DALLAS INDEPENDENT SCHOOL DISTRICT
PROCUREMENT SERVICES
ADDENDUM NO. __1__
CSP #207570 - F. P. Caillet Elementary School-Renovation

Date: 1/13/2025

The Purpose of this Addendum No. _1_ is to provide questions and answers received for the noted solicitation. In addition, there may also be updates to the solicitation which should be published as important information related to the process:

QUESTION 1: The plans and specs are missing the subgrade preparation info, there are no details for the concrete paving (thickness, rebar, etc.). Please provide information.

ANSWER 1: Reference attached Geotechnical Report

QUESTION 2: There are no details for the new dumpster enclosure

ANSWER 2: Dumpster scope of work removed prior to 100%CD drawings. Disregard civil note on sheet C1.00 and C2.00 about dumpster enclosure.

QUESTION 3: Where is Geotechnical Report?

ANSWER 3: Geotechnical report attached.

Some Information may be only an Update to what was previously published, e.g. a Pre-Proposal Meeting or bid opening date has changed. These items may be labeled as Updates:

UPDATE 1: The revised closing date has been extended to:
Part 1-A, 1-B and 1-C are due on Tuesday, January 21, 2025 at 2:00 local time
Completed CSP Package Part 2 is due on Wednesday, January 22, 2025 at 3:00 PM

DALLAS INDEPENDENT SCHOOL DISTRICT
PROCUREMENT SERVICES
ADDENDUM NO. __1__
SOLICITATION NUMBER AND TITLE

Please sign this addendum # _1_ and submit along with your copies of the proposal. ALL OTHER PROVISIONS, AND OTHER TERMS AND CONDITIONS REMAIN UNCHANGED. BIDDERS ARE REQUIRED TO ACKNOWLEDGE AND RETURN/SUBMIT A COPY OF THIS ADDENDUM WITH THEIR PROPOSAL.

____Company Name
____Bidder's Signature
____Date

END OF ADDENDUM
NO. __1__

Geotechnical Engineering Report

Entry Addition to Caillet Elementary School
Dallas, Texas

Terra Testing Project No.: STR 2676D

Prepared for

Mr. David Narine
Project Manager
Dallas ISD
9400 North Central Expressway
Suite 105
Dallas, TX 75231

September 14, 2023

TERRA

TERRA TESTING, LLC
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Geotechnical | Construction Materials Testing | Environmental

Lubbock | Dallas/Fort Worth | San Antonio

September 14, 2023

Mr. David Narine
Project Manager, DISD 2020 BOND
CBRE VANIR JV Program Management
9400 N. Central Expressway, 8th Floor
Dallas, Texas 76063

Re: Geotechnical Engineering Report
Entry Addition To Caillet Elementary School, Dallas ISD
Dallas, Texas
STR – 2676D

Dear Mr. Narine:

Terra Testing, LLC (Terra) has conducted a subsurface exploration and geotechnical soil investigation for the proposed Entry Addition to Caillet Elementary School Dallas ISD located in Dallas, Texas. We are pleased to transmit one (1) electronic copy of the report, which presents the results of the investigation, evaluations and recommendations concerning geotechnical-related engineering design and construction of the above-referenced project. This report includes the results of the field and laboratory testing.

We appreciate the opportunity to have performed this subsurface exploration and geotechnical evaluation and we look forward to discussing the information presented in this report with you. Please contact our office with any questions you may have.

Respectfully submitted,
TERRA TESTING, LLC
TBPE Firm No.: F-4444

Mr. Soroush Ghasemi, MSCE, EIT
Geotechnical Engineer
2023.09.14

Juan A. Rodriguez, PE
Senior Geotechnical Engineer
2023.09.14

09/14/23

STATE OF TEXAS
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LICENSED
PROFESSIONAL ENGINEER

File

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GEOTECHNICAL ENGINEERING REPORT

Entry Addition to Caillet Elementary School for Dallas ISD

DALLAS, TEXAS

1. INTRODUCTION

This report presents the results of the subsurface investigation and geotechnical analyses performed by **Terra Testing, LLC.** (hereinafter referred to as "**Terra**") for the proposed **Entry Addition to Caillet Elementary School** for **Dallas ISD,** located at 3033 Merrell Road, Dallas, TX 75229.

Mr. David Narine, Project Manager with **Dallas ISD** 2020 Bond, **CBRE VANIR JV Program Management**, hereinafter referred to as "**Client**," authorized **Terra's** services on July 27, 2023, through a Purchase Order (No. 927278) based on Terra's Proposal (No. L230523-01). This Proposal stipulated the scope of work to be performed, the cost of services, and terms and conditions for the project. **Terra** was granted permission to start drilling on August 10, 2023.

1.1. Project Description

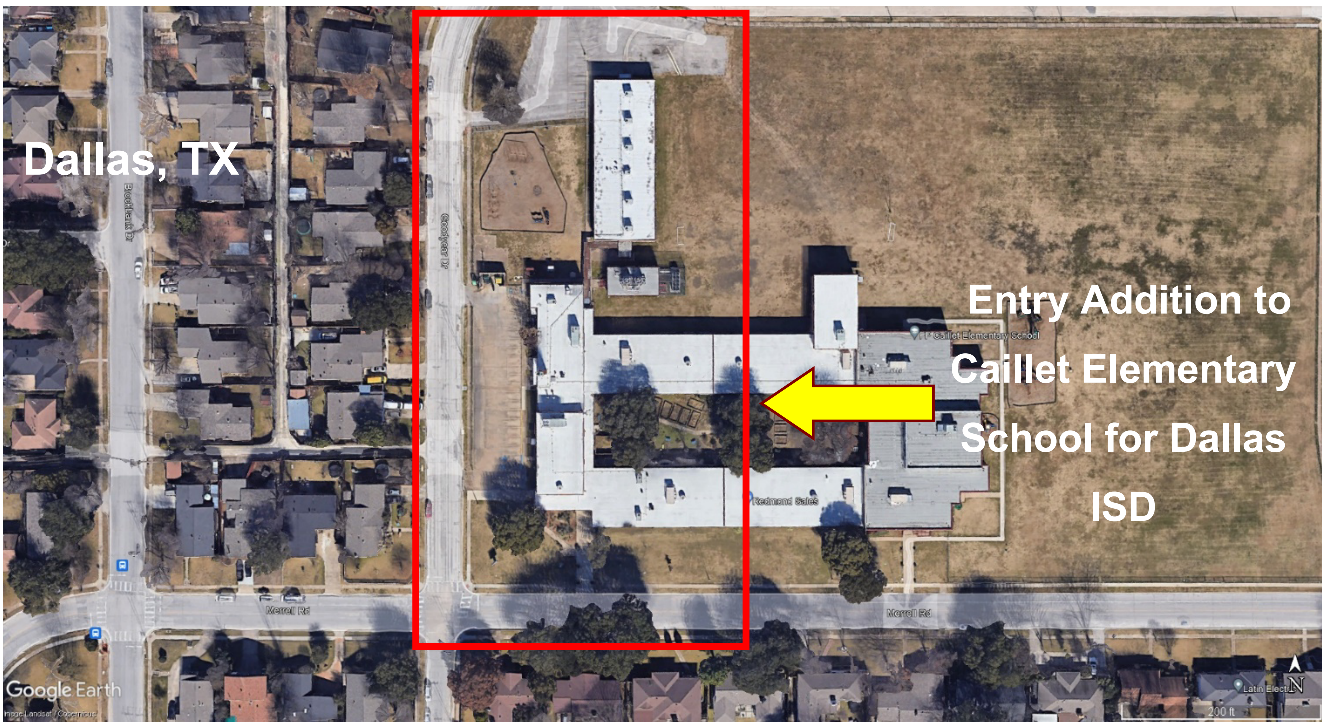


Figure 1.1 Project Location

We understand that a new marquee sign and canopy at entry addition to the existing Caillet Elementary School is being planned (**Figure 1.1**) for Dallas ISD located at 3033 Merrell Road, Dallas, TX 75229. Mr. David Narine, Project Manager, CBRE VANIR JV Program Management, provided the scope for the geotechnical investigation for a new canopy and marquee sign via email dated April 3, 2023. In the email, **Terra** was requested to provide engineering services, including field investigation, laboratory investigation, engineering analyses, and reports. However, foundation types and loading conditions for each new improvement were not provided when our field investigation was initiated.

1.2. Site Description

Figure 1.2 Project Site

The project site is located at 3033 Merrell Road, Dallas, TX 75229. At the time of our field investigation, the site is relatively flat terrain with scattered trees and a sidewalk leading to a parking lot in the vicinity of existing elementary school buildings (**Figure 1.2**).

1.3. Scope of Work

This investigation aimed to conduct subsurface exploration and determine the subsurface conditions at the project site to develop geotechnical recommendations for the new marquee sign and canopy at entry addition to Caillet Elementary School for Dallas ISD. The scope of services provided for this project included a site reconnaissance performed by **Terra** personnel soil exploration by drilling three (3) soil borings, out of which two (2) borings were drilled to approximately 35 ft below the ground surface (bgs), and one (1) boring was drilled to approximately 20 ft bgs within the footprints of the proposed new additions. Work included field drilling, laboratory testing, and evaluating the subsurface conditions. A report of **Terra's** findings and geotechnical engineering evaluation and recommendations was prepared.

The scope of our geotechnical engineering study does not include an environmental assessment of the air, soil, rock, or water conditions on or adjacent to the site. No environmental opinions are presented in this report.

2. FIELD INVESTIGATION

2.1. General

Field exploration for this investigation consisted of drilling three (3) test holes and recovering disturbed soil samples for the proposed new marquee and canopy at Entry Addition to Caillet Elementary School for Dallas ISD. The soil boring plan locations and depths were provided by the **Client,** as summarized below in **Table 2.1**. In addition, the test holes were drilled at locations shown on the boring location plan, **Figure 1**, in the Appendix.

Table 2.1 Schedule of Borings and Corresponding Areas

Boring	Approximate Boring Depths, ft	Location
DB-1	35	32° 53' 16.74" N, 96° 52' 33.04" W
DB-2	35	32° 53' 17.04" N, 96° 52' 31.64" W
DB-3	20	32° 53' 22.06" N, 96° 52' 32.70" W

2.2. Drilling and Sampling

The drilling was performed using a CME 75 Drilling Rig. The subgrade soils were explored using an 8-inch hollow stem auger advancing the hole dry. Representative soil samples were retrieved during the drilling process using split spoon samplers in conjunction with standard penetration tests (SPT) per ASTM D1586. Split spoon samples were obtained from the ground surface and conducted at topsoil and a depth of about 2½ ft, 5 ft, 7½ ft, and 10 ft, then at approximate 5-ft intervals thereafter to the boring termination depth. The number of blows per foot of the split spoon sampler (in 6-inch increments) is shown in the boring logs, with the last two (2) counts representing the “N” values. In addition, on-site sampling was completed for each boring until each boring was completed, and the actual penetration obtained for the respective increments is reported on the boring logs.

The changes in soil strata, as observed during drilling operations, were carefully determined and are classified and shown on the boring logs. However, all soil strata depths are considered approximate. All soil samples were kept in moisture-proof plastic bags to preserve the in-situ moisture content, identified by the test hole number and the total depth of the test holes, and transported to the laboratory for additional tests and evaluation. The test holes were also monitored during and immediately following drilling activities for the presence of groundwater.

2.3. Soil Classification

All soil samples were classified according to the procedures outlined in ASTM D2487, based on the Unified Soil Classification System. Furthermore, the boring logs describe the soils using the methods prescribed in ASTM D2488, utilizing Munsell Soil Color Charts, published by GretagMacbeth, New Windsor, NY, 2000 revised edition.

Soil samples, which appeared to indicate maximum plasticity characteristics, were selected, and Atterberg Limit tests were performed on these samples according to procedures outlined in ASTM D4318. The percentage, by weight, of material Passing the No. 200 sieves was also determined by ASTM D1140 for the same samples. Additionally, the moisture content for all collected soil samples was determined by procedures outlined in ASTM D2216. The results of these laboratory tests can be seen in the respective boring logs. As a visual aid, **Figures 2** through **4** show Moisture Content, Atterberg Limits, and Plasticity Index vs. Depth Charts, respectively, in terms of different areas within the plan view.

2.4. Chemical Analysis

One (1) soil sample was retrieved from test hole DB-1 at a depth of 2.5 ft bgs and analyzed for pH, chloride, and soluble sulfate content. Test results indicated that the soil pH is 8.7, chloride content is 19.8 parts per million (ppm), and soluble sulfate content is 29.0 ppm (see **Appendix A**).

All soil samples collected with reference to this project will be stored for six (6) months from the report date. Unless instructed otherwise and acknowledged in writing, the samples will be discarded after this period.

3. GENERAL SUBSURFACE CONDITIONS

3.1. Site Geology

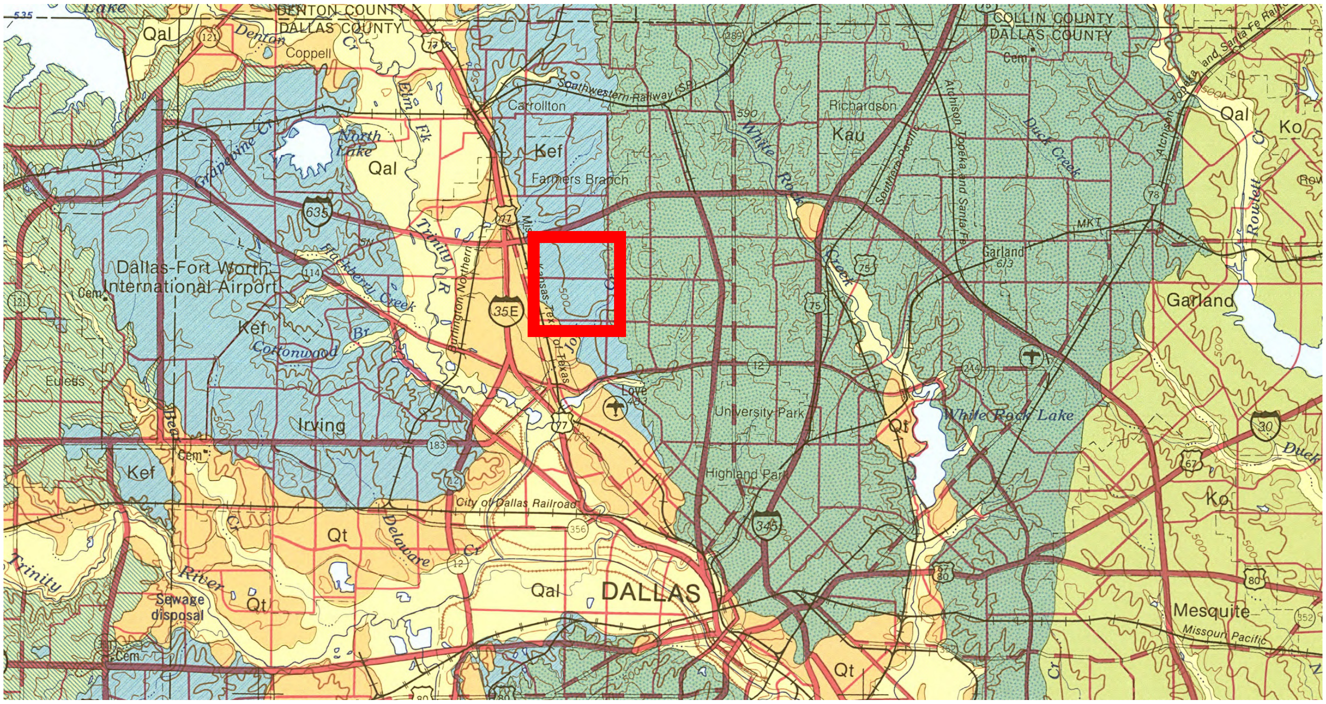


Figure 3.1 Project Geology Site Plan

According to the Geologic Atlas of Texas, Dallas Sheet (UT 1974) is shown above. The site is located within the Eagle Ford Formation (Kef).

Eagle Ford Formation includes shale, sandstone, and limestone in the upper and middle parts and platy burrowed medium to dark gray in the lower part.

3.2. Stratigraphy

The boring logs show and describe the subsurface soils encountered at each boring location. Stratification boundaries in the boring logs represent the approximate location of changes in soil types; the actual transition between materials may be gradual.

Table 3.1 summarizes detailed information related to test hole borings DB-1 through DB-3.

Table 3.1 Test Hole Borings

Boring	Approximate Depths, ft	Soil Types (Classifications)	Soil Unit Weights, pcf	In-Situ Consistency	Engineering Properties
DB-1	0.0 to 20.0	Fat Clay, Sandy Fat Clay, Fat Clay with Sand (CH)	100 – 106	Stiff to Very Stiff	High Plasticity
	20.0 to 25.0	Poorly Graded Sand (SP)	120	Medium Dense	Non-Plastic
	25.0 to 35.0	Clayey Sand (SC)	112 – 116	Medium Dense	Low Plasticity
DB-2	0.0 to 15.0	Fat Clay (CH)	100 – 104	Stiff to Very Stiff	High Plasticity
	15.0 to 30.0	Clayey Sand (SC)	112 – 116	Medium Dense	High Plasticity
	30.0 to 35.0	Poorly Graded Sand (SP)	120	Medium Dense to Dense	Non-Plastic
DB-3	0.0 to 7.5	Fat Clay with Sand (CH)	104 – 106	Medium Stiff to Stiff	High Plasticity
	7.5 to 15.0	Lean Clay with Sand (CL)	108 – 110	Very Stiff	High Plasticity
	15.0 to 20.0	Clayey Sand (SC)	112 – 116	Medium Dense	Medium Plasticity

The Liquid Limits (LL) of the various soils varied from non-plastic to 60, Plastic Limits (PL) values varied between non-plastic and 23, and their Plasticity Index (PI) varied from non-plastic to 40. All the soils indicated 4.5% to 95.0%, passing the No. 200 sieve analysis test in the laboratory.

In addition, **Figure 5** in the Appendix presents an SPT "N" value or Blow Counts per foot vs. Depth chart, which illustrates the stiffness of soils of the different strata below existing natural grades in the proposed construction areas found during the field investigations.

3.3. Potential Vertical Movement (Tex-124-E) of the Subgrade Soils

The soils encountered in the seasonally active zone were high plasticity CH fat clays in the three (3) on-site borings. The site soil's Potential Vertical Rise or PVR calculations were performed using the Texas Department of Transportation (TxDOT) Method Tex-124-E to assess if swell or shrink effects would affect any new shallow foundations. The TxDOT method is empirical and is based on the Atterberg limits and moisture content of the soils. Based on the TxDOT method, the estimated maximum potential movement of the soils at the existing grades was calculated at 2.7 inches for the area under borings DB-1 and DB-2 and at 2.4 inches under boring DB-3.

3.4. Groundwater Conditions

Groundwater **was** encountered in borings DB-1 and DB-2 during or after drilling operations. Final static water levels were measured at 33.5 ft in borings DB-1 and DB-2 from the existing ground surface. In soils with a high level of permeability, such as cohesionless or sandy soils, the recorded depths to the groundwater table are generally considered relatively reliable. However, in soils with a low level of permeability, such as lean clay soils, the water level recorded in the test borings may not be a reliable indication of the depth to the water table. Besides, the groundwater table can fluctuate with seasonal changes and or with changes to the use of the surrounding soils. If the groundwater conditions significantly differ from those encountered during this study, **Terra** should be contacted to evaluate the changed conditions against the geotechnical recommendations presented in this report.

3.5. Seismicity Site Class

The site class for seismic design is classified based on the existing soil properties averaged over a depth of 100.0 ft and designated with Site Classes A to F, considering Site Class A as hard rock down to Site Class F as potentially collapsible soil. The classification for Site Class A and B can be determined by the measurement of shear wave velocity on the site, and Site Class C, D & E are classified by calculating either average shear velocity, average field standard penetration resistance, and average undrained shear strength. Based on Section 1613.3.2 of the 2015 International Building Code, we recommend using Site Class C for seismic design at this site. This recommendation is based on standard penetration test results to 20.0 ft in the site area. Geologic information suggests that the soil layers below 35.0 ft Natural Ground Level (NGL) will become more stable and increase in strength with depth.

3.6. Frost Penetration

The climate in Dallas, Texas, can experience seasonal periods of freezing temperatures causing frost penetration. In accordance with Figure 7 of the NAVFAC DM 7.01 manual, the extreme frost penetration for Dallas, Texas, is approximately 10.0 inches. Therefore, all foundations must be constructed at least

10.0 inches below the final grade. However, other considerations may influence the bearing depth of foundations.

4. ANALYSES AND RECOMMENDATIONS

4.1. Site Preparation

All debris, vegetation, loose topsoil, large rocks, old foundations, floor slab remnants, and other deleterious materials shall be removed from the proposed areas. Existing utility lines within the construction area should be relocated. Any utility left in place should be grouted. Any foundation or pad preparation should be followed as described in the section below.

After removing the deleterious material, we recommend that the exposed surface be proof rolled with a loaded tandem-axle dump truck or water truck weighing at least 25 tons under the geotechnical engineer's observation or his representative to locate any unstable subgrade areas. The proof rolling should involve a minimum of three (3) overlapping passes in mutually perpendicular directions. Where rutting or pumping is observed during proof rolling, the unstable soils should be over-excavated and replaced with approved low-volume change soil, as described below, if it cannot be effectively compacted in place. The proof rolling should be monitored by a representative of the geotechnical engineer and performed during dry weather.

4.2. Structural Fill (On-site Material or Imported Soils)

Structural fill is generally used for constructing building pads or heavily loaded areas. They should meet the following material properties (**Table 4.1**).

Table 4.1 Structural fill requirements

Soil Type*	USCS Classification	Specific Area/Soil Parameters
Structural Fill*	SC, GC, GW-GM, GW-GC, or SW-SC	Structural building pads and heavily loaded areas: Clean soil (free of deleterious material and debris) without rock greater than 2.0 inches in maximum dimension and with liquid limits (LL) less than 35, plasticity index (PI) less than 15.
*Soils should consist of approved materials free of organic matter, debris, and rocks greater than 2.0 inches in maximum dimensions. Frozen material should not be used, and fill should not be placed on a frozen subgrade. Samples of structural fill type should be submitted to the Geotechnical Engineer for evaluation and gradation tests before use on this site.		

If **flexible base** is to be used, they shall be tested for Atterberg Limits (ASTM D4318) and gradation requirements, as a minimum, as per ASTM C136. If it is specified, it should be consistent with TxDOT

Item 247 Specifications for Grades 1 to 3 flexible base materials, then the Liquid Limits (LL) of the imported flexible base shall not exceed 35, and the Plasticity Index (PI) shall be from 5 to 12, and percent retained on a ¾-inch sieve shall be less than 30 percent. The imported soils shall be free of clay, deleterious materials, rock, or gravel larger than 2.0 inches in any dimension. Soils that do not meet these requirements should be submitted to the geotechnical engineer for evaluation before use.

4.3. General Fill (On-site Material or Imported Soils)

The construction areas for any new development, which may include backfilling of low areas, will require filling or backfilling materials to meet required elevations with fills or backfill materials as specified by the project's civil engineer. If imported or general fill is required, the acceptable materials are those classified per ASTM D2487 as GW, GP, GP-GM, GC, GP-GC, GM-GC, ML, MH, and low plasticity lean clays (CL) or clayey sands (SC) soils which are free of debris, roots, scarp materials and vegetation or unsound particles or objectionable materials. Particle size, Atterberg Limits, and Plasticity Index values discussed in previous sections would also meet requirements to be considered in specifying imported or general fill.

Soil classification of fat clay (CH) soils down to 7.5 ft (DB-3) or as low as 20.0 ft within the three borings of natural soils on site indicates that these fat clay (CH) soils are not suitable to be used as general fill materials with Plasticity Index greater than 20. Acceptable imported general fill materials are outlined in **Table 4.2** below.

Table 4.2 General fill requirements

Soil Type*	USCS Classification	Specific Area/Soil Parameters
General Fill*	GW, GP, GP-GM, GC, GP-GC, GM-GC, ML, MH, and low plasticity lean clays (CL) or clayey sands (SC)	Embankments and site developments (do not use for Structural building pads and heavily loaded areas): Clean soil (free of deleterious material and debris) without rock greater than 2.0 inches in maximum dimension and with liquid limits (LL) less than 35, plasticity index (PI) less than 20.
*Soils should consist of approved materials free of organic matter, debris, and rocks greater than 2.0 inches in maximum dimensions. Frozen material should not be used, and fill should not be placed on a frozen subgrade. Samples of structural fill type should be submitted to the Geotechnical Engineer for evaluation and gradation tests before use on this site.		

4.4. Compaction Requirements

After successfully proof rolling the site, we recommend scarifying the exposed subgrade on-site soils and should be free of vegetation, debris, and rock aggregate larger than 2.0 inches in diameter and reworking to a depth of loose materials of 8.0 inches and moisture conditioning and then compacting as described below.

Subgrade soils and General Fills approved material should be placed in a maximum of 6-inch compacted lifts, and each layer should be compact at 95% of maximum laboratory density per ASTM D698 and at optimum to +2% of the optimum moisture content.

Structural Fills (mostly Imported Soils) used to construct any foundation areas; the approved material should be placed in a maximum of 6-inch compacted lifts with each layer must be compacted to 95% of laboratory maximum dry density at optimum to +2% of the optimum moisture content as determined by Modified Proctor Test, ASTM D1557.

If water must be added, it should be uniformly applied and thoroughly mixed into the soil by disking or scarifying. Each successive layer of new soil shall be placed only after the previous layer has been successfully compacted and tested to verify that the compacted engineered fill has met the criteria.

4.5. Grading and Drainage

All grades must provide effective drainage away from the structures during and after construction and should maintain the longevity of the structure. The roof should have gutters or drains with downspouts that discharge into the stormwater collection system or onto splash blocks at a distance of at least 10.0 ft from the structures. If perimeter drains or sub-surface drainage systems are part of the new structure or canopy foundations, French drains or lateral drains should be designed and installed as necessary.

The exposed ground should be sloped away from all new site improvements for at least 10.0 ft beyond all foundation perimeters. Where paving or flatwork abuts the structure, effectively seal and maintain joints to prevent surface water infiltration.

Planters adjacent to the structures, parking, or field should preferably be self-contained or designed to drain underground or away from the new development.

4.6. Shallow Footing Foundations

Shallow footings, slab-on-grade, or mat foundations could be utilized for the project. **Terra** recommends placing these shallow foundations at 18.0 inches to meet design-bearing pressures and below the site's frost penetration depth discussed earlier. Shallow foundations should also bear on native soil or imported fill processed and compacted in accordance with the **Site Preparation** Section above. In addition, PVR values discussed earlier can be reduced to 1.0 inches or less for any shallow foundation with an over-excavation of 4.0 ft at any of the three boring sites. Strip/continuous footings or square footings or mat, concrete steel-reinforced foundations for foundation could be designed using net allowable soil bearing capacities in pounds per square foot (PSF) as outlined in **Table 4.3** below.

Table 4.3 Soil Bearing Capacity, psf

Area	Foundation Type	1.5 – 2.5 ft	2.5 – 4.5 ft	4.5 – 6.5 ft
Areas under DB-1 & DB-2	Square Footings	1,400	1,600	3,000
	Continuous Footings	800	1,000	2,400
Areas under DB-3	Square Footings	750	1,500	2,200
	Continuous Footings	500	1,100	1,600

Calculations for net allowable soil bearing capacities listed above include a factor of safety of 3. For shallow foundations, either concrete slabs or mat foundations, immediate settlement from all dead and live loads is projected to be in the order of 0.5 inches. The long-term settlement is expected to be less than 1.0 inches over a lateral distance of 40.0 ft for footings or foundations bearing within the described materials and proportioned for the maximum recommended bearing pressure.

Differential footing settlement across the structure is not expected to exceed about 0.50 to 0.75 inches. Continuous footings should have a minimum width of at least 18.0 inches, and isolated columns or spread footings should have a minimum width of at least 48.0 inches.

The foundations should have sufficient steel reinforcement to resist differential settlement. The ultimate bearing capacity of the soil supporting a spread footing was determined using the Karl Terzaghi equation as follows:

$$q_{ult} = c\,N_c s_c + qN_q + 0.5\gamma B N_\gamma s_\gamma \qquad \textbf{(Bowles,1998)}$$

where:

q_{ult} = ultimate bearing pressure

γ = unit weight of the soil

B = average footing width over the length in bearing

N_γ = bearing capacity factor

q = surcharge at foundation level

N_q = bearing capacity factor

c = cohesion of the soil

N_c = bearing capacity factor

s_c= shape factor for cohesion

s_γ = shape factor for base

The first term of the equation is associated with fine-grained/clayey soils, which typically exhibit an undrained mode of failure and where excess pore pressures can build up in the soil when sheared. This term represents the ultimate undrained bearing capacity.

The second and third term of the above equation is associated with granular soils that typically exhibit drained modes of failure (except under earthquake loading) and where excess pore pressures cannot build up in the soil when sheared. This term represents the ultimate drained bearing capacity.

Since the soils encountered at the project site has significant layers of fat clays (CH) and lean clays (CL), the critical mode of failure may be associated with either drained or undrained conditions, and therefore, the ultimate bearing capacity was calculated for undrained conditions.

The foundations could be formed in neat vertical trenches or double-formed. If the foundations are constructed using double forming methods, the engineered fill should be placed in the annulus between the exposed surface of the excavation and the side of the concrete foundations. Recommendations for the placement, moisture conditioning, and compaction of the engineered fill have been presented in an earlier paragraph, and these recommendations should be used for filling the annulus space.

We recommend a coefficient of sliding friction of 0.26 between the foundation concrete and the fat clay soils (CH) underneath the foundations.

Care should be taken to prevent wetting or drying of the bearing materials during construction. Any extremely wet or dry material, or any loose or disturbed material at the bottom of the footing excavations, should be removed before placing concrete. The potential for wetting or drying of the bearing materials can be reduced by placing the concrete as soon as possible after completing the footing excavation and evaluating the bearing strata. If this is not possible, a 3-inch-thick mud slab should be poured using 1,500 psi lean concrete.

4.7. Drilled Piers Recommendations

Deeper foundations could also be utilized to support the newly added structures' with either point loads on concrete, steel-reinforced slabs or, suspended on drilled piers, or just individual steel columns on drilled piers. In addition, if shallow foundation loads exceed the allowable bearing capacities presented earlier or settlement analyses indicate unacceptable movement, then drilled pier foundations are recommended for these structures. These pier foundations could bear at various depths below existing grades, and depending on the depths required, they could be designed with end-bearing capacity as well as side or skin friction on the pier shafts for total allowable axial capacity. These values apply to natural, undisturbed soils and should not be applied to disturbed materials or newly placed fill materials. The net allowable bearing capacities, pier skin friction values, and other design parameters are presented in **Tables 4.4** and **4.5** below, and they include minimum factors of safety of three (3).

Table 4.4 Pier Design Parameters for DB-1 & DB-2

Depth Below Ground Surface, ft	6.5 – 15.0	15.0 – 33.5	33.5 – 35.0
Soil Type	CH	CH/SP/SC	SC/SW-SM
Effective Unit Weight, pcf	101.0 – 104.0	104.0 – 126.0	62.5
Cohesion, psf	1,850 – 2,200	2,400	–
Angle of Internal Friction (Ø), °	4° – 6°	6° – 34°	36° – 38°
Shaft Skin Friction, psf	150 – 250	250 – 250	250 – 300
Net Allowable Bearing Pressure, psf	4,000 - 5,200	5,200 - 7,200	7,200 - 8,800
p-y Modulus (k), pci	500	800 / 225	125
Strain Factor (E_{50})	0.007	0.005	–

Table 4.5 Pier Design Parameters for DB-3

Depth Below Ground Surface, ft	5.5 – 7.5	7.5 – 15.0	15-0 – 20.0
Soil Type	CH	CL	SC
Effective Unit Weight, pcf	102 – 104	106 – 110	118 – 126
Cohesion, psf	1,200 – 1,800	2,200	–
Angle of Internal Friction (Ø), °	4° – 6°	6° – 8°	32° – 36°
Shaft Skin Friction, psf	120 – 200	200 – 250	250 – 300
Net Allowable Bearing Pressure, psf	2,200 - 2,800	4,200 - 5,200	5,200 - 7,200
p-y Modulus (k), pci	500	700	225
Strain Factor (E_{50})	0.007	0.005	–

Uplift resistance can be taken up to 75% (percent) of the skin friction values presented in the tables above for pier surface areas below the active zone of 12.0 ft. Pier drilling will require to maintain clean drilled shafts, which should be completed with steel reinforcement and concrete placement within 24 hours of drilling. Under-reamed or belled piers could also be utilized for additional end-bearing capacity if necessary. In addition, high-torque drilling equipment may be necessary at the lower strata in most areas of the proposed facilities.

The net allowable end bearing and skin friction values above are based on a factor of safety of 3 and 2.5, respectively. Drilled pier foundations designed in accordance with the above recommendations should experience total settlements of less than 1.0 inches and differential settlements on the order of 0.5 inches.

Terra's qualified geotechnical personnel should carefully inspect all drilled shaft installations to help verify the bearing stratum. In order to develop the full load-carrying capacity, the drilled shafts should have a minimum lateral clear spacing of 2 times the diameter of the larger shaft (not center-to-center spacing). Closer spacing will require some reductions in the end-bearing values. For piers touching each other, a 50% reduction in end bearing values is recommended, and no reduction for piers with a clear spacing of 3 times the diameter or more of the larger shaft. Interpolate from these values for different spacing.

4.8. Pier Installation and Construction

The construction of all drilled pier foundations should be observed by **Terra** engineering technicians during construction to assure compliance with design requirements and verification that adequate soil bearing strata is found and to verify the following features of construction:

1. The bearing stratum and depth;
2. The diameter of the shaft;
3. The removal of all smear zones and cuttings from the bottom of the pier excavation;
4. That groundwater seepage (if any) is correctly handled;
5. That the shafts are vertical (within the acceptable plumb tolerance); and
6. Vertical and horizontal steel ties are correctly sized and placed properly before concrete placement.

Significant deviations from the specified or anticipated conditions should be reported to the owner's representative and to the structural engineer. Groundwater may be encountered during pier drilling below 30.0 ft. However, if groundwater or surface water is encountered during drilling operations, the operations would need to include groundwater management and, therefore, installation of steel casing as part of the construction process.

4.9. Lateral Earth Pressures

Retaining walls, mechanical systems, underground concrete structures like storm shelters, deep utilities, pits or vaults, and power or light poles will experience active and passive lateral earth pressures. These structures will be subjected to lateral earth pressures, typically when movements are on the order of 0.01 to 0.02 times the height of the structure for the medium stiff to very stiff cohesive (CH) soils when active and passive pressures of natural soils or backfills are mobilized. The active lateral earth pressures will cause translational and rotational movement to or away from the retaining walls or structures.

The recommended magnitudes of at-rest, active, and passive earth coefficients for this project are presented in **Table 4.6** below:

Table 4.6. Lateral Earth Coefficients (All borings)

Depth, ft	Soil Classification	Soil Density, pcf	At Rest Coefficient K_0	Active Coefficient K_a	Passive Coefficient K_p
2.0 – 7.5	CH	100.0 – 104.0	0.90	0.86	1.00
7.5 – 12.0	CH	104.0 – 106.0	0.86	0.92	1.14
Imported Fill Materials	GC/GW/GC-GM, SW-SC, etc.	128.0 – 132.0	0.40	0.26	3.50

All surcharge loads should be multiplied by the respective lateral earth pressure coefficients to determine the total lateral earth pressures acting on walls or concrete structures. To minimize hydrostatic pressures behind walls or structures, perimeter drains or weep holes should be part of those concrete walls or structural designs.

4.10. Aggregate Base Course (ABC) Materials

Flexible or Aggregate Base Course (ABC) material, if required under any foundation systems or as select, structural fills under foundations or retaining walls, etc., it is recommended these materials conform to Texas Department of Transportation (TxDOT) Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges, Item 247, Flexible Base regarding gradation specifications and material properties listed in **Table 4.7** below:

Table 4.7 Sieve Analyses for Road Base Material

Sieve Size	% Retained
2½”	0
1¾”	0 – 10
⅞”	10 – 35
¾”	30 maximum (*)
⅜”	30 – 50
#4	45 – 65
#40	70 – 85
*For flexible base with > 30% on ¾” Sieve on ASTM Proctors provide aggregate adjustments	

When the base material is tested for Wet Ball Mill in accordance with Tex-116-E, the base material shall not have a value greater than 40%. The percentage of material passing the No. 40 sieve shall not increase by more than 20% during the test. Material passing the No. 40 Sieve shall have a maximum Liquid Limit of 35 and a maximum Plasticity Index of 12. The flexible base layer should be constructed in lifts not exceeding 8.0 inches compacted thickness, to a minimum density of 95 percent, and at optimum moisture within +2% as determined by Modified Proctor test ASTM D1557 for roadway construction. The base material should comply with the requirements of TxDOT Standard Specifications under Item 247 Type A, B, or C, and Grades 1 or 2 are recommended for the stability of the pavement systems.

Any Portland Cement concrete for any foundation should be reinforced and have a minimum flexural concrete strength of 442 psi or compressive strength of 3,500 psi when tested per procedures outlined in ASTM C31 and C39. It is recommended to follow the American Concrete Institute's guidelines (ACI 330R-01) in constructing these rigid pavement systems. A laboratory-prepared mix design shall follow the procedures outlined in ACI 211. It is recommended that steel reinforcement, construction, isolation, and control joints be placed strategically, as recommended by ACI publications. Further, the location of joints shall be based on the shrinkage potential information developed in the mix design. Proper subgrade drainage must be provided when constructing concrete driveways and parking areas to enhance their performance.

4.11. Drainage and Weather Considerations

Water should not be allowed to collect near the foundations or walkway areas during or after construction. Undercut or excavated areas should be sloped toward a sump or drainage area to facilitate removing any collected groundwater or surface runoff. The soil encountered in the surficial zone at this site is expected to be relatively sensitive to a disturbance caused by construction traffic when wet. It is the responsibility of the contractor to maintain proper surface drainage at the site for weather-related conditions. Depending on weather-related ground conditions, the contractor's maintenance of drainage during construction, and other factors, the contractor may encounter some difficulty in achieving compaction on initial lifts of fill placed on the loose or soft subgrade. Wet weather will aggravate this, mainly if the contractor allows surface drainage to enter and pond in the excavations.

The areas of construction may also include backfills against structures or embankments. The natural on-site CH or CL soils would most likely have soil permeabilities of natural soils in the range of $1x10^{-4}$ cm/sec (centimeters per second) or greater; however, field permeability tests are recommended if subsurface drainage systems, de-watering systems, or area liners and if higher or lower permeabilities of these soils are a design consideration.

4.12. Sulfate Content in Soil

The amount of water-soluble sulfate in the soil, which was determined by the chemical laboratory tests discussed earlier, indicated 29.0 parts per million (ppm), which is considered moderate levels of sulfate ion concentrations. We recommend using Type II hydraulically blended cements for all at-grade and below ground concrete for this project. However, if there is little or no cost differential, using Type IV types of cement should be considered to help with the durability and performance of exposed concretes. The concrete should be designed in accordance with Chapter 4 of Section 318 of the ACI Design Manual.

4.13. Quality Control

Construction inspection and quality control tests shall be planned and scheduled to verify materials and placement are in accordance with the specifications. Subgrade preparation, field density tests, and concrete strength are critical and shall be monitored and recorded. It is further recommended that **Terra** perform quality control services to ensure quality construction inspection and material testing for the project. **Terra** would be pleased to provide these services and assist with construction inspection, planning, and scheduling. We also recommend that **Terra** be retained to review the final design document to verify that the recommendations made in this report have been interpreted as intended and to inspect all foundations' installations.

5. ADDITIONAL SERVICES AND LIMITATIONS

5.1. Additional Services

This document should be read in its entirety before implementing design or construction activities. Examples of other services beyond completion of a geotechnical report that are necessary or desirable to complete a project satisfactorily include:

- Review of design plans and specifications to verify that our recommendations were properly interpreted and implemented.
- Attendance at pre-bid and pre-construction meetings to highlight important items and clarify misunderstandings, ambiguities, or conflicts with design plans and specifications.
- After the final report has been issued, additional consultation and the above services can be provided for a fee stipulated in the proposal.
- Construction observation and testing, which allows verification that existing materials at locations beyond our exploratory borings are consistent with that presented in our report, construction is compliant with the requirements/recommendations, and evaluation of changed conditions.

5.2. Limitations

Every effort has been made to accurately evaluate the subsurface conditions at the above-referenced site in accordance with the standard engineering principles and practices. No other warranty or guarantee expressed or implied is made other than that the work was performed in a proper and workmanlike manner. However, it must be recognized that the SPT sampling tube cannot retrieve boulders or gravel of sizes larger than 1.5 inches.

The subsurface evaluation presented in this report is based on a limited number of widely spaced borings, and pockets of deleterious material could be present between the borings. **Terra's** recommendations were based on analyses that assumed that the site's soil properties were similar to those encountered in **Terra's** borings. Consequently, careful observations must be made during construction activities to detect any significant deviations of actual conditions throughout the construction area from those inferred from the exploratory bores. Therefore, we strongly recommend that **Terra** be hired to perform the construction material testing and observation services so that **Terra** can provide the appropriate recommendations during construction. Should any unusual conditions be encountered during construction, this office should be notified immediately so that further investigations and supplemental recommendations may be made to modify the foundation design to suit the newly discovered conditions.

Terra makes no other representation, guarantee, or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

The work performed was based on project information provided by the **Client**. Suppose the **Client** does not retain **Terra** to review any plans and specifications, including any revisions or modifications to the plans and specifications; **Terra** assumes no responsibility for our recommendations' suitability. Also, suppose there are any changes to the plans and specifications in the field, the **Client** must obtain written approval from **Terra's** engineer that such changes do not affect our recommendations. Failure to do so will vitiate **Terra's** recommendations. Furthermore, **Terra** shall not accept the responsibility for all the adequacies of the recommendations provided in this report if another party is retained for QA/QC during construction material testing during the construction phase.

Due to changes in current technology, changes to the project site conditions, changes in project specifications, etc., this report and the recommendations made herein shall not be valid for one (1) year from the report's date. It is strongly recommended that the **Client** contacts **Terra** to determine whether this report is valid after the expiration of the above-mentioned time or should project site conditions vary.

6. REPORT DISTRIBUTION

Terra prepared this report for its **Client's** sole and exclusive use for **Entry Addition to Caillet Elementary School** for **Dallas ISD** located in Dallas, Texas, based on specific and limited objectives. All reports, boring logs, field data, laboratory test results, and other documents prepared by **Terra** as instruments of service shall remain **Terra's** property. Reusing these documents is not permitted without prior written approval from **Terra**. This report can only be relied upon in its entirety. The **Client** may release the information to third parties, which may use and rely upon the data at their discretion. However, any use of or reliance upon the report by a party or parties other than those specifically named above shall be solely at the risk of such third party and without legal recourse against **Terra**, its parent company, its subsidiaries, and affiliates, or their respective employees, officers or directors, regardless of whether the action in which recovery of damages is sought is based upon contract, tort (including the sole, concurrent or other negligence and strict liability of **Terra**), statute, or otherwise. This information shall not be used or relied upon by a party that does not agree to be bound by the above statement. **Terra** assumes no responsibility or obligation for a third party's unauthorized use of this report.

Plan Not to Scale

Boring Locations (B)

TERRA	STR 2676D – Entry Addition to Caillet Elementary School	
	Dallas, Texas	
	Site Plan	**Figure 1**

BORING LOG

TERRA Since 1977

PROJECT NO.:	**STR 2676D**
INVOICE NO.:	**243543**
PROJECT:	**Entry Addition to Caillet Elementary School**
LOCATION:	**Dallas, Texas**
CLIENT:	**Dallas ISD**
CONTACT:	**Mr. David Narine**

TEST HOLE:	**DB-1**
SHEET NUMBER:	**1** of **1**
DATE STARTED:	**8/10/2023**
DATE FINISHED:	**8/10/2023**
DRILLER:	**Leo K.**
LOGGER:	**Blake B.**
REVIEWED BY:	**Dr. Dany He**

DRILL RIG: **CME 75** TEST HOLE DIAMETER (in): **8**
DRILLING METHOD: **Hollow Stem Auger** TOTAL DEPTH (ft): **35**

TYPE/	CASING	SPLIT SPOON	SHELBY TUBE	TCP	GRAB	ROCK CORE
SYMBOL	None	S ☒	U ■	T	G	C

GROUND WATER DATA:

DATE	TIME	WATER DEPTH (ft)	REMARKS
8/10/2023	12:15:00 PM	30	During
8/10/2023	3:45:00 PM	33.5	After

DEPTH (FEET)	SAMPLE	FIELD RESULTS: SPT, # of Blows 0-6"	6-12"	12-18"	POCKET PEN. (TSF)	RQD (%)	GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS: MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	PASSING SIEVE # 200 (%)	ADDITIONAL TESTS
0	S	3	8	8				Sandy fat clay (CH), dark gray w/ trace of gravel	9.5				67.5	
	S	8	7	7				Sandy fat clay (CH), dark gray	8.7					
5	S	3	3	7				Fat clay with sand (CH), brown w/ trace of gravel	14.0	53	20	33	82.3	
	S	3	7	11				Fat clay with sand (CH), brown	12.1					
10	S	3	5	7				Fat clay with sand (CH), brown	13.6					
15	S	4	6	12				Fat clay with sand (CH), brown	14.0					
20	S	7	10	12				Poorly graded sand (SP), yellowish brown almost pure sand	4.5				4.5	
25	S	3	7	9				Clayey sand (SC), yellowish brown	14.9	23	9	14	48.6	
30	S	11	11	11				Clayey sand (SC), yellowish brown	20.6					
	S	9	3	9				Clayey sand (SC), yellowish brown high moisture	27.1					
35								Bottom of Borehole at 35 feet						

BORING LOG

TERRA Since 1977

PROJECT NO.: **STR 2676D**
INVOICE NO.: **243543**
PROJECT: **Entry Addition to Caillet Elementary School**
LOCATION: **Dallas, Texas**
CLIENT: **Dallas ISD**
CONTACT: **Mr. David Narine**

TEST HOLE: **DB-2**
SHEET NUMBER: **1 of 1**
DATE STARTED: **8/10/2023**
DATE FINISHED: **8/10/2023**
DRILLER: **Leo K.**
LOGGER: **Blake B.**
REVIEWED BY: **Dr. Dany He**

DRILL RIG: **CME 75** TEST HOLE DIAMETER (in): **8**
DRILLING METHOD: **Hollow Stem Auger** TOTAL DEPTH (ft): **35**

TYPE/	CASING	SPLIT SPOON	SHELBY TUBE	TCP	GRAB	ROCK CORE
SYMBOL	None	S ☒	U ■	T	G	C

GROUND WATER DATA:

DATE	TIME	WATER DEPTH (ft)	REMARKS
8/10/2023	2:05:00 PM	32	During
8/10/2023	4:00:00 PM	33.5	After

DEPTH (FEET)	SAMPLE	SPT, # of Blows 0-6"	6-12"	12-18"	POCKET PEN. (TSF)	RQD (%)	GRAPHIC LOG	DESCRIPTION	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	PASSING SIEVE #200 (%)	ADDITIONAL TESTS
0	S	2	4	6				Fat clay (CH), dark gray	14.1					
	S	4	6	7				Fat clay (CH), dark gray	13.7	57	23	34	87.9	
5	S	4	6	7				Fat clay (CH), dark gray	12.7					
	S	5	7	11				Fat clay (CH), brown	12.0	51	17	34	95.0	
10	S	3	7	11				Fat clay (CH), brown	12.1					
15	S	4	8	12				Fat clay (CH), brown	13.2					
20	S	3	6	8				Lean clay with sand (CL), brown	13.8	42	11	31	89.4	
25	S	3	4	7				Lean clay with sand (CL), brown	14.2					
30	S	5	9	15				Poorly graded sand (SP), brown almost pure sand	14.3	Non-Plastic			8.6	
	S	9	16	17				Poorly graded sand (SP), brown high moisture	22.6					
35								Bottom of Borehole at 35 feet						

BORING LOG

TERRA Since 1977

PROJECT NO.: **STR 2676D**
INVOICE NO.: **243543**
PROJECT: **Entry Addition to Caillet Elementary School**
LOCATION: **Dallas, Texas**
CLIENT: **Dallas ISD**
CONTACT: **Mr. David Narine**

TEST HOLE: **DB-3**
SHEET NUMBER: **1 of 1**
DATE STARTED: **8/10/2023**
DATE FINISHED: **8/10/2023**
DRILLER: **Leo K.**
LOGGER: **Blake B.**
REVIEWED BY: **Dr. Dany He**

DRILL RIG: **CME 75**
DRILLING METHOD: **Hollow Stem Auger**
TEST HOLE DIAMETER (in): **8**
TOTAL DEPTH (ft): **20**

TYPE/ SYMBOL	CASING	SPLIT SPOON	SHELBY TUBE	TCP	GRAB	ROCK CORE
	None	S	U	T	G	C

GROUND WATER DATA:

DATE	TIME	WATER DEPTH (ft)	REMARKS
8/10/2023			Dry

DEPTH (FEET)	SAMPLE	SPT, # of Blows 0-6"	SPT 6-12"	SPT 12-18"	POCKET PEN. (TSF)	RQD (%)	GRAPHIC LOG	DESCRIPTION	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	PASSING SIEVE # 200 (%)	ADDITIONAL TESTS
0	S	3	4	4				Fat clay with sand (CH), dark gray	11.2				73.2	
	S	3	2	4				Fat clay with sand (CH), dark gray	12.6	60	20	40		
5	S	3	4	6				Fat clay with sand (CH), dark gray	15.7					
	S	4	6	10				Lean clay with sand (CL), brown w/ trace of gravel	11.6	39	8	31	79.7	
10	S	4	7	10				Lean clay with sand (CL), brown	11.6					
15	S	2	5	5				Clayey sand (SC), brown	13.7				48.8	
	S	6	9	9				Clayey sand (SC), brown	12.1	22	8	14	33.2	
20								Bottom of Borehole at 20 feet						

HSA – Hollow Stem Auger
TCP – Texas Cone Penetrometer
USC – Unified Soil Classification System
SPT – Standard Penetration Test
N Value – The number of blows required to advance a standard 2- inch O.D. split-spoon sampler (SS) the last 12 inches of the total 18- inches penetration with a 140- pound hammer falling 30 inches.

Classification Symbol for Fine-Grained Soil (50 % or more passes No. 200 Sieve)	
CL	Lean Clay
CL-ML	Silty Clay
ML	Silt
OL	Organic Clay or Silt
CH	Fat Clay
MH	Elastic Silt
OH	Organic Clay

Classification Symbol for Coarse-Grained Soil (More than 50 % retained on No. 200 Sieve)	
GW	Well-graded Gravel
GP	Poorly graded Gravel
GW-GM	Well-graded Gravel with Silt
GW-GC	Well-graded Gravel with Clay
GP-GM	Poorly graded Gravel with Silt
GP-GC	Poorly graded Gravel with Clay
GM	Silty Gravel
GC	Clayey Gravel
GC-GM	Silty Clayey Gravel
SW	Well-graded Sand
SP	Poorly graded Sand
SW-SM	Well-graded Sand with Silt
SW-SC	Well-graded Sand with Clay
SP-SC	Poorly graded Sand with Clay
SM	Silty Sand
SC	Clayey Sand
SC-SM	Silty Clayey Sand

Plasticity Description	
Term	**Plasticity Index**
Non-plastic	0
Low	1-10
Medium	11-30
High	30+

Consistency of Fine-Grained Soils		
Unconfined Compressive Strength, Qu, psf	**Standard Penetration or N-value (SS) Blows/Ft.**	**Consistency**
<500	<2	Very Soft
500-1,000	2-3	Soft
1,001-2,000	4-6	Medium Stiff
2,001-4,000	7-12	Stiff
4,001-8,000	13-26	Very Stiff
8,000+	26+	Hard

Relative Density of Coarse- Grained Soils	
Standard Penetration or N-value (SS) Blows/Ft.	**Relative Density**
0-3	Very Loose
4-9	Loose
10-29	Medium Dense
30-49	Dense
50+	Very Dense

Grain Size Terminology	
Major Component of Sample	**Particle Size**
Boulders	Over 12in (300mm)
Cobbles	12 in to 3 in (300mm to 75mm)
Gravel	3 in to #4 sieve (75mm to 4.75mm)
Sand	#4 to #200 Sieve (4.75mm to 0.075mm)
Silt or Clay	Passing #200 Sieve (0.075mm)

TERRA

Boring Log Key

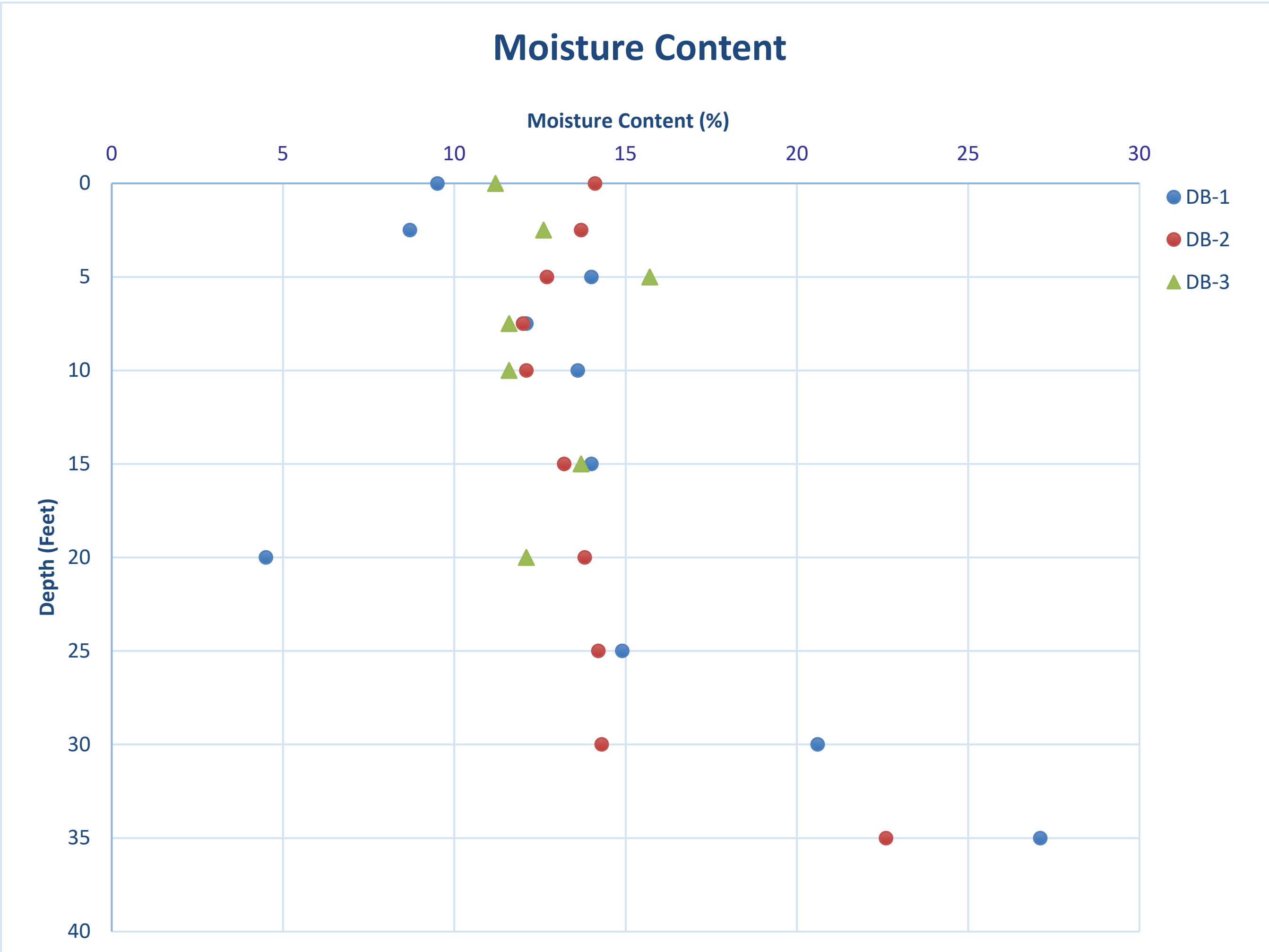
Appendix A

Client:	Dallas ISD	**Date of Report:**	09-13-2023
Project:	Entry Addition to Caillet Elementary School	**Invoice No.:**	243543
STR No.:	2675D	**Date Tested:**	08-16-2023

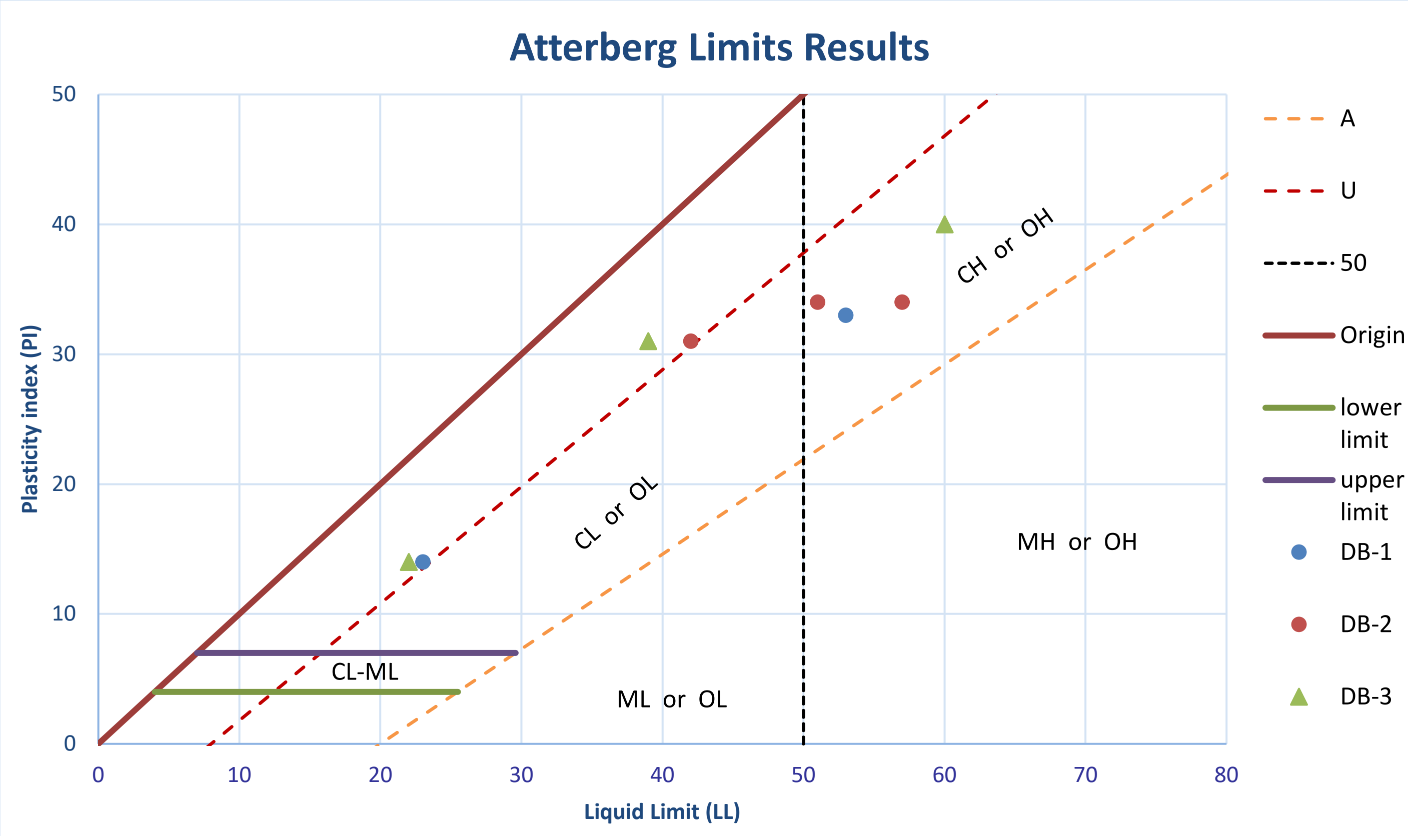
CHEMICAL CONTENT ANALYSIS RESULTS

Test hole	Depth (bgs), ft	Sample Description	Chloride, mg/kg (or ppm)	Water-soluble Sulfate (SO_4) in Soil, mg/kg (or ppm)	Measured pH
B-1	2.5	Sandy Fat Clay (CH), Dark Gray	19.8	29.0	8.7

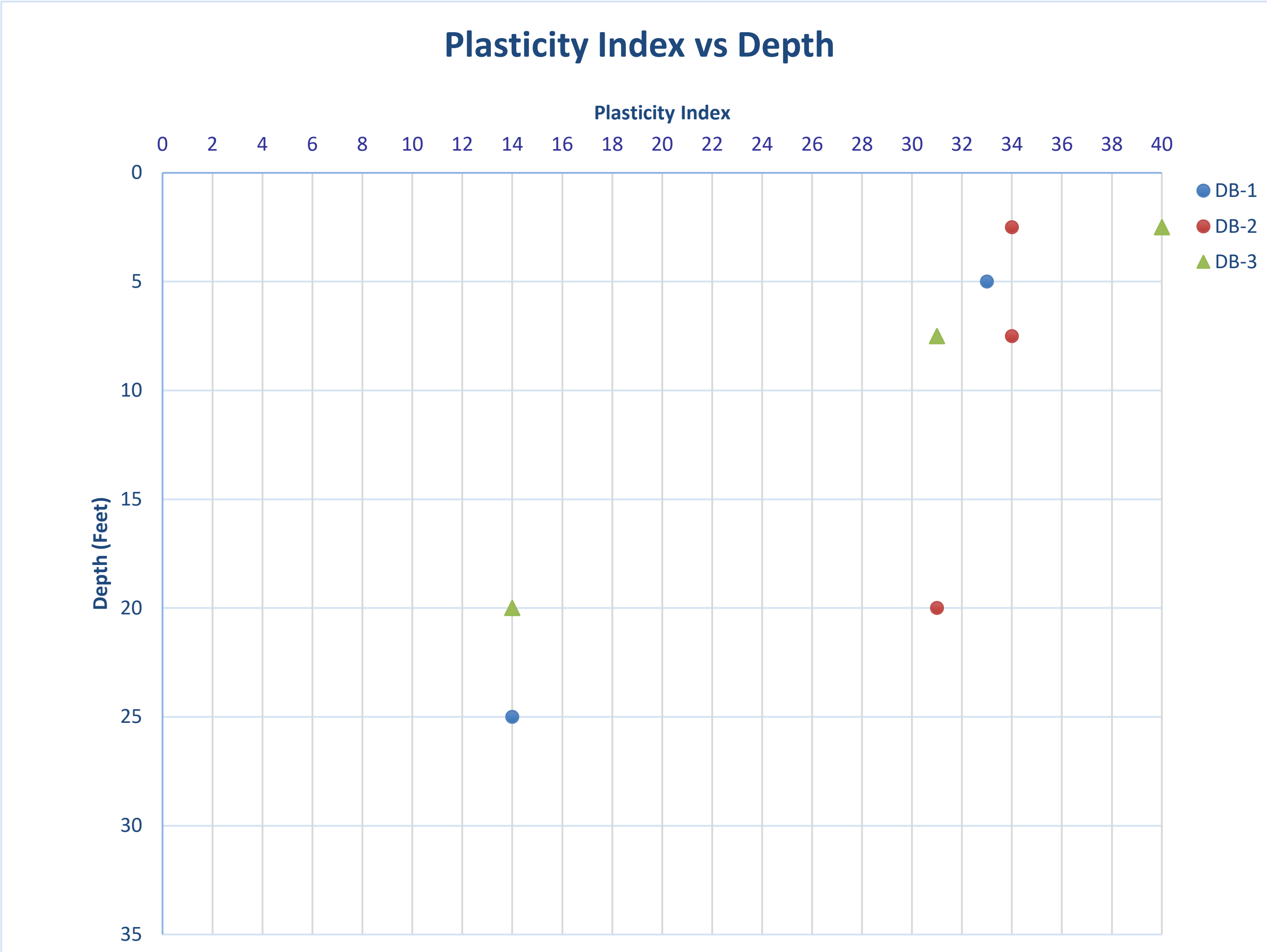
Note: bgs - below ground surface
ppm - parts per million



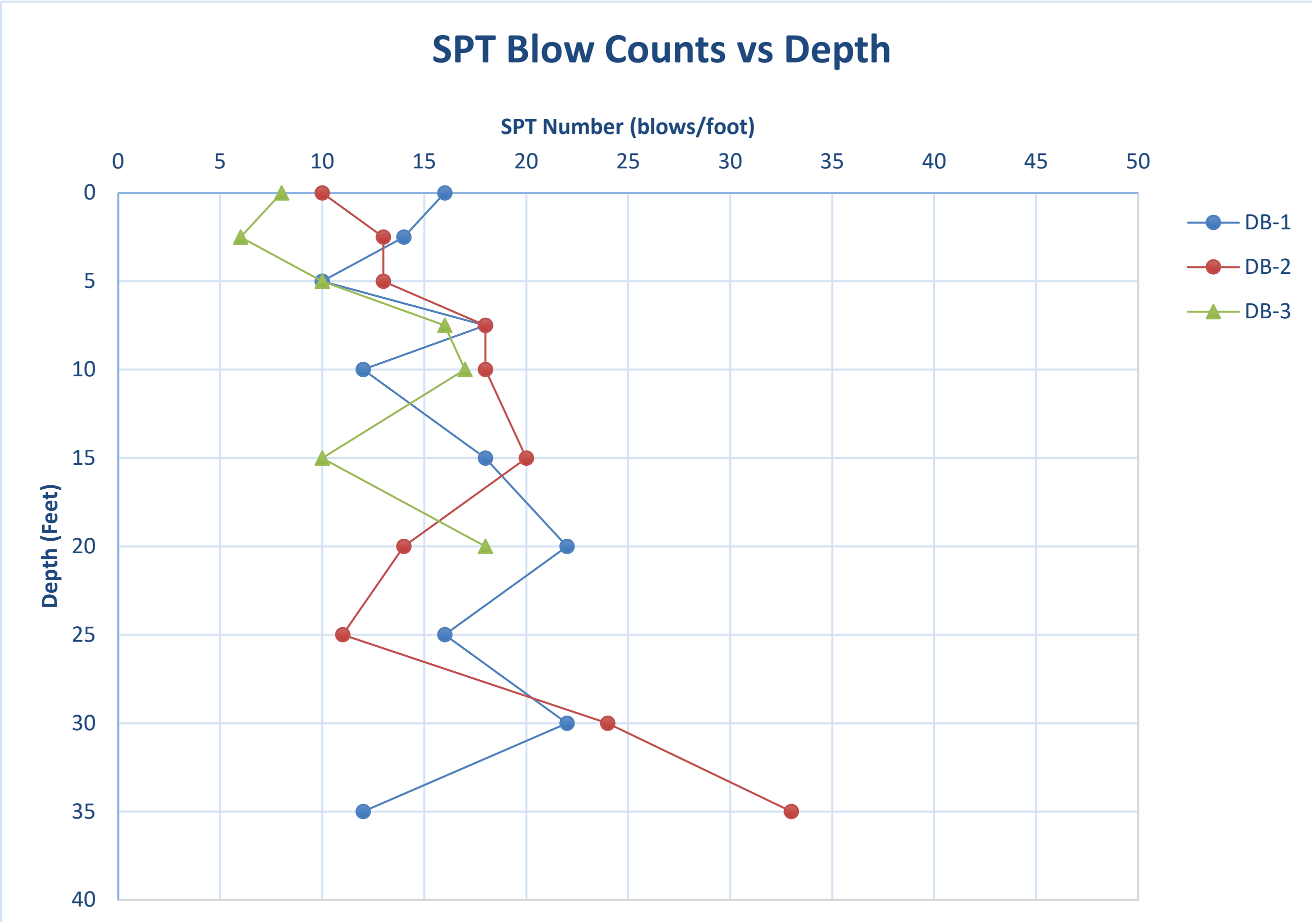
STR 2676D – Entry Addition to Caillet Elementary School	
Dallas, TX	
Moisture Content Chart	Figure 2



TERRA	STR 2676D – Entry Addition to Caillet Elementary School	
	Dallas, TX	
	Atterberg Limits Chart	Figure 3



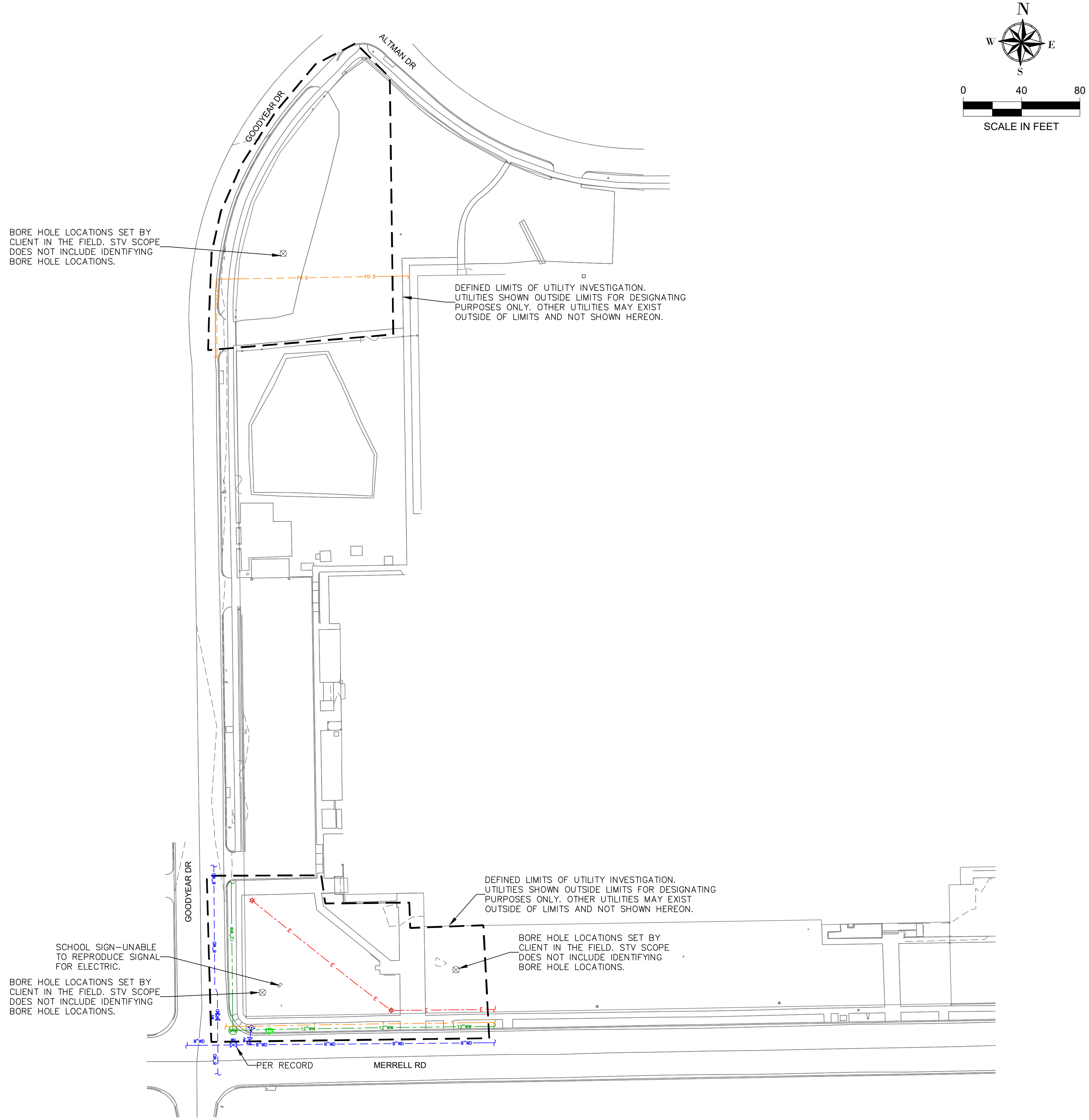
TERRA	STR 2676D – Entry Addition to Caillet Elementary School	
	Dallas, TX	
	Plasticity Index vs Depth Chart	Figure 4



STR 2676D – Entry Addition to Caillet Elementary School	
Dallas, TX	
SPT Blow Counts vs Depth Chart	Figure 5

NOTES:

1. LEVEL "B" & "D" INVESTIGATION WAS COMPLETED AUGUST 07, 2023. STV EXPRESSLY DISCLAIMS RESPONSIBILITY FOR NEW UTILITY INSTALLATIONS OR MODIFICATIONS OR ADJUSTMENTS TO EXISTING UTILITIES AFTER AUGUST 07, 2023.
2. DUE TO LIMITED RECORD INFORMATION THERE MAY BE UTILITIES THAT ARE NOT DEPICTED ON THESE PLANS.
3. ALL UTILITY INFORMATION HEREON IS DEPICTED TO QUALITY LEVEL "B" UNLESS OTHERWISE NOTED.
4. SIZE INFORMATION SHOWN HEREON IS TAKEN FROM AVAILABLE UTILITY RECORDS:
5. LEVEL "B"–INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROPRIATE HORIZONTAL POSITION OF UTILITIES.
6. LEVEL "D"–DEPICTED ACCORDING TO RECORD INFORMATION. NO ELECTRONIC INFORMATION WAS OBTAINED.
7. UTILITY INFORMATION LABELED "D" IS DERIVED FROM FURNISHED RECORDS. STV EXPRESSLY DISCLAIMS RESPONSIBILITY FOR THE ACCURACY OR RELIABILITY OF UTILITY INFORMATION DEPICTED ACCORDING TO RECORDS.
8. SURVEY CONTROL AND BASE MAPPING PROVIDED BY STV. MAPPING IS IN GRID COORDINATE SYSTEM.



LEGEND

UTILITY TYPE (OWNER)	QL–B	QL–D
ELECTRIC (UNKNOWN)	E	ED
FIBER OPTIC CABLE (UPN)	FO	FOD
WATER (CITY OF DALLAS)	W	WD
WASTE WATER (CITY OF DALLAS)	WW	WWD

UTILITY SYMBOL

- STREET LIGHT POLE
- WATER VALVE
- FIRE HYDRANT
- WASTE WATER MANHOLE
- STORM DRAIN GRATE INLET
- LINE CONTINUES
- CONTROL POINT
- BORE LOCATION
- EOI–END OF INFORMATION (EOI)
- EORI–END OF RECORD INFORMATION (EORI)

PROJECT CONTROL

CONTROL POINT 374: NAME = A SQUARE IS CUT ON TOP OF STORM SEWER DROP INLET ON THE SOUTHWEST CORNER OF THE INTERSECTION OF CARRIZO ST & MERRELL RD.
NORTHING=7009744.756 EASTING=2466448.315 ELEV=472.55'

CONTROL POINT 377: NAME = A SQUARE IS CUT ON TOP OF CONCRETE CURB ON TOP OF 1.3'X7' STORM SEWER DROP INLET ON THE SOUTH SIDE OF NORCROSS LN, 40' EAST OF HTE CENTERLINE OF BARONESS LN.
NORTHING=7010487.300 EASTING=2469551.567 ELEV=492.12'

ALL COORDINATES SHOWN ARE GRID VALUES.
UNITED STATES/STATE PLANE 1983 ZONE: TEXAS NORTH CENTRAL 4202

STATE OF TEXAS
JAMES D.PRUITT
#91953
LICENSED
PROFESSIONAL ENGINEER

"THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY
JAMES D. PRUITT
#91953
ON THE DATE SHOWN ON THE DATE STAMP.
ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT"

08/25/2023
DATE
NAME

NO.	REVISION	BY	DATE

SUE QUALITY LEVEL "B & D"
UTILITY INVESTIGATION
FOR
DISD CALLIET ELEMENTARY
CITY OF DALLAS, TX

SUBSURFACE UTILITY ENGINEERING
1820 Regal Row, Suite 150, Dallas, Texas 75235 214.747.3733
TEXAS REGISTERED ENGINEERING FIRM F–1741
TBPLS 10194115

DRAWN BY: CB
CHECKED BY: JDP
JOB: 2300810.00
DATE: AUGUST 25, 2023

SHEET : 1 OF 1

Dallas Independent School District
2020 Bond Program
Addendum Approval Signature Form

A/E Firm: **PGAL**		**PM Firm:** **CBRE/VANIR**	**Date:** **1/13/2025**
Org #: **120**	**School Name:** **Caillet ES**	**Bid Pack #/ CSP#:** **207570**	**Addendum #:** **1**

Those signing below have reviewed the information contained within this Addendum submittal. Signature signifies that the parties concur that the information contained within the addendum reflects only changes and clarifications in the drawings and/or specifications.

Concurrence:

Joseph Reeves

Title: **Project Manager** Signature Date

Shajuana Davis

Dallas ISD Signature Date

Title: **DISD Contract Manager**

When the Dallas ISD Director of Administration provides Approval, this addendum will be considered ready for posting.

Approval:

Tara Lott

Dallas ISD Construction Services Division Signature Date

Title: **Director/ Contracts & Procurement**