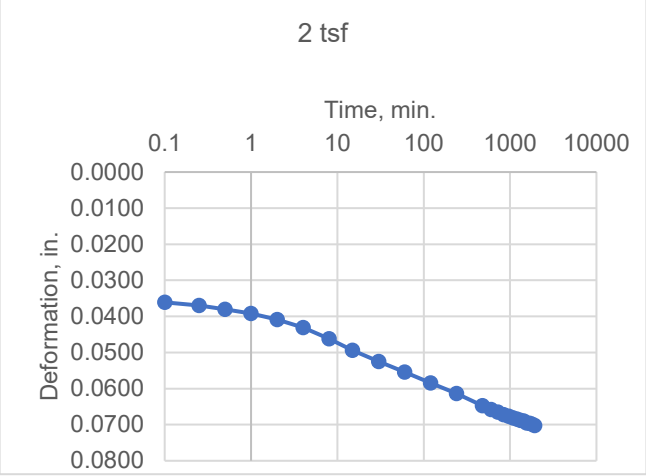
PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

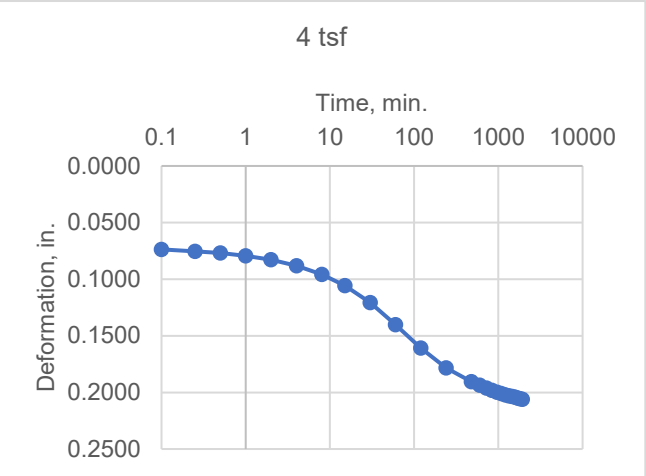




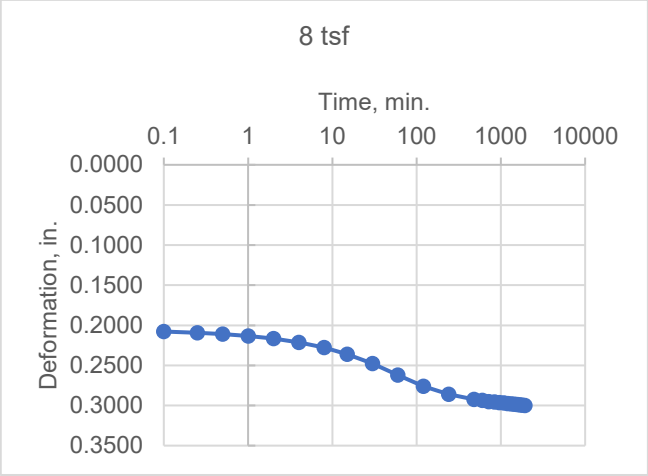


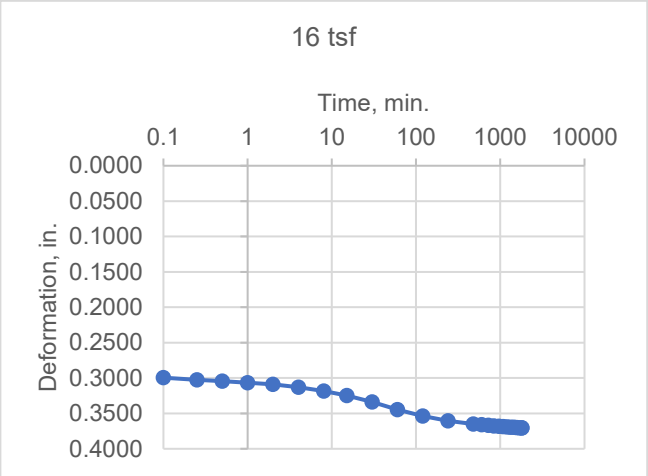


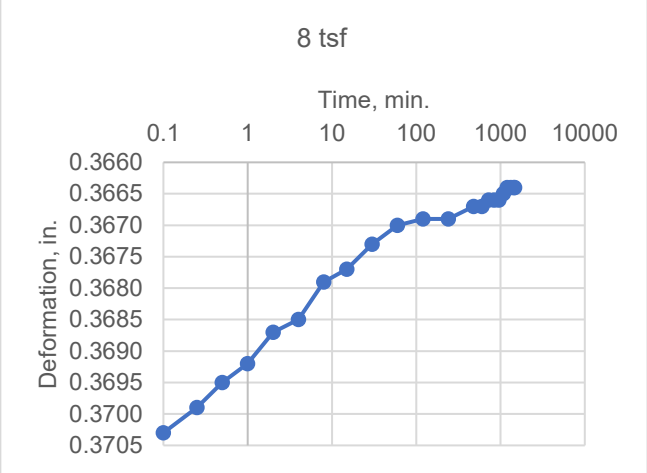


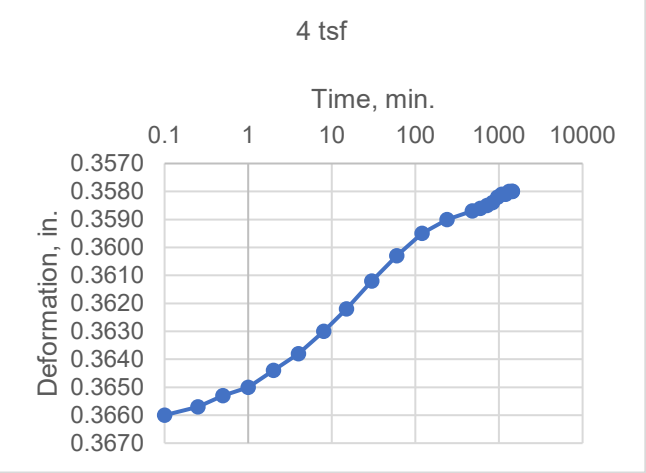


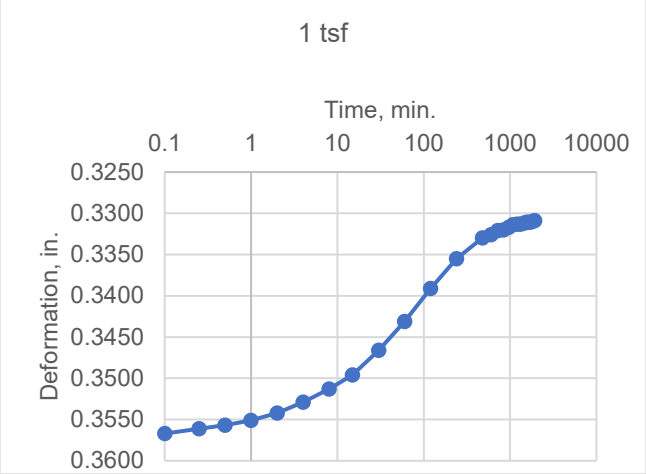
PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

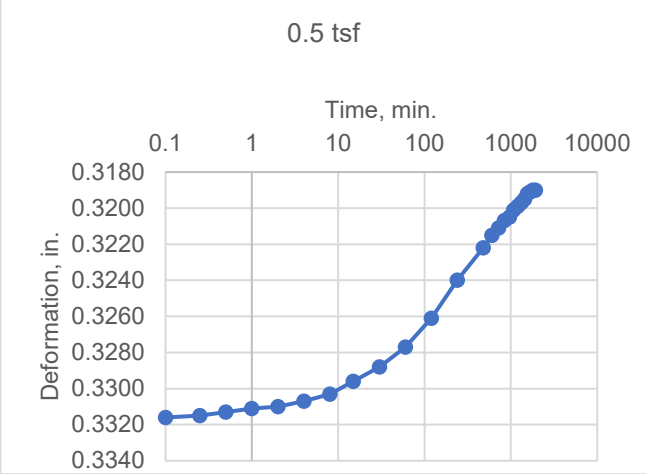




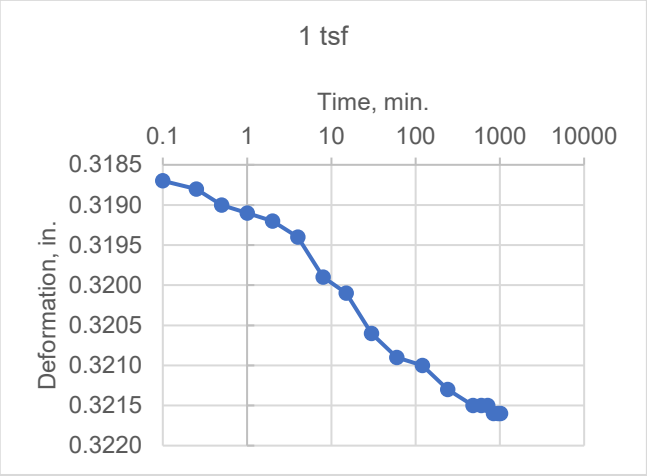


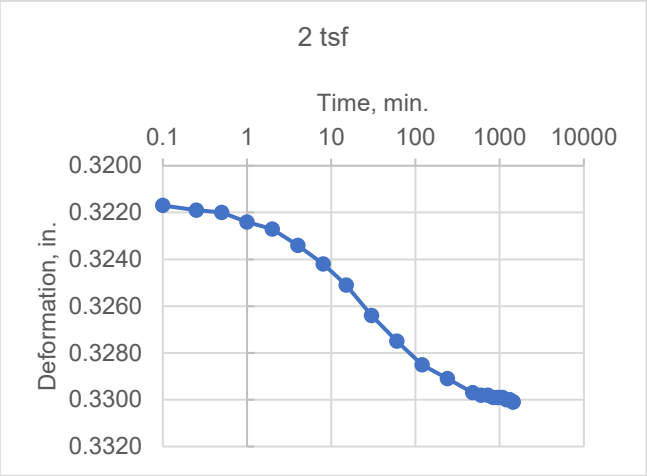


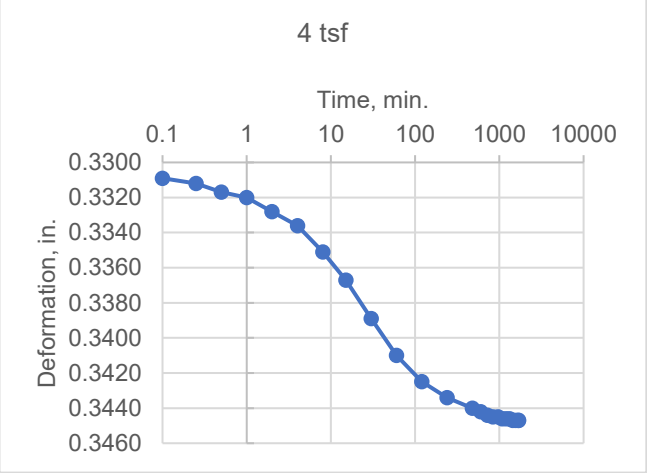


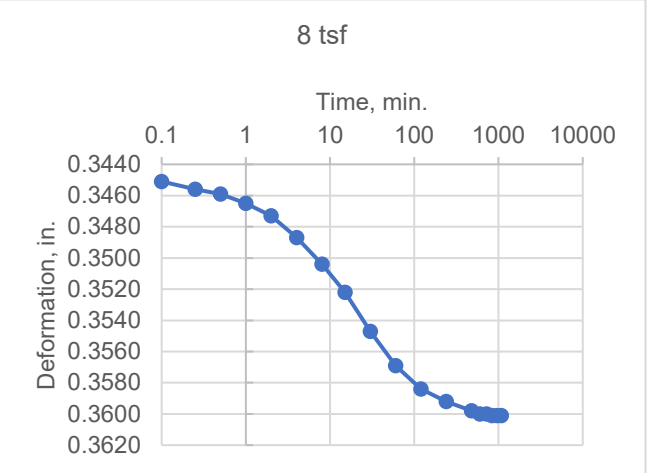


PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

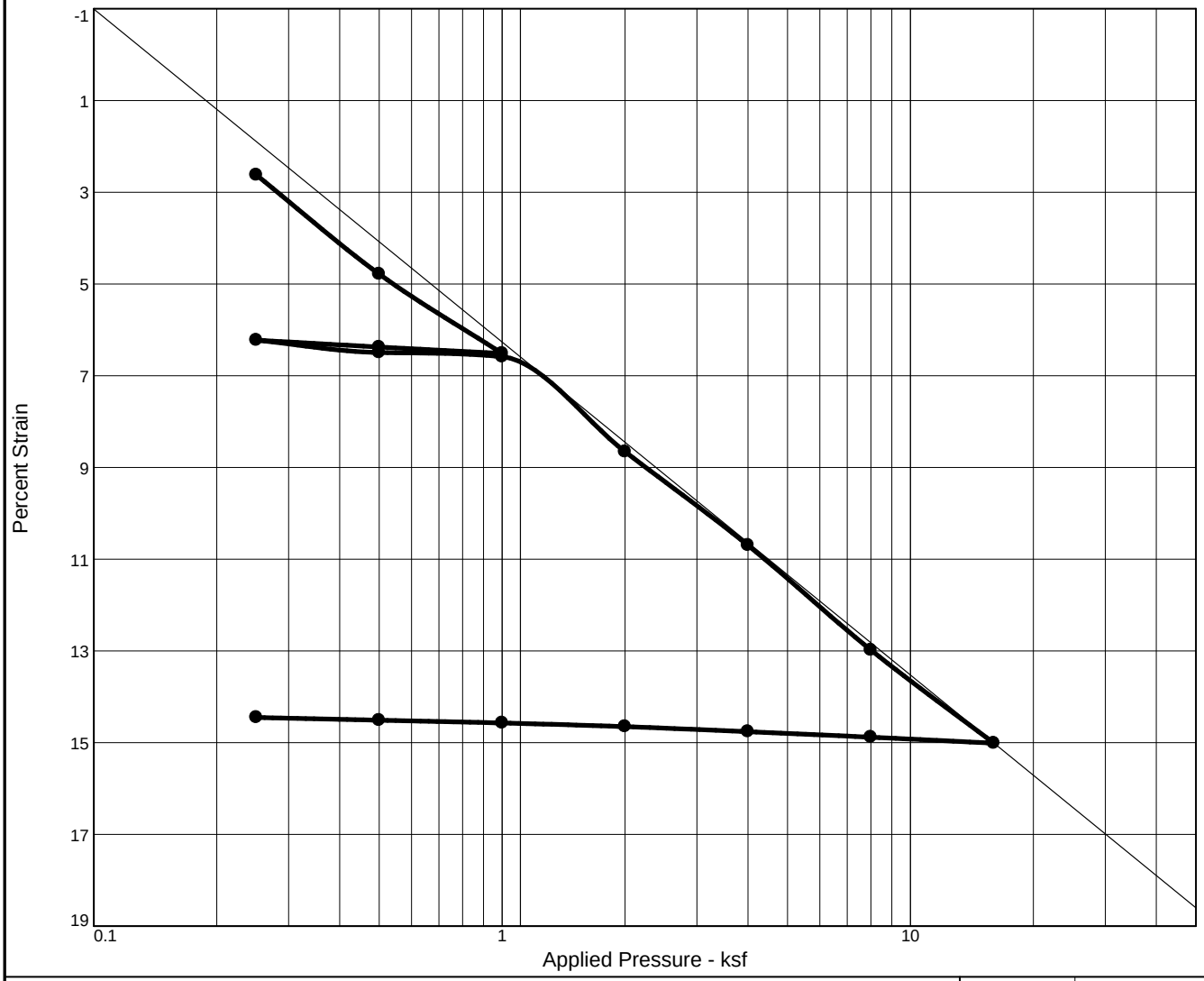








CONSOLIDATION TEST REPORT



MATERIAL DESCRIPTION	USCS	AASHTO
sandy lean CLAY (CL) - gray	N/A	N/A

LL	PI	Sp. Gr.	Overburden (ksf)	Dry Dens. (pcf)		Moisture		Saturation		Void Ratio		P_c (ksf)	C_c
				Init.	Final	Init.	Final	Init.	Final	Init.	Final		
N/A	N/A	2.65	1.0	50.7	59.6	84.2 %	84.2 %	98.6 %	100.0 %	2.263	1.791	1.3	0.24

Preparation Process: ASTM D2435 - Sec. 9	D2435 Method	C_r	Swell Press. (ksf)	Swell %
Condition of Test: Specimen kept moist during testing	A	0.14		

Project No. 200424A **Client:** CDM Smith

Project: I-526 / Long Point Road Interchange

Depth: 14 - 16' **Sample Number:** B 14

S&ME, Inc.

Greenville, SC

Remarks:

Checked By: Brian Vaughan, P.E.

Title:

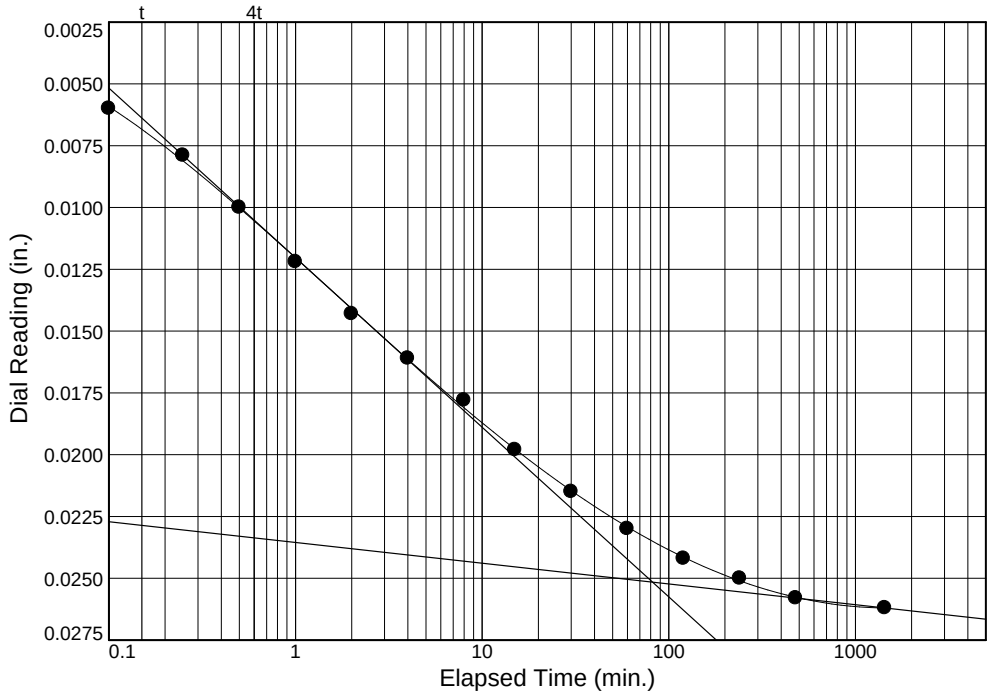
Figure 1

Tested By: Benjamin Kovaleski 8/19/25

Dial Reading vs. Time

Project No.: 200424A
Project: I-526 / Long Point Road Interchange

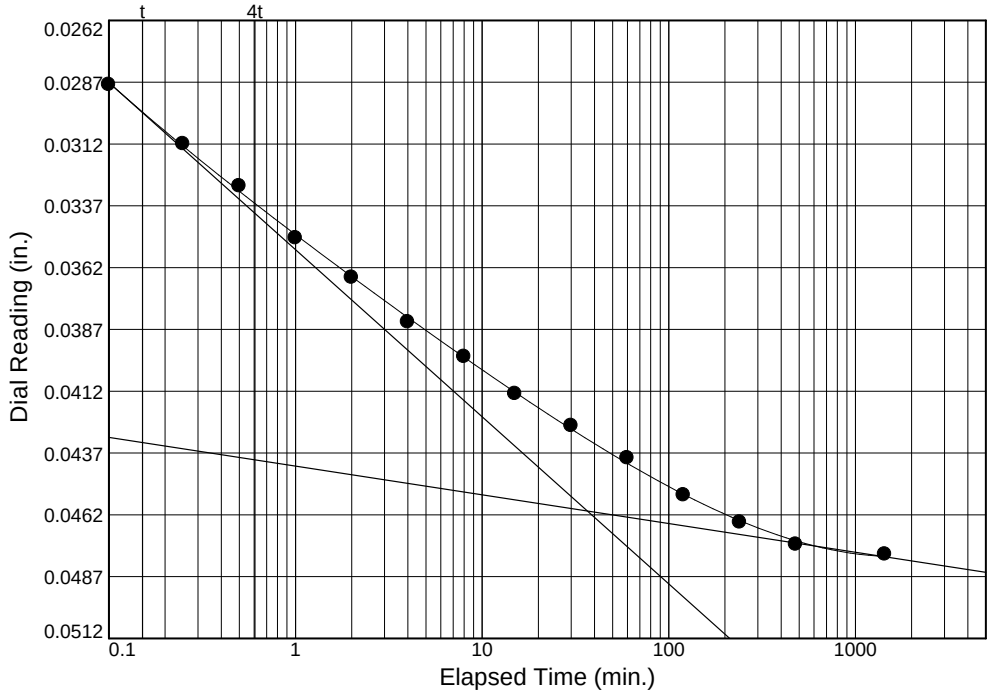
Depth: 14 - 16' Sample Number: B 14



Load No.= 1
Load= 0.25 ksf
D_0 = 0.0031
D_{50} = 0.0141
D_{100} = 0.0252
T_{50} = 2.03 min.

C_v @ T_{50}
0.236 ft.^{2}/day

C_α = 0.003



Load No.= 2
Load= 0.50 ksf
D_0 = 0.0262
D_{50} = 0.0361
D_{100} = 0.0460
T_{50} = 1.67 min.

C_v @ T_{50}
0.273 ft.^{2}/day

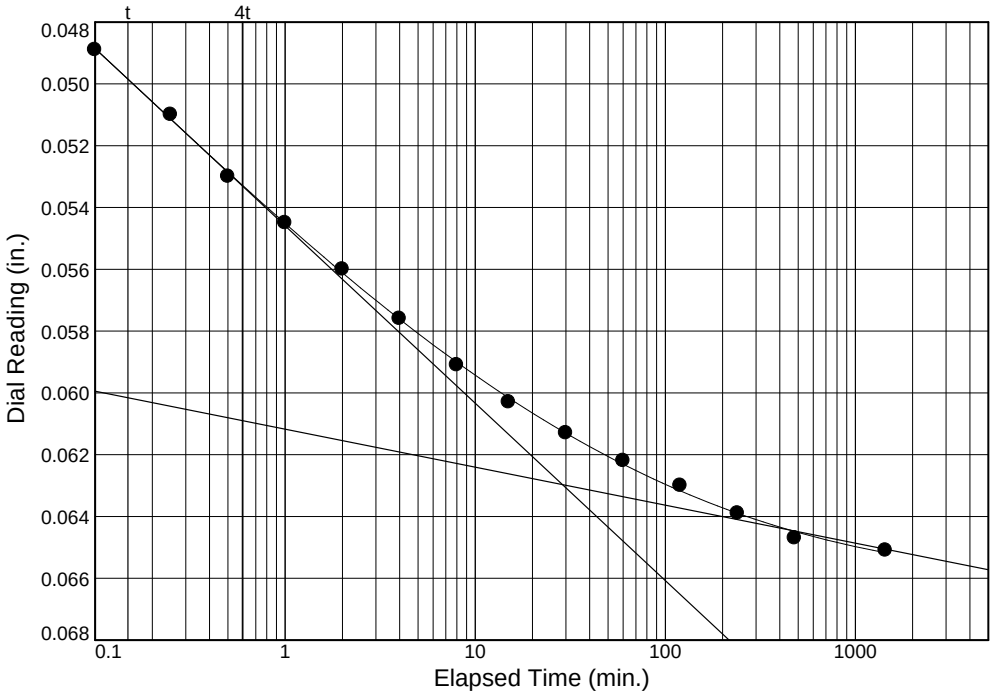
C_α = 0.004

Figure 2

Dial Reading vs. Time

Project No.: 200424A
Project: I-526 / Long Point Road Interchange

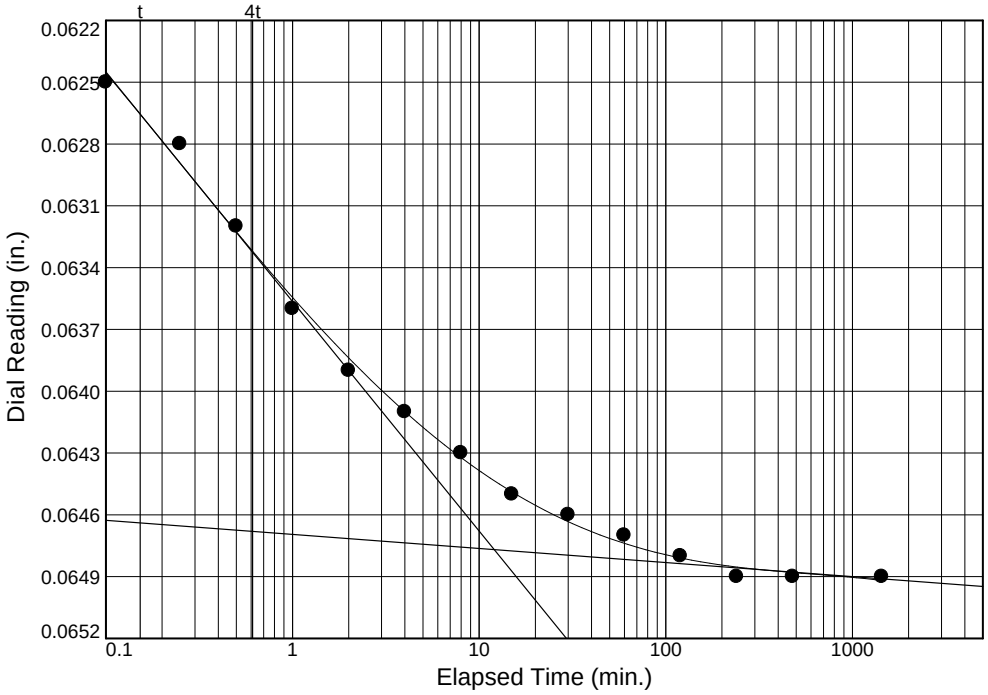
Depth: 14 - 16' Sample Number: B 14



Load No.= 3
Load= 1.00 ksf
D_0 = 0.0464
D_{50} = 0.0547
D_{100} = 0.0630
T_{50} = 1.08 min.

C_v @ T_{50}
0.406 ft.^{2}/day

C_α = 0.004



Load No.= 6
Load= 0.50 ksf
D_0 = 0.0620
D_{50} = 0.0634
D_{100} = 0.0648
T_{50} = 0.70 min.

C_v @ T_{50}
0.620 ft.^{2}/day

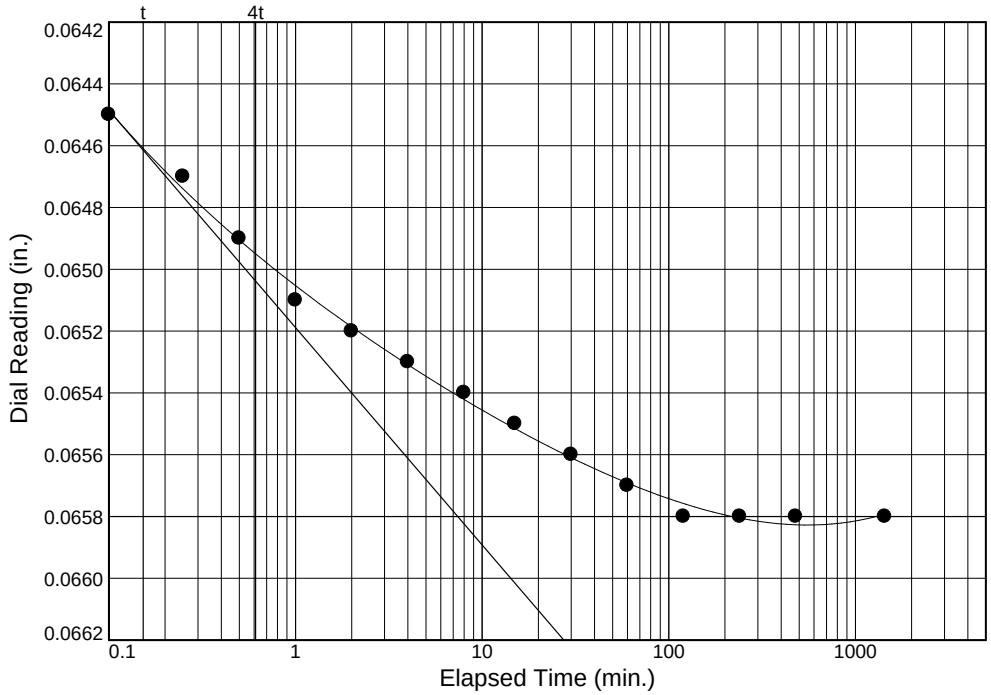
C_α = 0.000

Figure 3

Dial Reading vs. Time

Project No.: 200424A
Project: I-526 / Long Point Road Interchange

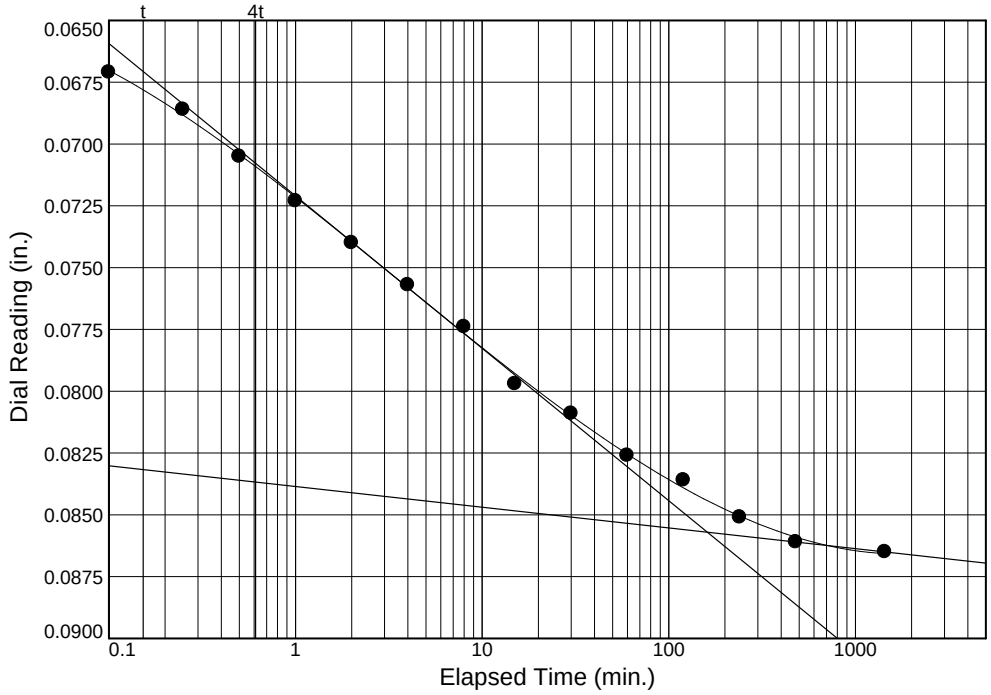
Depth: 14 - 16' Sample Number: B 14



Load No.= 7
Load= 1.00 ksf
D_0 = 0.0643
D_{50} = 0.0650
D_{100} = 0.0658
T_{50} = 0.91 min.

C_v @ T_{50}
0.472 ft.^{2}/day

C_α = 0.000



Load No.= 8
Load= 2.00 ksf
D_0 = 0.0647
D_{50} = 0.0752
D_{100} = 0.0857
T_{50} = 3.19 min.

C_v @ T_{50}
0.132 ft.^{2}/day

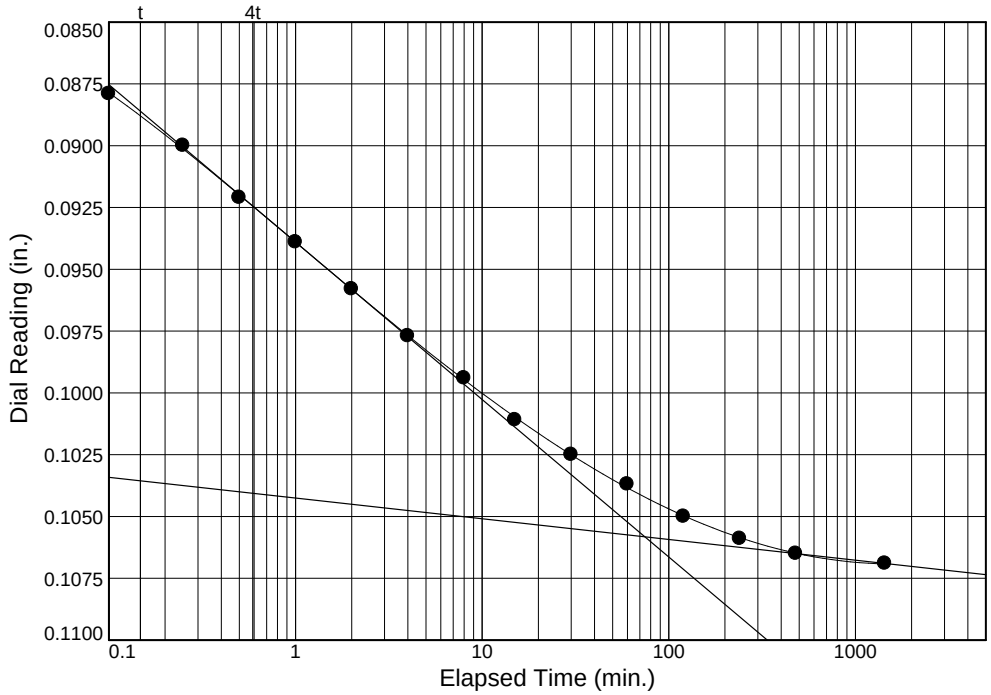
C_α = 0.003

Figure 4

Dial Reading vs. Time

Project No.: 200424A
Project: I-526 / Long Point Road Interchange

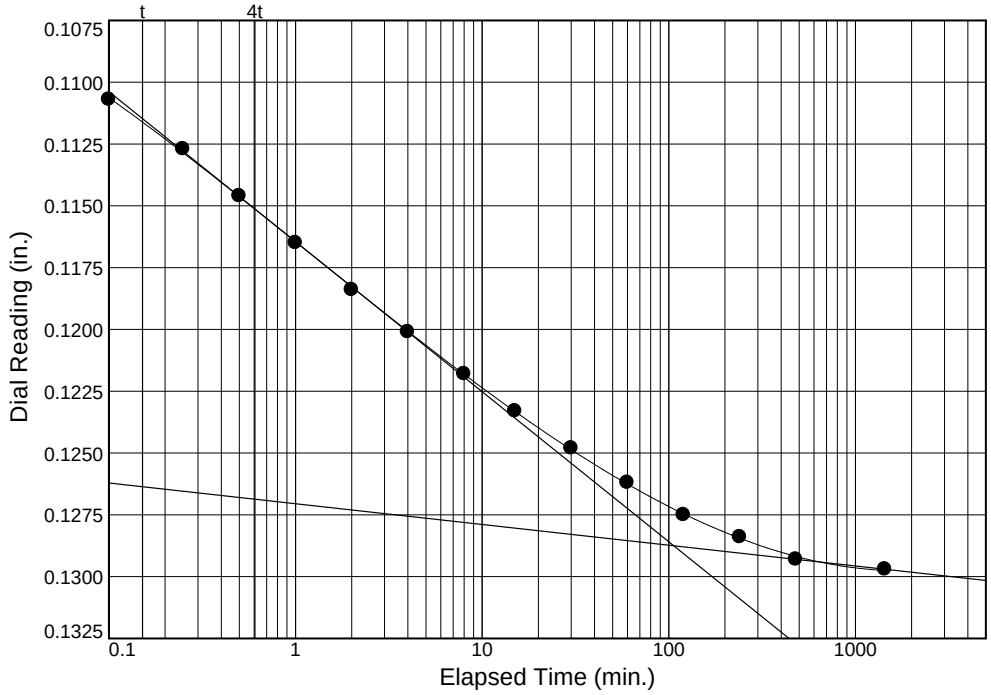
Depth: 14 - 16' Sample Number: B 14



Load No.= 9
Load= 4.00 ksf
D_0 = 0.0851
D_{50} = 0.0955
D_{100} = 0.1058
T_{50} = 1.77 min.

C_v @ T_{50}
0.226 ft.^{2}/day

C_α = 0.003



Load No.= 10
Load= 8.00 ksf
D_0 = 0.1081
D_{50} = 0.1184
D_{100} = 0.1288
T_{50} = 2.12 min.

C_v @ T_{50}
0.181 ft.^{2}/day

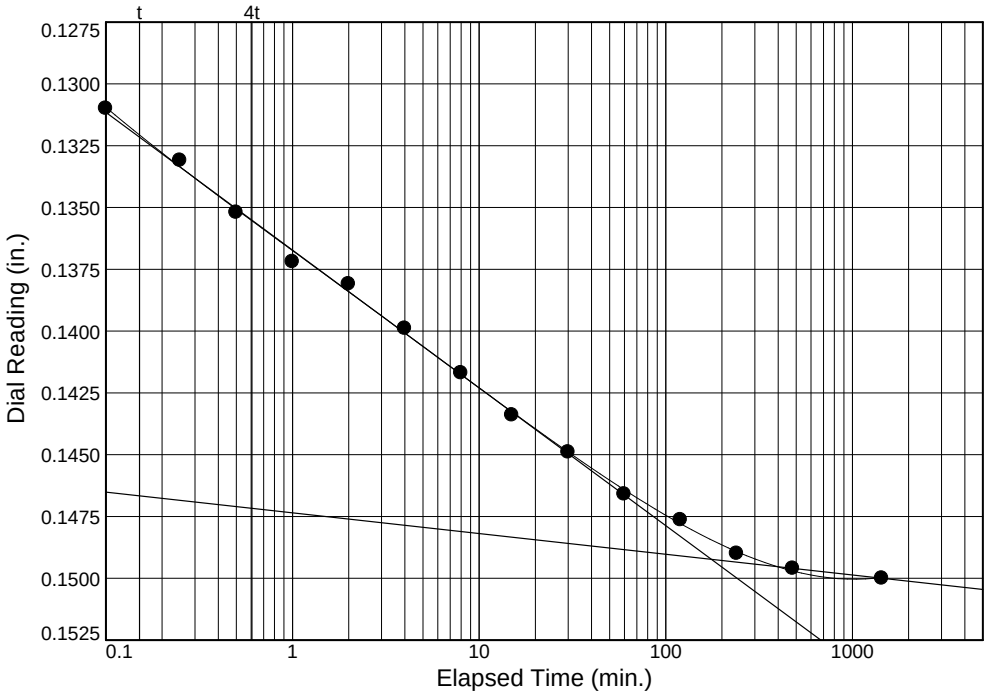
C_α = 0.003

Figure 5

Dial Reading vs. Time

Project No.: 200424A
Project: I-526 / Long Point Road Interchange

Depth: 14 - 16' Sample Number: B 14



Load No.= 11

Load= 16.00 ksf

D_0 = 0.1286

D_{50} = 0.1389

D_{100} = 0.1492

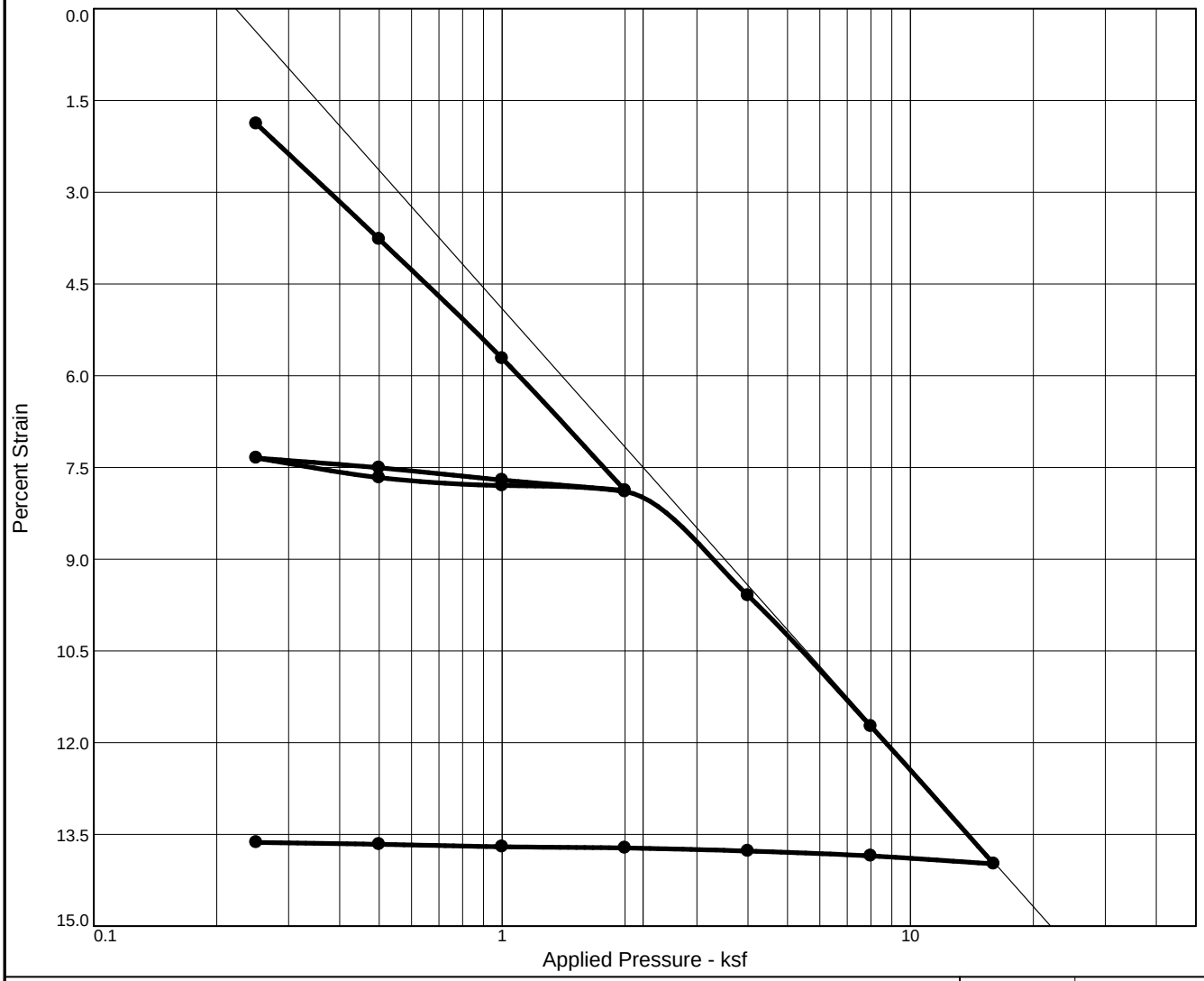
T_{50} = 2.47 min.

C_v @ T_{50}
0.147 ft.^{2}/day

C_α = 0.003

Figure 6

CONSOLIDATION TEST REPORT



MATERIAL DESCRIPTION	USCS	AASHTO
sandy lean CLAY (CL) - gray	CL	N/A

LL	PI	Sp. Gr.	Overburden (ksf)	Dry Dens. (pcf)		Moisture		Saturation		Void Ratio		P_c (ksf)	C_c
				Init.	Final	Init.	Final	Init.	Final	Init.	Final		
N/A	N/A	2.65	2.0	55.5	71.2	69.8 %	69.8 %	93.3 %	100.0 %	1.983	1.576	3.1	0.22

Preparation Process: ASTM D2435 - Sec. 9

Condition of Test: Moist conditioned

D2435 Method	C_r	Swell Press. (ksf)	Swell %
A	0.14		

Project No. 200424A **Client:** CDM Smith

Project: I-526 / Long Point Road Interchange

Depth: 25 - 27' **Sample Number:** EMB 14

S&ME, Inc.

Greenville, SC

Remarks:
Specimen kept moist during testing.

Checked By: Brian Vaughan, P.E.

Title:

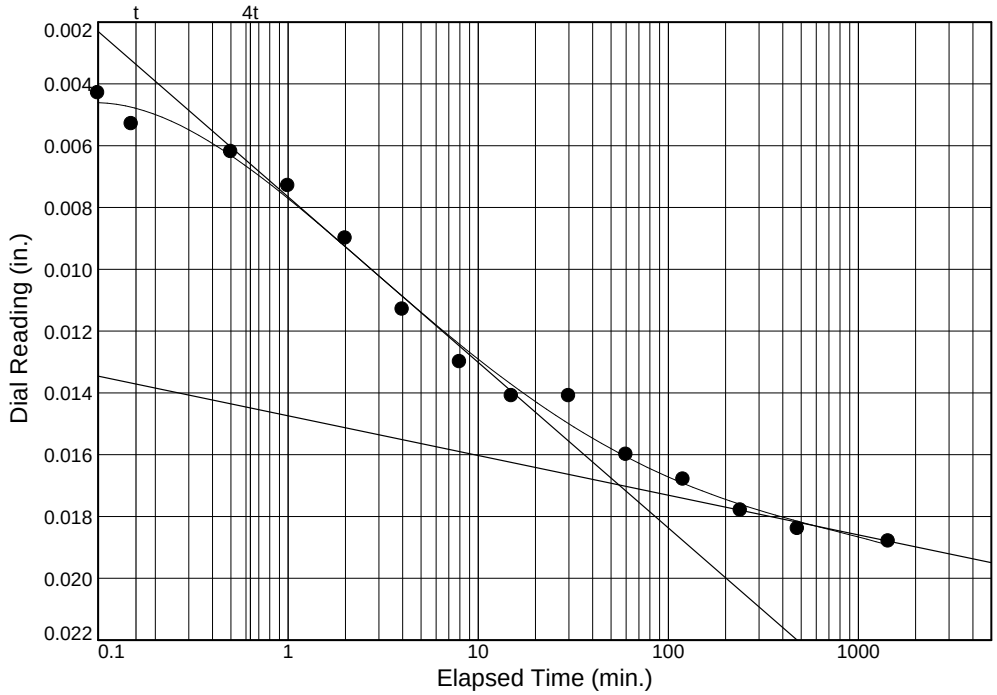
Figure 1

Tested By: Benjamin Kovaleski 8/19/25

Dial Reading vs. Time

Project No.: 200424A
Project: I-526 / Long Point Road Interchange

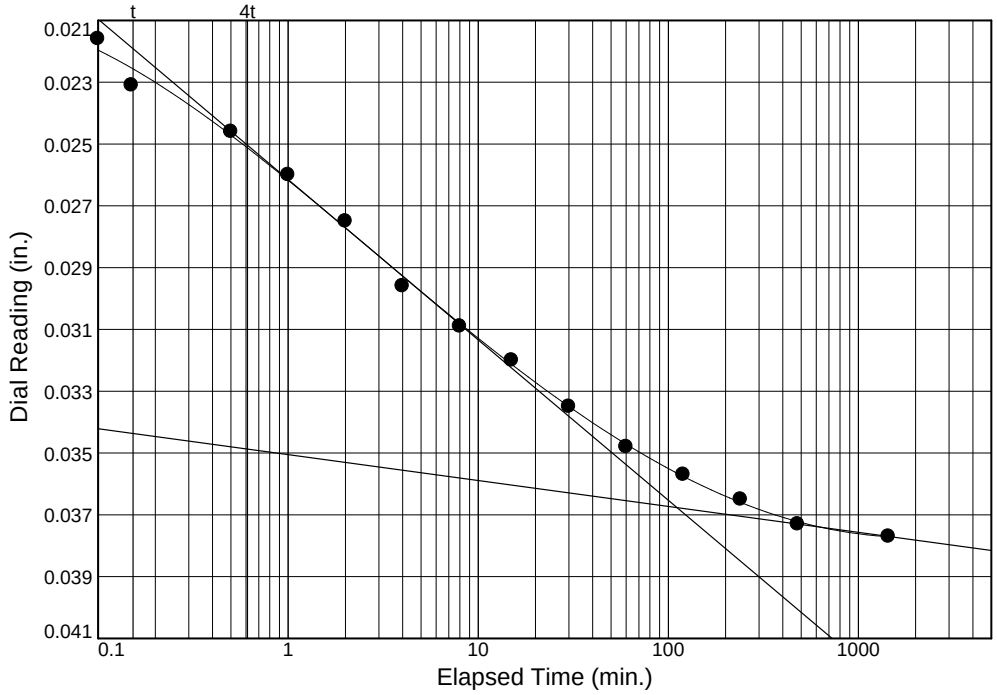
Depth: 25 - 27' Sample Number: EMB 14



Load No.= 1
Load= 0.25 ksf
D_0 = 0.0028
D_{50} = 0.0099
D_{100} = 0.0170
T_{50} = 2.62 min.

C_v @ T_{50}
0.185 ft.^{2}/day

C_α = 0.004



Load No.= 2
Load= 0.50 ksf
D_0 = 0.0200
D_{50} = 0.0284
D_{100} = 0.0368
T_{50} = 2.70 min.

C_v @ T_{50}
0.172 ft.^{2}/day

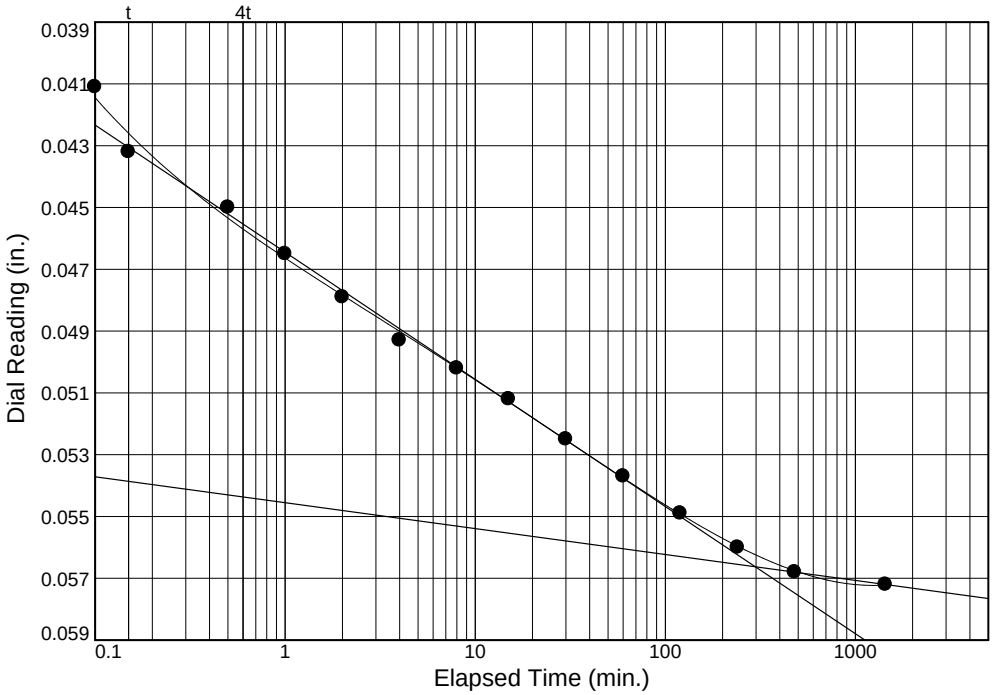
C_α = 0.002

Figure 2

Dial Reading vs. Time

Project No.: 200424A
Project: I-526 / Long Point Road Interchange

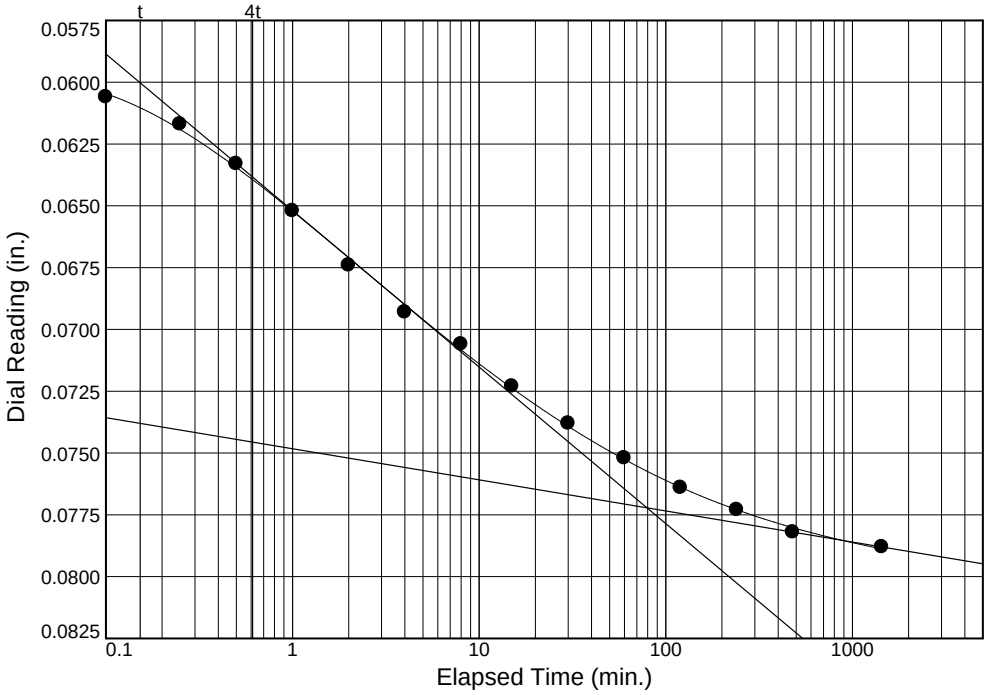
Depth: 25 - 27' Sample Number: EMB 14



Load No.= 3
Load= 1.00 ksf
D_0 = 0.0395
D_{50} = 0.0481
D_{100} = 0.0566
T_{50} = 2.29 min.

C_v @ T_{50}
0.195 ft.^{2}/day

C_α = 0.002



Load No.= 4
Load= 2.00 ksf
D_0 = 0.0581
D_{50} = 0.0677
D_{100} = 0.0772
T_{50} = 2.46 min.

C_v @ T_{50}
0.174 ft.^{2}/day

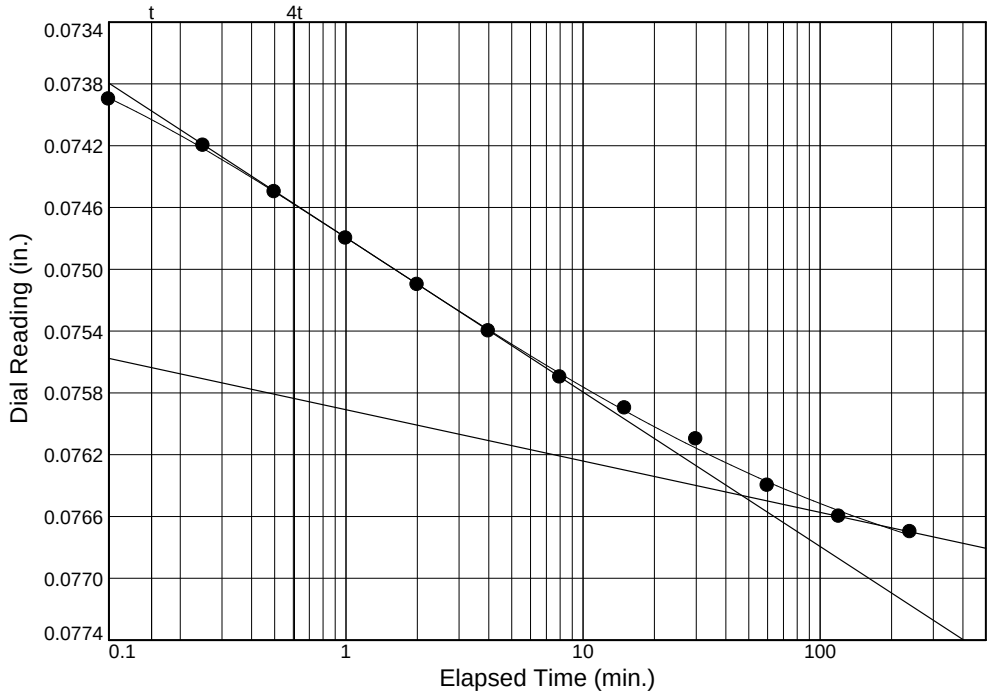
C_α = 0.004

Figure 3

Dial Reading vs. Time

Project No.: 200424A
Project: I-526 / Long Point Road Interchange

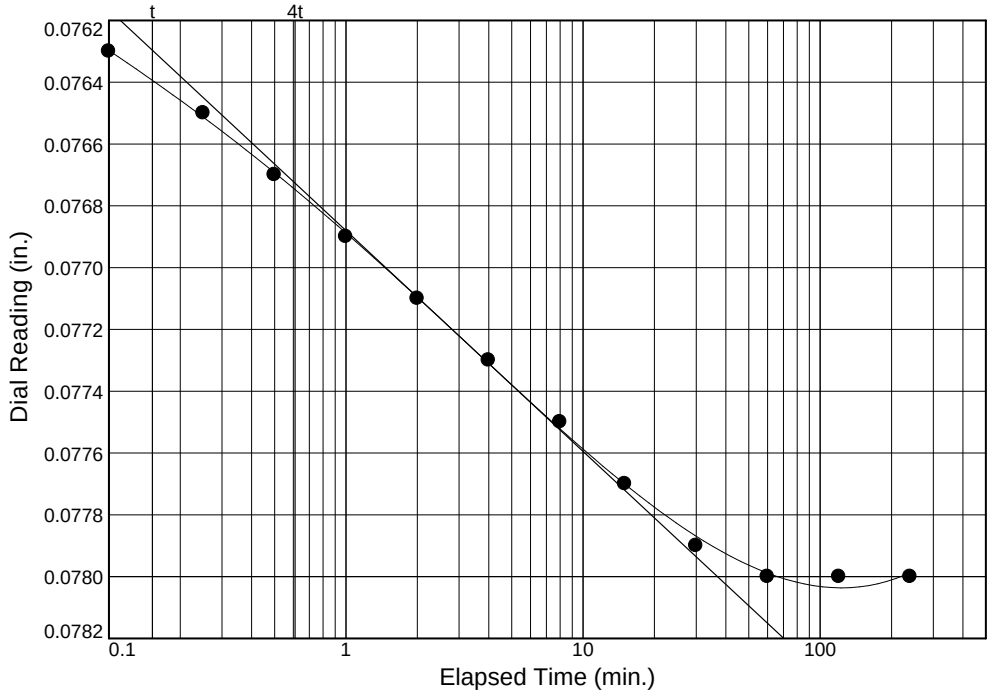
Depth: 25 - 27' Sample Number: EMB 14



Load No.= 8
Load= 0.50 ksf
D_0 = 0.0735
D_{50} = 0.0750
D_{100} = 0.0765
T_{50} = 1.51 min.

C_v @ T_{50}
0.280 ft.^{2}/day

C_α = 0.001



Load No.= 9
Load= 1.00 ksf
D_0 = 0.0760
D_{50} = 0.0770
D_{100} = 0.0780
T_{50} = 1.56 min.

C_v @ T_{50}
0.269 ft.^{2}/day

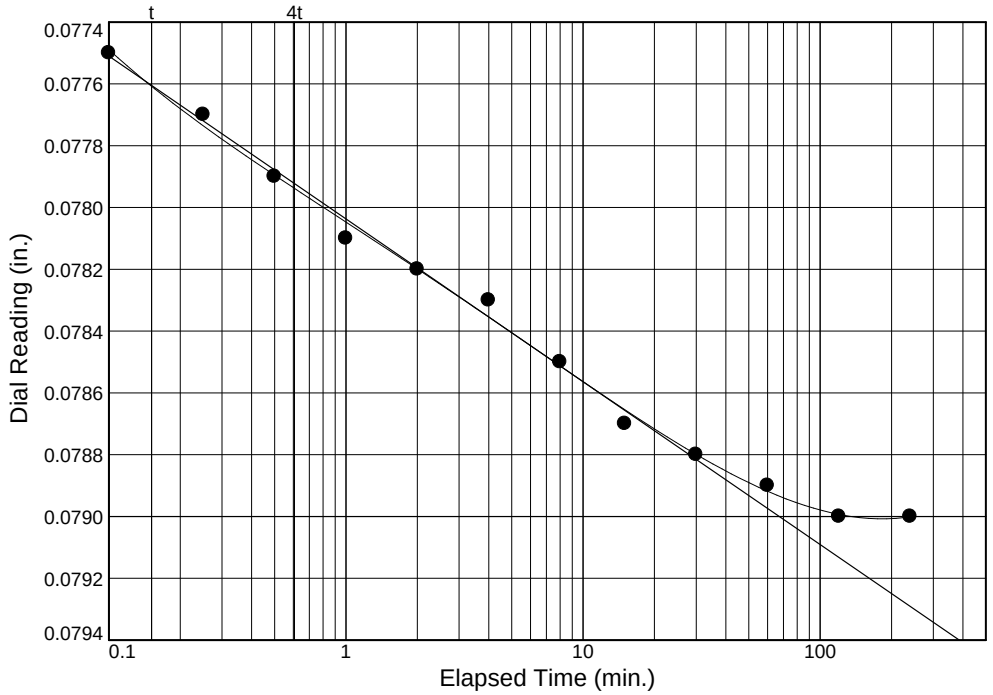
C_α = 0.000

Figure 4

Dial Reading vs. Time

Project No.: 200424A
Project: I-526 / Long Point Road Interchange

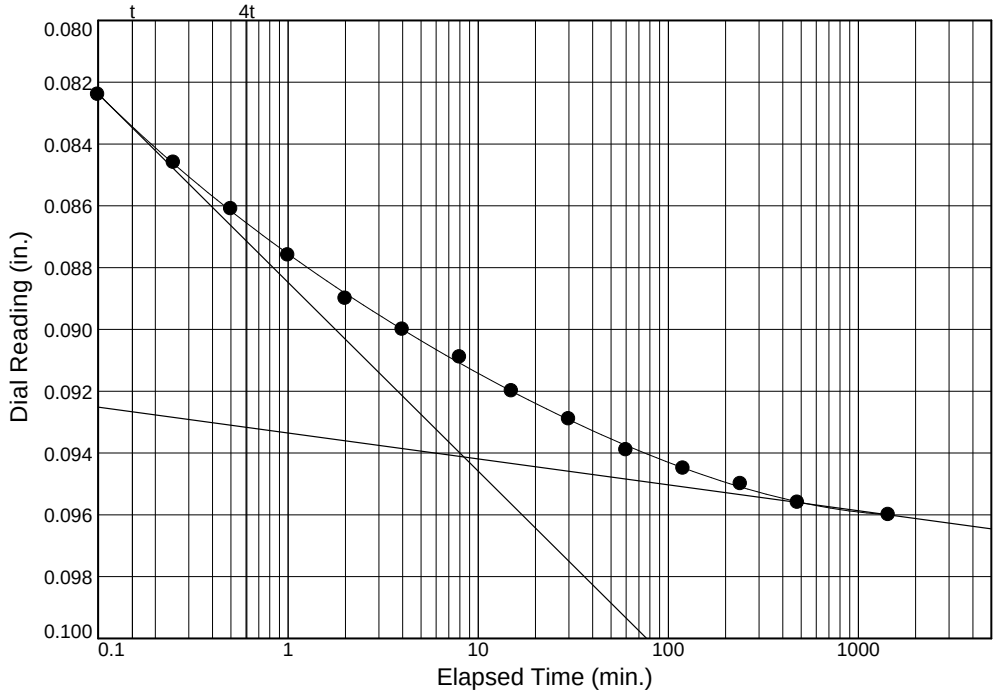
Depth: 25 - 27' Sample Number: EMB 14



Load No.= 10
Load= 2.00 ksf
D_0 = 0.0773
D_{50} = 0.0781
D_{100} = 0.0790
T_{50} = 1.52 min.

C_v @ T_{50}
0.275 ft.^{2}/day

C_α = 0.000



Load No.= 11
Load= 4.00 ksf
D_0 = 0.0803
D_{50} = 0.0872
D_{100} = 0.0941
T_{50} = 0.84 min.

C_v @ T_{50}
0.488 ft.^{2}/day

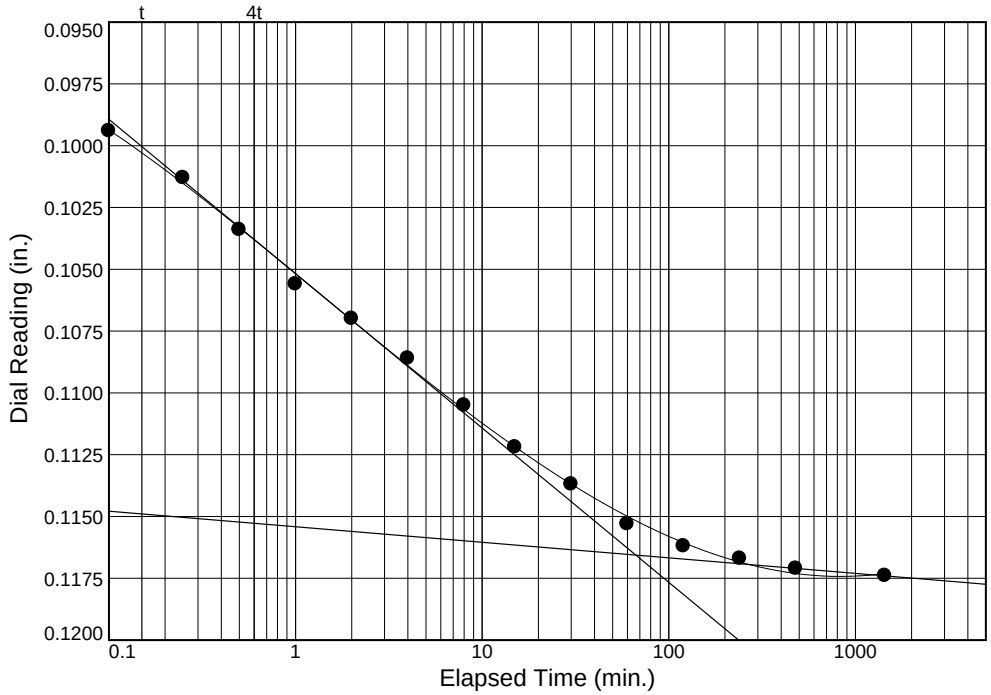
C_α = 0.002

Figure 5

Dial Reading vs. Time

Project No.: 200424A
Project: I-526 / Long Point Road Interchange

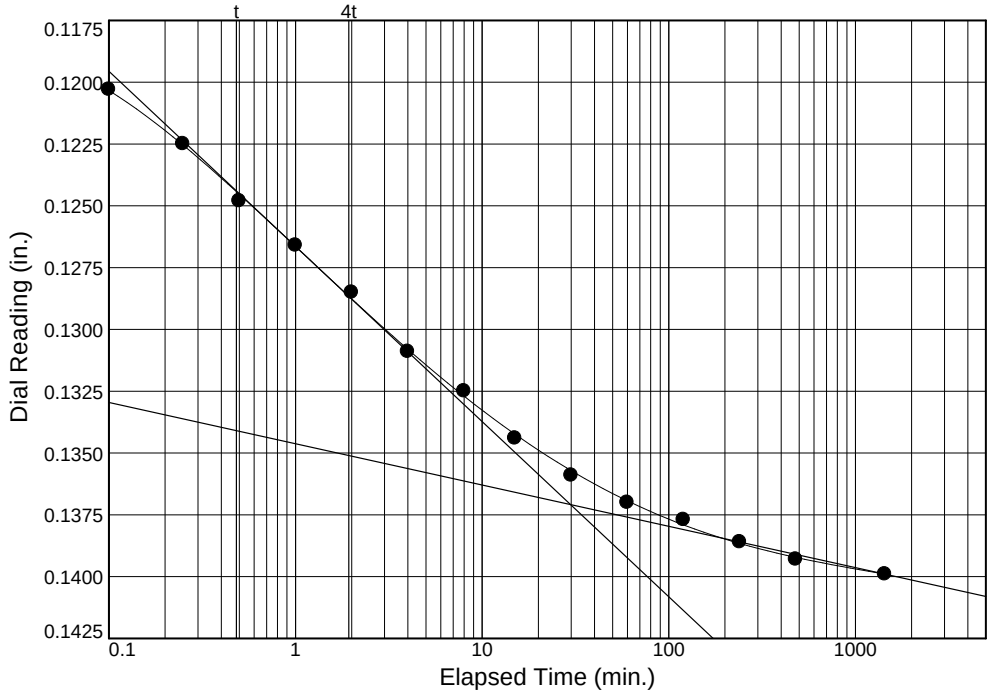
Depth: 25 - 27' Sample Number: EMB 14



Load No.= 12
Load= 8.00 ksf
D_0 = 0.0968
D_{50} = 0.1067
D_{100} = 0.1166
T_{50} = 1.73 min.

C_v @ T_{50}
0.227 ft.^{2}/day

C_α = 0.002



Load No.= 13
Load= 16.00 ksf
D_0 = 0.1202
D_{50} = 0.1286
D_{100} = 0.1371
T_{50} = 1.92 min.

C_v @ T_{50}
0.195 ft.^{2}/day

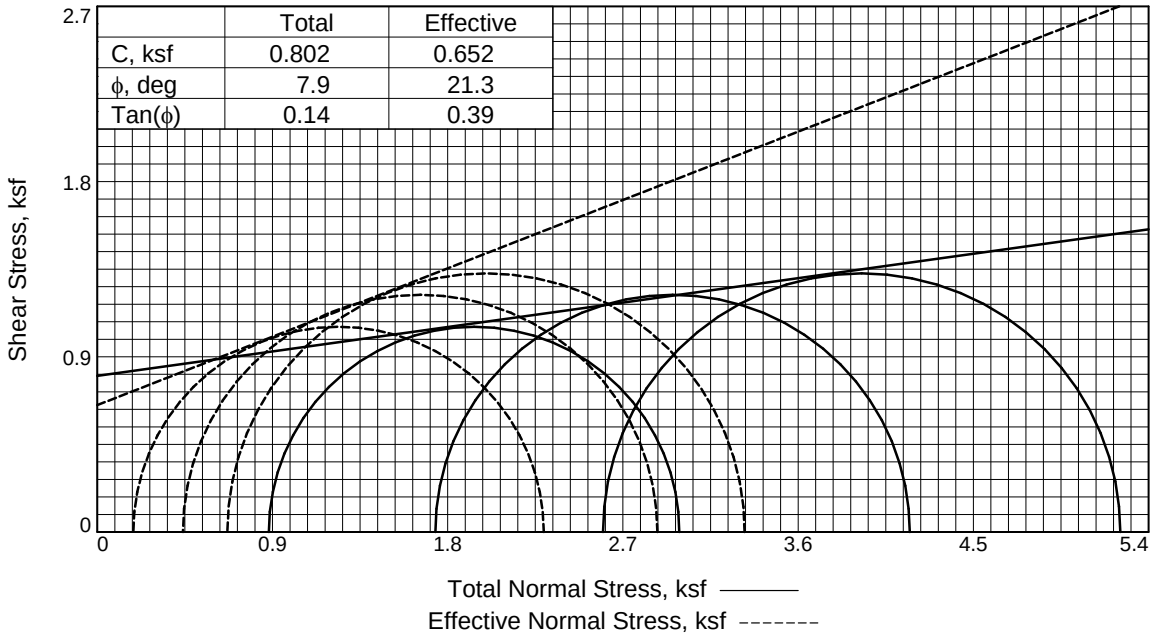
C_α = 0.005

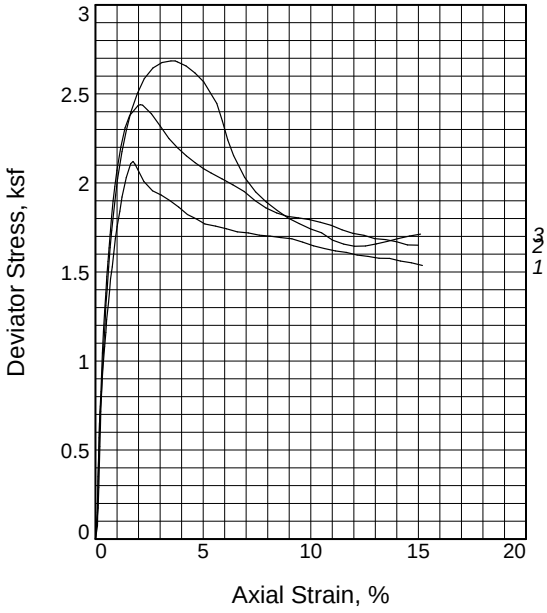
Figure 6

Table 5: Laboratory Undisturbed Sample Triaxial Testing Summary

Boring Number	Sample Number	Sample Depth (ft)	Atterberg Limits		Percent Finer #200 (%)	USCS	AASHTO	Test Specimen Number	Dry Unit Weight (pcf)	Void Ratio	Failure Stress (psi)
			LL	PI							
B04	UD-1	25 - 27	49	21	89.5	CL	A-7-6	1	56.4	1.93	2.11
								2	56.3	1.94	2.44
								3	50.4	2.28	2.66
B12	UD-2	30 - 32	54	32	78.4	CH	A-7-6	1	78.5	1.11	1.52
								2	80.5	1.06	4.75
								3	78.2	1.11	6.27
B14	UD-1	14-15	47	26	67.8	CL	A-7-6	1	50.6	2.27	1.67
								2	50.2	2.29	3.29
EMB14	UD-1	25-27	47	26	66.9	CL	A-7-6	1	56.4	1.93	2.00
								2	55.9	1.93	1.96

C & phi are not test results but an interpretation of the test results. The designer is responsible for interpreting test data as provided by S&ME.





Specimen No.		1	2	3
Initial	Water Content, %	72.5	72.5	85.7
	Dry Density, pcf	56.4	56.3	50.4
	Saturation, %	99.5	99.1	99.5
	Void Ratio	1.9310	1.9379	2.2828
	Diameter, in.	2.838	2.830	2.845
	Height, in.	5.830	5.907	5.869
At Test	Water Content, %	71.3	71.2	77.3
	Dry Density, pcf	57.7	58.1	54.0
	Saturation, %	101.3	102.2	99.3
	Void Ratio	1.8653	1.8471	2.0627
	Diameter, in.	2.817	2.797	2.775
	Height, in.	5.785	5.862	5.757
Strain rate, %/min.		0.07	0.07	0.07
Eff. Cell Pressure, ksf		0.881	1.737	2.598
Fail. Stress, ksf		2.108	2.437	2.657
Total Pore Pr., ksf		6.456	7.057	7.690
Strain, %		1.6	2.2	4.2
Ult. Stress, ksf		1.537	1.650	1.713
Total Pore Pr., ksf		6.259	6.995	7.611
Strain, %		15.2	15.0	15.1
$\bar{\sigma}_1$ Failure, ksf		2.293	2.877	3.325
$\bar{\sigma}_3$ Failure, ksf		0.185	0.440	0.668

Type of Test:
CU with Pore Pressures

Sample Type: Undisturbed

Description: lean CLAY [CL / A-7-6(22)]

LL= 49 **PL=** 28 **PI=** 21

Assumed Specific Gravity= 2.65

Remarks: The specimens failed with shearing. Failure selected at peak stress ratio. ASTM D4767. Percent passing the #200 sieve: 89.5%.

Figure 1

Client: CDM Smith

Project: 526 Longpoint Road Interchange

Location: UD-1

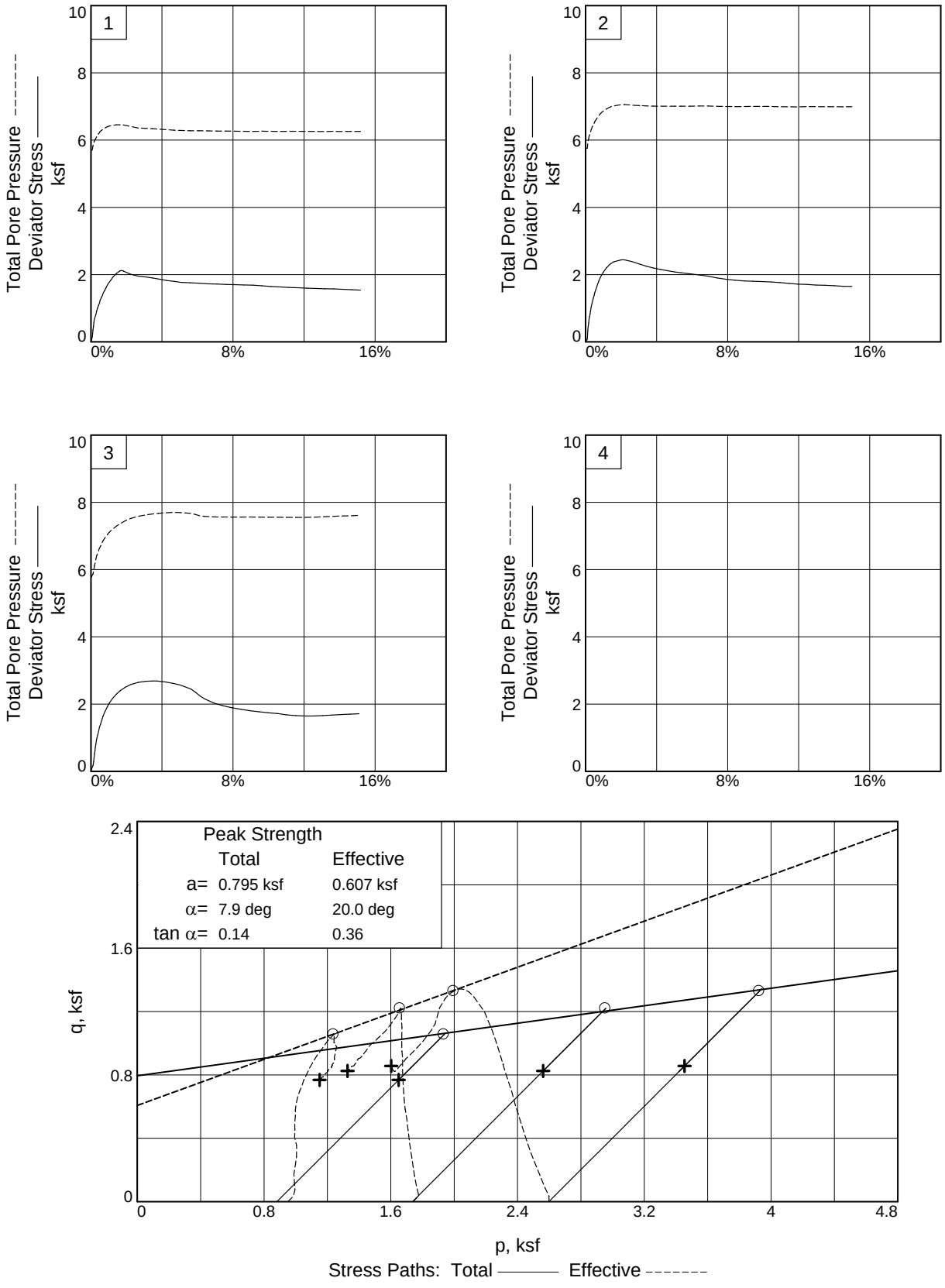
Sample Number: B04 **Depth:** 25.0 - 27.0'

Proj. No.: 200424A **Date Sampled:** 3/08/23

TRIAXIAL SHEAR TEST REPORT
S&ME, Inc.
Greenville, SC

Tested By: Benjamin Kovaleski - 6/29/23 **Checked By:** Brian Vaughan, P.E.

C & phi are not test results but an interpretation of the test results. The designer is responsible for interpreting test data as provided by S&ME.



Client: CDM Smith
Project: 526 Longpoint Road Interchange
Location: UD-1 **Depth:** 25.0 - 27.0' **Sample Number:** B04
Project No.: 200424A **Figure** 2

S&ME, Inc.

Tested By: Benjamin Kovaleski - 6/29/23 **Checked By:** Brian Vaughan, P.E.

TRIAXIAL COMPRESSION TEST 6/29/2023
CU with Pore Pressures 1:45 PM

Date: 3/08/23
Client: CDM Smith
Project: 526 Longpoint Road Interchange
Project No.: 200424A
Location: UD-1
Depth: 25.0 - 27.0' **Sample Number:** B04
Description: lean CLAY [CL / A-7-6(22)]
Remarks: The specimens failed with shearing. Failure selected at peak stress ratio. ASTM D4767. Percent passing the #200 sieve: 89.5%.
Type of Sample: Undisturbed
Assumed Specific Gravity=2.65 **LL=**49 **PL=**28 **PI=**21
Test Method: ASTM D 4767 Method A

Parameters for Specimen No. 1

Specimen Parameter	Initial	Saturated	Consolidated	Final
Moisture content: Moist soil+tare, gms.	121.650			936.400
Moisture content: Dry soil+tare, gms.	70.510			546.550
Moisture content: Tare, gms.	0.000			0.000
Moisture, %	72.5	72.8	71.3	71.3
Moist specimen weight, gms.	942.69			
Diameter, in.	2.838	2.829	2.817	
Area, in.²	6.326	6.287	6.232	
Height, in.	5.830	5.812	5.785	
Net decrease in height, in.		0.018	0.027	
Net decrease in water volume, cc.			7.950	
Wet density, pcf	97.4	98.4	98.9	
Dry density, pcf	56.4	57.0	57.7	
Void ratio	1.9310	1.9039	1.8653	
Saturation, %	99.5	101.3	101.3	

Test Readings for Specimen No. 1

Membrane modulus = 0.14 kN/cm²
Membrane thickness = 0.03 cm
Consolidation cell pressure = 46.120 psi (6.641 ksf)
Consolidation back pressure = 40.000 psi (5.760 ksf)
Consolidation effective confining stress = 0.881 ksf
Strain rate, %/min. = 0.07
Fail. Stress = 2.108 ksf **at reading no.** 25
Ult. Stress = 1.537 ksf **at reading no.** 55

Test Readings for Specimen No. 1

No.	Def. Dial in.	Load Dial	Load lbs.	Strain %	Deviator Stress ksf	Minor Eff. Stress ksf	Major Eff. Stress ksf	1:3 Ratio	Pore Press. psi	P ksf	Q ksf
0	0.0000	0.000	0.0	0.0	0.000	0.950	0.950	1.00	39.521	0.950	0.000
1	0.0021	2.997	3.0	0.0	0.069	0.950	1.019	1.07	39.521	0.985	0.035
2	0.0044	6.525	6.5	0.1	0.151	0.920	1.071	1.16	39.732	0.995	0.075
3	0.0056	10.309	10.3	0.1	0.238	0.873	1.111	1.27	40.059	0.992	0.119
4	0.0065	15.197	15.2	0.1	0.351	0.813	1.164	1.43	40.472	0.989	0.175
5	0.0085	20.408	20.4	0.1	0.471	0.763	1.234	1.62	40.823	0.998	0.235
6	0.0094	24.661	24.7	0.2	0.569	0.720	1.289	1.79	41.117	1.005	0.284
7	0.0107	28.062	28.1	0.2	0.647	0.682	1.329	1.95	41.387	1.005	0.324
8	0.0126	30.940	30.9	0.2	0.713	0.649	1.362	2.10	41.616	1.005	0.357
9	0.0158	35.133	35.1	0.3	0.810	0.588	1.398	2.38	42.034	0.993	0.405
10	0.0187	39.663	39.7	0.3	0.914	0.538	1.451	2.70	42.385	0.995	0.457
11	0.0214	43.425	43.4	0.4	1.000	0.494	1.494	3.02	42.689	0.994	0.500
12	0.0246	47.032	47.0	0.4	1.082	0.457	1.539	3.37	42.947	0.998	0.541
13	0.0279	50.457	50.5	0.5	1.160	0.417	1.578	3.78	43.222	0.997	0.580
14	0.0299	53.648	53.6	0.5	1.233	0.386	1.619	4.19	43.438	1.003	0.617
15	0.0349	57.850	57.8	0.6	1.329	0.349	1.677	4.81	43.698	1.013	0.664
16	0.0377	60.750	60.8	0.7	1.395	0.327	1.721	5.27	43.850	1.024	0.697
17	0.0404	63.674	63.7	0.7	1.461	0.308	1.769	5.74	43.978	1.039	0.730
18	0.0449	66.658	66.7	0.8	1.528	0.285	1.813	6.36	44.141	1.049	0.764
19	0.0489	70.020	70.0	0.8	1.604	0.266	1.870	7.03	44.271	1.068	0.802
20	0.0534	73.651	73.7	0.9	1.686	0.244	1.930	7.91	44.426	1.087	0.843
21	0.0580	76.675	76.7	1.0	1.754	0.230	1.983	8.64	44.526	1.106	0.877
22	0.0655	80.601	80.6	1.1	1.841	0.212	2.054	9.68	44.646	1.133	0.921
23	0.0713	84.172	84.2	1.2	1.921	0.203	2.124	10.46	44.711	1.163	0.960
24	0.0825	89.118	89.1	1.4	2.030	0.186	2.216	11.92	44.829	1.201	1.015
25	0.0944	92.752	92.8	1.6	2.108	0.185	2.293	12.39	44.834	1.239	1.054
26	0.1008	93.395	93.4	1.7	2.120	0.189	2.310	12.19	44.804	1.250	1.060
27	0.1063	92.789	92.8	1.8	2.105	0.191	2.296	12.02	44.794	1.243	1.052
28	0.1301	88.905	88.9	2.2	2.008	0.237	2.245	9.47	44.473	1.241	1.004
29	0.1533	86.947	86.9	2.6	1.956	0.280	2.236	7.98	44.174	1.258	0.978
30	0.1766	86.239	86.2	3.1	1.932	0.291	2.222	7.65	44.103	1.256	0.966
31	0.2003	85.197	85.2	3.5	1.900	0.300	2.201	7.33	44.034	1.251	0.950
32	0.2236	83.935	83.9	3.9	1.864	0.317	2.181	6.89	43.921	1.249	0.932
33	0.2472	82.386	82.4	4.3	1.822	0.333	2.155	6.48	43.810	1.244	0.911
34	0.2704	81.666	81.7	4.7	1.799	0.346	2.145	6.20	43.719	1.245	0.899
35	0.2939	80.680	80.7	5.1	1.770	0.355	2.124	5.99	43.658	1.239	0.885
36	0.3228	80.565	80.6	5.6	1.758	0.362	2.120	5.85	43.603	1.241	0.879
37	0.3520	80.294	80.3	6.1	1.742	0.363	2.105	5.80	43.599	1.234	0.871
38	0.3811	79.933	79.9	6.6	1.725	0.366	2.091	5.72	43.580	1.228	0.863
39	0.4108	80.099	80.1	7.1	1.719	0.372	2.091	5.63	43.540	1.231	0.860
40	0.4402	79.926	79.9	7.6	1.706	0.372	2.079	5.58	43.534	1.226	0.853
41	0.4690	80.112	80.1	8.1	1.701	0.376	2.077	5.52	43.509	1.226	0.850
42	0.4985	80.185	80.2	8.6	1.693	0.380	2.073	5.46	43.482	1.226	0.847
43	0.5277	80.321	80.3	9.1	1.687	0.383	2.069	5.41	43.463	1.226	0.843
44	0.5569	79.863	79.9	9.6	1.668	0.375	2.043	5.44	43.514	1.209	0.834
45	0.5861	79.299	79.3	10.1	1.647	0.379	2.025	5.35	43.490	1.202	0.823
46	0.6152	79.025	79.0	10.6	1.632	0.382	2.014	5.27	43.469	1.198	0.816

Test Readings for Specimen No. 1

No.	Def. Dial in.	Load Dial	Load lbs.	Strain %	Deviator Stress ksf	Minor Eff. Stress ksf	Major Eff. Stress ksf	1:3 Ratio	Pore Press. psi	P ksf	Q ksf
47	0.6447	78.818	78.8	11.1	1.618	0.380	1.998	5.26	43.480	1.189	0.809
48	0.6739	78.855	78.9	11.6	1.610	0.379	1.989	5.24	43.486	1.184	0.805
49	0.7032	78.591	78.6	12.2	1.595	0.381	1.976	5.19	43.474	1.179	0.798
50	0.7325	78.679	78.7	12.7	1.588	0.384	1.971	5.14	43.456	1.177	0.794
51	0.7619	78.606	78.6	13.2	1.577	0.385	1.963	5.09	43.443	1.174	0.789
52	0.7904	78.997	79.0	13.7	1.576	0.380	1.956	5.15	43.482	1.168	0.788
53	0.8199	78.738	78.7	14.2	1.561	0.384	1.945	5.07	43.454	1.165	0.781
54	0.8492	78.694	78.7	14.7	1.551	0.382	1.933	5.06	43.468	1.158	0.776
55	0.8784	78.406	78.4	15.2	1.537	0.382	1.919	5.02	43.465	1.151	0.768

Parameters for Specimen No. 2

Specimen Parameter	Initial	Saturated	Consolidated	Final
Moisture content: Moist soil+tare, gms.	94.680			931.510
Moisture content: Dry soil+tare, gms.	54.900			543.980
Moisture content: Tare, gms.	0.000			0.000
Moisture, %	72.5	74.6	71.2	71.2
Moist specimen weight, gms.	947.18			
Diameter, in.	2.830	2.830	2.797	
Area, in.²	6.290	6.288	6.143	
Height, in.	5.907	5.906	5.862	
Net decrease in height, in.		0.001	0.044	
Net decrease in water volume, cc.			18.500	
Wet density, pcf	97.1	98.4	99.5	
Dry density, pcf	56.3	56.3	58.1	
Void ratio	1.9379	1.9364	1.8471	
Saturation, %	99.1	102.1	102.2	

Test Readings for Specimen No. 2

Membrane modulus = 0.14 kN/cm²
Membrane thickness = 0.03 cm
Consolidation cell pressure = 52.060 psi (7.497 ksf)
Consolidation back pressure = 40.000 psi (5.760 ksf)
Consolidation effective confining stress = 1.737 ksf
Strain rate, %/min. = 0.07
Fail. Stress = 2.437 ksf **at reading no.** 27
Ult. Stress = 1.650 ksf **at reading no.** 54

No.	Def. Dial in.	Load Dial	Load lbs.	Strain %	Deviator Stress ksf	Minor Eff. Stress ksf	Major Eff. Stress ksf	1:3 Ratio	Pore Press. psi	P ksf	Q ksf
0	0.0000	0.000	0.0	0.0	0.000	1.740	1.740	1.00	39.978	1.740	0.000
1	0.0054	3.184	3.2	0.1	0.075	1.740	1.814	1.04	39.978	1.777	0.037
2	0.0064	8.044	8.0	0.1	0.188	1.668	1.857	1.11	40.473	1.763	0.094
3	0.0073	13.926	13.9	0.1	0.326	1.587	1.913	1.21	41.038	1.750	0.163
4	0.0085	19.279	19.3	0.1	0.451	1.515	1.966	1.30	41.542	1.740	0.226
5	0.0104	24.018	24.0	0.2	0.562	1.451	2.013	1.39	41.983	1.732	0.281
6	0.0112	28.166	28.2	0.2	0.659	1.395	2.054	1.47	42.371	1.725	0.330
7	0.0130	31.931	31.9	0.2	0.747	1.345	2.092	1.56	42.720	1.718	0.373
8	0.0149	35.386	35.4	0.3	0.827	1.300	2.127	1.64	43.032	1.714	0.414
9	0.0162	38.722	38.7	0.3	0.905	1.256	2.161	1.72	43.336	1.709	0.453

Test Readings for Specimen No. 2

No.	Def. Dial in.	Load Dial	Load lbs.	Strain %	Deviator Stress ksf	Minor Eff. Stress ksf	Major Eff. Stress ksf	1:3 Ratio	Pore Press. psi	P ksf	Q ksf
10	0.0188	44.689	44.7	0.3	1.044	1.179	2.223	1.89	43.873	1.701	0.522
11	0.0218	50.024	50.0	0.4	1.168	1.107	2.275	2.06	44.374	1.691	0.584
12	0.0251	54.891	54.9	0.4	1.281	1.044	2.325	2.23	44.809	1.685	0.641
13	0.0283	59.205	59.2	0.5	1.381	0.991	2.372	2.39	45.177	1.682	0.691
14	0.0308	63.207	63.2	0.5	1.474	0.942	2.416	2.57	45.521	1.679	0.737
15	0.0340	66.878	66.9	0.6	1.559	0.897	2.456	2.74	45.831	1.676	0.779
16	0.0368	70.163	70.2	0.6	1.634	0.857	2.492	2.91	46.106	1.675	0.817
17	0.0397	73.395	73.4	0.7	1.709	0.820	2.529	3.08	46.366	1.674	0.854
18	0.0437	77.802	77.8	0.7	1.810	0.769	2.580	3.35	46.718	1.674	0.905
19	0.0479	81.655	81.7	0.8	1.899	0.721	2.620	3.63	47.053	1.670	0.949
20	0.0525	85.186	85.2	0.9	1.979	0.679	2.658	3.91	47.343	1.669	0.990
21	0.0584	89.207	89.2	1.0	2.070	0.634	2.704	4.27	47.659	1.669	1.035
22	0.0690	95.009	95.0	1.2	2.201	0.570	2.771	4.86	48.103	1.670	1.101
23	0.0806	99.870	99.9	1.4	2.309	0.513	2.822	5.50	48.499	1.667	1.155
24	0.0927	103.094	103.1	1.6	2.379	0.478	2.856	5.98	48.741	1.667	1.189
25	0.1161	105.984	106.0	2.0	2.435	0.444	2.879	6.48	48.976	1.662	1.218
26	0.1223	106.291	106.3	2.1	2.440	0.443	2.883	6.50	48.981	1.663	1.220
27	0.1284	106.276	106.3	2.2	2.437	0.440	2.877	6.54	49.004	1.658	1.218
28	0.1525	104.572	104.6	2.6	2.388	0.457	2.845	6.22	48.887	1.651	1.194
29	0.1765	101.991	102.0	3.0	2.319	0.469	2.788	5.95	48.804	1.628	1.159
30	0.2000	99.350	99.3	3.4	2.250	0.478	2.728	5.70	48.738	1.603	1.125
31	0.2230	97.471	97.5	3.8	2.198	0.485	2.683	5.53	48.689	1.584	1.099
32	0.2475	95.848	95.8	4.2	2.152	0.489	2.642	5.40	48.661	1.565	1.076
33	0.2711	94.550	94.6	4.6	2.114	0.488	2.602	5.33	48.668	1.545	1.057
34	0.2947	93.387	93.4	5.0	2.079	0.488	2.567	5.26	48.674	1.527	1.040
35	0.3151	92.653	92.7	5.4	2.055	0.487	2.542	5.22	48.677	1.515	1.028
36	0.3450	91.677	91.7	5.9	2.023	0.487	2.510	5.15	48.678	1.498	1.011
37	0.3747	90.637	90.6	6.4	1.989	0.481	2.470	5.14	48.721	1.475	0.994
38	0.4047	89.455	89.5	6.9	1.952	0.483	2.435	5.04	48.706	1.459	0.976
39	0.4342	87.597	87.6	7.4	1.901	0.492	2.394	4.86	48.642	1.443	0.951
40	0.4639	86.173	86.2	7.9	1.860	0.496	2.356	4.75	48.617	1.426	0.930
41	0.4933	85.313	85.3	8.4	1.832	0.500	2.332	4.66	48.586	1.416	0.916
42	0.5228	84.883	84.9	8.9	1.812	0.499	2.311	4.63	48.596	1.405	0.906
43	0.5524	84.946	84.9	9.4	1.804	0.492	2.296	4.66	48.640	1.394	0.902
44	0.5822	84.956	85.0	9.9	1.794	0.494	2.288	4.63	48.628	1.391	0.897
45	0.6121	84.746	84.7	10.4	1.779	0.496	2.275	4.59	48.616	1.386	0.890
46	0.6418	84.391	84.4	10.9	1.762	0.503	2.265	4.50	48.564	1.384	0.881
47	0.6718	83.655	83.7	11.5	1.736	0.506	2.242	4.43	48.547	1.374	0.868
48	0.7008	83.205	83.2	12.0	1.717	0.509	2.226	4.37	48.525	1.368	0.859
49	0.7311	83.139	83.1	12.5	1.706	0.499	2.205	4.42	48.595	1.352	0.853
50	0.7605	82.696	82.7	13.0	1.687	0.502	2.189	4.36	48.576	1.345	0.844
51	0.7899	82.909	82.9	13.5	1.682	0.502	2.184	4.35	48.574	1.343	0.841
52	0.8199	82.812	82.8	14.0	1.670	0.503	2.173	4.32	48.568	1.338	0.835
53	0.8496	82.411	82.4	14.5	1.652	0.506	2.158	4.26	48.543	1.332	0.826
54	0.8792	82.809	82.8	15.0	1.650	0.502	2.152	4.29	48.575	1.327	0.825

Parameters for Specimen No. 3

Specimen Parameter	Initial	Saturated	Consolidated	Final
Moisture content: Moist soil+tare, gms.	107.190			875.950
Moisture content: Dry soil+tare, gms.	57.710			494.020
Moisture content: Tare, gms.	0.000			0.000
Moisture, %	85.7	85.6	77.3	77.3
Moist specimen weight, gms.	916.68			
Diameter, in.	2.845	2.845	2.775	
Area, in.²	6.357	6.357	6.046	
Height, in.	5.869	5.869	5.757	
Net decrease in height, in.		0.000	0.112	
Net decrease in water volume, cc.			41.000	
Wet density, pcf	93.6	93.5	95.8	
Dry density, pcf	50.4	50.4	54.0	
Void ratio	2.2828	2.2828	2.0627	
Saturation, %	99.5	99.4	99.3	

Test Readings for Specimen No. 3

Membrane modulus = 0.14 kN/cm²
Membrane thickness = 0.03 cm
Consolidation cell pressure = 58.040 psi (8.358 ksf)
Consolidation back pressure = 40.000 psi (5.760 ksf)
Consolidation effective confining stress = 2.598 ksf
Strain rate, %/min. = 0.07
Fail. Stress = 2.657 ksf **at reading no.** 30
Ult. Stress = 1.713 ksf **at reading no.** 53

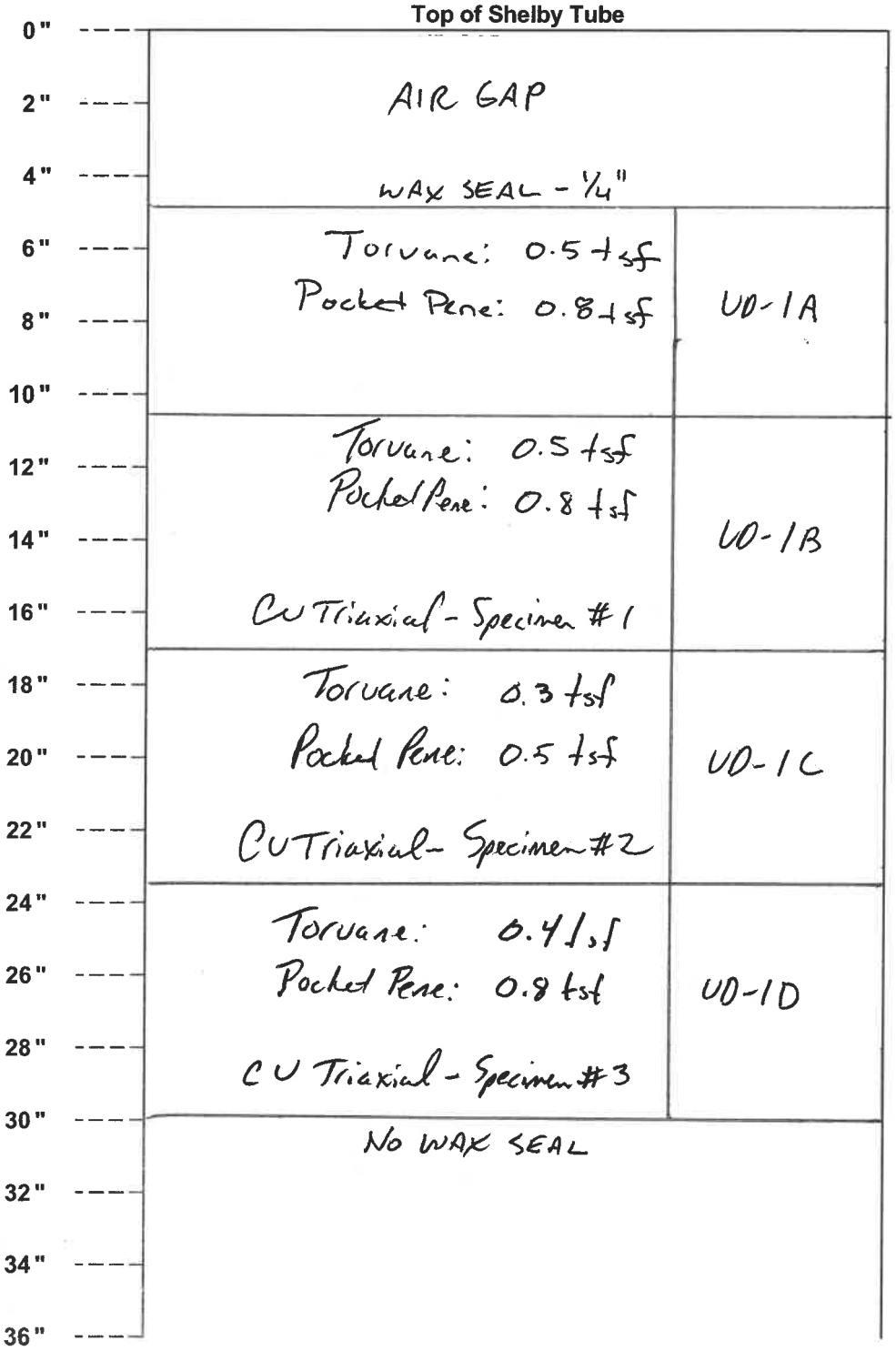
No.	Def. Dial in.	Load Dial	Load lbs.	Strain %	Deviator Stress ksf	Minor Eff. Stress ksf	Major Eff. Stress ksf	1:3 Ratio	Pore Press. psi	P ksf	Q ksf
0	0.0000	0.000	0.0	0.0	0.000	2.598	2.598	1.00	40.000	2.598	0.000
1	0.0022	2.945	2.9	0.0	0.070	2.563	2.634	1.03	40.238	2.599	0.035
2	0.0070	7.332	7.3	0.1	0.174	2.486	2.661	1.07	40.774	2.574	0.087
3	0.0087	12.147	12.1	0.2	0.289	2.406	2.694	1.12	41.335	2.550	0.144
4	0.0101	17.239	17.2	0.2	0.410	2.321	2.731	1.18	41.922	2.526	0.205
5	0.0116	21.909	21.9	0.2	0.521	2.242	2.763	1.23	42.467	2.503	0.260
6	0.0132	26.233	26.2	0.2	0.623	2.171	2.795	1.29	42.961	2.483	0.312
7	0.0143	30.240	30.2	0.2	0.718	2.107	2.825	1.34	43.408	2.466	0.359
8	0.0160	33.884	33.9	0.3	0.805	2.049	2.854	1.39	43.808	2.452	0.402
9	0.0187	40.546	40.5	0.3	0.963	1.945	2.908	1.49	44.530	2.427	0.481
10	0.0223	46.081	46.1	0.4	1.093	1.860	2.953	1.59	45.124	2.407	0.547
11	0.0254	50.929	50.9	0.4	1.208	1.784	2.991	1.68	45.653	2.388	0.604
12	0.0275	55.382	55.4	0.5	1.313	1.717	3.030	1.76	46.116	2.373	0.656
13	0.0312	59.297	59.3	0.5	1.405	1.659	3.064	1.85	46.519	2.361	0.702
14	0.0352	64.562	64.6	0.6	1.528	1.576	3.105	1.97	47.092	2.341	0.764
15	0.0391	69.187	69.2	0.7	1.637	1.504	3.140	2.09	47.597	2.322	0.818
16	0.0433	73.379	73.4	0.8	1.735	1.441	3.175	2.20	48.033	2.308	0.867
17	0.0479	77.233	77.2	0.8	1.824	1.383	3.207	2.32	48.436	2.295	0.912
18	0.0537	81.845	81.8	0.9	1.931	1.313	3.244	2.47	48.922	2.279	0.966
19	0.0591	85.857	85.9	1.0	2.024	1.252	3.276	2.62	49.346	2.264	1.012
20	0.0709	92.492	92.5	1.2	2.176	1.149	3.325	2.89	50.062	2.237	1.088
21	0.0828	97.849	97.8	1.4	2.297	1.064	3.360	3.16	50.654	2.212	1.148
22	0.0946	102.415	102.4	1.6	2.399	0.991	3.390	3.42	51.158	2.191	1.200

Test Readings for Specimen No. 3

No.	Def. Dial in.	Load Dial	Load lbs.	Strain %	Deviator Stress ksf	Minor Eff. Stress ksf	Major Eff. Stress ksf	1:3 Ratio	Pore Press. psi	P ksf	Q ksf
23	0.1118	107.131	107.1	1.9	2.502	0.903	3.405	3.77	51.771	2.154	1.251
24	0.1302	111.063	111.1	2.3	2.585	0.832	3.417	4.11	52.264	2.124	1.293
25	0.1537	114.117	114.1	2.7	2.645	0.772	3.417	4.43	52.680	2.094	1.323
26	0.1778	115.963	116.0	3.1	2.677	0.731	3.407	4.66	52.966	2.069	1.338
27	0.2016	116.832	116.8	3.5	2.685	0.701	3.386	4.83	53.175	2.043	1.343
28	0.2130	117.093	117.1	3.7	2.686	0.692	3.377	4.88	53.237	2.034	1.343
29	0.2188	116.959	117.0	3.8	2.680	0.684	3.364	4.92	53.288	2.024	1.340
30	0.2425	116.466	116.5	4.2	2.657	0.668	3.325	4.98	53.400	1.997	1.329
31	0.2663	115.204	115.2	4.6	2.617	0.658	3.275	4.98	53.472	1.966	1.308
32	0.2895	113.505	113.5	5.0	2.567	0.660	3.228	4.89	53.455	1.944	1.284
33	0.3243	108.848	108.8	5.6	2.446	0.685	3.131	4.57	53.285	1.908	1.223
34	0.3392	104.744	104.7	5.9	2.348	0.720	3.068	4.26	53.037	1.894	1.174
35	0.3537	100.304	100.3	6.1	2.242	0.758	3.000	3.96	52.774	1.879	1.121
36	0.3692	96.604	96.6	6.4	2.153	0.775	2.929	3.78	52.655	1.852	1.077
37	0.3989	91.612	91.6	6.9	2.031	0.790	2.821	3.57	52.552	1.806	1.015
38	0.4282	88.466	88.5	7.4	1.950	0.794	2.744	3.46	52.526	1.769	0.975
39	0.4572	86.308	86.3	7.9	1.892	0.795	2.687	3.38	52.518	1.741	0.946
40	0.4864	84.608	84.6	8.4	1.845	0.795	2.640	3.32	52.517	1.718	0.922
41	0.5155	83.113	83.1	9.0	1.802	0.794	2.596	3.27	52.528	1.695	0.901
42	0.5448	82.145	82.1	9.5	1.771	0.798	2.569	3.22	52.501	1.683	0.886
43	0.5752	81.234	81.2	10.0	1.741	0.800	2.542	3.18	52.482	1.671	0.871
44	0.6049	80.690	80.7	10.5	1.720	0.799	2.519	3.15	52.489	1.659	0.860
45	0.6338	79.212	79.2	11.0	1.679	0.803	2.482	3.09	52.462	1.643	0.839
46	0.6637	78.607	78.6	11.5	1.656	0.805	2.462	3.06	52.448	1.633	0.828
47	0.6927	78.496	78.5	12.0	1.645	0.804	2.449	3.04	52.453	1.627	0.822
48	0.7221	79.005	79.0	12.5	1.646	0.799	2.445	3.06	52.492	1.622	0.823
49	0.7516	80.044	80.0	13.1	1.658	0.786	2.443	3.11	52.585	1.614	0.829
50	0.7813	81.213	81.2	13.6	1.672	0.775	2.447	3.16	52.658	1.611	0.836
51	0.8102	82.463	82.5	14.1	1.688	0.765	2.452	3.21	52.729	1.609	0.844
52	0.8406	83.667	83.7	14.6	1.702	0.757	2.458	3.25	52.785	1.608	0.851
53	0.8693	84.693	84.7	15.1	1.713	0.746	2.459	3.29	52.857	1.603	0.856

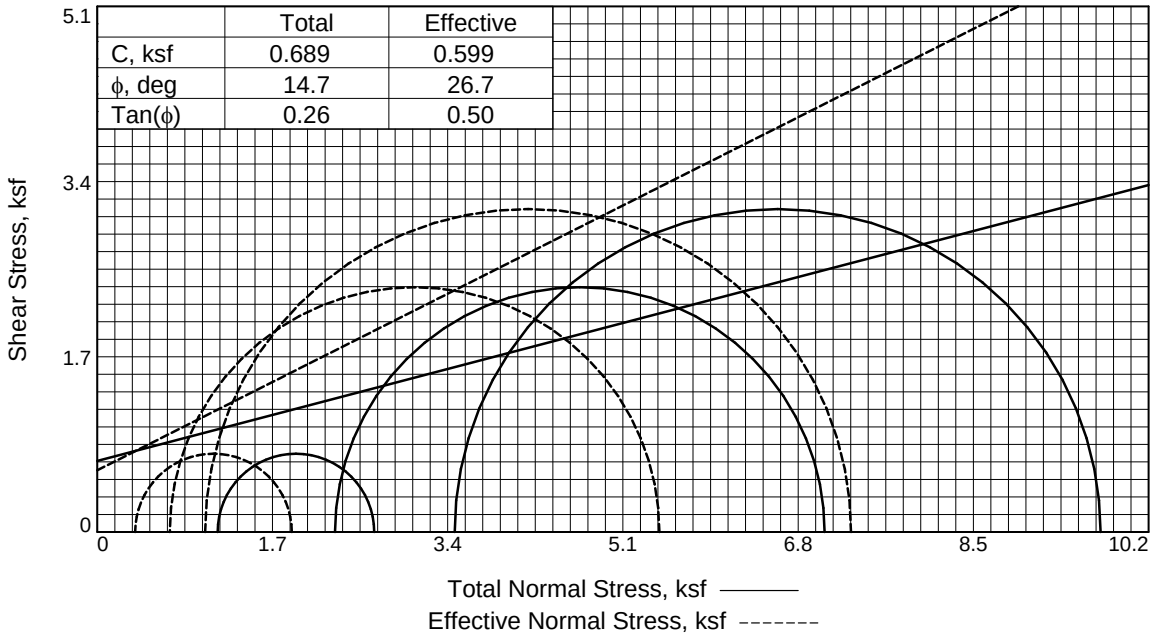
SCDOT Shelby Tube Log

Project ID:	200424A	County:		Boring No.:	B04
Project Description:	526 Longpoint Road Interchange			Route:	
UD Sample No.:	UD-1	Depth:	25.0-27.0'		
Date Sampled:	3/08/23	Date Extracted:	6/19/23		
Extracted By:	B. Kovalerlic	Eng. Firm:	S&ME, Inc.		

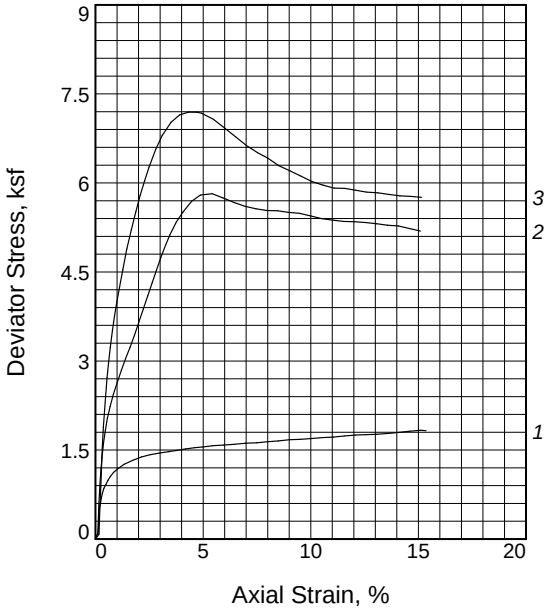


SC_DOT_SHELBY_TUBE_LOG_PICTURES G6100.09 - S-195 RBO CAMP CREEK JFH.GPJ SCDOT_DATATEMPLATE.GDT 12/6/19

C & phi are not test results but an interpretation of the test results. The designer is responsible for interpreting test data as provided by S&ME.



	Total	Effective
C, ksf	0.689	0.599
ϕ, deg	14.7	26.7
Tan(ϕ)	0.26	0.50



Specimen No.		1	2	3
Initial	Water Content, %	41.7	38.8	40.9
	Dry Density, pcf	78.5	80.5	78.2
	Saturation, %	99.7	97.3	97.2
	Void Ratio	1.1079	1.0551	1.1148
	Diameter, in.	2.863	2.870	2.894
	Height, in.	5.820	5.920	5.760
At Test	Water Content, %	40.5	38.7	39.4
	Dry Density, pcf	81.0	82.7	80.6
	Saturation, %	102.8	102.5	99.2
	Void Ratio	1.0434	1.0013	1.0520
	Diameter, in.	2.836	2.851	2.869
	Height, in.	5.749	5.844	5.686
Strain rate, %/min.		0.33	0.33	0.33
Eff. Cell Pressure, ksf		1.168	2.307	3.468
Fail. Stress, ksf		1.519	4.750	6.267
Total Pore Pr., ksf		6.560	7.363	8.181
Strain, %		4.2	3.0	2.5
Ult. Stress, ksf		1.826	5.190	5.757
Total Pore Pr., ksf		6.307	6.191	6.779
Strain, %		15.4	15.1	15.1
$\bar{\sigma}_1$ Failure, ksf		1.887	5.454	7.313
$\bar{\sigma}_3$ Failure, ksf		0.368	0.704	1.046

Type of Test:
CU with Pore Pressures

Sample Type: Undisturbed

Description: fat CLAY with sand [CH / A-7-6(25)]

LL= 54 **PL=** 22 **PI=** 32

Assumed Specific Gravity= 2.65

Remarks: The specimens failed with bulging and shearing. Failure selected at peak stress ratio. ASTM D5767. Percent passing the #200 sieve: 78.4%.

Figure 1

Client: CDM Smith

Project: 526 Longpoint Road Interchange

Location: UD-2

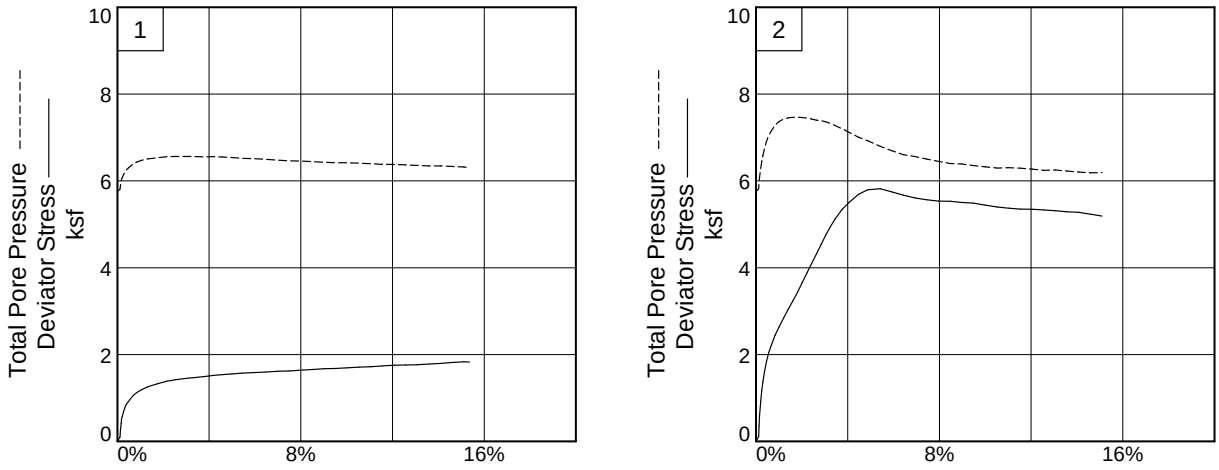
Sample Number: B12 **Depth:** 30.0 - 32.0'

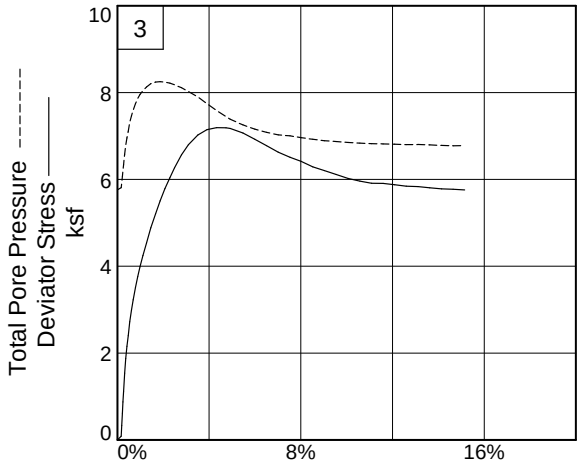
Proj. No.: 200424A **Date Sampled:** 3/22/23

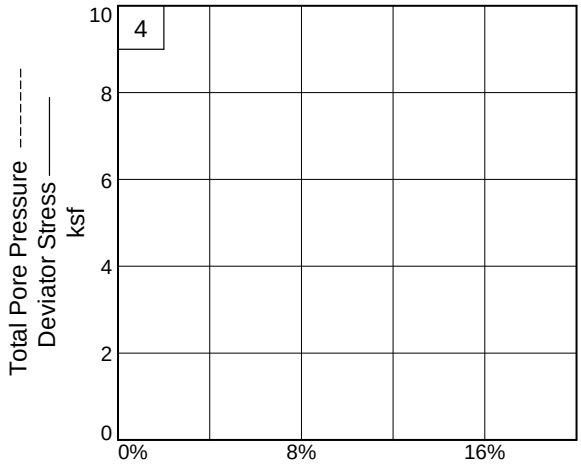
TRIAXIAL SHEAR TEST REPORT
S&ME, Inc.
Greenville, SC

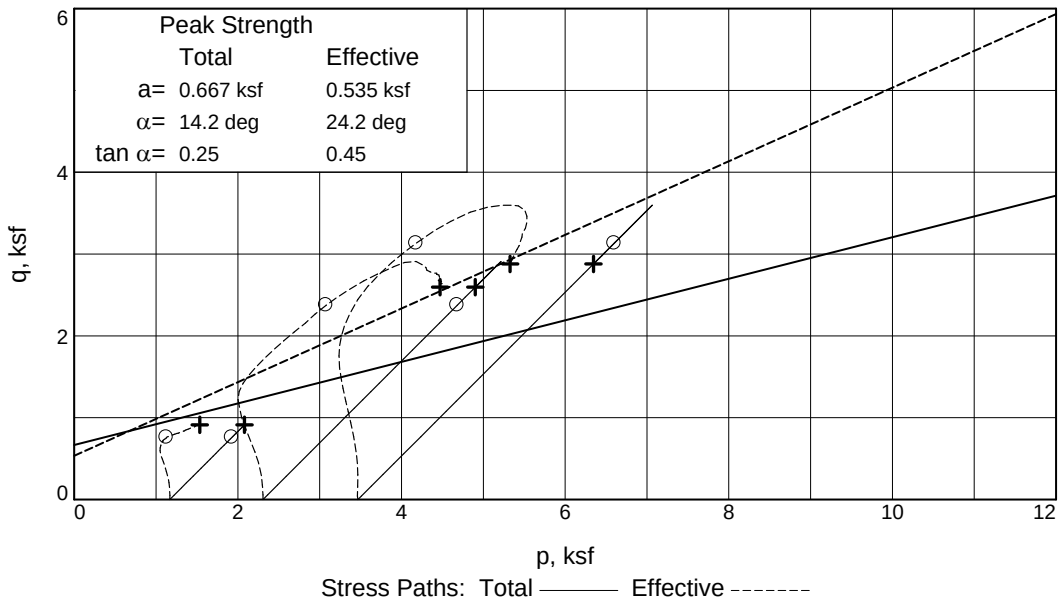
Tested By: Benjamin Kovaleski - 7/12/23 **Checked By:** Brian Vaughan, P.E.

C & phi are not test results but an interpretation of the test results. The designer is responsible for interpreting test data as provided by S&ME.









Client: CDM Smith
Project: 526 Longpoint Road Interchange
Location: UD-2 **Depth:** 30.0 - 32.0' **Sample Number:** B12
Project No.: 200424A **Figure** 2

S&ME, Inc.

Tested By: Benjamin Kovaleski - 7/12/23 **Checked By:** Brian Vaughan, P.E.

TRIAXIAL COMPRESSION TEST 7/12/2023

CU with Pore Pressures 11:55 AM

Date: 3/22/23
Client: CDM Smith
Project: 526 Longpoint Road Interchange
Project No.: 200424A
Location: UD-2
Depth: 30.0 - 32.0' **Sample Number:** B12
Description: fat CLAY with sand [CH / A-7-6(25)]
Remarks: The specimens failed with bulging and shearing. Failure selected at peak stress ratio. ASTM D5767. Percent passing the #200 sieve: 78.4%.
Type of Sample: Undisturbed
Assumed Specific Gravity=2.65 **LL=**54 **PL=**22 **PI=**32
Test Method: ASTM D 4767 Method A

Parameters for Specimen No. 1

Specimen Parameter	Initial	Saturated	Consolidated	Final
Moisture content: Moist soil+tare, gms.	98.340			1084.570
Moisture content: Dry soil+tare, gms.	69.410			772.140
Moisture content: Tare, gms.	0.000			0.000
Moisture, %	41.7	42.7	40.5	40.5
Moist specimen weight, gms.	1093.59			
Diameter, in.	2.863	2.861	2.836	
Area, in.²	6.438	6.427	6.318	
Height, in.	5.820	5.815	5.749	
Net decrease in height, in.		0.005	0.066	
Net decrease in water volume, cc.			17.200	
Wet density, pcf	111.2	112.3	113.7	
Dry density, pcf	78.5	78.7	81.0	
Void ratio	1.1079	1.1025	1.0434	
Saturation, %	99.7	102.6	102.8	

Test Readings for Specimen No. 1

Membrane modulus = 0.14 kN/cm²
Membrane thickness = 0.03 cm
Consolidation cell pressure = 48.110 psi (6.928 ksf)
Consolidation back pressure = 40.000 psi (5.760 ksf)
Consolidation effective confining stress = 1.168 ksf
Strain rate, %/min. = 0.33
Fail. Stress = 1.519 ksf **at reading no.** 21
Ult. Stress = 1.826 ksf **at reading no.** 44

Test Readings for Specimen No. 1

No.	Def. Dial in.	Load Dial	Load lbs.	Strain %	Deviator Stress ksf	Minor Eff. Stress ksf	Major Eff. Stress ksf	1:3 Ratio	Pore Press. psi	P ksf	Q ksf
0	0.0000	0.000	0.0	0.0	0.000	1.168	1.168	1.00	40.000	1.168	0.000
1	0.0066	4.408	4.4	0.1	0.100	1.119	1.219	1.09	40.340	1.169	0.050
2	0.0080	12.525	12.5	0.1	0.285	1.022	1.307	1.28	41.015	1.164	0.143
3	0.0094	17.959	18.0	0.2	0.409	0.953	1.362	1.43	41.490	1.158	0.204
4	0.0103	22.149	22.1	0.2	0.504	0.899	1.403	1.56	41.868	1.151	0.252
5	0.0122	25.167	25.2	0.2	0.572	0.854	1.427	1.67	42.178	1.140	0.286
6	0.0155	30.276	30.3	0.3	0.688	0.781	1.469	1.88	42.685	1.125	0.344
7	0.0182	33.651	33.7	0.3	0.765	0.732	1.497	2.04	43.026	1.114	0.382
8	0.0223	37.583	37.6	0.4	0.853	0.675	1.528	2.26	43.423	1.102	0.427
9	0.0276	40.503	40.5	0.5	0.919	0.629	1.548	2.46	43.739	1.089	0.459
10	0.0332	43.673	43.7	0.6	0.990	0.581	1.571	2.70	44.073	1.076	0.495
11	0.0400	46.776	46.8	0.7	1.059	0.534	1.592	2.98	44.405	1.063	0.529
12	0.0485	49.676	49.7	0.8	1.123	0.494	1.616	3.27	44.682	1.055	0.561
13	0.0607	52.809	52.8	1.1	1.191	0.454	1.645	3.62	44.957	1.050	0.595
14	0.0765	55.995	56.0	1.3	1.259	0.420	1.679	4.00	45.193	1.050	0.630
15	0.1000	59.280	59.3	1.7	1.328	0.395	1.722	4.36	45.369	1.059	0.664
16	0.1233	62.054	62.1	2.1	1.384	0.370	1.754	4.74	45.542	1.062	0.692
17	0.1466	64.007	64.0	2.5	1.422	0.364	1.786	4.90	45.580	1.075	0.711
18	0.1707	65.494	65.5	3.0	1.448	0.363	1.812	4.99	45.587	1.088	0.724
19	0.1942	66.821	66.8	3.4	1.472	0.367	1.838	5.01	45.562	1.103	0.736
20	0.2173	68.085	68.1	3.8	1.493	0.374	1.867	4.99	45.511	1.121	0.747
21	0.2407	69.560	69.6	4.2	1.519	0.368	1.887	5.13	45.557	1.127	0.760
22	0.2640	70.717	70.7	4.6	1.538	0.377	1.915	5.08	45.491	1.146	0.769
23	0.2871	71.692	71.7	5.0	1.552	0.388	1.941	5.00	45.413	1.165	0.776
24	0.3128	72.988	73.0	5.4	1.573	0.406	1.979	4.87	45.290	1.193	0.787
25	0.3422	73.850	73.8	6.0	1.583	0.417	2.000	4.80	45.214	1.209	0.792
26	0.3718	74.873	74.9	6.5	1.596	0.431	2.027	4.71	45.120	1.229	0.798
27	0.4015	76.178	76.2	7.0	1.615	0.448	2.063	4.61	45.001	1.255	0.808
28	0.4307	76.886	76.9	7.5	1.621	0.466	2.087	4.48	44.877	1.276	0.811
29	0.4598	78.183	78.2	8.0	1.639	0.471	2.111	4.48	44.837	1.291	0.820
30	0.4882	79.293	79.3	8.5	1.654	0.483	2.137	4.42	44.756	1.310	0.827
31	0.5178	80.672	80.7	9.0	1.673	0.497	2.170	4.37	44.661	1.333	0.837
32	0.5471	81.441	81.4	9.5	1.680	0.509	2.188	4.30	44.577	1.349	0.840
33	0.5773	82.619	82.6	10.0	1.694	0.510	2.204	4.32	44.566	1.357	0.847
34	0.6061	83.807	83.8	10.5	1.709	0.520	2.228	4.29	44.502	1.374	0.854
35	0.6355	84.799	84.8	11.1	1.719	0.532	2.251	4.23	44.413	1.392	0.860
36	0.6643	86.132	86.1	11.6	1.736	0.545	2.282	4.18	44.323	1.413	0.868
37	0.6934	87.417	87.4	12.1	1.752	0.549	2.301	4.19	44.296	1.425	0.876
38	0.7224	88.272	88.3	12.6	1.759	0.558	2.317	4.15	44.236	1.437	0.880
39	0.7516	89.156	89.2	13.1	1.766	0.569	2.336	4.10	44.156	1.453	0.883
40	0.7812	90.371	90.4	13.6	1.780	0.583	2.363	4.05	44.060	1.473	0.890
41	0.8109	91.788	91.8	14.1	1.797	0.582	2.379	4.09	44.069	1.480	0.898
42	0.8400	93.353	93.4	14.6	1.817	0.595	2.412	4.05	43.979	1.503	0.908
43	0.8689	94.698	94.7	15.1	1.832	0.607	2.439	4.02	43.898	1.523	0.916
44	0.8827	94.635	94.6	15.4	1.826	0.621	2.447	3.94	43.798	1.534	0.913

Parameters for Specimen No. 2

Specimen Parameter	Initial	Saturated	Consolidated	Final
Moisture content: Moist soil+tare, gms.	101.210			1123.390
Moisture content: Dry soil+tare, gms.	72.940			809.670
Moisture content: Tare, gms.	0.000			0.000
Moisture, %	38.8	40.6	38.7	38.7
Moist specimen weight, gms.	1122.92			
Diameter, in.	2.870	2.868	2.851	
Area, in.²	6.469	6.460	6.382	
Height, in.	5.920	5.916	5.844	
Net decrease in height, in.		0.004	0.072	
Net decrease in water volume, cc.			15.150	
Wet density, pcf	111.7	113.4	114.7	
Dry density, pcf	80.5	80.7	82.7	
Void ratio	1.0551	1.0509	1.0013	
Saturation, %	97.3	102.4	102.5	

Test Readings for Specimen No. 2

Membrane modulus = 0.14 kN/cm²
Membrane thickness = 0.03 cm
Consolidation cell pressure = 56.020 psi (8.067 ksf)
Consolidation back pressure = 40.000 psi (5.760 ksf)
Consolidation effective confining stress = 2.307 ksf
Strain rate, %/min. = 0.33
Fail. Stress = 4.750 ksf **at reading no.** 22
Ult. Stress = 5.190 ksf **at reading no.** 48

No.	Def. Dial in.	Load Dial	Load lbs.	Strain %	Deviator Stress ksf	Minor Eff. Stress ksf	Major Eff. Stress ksf	1:3 Ratio	Pore Press. psi	P ksf	Q ksf
0	0.0000	0.000	0.0	0.0	0.000	2.307	2.307	1.00	40.000	2.307	0.000
1	0.0067	5.070	5.1	0.1	0.114	2.250	2.364	1.05	40.396	2.307	0.057
2	0.0079	15.797	15.8	0.1	0.356	2.121	2.477	1.17	41.289	2.299	0.178
3	0.0088	25.171	25.2	0.2	0.567	2.005	2.572	1.28	42.097	2.288	0.284
4	0.0118	40.255	40.3	0.2	0.906	1.798	2.705	1.50	43.533	2.251	0.453
5	0.0147	51.865	51.9	0.3	1.167	1.624	2.791	1.72	44.744	2.207	0.584
6	0.0177	61.125	61.1	0.3	1.375	1.479	2.854	1.93	45.752	2.166	0.688
7	0.0221	72.496	72.5	0.4	1.630	1.300	2.930	2.25	46.989	2.115	0.815
8	0.0266	81.347	81.3	0.5	1.827	1.164	2.991	2.57	47.937	2.078	0.914
9	0.0321	90.559	90.6	0.5	2.032	1.026	3.058	2.98	48.894	2.042	1.016
10	0.0398	99.649	99.6	0.7	2.233	0.906	3.139	3.46	49.728	2.023	1.117
11	0.0483	108.904	108.9	0.8	2.437	0.784	3.221	4.11	50.578	2.002	1.219
12	0.0588	118.013	118.0	1.0	2.636	0.698	3.334	4.78	51.176	2.016	1.318
13	0.0703	127.449	127.4	1.2	2.841	0.643	3.484	5.42	51.556	2.063	1.421
14	0.0818	136.703	136.7	1.4	3.041	0.614	3.656	5.95	51.754	2.135	1.521
15	0.0938	145.615	145.6	1.6	3.233	0.602	3.835	6.37	51.838	2.219	1.616
16	0.1059	155.149	155.1	1.8	3.437	0.600	4.037	6.73	51.854	2.319	1.719
17	0.1175	165.223	165.2	2.0	3.653	0.606	4.259	7.03	51.811	2.433	1.827
18	0.1299	175.775	175.8	2.2	3.878	0.620	4.498	7.25	51.714	2.559	1.939
19	0.1416	186.077	186.1	2.4	4.097	0.641	4.738	7.39	51.568	2.690	2.048
20	0.1539	196.414	196.4	2.6	4.315	0.669	4.984	7.45	51.375	2.826	2.158
21	0.1657	206.796	206.8	2.8	4.534	0.677	5.211	7.70	51.318	2.944	2.267
22	0.1778	217.104	217.1	3.0	4.750	0.704	5.454	7.75	51.132	3.079	2.375

Test Readings for Specimen No. 2

No.	Def. Dial in.	Load Dial	Load lbs.	Strain %	Deviator Stress ksf	Minor Eff. Stress ksf	Major Eff. Stress ksf	1:3 Ratio	Pore Press. psi	P ksf	Q ksf
23	0.1898	226.538	226.5	3.2	4.946	0.744	5.689	7.65	50.854	3.217	2.473
24	0.2017	235.170	235.2	3.5	5.123	0.790	5.913	7.48	50.533	3.352	2.562
25	0.2195	246.124	246.1	3.8	5.345	0.866	6.211	7.17	50.003	3.539	2.672
26	0.2375	254.444	254.4	4.1	5.508	0.949	6.457	6.80	49.427	3.703	2.754
27	0.2614	264.077	264.1	4.5	5.692	1.061	6.753	6.37	48.653	3.907	2.846
28	0.2846	270.005	270.0	4.9	5.796	1.142	6.937	6.08	48.091	4.040	2.898
29	0.3167	272.640	272.6	5.4	5.818	1.270	7.088	5.58	47.203	4.179	2.909
30	0.3467	270.751	270.8	5.9	5.747	1.373	7.120	5.19	46.487	4.246	2.873
31	0.3764	268.628	268.6	6.4	5.671	1.462	7.133	4.88	45.864	4.298	2.835
32	0.4067	266.974	267.0	7.0	5.605	1.507	7.112	4.72	45.552	4.310	2.802
33	0.4359	266.516	266.5	7.5	5.565	1.566	7.131	4.55	45.146	4.348	2.783
34	0.4654	266.537	266.5	8.0	5.535	1.616	7.152	4.42	44.795	4.384	2.768
35	0.4951	267.809	267.8	8.5	5.531	1.665	7.196	4.32	44.458	4.430	2.765
36	0.5245	267.983	268.0	9.0	5.504	1.677	7.181	4.28	44.374	4.429	2.752
37	0.5541	268.750	268.7	9.5	5.489	1.713	7.202	4.21	44.127	4.457	2.745
38	0.5846	268.049	268.0	10.0	5.443	1.742	7.185	4.12	43.923	4.464	2.722
39	0.6146	267.409	267.4	10.5	5.399	1.770	7.170	4.05	43.726	4.470	2.700
40	0.6443	267.627	267.6	11.0	5.373	1.761	7.134	4.05	43.792	4.447	2.686
41	0.6743	268.103	268.1	11.5	5.351	1.775	7.127	4.01	43.691	4.451	2.676
42	0.7038	269.351	269.4	12.0	5.346	1.795	7.140	3.98	43.557	4.467	2.673
43	0.7333	270.261	270.3	12.5	5.333	1.822	7.155	3.93	43.364	4.489	2.666
44	0.7631	270.814	270.8	13.1	5.313	1.815	7.128	3.93	43.416	4.471	2.656
45	0.7925	271.101	271.1	13.6	5.288	1.839	7.127	3.87	43.247	4.483	2.644
46	0.8227	272.115	272.1	14.1	5.276	1.863	7.138	3.83	43.083	4.501	2.638
47	0.8523	271.483	271.5	14.6	5.232	1.879	7.111	3.78	42.971	4.495	2.616
48	0.8820	270.903	270.9	15.1	5.190	1.876	7.066	3.77	42.990	4.471	2.595

Parameters for Specimen No. 3

Specimen Parameter	Initial	Saturated	Consolidated	Final
Moisture content: Moist soil+tare, gms.	120.870			1097.620
Moisture content: Dry soil+tare, gms.	85.800			787.490
Moisture content: Tare, gms.	0.000			0.000
Moisture, %	40.9	41.8	39.4	39.4
Moist specimen weight, gms.	1096.01			
Diameter, in.	2.894	2.894	2.869	
Area, in.²	6.578	6.578	6.465	
Height, in.	5.760	5.760	5.686	
Net decrease in height, in.		0.000	0.074	
Net decrease in water volume, cc.			18.450	
Wet density, pcf	110.2	110.9	112.4	
Dry density, pcf	78.2	78.2	80.6	
Void ratio	1.1148	1.1148	1.0520	
Saturation, %	97.2	99.3	99.2	

Test Readings for Specimen No. 3

Membrane modulus = 0.14 kN/cm²
Membrane thickness = 0.03 cm
Consolidation cell pressure = 64.080 psi (9.228 ksf)
Consolidation back pressure = 40.000 psi (5.760 ksf)
Consolidation effective confining stress = 3.468 ksf
Strain rate, %/min. = 0.33
Fail. Stress = 6.267 ksf **at reading no.** 23
Ult. Stress = 5.757 ksf **at reading no.** 50

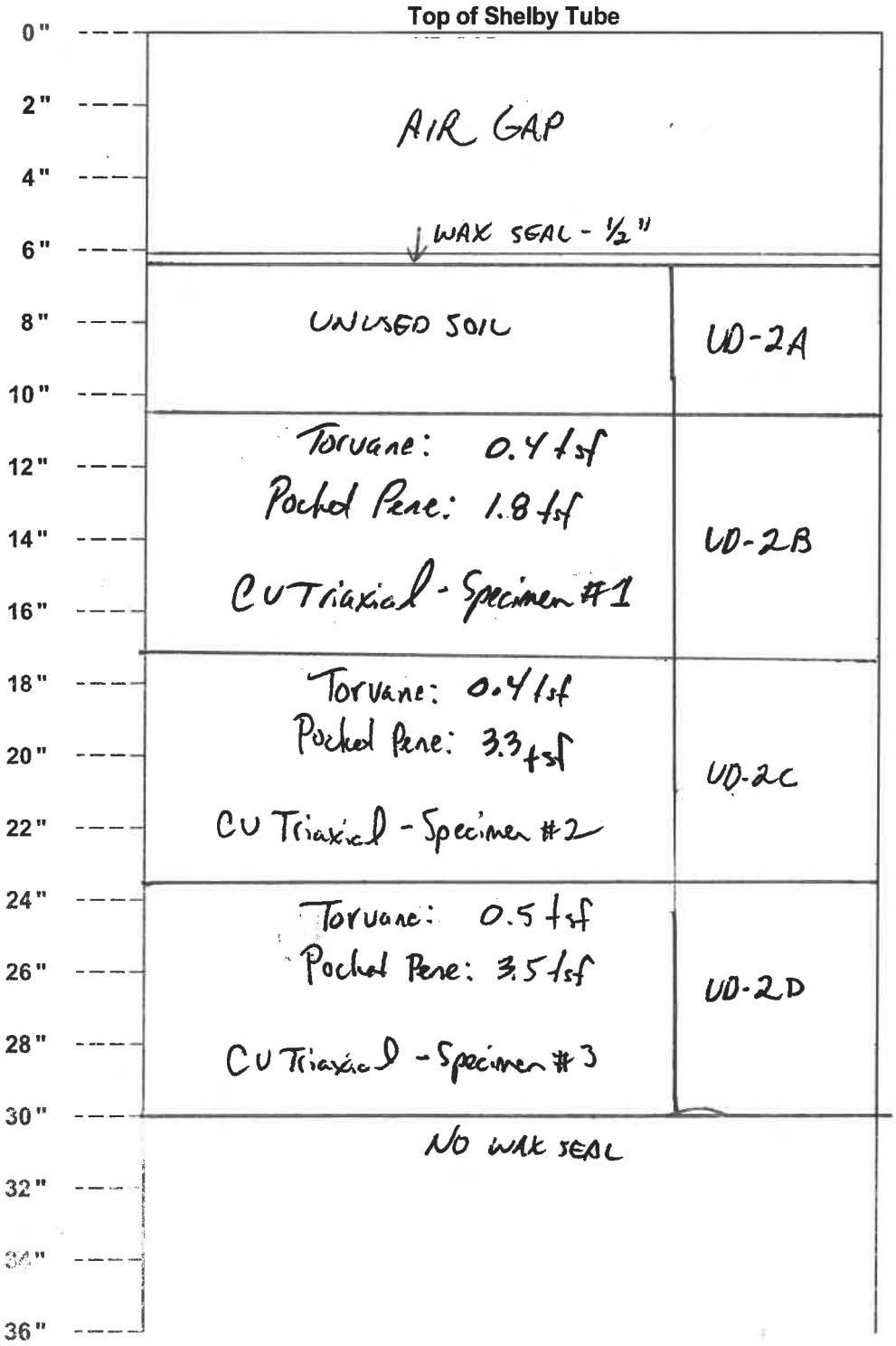
No.	Def. Dial in.	Load Dial	Load lbs.	Strain %	Deviator Stress ksf	Minor Eff. Stress ksf	Major Eff. Stress ksf	1:3 Ratio	Pore Press. psi	P ksf	Q ksf
0	0.0000	0.000	0.0	0.0	0.000	3.468	3.468	1.00	40.000	3.468	0.000
1	0.0095	3.763	3.8	0.2	0.084	3.418	3.502	1.02	40.344	3.460	0.042
2	0.0106	14.838	14.8	0.2	0.330	3.300	3.630	1.10	41.165	3.465	0.165
3	0.0124	27.545	27.5	0.2	0.612	3.160	3.772	1.19	42.138	3.466	0.306
4	0.0138	39.414	39.4	0.2	0.876	3.022	3.898	1.29	43.091	3.460	0.438
5	0.0153	50.314	50.3	0.3	1.118	2.890	4.007	1.39	44.012	3.449	0.559
6	0.0179	69.196	69.2	0.3	1.536	2.647	4.183	1.58	45.699	3.415	0.768
7	0.0208	84.518	84.5	0.4	1.876	2.442	4.318	1.77	47.121	3.380	0.938
8	0.0238	97.176	97.2	0.4	2.155	2.270	4.425	1.95	48.317	3.347	1.078
9	0.0268	108.372	108.4	0.5	2.402	2.118	4.521	2.13	49.369	3.320	1.201
10	0.0304	122.793	122.8	0.5	2.720	1.924	4.644	2.41	50.720	3.284	1.360
11	0.0349	135.023	135.0	0.6	2.989	1.765	4.754	2.69	51.822	3.260	1.494
12	0.0392	145.968	146.0	0.7	3.229	1.628	4.857	2.98	52.772	3.243	1.614
13	0.0447	158.771	158.8	0.8	3.508	1.482	4.990	3.37	53.788	3.236	1.754
14	0.0503	170.344	170.3	0.9	3.760	1.364	5.124	3.76	54.608	3.244	1.880
15	0.0562	180.912	180.9	1.0	3.989	1.270	5.259	4.14	55.262	3.265	1.995
16	0.0635	192.833	192.8	1.1	4.247	1.180	5.427	4.60	55.886	3.303	2.123
17	0.0721	206.301	206.3	1.3	4.537	1.099	5.636	5.13	56.446	3.368	2.268
18	0.0828	222.670	222.7	1.5	4.887	1.021	5.909	5.78	56.987	3.465	2.444
19	0.0948	237.875	237.9	1.7	5.210	0.984	6.193	6.30	57.250	3.588	2.605
20	0.1061	251.978	252.0	1.9	5.507	0.976	6.483	6.64	57.304	3.729	2.754
21	0.1177	265.372	265.4	2.1	5.788	0.985	6.773	6.88	57.243	3.879	2.894
22	0.1300	277.462	277.5	2.3	6.038	1.010	7.049	6.98	57.065	4.029	3.019

Test Readings for Specimen No. 3

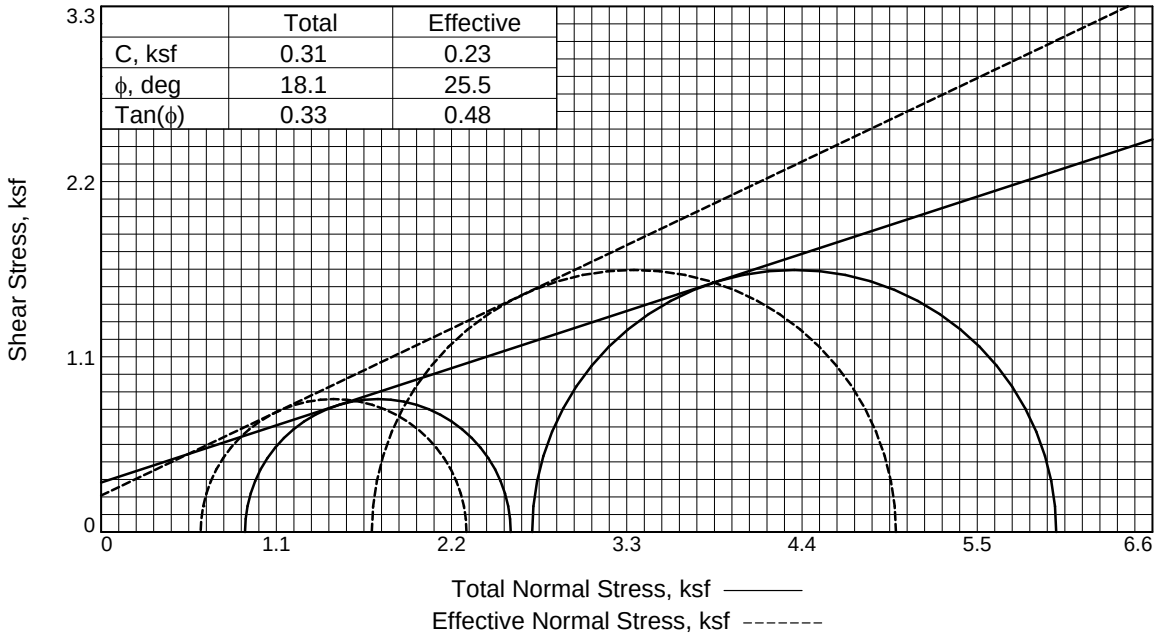
No.	Def. Dial in.	Load Dial	Load lbs.	Strain %	Deviator Stress ksf	Minor Eff. Stress ksf	Major Eff. Stress ksf	1:3 Ratio	Pore Press. psi	P ksf	Q ksf
23	0.1416	288.554	288.6	2.5	6.267	1.046	7.313	6.99	56.814	4.180	3.133
24	0.1589	303.318	303.3	2.8	6.567	1.115	7.681	6.89	56.340	4.398	3.283
25	0.1760	314.978	315.0	3.1	6.798	1.202	8.000	6.66	55.734	4.601	3.399
26	0.1996	326.810	326.8	3.5	7.023	1.327	8.351	6.29	54.862	4.839	3.512
27	0.2222	333.942	333.9	3.9	7.147	1.484	8.631	5.82	53.776	5.057	3.573
28	0.2457	337.519	337.5	4.3	7.192	1.638	8.831	5.39	52.703	5.235	3.596
29	0.2692	338.918	338.9	4.7	7.191	1.778	8.969	5.04	51.730	5.374	3.596
30	0.2799	338.858	338.9	4.9	7.176	1.842	9.017	4.90	51.289	5.430	3.588
31	0.3115	335.888	335.9	5.5	7.071	1.972	9.043	4.59	50.387	5.507	3.536
32	0.3407	330.800	330.8	6.0	6.926	2.069	8.995	4.35	49.714	5.532	3.463
33	0.3700	325.453	325.5	6.5	6.777	2.143	8.920	4.16	49.197	5.532	3.388
34	0.3989	320.061	320.1	7.0	6.628	2.200	8.828	4.01	48.802	5.514	3.314
35	0.4280	316.074	316.1	7.5	6.510	2.224	8.733	3.93	48.639	5.478	3.255
36	0.4557	313.120	313.1	8.0	6.415	2.264	8.679	3.83	48.360	5.471	3.207
37	0.4845	308.727	308.7	8.5	6.290	2.303	8.593	3.73	48.085	5.448	3.145
38	0.5135	306.228	306.2	9.0	6.204	2.336	8.540	3.66	47.861	5.438	3.102
39	0.5425	303.515	303.5	9.5	6.115	2.354	8.469	3.60	47.734	5.411	3.057
40	0.5722	300.667	300.7	10.1	6.023	2.376	8.399	3.53	47.577	5.388	3.011
41	0.6014	299.365	299.4	10.6	5.962	2.393	8.355	3.49	47.465	5.374	2.981
42	0.6304	298.573	298.6	11.1	5.913	2.403	8.316	3.46	47.390	5.360	2.956
43	0.6589	300.052	300.1	11.6	5.908	2.408	8.316	3.45	47.357	5.362	2.954
44	0.6875	300.172	300.2	12.1	5.877	2.415	8.292	3.43	47.308	5.354	2.939
45	0.7163	300.268	300.3	12.6	5.845	2.426	8.271	3.41	47.236	5.348	2.923
46	0.7456	301.497	301.5	13.1	5.834	2.423	8.258	3.41	47.252	5.340	2.917
47	0.7746	301.903	301.9	13.6	5.808	2.430	8.238	3.39	47.203	5.334	2.904
48	0.8042	302.366	302.4	14.1	5.782	2.445	8.226	3.37	47.104	5.336	2.891
49	0.8325	303.722	303.7	14.6	5.774	2.451	8.225	3.36	47.059	5.338	2.887
50	0.8612	304.640	304.6	15.1	5.757	2.449	8.206	3.35	47.076	5.327	2.879

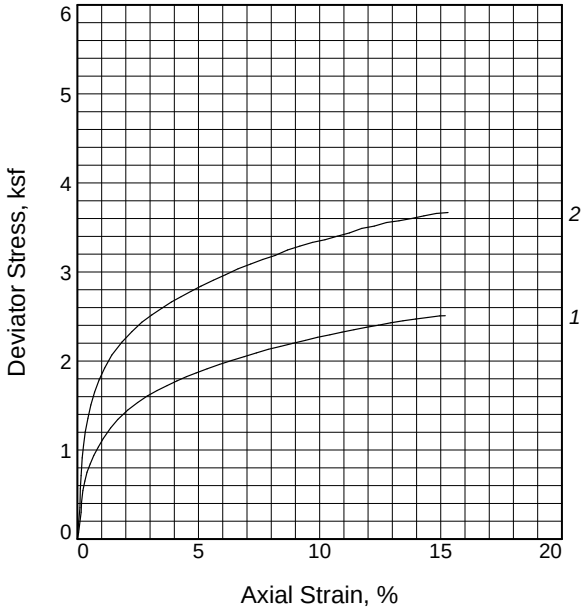
SCDOT Shelby Tube Log

Project ID:	200424A	County:		Boring No.:	B12
Project Description:	526 Longpoint Road Interchange			Route:	
UD Sample No.:	UD-2	Depth:	30.0 - 32.0'		
Date Sampled:	3/22/23	Date Extracted:	6/08/23		
Extracted By:	B. Clarke	Eng. Firm:	S. ME, Inc.		



SC_DOT_SHELBY_TUBE_LOG_PICTURES G6100.09 - S-195 RBO CAMP CREEK JFH.GPJ SCDOT_DATATEMPLATE.GDT 12/6/19





Sample No.		1	2
Initial	Water Content, %	84.6	85.2
	Dry Density, pcf	50.6	50.2
	Saturation, %	98.7	98.4
	Void Ratio	2.2718	2.2945
	Diameter, in.	2.82	2.82
	Height, in.	6.02	6.03
At Test	Water Content, %	82.5	82.7
	Dry Density, pcf	51.6	52.2
	Saturation, %	99.0	101.0
	Void Ratio	2.2083	2.1702
	Diameter, in.	2.81	2.79
	Height, in.	5.98	5.92
Strain rate, in./min.		0.157	0.157
Eff. Cell Pressure, ksf		0.90	2.71
Fail. Stress, ksf		1.67	3.29
Total Pore Pr., ksf		9.64	10.37
Strain, %		3.3	9.2
Ult. Stress, ksf		2.51	3.67
Total Pore Pr., ksf		9.19	10.12
Strain, %		15.2	15.3
$\bar{\sigma}_1$ Failure, ksf		2.29	4.99
$\bar{\sigma}_3$ Failure, ksf		0.62	1.70

Type of Test:
CU with Pore Pressures

Sample Type: Undisturbed

Description: sandy lean CLAY (CL) - gray

LL= N/A **PI=** N/A

Assumed Specific Gravity= 2.65

Remarks: The specimens failed with shearing. Failure selected at peak stress ratio. ASTM D4767.

Client: CDM Smith

Project: I-526 / Long Point Road Interchange

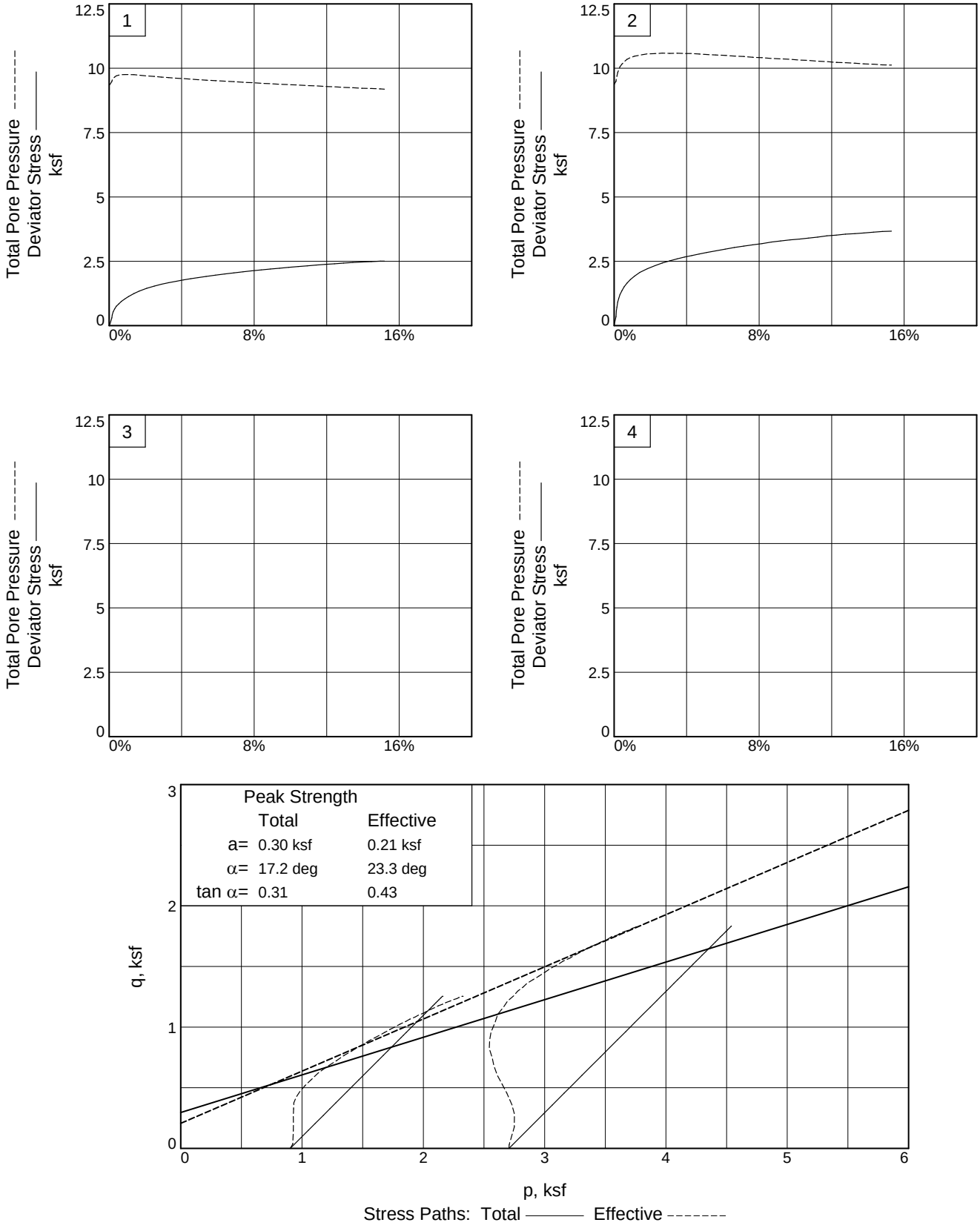
Sample Number: B 14 **Depth:** 14 - 16'

Proj. No.: 200424A **Date Sampled:** subm. July 2025

TRIAXIAL SHEAR TEST REPORT
S&ME, Inc.
Greenville, SC

Figure 1

Tested By: Benjamin Kovaleski 8/22/25 **Checked By:** Brian Vaughan, P.E.

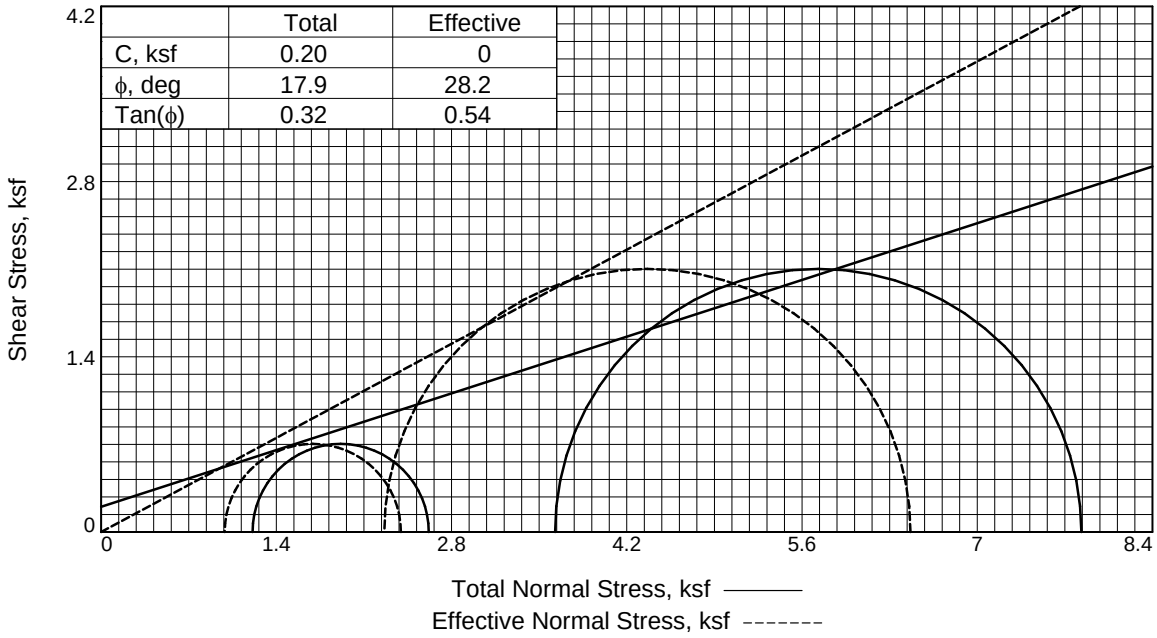


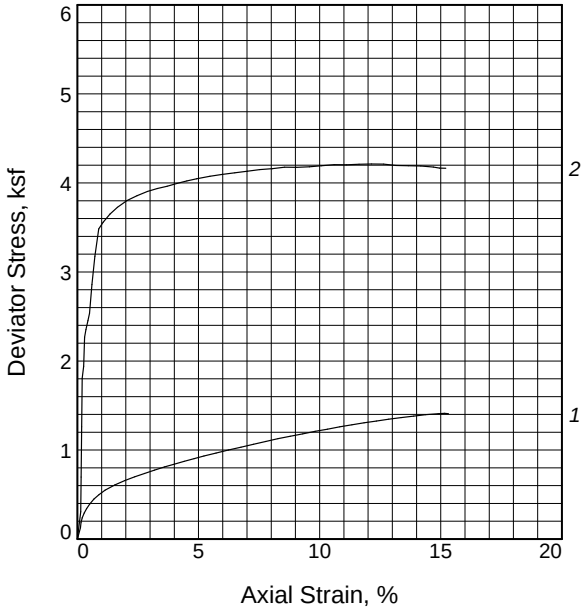
Client: CDM Smith
Project: I-526 / Long Point Road Interchange
Depth: 14 - 16' **Sample Number:** B 14
Project No.: 200424A

Figure 2

S&ME, Inc.

Tested By: Benjamin Kovaleski 8/22/25 **Checked By:** Brian Vaughan, P.E.





Sample No.		1	2
Initial	Water Content, %	69.9	70.0
	Dry Density, pcf	56.4	55.9
	Saturation, %	95.9	94.6
	Void Ratio	1.9326	1.9598
	Diameter, in.	2.86	2.86
	Height, in.	5.75	5.81
At Test	Water Content, %	68.9	69.2
	Dry Density, pcf	57.9	58.3
	Saturation, %	98.4	99.8
	Void Ratio	1.8551	1.8381
	Diameter, in.	2.84	2.83
	Height, in.	5.68	5.70
Strain rate, in./min.		0.370	0.370
Eff. Cell Pressure, ksf		1.21	3.63
Fail. Stress, ksf		1.41	4.20
Total Pore Pr., ksf		8.86	10.01
Strain, %		14.9	10.6
Ult. Stress, ksf		1.41	4.17
Total Pore Pr., ksf		8.85	9.94
Strain, %		15.3	15.2
$\bar{\sigma}_1$ Failure, ksf		2.40	6.47
$\bar{\sigma}_3$ Failure, ksf		0.99	2.26

Type of Test:
CU with Pore Pressures

Sample Type: Unsisturbed

Description: sandy lean CLAY (CL) - gray

LL= N/A **PI=** N/A

Assumed Specific Gravity= 2.65

Remarks: The specimens failed with shearing. Failure selected at peak stress ratio. ASTM D4767.

Figure 1

Client: CDM Smith

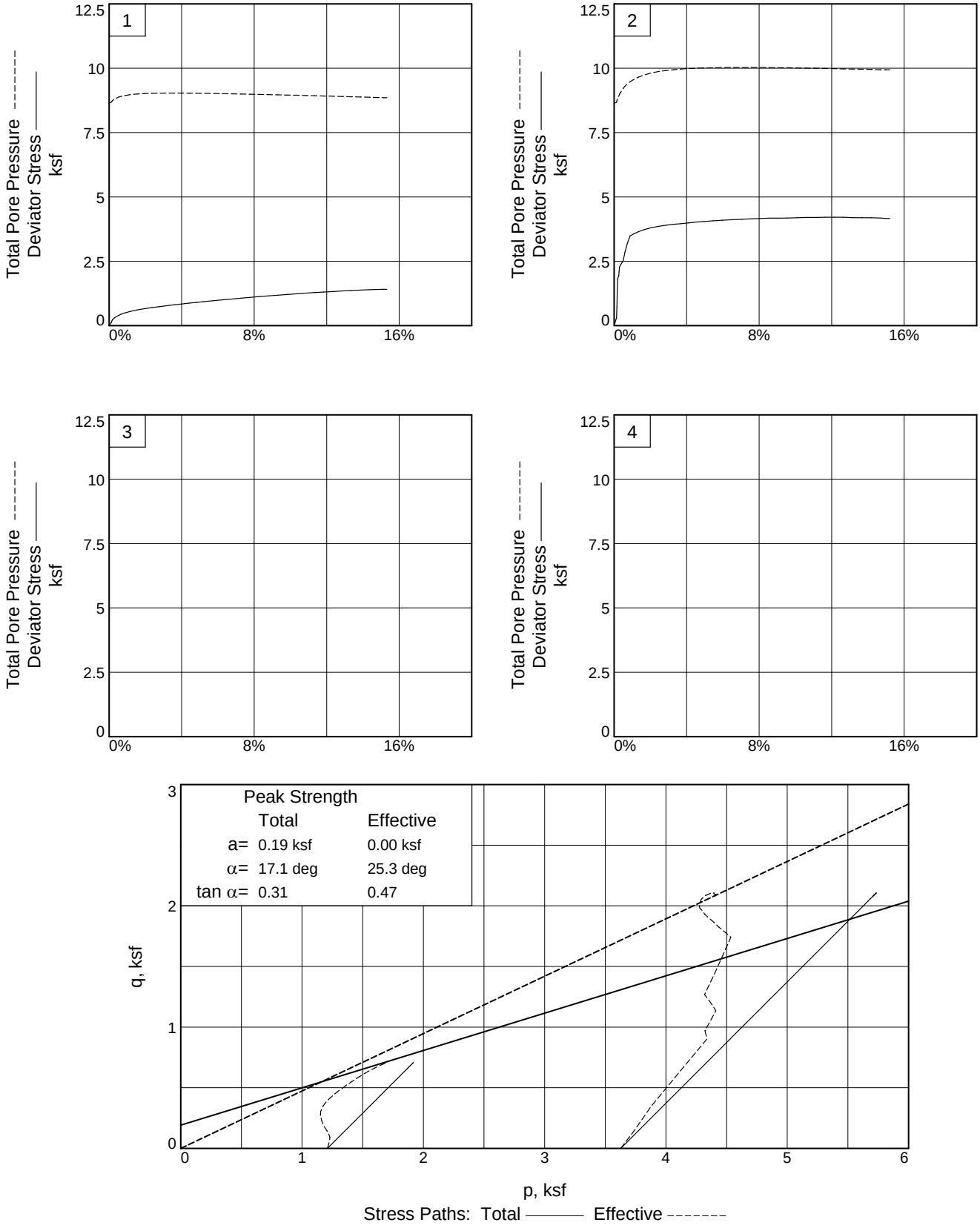
Project: I-526 / Long Point Road Interchange

Sample Number: EMB 14 **Depth:** 25 - 27'

Proj. No.: 200424A **Date Sampled:** subm. July 2025

TRIAXIAL SHEAR TEST REPORT
S&ME, Inc.
Greenville, SC

Tested By: Benjamin Kovaleski 8/22/25 **Checked By:** Brian Vaughan, P.E.



Client: CDM Smith
Project: I-526 / Long Point Road Interchange
Depth: 25 - 27' **Sample Number:** EMB 14
Project No.: 200424A

Figure 2

S&ME, Inc.

Tested By: Benjamin Kovaleski 8/22/25 **Checked By:** Brian Vaughan, P.E.

Table 6: Laboratory Corrosion Testing Summary								
Boring Number	Sample Depth (ft)	As Received Resistivity (Ohm-cm)	Minimum Resistivity (Ohm-cm)	Sulfates		Chlorides		pH
				(mg/kg)	(wt%)	(mg/kg)	(wt%)	
B01	4 - 6	5,293	4,757	37.1	0.0037	12.8	0.0013	6.8
	6 - 8	5,628	4,690	54.4	0.0054	15.8	0.0016	6.8
	38.5 - 40	1,474	1,407	562.4	0.0562	13.9	0.0014	5.6
	43.5 - 45	1,005	938	297.7	0.0298	21.2	0.0021	7.4
B04	4 - 6	38,860	19,430	25.9	0.0026	12.1	0.0012	6.4
	73.5 - 75	630	603	314.3	0.0314	14.8	0.0015	7.2
B06	4 - 6	4,757	4,489	30.7	0.0031	16.4	0.0016	8.0
	6 - 8	871	804	17.1	0.0017	12.7	0.0013	7.7
	16 - 18	442	429	1,655.10	0.1655	19.1	0.0019	5.4
	22 - 24	804	670	184.5	0.0184	17.0	0.0017	6.4
B13	3-5	1943	1675	96.7	0.0097	38.7	0.0039	7.3
	6-8	2412	2278	139	0.0139	59.3	0.0059	6.5
B16	2-4	2345	1742	212.1	0.0212	31.3	0.0031	6.6
	6-8	5427	3886	96.8	0.0097	24.6	0.0025	6.2

Results Only Soil Testing for I526 / Longpoint Road Interchange

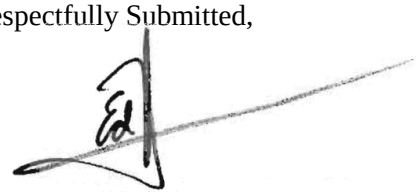
July 11, 2023

Prepared for:

Hunter G. McKenzie
S&ME, Inc.
620 Wando Park Blvd.
Mt. Pleasant, SC 29464
HMcKenzie@smeinc.com

Project X Job#: S230710I
Client Job or PO#: 200424A

Respectfully Submitted,





Eduardo Hernandez, M.Sc., P.E.
Sr. Corrosion Consultant
NACE Corrosion Technologist #16592
Professional Engineer
California No. M37102
ehernandez@projectxcorrosion.com

Soil Analysis Lab Results

Client: S&ME, Inc.
Job Name: I526 / Longpoint Road Interchange
Client Job Number: 200424A
Project X Job Number: S230710I
July 11, 2023

	Method	ASTM D4327		ASTM D4327		ASTM G187		ASTM G51
Bore# / Description	**Depth**	**Sulfates** SO_4^{2-}		**Chlorides** Cl^-		**Resistivity** As Rec'd | Minimum		**pH**
	(ft)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(Ohm-cm)	(Ohm-cm)	
B01 SS3	4-6	37.1	0.0037	12.8	0.0013	5,293	4,757	6.8
B01 SS4	6-8	54.4	0.0054	15.8	0.0016	5,628	4,690	6.8
B01 SS11	38.5-40	562.4	0.0562	13.9	0.0014	1,474	1,407	5.6
B01 SS12	43.5-45	297.7	0.0298	21.2	0.0021	1,005	938	7.4
B06 SS3	4-6	30.7	0.0031	16.4	0.0016	4,757	4,489	8.0
B06 SS4	6-8	17.1	0.0017	12.7	0.0013	871	804	7.7
B06 SS9	16-18	1,655.1	0.1655	19.1	0.0019	442	429	5.4
B06 SS12	22-24	184.5	0.0184	17.0	0.0017	804	670	6.4
B04 SS3	4-6	25.9	0.0026	12.1	0.0012	38,860	19,430	6.4
B04 SS18	73.5-75	314.3	0.0314	14.8	0.0015	630	603	7.2

Cations and Anions, except Sulfide and Bicarbonate, tested with Ion Chromatography
mg/kg = milligrams per kilogram (parts per million) of dry soil weight
ND = 0 = Not Detected | NT = Not Tested | Unk = Unknown
Chemical Analysis performed on 1:3 Soil-To-Water extract
PPM = mg/kg (soil) = mg/L (Liquid)

Note: Sometimes a bad sulfate hit is a contaminated spot. Typical fertilizers are Potassium chloride, ammonium sulfate or ammonium sulfate nitrate (ASN). So this is another reason why testing full corrosion series is good because we then have the data to see if those other ingredients are present meaning the soil sample is just fertilizer-contaminated soil. This can happen often when the soil samples collected are simply surface scoops which is why it's best to dig in a foot, throw away the top and test the deeper stuff. Dairy farms are also notorious for these items.

Results Only Soil Testing for I-526 Long Point Interchange

July 21, 2025

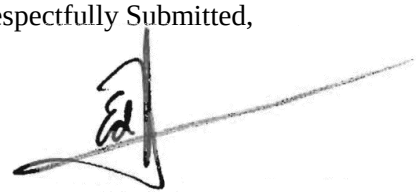
Prepared for:

Emmalee Honeycutt
S&ME, Inc.
7410 Northside Drive, Suite 110
North Charlston, SC 29420
EmmaleeHoneycutt@Smeinc.com, AGoldberg@smeinc.com

Project X Job#: S250717I
Client Job or PO#: 200424A

Prepared by:
M. Williams

Respectfully Submitted,





Eduardo Hernandez, M.Sc., P.E.
Sr. Corrosion Consultant
NACE Corrosion Technologist #16592
Professional Engineer
California No. M37102
ehernandez@projectxcorrosion.com

Soil Analysis Lab Results

Client: S&ME, Inc.
Job Name: I-526 Long Point Interchange
Client Job Number: 200424A
Project X Job Number: S250717I
July 21, 2025

	Method	AASHTO T290		AASHTO T291		AASHTO T288		AASHTO T289	ASTM D2216
Bore# / Description	**Depth**	**Sulfates** SO_4^{2-}		**Chlorides** Cl^-		**Resistivity** As Rec'd | Minimum		**pH**	**Moisture Content**
	(ft)	**(mg/kg)**	**(wt%)**	**(mg/kg)**	**(wt%)**	**(Ω-cm)**	**(Ω-cm)**		**(%)**
B-13 (SS-2)	3-5	96.7	0.0097	38.7	0.0039	1,943	1,675	7.3	26%
B-13 (SS-3)	6-8	139.0	0.0139	59.3	0.0059	2,412	2,278	6.5	35%
B-16 (SS-2)	2-4	212.1	0.0212	31.3	0.0031	2,345	1,742	6.6	17%
B-16 (SS-4)	6-8	96.8	0.0097	24.6	0.0025	5,427	3,886	6.2	18%

Cations and Anions, except Sulfide and Bicarbonate, tested with Ion Chromatography
mg/kg = milligrams per kilogram (parts per million) of dry soil weight
ND = 0 = Not Detected | NT = Not Tested | Unk = Unknown
Chemical Analysis performed on 1:3 Soil-To-Water extract
PPM = mg/kg (soil) = mg/L (Liquid)

For AWWA 105C: 0-3mg/kg sulfide = Negative; 3-6mg/kg = trace; >6mg/kg = Positive

Note: Sometimes a bad sulfate hit is a contaminated spot. Typical fertilizers are Potassium chloride, ammonium sulfate or ammonium sulfate nitrate (ASN). So this is another reason why testing full corrosion series is good because we then have the data to see if those other ingredients are present meaning the soil sample is just fertilizer-contaminated soil. This can happen often when the soil samples collected are simply surface scoops. This is why it's best to dig in a foot, throw away the top and test the deeper stuff. Dairy farms are also notorious for these items.

If one sample pops up much more corrosive than all others, we would recommend collecting more samples surrounding the problem sample location to determine if the peak is isolated to it. This allows us to conclude it was a contaminated sample and able to declare it an outlier.

Try out our new online forms: SOIL CORROSIVITY & THERMAL RESISTIVITY LAB REQUEST FORM & IN-SITU WENNER 4 PIN QUOTE REQUEST FORM