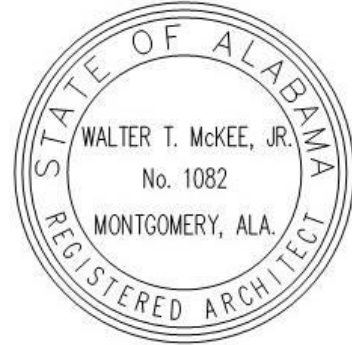


Addendum No. 1
Date: September 27, 2024



Project:
**Addition to Linden High
School for the Linden City
Board of Education
Linden, Alabama**

MCKEE PROJECT NO. 22.315
ALABAMA DIVISION OF CONSTRUCTION MANAGEMENT NO. 20240569

The following changes and/or substitutions to the plans and specifications are hereby made a part of same and are incorporated in full force as part of the contract.

Bidders shall acknowledge receipt of this Addendum in writing on the Proposal Form.

A1.1 GENERAL MODIFICATIONS:

- A. Refer to the **Table of Contents (Revised 09.26.24)**, herein.
- B. Refer to the attached **Unit Price Item Legend Form (Revised 09.26.24)**, herein. *Note: This form MUST be submitted in the Contractor's sealed Bid Proposal.*
- C. Refer to the attached **Pre-Bid Sign-In Sheet dated 0.00.20**, herein.

A1.2 SPECIFICATION MODIFICATIONS:

- A. Refer to **Section 02200 Earthwork, ADDED Report of Geotechnical Subsurface Investigation, dated 09.25.24**, prepared by UES Professional Solutions, herein.
- B. Refer to **Section 03368, UV Concrete Sealer** and **DELETE** in its entirety.
- C. Refer to attached **Section 03950, Concrete Sealer**, herein.
- D. Refer to attached **Section 10410 Identifying Devices**, herein.

A1.3 DRAWING MODIFICATIONS:

- A. See the attached Revised Drawings as follows:
 - 1. Sheet dated 0.0.24, herein.

A1.4 CLARIFICATIONS & RESPONSES:

- A. See the following responses to RFI questions received from Contractors.

Question: N/A

Answer:

- B. See the following clarifications as follows:
 - 1. N/A

END OF ADDENDUM

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MCKEE PROJECT NO. 22.315

DCM NO. 20240569

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- Advertisement For Bids
- Instructions to Bidders (DCM Form C-2 August 2021)
- Request For Information (McKee Form)
- Prior Approval/Substitution Request Form (McKee Form)
- Instructions to Bidders (DCM Form C-2 August 2021)
- Proposal Form (DCM Form C-3 August 2021)
- Form Of Bid Bond (DCM Form C-4, August 2021)
- Special Instructions to Bidders (McKee Form April 2024)

CONTRACT FORMS

- Preparation and Approval of Construction Contracts and Bonds (DCM Form B-7 July 2022)
- Construction Contract (DCM Form C-5, December 2021)
- Performance Bond (DCM Form C-6, July 2022)
- Payment Bond (DCM Form C-7, July 2022)
- General Conditions of the Contract (DCM Form C-8, Revised October 2022)
- Instructions for Contractor's Insurance Company (Article 37 of DCM Form C-8, Revised October 2022)
- Supplement to General Conditions of the Contract (McKee Form April 2024)
- State of Alabama Disclosure Statement Form, Required by Article 3B of Title 41, Code of Alabama 1975(Revised 09/2013) with Information and Instructions regarding Relationships Between Contractor/Grantees and Public Officials/Employees.
- Alabama Department of Revenue – Sales and Use Tax Division – Application for Sales and Use Tax Certificate of Exemption (ST:EX-01 June 2021)
- State of Alabama E-Verify Memorandum of Understanding Instructions (Revised August 2021) *with* ABC Bulletin (May 29, 2012) *and* Revised Alabama Immigration Law Guidance for School Boards (Revised May 2012).
- Alabama Department of Finance, Real Property Management – Division of Construction Management – Permit Fee & Permit Re-Inspection Fee Calculation Worksheet (December 2021)

GENERAL CONDITIONS

- Pre-Construction Conference Checklist (DCM Form B-8 June 2023)
- Detail Of Project Sign (DCM Form C-15, Revised December 2021)
- Application and Certificate for Payment (DCM Form C-10, Revised July 2022)
- Schedule Of Values, (DCM Form C-10SOV, Revised October 2021) Attachment to DCM Form C-10
- Inventory Of Stored Materials, (DCM Form C-10SM, Revised October 2021) Attachment to DCM Form C-10
- Progress Schedule and Report (DCM Form C-11, August 2021)
- Change Order Checklist, (DCM Form B-12, August 2021) For Use with DCM Form C-12
- Contract Change Order (DCM Form C-12 (fully locally funded K-12 Schools), August 2021)
- Change Order Justification (DCM Form B-11, August 2021) Attachment to DCM Form C-12
- General Contractor's Roofing Guarantee (DCM Form C-9, August 2021)
- Certificate of Substantial Completion (DCM Form C-13 & 13A, Revised November 2022)
- Form of Advertisement for Completion (DCM Form C-14, August 2021)
- Certification of Structural Observation (DCM Form B-14 Revised December 2021)
- Final Payment Checklist (DCM Form B-13, Revised October 2022)
- Contractor's Affidavit of Payment of Debts and Claims (DCM Form C-18, August 2021)
- Contractor's Affidavit of Release of Liens (DCM Form C-19, August 2021)
- Consent of Surety to Final Payment (DCM Form C-20, August 2021)
- Owner's Statement of Responsibility for Tornado Storm Shelter (DCM Form B-15 June 2023)
- Contractor's Statement of Responsibility for Construction of Tornado Storm Shelter (DCM Form 17 December 2021)
- Form of Advertisement for Completion (DCM Form C-14, August 2021)
- Act 2009-657 Requiring Certification of Fire Alarm Contractors (DCM Memorandum January 19, 2021)
- State Of Alabama Department of Insurance – Application For State Fire Marshal's Certified Fire Alarm Contractor Permit
- Certificate of Asbestos Free Building Materials (McKee Form)

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Addition
to
Linden High School
for the
Linden City Board of Education
Linden, Alabama

MCKEE PROJECT NO. 22.315

Legal Name of Bidder _____

Mailing Address _____

The General Contractor shall include the Unit Prices below in their Base Bid Proposal. **The quantities assigned below are above and beyond the amounts required to complete the work required by the bid documents.** This Unit Price Item Legend shall be submitted with the sealed Proposal.

SCHEDULE OF UNIT PRICES:

UNIT PRICES: The Unit Prices below establishes Unit Prices so that the Owner can delete/add quantities from the Contract(s) required.

UNIT PRICE #1: The Contractor shall include in his Base Bid proposal the cost for **an Additional 500** Cubic Yards Measured In Place (CYMIP) of removal and off-site disposal of unsuitable soil and furnishing, placing and compacting of acceptable fill material from below the finished subgrade and tested to meet requirements specified for the affected area, in accordance with Section 02200 "Earthwork."

500 CYMIP @ _____/CYMIP = \$ _____ Included in Base Bid

UNIT PRICE #2: The Contractor shall include in his Base Bid proposal **50** Cubic Yards Measured In Place (CYMIP) for excavation of unsuitable soils, disposal off site of excavated material and furnishing and installation of lean concrete mud footing "mud sill" in accordance with Section 02200 "Earthwork."

50 CYMIP @ _____ per CYMIP = \$ _____ Included in Base Bid

Note: This unit price is not applicable to cost of mud footings that are required due to over-excavation, or due to not pouring footings the same date they are excavated, or other reasons indicated in Section 02200 - "Earthwork," or Section 03310 - "Concrete."



Report of Geotechnical Subsurface Investigation

Linden High School Building & Pavement Additions

Shiloh Street

Linden, Alabama

Our Job No. A24114.00813.000

Report of Geotechnical Subsurface Investigation

Linden High School Building & Pavement Additions

Shiloh Street

Linden, Alabama

Our Job No. A24114.00813.000

Prepared For:

Dr. Timothy Thurman, Superintendent

Linden City Schools

209 N. Main Street

Linden, Alabama 36748

Prepared By:

UES Professional Solutions 18, LLC (UES)

P.O. Box 241702

Montgomery, Alabama 36124

334-213-5647

www.teamues.com

September 25, 2024



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- Vicinity Map
- Boring Plans
- Test Boring Logs
- Laboratory Test Data
- Notes and References
- Investigative Procedures
- Unified Soil Classification Chart
- General Terms and Conditions



1.0 Introduction

UES Professional Solutions 18, LLC (UES) is pleased to provide this report of our subsurface investigation for the proposed Linden High School Building and Pavement Additions in Linden, Alabama. The scope of this investigation included 16 soil test bores in the proposed building and pavement addition areas. The quantity and location of the test bores were taken in accordance with the authorized scope of work. The intent of this investigation was to evaluate the subsurface conditions with respect to the development of the site for support of the proposed new building structures and pavements.

This report has been prepared in accordance with generally accepted current standards of geotechnical engineering practices and no other warranties are expressed or implied. The recommendations of this report are based on our professional judgment considering the proposed construction as described by this report and the data available to us. The construction should include follow up geotechnical monitoring and construction materials testing by our firm. It is important that we confirm the expected subsurface conditions based on the soil boring data during the construction phase. This report is presented on the basis that all of our recommendations will be followed.



2.0 Summary

Generally, the subsurface investigation indicated conditions which should be compatible with the planned structures and pavements provided the site preparation and construction are completed in accordance with the recommendations which follow in this report. Please note that our recommendations are site specific and may not be suitable for other types of structures or other locations.

A total of 16 test bores were completed to evaluate the subsurface stratigraphy. Beneath 2 to 7" of organic topsoil or 1 to 2" of asphalt pavement, the test bores penetrated fill and in-situ earth described as cohesive sandy clay, plastic clay, clayey sand (sections with trace gravel), silty clayey sand, and non-cohesive silty sand (sections with trace gravel). The predominate sand earth is of a marginal drainage classification. The predominate clay earth is of a poor drainage classification. Below localized weak surface soil conditions, the test bores encountered moderate soil strengths and consolidation characteristics which are expected to be compatible with the planned type of construction. The upper weak soils will require correction to provide support for building and pavement structures.

Six test bores indicated groundwater 1 to 24 hours after drilling at depths of 8.9 to 18.6' below ground surface (bgs). One to twenty-four hours following drilling, the test bores caved at depths ranging from 7.6 to 22.3' bgs which may have prevented groundwater measurement in some of the test bores. The groundwater condition at this site is subject to seasonal variation and is expected to fluctuate. We do not anticipate that the groundwater condition will affect the construction or long-term performance of this project. Shallow groundwater encountered during construction (if any) can be controlled using shallow drainage ditches, sump pits and pumps, and/or permanent underdrains.

In order to improve the bearing conditions for support of shallow spread foundations and floor slabs, the building areas should be undercut to a depth of 2' below existing grade or 2' below finish subgrade, whichever is deeper. After undercutting, the exposed subgrade should be processed and thoroughly compacted to at least 98% of the materials ASTM-D698 standard density. Additional undercutting will be required for any areas which fail to compact or fail to meet a proof roll. Once a satisfactory subgrade is established, the undercut areas should be backfilled with properly compacted "engineered fill". The rubble-free, non-organic non-saturated sections of the native earth may be used to develop "engineered fill" for foundation and/or slab support. The suitable sections of the undercut earth can be stockpiled and reused to construct "engineered fill". Pavement areas can be improved in a similar manner except the initial undercutting can be limited to 1' below existing ground surface or 1' below finish subgrade, whichever is deeper.



Following proper site preparation, the project can use conventional design and construction techniques to develop a shallow spread foundation system for support of the planned structures. The spread foundations can be designed to bear in the new “engineered fill” earth using net allowable soil bearing pressures of up to 2,000 pounds per square foot for continuous foundations and 2,500 pounds per square foot for isolated square foundations.

The pavement sections may be developed using locally available materials and conventional construction techniques. The pavement sections can be constructed using a crushed aggregate base and high stability bituminous pavement section, a granular soil base and high stability bituminous pavement, or a concrete pavement section placed directly over an improved layer of the subgrade earth.



3.0 Evaluation

3.1 Site Location

The site subject to this report is located at the existing Linden High School Complex on the west side of Shiloh Street in the City of Linden, Marengo County, Alabama. Our field personnel utilized the provided instructions, site plan and a survey grade GPS to locate the site and test bores. The ground elevation at each bore location was determined with the GPS. These elevations are shown on the test bore records. The horizontal and vertical accuracy of the GPS can be variable due to atmospheric influences, adjacent buildings, tree canopies, and other obstructions. The locations should be considered approximate. The GPS data is provided for information only and has not been field verified.

3.2 Site Conditions

The site includes the existing Linden High School Complex with numerous buildings, pavements, and related improvements. Some of the existing buildings are planned for demolition.

The local terrain is described as moderately sloping. There was approximately 12' of relief between the test bore locations. Surface drainage was described as good. Surface water is expected to flow over the site and discharge beyond the area planned for development. There were no significant areas of ponded surface water on the site at the time of drilling.

Site access was described as fair to good. There was no difficulty mobilizing our truck-mounted drilling equipment to the test bore locations. The bore locations were selected to avoid underground utilities, building structures and other obstructions.





3.3 Site Geology and Subsurface Stratigraphy

Geologically, the site is located in the Coastal Plain Province, and is underlain by the Porters Creek Formation, a member of the Midway Group, formed in the Paleocene Epoch of the Tertiary Period. This formation typically yields calcareous, micaceous clayey fine to medium sand and calcareous clay.

The test bores penetrated 2 to 7” of organic topsoil or 1 to 2” of asphalt pavement. The test bores continued into fill and in-situ earth described as cohesive sandy clay, plastic clay, clayey sand (sections with trace gravel), silty clayey sand, and non-cohesive silty sand (sections with trace gravel). Laboratory analyses confirmed “SM”, “SC” and “CL” Unified Soil Classifications of the predominate silty sand, clayey sand and sandy clay earth with plasticity indices of 3, 9, 10, 14, 21, and 24. The penetration resistance values, “N”, ranged from 3 to 100+ blows per foot indicating relative densities of very loose to very dense in the predominate sand earth and consistencies of very soft to very hard in the predominate clay earth. Moisture tests indicated soil water contents ranging from 9.2 to 27.8%. The test bores were terminated at depths of 10 to 25’ bgs.

The test bores B-1, B-2, B-3, B-4, B-6, and B-10 indicated groundwater at depths of 8.9 to 18.6’ below ground surface one to twenty-four hours following drilling. The test bores caved at depths ranging from 7.6 to 22.3’ below ground surface which may have prevented measurement of a stabilized water level in some of the test bores. The groundwater condition at this site is subject to seasonal variation and is expected to fluctuate.

The enclosed test boring records further describe the subsurface stratigraphy, Unified Soil Classifications, penetration resistance values, moisture contents, water levels, caved depths, and boring termination depths.

3.4 General Construction Information

The following data was extrapolated from the provided construction information. The construction data described in this section was considered in the formulation of our recommendations; therefore, any significant changes, additions, or modifications to the planned development may have a significant impact on our recommendations. We ask that we be advised of any significant errors, omissions, or revisions in the construction data to permit further comment as needed.

We understand the proposed development will include conventional type building construction along with related grading, drainage, and pavement improvements. The building will include single story height, shallow foundations, concrete floor slab on grade and CMU, steel frame or wood frame type construction with brick or metal veneer siding. Specific structural loading



information was not provided. We anticipate that maximum concentrated loads will be less than 125 kips and that wall loads will be less than 6 kips per linear foot.

Specific pavement design criteria was not available. The parking lot pavements are expected to be subjected to a light duty traffic classification including a moderate volume of automobiles. Drives and other designated areas will be subjected to a medium duty traffic classification and will include a moderate volume of automobiles, school buses and occasional medium to heavy weight service trucks.

Finish grading information was not provided. Based on the existing grades, we expect less than 3' of earth cutting/filling will be required to establish finish grades in the building areas and less than 5' of earth cutting/filling will be required to establish finish grades in pavement areas. Fill earth required to establish subgrade elevation is expected to originate from on-site cuts and/or local off-site borrow sources.

One of the enclosed boring plans further describes the planned development.



4.0 Recommendations - Site Preparation

4.1 "Controlled Areas"

Define those areas throughout and 5' beyond the proposed building and pavement areas and throughout significant slopes as "controlled areas".

4.2 Stripping

Remove all topsoil, stumps, vegetation, concrete, asphalt, and otherwise unsuitable materials from the "controlled areas". All unsuitable materials should be wasted off-site or in non-structural areas.

4.3 Drainage

Maintain the "controlled areas" in a drained condition that will ensure the continual removal of surface water that may flow over the construction areas. Temporary site drainage can be enhanced by the installation of the final site drainage structures during the early phases of the site development.

4.4 Site Examination

Prior to the placement of fill earth and following removal of cut earth, the "controlled areas" should be examined by UES representatives. The examination should include proof rolling with construction equipment, test pits, supplemental test bores, visual examinations, etc., as needed to determine the presence, location, and extent of any localized organic, weak, and/or otherwise unsuitable soil conditions which may exist at the site. Areas which exhibit weak soil or otherwise unsuitable conditions should be corrected in accordance with our recommendations. Typically, areas which yield excessively under proof rolling should be undercut to expose a firm level of soil followed by backfilling with "engineered fill".

4.5 Subgrade Improvements for Building "Controlled Areas"

The upper soil sections were generally weak in most areas. Some fill was present in localized areas which we expect is associated with prior construction activities at the site. Following stripping and removal of cut earth from the "controlled areas", the exposed subgrade should be undercut at least 2' below existing grade or 2' below finish grade, whichever is deeper. After undercutting, the exposed subgrade should be processed and thoroughly compacted to at least 98% of the materials ASTM-D698 standard density. At the time of densification, the moisture content of the exposed subgrade should be within $\pm 3\%$ of the materials optimum water content. Additional undercutting will be required for any areas which fail to properly compact or fail the proof roll. Once a suitable undercut subgrade is established, the undercut area should be backfilled with suitable fill material compacted as "engineered fill". See Section 4.8 Fill Earth and 4.9 "Select Fill" for a description of suitable fill materials. Please note that the undercut earth meeting the requirements of Section 4.8 can be stockpiled and used to construct "engineered



fill”. The site work contractor should expect to complete some processing (mixing and drying) to use the native soils to construct “engineered fill”.

4.6 Subgrade Improvements for Pavement “Controlled Areas”

The upper soil sections were generally weak in most areas. Some fill was present in localized areas which we expect is associated with prior construction activities at the site. Following stripping and removal of cut earth from the "controlled areas", the exposed subgrade should be undercut at least 1' below existing grade or 1' below finish grade, whichever is deeper. After undercutting, the exposed subgrade should be processed and thoroughly compacted to at least 98% of the materials ASTM-D698 standard density. At the time of densification, the moisture content of the exposed subgrade should be within $\pm 3\%$ of the materials optimum water content. Additional undercutting will be required for any areas which fail to properly compact or fail the proof roll. Once a suitable undercut subgrade is established, the undercut area should be backfilled with suitable fill material compacted as “engineered fill”. See Section 4.8 Fill Earth and 4.9 “Select Fill” for a description of suitable fill materials. Please note that the undercut earth meeting the requirements of Section 4.8 can be stockpiled and used to construct “engineered fill”. The site work contractor should expect to complete some processing (mixing and drying) to use the native soils to construct “engineered fill”.

4.7 Proof Rolling

Proof rolling should be completed using rubber-tired construction equipment or a partially loaded dump truck weighing 40 tons. Proof-rolling should include a minimum of 2 passes in perpendicular directions over the "controlled areas". Areas which yield excessively should be corrected in accordance with our recommendations. Do not proof roll when the subgrade soil is saturated.

4.8 Fill Earth

Fill earth required to establish subgrade elevation in the "controlled areas" can consist of the rubble-free, non-saturated, and non-organic sections of the native clay or sand earth with plasticity indices less than 25. Processing and moisture conditioning will be required to properly compact the on-site soils.



4.9 "Select Fill"

All fill earth originating from an off-site borrow source should be designated as "select fill". The "select fill" should consist of a rubble-free, non-saturated, and non-organic clayey sand or silty clayey sand that meets the following criteria.

“Select Fill” Composition

Sieve Requirements	% Passing
3"	100
No. 4	75 - 100
No. 200	20 - 45
Liquid Limit	40 max
Plasticity Index	6 to 12
Maximum Dry Unit Weight Based on ASTM-698 Standard Density Test	≥ 105 pcf

4.10 "Engineered Fill"

Unless otherwise specified, all fill earth, to include "select fill" earth, placed in the "controlled areas" should be designated as "engineered fill". Place fill earth in thin lifts not to exceed 8" loose measure and thoroughly compact each lift of fill to at least 98% of the materials ASTM D-698 standard density. At the time of densification, the moisture content of the "engineered fill" should be within 3% of optimum water content. Following acceptance for moisture and density, any "engineered fill" areas which are disturbed should be retested prior to the placement of additional fill earth or structures.

4.11 Weather Considerations

The native soils contain varying amounts of clay and silt fines. During the normally wetter winter and spring seasons, the upper sections of soil can become wet or saturated and the soil will pump and yield under heavy construction traffic. Excessive moisture contents in the on-site soils may require that the on-site soils be replaced with an offsite borrowed “select fill” material if the materials cannot be reasonably processed and dried for compaction in a timely manner. Expect delays and that additional site work will be required to develop the site during extended periods of wet weather.



4.12 Unit Prices

Additional undercutting may be required beyond that specified for the building and pavement “control areas”. We recommend that the construction documents establish a unit price for additional undercutting based on an estimated 500 cubic yards in place volume. Provide an add/deduct unit price per cubic yard in place volume for more or less undercutting and backfilling with “engineered fill”.



5.0 Recommendations - Shallow Spread Foundations and Ground Supported Floor Slabs

5.1 Maximum Net Allowable Soil Bearing Pressures

2,500 pounds per square foot for isolated square foundations.

2,000 pounds per square foot for continuous foundations.

Note: Foundations should bear in the new "engineered fill" exhibiting "N" values of 10 or greater.

5.2 Minimum Foundation Dimensions

Depth - The bottom of perimeter building wall and column foundations below outside finish grades should be at least 24". Increase depth as required to extend foundations through weak soil conditions. Any weak soil may be replaced with non-reinforced lean concrete (mud sill).

- The bottom of interior building foundations below the top of ground supported floor slabs should be at least 18". Increase depth as required to extend foundations through weak soil conditions. Any weak soil may be replaced with non-reinforced lean concrete (mud sill).

Width - Isolated square foundations - 30".

- Continuous wall foundations - 18".

- Turned down slab edges - 12"

Note: All foundations should be sized for total load but should not be less than the minimums described preceding in this report. The use of the recommended minimum foundation depths considers that adequate surface drainage is provided at finish subgrade elevation.

5.3 Settlement

The planned building structures will be subjected to total long term settlements of less than 1" with differential settlements of less than 1/2". The building foundations should be designed to tolerate these estimated settlements.



5.4 Seismic Design Parameters

The seismic design parameters for the ASCE/SEI 7-22 are as follows for the subject property in Linden, Alabama.

$$\begin{array}{lll} S_S = 0.25 & S_{MS} = 0.3 & S_{DS} = 0.2 \\ S_1 = 0.096 & S_{M1} = 0.2 & S_{D1} = 0.14 \\ \text{Site Class D} \end{array}$$

Seismic Design Category C for Use Group I, II or III and Seismic Design Category D for Use Group IV.

5.5 Foundation Construction

Do not permit foundation bearing soil to become saturated or dry excessively. Sections which become saturated or dry excessively should be undercut just prior to placement of the foundation concrete. All foundations should be constructed as expediently as possible following excavation of the foundation trench.

Weak soil exposed in foundation trenches should be compacted to 98% standard density with “jumping jack” type compactors. Areas which fail to compact should be undercut to a firm level of soil prior to the placement of the foundation concrete. Any weak soil may be replaced with non-reinforced lean concrete (mud sill). All loose soil material or other debris should be removed from the top of the mud sill before placing the foundation concrete. The construction documents should establish unit prices for the use of mud sills.

Following construction of the foundations, the area adjacent to the foundation should be maintained in a drained condition. Water should not be permitted to pond adjacent to the building foundations during or following construction. Backfill adjacent to the building foundations as soon as possible to provide positive drainage. Backfill with clean soil typical of the material excavated from the foundation trenches. Masonry sand, broken brick and block or other construction debris should not be used to backfill against the foundations.

Do not permit foundation bearing soil to become saturated or dry excessively. Caution should be used not to disturb the foundation bearing level of soil.

5.6 Acceptance of Foundation Bearing Levels

All foundation excavations should be examined by the project geotechnical consultant prior to the installation of the foundation reinforcement and concrete. All unacceptable conditions should be corrected in accordance with the geotechnical consultant's recommendations.



5.7 Floor Slab Bearing Conditions

The floor slab should bear on the properly compacted new “engineered fill”. Provide a minimum 4" layer of compacted ALDOT 825 crushed stone base, no. 8910 crushed stone, ALDOT 821 granular soil, or other suitable compactable granular fill between the subgrade layer and the slab. Provide a minimum 10 mil vapor barrier beneath the floor slab. Care should be taken not to damage the vapor barrier during placement of the floor slab concrete.

5.8 Acceptance of Floor Slab Bearing Levels

All floor slab bearing levels should be examined by the projects geotechnical consultant prior to the placement of the vapor barrier. All unacceptable conditions should be corrected in accordance with the geotechnical consultant's recommendations.

5.9 Control/Expansion Joints

A liberal amount of control/expansion joints should be used in the concrete floor slabs, masonry walls and brick veneer walls to reduce the effects of the normal amounts of differential settlement and concrete shrinkage expected. The design and location of the control and construction joints should be in accordance with the recommendations of the Portland Cement Association.



6.0 Recommendations - Pavements

6.1 Reference

Alabama Department of Transportation (ALDOT), Standard Specifications For Highway Construction - 2022 Edition.

6.2 Subgrade Support Values

Based on estimated California Bearing Ratios (CBR) for the native earth at subgrade elevation, a design CBR value of 6 is recommended.

6.3 Traffic Data

Specific design pavement traffic data was not available. The parking lot pavements are expected to be subjected to a light duty traffic classification including a moderate volume of automobiles. The drives and other designated areas are expected to be subjected to a medium duty traffic classification and will include a moderate volume of automobiles, school buses and occasional medium to heavy weight service trucks. Please contact our office if specific pavement design data is available so that we may modify our pavement recommendations (if required).

6.4 Subgrade Improvements

Thoroughly mix and compact the top 6" of subgrade to 100% standard density.

Slope subgrade to provide positive drainage to side drainage ditches, underdrains, and/or storm drains to prevent the entrapment of water in the subgrade layer.

6.5 Light Duty Pavement Sections

Based on an estimated CBR value of 6 and a 20-year design life, the light duty pavement sections may be developed using a crushed aggregate base and high stability bituminous pavement section, a granular soil base and high stability bituminous pavement section, or a concrete pavement section placed over the improved subgrade layer as described below.

6.5.1 Crushed Aggregate Base and High Stability Bituminous Pavement Section

- 2.0" - ALDOT Section 424-A 341 bituminous wearing surface.
- 1" - ALDOT Section 401-A bituminous prime coat.
- 6" - ALDOT Section 825 crushed aggregate soil base (100% modified density).
- 6" - ALDOT Section 230 modified roadbed (100% standard density).

6.5.2 Granular Soil Base and High Stability Bituminous Pavement Section

- 1.5" - ALDOT Section 424-A 340 bituminous wearing surface.
- 1" - ALDOT Section 405 bituminous tack coat.
- 1.5" - ALDOT Section 424-B 635 bituminous binder.
- 1" - ALDOT Section 401-A bituminous prime coat.
- 6" - ALDOT Section 821 granular soil base (95% modified density).
- 6" - ALDOT Section 230 modified roadbed (100% standard density).



Note: All bituminous pavements should be designed on the fine side of the restricted zone to reduce the permeability of the asphalt pavement.

6.5.3 Concrete Pavement Section

- 5" - 3500 psi compressive strength (550 psi flexural strength) concrete, maximum 4" slump.
- 6" - ALDOT Section 230 modified roadbed (100% standard density).

6.6 Medium Duty Pavement Sections

Based on an estimated CBR value of 6 and a 20-year design life, the medium duty pavement sections may be developed using a crushed aggregate base and high stability bituminous pavement section, a granular soil base and high stability bituminous pavement section, or a concrete pavement section placed over the improved subgrade layer as described below.

6.6.1 Crushed Aggregate Base and High Stability Bituminous Pavement Section

- 1.5" - ALDOT Section 424-A 340 bituminous wearing surface.
- 1" - ALDOT Section 405 bituminous tack coat.
- 1.5" - ALDOT Section 424-B 635 bituminous binder.
- 1" - ALDOT Section 401-A bituminous prime coat.
- 6" - ALDOT Section 825 crushed aggregate soil base (100% modified density).
- 6" - ALDOT Section 230 modified roadbed (100% standard density).

6.6.2 Granular Soil Base and High Stability Bituminous Pavement Section

- 1.5" - ALDOT Section 424-A 340 bituminous wearing surface.
- 1" - ALDOT Section 405 bituminous tack coat.
- 2.5" - ALDOT Section 424-B 636 bituminous binder.
- 1" - ALDOT Section 401-A bituminous prime coat.
- 6" - ALDOT Section 821 granular soil base (95% modified density).
- 6" - ALDOT Section 230 modified roadbed (100% standard density).

Note: All bituminous pavements should be designed on the fine side of the restricted zone to reduce the permeability of the asphalt pavement.

6.6.3 Concrete Pavement Section

- 6" - 3500 psi compressive strength (550 psi flexural strength) concrete, maximum 4" slump.
- 6" - ALDOT Section 230 modified roadbed (100% standard density).



6.7 Trash Dumpster Loading Areas

A minimum 7" thick concrete pad should be developed in front and beneath trash dumpster areas to provide support for the sanitation vehicles during handling of the dumpsters.

6.8 Concrete Pavement Construction Joints

The design and location of construction joints should be in accordance with the recommendations of the Portland Cement Association. We recommend a maximum control joint spacing of 12'. All joints should be filled with a suitable flexible joint compound to prevent water intrusion at the joints.

6.9 Material Thicknesses

All material thicknesses referred to in this section are completed thicknesses.



7.0 Recommendations – General

7.1 Utility Trenches

All utility trenches (new and existing) extending through the "controlled areas" should be back-filled with "engineered fill".

7.2 Grading and Drainage Improvements

Incorporate finish grades, side drainage ditches, underdrains, etc., to reduce the possibility of ponding surface water within 5' of foundations and significant slopes.

7.3 Vertical Cuts

Vertical cuts greater than 4' or cuts required to remain open for extended periods of time should be sloped or braced as required for the protection of workmen entering deep excavations. Heavy construction traffic and stockpiling of excavated earth or other materials should not be permitted near the top of open unsupported excavations. Current OSHA regulations should be adhered to with respect to excavations for this project.

7.4 Cut and Fill Slopes

Cut and fill slopes should perform satisfactorily as steep as 3.0(H):1(V) in the earth typical of that penetrated in the upper strata at the site. All slopes should be protected from erosion using suitable vegetation or pavements.

7.5 Quality Control

UES should provide the following services during construction:

- 7.5.1 Verify the results of stripping, proof-rolling, and correction of weak soil conditions, quality and density of "engineered fill", and conditions of the foundation and floor slab subgrade bearing levels.
- 7.5.2 Complete soil particle size, atterberg limits, and laboratory compaction tests on each different type of fill earth used in the "controlled areas".
- 7.5.3 Complete a minimum of 1 field density test per each 2,500 square feet per each 1' of vertical thickness of fill placed in the building and pavement "controlled areas". Also, a minimum of 1 field density test should be taken for each 50 linear feet per each 2' of vertical thickness of fill placed at utility trenches extending through "controlled areas".
- 7.5.4 Test all structural concrete in accordance with the guidelines established by the American Concrete Institute.
- 7.5.5 Quality assurance testing on the improved subgrade and base materials should be in accordance with the State of Alabama Department of Transportation.



8.0 General Comments

The scope of this study did not include sampling or testing for an environmental analysis or assessment for this site. If an environmental assessment of this site is desired, we should be contacted for further comment.

The comments of this report do not consider local flood conditions. The local flood condition/elevation (if any) should be determined and considered in the design of this project.

The frost penetration depth in the area of this project is generally taken to be less than 10". Provided our recommendations for the development of foundations and floor slabs are followed, we do not expect that the frost penetration will have any detrimental effects on the performance of these structures.

The comments of this report are based upon our interpretation of the construction information supplied by others, the data collected at the 16 soil test bores and our visual examination of the site. The evaluation of subsurface conditions based on the 16 soil test bores taken with this study requires a certain amount of interpolation. Improper site preparation, extremes in climatic conditions, significant changes in locations, grades, time, etc., can each affect groundwater, surface, and subsurface conditions. If conditions are encountered as the construction advances which vary significantly from those described by this report, we should be contacted for supplemental comment.

The scope of this investigation is not intended to establish volumetric estimates of the various subsurface materials at the site. Volumetric estimates may require a larger number of test bores placed on a close grid to establish reliable cross sections. If volume estimates are required of us for the design/development of this project to advance, please contact us for further comment.

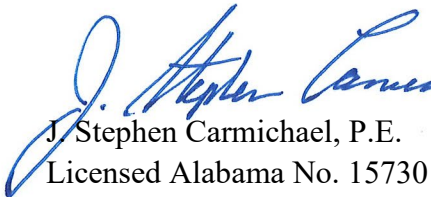
We are available to provide a review of the final plans and project specifications with respect to their compatibility with the contents of this report. Furthermore, our firm would appreciate the opportunity to continue to serve as the geotechnical consultant and to provide the construction materials testing and monitoring for this project.

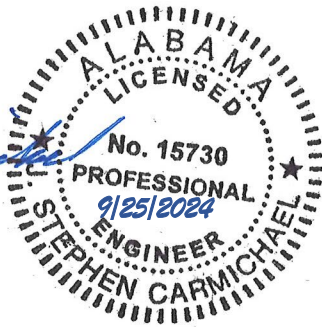


9.0 Signature

Thank you for selecting UES Professional Solutions 18, LLC., to provide the geotechnical services for this project. We are available to answer any questions concerning our findings and recommendations. If we can be of any further assistance, please contact our office.

Sincerely,


J. Stephen Carmichael, P.E.
Licensed Alabama No. 15730

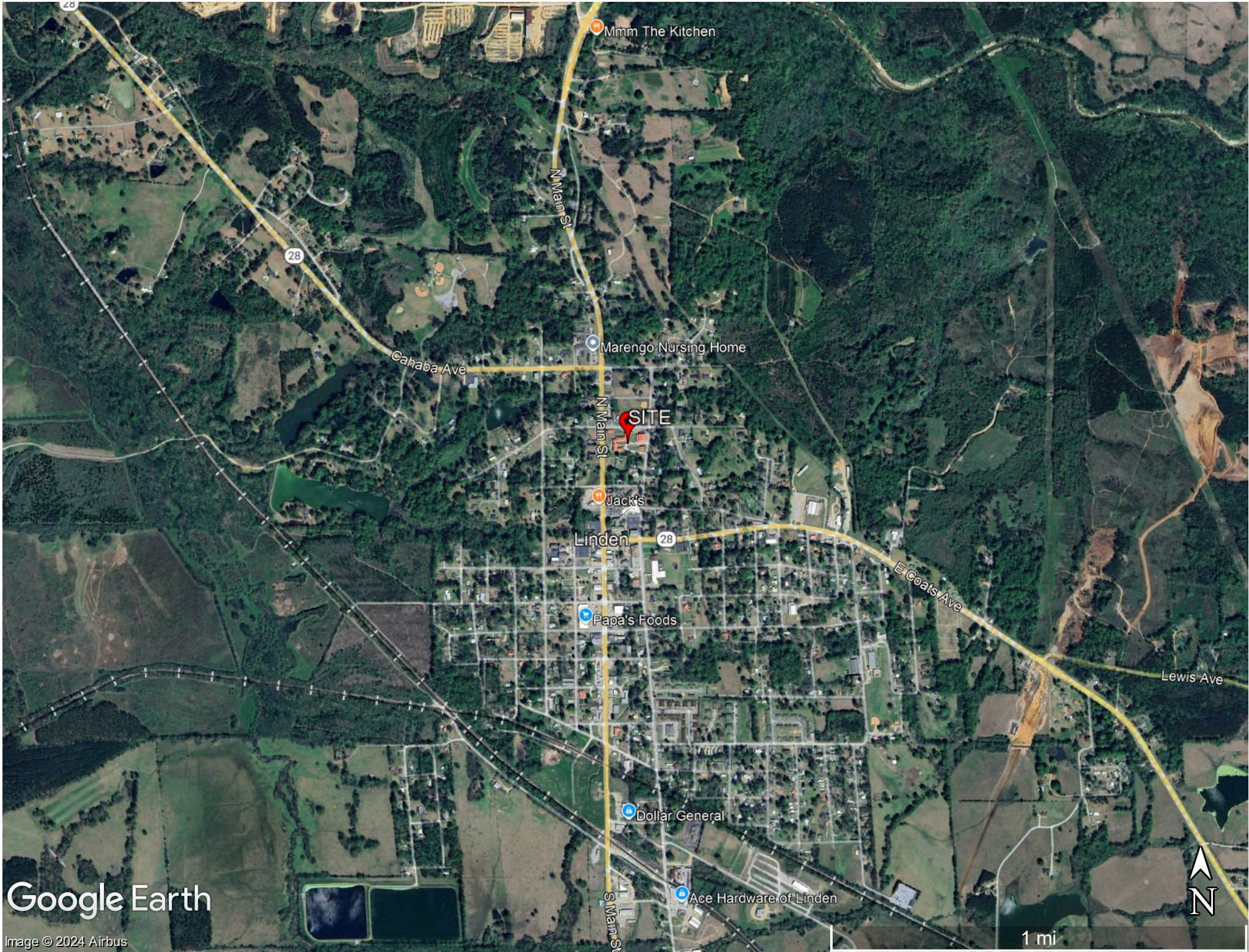


Report Distribution:

- 1 – Dr. Timothy Thurman (email)
- 1 – Mr. Seawell McKee (email)
- 1 – Mr. Ray Torode (email)

JSC/as





Google Earth

Image © 2024 Airbus

1 mi





N Main St

W Center Ave

W Center Ave

W Center Ave

B-12

B-11

B-1

B-2

B-13

Linden High School

B-3

B-4

B-5

B-14

B-6

B-7

B-8

B-15

B-9

B-10

B-16

Shiloh St

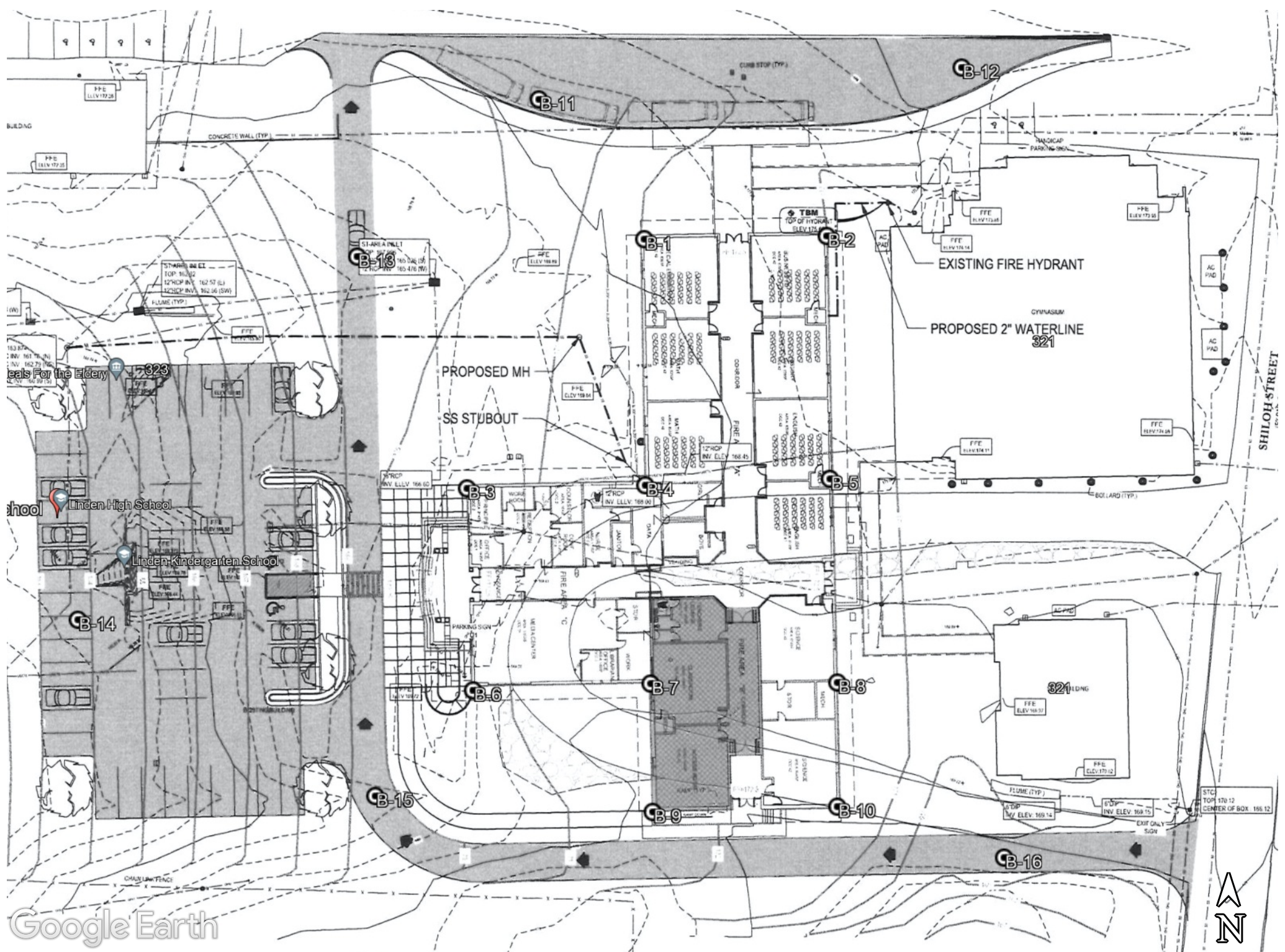
Shiloh St

Google Earth

Image © 2024 Airbus

200 ft





Google Earth



Leads For the Elderly

Linden High School

Linden Kindergarten School

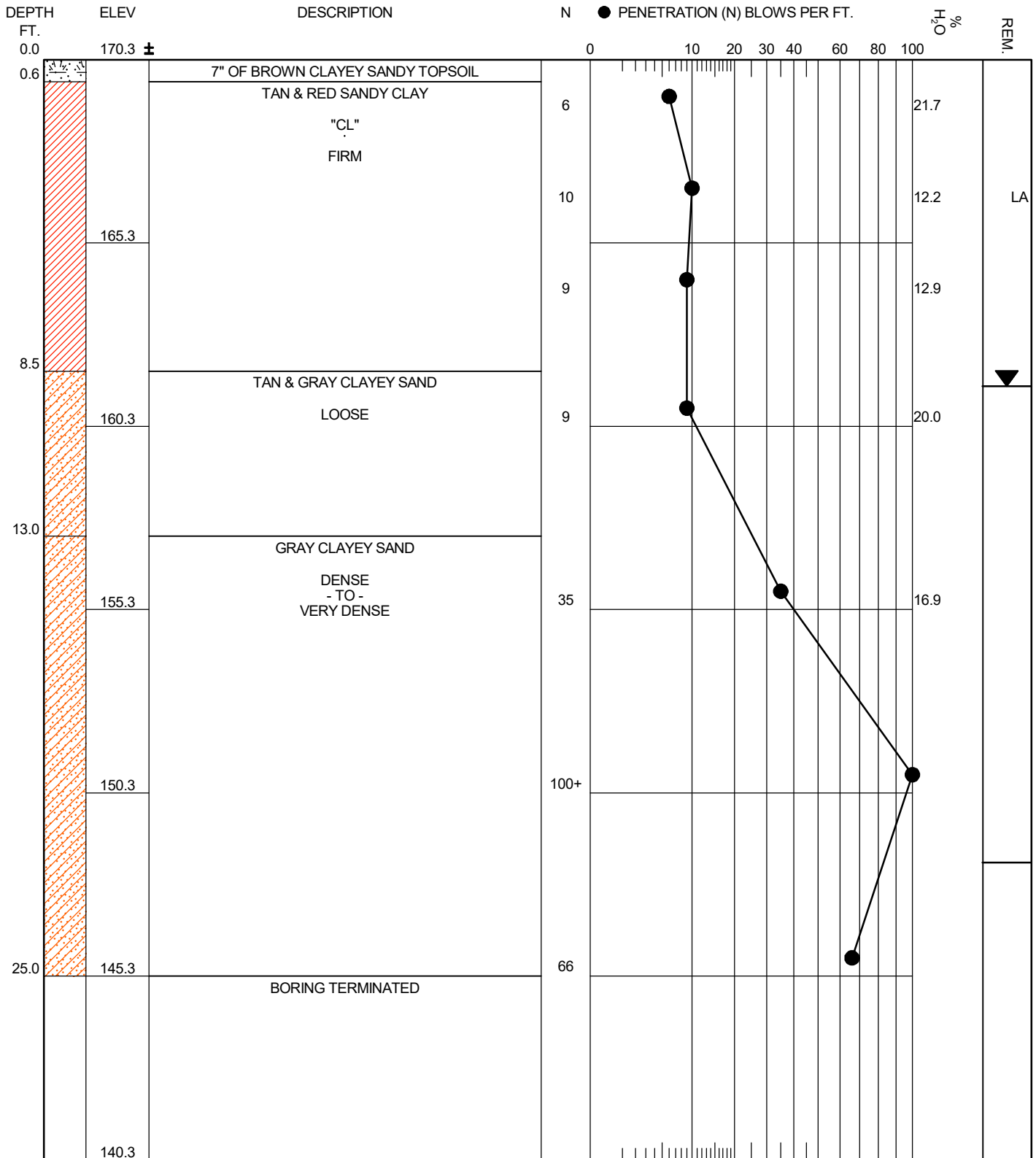
SHILOH STREET

EXISTING FIRE HYDRANT
 GYMNASIUM
 PROPOSED 2" WATERLINE 321

PROPOSED MH
 SS STUBOUT

321 BLDG

STC
 TOP 170.12
 CENTER OF BOX 186.12



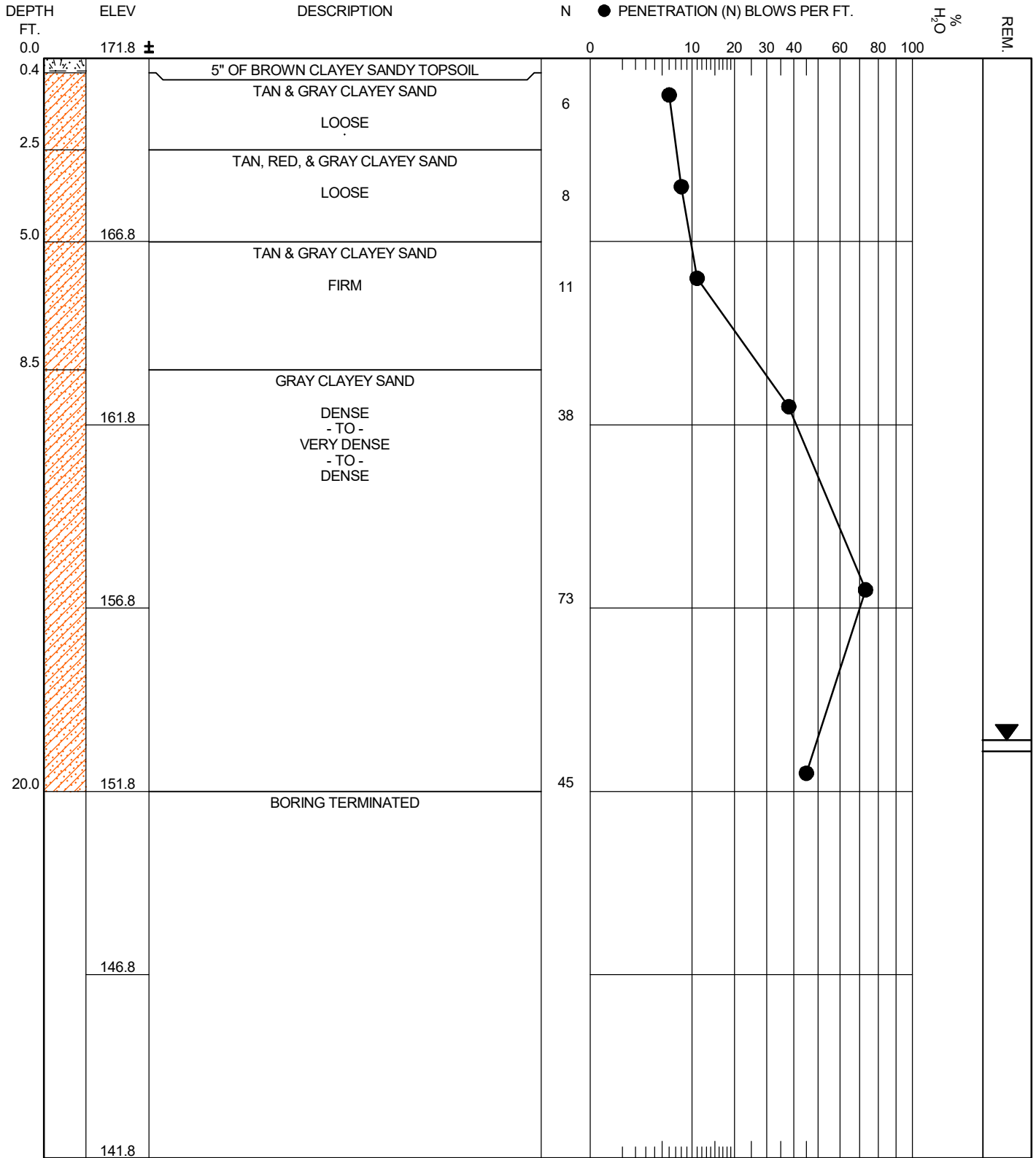
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 Falling 30 in. Required to Drive 1.4 in I.D. Sampler 1 Ft.

☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level 8.9' AFTER 24 HOURS
 ▽ Water Level
 — Boring Caved 21.9' AFTER 24 HOURS

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 TYPE BORING SB



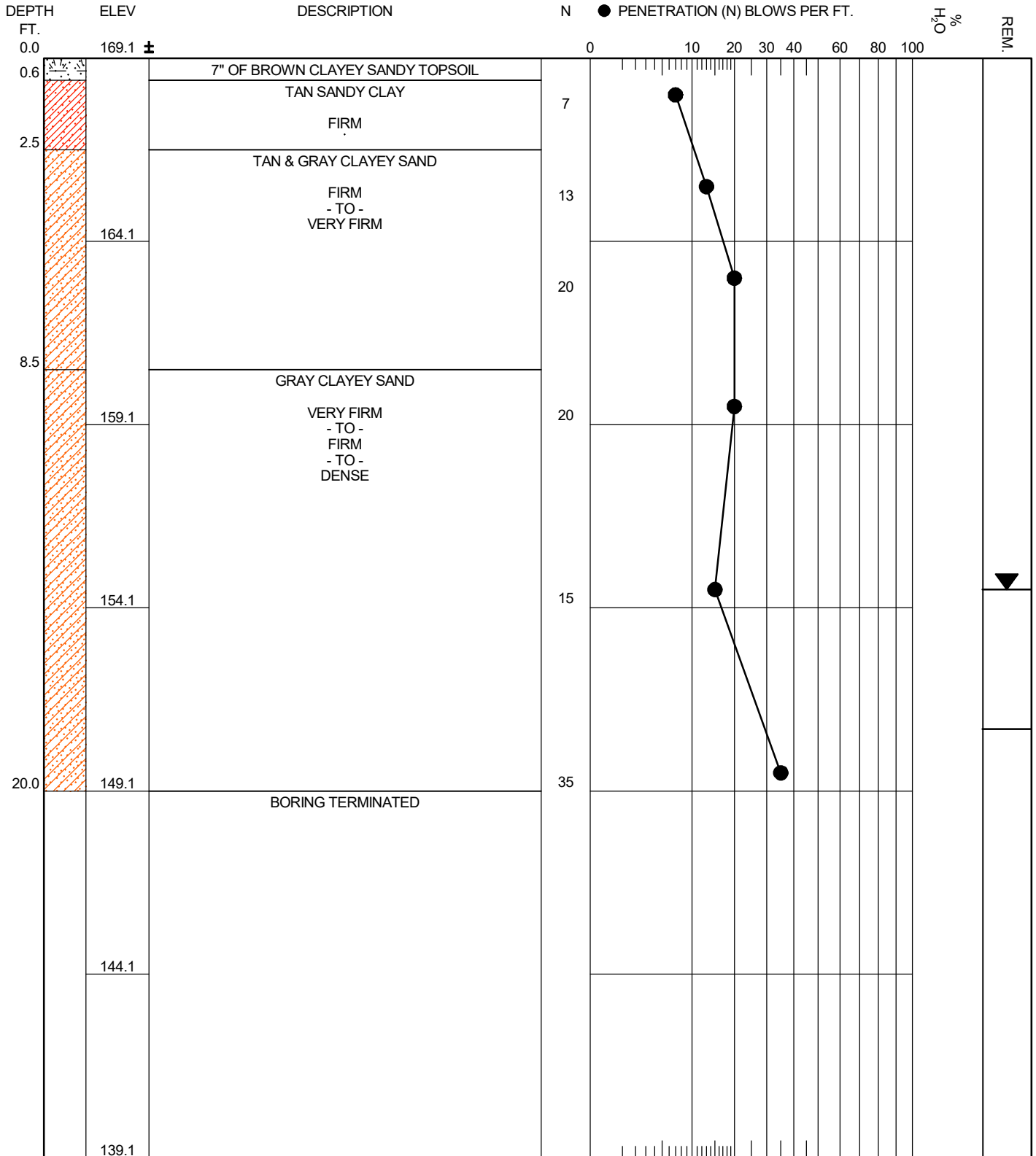
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☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level 18.6' AFTER 24 HOURS
 ▽ Water Level
 — Boring Caved 18.9' AFTER 24 HOURS

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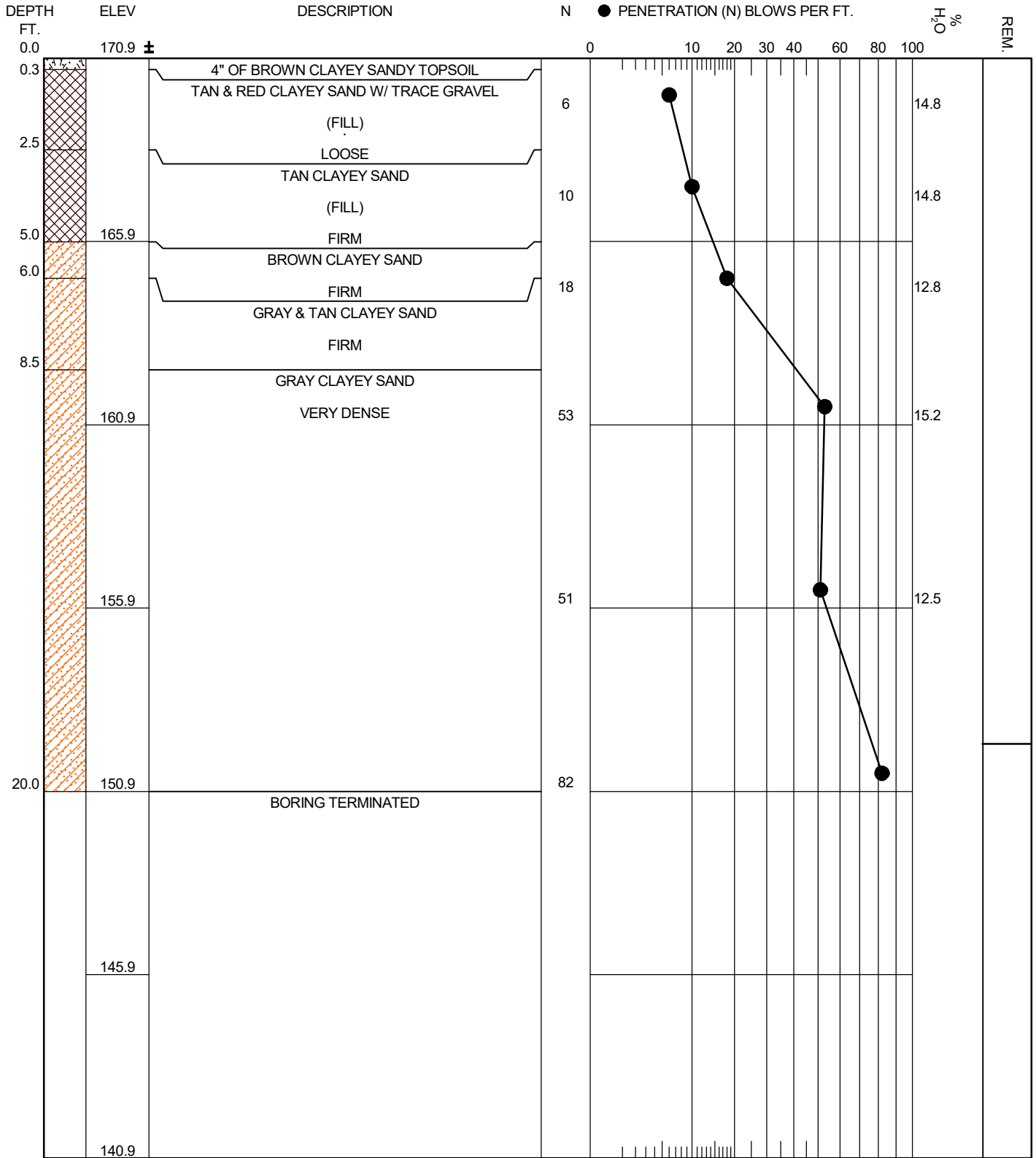
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☒ Undisturbed Sample
 LA Lab Analysis

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 ▽ Water Level
 — Boring Caved 18.3' AFTER 1 HOUR

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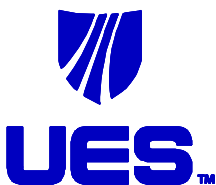
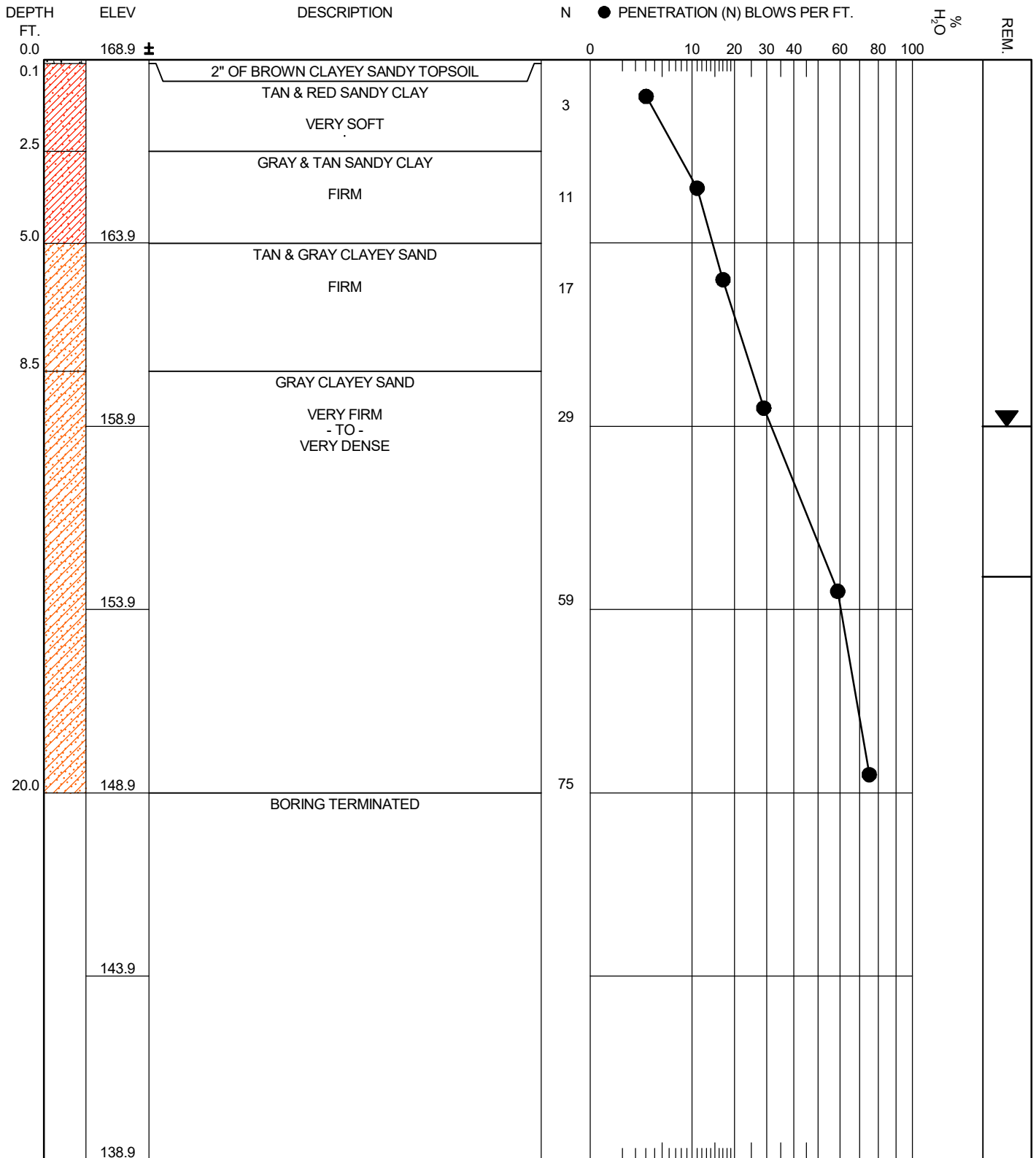
Boring and Sampling Meets ASTM D-1586
 Penetration (N) is the Number of Blows of 140 lb. Hammer
 Falling 30 in. Required to Drive 1.4 in I.D. Sampler 1 Ft.

☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level
 ▽ Water Level
 — Boring Caved 18.7' AFTER 1 HOUR

TEST BORING LOG

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 TYPE BORING SB



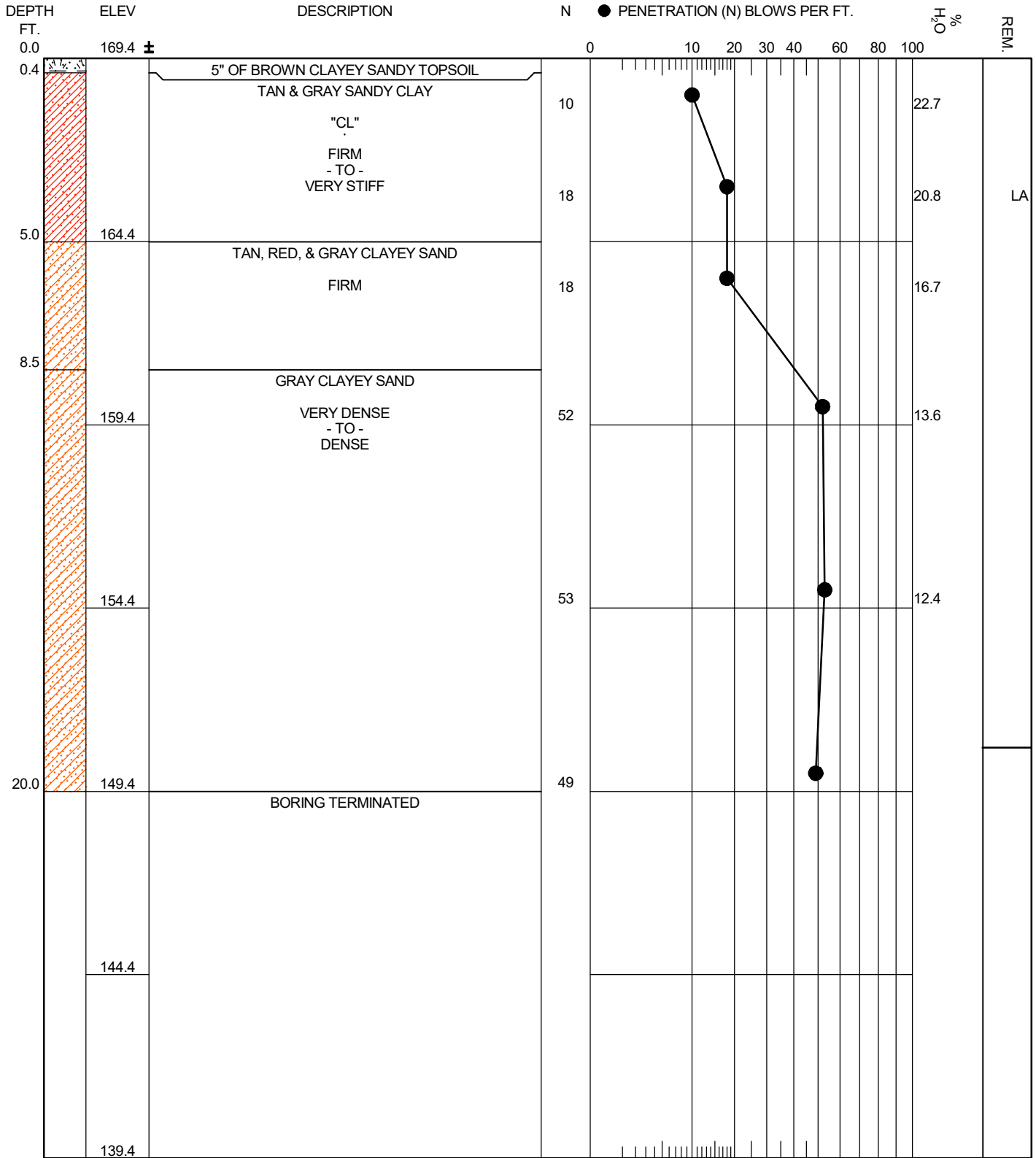
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☒ Undisturbed Sample
 LA Lab Analysis

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 ▽ Water Level
 ——— Boring Caved 14.1' AFTER 1 HOUR

TEST BORING LOG

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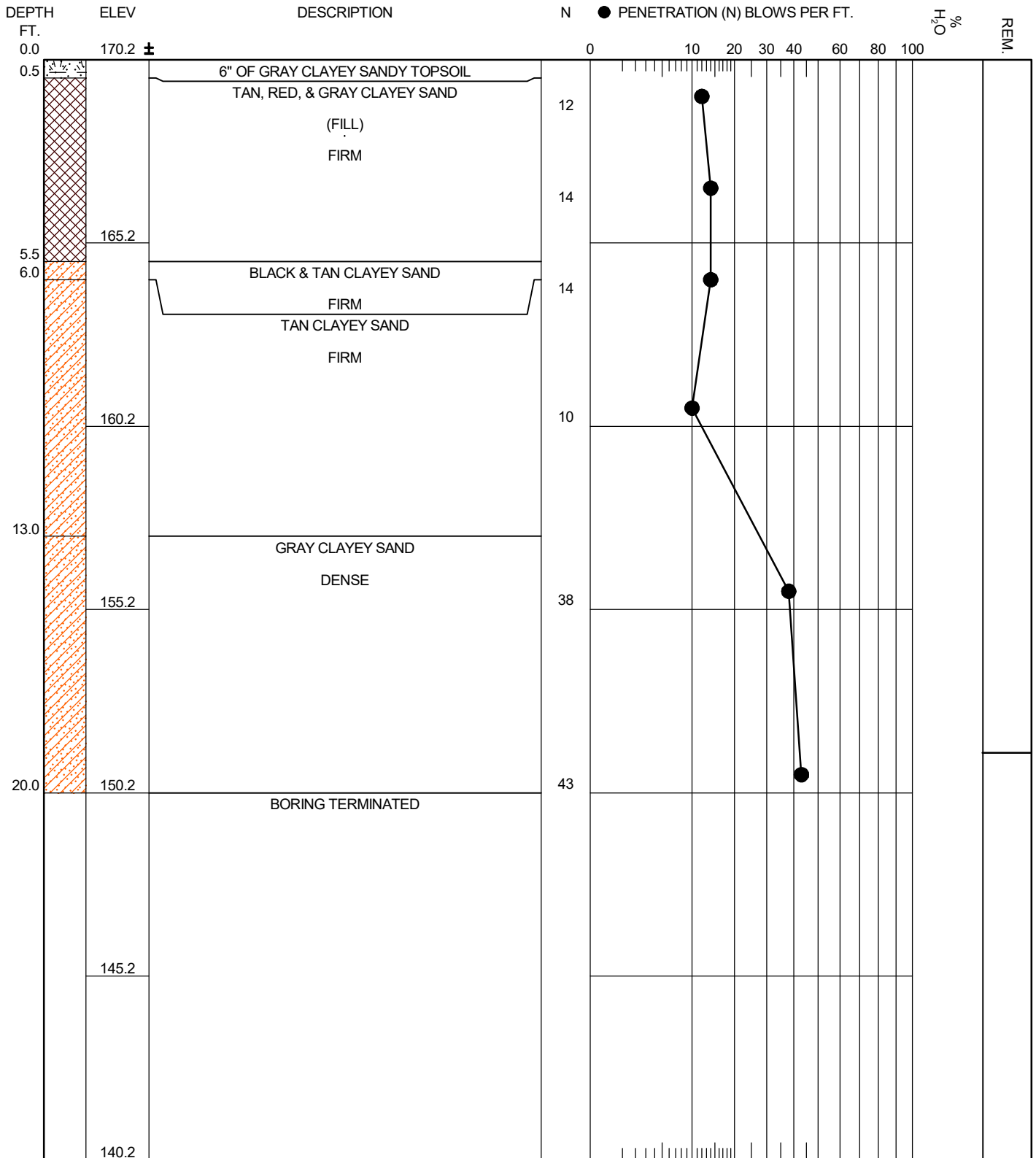
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☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level
 ▽ Water Level
 — Boring Caved 18.8' AFTER 24 HOURS

TEST BORING LOG

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 DATE DRILLED 9/17/24
 TYPE BORING SB



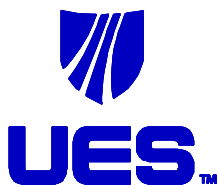
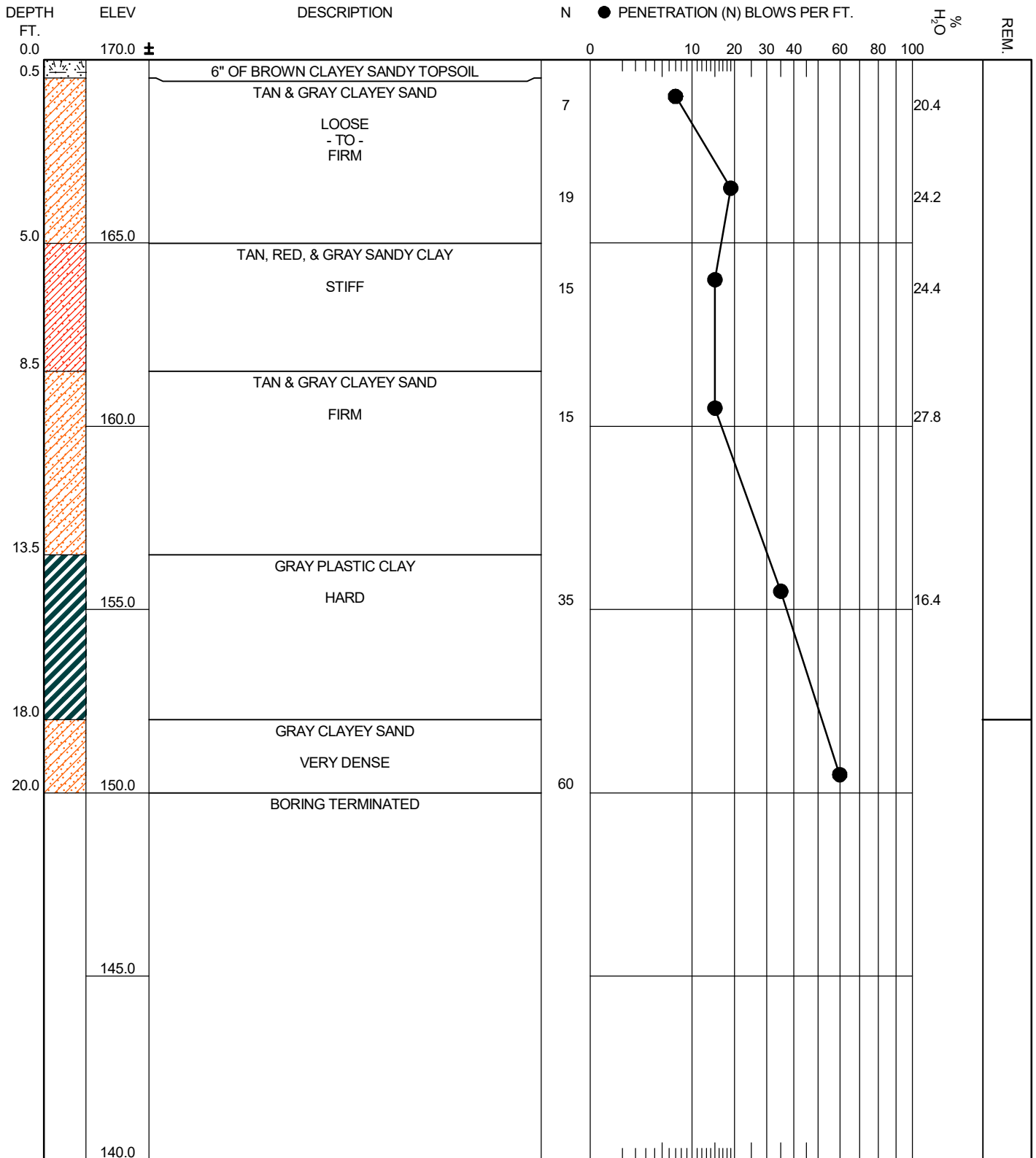
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☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level
 ▽ Water Level
 — Boring Caved 18.9' AFTER 24 HOURS

TEST BORING LOG

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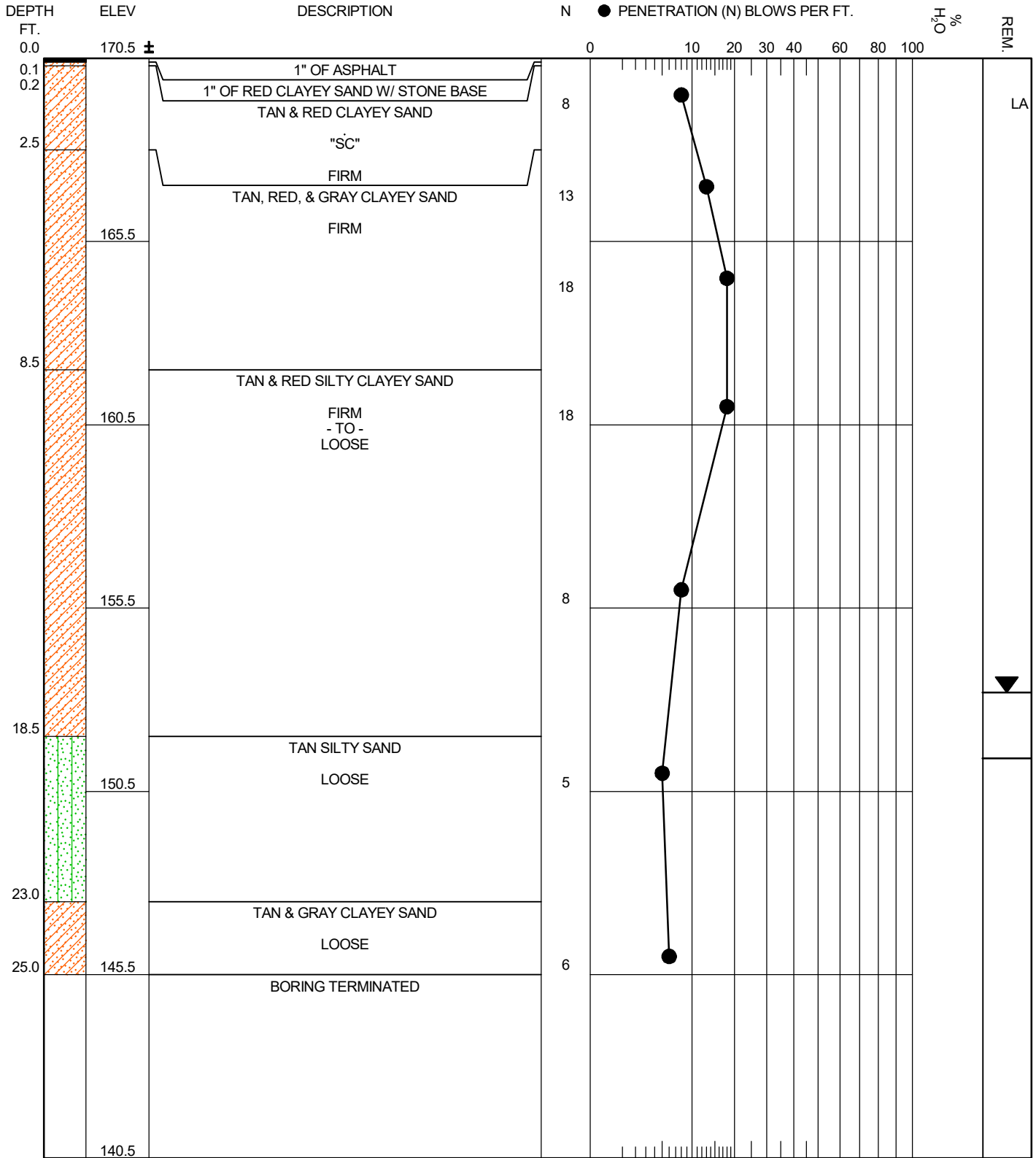
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☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level
 ▽ Water Level
 — Boring Caved 18.0' AFTER 24 HOURS

TEST BORING LOG

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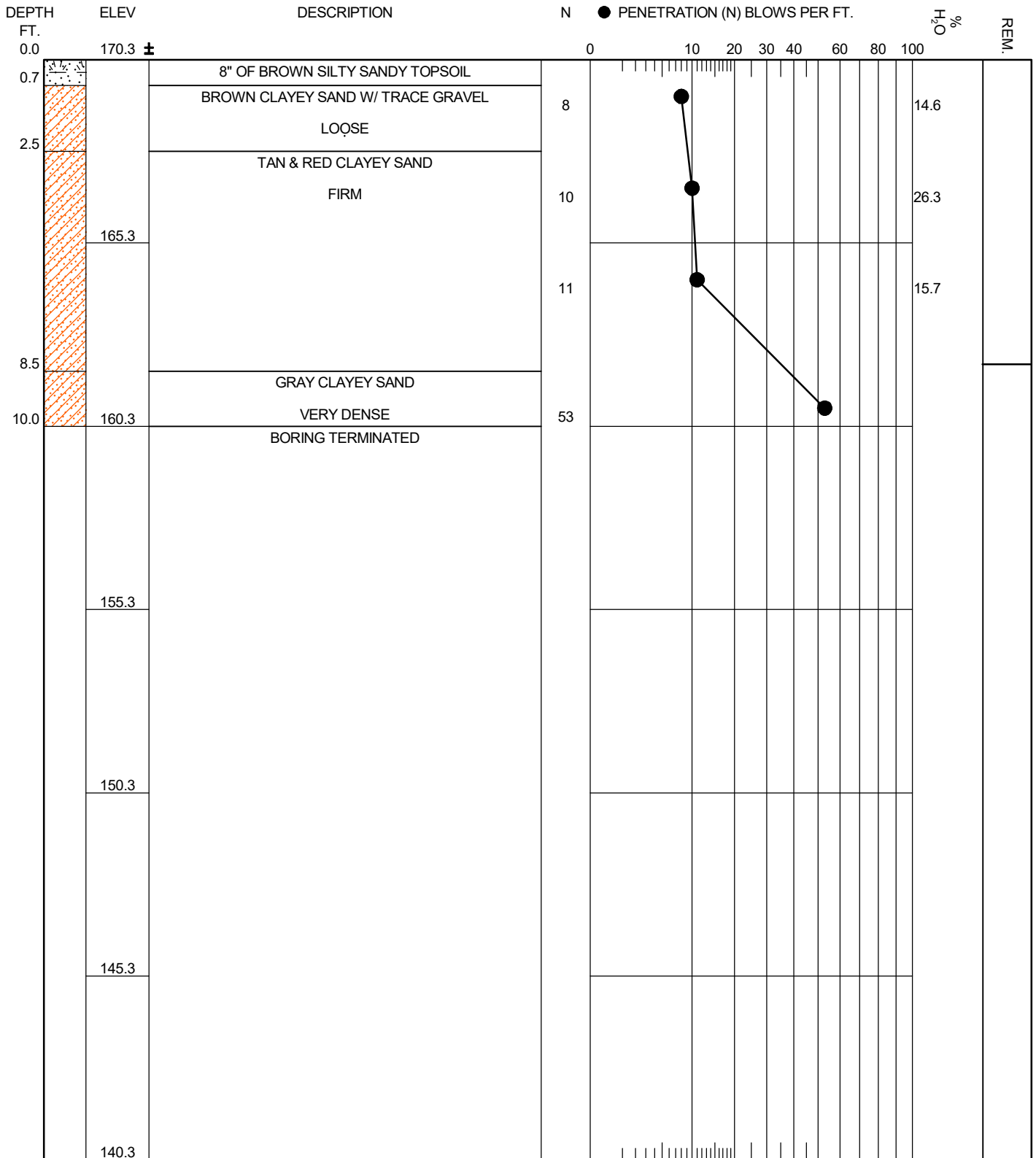
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☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level 17.3' AFTER 24 HOURS
 ▽ Water Level
 ——— Boring Caved 19.1' AFTER 24 HOURS

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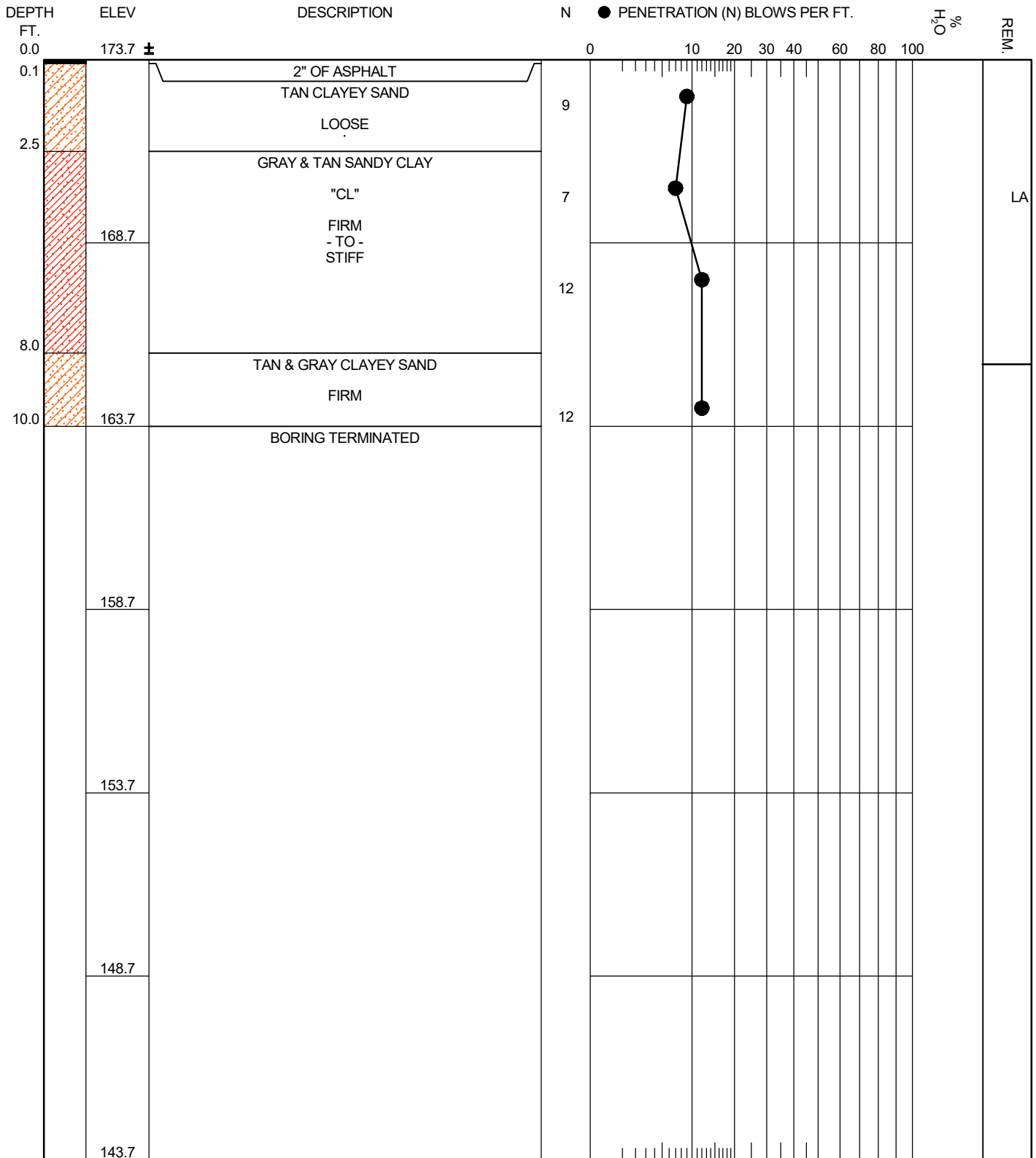
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☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level
 ▽ Water Level
 — Boring Caved 8.3' AFTER 24 HOURS

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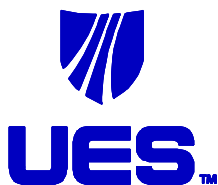
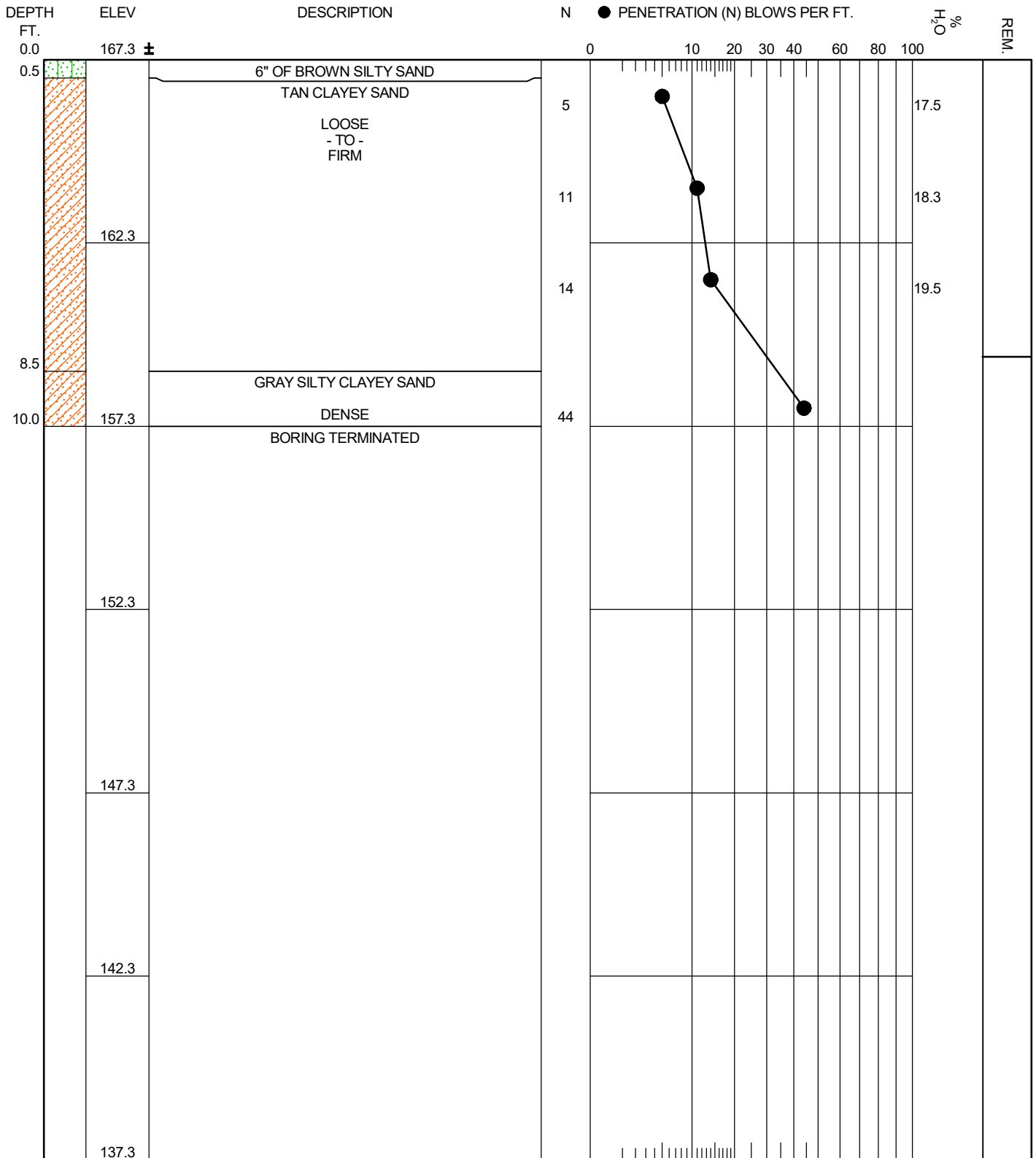
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☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level
 ▽ Water Level
 — Boring Caved 8.3' AFTER 24 HOURS

TEST BORING LOG

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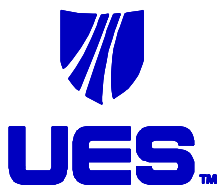
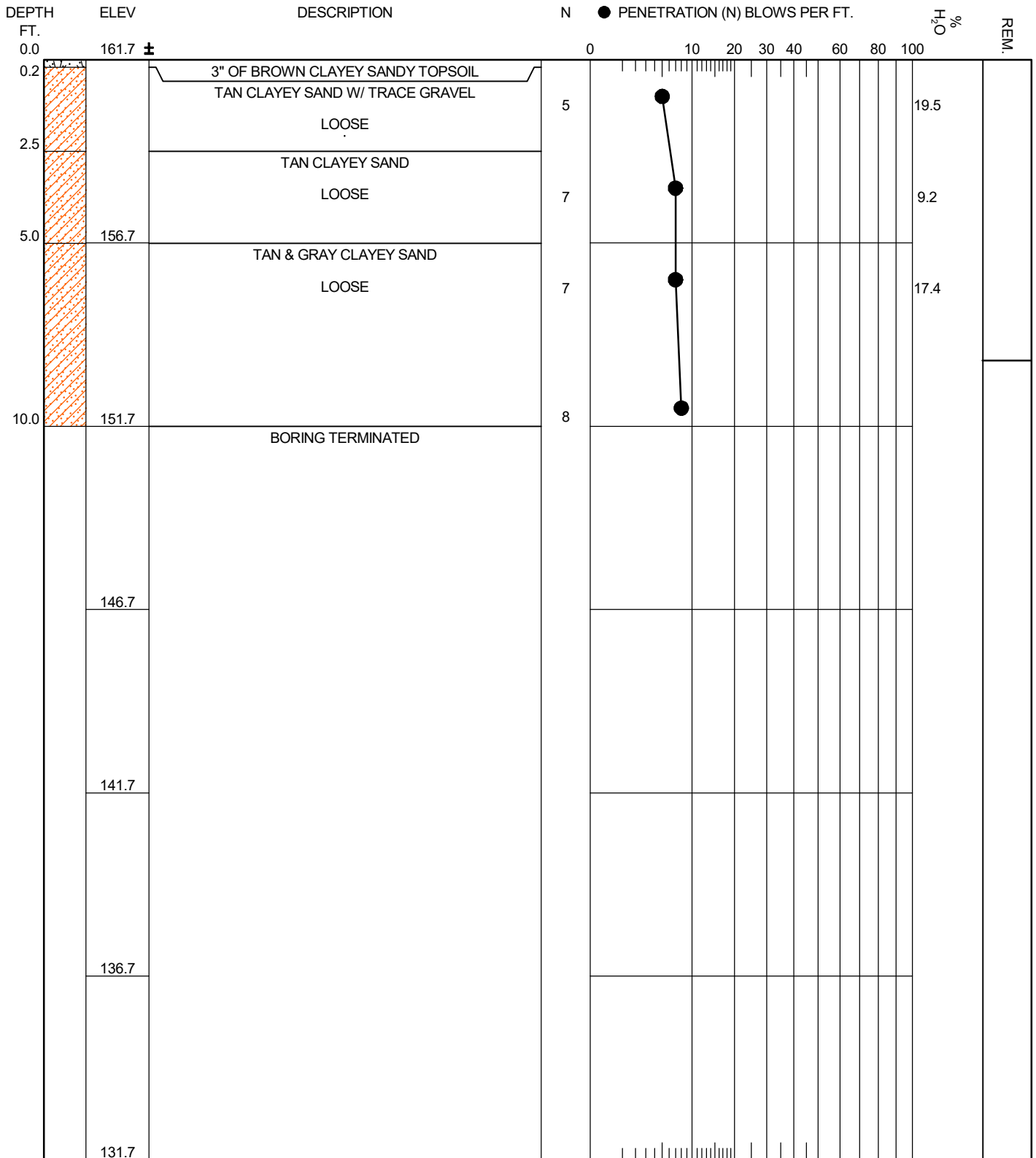
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 Falling 30 in. Required to Drive 1.4 in I.D. Sampler 1 Ft.

☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level
 ▽ Water Level
 — Boring Caved 8.1' AFTER 24 HOURS

TEST BORING LOG

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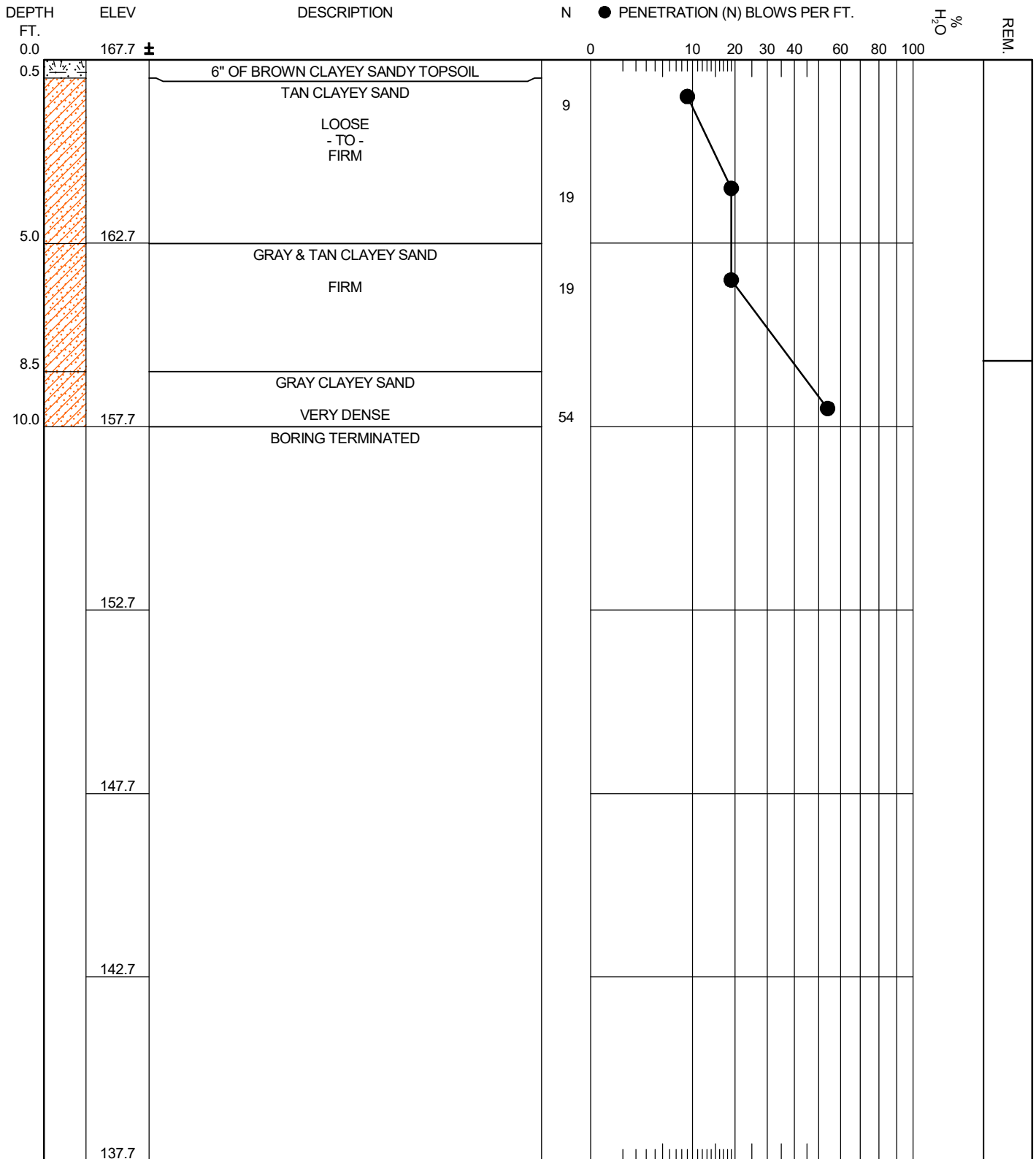
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 Falling 30 in. Required to Drive 1.4 in I.D. Sampler 1 Ft.

☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level
 ▽ Water Level
 ——— Boring Caved 8.2' AFTER 1 HOUR

TEST BORING LOG

JOB NO. A24114.00813.000
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 DATE DRILLED 9/18/24
 TYPE BORING SB



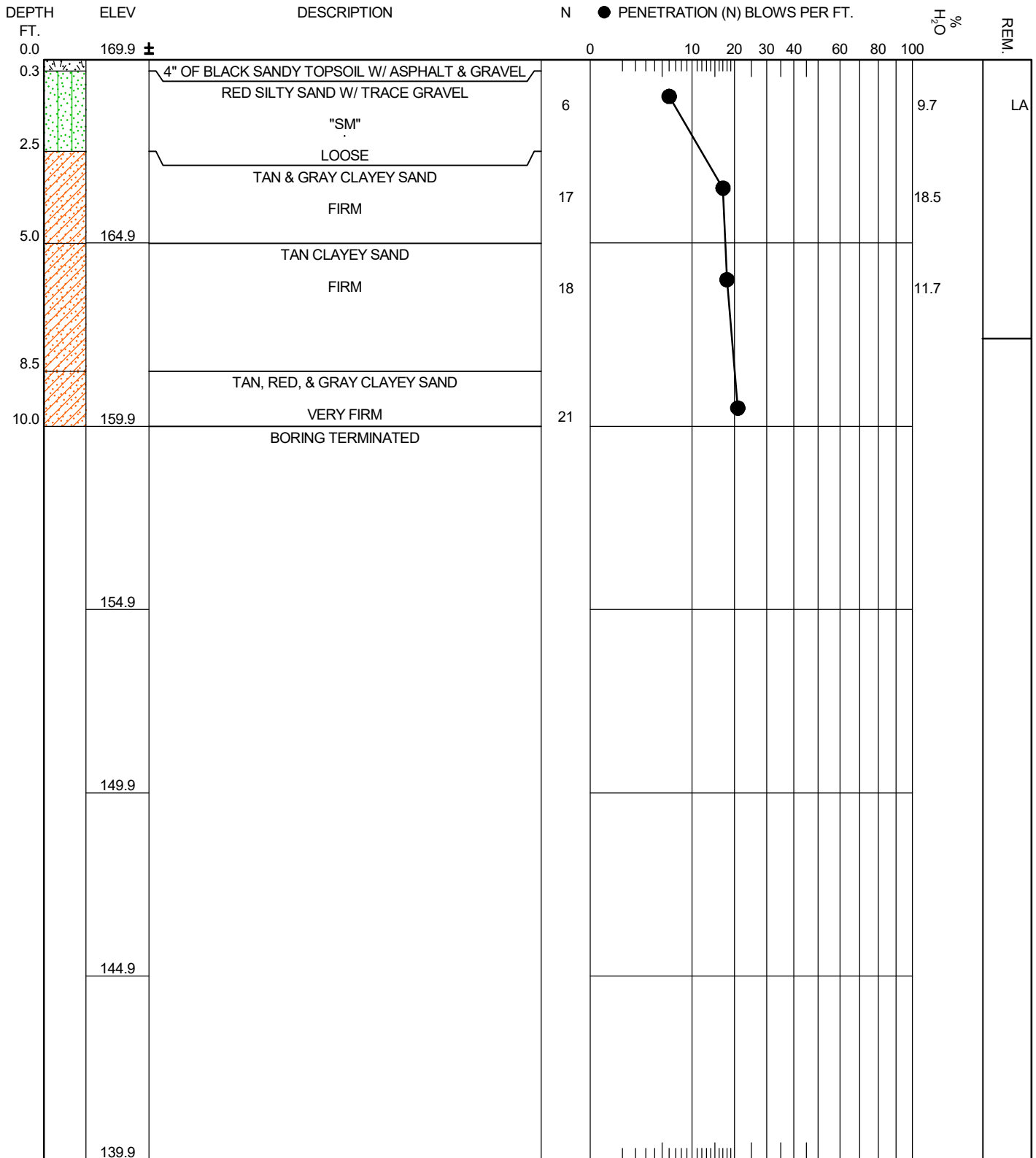
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 Penetration (N) is the Number of Blows of 140 lb. Hammer
 Falling 30 in. Required to Drive 1.4 in I.D. Sampler 1 Ft.

☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level
 ▽ Water Level
 ——— Boring Caved 8.2' AFTER 1 HOUR

TEST BORING LOG

JOB NO. A24114.00813.000
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 DATE DRILLED 9/18/24
 TYPE BORING SB



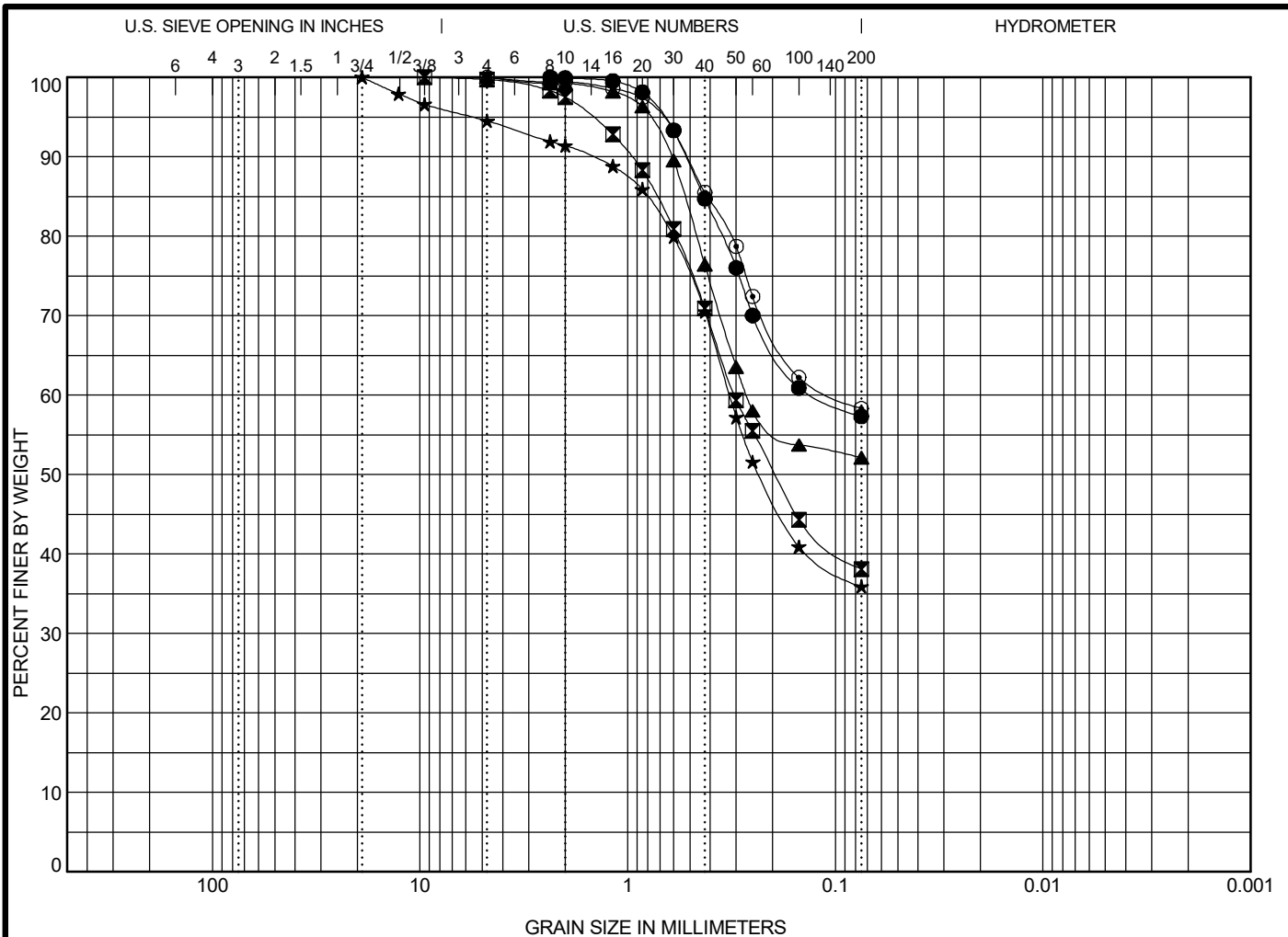
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 Penetration (N) is the Number of Blows of 140 lb. Hammer
 Falling 30 in. Required to Drive 1.4 in I.D. Sampler 1 Ft.

☒ Undisturbed Sample
 LA Lab Analysis

▼ Water Level
 ▽ Water Level
 — Boring Caved 7.6' AFTER 1 HOUR

TEST BORING LOG

JOB NO. A24114.00813.000
 BORING NO. B-16
 DATE DRILLED 9/18/24
 TYPE BORING SB



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
● 7334 B-1 2.5-4'	SANDY LEAN CLAY CL	36	22	14		
⊠ 7335 B-3 5-6.5'	SILTY SAND SM	35	25	10		
▲ 7336 B-7 2.5-4'	SANDY LEAN CLAY CL	49	25	24		
★ 7337 B-10 0-1.5'	CLAYEY SAND SC	26	17	9		
⊙ 7338 B-12 2.5-4'	SANDY LEAN CLAY CL	44	23	21		

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● 7334 B-1 2.5-4'	2.36	0.126			0.0	42.7	57.3	
⊠ 7335 B-3 5-6.5'	9.525	0.306			0.3	61.6	38.1	
▲ 7336 B-7 2.5-4'	4.75	0.267			0.0	47.9	52.1	
★ 7337 B-10 0-1.5'	19.05	0.323			5.5	58.6	35.9	
⊙ 7338 B-12 2.5-4'	4.75	0.101			0.0	41.7	58.3	

Client: Linden City Schools
209 North Main Street
Linden, AL 36748

Test Methods: ASTM D422, ASTM D4318
Sample Received Date: 9/17/2024
Test Date(s): Grain Size - 9/23/2024, Atterberg Limits - 9/23/2024



GRAIN SIZE DISTRIBUTION

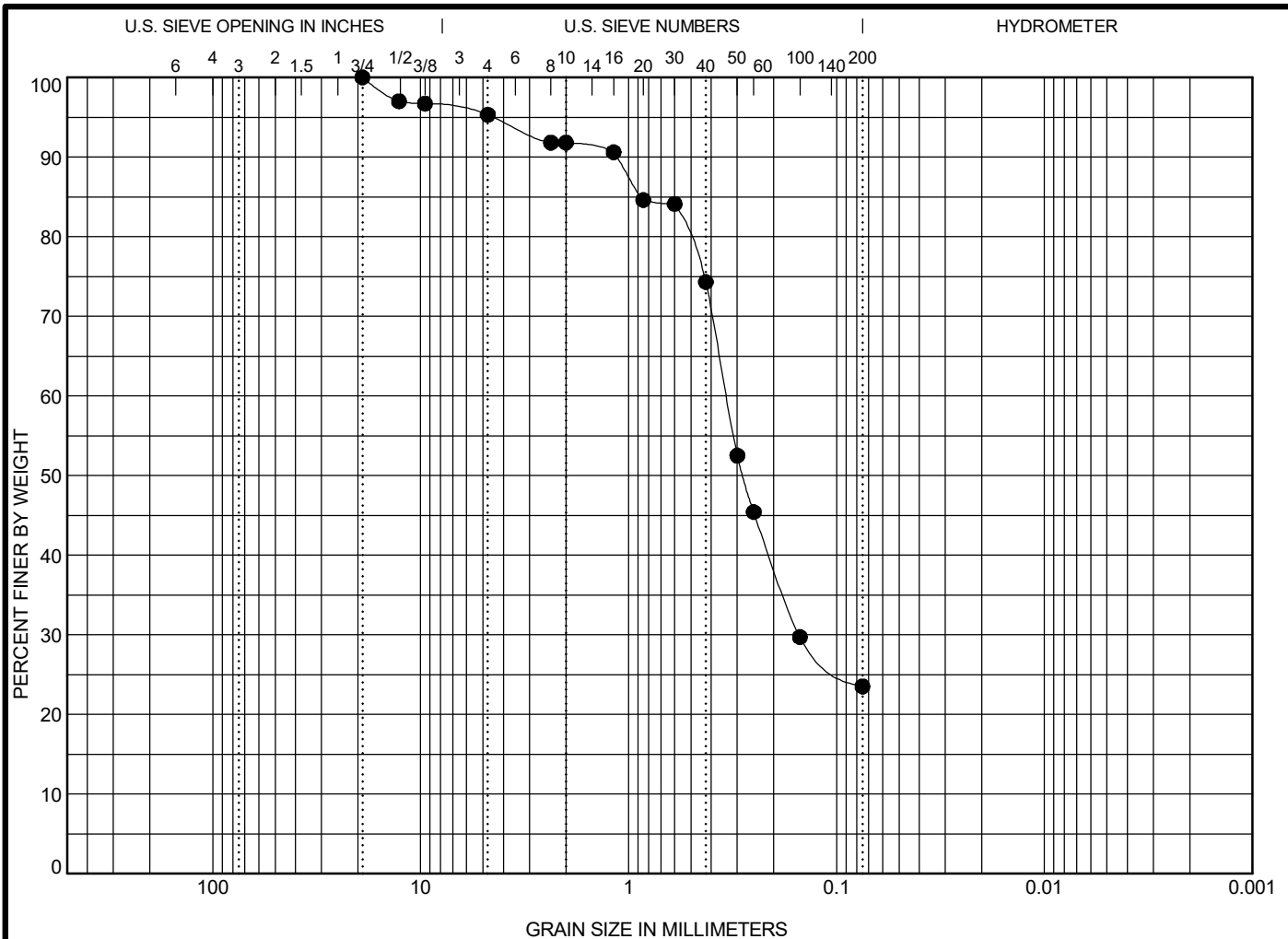
Project: Linden High School Additions

Location: Linden, AL

Job No.: A24114.00813.000

Report Date: 9/24/2024

Reviewed By: Steve Carmichael, P.E.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
● 7339 B-16 0-1.5'	SILTY SAND SM	16	13	3		

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● 7339 B-16 0-1.5'	19.05	0.338	0.151		4.7	71.8	23.5	

Client: Linden City Schools
 209 North Main Street
 Linden, AL 36748

Test Methods: ASTM D422, ASTM D4318
 Sample Received Date: 9/17/2024
 Test Date(s): Grain Size - 9/23/2024, Atterberg Limits - 9/23/2024



GRAIN SIZE DISTRIBUTION

Project: Linden High School Additions
 Location: Linden, AL
 Job No.: A24114.00813.000 Report Date: 9/24/2024
 Reviewed By: Steve Carmichael, P.E.

U.S. GRAIN SIZE2 A24114.00813.000.GPJ CARMICHL.GDT 9/25/24

INVESTIGATIVE FIELD PROCEDURES

Penetration Testing & Split Barrel Sampling: A standard 2.0" O.D. (1.4" I.D.) split barrel sampler is first seated 6" to penetrate any loose cuttings and then driven an additional 12" with blows of a 140-pound hammer falling 30". The number of blows required to drive the sampler the final foot is recorded and designated the "penetration resistance" (N). (ASTM D- 1586)

Soil Boring (SB): The test bore is advanced by a drilling rig utilizing 5-5/8" O.D. (2-1/4" I.D.) hollow stem augers. Soil samples are obtained with a standard split-tube sampler by driving the sampler thru the hollow auger. Collected soil specimens are sealed in air tight containers and delivered to the laboratory to confirm the drillers classifications. (ASTM D- 1452 & 1586)

Auger Boring (AB): Steel flight augers are utilized to advance the test bore. The soils are visually classified and sampled from the cuttings which are brought to the surface. (ASTM D-1452)

Undisturbed Sampling (UD): Relatively undisturbed soil samples are obtained by forcing a section of 3" O.D. 16-gauge steel tubing into the soil at the desired sample location. The tube is then sealed from moisture loss and delivered to the laboratory for possible laboratory testing.

Rotary-Wash Boring (RB): The drilling operation is performed by first setting a length of casing and then advancing the test bore by "jetting" a bentonite solution thru drill rods and bit.

Core Drilling (CD): The test bore is advanced thru rock by coring which utilizes a diamond bit and a double tube, swivel type core barrel. (ASTM D-2113)

Monitoring Wells (MW): Temporary or permanent wells may be installed to provide the accurate water table determination and periodic monitoring. The well is constructed with 1.5" to 4" diameter PVC pipe meeting current standards for monitoring well construction.



NOTES AND REFERENCES

Soil descriptions are based on the predominate constituent of the material and are further described by appropriate modifiers in reverse order of their importance. For example, a predominate sand soil containing clay would be described as “clayey sand”. Additional modifiers may be used, beginning with the least important constituent such as “silty clayey sand”, etc.

Water levels shown on the test boring logs reflect those levels measured at the specified time and date indicated on the logs. These water levels are subject to seasonal fluctuation and can be effected by local surface drainage and/or rainfall during the monitoring period.

The following table describes soil relative densities and consistencies based on penetration resistance values (N) determined by the Standard Penetration Test. The “N” values are estimated for hand tool bores using a portable dynamic cone penetrometer.

	N	Relative Density
	0 – 3	Very Loose
	4 – 9	Loose
Sand	10 – 19	Firm
	20 - 29	Very Firm
	30 - 49	Dense
	50+	Very Dense
	N	Consistency
	0 - 2	Very Soft
	3 - 5	Soft
	6 - 11	Firm
Clay and Silt	12 - 17	Stiff
	18 - 29	Very Stiff
	30 - 49	Hard
	50+	Very Hard

Laboratory Test References

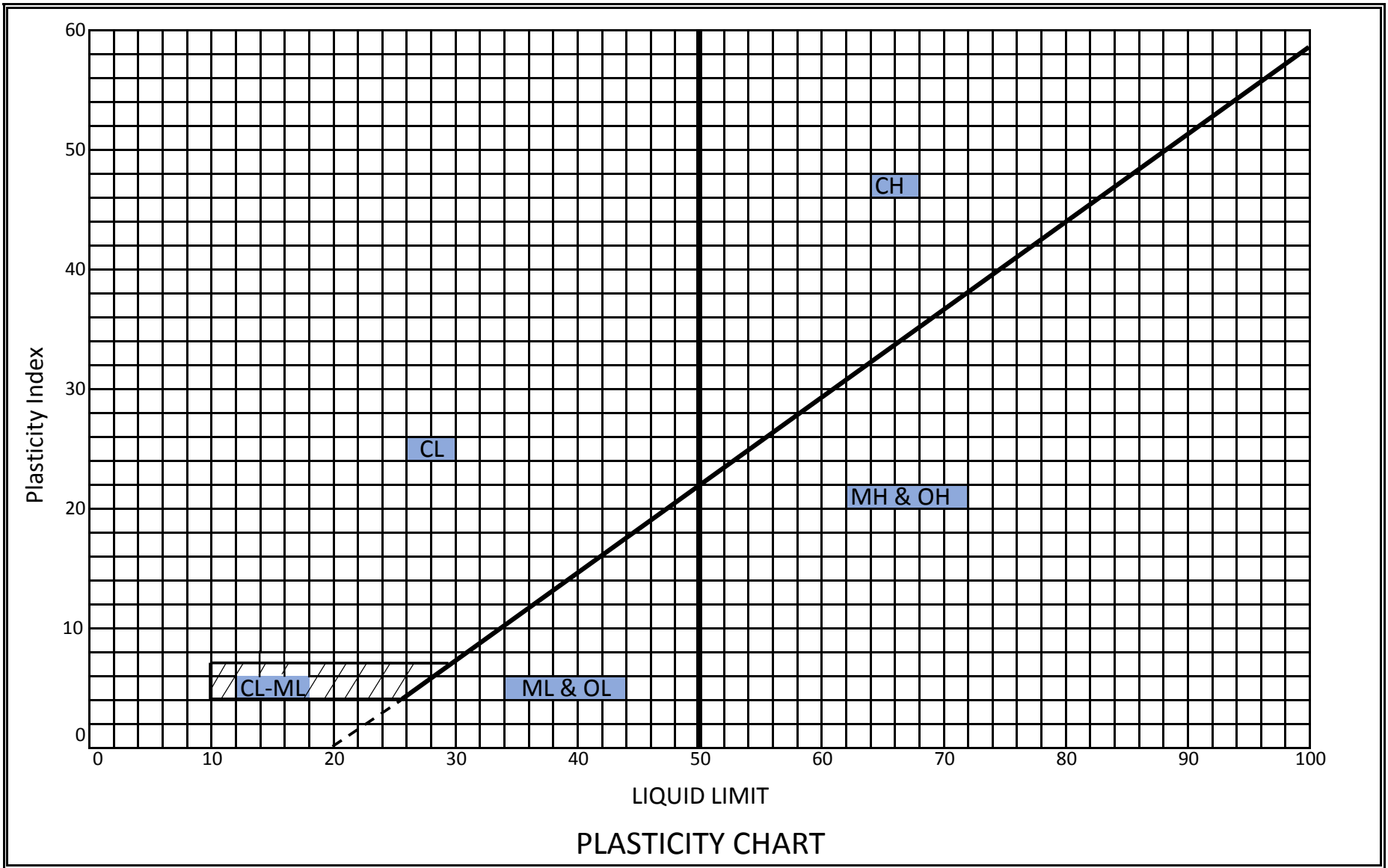
Test	Reference
Moisture Content.....	ASTM D-854
Particle Size Analysis.....	ASTM D-421,422,1140
Atterberg Limit.....	ASTM D-423, 424
Specific Gravity.....	ASTM D-2216
Compaction Test.....	ASTM D-698, 1557
California Bearing Ratio Test.....	AASHTO T-193
Triaxial Shear Test.....	ASTM D-2850
Unconfined Compression Test.....	ASTM D-2166
Consolidation Test.....	ASTM D-2435
Soil Permeability Test.....	ASTM D-2434



The Unified Soil Classification System

Major divisions		Group symbol	Typical names	Classification criteria for coarse-grained soils			
Coarse-grained soils (more than half of material is larger than No. 200)	Gravels (more than half of coarse fraction is larger than No. 4 sieve size)	Clean gravels (little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	$C_U \geq 4$ $1 \leq C_C \leq 3$		
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines	Not meeting all gradation requirements for GW ($C_U < 4$ or $1 > C_C > 3$)		
			GM	d/u	Silty gravels, gravel-sand-silt mixtures	Atterberg limits below A line or $I_p < 4$	Above A line with $4 < I_p < 7$ are borderline cases requiring use of dual symbols
			GC		Clayey gravels, gravel-sand-clay mixtures	Atterberg limits below A line with $I_p > 7$	
	Sands (more than half of coarse fraction is smaller than No. 4 sieve size)	Clean sands (little or no fines)	SW	Well-graded sands, gravelly sands, little or no fines	$C_U \geq 6$ $1 \leq C_C \leq 3$		
			SP	Poorly graded sands, gravelly sands, little or no fines	Not meeting all gradation requirements for SW ($C_U < 6$ or $1 > C_C > 3$)		
			SM	d/u	Silty sands, sand-silt mixtures	Atterberg limits below A line or $I_p < 4$	Limits plotting in hatched zone with $4 \leq I_p \leq 7$ are borderline cases requiring use of dual symbols
			SC		Clayey sands, sand-clay mixtures	Atterberg limits above A line with $I_p > 7$	
	Fine-grained soils (more than half of material is smaller than No. 200)	Silts and clays (liquid limit < 50)	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity	1. Determine percentages of sand and gravel from grain-size curve. 2. Depending on percentages of fines (fraction smaller than 200 sieve size), coarse-grained soils are classified as follows: Less than 5%-GW, GP, SW, SP More than 12%-GM, GC, SM, SC 5 to 12%-Borderline cases requiring dual symbols.		
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays			
OL			Organic silts and organic silty clays of low plasticity				
Silts and clays (liquid limit > 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	$C_U = D_{60}/D_{10}$ $C_C = D_{30}^2/D_{10}D_{60}$			
		CH	Inorganic clays or high plasticity, fat clays				
		OH	Organic clays of medium to high plasticity, organic silts				
Highly organic soils		Pt	Peat and other highly organic soils				





General Terms and Conditions

Binding Agreement. By accepting the Proposal Client accepts and agrees to be bound by all terms and conditions set forth in the Proposal and these General Terms and Conditions. The Proposal and these General Terms and Conditions (collectively, the "**Agreement**") comprise the entire agreement between UES Professional Solutions 18, LLC ("**UES**") and the Client and supersede all prior or contemporaneous understandings, agreements, and representations.

Scope of Services. UES shall provide the services (the "**Services**") set forth in the Proposal. UES shall not provide and is not responsible for the supervision or direction of the actual work of the contractor, or for site safety. The Client agrees that UES will not be expected to make exhaustive or continuous site visits beyond those established in the Proposal, but that construction observation appropriate for the construction stage shall be performed. It is understood that the Services provided by UES will not relieve the contractor of its duties and responsibilities for performing its work in accordance with the plans and specifications. UES will observe, test, document and alert the Client and/or its contractor, in a timely manner, when UES deems work pertinent to its Services is not being performed in accordance with the plans and specifications. The Services do not include investigation, detection, prevention, or assessment of biological pollutants such as molds, fungi, spores, bacteria or any of their byproducts. Full-time construction observation by UES employees does not mean that UES is observing all work by the contractor or all placement of all materials. Full-time construction observation means that an employee of UES has been assigned to the project for the time required to fulfill UES's contractual responsibilities.

Additional Services. If, during the performance of the Services, UES, its sole discretion, deems it necessary to perform services in addition to the Services (the "**Additional Services**") to successfully complete any evaluation or analysis contained in the Services, UES shall request in writing a modification of its Scope of Services, along with a description of the additional fees for the performance of such Additional Services. The Client may authorize such Additional Services in writing, which shall modify the terms of this Agreement. If the Client declines to modify the terms of this Agreement with respect to the Additional Services UES shall have the right to modify the Agreement to eliminate any evaluation or analysis that would require the Additional Services and to modify the fees to be charged to reflect the elimination of any evaluation or analysis, which modification shall be binding on the Client.

Schedule. The Client acknowledges that any schedule for the performance of the Services contained in the Proposal is an estimate of the time required for performance of the Services, and that the performance of the Services may not be complete prior to the expiration of the period or periods listed in such schedule. Any failure of UES to perform the Services within the time set forth in any schedule for performance shall not be considered a material breach of this Agreement.

Insurance. The Client represents and warrants that Client or the owner of the Property shall, as applicable, maintain one or more general liability, automobile and workman's compensation insurance policies providing coverage for injuries or damage incurred on the property (the "**Property**") at which the Services are to be performed in the amount of at least \$1,000,000 per policy, per occurrence. The Client agrees to add UES as an additional insured for General Liability coverage. UES shall procure and maintain insurance coverage as it deems to be adequate. Certificates for such policies shall be provided to the owner upon request.

Entry onto Property. If the Client is the owner of the Property, the Client hereby authorizes UES to enter the Property for the purpose of performing the Services and the Client represents and warrants that the Client has full power and authority to permit UES personnel to enter and perform the Services on the Property, as may be required under the terms of this Agreement. If the Client is not the owner of the Property, the Client shall assist UES in obtaining permission from the Property's owner to access the Property and perform the Services. If such permission cannot be obtained, UES may, in its sole discretion, modify or cancel the Agreement. If UES determines it is necessary to enter onto property adjacent to the Property (the "**Adjacent Property**") to complete the performance of the Services, UES will contact the Client prior to making any entry onto any Adjacent Property to request that the Client obtain permission from the owner of the Adjacent Property, and from any other third party from whom permission may be required to allow UES to enter thereon. Upon receiving such a request, the Client shall assist UES in obtaining permission from the owner of the Adjacent Property. If such permission or authorization cannot be obtained, UES may, in its sole discretion, modify the Agreement to eliminate any Services that would require entry onto such Adjacent Property and such adjustments shall be binding on the Client.

Fees and Payment of Invoices. As consideration for the Services, the Client shall pay to UES for the costs and fees stated in the Proposal (the "**Fees**"). If the Client designates a third party to pay the Fees the Client shall remain liable for the full payment of the Fees. UES will submit invoices to the Client periodically. Unless otherwise stated on the Invoice or in the Proposal, invoices are due and payable within thirty (30) days from the invoice date. If the Client fails to make any payments due UES for the Services within thirty (30) days from invoice date, interest as permitted by Georgia law may be charged until the full amounts due are paid. If the Client fails to pay the amount due UES within thirty (30) days from UES's invoice date, UES may, in its sole discretion, suspend services being performed under this Agreement until UES has been paid in full all amounts due for the Services provided, expenses incurred and other related charges. Failure by the Client to pay UES prior to the due date of an invoice shall constitute a material breach of the Agreement. Payments received from the Client will be applied and credited first to interest then to principal. The Client will reimburse UES for all time spent and expenses (including attorneys' fees) incurred in connection with collecting any delinquent amounts.

Client's Responsibilities. In addition to the Client's obligations to pay for the Services performed under this Agreement and the Client's other obligations set forth in this Agreement, the Client agrees to assist and cooperate with UES in any manner necessary and within its ability to facilitate performance of the Services, supply UES with all information and documents in the Client's possession or knowledge that are relevant to the Services. The Client shall designate the location of all subsurface structures on plans to be furnished to UES such as pipes, tanks, cables and utilities within the property lines and shall be responsible for any damage inadvertently caused by UES to any such structure or utility not so designated.

Standards of Performance. The standard of care for all professional engineering and related services performed or furnished by UES under the Proposal and this Agreement will be the care and skill ordinarily used by members of the profession practicing under similar circumstances at the same time and in the same locality. The Client shall be responsible for, and UES may rely on, the accuracy and completeness of specifications, requirements, programs, instructions, reports, data, drawings, and other information furnished by the Client to UES pursuant to this Agreement. UES may use such specifications, requirements, programs, instructions, reports, data, drawings and information in performing or furnishing services under this Agreement. In the event necessary requirements or specifications are not provided before the Services commence, UES may set basic requirements for soil density tests and concrete sample fabrication that will be used until such time as they are provided.

Dispute Resolution; Litigation. As a condition precedent to filing any action in state or federal court concerning the Proposal or this Agreement, UES and the Client agree to negotiate all disputes between them arising out of or relating to the Proposal or the Agreement in good faith for a period of 30 days from the date of written notice of such dispute, regardless of the nature of the relief sought. If such negotiations between UES and the Client do not fully resolve the dispute, as a further condition precedent to filing any action in state or federal court, UES and Client shall mediate the dispute with a mutually acceptable alternative dispute resolution service. If said dispute is not fully resolved by said mediation, the dispute may then proceed in a state or federal court in Fulton County, Georgia unless an alternative venue is agreed upon by both UES and the Client. The prevailing party in any lawsuit filed by the parties concerning the Proposal or this Agreement shall be entitled to recover its costs and expenses incurred in such proceedings from the other party, including reasonable attorneys' fees, costs of court and expert witness costs. THE CLIENT IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY WITH RESPECT TO ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THE PROPOSAL OR THIS AGREEMENT. The Client acknowledges that it understands and has considered the implication of this waiver and makes this waiver voluntarily.

Use of Documents and Intellectual Property. Unless otherwise agreed in writing, all documents and information prepared by UES or obtained from a third party in connection with the performance of the Services are instruments of service (the "**Instruments of service**"), and UES shall retain ownership therein (including the right to reuse at the discretion of UES). All Instruments of Service are solely for use by the Client and will not be provided by the Client to any other person or entity without the prior written consent of UES. The Client has the right to reuse the Instruments of Service for purposes reasonably connected with the project for which the Services are provided, including without limitation design and licensing requirements of the project. No party other than the Client may rely on the Instruments of Service, and the Client will not represent to any other party that it may rely on the Instruments of Service without the express prior written consent of UES. The Client acknowledges that UES may employ or develop proprietary software, trade secrets, or other intellectual property in the performance of the Services (the "**Intellectual Property**"). The Client hereby agrees that it will not retain or acquire any ownership interest in the Intellectual Property and that all Intellectual Property employed or developed by UES in the course of the performance of the Services shall remain the property of UES or a third party, as applicable.

Term of Agreement. This Agreement shall begin on the date of execution as set forth on the Proposal and shall continue until the completion of all obligations of the parties under this Agreement, mutual written agreement of the parties, termination for material breach of this Agreement, or termination by UES for convenience. UES shall have the right, in the event of a material breach by the Client to terminate this Agreement. Said termination shall be effective immediately upon delivery by UES to the Client of a written termination notice or on such other later date as may be specified in any such notice of termination. UES may also terminate this Agreement for convenience upon thirty (30) days' written notice to the Client. If UES commits a material breach of this Agreement, the Client may terminate this Agreement upon thirty (30) days written notice to UES, provided the breach remains uncured at the end of such thirty (30) day period.

Indemnification. The Client agrees to defend, indemnify and hold UES and its agents, employees, owners, insurers and fiduciaries (the "**UES Indemnified Parties**") harmless for any costs, liabilities, claims, expenses, or damages incurred by the UES Indemnified Parties arising, directly or indirectly, from the provision of the Services by UES to the Client, including, but not limited to, any costs, liabilities, claims, expenses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) arising from the following: (a) any injury incurred by any UES employee or other personnel in the course of performing the Services; (b) any out-of-pocket cost or expense incurred by UES payable to any third party arising exclusively from the performance of the Services, other than the costs and expenses payable to UES personnel as compensation; (c) entry onto the Property or any Adjacent Property by UES after the Client has represented to UES that UES is duly authorized to enter such Property or Adjacent Property; and (d) any misrepresentation or breach of any warranty set forth in this Agreement by the Client.

Limitation of Liability. Notwithstanding any other term or provision in the Proposal and the Agreement, in recognition of the relative risks, rewards and benefits of the work being performed by UES to both the Client and UES, the risks have been allocated such that the Client agrees and acknowledged that, to the fullest extent permitted by Georgia law, the total liability of UES to the Client for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of the Proposal and the Agreement from any cause or causes of action whatsoever, whether arising out of contract, negligence, strict liability in tort, or warranty, shall not exceed any amounts paid by the Client for the Services relating to the event giving rise to the liability; provided, however, that, in the event such claims are attributable to gross negligence or intentional misconduct of UES, the limit of liability will be increased to the greater of \$250,000 or the amount paid by the Client for the Services relating to the event giving rise to the liability, less any applicable insurance amount covering alleged damages or claims. No action, regardless of form, arising from or pertaining to this Agreement or the Services may be brought by the Client more than one (1) year after such action has accrued, and neither UES nor any officer, director, manager, employee, or agent of UES shall have any liability under this Agreement for consequential, exemplary, or incidental damages, including, without limitation, damages for loss of goodwill, losses due to delay or work stoppage, and any and all business or commercial damages or losses.

Disclaimer of Warranties. UES DOES NOT MAKE ANY WARRANTY, WHETHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE SERVICES PROVIDED HEREUNDER, AND ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE ARE HEREBY EXPRESSLY EXCLUDED.

No Third-Party Beneficiary. The provisions of this Agreement are and will be for the benefit of the parties to the Agreement only and are not for the benefit of any third party, and accordingly, no third party shall have the right to enforce the provisions of this Agreement.

Force Majeure. UES shall not be liable or responsible to the Client, nor be deemed to have defaulted or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement if such failure or delay is caused by or results from acts or circumstances beyond the reasonable control of UES including, without limitation, acts of God, flood, fire, earthquake, explosion, governmental actions, civil unrest, national emergency, or labor disputes; provided, however, that, if the event in question continues for a continuous period in excess of thirty (30) days, the Client shall be entitled to give notice in writing to UES to terminate this Agreement.

Disposal of Samples. UES may dispose of all stored soil, rock, and asphalt samples 60 or more days after submission of the final report covering those samples. UES may dispose of stormwater samples immediately upon testing.

Successors, Assigns, and Beneficiaries. The Client and UES each are hereby bound and the partners, successors, executors, administrators and legal representatives of the Client and UES are hereby bound to the other party to this Agreement and to the partners, successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements and obligations of the Agreement.

Miscellaneous. The following other terms and conditions shall also govern this Agreement: (a) all representations, agreements to reimburse, defend, hold harmless or indemnify, dispute resolution provisions, and covenants or agreements that contemplate performance after completion of and/or payment for the Services in this Agreement shall survive any completion or termination of this Agreement; (b) the Agreement shall be construed and interpreted under and shall be governed by and enforced according to the substantive laws of Georgia, without regard to choice of law rules; (c) this Agreement may not be modified, changed or supplemented, nor may any obligations in this Agreement be waived, except by a written document signed by the party to be charged or by such party's agent duly authorized in writing; (d) no waiver of a breach of any of the terms, covenants or conditions of this Agreement will be construed or held to be a waiver of any succeeding or preceding breach of the same or any other term, covenant or condition herein contained; (e) the failure of either party to insist upon strict performance of any of the provisions of this Agreement shall in no way constitute a waiver of its rights, at law or in equity, or a waiver of any other provisions of this Agreement or subsequent default by the other party in the performance of or compliance with any of the terms and conditions set forth in this Agreement; (f) the parties to this Agreement agree that both have had the opportunity to review and negotiate the terms of this Agreement and to obtain the assistance of counsel in reviewing and negotiating such terms prior to execution, and that this Agreement shall be construed neither against nor in favor of either party but shall be construed in a neutral manner; (g) all notices and other communications shall be in writing and shall be deemed properly delivered, received, given and served: (i) on the same day as personally delivered; (ii) when delivered if deposited in the United States mail, certified or registered, postage prepaid, return receipt requested; (iii) when delivered by Federal Express or other comparable courier service, charges prepaid and any delivery failure caused by a party's failure to give notice of change of address or refusal to accept delivery shall be deemed receipt of notice; and (h) the parties acknowledge that each will have access to the others' proprietary information and pledge to one another to use the same solely for the purpose of furthering the performance of this Agreement, and upon the termination thereof, to maintain and protect the confidentiality of the same forevermore as though it was their own.

SECTION 03950 - CONCRETE SEALER

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Exposed concrete slabs where concrete sealer is indicated.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: Submit four samples of concrete sealer over concrete, 6 by 6 inches sample.
- C. Manufacturer Certificates: Signed by manufacturers certifying that concrete sealer comply with requirements.
- D. Qualification Data: For Installer.
- E. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for assemblies.
- F. Warranty: Special warranty specified in this Section.
- G. Maintenance data.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer with minimum five years documented experience.

1.4 PROJECT CONDITIONS

- A. Limitations: Proceed with application only when the following existing substrate conditions permit sealer to be applied according to manufacturers' written instructions and warranty requirements:
 - 1. Ambient temperature is above 40 deg F.
 - 2. Concrete surfaces and mortar have cured for more than 28 days.

1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer and Applicator agree to repair or replace materials that fail to maintain water repellency within specified warranty period.
 - 1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 CONCRETE SEALER

- A. Penetrating Liquid Floor Treatment: Clear, chemically reactive, waterborne solution of inorganic silicate or silicate materials and proprietary components; odorless; colorless; that penetrates, hardens, and densifies concrete surfaces.
 - 1. Products:
 - a. Curecrete Distribution Inc.; Ashford Formula.
 - b. Burke by Edoco; Titan Hard.

Addition to Linden High School
for the Linden City Board of
Education
Linden, AL

03950 - 1

03950 - CONCRETE SEALER

MCKEE PROJECT NO. 22.315

- c. ChemMasters; Chemisil Plus.
- d. Euclid Chemical Company (The); Euco Diamond Hard.
- 2. Flammability: Self extinguishing.
- 3. Finish: Non slip finish. Coefficient of friction: 0.6 wet, 0.8 dry.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean substrate of substances that might interfere with penetration or performance of concrete sealer.
 - 1. Concrete: Remove oil, curing compounds, laitance, and other substances that could prevent adhesion or penetration of concrete sealer.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLICATION

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect the substrate before application of concrete sealer and to instruct Applicator on the product and application method to be used.
- B. Concrete Sealer: Prepare, apply, and finish penetrating liquid floor treatment according to manufacturer's written instructions.
 - 1. Do not apply to concrete that is less than number of days' old recommended by sealer manufacturer in writing.
 - 2. Apply liquid until surface is saturated, scrubbing into surface until a gel forms; rewet; and repeat brooming or scrubbing. Rinse with water; remove excess material until surface is dry. Apply a second coat in a similar manner if surface is rough or porous.
- C. Apply on horizontal surfaces of indicated interior exposed concrete slabs not receiving other finishes.

3.3 CLEANING

- A. Immediately clean concrete sealer from adjoining surfaces and surfaces soiled or damaged by concrete sealer application as work progresses. Repair damage caused by concrete sealer application. Comply with manufacturer's written cleaning instructions.

END OF SECTION

SECTION 10410 - IDENTIFYING DEVICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

1.2 DESCRIPTION OF WORK

- A. Types of identifying devices specified in this section include the following:
 - 1. Room Signs (See Door Schedule)
 - 2. Storm Shelter Signs
 - 3. Occupancy Sign
 - 4. Metal Letters
 - 5. Plaque
 - 6. Project Sign
- B. Note to the Contractor: If the Contract Sum (as awarded) is \$100,000.00 or more, the Contractor shall furnish and erect a project sign and interior plaques as shown in "Detail of Project Sign" (DCM Form C-15) and "Plaque Detail" bound in the Project Manual at the end of "General Conditions". The project sign shall be erected in a prominent location selected by the Architect and Owner and shall be maintained in good condition until completion of Work.
- C. Extent of signs and plaque is indicated on the drawings.

1.3 QUALITY ASSURANCE

- A. Drawings and Specifications are based on one manufacturer's standard products. Another standard system of a similar and equivalent nature may be acceptable when the differences do not materially detract from the design concept or intended performance as judged solely by the Architect.
- B. **General Contractor is responsible for verifying signage requirements and correct wording, names etc. with Owner and Architect before ordering.**

1.4 SUBMITTALS

- A. Shop Drawings: Submit shop drawings for each type of device. Include large scale sections of typical members and other components. Provide dimensioned elevations. Show anchorages, grounds and reinforcement and indicate finishes.

PART 2 - PRODUCTS

2.1 ROOM SIGNS

- A. MANUFACTURER:
 - 1. The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function.
 - a. ASI Sign Systems, Inc., 8181 Jetstar Drive, Suite 100, Irving, TX 75063; www.asisignage.com; 1-800-274-7732
 - b. Best Sign Systems, www.bestsigns.com; 1202 N. Park Avenue, Montrose, CO 81401-3171, Phone (970) 249-2378 or 1-800-235-2378; Fax (970) 249-0223
 - c. Leeds Architectural Letters of Alabama Inc, www.leedsletters.com; P.O. Box 40, Leeds, AL 35094; Phone (205) 699-5271; Fax (205) 699-3342
 - d. Bayuk Graphic Systems, Inc., www.bayukgraphics.com; 5005 Old Lincoln Highway Parkesburg, PA 19365; Phone: (717)-442-0274; Fax: (717)-442-1289

- e. Mohawk Sign Systems; www.mohawksign.com; 5 Dandreano Dr, Amsterdam, NY 12010; Ph. 518.842.5303.
 - 2. Substitutions: Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than Ten (10) days prior to scheduled bid opening.
- B. MATERIALS:
- 1. Provide 6" x 8" high laminated plastic with raised lettering complying with the Americans with Disabilities Act (ADA).
 - 2. All Signs MUST include 1" Slide In Window Slot.
 - 3. Color to be selected by the Architect after bid date from manufacturer standards.
 - 4. Use International Symbols of accessibility for identifying facilities as accessible.
 - 5. Letters and numerals shall be raised 1/32 in (0.8 mm) minimum, upper case, sans serif or simple serif type and shall be accompanied with Grade 2 Braille.
 - 6. Raised characters shall be at least 5/8 in (16 mm) high, but no higher than 2 in (50 mm).
 - 7. Pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram. The border dimension of the pictogram shall be 6 in (152 mm) minimum in height.
 - 8. **See Door Schedule. If not shown provide 20 letter characters per room sign.**
 - 9. **The Supplier will be required to meet with the Owner for exact wording for all room signs before preparation of the shop drawing submittal to the Architect for approval.)**
 - 10. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.
 - a. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side.
 - b. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf.
 - c. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door.
 - d. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall.
 - e. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position. Mounting devices shall be concealed.

2.2 STORM SHELTER SIGNS

A. MANUFACTURER:

- 1. The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function.
 - a. ASI Sign Systems, Inc., 8181 Jetstar Drive, Suite 100, Irving, TX 75063; www.asisignage.com; 1-800-274-7732.
 - b. Best Sign Systems, www.bestsigns.com; 1202 N. Park Avenue, Montrose, CO 81401-3171, Phone (970) 249-2378 or 1-800-235-2378; Fax (970) 249-0223
 - c. Leeds Architectural Letters of Alabama Inc, www.leedsletters.com; P.O. Box 40, Leeds, AL 35094; Phone (205) 699-5271; Fax (205) 699-3342.

- d. Bayuk Graphic Systems, Inc., www.bayukgraphics.com; 5005 Old Lincoln Highway Parkesburg, PA 19365; Phone: (717)-442-0274; Fax: (717)-442-1289
 - e. Mohawk Sign Systems; www.mohawksign.com; 5 Dandreano Dr, Amsterdam, NY 12010; Ph. 518.842.5303.
2. Substitutions: Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than Ten (10) days prior to scheduled bid opening.

B. MATERIALS

1. Provide 11" x 9" high laminated plastic with raised lettering complying with the Americans with Disabilities Act (ADA),
2. Color to be selected by the Architect.
3. Use International Symbols of accessibility for identifying facilities as accessible.
4. Letters and numerals shall be raised 1/32 in (0.8 mm) minimum, upper case, sans serif or simple serif type and shall be accompanied with Grade 2 Braille.
5. Raised characters shall be at least 5/8 in (16 mm) high, but no higher than 2 in (50 mm).
6. Pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram.
7. Supply letter characters per sign as **indicated on the Shelter Plan**.
8. The Supplier will be required to meet with the Architect to verify the exact wording for all storm shelter signs before preparation of the shop drawing submittal to the Architect for approval.
9. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.
10. **Mount signs at locations indicated on the Shelter Plan.**
11. Mounting devices shall be concealed.

2.3 OCCUPANCY SIGNS

A. MANUFACTURER:

1. The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function.
 - a. ASI Sign Systems, Inc., 8181 Jetstar Drive, Suite 100, Irving, TX 75063; www.asisignage.com; 1-800-274-7732.
 - b. Best Sign Systems, www.bestsigns.com; 1202 N. Park Avenue, Montrose, CO 81401-3171, Phone (970) 249-2378 or 1-800-235-2378; Fax (970) 249-0223.
 - c. Leeds Architectural Letters of Alabama Inc, www.leedsletters.com; P.O. Box 40, Leeds, AL 35094; Phone (205) 699-5271; Fax (205) 699-3342.
 - d. Bayuk Graphic Systems, Inc., www.bayukgraphics.com; 5005 Old Lincoln Highway Parkesburg, PA 19365; Phone: (717)-442-0274; Fax: (717)-442-1289.
 - e. Mohawk Sign Systems; www.mohawksign.com; 5 Dandreano Dr, Amsterdam, NY 12010; Ph. 518.842.5303.
2. Substitutions: Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than Ten (10) days prior to scheduled bid opening.

B. Materials

1. Provide 6" x 8" high laminated plastic with raised lettering complying.
2. Color to be selected by the Architect after bid date from manufacturer standards.
3. Letters and numerals shall be raised 1/32 in (0.8 mm) minimum, upper case, sans serif or simple serif type.
4. Raised characters shall be at least 5/8 in (16 mm) high, but no higher than 2 in (50 mm).

2.4 METAL LETTERS

A. MANUFACTURER:

1. The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function.
 - a. Impact Architectural Signs, www.impactsigns.com; 26 E. Burlington Avenue, LaGrange, IL 60525; (708) 469-7178; impact@impactsigns.com
 - b. Leeds Architectural Letters of Alabama Inc, www.leedsletters.com; P.O. Box 40, Leeds, AL 35094; Phone (205) 699-5271; Fax (205) 699- 3342
 - c. Matthews Architectural Products, www.matthewsid.com; 2 North Shore Pittsburgh, PA 15212; (412) 571-5500; (800) 950-1317
 - d. A.R.K. Ramos Architectural Signage, www.arkramos.com; 1321 S. Walker Ave., Oklahoma City, OK; Ph. 800.725.7266
2. Substitutions: Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than Ten (10) days prior to scheduled bid opening.

B. MATERIALS

1. Provide standard cast aluminum letters for exterior architectural signage shown on drawings and as follows:
2. Building Signage: Provide full size sample prior to manufacture of all letters.
 - a. Mounting shall be projected mount without collars set in adhesive.
 - b. Color shall be anodized aluminum.
 - c. Style of letter shall be as follows:
 - I. Height: 15" High - Upper Case. Or as indicated on drawings.
 - II. Depth: 1 ¼" Deep – Upper Case. Or as indicated on drawings.
 - III. Font: Arial Bold
 - IV. Letters to read as indicated on drawings.

2.5 PLAQUE

A. MANUFACTURER:

1. The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function.
 - a. Impact Architectural Signs, www.impactsigns.com; 26 E. Burlington Avenue, LaGrange, IL 60525; (708) 469-7178; impact@impactsigns.com
 - b. Leeds Architectural Letters of Alabama Inc, www.leedsletters.com; P.O. Box 40, Leeds, AL 35094; Phone (205) 699-5271; Fax (205) 699- 3342
 - c. Matthews Architectural Products, www.matthewsid.com; 2 North Shore Pittsburgh, PA 15212; (412) 571-5500; (800) 950-1317
 - d. A.R.K. Ramos Architectural Signage, www.arkramos.com; 1321 S. Walker Ave., Oklahoma City, OK; Ph. 800.725.7266

2. Substitutions: Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than Ten (10) days prior to scheduled bid opening.

B. MATERIALS

1. Refer to *Detail Of Plaque (ABC Form C-16, August 2001)* at the front end of the project manual.
2. Size: 24" high x 30" wide.
3. Cast aluminum with bronze finish of standard alloy, hand tooled and chased.
4. Raised letters and border.
5. Satin finish.
6. Background pebbled finish and oxidized to a darker finish.
7. Casting to be free of pits and holes, square and true with no warping.
8. Border style to be single line.
9. Letters to be flat face classic design.
10. Furnish Rubbing to Architect for approval.

C. Wording on the plaque shall read as follows.

<p style="text-align:center">(NAME OF PROJECT) (CITY NAME), ALABAMA</p> <p style="text-align:center">ERECTED (Year)</p> <p style="text-align:center">STATE OF ALABAMA</p> <p style="text-align:center">THE (NAME) COUNTY BOARD OF EDUCATION MR. (NAME), PRESIDENT MRS. (NAME), VICE PRESIDENT MR. (NAME), BOARD MEMBER MR. (NAME), BOARD MEMBER MR. (NAME), BOARD MEMBER MRS. (NAME), BOARD MEMBER MRS. (NAME), BOARD MEMBER DR. (NAME), SUPERINTENDENT</p> <p style="text-align:center">SUPERVISED BY</p> <p style="text-align:center">Alabama Real Property Management, Division of Construction Management</p> <p style="text-align:center">McKEE AND ASSOCIATES ARCHITECTS, INC (COMPANY NAME), CONTRACTOR</p>
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2.6 PROJECT SIGN

A. MATERIALS

Addition to Linden High School
for the Linden City Board of Education
Linden, AL

IDENTIFYING DEVICES
10410-5

1. Refer to *Detail of Project Sign (DCM Form C-15, August 2021)* at the front end of the project manual.

B. Wording on the project sign shall read as follow.

<p>STATE OF ALABAMA</p> <p>THE (NAME) COUNTY BOARD OF EDUCATION</p> <p>MR. (NAME), PRESIDENT</p> <p>MRS. (NAME), VICE PRESIDENT</p> <p>MR. (NAME), BOARD MEMBER</p> <p>MR. (NAME), BOARD MEMBER</p> <p>MR. (NAME), BOARD MEMBER</p> <p>MRS. (NAME), BOARD MEMBER</p> <p>MRS. (NAME), BOARD MEMBER</p> <p>DR. (NAME), SUPERINTENDENT</p> <p>KAY IVEY, GOVENOR</p> <p><i>“Investing in Alabama’s Future”</i></p> <p>(NAME OF PROJECT)</p> <p>(CITY NAME), ALABAMA</p> <p>Alabama Real Property Management, Division of Construction Management</p> <p>McKEE AND ASSOCIATES ARCHITECTS, INC</p> <p>(COMPANY NAME), CONTRACTOR</p>
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2.7 FABRICATION

A. General: Fabricate signs to comply with requirements indicated including, dimensions, design details, quality, thickness and finish of materials. Use materials and shapes of sufficient thickness, with reinforcing, if needed, to produce sufficient flatness, free of “oil canning”, and to impart sufficient strength for size, design and application indicated.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install units plumb and level, in locations and with mounting shown. Securely attach to the supporting structure with concealed fasteners, in accordance with the manufacturer's installation instructions.

3.2 CLEANING AND PROTECTION

A. At completion of the installation, clean surfaces in accordance with the manufacturer's instructions. Protect units from damage until acceptance by the Owner.

END OF SECTION