LIMITED GEOTECHNICAL EXPLORATION
SOIL TEST BORINGS

For

Playground, Pavilion, Volleyball Courts, and Splash Pad
Wheeler Park
1400 Parker Road SE, Conyers, GA 30094

Submitted to

Ms. Ronda Harston
General Services Projects Coordinator
Dept. of General Services
Rockdale County Government
1329 Portman Dr., Suite J
Conyers, GA 30094

April 2023

MEG 301287.46

April 10, 2023

Ms. Ronda Harston
General Services Projects Coordinator
Dept. of General Services
Rockdale County Government
1329 Portman Dr., Suite J
Conyers, GA 30094

Re: Limited Geotechnical Exploration – Soil Test Borings
Playground, Pavilion, Volleyball Courts, and Splash Pad @ Wheeler Park
Matrix Engineering Group Project Number MEG-301287.46

Dear Ms. Harston:

Matrix Engineering Group, Inc. has completed the authorized Limited Geotechnical Exploration for the Rockdale County Wheeler Park project located at 1400 Parker Road in Conyers, Georgia 30094.

The scope of this work was to perform a total of twelve (12) soil test borings within the proposed construction area and determine the presence of rock within the top ten (10) feet of the existing ground surface.

This work was performed in general accordance with Matrix Proposal Number 030223-1, dated March 02, 2023, and the subsequent authorization to proceed by you on March 23, 2023. This report describes our exploration procedures and presents our findings and recommendations.

INTRODUCTION

The site is within the existing Rockdale County Wheeler Park located at 1400 Parker Road in Conyers, Georgia 30094. The proposed development area is located south of the existing Restoration Storehouse Center building. We noted an Outdoor Fitness Center northeast of the site. The ground surface of the site is covered with vegetation/grass.

Based on the Concept Plan dated 01-23-2023 and our site visit, the subject site slopes gently in a southernly direction from an approximate elevation of 894 feet Mean See Level (MSL) at the Restoration Storehouse Center building to an approximate elevation of 890 feet MSL. The topography then slopes sharply from

890 feet MSL to an approximate elevation of 886 feet MSL and then slopes down gently to an approximate elevation of 882 feet MSL at the southern end of the site.

EXPLORATION AND TESTING PROGRAM

The geotechnical exploration program consisted of drilling a total of twelve (12) soil test borings at the proposed site. The approximate locations of the soil borings are shown on Figure 1 presented in the Appendix of this report. For exact locations, the owner may elect to survey the boring locations. Matrix should be informed of any deviations in order to evaluate and modify our recommendations, if necessary.

The test borings were performed utilizing a track rig mounted with a GeoProbe drilling apparatus equipped with an automatic hammer in general accordance with ASTM D1586 standards. The planned depth of the borings was 10 feet BGS. Borings were advanced by auguring through the soils with continuous flights of 3 1/4-inch ID augers. At the depth of 3.5 feet to 5 feet, soil samples were obtained through the center of the auger flights with a standard 1.4-inch I.D., 2-inch O.D., split-tube sampler. The sampler is first seated 6 inches to penetrate loosened strata before sampling, and then driven an additional foot with blows of a 140-pound hammer falling 30 inches. The number of hammer blows required to drive the sampler the final foot is recorded and is designated as the Standard Penetration Resistance (N-Value). The penetration resistance, when properly evaluated, is an index of the soil strength, consistency and ability to support foundations. The boring was then augured (without sampling) to the termination depth of 10 feet BGS.

Representative soil samples were obtained using split-spoon sampling techniques. The samples were classified in the field in general accordance with ASTM D2488 (Visual-Manual Procedure for Description of Soils). Representative portions of the soil samples were placed in sealable, plastic jars and transported to our laboratory. During the field operations, Matrix staff maintained a continuous log of the subsurface conditions including changes in the stratigraphy and any observed groundwater levels. Soil descriptions and penetration resistance values are presented graphically on the Soil Boring Records included in the Appendix of this report.

All borings were backfilled with the soil cuttings by Matrix Engineering at the conclusion of the fieldwork. Some consolidation of the backfilled soil column should be expected over time.

GENERAL SITE GEOLOGY

The subject site is in the Piedmont Geologic Province, which contains the oldest rock formations in the Southeastern United States. The parent rocks in the region are primarily comprised of the unconsolidated mass of quartz, feldspar, mica, and a wide variety of dark minerals such as hornblende and amphibole. The proportion of felsic and mafic minerals in these parent rocks, as well as of quartz that is very resistant to weathering, limits the amount of clay in the soils. Therefore, these soils are sandy and have faint horizons, and in small-scattered areas, hard rock is exposed.

Chemical decomposition initially occurs along the boundaries of individual mineral crystals. As a result, partially weathered rock has the appearance of dense sand (SM, SP). With further weathering, the individual crystals other than quartz are attacked and the mass becomes a micaceous silty sand (SM) or micaceous sandy silt (ML). In this stage, the original banding of the parent rock is apparent, but the original crystalline structure is not observed. Reflecting the composition of the original rock, mica flakes, rather than the quartz grains, often comprise the majority of the sand-size particles. Finally, in the more advanced stages of chemical weathering, the material is changed into a red or reddish-brown silty clay (CL or CH) or clayey silt (ML or MH). Depending on the quartz content, a sandy fraction will be present. In this weathered stage, the banding and crystalline structure of the parent rocks is lost.

GENERAL SUBSURFACE CONDITIONS

The subsurface conditions were characterized by visual-manual examination of the soils obtained from the soil test borings and observations from the auger cuttings during the auguring operations. The soil boring logs, designated as B-1 to B-12, are provided in the Appendix of this report. The subsurface conditions within the soil test borings are characterized as follows:

The borings encountered approximately 4 inches of grass and topsoil. Topsoil thickness may vary elsewhere, and the reported thicknesses should not be used to estimate the amount of stripping that will be necessary to properly prepare the site for structural fill. Additionally, the term topsoil should not connote a horticultural (or agricultural) definition or classification, but rather a visually determined organic-laden material.

Man-made fill soils were encountered within the top 3.5 feet at some of the test borings. The fill soil was very firm inorganic Clayey and Silty Sand. Residual soils were encountered beneath the fill layer or the surficial cover and consisted of very firm silty sand up to the termination depth of ten (10) feet below the existing ground surface (BGS). The penetration resistance, N-values, within the man-made fill and residual soils ranging from 7 to 15 bpf.

No Partially Weathered Rock (PWR); nor rock boulder was encountered within the drilled depth. Groundwater was also not encountered within the drilled depth at the time of drilling. Refer to the Appendix of this report for the boring logs and the soil profiles.

RECOMMENDATIONS

The following recommendations are based on the information furnished to us, the data obtained from the subsurface exploration, and our experience with similar projects. They were prepared in general accordance with established and accepted professional geotechnical engineering practice in this region. Our recommendations are based on findings from the dates referenced within this report and do not reflect any variations that would likely exist at later dates or between the pre-designated borings or unexplored areas.

If information becomes available which may impact our recommendations, Matrix Engineering Group shall be afforded the opportunity to review this information and re-evaluate the recommendations contained within this report and make any alterations deemed necessary by a Georgia Registered professional engineer. This report is intended for the use of Rockdale County and its current design team. No other warranty is expressed or implied. Matrix Engineering Group, Inc. is not responsible for conclusions, opinions, or recommendations made by others based on this report.

General Site Preparation

Site preparation for the proposed development will include stripping of topsoil and soft soils, where encountered. Any debris or other items, such as underground utility lines, or trash pits that may be encountered during the grading operation should be brought treated on an individual basis and brought up to the attention of the Geotechnical Engineer for evaluation and recommendations.

Based on the Concept Site Plan dated 01/23/2023, the topographic relief within the footprint of the proposed Splash Pad is approximately 2 feet with elevations between 882 feet MSL and 884 feet MSL. The topographic relief for the Volleyball Courts is approximately 3 feet with elevations between 882 feet MSL and 885 feet MSL. The proposed Picnic Pavilion and the Playground are at a relatively flat area with elevations at approximately 891 feet MSL.

Since concrete stairs will separate the Splash Pad/Volleyball areas from the Picnic Pavilion/Playground areas, it appears that minimum cut and fill will be required to prepare the site to the desired finished elevations. We recommend that any material which is excavated and planned for re-use as structural fill be examined by the geotechnical engineer of record at the time of excavation in order to determine its suitability. Fill soils should be free of organics, construction debris, cobbles, or other deleterious materials.

In general, soil encountered within the drilled depths appears to be suitable for use as a structural fill. Adequate laboratory testing should be performed during construction in order to ensure that the fill materials within all structural areas be suitable to support the proposed structures. Refer to the Structural fill procedures section provided in this report.

Subgrade Preparation

Subgrade preparation for the proposed development should be the stripping of vegetation and topsoil and any deleterious materials, if encountered. Topsoil can be used in proposed landscape areas.

After removal of the surface materials, the suitability of the exposed subgrade should be confirmed by proofrolling at the time of construction, which will discern any localized soft zones in the subgrade. The proofrolling should be performed by a loaded tandem-wheeled dump truck with an approximate weight of 25 tons. Any material that deflects excessively or ruts under the loaded truck should be densified or removed and replaced with well-compacted material. The proofrolling should be observed by the geotechnical engineer.

After the subgrades are approved, structural fill may proceed in accordance with the project specification or meet the minimum requirements provided in this report.

Foundations

The site appears to be suitable for the proposed development. The proposed Picnic Pavilion may be supported on shallow foundations. The foundations should be situated in undisturbed soil or structural fill placed in accordance with the recommended criterion provided in this report. All bearing soil should be evaluated by the geotechnical engineer and inspected in accordance with the criterion provided in this report.

We recommend that the foundations be designed for a maximum net allowable soil bearing pressure not to exceed **2,000 pounds per square foot (psf).**

If soft or unsuitable soils are encountered during the foundation excavation, undercutting of unsuitable and/or soft soils and backfill with suitable soils or crushed stone may be performed to achieve the recommended bearing capacity.

Concrete Sidewalk

The concrete sidewalk should be supported on compacted, and properly prepared soil subgrades. Provided that the fill material and/or existing subgrade is installed to a minimum of 98% of the Standard Proctor's maximum dry density, a modulus of subgrade reaction (k) of 100 pci can be used for designing the concrete pavements. Control joints and Construction joints should be carefully placed to minimize random shrinkage cracks. The spacing of the joints typically depends on the mix design, width of the trail, reinforcement, and thickness of the concrete slab. We recommend that maximum spacing for control joints be 10 feet and expansion joints be a maximum of 75 feet.

Slab-on-Grade

The concrete slab-on-grade for the proposed structure(s) should be supported on compacted, and properly prepared, soil subgrade. Provided the fill material and/or existing subgrade is installed to a minimum of 95% of the Standard Proctor's maximum dry density, a modulus of subgrade reaction (k) of 100 pci can be used for designing the floor slab-on-grade. Slab reinforcement and joint spacing should be carefully considered to control random cracking due to slab shrinkage. We recommend that a 10 mil vapor barrier/retarder (such as polyethylene) be installed below the (slab-on-grade) concrete to limit intrusion of water vapor through the slab. Beneath slab-on-grade areas, a minimum of 4 inches of clean, densely graded, granular material with a balanced content of fines is recommended to facilitate fine grading and provide stable surface for construction traffic and building loads. Open-graded bases (such as #57 stone) do not meet these requirements because they are relatively incompatible, difficult to trim, and are unstable for construction traffic. It is also difficult to fine grade an open-graded base to a relatively uniform elevation, which can result in restraint to concrete movement as the concrete cools or dries, thus increasing the probability of out-of-joint cracking. If open-graded bases are specified, the surface of these bases should be choked off with a clean fine-graded material with at least 10 to 30% of the particles passing a No. 100 sieve, but not contaminated with clay, silt, or organic material.

Structural Fill

Staged, methodical and well-planned grading is key to avoiding unnecessary costs and time delays. Areas should not be stripped or disturbed if the grading contractor is unable to properly seal the subgrade prior to departure each day. Exposure of soils to moisture from direct rainfall or runoff usually renders these soils un-usable for several days. This usually gets mischaracterized as an unsuitable soils condition which is inaccurate. Unsuitable soils are defined as those containing deleterious matter (such as organics, alluvium, debris and/or trash). Moisture related problems should be avoided by employing best management practices that involve

maintaining positive drainage, installation of berms, diversion channels, and/or sealing the subgrade to avoid water infiltration. Other measures involve covering all stockpiled soils with heavy tarps or plastic to avoid saturating the soils in the event of rainfall. Means and methods of construction are certainly the contractor's jurisdiction; however, exposing otherwise suitable soils to excessive moisture or softening of existing subgrades as a result of unscrupulous construction traffic should be avoided and planned for.

We recommend that the following criteria be used for structural fill:

1. Adequate laboratory proctor density tests should be performed on representative samples of the proposed fill materials to provide data necessary for the quality control. The moisture content at the time of compaction should be within 3 percentage points of the optimum moisture content. In addition, we recommend that the fill soils be free of organics and rock boulder/cobbles larger than 2 inches in nominal size and relatively non-plastic with plasticity indices less than 20.

2. Suitable fill material should be placed in thin lifts (lift thickness depends on type of equipment used, but generally lifts of 8 inches loose measurements are recommended). The soils should be compacted by mechanical means such as sheepsfoot rollers.

3. Slopes that are limited to 2:1 (horizontal: vertical), or flatter, will have adequate long term slope stability, if limited in height to 15 feet, based on our experience with the type of soils encountered onsite. The slope's crest should be protected against water ponding. Proposed slopes should incorporate only suitable fill, clean of organics or any other vegetative content. Topsoil should only be used to provide cover over the completed slope's free face so as to promote vegetative growth which in turn protects the slope's surface against scour and erosion. Slopes should be overbuilt and cut back to the proposed grades, exposing the firm compacted inner core. The amount of overbuilding would vary depending on the site conditions at the time of construction, types of soils used and degree of compaction achieved.

4. When placing fill in horizontal lifts adjacent to areas sloping steeper than 5:1 (horizontal:vertical), horizontal keys and vertical benches should be excavated into the adjacent slope area. Materials generated by the benching operation should be moved sufficiently away from the bench area to allow the geotechnical engineer (testing agency) to properly inspect the area and ascertain that the benching is performed properly.

5. We recommend that the fill be compacted to a minimum of 95% of the Standard Proctor Maximum Dry Density (ASTM Specifications D 698). The top 2 feet under pavements or structural areas should be compacted to a minimum of 98% of the Standard Proctor Test.

6. An experienced soil engineering inspector should take adequate density tests throughout the fill placement operation to ensure that the specified compaction is being achieved.

Inspection and Testing

During construction, we recommend that Matrix Engineering Group inspect the site preparation and foundation construction work in order to ensure that our recommended procedures are followed. The placement of any compacted fill should be inspected and tested. The utilization of acceptable on-site borrow materials, as well as adequate off-site selected fill must be verified.

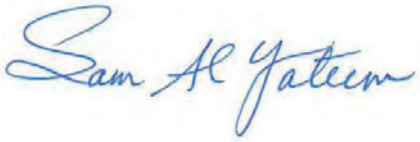
Each footing excavation should be inspected by Matrix Engineering Group, Inc. in order to verify the availability of the required bearing pressure and to determine any special procedures required. At a minimum, Hand Auger and Dynamic Cone Penetrometer testing in accordance with ASTM STP 399 should be performed at each shallow column footing, and every 50 linear feet for wall footings, or as directed by the geotechnical engineer in order to:

- Verify materials below footings are adequate to achieve the designed bearing capacity.
- Verify excavations are extended to proper depths and have reached proper material.
- Perform classification and testing of controlled fill materials.
- Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.
- Prior to placement of controlled fill, observe subgrade and verify that the site has been properly prepared.

Matrix Engineering Group, Inc. appreciates the opportunity to have worked with you on this project and looks forward to our continued association. If you have any questions or need further assistance, please do not hesitate to call.

Best Regards,

MATRIX ENGINEERING GROUP, INC.



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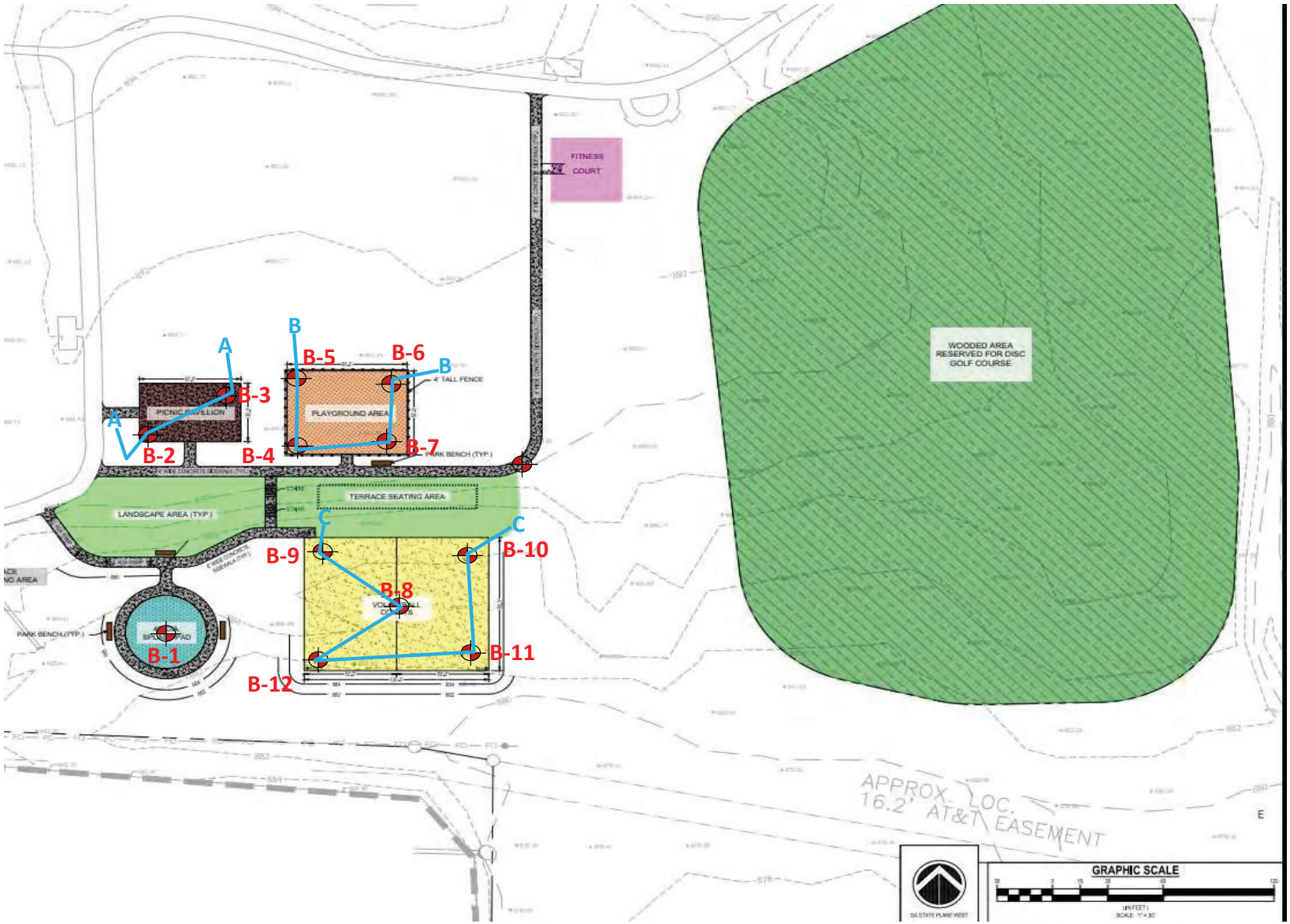


matrix engineering group

TITLE	Approximate Soil test Locations Plan
PROJECT	Rockdale County Wheeler Park
PROJECT #	MEG 301287.46
CLIENT	Rockdale County Government
SCALE	Not to Scale
PREPARED BY	Sulemana Alhassan
REVIEWED BY	Sam Alyateem, PE
DATE	3/7/2023
FIGURE	1

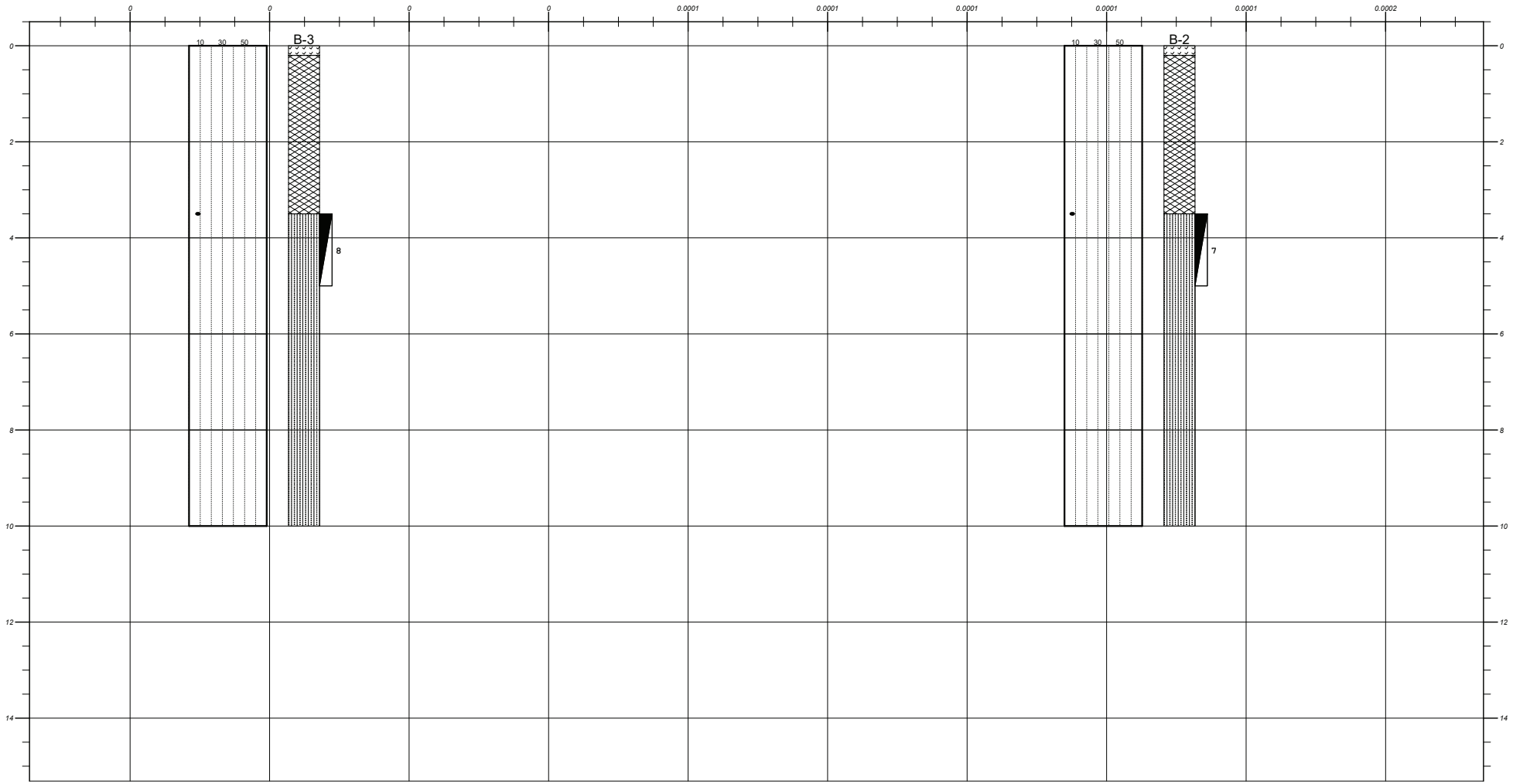
LEGEND

B-1 Boring Locations

A–A Cross-Section Line

LOG OF BORINGS A-A

Wheeler Park - Playground, Pavilion, Volley Ball Courts, and Splash Pad.



Top Soil

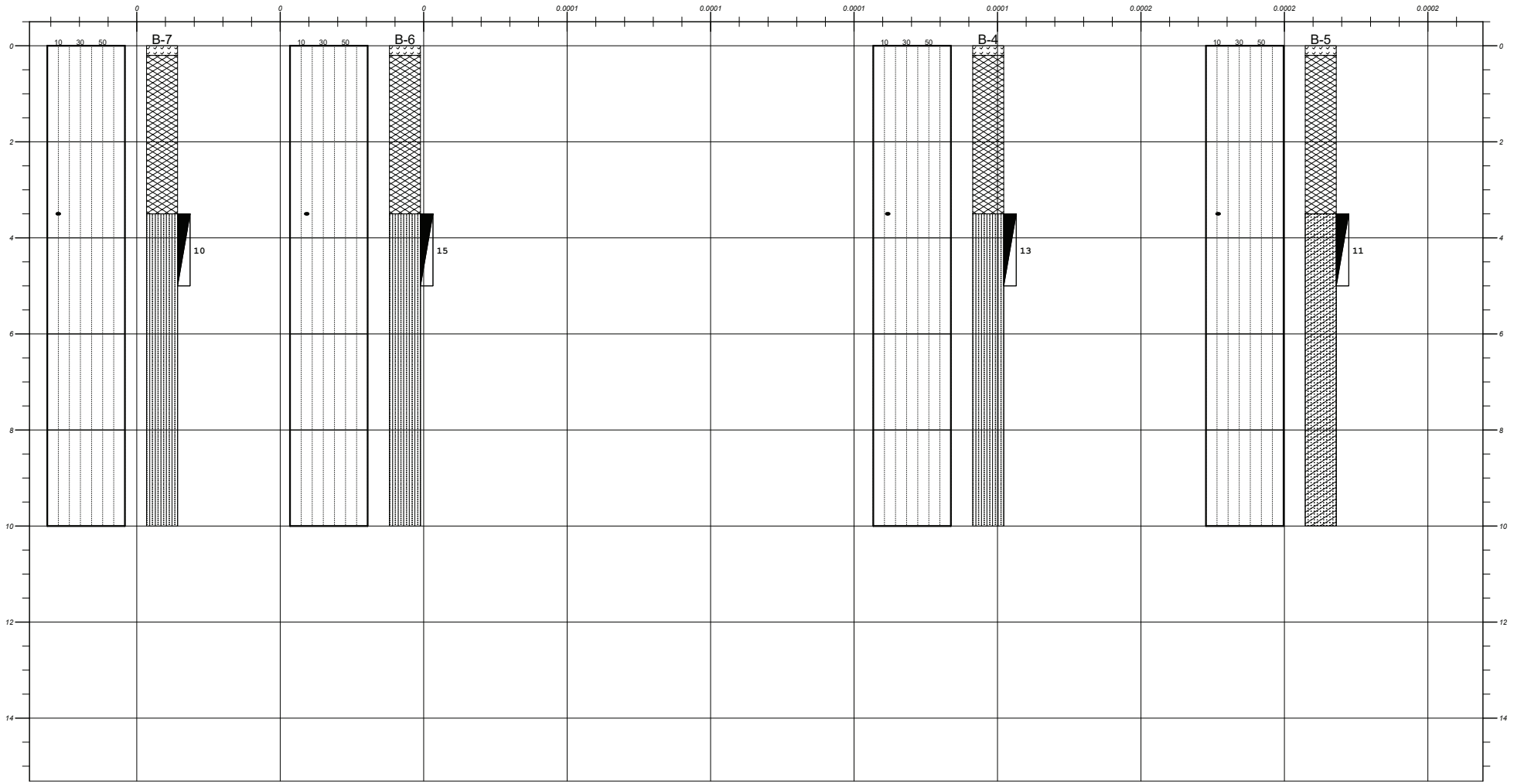
Fill

Silty sand

MATRIX ENGINEERING GROUP, INC.

LOG OF BORINGS B-B

Wheeler Park - Playground, Pavilion, Volley Ball Courts, and Splash Pad.



Top Soil

Fill

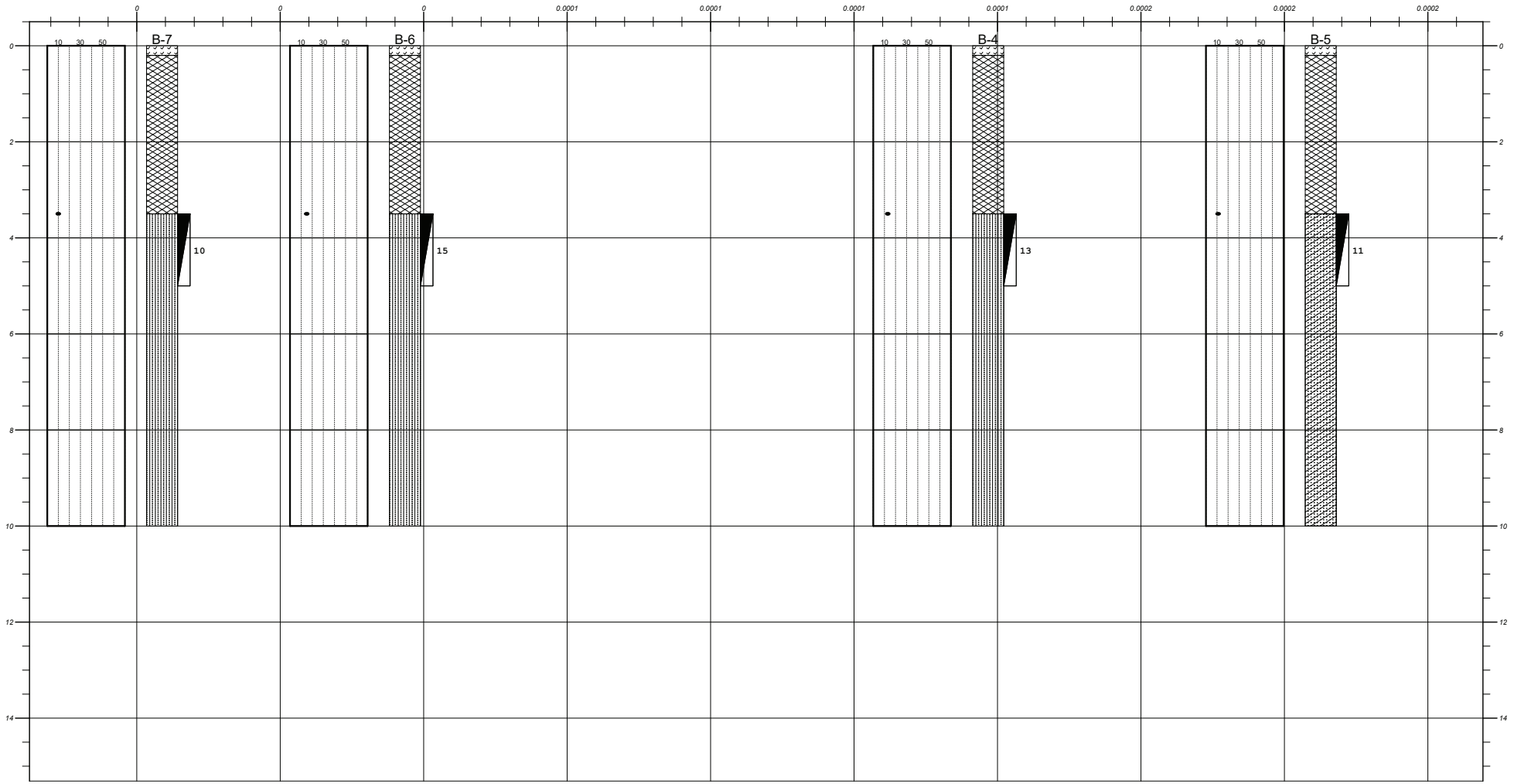
Silty sand

Clayey sand/
Low plasticity clay

MATRIX ENGINEERING GROUP, INC.

LOG OF BORINGS B-B

Wheeler Park - Playground, Pavilion, Volley Ball Courts, and Splash Pad.



Top Soil

Fill

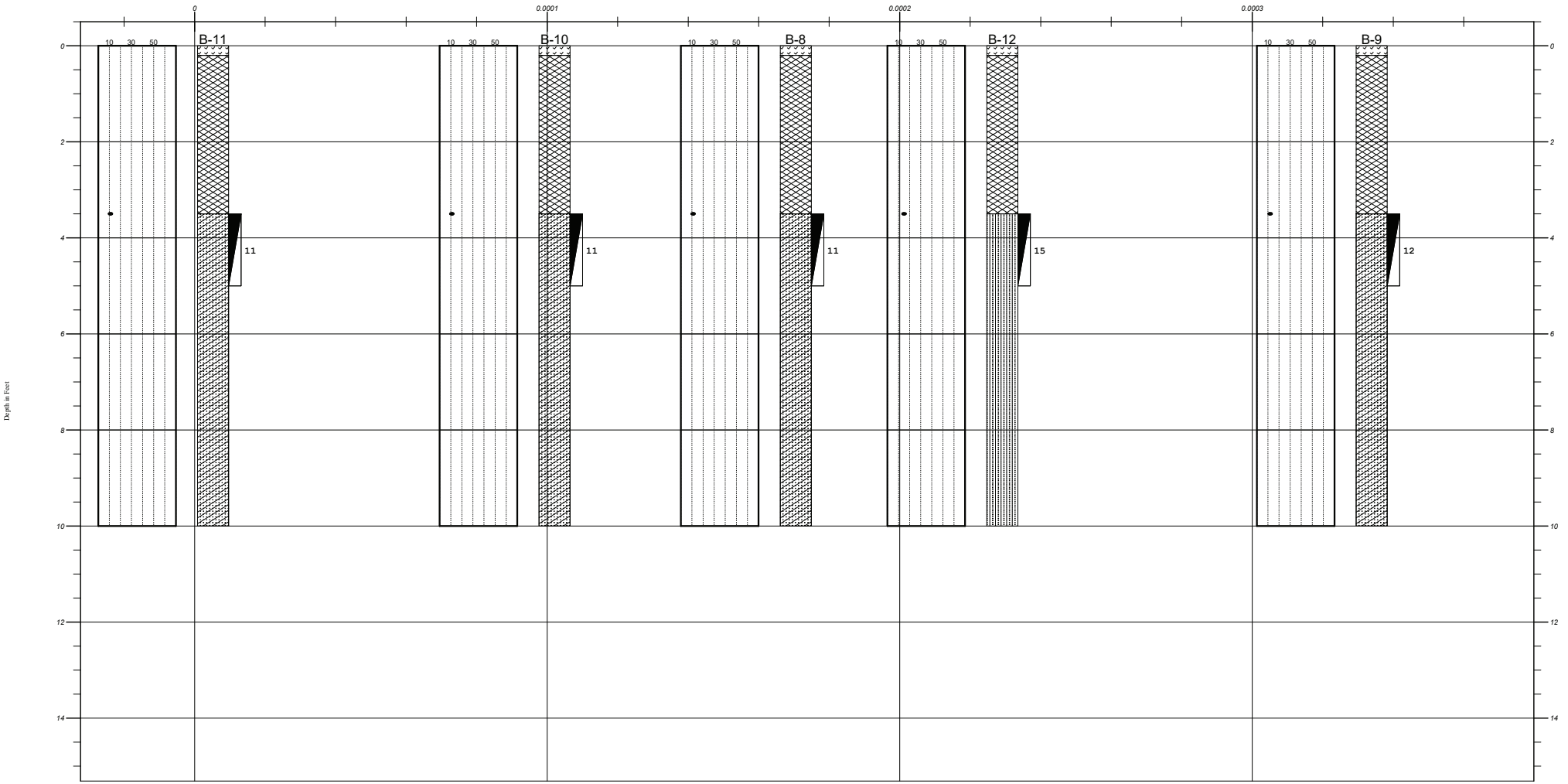
Silty sand

Clayey sand/
Low plasticity clay

MATRIX ENGINEERING GROUP, INC.

LOG OF BORINGS C-C

Wheeler Park - Playground, Pavilion, Volley Ball Courts, and Splash Pad.



Top Soil

Fill

Clayey sand/
Low plasticity clay

Silty sand

MATRIX ENGINEERING GROUP, INC.

MAJOR DIVISIONS		SYMBOLS	TYPICAL NAMES	CLASSIFICATION CHART
COARSE-GRAINED SOILS (More Than 1/2 of Soil > #200 Sieve)	**GRAVELS** (More Than 1/2 of Coarse Fraction > #4 Sieve)	GW	Well Graded Gravels or Gravel-Sand Mixtures; Little or no fines	
		GP	Poorly Graded Gravels or Gravel-Sand Mixtures; Little or no fines	
		GM	Silty Gravels, Gravel-Sand-Silt Mixtures	
		GC	Clayey Gravels, Gravel-Sand-Clay Mixtures	
	SANDS (MORE Than 1/2 of Coarse Fraction < #4 Sieve)	SW	Well Graded Sands or Gravelly Sands; Little or no fines	
		SP	Poorly Graded Sands or Gravelly Sands; Little or no fines	
		SM	Silty Sands, Sand-Silt Mixtures	
		SC	Clayey Sands, Sand-Clay Mixtures	
FINE-GRAINED SOILS (More Than 1/2 of Soil < #200 Sieve)	**SILTS & CLAYS** Liquid Limit Less Than 50	ML	Inorganic Silts and Very Fine Sands, Rock Flour, Silty or Clayey Fine Sands or Clayey Silts with Slight Plasticity	
		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 & CLAYS Liquid Limit Greater Than 50	MH	Inorganic Silts, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silts	
		CH	Inorganic Clays of High Plasticity, Fat Clays	
		OH	Organic Clays or Medium to High Plasticity, Organic Silty Clays, Organic Silts	
HIGHLY ORGANIC SOILS		PT	Peat and Other Highly Organic Soils	

Relative Density of Cohesionless Soils from Standard Penetration Test	
Very Loose	≤ 4 bpf
Loose	5-10 bpf
Medium Dense	11-30 bpf
Dense	31-50 bpf
Very Dense	> 50 bpf
(bpf=blows per foot; ASTM D1586)	

Consistency of Cohesive Soils	
Very Soft	≤ 2 bpf
Soft	3-4 bpf
Firm	5-8 bpf
Stiff	9-15 bpf
Very Stiff	16-30 bpf
Hard	30-50 bpf
Very Hard	> 50 bpf

Relative Hardness of Rock	
Very Soft	Hard rock disintegrates or easily compresses to touch; can be hard to very hard soil
Soft	May be broken with fingers
Moderately Soft	May be scratched with a nail, corners and edges may be broken with fingers
Moderately Hard	Light Blow of hammer required to break samples
Hard	Hard blow of hammer required to break sample

Particle Size Identification	
Boulders	Larger than 12"
Cobbles	3"-12"
Gravel	
Coarse	3/4"-3"
Fine	4.76mm-3/4"
Sand	
Coarse	2.0-4.76 mm
Medium	0.42-2.00 mm
Fine	0.42-0.074 mm
Fines (Silt or Clay)	Smaller than 0.074 mm

Rock Continuity	
RECOVERY (%) = Total Length of Core / Length of Core Run x 100	
Description	Core Recovery (%)
Incompetent	Less than 40
Competent	40-70
Fairly Continuous	71-90
Continnuous	91-100

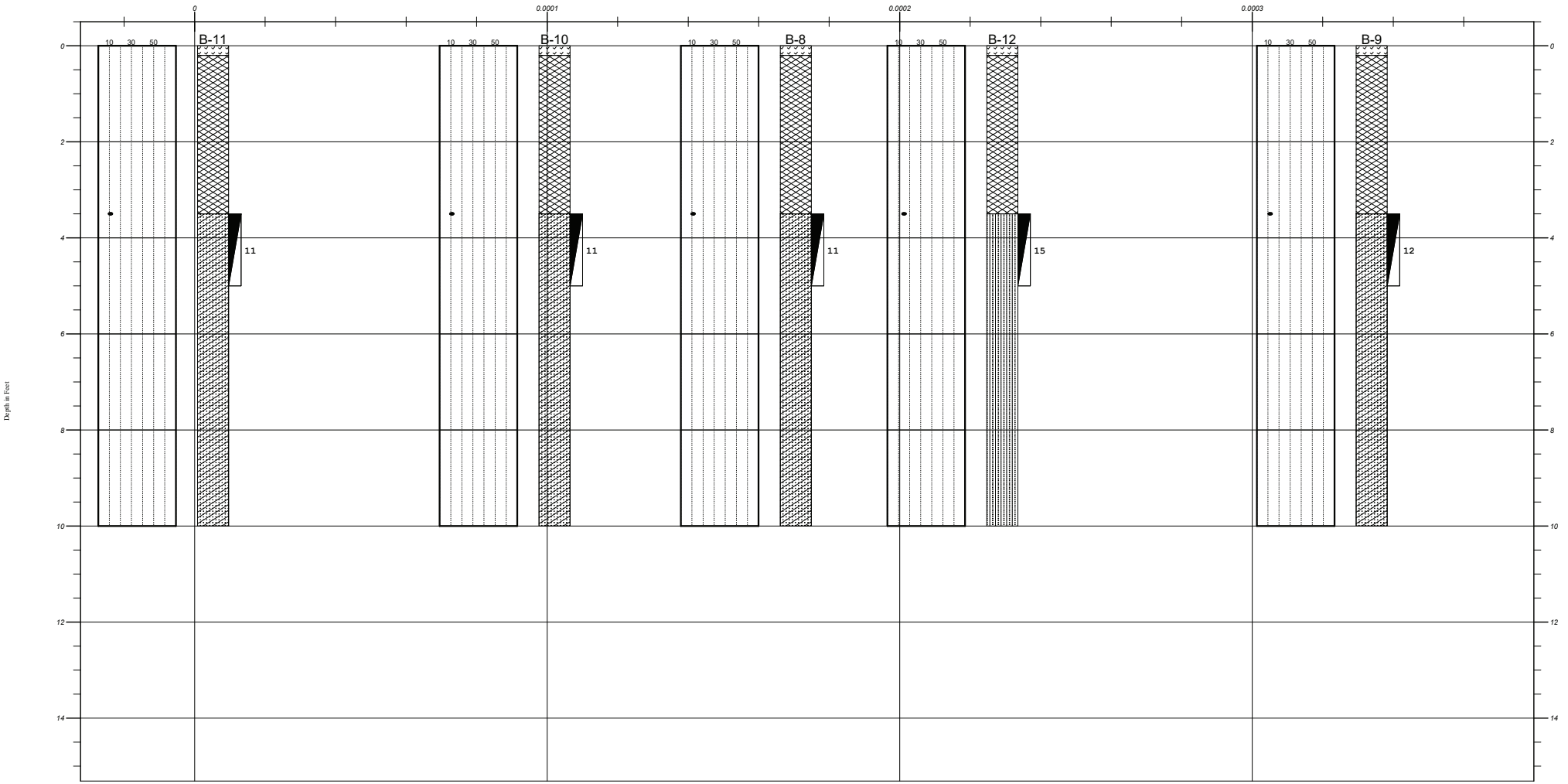
Relative Quality of Rocks	
RQD (%) =((Total core, counting only pieces >4" long)/(Length of Core Run)) x 100	
Description	RQD (%)
Very Poor	0-25
Poor	25-50
Fair	50-75
Good	75-90
Excellent	90-100

Matrix Engineering Group, Inc.
engineers | special inspectors | construction consultants

Correlation of Penetration Resistance with Relative Density and Consistency Sheet and Soil Classification Chart

LOG OF BORINGS C-C

Wheeler Park - Playground, Pavilion, Volley Ball Courts, and Splash Pad.



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MATRIX ENGINEERING GROUP, INC.

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Matrix Engineering Group, Inc.
engineers | special inspectors | construction consultants

Correlation of Penetration Resistance with Relative Density and Consistency Sheet and Soil Classification Chart

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-1

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 883 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
883	0	**Approximately 4 inches Grass and Topsoil**	TP				
882	1	**Possible Fill - Brown Clayey Sand.**	Fill				
881	2						
880	3						
879	4	**Residual - Loose, Brown, Micaceous, Silty SAND with MnO.**	SM			●	10
878	5						
877	6						
876	7						
875	8						
874	9						
873	10	**Boring was Terminated at 10 ft BGS.**					
872	11						
871	12						
870	13						
869	14						
868	15						
867	16						
866	17						
865	18						
864	19						
863	20						
862	21						
861	22						
860	23						
859	24						
858	25						
857	26						
856	27						
855	28						
854	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-2

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 891 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
891	0						
890	1	**Approximately 4 inches Grass and Topsoil**	TP				
		Possible Fill - Brown Clayey Sand.	Fill				
889	2						
888	3						
887	4	**Residual - Loose, Brown, Micaceous, Silty SAND.**	SM			●	7
886	5						
885	6						
884	7						
883	8						
882	9						
881	10						
		Boring was Terminated at 10 ft BGS.					
880	11						
879	12						
878	13						
877	14						
876	15						
875	16						
874	17						
873	18						
872	19						
871	20						
870	21						
869	22						
868	23						
867	24						
866	25						
865	26						
864	27						
863	28						
862	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-3

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 891 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
891	0	Approximately 4 inches Grass and Topsoil	TP				
890	1	Possible Fill - Brown Clayey Sand.	Fill				
889	2						
888	3						
887	4	Residual - Medium Dense, Micaceous, Silty SAND.	SM			●	8
886	5						
885	6						
884	7						
883	8						
882	9						
881	10	Boring was Terminated at 10 ft BGS.					
880	11						
879	12						
878	13						
877	14						
876	15						
875	16						
874	17						
873	18						
872	19						
871	20						
870	21						
869	22						
868	23						
867	24						
866	25						
865	26						
864	27						
863	28						
862	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-4

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 891 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
891	0	**Approximately 4 inches Grass and Topsoil**	TP				
890	1	**Possible Fill - Brown Silty Sand.**	Fill				
889	2						
888	3						
887	4	**Residual - Medium Dense, Micaceous, Silty SAND.**	SM			●	13
886	5						
885	6						
884	7						
883	8						
882	9						
881	10	**Boring was Terminated at 10 ft BGS.**					
880	11						
879	12						
878	13						
877	14						
876	15						
875	16						
874	17						
873	18						
872	19						
871	20						
870	21						
869	22						
868	23						
867	24						
866	25						
865	26						
864	27						
863	28						
862	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-5

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 891 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
891	0	**Approximately 4 inches Grass and Topsoil**	TP				
890	1	**Possible Fill - Brown Silty Sand.**	Fill				
889	2						
888	3						
887	4	**Medium Dense, Brown, Clayey SAND.**	SC			●	11
886	5						
885	6						
884	7						
883	8						
882	9						
881	10	**Boring was Terminated at 10 ft BGS.**					
880	11						
879	12						
878	13						
877	14						
876	15						
875	16						
874	17						
873	18						
872	19						
871	20						
870	21						
869	22						
868	23						
867	24						
866	25						
865	26						
864	27						
863	28						
862	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-6

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 891 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
891	0	**Approximately 4 inches Grass and Topsoil**	TP				
890	1	**Possible Fill - Brown Silty Sand.**	Fill				
889	2						
888	3						
887	4	**Residual - Medium Dense, Micaceous, Silty SAND.**	SM			●	15
886	5						
885	6						
884	7						
883	8						
882	9						
881	10	**Boring was Terminated at 10 ft BGS.**					
880	11						
879	12						
878	13						
877	14						
876	15						
875	16						
874	17						
873	18						
872	19						
871	20						
870	21						
869	22						
868	23						
867	24						
866	25						
865	26						
864	27						
863	28						
862	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-7

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 891 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
891	0	**Approximately 4 inches Grass and Topsoil**	TP				
890	1	**Possible Fill - Brown Silty Sand.**	Fill				
889	2						
888	3						
887	4	**Residual - Loose, Light Brown, Micaceous, Silty SAND.**	SM			●	10
886	5						
885	6						
884	7						
883	8						
882	9						
881	10	**Boring was Terminated at 10 ft BGS.**					
880	11						
879	12						
878	13						
877	14						
876	15						
875	16						
874	17						
873	18						
872	19						
871	20						
870	21						
869	22						
868	23						
867	24						
866	25						
865	26						
864	27						
863	28						
862	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-8

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 883 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
883	0	**Approximately 4 inches Grass and Topsoil**	TP				
882	1	**Possible Fill - Brown Silty Sand.**	Fill				
881	2						
880	3						
879	4	**Medium Dense, Brown, Clayey SAND.**	SC			●	11
878	5						
877	6						
876	7						
875	8						
874	9						
873	10	**Boring was Terminated at 10 ft BGS.**					
872	11						
871	12						
870	13						
869	14						
868	15						
867	16						
866	17						
865	18						
864	19						
863	20						
862	21						
861	22						
860	23						
859	24						
858	25						
857	26						
856	27						
855	28						
854	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-9

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 885 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
885	0	Approximately 4 inches Grass and Topsoil	TP				
884	1	Possible Fill - Brown Silty Sand.	Fill				
883	2						
882	3						
881	4	Residual - Medium Dense, Micaceous, Clayey SAND.	SC			●	12
880	5						
879	6						
878	7						
877	8						
876	9						
875	10	Boring was Terminated at 10 ft BGS.					
874	11						
873	12						
872	13						
871	14						
870	15						
869	16						
868	17						
867	18						
866	19						
865	20						
864	21						
863	22						
862	23						
861	24						
860	25						
859	26						
858	27						
857	28						
856	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-10

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 885 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
885	0	**Approximately 4 inches Grass and Topsoil**	TP				
884	1	**Possible Fill - Brown Clayey Sand.**	Fill				
883	2						
882	3						
881	4	**Medium Dense, Dark Brown, Clayey SAND.**	SC			●	11
880	5						
879	6						
878	7						
877	8						
876	9						
875	10	**Boring was Terminated at 10 ft BGS.**					
874	11						
873	12						
872	13						
871	14						
870	15						
869	16						
868	17						
867	18						
866	19						
865	20						
864	21						
863	22						
862	23						
861	24						
860	25						
859	26						
858	27						
857	28						
856	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-11

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 882 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
882	0	**Approximately 4 inches Grass and Topsoil**	TP				
881	1	**Possible Fill - Brown Clayey Sand.**	Fill				
880	2						
879	3						
878	4	**Medium Dense, Dark Brown, Clayey SAND.**	SC			●	11
877	5						
876	6						
875	7						
874	8						
873	9						
872	10	**Boring was Terminated at 10 ft BGS.**					
871	11						
870	12						
869	13						
868	14						
867	15						
866	16						
865	17						
864	18						
863	19						
862	20						
861	21						
860	22						
859	23						
858	24						
857	25						
856	26						
855	27						
854	28						
853	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-12

File: Elgranero Borings Date Printed: 4/7/2023

PROJECT: Wheeler Park - Playground, Pavillion, and Splash **PROJECT NO.:** MEG 301287.46
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 882 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
882	0	**Approximately 4 inches Grass and Topsoil**	TP				
881	1	**Possible Fill - Yellowish Brown Clayey Sand.**	Fill				
880	2						
879	3						
878	4	**Residual - Medium Dense, Yellowish Brown, Micaceous, Silty SAND.**	SM			●	15
877	5						
876	6						
875	7						
874	8						
873	9						
872	10	**Boring was Terminated at 10 ft BGS.**					
871	11						
870	12						
869	13						
868	14						
867	15						
866	16						
865	17						
864	18						
863	19						
862	20						
861	21						
860	22						
859	23						
858	24						
857	25						
856	26						
855	27						
854	28						
853	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 1 of 8

Picture 1: B-1

Latitude: 33.6506	Weather: Cloudy
Longitude: -84.0192	Date Taken: 03/28/2023
Bearing: N	Taken By: Sulemana J. Alhassan

Tags:

Picture 2: B-3

Latitude: 33.6511	Weather: Partly cloudy
Longitude: -84.0189	Date Taken: 03/28/2023
Bearing: SW	Taken By: Sulemana J. Alhassan

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 2 of 8

Picture 3: B-4

Picture 4: B-5

Latitude: 33.6509	Weather: Partly cloudy
Longitude: -84.0191	Date Taken: 03/28/2023
Bearing: N	Taken By: Sulemana J. Alhassan

Latitude: 33.6511	Weather: Partly cloudy
Longitude: -84.0189	Date Taken: 03/28/2023
Bearing: W	Taken By: Sulemana J. Alhassan

Tags:

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 3 of 8

Picture 5: B-6

Picture 6: B-7

Latitude: 33.6510	Weather: Partly cloudy
Longitude: -84.0188	Date Taken: 03/28/2023
Bearing: E	Taken By: Sulemana J. Alhassan

Latitude: 33.6509	Weather: Partly cloudy
Longitude: -84.0187	Date Taken: 03/28/2023
Bearing: NE	Taken By: Sulemana J. Alhassan

Tags:

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 4 of 8

Picture 7: B-8

Picture 8: B-9

Latitude: 33.6506	Weather: Partly cloudy
Longitude: -84.0187	Date Taken: 03/28/2023
Bearing: N	Taken By: Sulemana J. Alhassan

Latitude: 33.6507	Weather: Partly cloudy
Longitude: -84.0189	Date Taken: 03/28/2023
Bearing: E	Taken By: Sulemana J. Alhassan

Tags:

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 5 of 8

Picture 9: B-10

Picture 10: B-11

Latitude: 33.6506	Weather: Sunny
Longitude: -84.0186	Date Taken: 03/28/2023
Bearing: NE	Taken By: Sulemana J. Alhassan

Latitude: 33.6506	Weather: Sunny
Longitude: -84.0187	Date Taken: 03/28/2023
Bearing: NE	Taken By: Sulemana J. Alhassan

Tags:

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 6 of 8

Picture 11

Latitude: 33.6506
Longitude: -84.0194
Bearing: NE

Weather: Cloudy
Date Taken: 03/28/2023
Taken By: Sulemana J. Alhassan

Tags:

Picture 12

Latitude: 33.6506
Longitude: -84.0195
Bearing: W

Weather: Cloudy
Date Taken: 03/28/2023
Taken By: Sulemana J. Alhassan

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad

Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA

Client: Rockdale County

Project Code: MEG 301287.46

Preparer: Sulemana Alhassan

Reviewer: Sam Alyateem, PE

Report Date: 04/07/2023

Picture 13

Picture 14

Latitude: 33.6506	Weather: Cloudy	Latitude: 33.6515	Weather: Partly cloudy
Longitude: -84.0194	Date Taken: 03/28/2023	Longitude: -84.0184	Date Taken: 03/28/2023
Bearing: NE	Taken By: Sulemana J. Alhassan	Bearing: SW	Taken By: Sulemana J. Alhassan
Tags:		Tags:	

	Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
	Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
	Client: Rockdale County	Project Code: MEG 301287.46
	Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
	Report Date: 04/07/2023	Page Number: 8 of 8

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 1 of 8

Picture 1: B-1

Latitude: 33.6506	Weather: Cloudy
Longitude: -84.0192	Date Taken: 03/28/2023
Bearing: N	Taken By: Sulemana J. Alhassan

Tags:

Picture 2: B-3

Latitude: 33.6511	Weather: Partly cloudy
Longitude: -84.0189	Date Taken: 03/28/2023
Bearing: SW	Taken By: Sulemana J. Alhassan

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 2 of 8

Picture 3: B-4

Picture 4: B-5

Latitude: 33.6509	Weather: Partly cloudy
Longitude: -84.0191	Date Taken: 03/28/2023
Bearing: N	Taken By: Sulemana J. Alhassan

Latitude: 33.6511	Weather: Partly cloudy
Longitude: -84.0189	Date Taken: 03/28/2023
Bearing: W	Taken By: Sulemana J. Alhassan

Tags:

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 3 of 8

Picture 5: B-6

Picture 6: B-7

Latitude: 33.6510	Weather: Partly cloudy
Longitude: -84.0188	Date Taken: 03/28/2023
Bearing: E	Taken By: Sulemana J. Alhassan

Latitude: 33.6509	Weather: Partly cloudy
Longitude: -84.0187	Date Taken: 03/28/2023
Bearing: NE	Taken By: Sulemana J. Alhassan

Tags:

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 4 of 8

Picture 7: B-8

Picture 8: B-9

Latitude: 33.6506	Weather: Partly cloudy
Longitude: -84.0187	Date Taken: 03/28/2023
Bearing: N	Taken By: Sulemana J. Alhassan

Latitude: 33.6507	Weather: Partly cloudy
Longitude: -84.0189	Date Taken: 03/28/2023
Bearing: E	Taken By: Sulemana J. Alhassan

Tags:

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 5 of 8

Picture 9: B-10

Picture 10: B-11

Latitude: 33.6506	Weather: Sunny
Longitude: -84.0186	Date Taken: 03/28/2023
Bearing: NE	Taken By: Sulemana J. Alhassan

Latitude: 33.6506	Weather: Sunny
Longitude: -84.0187	Date Taken: 03/28/2023
Bearing: NE	Taken By: Sulemana J. Alhassan

Tags:

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.46
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/07/2023	Page Number: 6 of 8

Picture 11

Latitude: 33.6506
Longitude: -84.0194
Bearing: NE

Weather: Cloudy
Date Taken: 03/28/2023
Taken By: Sulemana J. Alhassan

Tags:

Picture 12

Latitude: 33.6506
Longitude: -84.0195
Bearing: W

Weather: Cloudy
Date Taken: 03/28/2023
Taken By: Sulemana J. Alhassan

Tags:

Project Name: Wheeler Park - Playground, Pavilion and Splashpad

Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA

Client: Rockdale County

Project Code: MEG 301287.46

Preparer: Sulemana Alhassan

Reviewer: Sam Alyateem, PE

Report Date: 04/07/2023

Picture 13

Picture 14

Latitude: 33.6506	Weather: Cloudy	Latitude: 33.6515	Weather: Partly cloudy
Longitude: -84.0194	Date Taken: 03/28/2023	Longitude: -84.0184	Date Taken: 03/28/2023
Bearing: NE	Taken By: Sulemana J. Alhassan	Bearing: SW	Taken By: Sulemana J. Alhassan
Tags:		Tags:	

	Project Name: Wheeler Park - Playground, Pavilion and Splashpad	
	Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
	Client: Rockdale County	Project Code: MEG 301287.46
	Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
	Report Date: 04/07/2023	Page Number: 8 of 8

LIMITED GEOTECHNICAL EXPLORATION
SOIL TEST BORINGS

For

Proposed Skate Park
Wheeler Park
1400 Parker Road SE, Conyers, GA 30094

Submitted to

Ms. Ronda Harston
General Services Projects Coordinator
Dept. of General Services
Rockdale County Government
1329 Portman Dr., Suite J
Conyers, GA 30094

April 2023

MEG 301287.47

MATRIX ENGINEERING GROUP
25 YEARS OF ENGINEERING QUALITY
Est. 1994
engineers | special inspectors | construction consultants

April 10, 2023

Ms. Ronda Harston
General Services Projects Coordinator
Dept. of General Services
Rockdale County Government
1329 Portman Dr., Suite J
Conyers, GA 30094

Re: ***Limited Geotechnical Exploration – Soil Test Borings***
Skate Park at the Existing Wheeler Park
1400 Parker Road SE, Conyers, GA 30094
Matrix Engineering Group Project Number MEG-301287.47

Dear Ms. Harston:

Matrix Engineering Group, Inc. has completed the authorized Limited Geotechnical Exploration for the proposed Skate Park located at the existing Rockdale County Wheeler Park project at 1400 Parker Road in Conyers, Georgia 30094.

The scope of this work was to perform a total of three (3) soil test borings within the proposed construction area and determine the presence of rock within the top fifteen (15) feet of the existing ground surface.

This work was performed in general accordance with Matrix Proposal Number 030223-2, dated March 02, 2023, and the subsequent authorization to proceed by you on March 23, 2023. This report describes our exploration procedures and presents our findings and recommendations.

INTRODUCTION

The site is within the existing Rockdale County Wheeler Park located at 1400 Parker Road in Conyers, Georgia 30094. The proposed development area is located southeast of the existing parking lot. The ground surface of the site is covered with vegetation/grass. We noted a few ornamental trees in this area.

Based on the Concept Plan dated 01-23-2023 and our site visit, the subject site is relatively flat with approximate elevations between 886 feet to 888 feet Mean See Level (MSL).

EXPLORATION AND TESTING PROGRAM

The geotechnical exploration program consisted of drilling a total of three (3) soil test borings at the proposed site. The approximate locations of the soil borings are shown on Figure 1 presented in the Appendix of this report. For exact locations, the owner may elect to survey the boring locations. Matrix should be informed of any deviations in order to evaluate and modify our recommendations, if necessary.

The test borings were performed utilizing a track rig mounted with a GeoProbe drilling apparatus equipped with an automatic hammer in general accordance with ASTM D1586 standards. The planned depth of the borings was 15 feet BGS. Borings were advanced by auguring through the soils with continuous flights of 3 1/4-inch ID augers. At the depth of 3.5 feet to 5 feet, soil samples were obtained through the center of the auger flights with a standard 1.4-inch I.D., 2-inch O.D., split-tube sampler. The sampler is first seated 6 inches to penetrate loosened strata before sampling, and then driven an additional foot with blows of a 140-pound hammer falling 30 inches. The number of hammer blows required to drive the sampler the final foot is recorded and is designated as the Standard Penetration Resistance (N-Value). The penetration resistance, when properly evaluated, is an index of the soil strength, consistency and ability to support foundations. The boring was then augured (without sampling) to the termination depth of 15 feet BGS.

Representative soil samples were obtained using split-spoon sampling techniques. The samples were classified in the field in general accordance with ASTM D2488 (Visual-Manual Procedure for Description of Soils). Representative portions of the soil samples were placed in sealable, plastic jars and transported to our laboratory. During the field operations, Matrix staff maintained a continuous log of the subsurface conditions including changes in the stratigraphy and any observed groundwater levels. Soil descriptions and penetration resistance values are presented graphically on the Soil Boring Records included in the Appendix of this report.

All borings were backfilled with the soil cuttings by Matrix Engineering at the conclusion of the fieldwork. Some consolidation of the backfilled soil column should be expected over time.

GENERAL SITE GEOLOGY

The subject site is in the Piedmont Geologic Province, which contains the oldest rock formations in the Southeastern United States. The parent rocks in the region are primarily comprised of the unconsolidated mass of quartz, feldspar, mica, and a wide variety of dark minerals such as hornblende and amphibole. The proportion of felsic and mafic minerals in these parent rocks, as well as of quartz that is very resistant to

weathering, limits the amount of clay in the soils. Therefore, these soils are sandy and have faint horizons, and in small-scattered areas, hard rock is exposed.

Chemical decomposition initially occurs along the boundaries of individual mineral crystals. As a result, partially weathered rock has the appearance of dense sand (SM, SP). With further weathering, the individual crystals other than quartz are attacked and the mass becomes a micaceous silty sand (SM) or micaceous sandy silt (ML). In this stage, the original banding of the parent rock is apparent, but the original crystalline structure is not observed. Reflecting the composition of the original rock, mica flakes, rather than the quartz grains, often comprise the majority of the sand-size particles. Finally, in the more advanced stages of chemical weathering, the material is changed into a red or reddish-brown silty clay (CL or CH) or clayey silt (ML or MH). Depending on the quartz content, a sandy fraction will be present. In this weathered stage, the banding and crystalline structure of the parent rocks is lost.

GENERAL SUBSURFACE CONDITIONS

The subsurface conditions were characterized by visual-manual examination of the soils obtained from the soil test borings and observations from the auger cuttings during the auguring operations. The soil boring logs, designated as B-1 to B-3, are provided in the Appendix of this report. The subsurface conditions within the soil test borings are characterized as follows:

The borings encountered approximately 4 inches of grass and topsoil. Topsoil thickness may vary elsewhere, and the reported thicknesses should not be used to estimate the amount of stripping that will be necessary to properly prepare the site for structural fill. Additionally, the term topsoil should not connote a horticultural (or agricultural) definition or classification, but rather a visually determined organic-laden material.

Possible Man-made fill soils were encountered within the top 3.5 feet at all the test borings. The fill soil was very firm inorganic Clayey and Silty Sand. Residual soils were encountered beneath the possible fill layer and consisted of firm silty sand up to the termination depth of fifteen (15) feet below the existing ground surface (BGS). The penetration resistance, N-values, within the man-made fill and residual soils ranging from 8 to 9 bpf.

No Partially Weathered Rock (PWR); nor rock boulder was encountered within the drilled depth. It is, however, possible to encounter boulders in unexplored areas.

Groundwater was not encountered within the drilled depth at the time of drilling. Groundwater elevations do fluctuate with seasonal changes and typically vary on the order of 4 to 8 feet.

Refer to the Appendix of this report for the boring logs and the soil profiles.

RECOMMENDATIONS

The following recommendations are based on the information furnished to us, the data obtained from the subsurface exploration, and our experience with similar projects. They were prepared in general accordance with established and accepted professional geotechnical engineering practice in this region. Our recommendations are based on findings from the dates referenced within this report and do not reflect any variations that would likely exist at later dates or between the pre-designated borings or unexplored areas.

If information becomes available which may impact our recommendations, Matrix Engineering Group shall be afforded the opportunity to review this information and re-evaluate the recommendations contained within this report and make any alterations deemed necessary by a Georgia Registered professional engineer. This report is intended for the use of Rockdale County and its current design team. No other warranty is expressed or implied. Matrix Engineering Group, Inc. is not responsible for conclusions, opinions, or recommendations made by others based on this report.

General Site Preparation

Site preparation for the proposed development will include removal of trees, stripping of topsoil and soft soils, where encountered. Any debris or other items, such as underground utility lines, or trash pits that may be encountered during the grading operation should be treated on an individual basis and brought up to the attention of the Geotechnical Engineer for evaluation and recommendations.

Based on the Concept Site Plan dated 01/23/2023, the topographic relief within the footprint of the proposed Skate Park is approximately 2 feet with elevations between 888 feet MSL and 886 feet MSL. Also, the proposed finished elevations for the Skate Park ranged between 888 feet to 889 feet MSL, therefore, minimal cut and fill will be required to prepare the site to the desired finished elevations.

The existing soil appears to be suitable for use as a structural fill for buildings, trench backfill, and general fill purposes. However, we recommend that any material which is excavated and planned for re-use as structural

fill be examined by the geotechnical engineer of record at the time of excavation in order to determine its suitability. Fill soils should be free of organics, construction debris, cobbles, or other deleterious materials.

The soils encountered are classified as silty sand and Clayey sand and are not susceptible to liquefaction. Since groundwater was not encountered, we do not anticipate that groundwater will impact the construction. However, the grounds near the concrete edges should be slopes away from the skate area in order to minimize infiltration under the concrete slabs. Perimeter drains may also be considered at select locations to allow for surface water to drain away from the skate area and to minimize water accumulation under the concrete skate bowls.

Adequate laboratory testing should be performed during construction in order to ensure that the fill materials within all structural areas are suitable to support the proposed structures. Refer to the Structural fill procedures section provided in this report.

Subgrade Preparation

Subgrade preparation for the proposed development should be the removal of trees, stripping of vegetation and topsoil and any deleterious materials, if encountered. Topsoil can be used in proposed landscape areas.

After removal of the surface materials, the suitability of the exposed subgrade should be confirmed by proofrolling at the time of construction, which will discern any localized soft zones in the subgrade. The proofrolling should be performed by a loaded tandem-wheeled dump truck with an approximate weight of 25 tons. Any material that deflects excessively or ruts under the loaded truck should be densified or removed and replaced with well-compacted material. The proofrolling should be observed by the geotechnical engineer.

After the subgrades are approved, structural fill may proceed in accordance with the project specification or meet the minimum requirements provided in this report.

Foundations

The site appears to be suitable for the proposed development. For lightly loaded buildings, if planned, may be supported on shallow foundations. The foundations should be situated in undisturbed soil or structural fill placed in accordance with the recommended criterion provided in this report. All bearing soil should be evaluated by the geotechnical engineer and inspected in accordance with the criterion provided in this report.

We recommend that the foundations be designed for a maximum net allowable soil bearing pressure not to exceed **2,000 pounds per square foot (psf).**

If soft or unsuitable soils are encountered during the foundation excavation, undercutting of unsuitable and/or soft soils and backfill with suitable soils or crushed stone may be performed to achieve the recommended bearing capacity.

Concrete Sidewalks

The concrete sidewalk should be supported on compacted, and properly prepared soil subgrades. Provided that the fill material and/or existing subgrade is installed to a minimum of 98% of the Standard Proctor's maximum dry density, a modulus of subgrade reaction (k) of 100 pci can be used for designing the concrete pavements. Control joints and Construction joints should be carefully placed to minimize random shrinkage cracks. The spacing of the joints typically depends on the mix design, width of the trail, reinforcement, and thickness of the concrete slab. We recommend that maximum spacing for control joints be 10 feet and expansion joints be a maximum of 75 feet.

Slab-on-Grade

The concrete slab-on-grade for the proposed structure(s) should be supported on compacted, and properly prepared, soil subgrade. Provided the fill material and/or existing subgrade is installed to a minimum of 95% of the Standard Proctor's maximum dry density, a modulus of subgrade reaction (k) of 100 pci can be used for designing the floor slab-on-grade. Slab reinforcement and joint spacing should be carefully considered to control random cracking due to slab shrinkage. We recommend that a 10 mil vapor barrier/retarder (such as polyethylene) be installed below the (slab-on-grade) concrete to limit intrusion of water vapor through the slab. Beneath slab-on-grade areas, a minimum of 4 inches of clean, densely graded, granular material with a balanced content of fines is recommended to facilitate fine grading and provide stable surface for construction traffic and building loads. Open-graded bases (such as #57 stone) do not meet these requirements because they are relatively incompatible, difficult to trim, and are unstable for construction traffic. It is also difficult to fine grade an open-graded base to a relatively uniform elevation, which can result in restraint to concrete movement as the concrete cools or dries, thus increasing the probability of out-of-joint cracking. If open-graded bases are specified, the surface of these bases should be choked off with a clean fine-graded material with at least 10 to 30% of the particles passing a No. 100 sieve, but not contaminated with clay, silt, or organic material.

Structural Fill

Staged, methodical and well-planned grading is key to avoiding unnecessary costs and time delays. Areas should not be stripped or disturbed if the grading contractor is unable to properly seal the subgrade prior to departure each day. Exposure of soils to moisture from direct rainfall or runoff usually renders these soils un-usable for several days. This usually gets mischaracterized as an unsuitable soils condition which is inaccurate. Unsuitable soils are defined as those containing deleterious matter (such as organics, alluvium, debris and/or trash). Moisture related problems should be avoided by employing best management practices that involve maintaining positive drainage, installation of berms, diversion channels, and/or sealing the subgrade to avoid water infiltration. Other measures involve covering all stockpiled soils with heavy tarps or plastic to avoid saturating the soils in the event of rainfall. Means and methods of construction are certainly the contractor's jurisdiction; however, exposing otherwise suitable soils to excessive moisture or softening of existing subgrades as a result of unscrupulous construction traffic should be avoided and planned for.

We recommend that the following criteria be used for structural fill:

1. Adequate laboratory proctor density tests should be performed on representative samples of the proposed fill materials to provide data necessary for the quality control. The moisture content at the time of compaction should be within 3 percentage points of the optimum moisture content. In addition, we recommend that the fill soils be free of organics and rock boulder/cobbles larger than 2 inches in nominal size and relatively non-plastic with plasticity indices less than 20.

2. Suitable fill material should be placed in thin lifts (lift thickness depends on type of equipment used, but generally lifts of 8 inches loose measurements are recommended). The soil should be compacted by mechanical means such as sheepsfoot rollers.

3. Slopes that are limited to 2:1 (horizontal: vertical), or flatter, will have adequate long term slope stability, if limited in height to 15 feet, based on our experience with the type of soils encountered onsite. The slope's crest should be protected against water ponding. Proposed slopes should incorporate only suitable fill, clean of organics or any other vegetative content. Topsoil should only be used to provide cover over the completed slope's free face so as to promote vegetative growth which in turn protects the slope's surface against scour and erosion. Slopes should be overbuilt and cut back to the proposed grades, exposing the firm compacted inner core. The amount of overbuilding would vary depending on the site conditions at the time of construction, types of soil used and degree of compaction achieved.

4. When placing fill in horizontal lifts adjacent to areas sloping steeper than 5:1 (horizontal: vertical), horizontal keys and vertical benches should be excavated into the adjacent slope area. Materials generated by the benching operation should be moved sufficiently away from the bench area to allow the geotechnical engineer (testing agency) to properly inspect the area and ascertain that the benching is performed properly.

5. We recommend that the fill be compacted to a minimum of 95% of the Standard Proctor Maximum Dry Density (ASTM Specifications D 698). The top 2 feet under pavements or structural areas should be compacted to a minimum of 98% of the Standard Proctor Test.

6. An experienced soil engineering inspector should take adequate density tests throughout the fill placement operation to ensure that the specified compaction is being achieved.

Inspection and Testing

During construction, we recommend that Matrix Engineering Group inspect the site preparation and foundation construction work in order to ensure that our recommended procedures are followed. The placement of any compacted fill should be inspected and tested. The utilization of acceptable on-site borrow materials, as well as adequate off-site selected fill must be verified.

Each footing excavation should be inspected by Matrix Engineering Group, Inc. in order to verify the availability of the required bearing pressure and to determine any special procedures required. At a minimum, Hand Auger and Dynamic Cone Penetrometer testing in accordance with ASTM STP 399 should be performed at each shallow column footing, and every 50 linear feet for wall footings, or as directed by the geotechnical engineer in order to:

- Verify materials below footings are adequate to achieve the designed bearing capacity.
- Verify excavations are extended to proper depths and have reached proper material.
- Perform classification and testing of controlled fill materials.
- Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.
- Prior to placement of controlled fill, observe subgrade and verify that the site has been properly prepared.

Matrix Engineering Group, Inc. appreciates the opportunity to have worked with you on this project and looks forward to our continued association. If you have any questions or need further assistance, please do not hesitate to call.

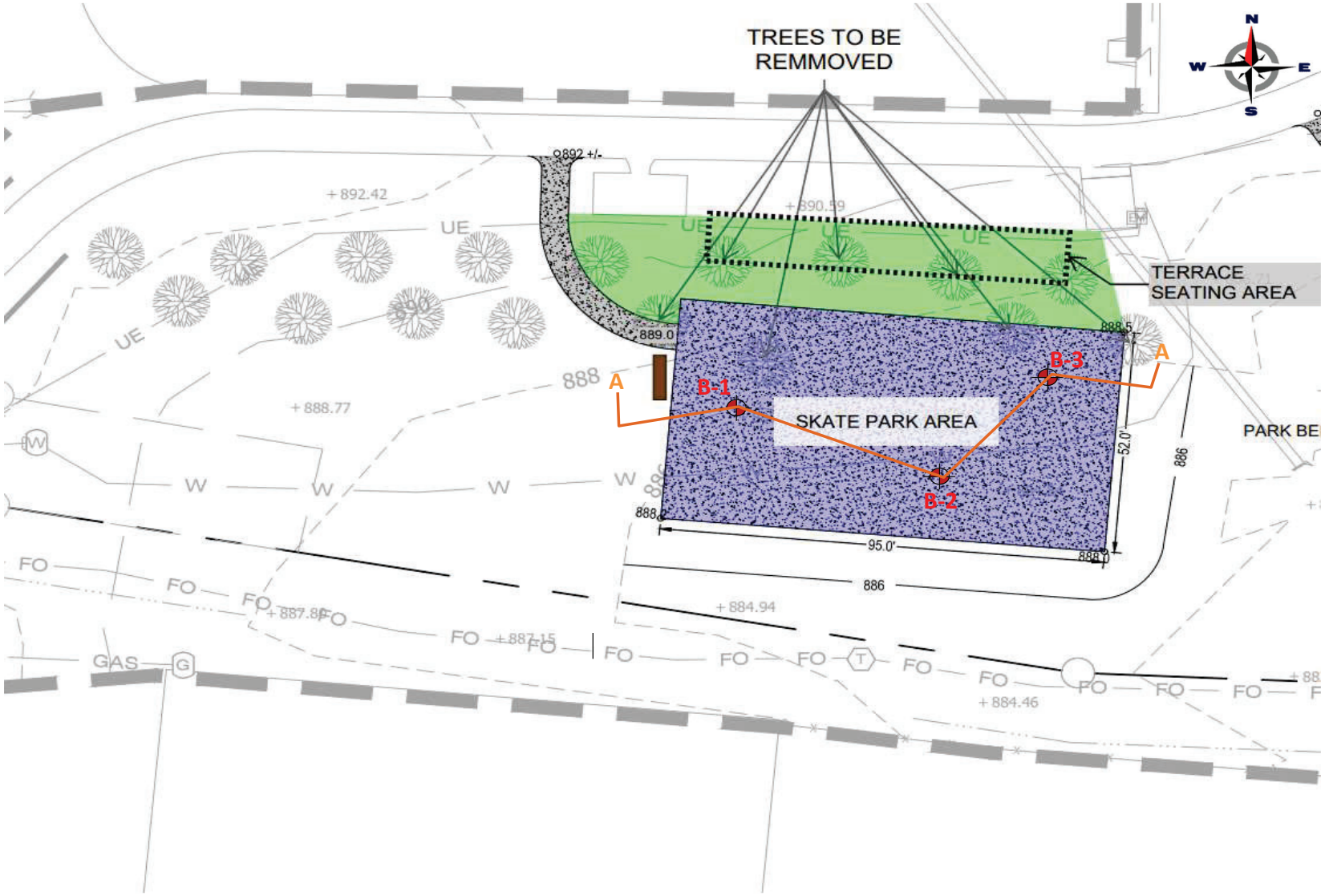
Best Regards,

MATRIX ENGINEERING GROUP, INC.

Sulemana Alhassan
Project Manager
sule@matrixengineeringgroup.com

GEORGIA REGISTERED No. 19197 PROFESSIONAL ENGINEER O. SAMIR ALYATEEM

Sam Alyateem, PE
Senior Geotechnical Engineer
Principal
sam@matrixengineeringgroup.com



matrix engineering group

TITLE	Approximate Boring Locations Plan
PROJECT	Rockdale County Wheeler Park-Skate Park
PROJECT #	MEG 301287.47
CLIENT	Rockdale County Government
SCALE	Not to Scale
PREPARED BY	Sulemana Alhassan
REVIEWED BY	Sam Alyateem, PE
DATE	3/10/2023
FIGURE	1

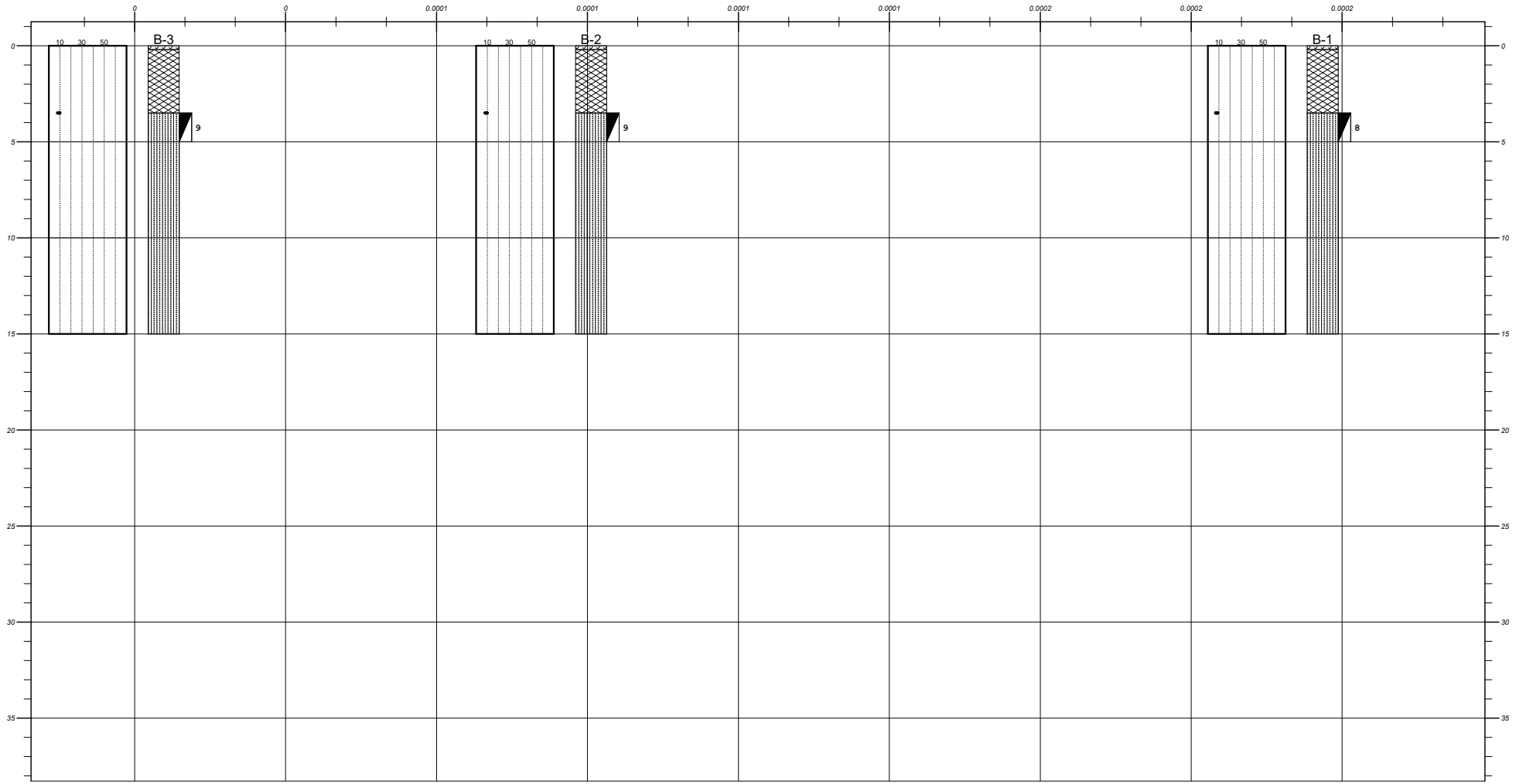
LEGEND

B-1 Boring Locations

A A Cross-Section Line

LOG OF BORINGS A-A

Wheeler Park - Skate Park



Top Soil

Fill

Silty sand

MATRIX ENGINEERING GROUP, INC.

MAJOR DIVISIONS		SYMBOLS	TYPICAL NAMES	CLASSIFICATION CHART
COARSE-GRAINED SOILS (More Than 1/2 of Soil > #200 Sieve)	**GRAVELS** (More Than 1/2 of Coarse Fraction > #4 Sieve)	GW	Well Graded Gravels or Gravel-Sand Mixtures; Little or no fines	
		GP	Poorly Graded Gravels or Gravel-Sand Mixtures; Little or no fines	
		GM	Silty Gravels, Gravel-Sand-Silt Mixtures	
		GC	Clayey Gravels, Gravel-Sand-Clay Mixtures	
	SANDS (MORE Than 1/2 of Coarse Fraction < #4 Sieve)	SW	Well Graded Sands or Gravelly Sands; Little or no fines	
		SP	Poorly Graded Sands or Gravelly Sands; Little or no fines	
		SM	Silty Sands, Sand-Silt Mixtures	
		SC	Clayey Sands, Sand-Clay Mixtures	
FINE-GRAINED SOILS (More Than 1/2 of Soil < #200 Sieve)	**SILTS & CLAYS** Liquid Limit Less Than 50	ML	Inorganic Silts and Very Fine Sands, Rock Flour, Silty or Clayey Fine Sands or Clayey Silts with Slight Plasticity	
		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 & CLAYS Liquid Limit Greater Than 50	MH	Inorganic Silts, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silts	
		CH	Inorganic Clays of High Plasticity, Fat Clays	
		OH	Organic Clays or Medium to High Plasticity, Organic Silty Clays, Organic Silts	
HIGHLY ORGANIC SOILS		PT	Peat and Other Highly Organic Soils	

Relative Density of Cohesionless Soils from Standard Penetration Test	
Very Loose	≤ 4 bpf
Loose	5-10 bpf
Medium Dense	11-30 bpf
Dense	31-50 bpf
Very Dense	> 50 bpf
(bpf=blows per foot; ASTM D1586)	

Consistency of Cohesive Soils	
Very Soft	≤ 2 bpf
Soft	3-4 bpf
Firm	5-8 bpf
Stiff	9-15 bpf
Very Stiff	16-30 bpf
Hard	30-50 bpf
Very Hard	> 50 bpf

Relative Hardness of Rock	
Very Soft	Hard rock disintegrates or easily compresses to touch; can be hard to very hard soil
Soft	May be broken with fingers
Moderately Soft	May be scratched with a nail, corners and edges may be broken with fingers
Moderately Hard	Light Blow of hammer required to break samples
Hard	Hard blow of hammer required to break sample

Particle Size Identification	
Boulders	Larger than 12"
Cobbles	3"-12"
Gravel	
Coarse	3/4"-3"
Fine	4.76mm-3/4"
Sand	
Coarse	2.0-4.76 mm
Medium	0.42-2.00 mm
Fine	0.42-0.074 mm
Fines (Silt or Clay)	Smaller than 0.074 mm

Rock Continuity	
RECOVERY (%) = Total Length of Core / Length of Core Run x 100	
Description	Core Recovery (%)
Incompetent	Less than 40
Competent	40-70
Fairly Continuous	71-90
Continnuous	91-100

Relative Quality of Rocks	
RQD (%) =((Total core, counting only pieces >4" long)/(Length of Core Run)) x 100	
Description	RQD (%)
Very Poor	0-25
Poor	25-50
Fair	50-75
Good	75-90
Excellent	90-100

Matrix Engineering Group, Inc.
engineers | special inspectors | construction consultants

Correlation of Penetration Resistance with Relative Density and Consistency Sheet and Soil Classification Chart

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-1

File: Elgranero Borings Date Printed: 4/10/2023

PROJECT: Wheeler Park - Skate Park **PROJECT NO.:** MEG 301287.47
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 887 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
887	0	**Approximately 4 inches Grass and Topsoil**	TP				
886	1	**Possible Fill - Brown Clayey Sand.**	Fill				
885	2						
884	3						
883	4	**Residual - Loose, Brown, Micaceous, Silty SAND.**	SM			●	8
882	5						
881	6						
880	7						
879	8						
878	9						
877	10						
876	11						
875	12						
874	13						
873	14						
872	15	**Boring was Terminated at 15 ft BGS.**					
871	16						
870	17						
869	18						
868	19						
867	20						
866	21						
865	22						
864	23						
863	24						
862	25						
861	26						
860	27						
859	28						
858	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-2

File: Elgranero Borings Date Printed: 4/10/2023

PROJECT: Wheeler Park - Skate Park **PROJECT NO.:** MEG 301287.47
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 886 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
886	0	**Approximately 4 inches Grass and Topsoil**	TP				
885	1	**Possible Fill - Brown Clayey Sand.**	Fill				
884	2						
883	3						
882	4	**Residual - Loose, Mottled (Brown and Yellowish Brown), Micaceous, Silty SAND.**	SM			●	9
881	5						
880	6						
879	7						
878	8						
877	9						
876	10						
875	11						
874	12						
873	13						
872	14						
871	15	**Boring was Terminated at 15 ft BGS.**					
870	16						
869	17						
868	18						
867	19						
866	20						
865	21						
864	22						
863	23						
862	24						
861	25						
860	26						
859	27						
858	28						
857	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

MATRIX ENGINEERING GROUP, INC.
Geotechnical, Environmental & Construction Materials Consultants

DRILL HOLE LOG

BORING NO. B-3

File: Elgranero Borings Date Printed: 4/10/2023

PROJECT: Wheeler Park - Skate Park **PROJECT NO.:** MEG 301287.47
CLIENT: Rockdale County **DATE:** 3/28/2023
LOCATION: Refer to Figure 1 **ELEVATION:** 886 Feet MSL
DRILLER: Betts **LOGGED BY:** Sulemana Alhassan
DRILLING METHOD: ASTM D1586 with Automatic Hammer **STATION:**
DEPTH TO - WATER> INITIAL: ▽ ____ **After 24+ Hours:** ▽ ____ **CAVING>** C ____

ELEVATION (feet)	DEPTH (feet)	Description	SOIL TYPE	SOIL SYMBOL	SAMPLERS	TEST RESULTS: Natural Moisture Content (%). ▲ Penetration - ● (10 20 30 40 50)	N-Value Blows/ft (ASTM D1586)
886	0	**Approximately 4 inches Grass and Topsoil**	TP				
885	1	**Possible Fill - Brown Clayey Sand.**	Fill				
884	2						
883	3						
882	4	**Residual - Loose, Purple, Micaceous, Silty SAND.**	SM			●	9
881	5						
880	6						
879	7						
878	8						
877	9						
876	10						
875	11						
874	12						
873	13						
872	14						
871	15	**Boring was Terminated at 15 ft BGS.**					
870	16						
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863	23						
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861	25						
860	26						
859	27						
858	28						
857	29						

No Groundwater at the time of drilling. Borehole was backfilled at the conclusion of the field work.

Project Name: Wheeler Park - Skate Park	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.47
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/10/2023	Page Number: 1 of 4

Picture 1: B-1 S

Lat: 33.65064	Long: -84.01980	Bearing: S	Date Taken: 03/28/2023
Weather: Cloudy			Taken By: Sulemana J. Alhassan
Tags:			

Project Name: Wheeler Park - Skate Park	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.47
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/10/2023	Page Number: 2 of 4

Picture 2: B-2 S

Lat: 33.65054	Long: -84.01959	Bearing: W	Date Taken: 03/28/2023
Weather: Cloudy			Taken By: Sulemana J. Alhassan
Tags:			

Project Name: Wheeler Park - Skate Park	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.47
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/10/2023	Page Number: 3 of 4

Picture 3: B-3 S

Lat: 33.65059	Long: -84.01960	Bearing: N	Date Taken: 03/28/2023
Weather: Cloudy			Taken By: Sulemana J. Alhassan
Tags:			

Project Name: Wheeler Park - Skate Park	
Project Location: Wheeler Park, 1400 Parker Rd SE, Conyers, GA 30094, USA	
Client: Rockdale County	Project Code: MEG 301287.47
Preparer: Sulemana Alhassan	Reviewer: Sam Alyateem, PE
Report Date: 04/10/2023	Page Number: 4 of 4