

**GEOTECHNICAL
ENGINEERING STUDY**

**PARKHOUSE SUBDIVISION
SEGUIN, TEXAS**

**PAVEMENT
AND
SANITARY SEWER IMPROVEMENTS**

FROST GEOSCIENCES, INC. PROJECT NO.: FGS-G 23113

MAY 12, 2023

Prepared Exclusively for:

Republic Land and Development Company

C/o: Mr. Oscar Dominguez

King Fish Development, LLC

2722 West Bitters Road, Suite 106

San Antonio, Texas 78248

The logo for Frost GeoSciences features a large, dark blue, stylized 'C' or swoosh shape that frames the company name. The name 'Frost GeoSciences' is written in a bold, italicized, sans-serif font. 'Frost' is in a dark grey color, while 'GeoSciences' is in a lighter, metallic-looking grey with a slight gradient.

Frost GeoSciences

***Construction Materials ▪ Forensics
Environmental ▪ Geotechnical***



Frost GeoSciences

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May 12, 2023

Republic Land and Development Company

C/o: Mr. Oscar Dominguez
King Fish Development, LLC
2722 West Bitters Road, Suite 106
San Antonio, Texas 78248

SUBJECT:

Geotechnical Engineering Services
PARKHOUSE SUBDIVISION
Seguin, Texas
FGS Project No: FGS-G23113

Dear Mr. Dominguez:

Frost GeoSciences, Inc. (FGS) is a geotechnical engineering company registered with the Texas Board of Professional Engineers, with registration No. F-9227, and is pleased to submit the results of our Geotechnical Engineering Study for the above referenced project. This report includes the results of field and laboratory testing along with our recommendations for use in preparation of the appropriate design and construction documents for this project.

We appreciate the opportunity to be of service to you in this phase of your project and future projects. If you have any questions pertaining to this report, or if we may be of further service, please contact our office.

Respectfully submitted,
Frost GeoSciences, Inc.



F. J. Caballero, P.E.
Project Engineer

FGS-G-23113

Copies Submitted:

- i. One (1) Electronic: Mr. Oscar Dominguez, King Fish Development, LLC, San Antonio, Texas
- ii. One (1) File

TABLE OF CONTENTS

PROJECT INFORMATION	1
Project Authorization	1
Project Description	1
Purpose and Scope of Services.....	1
SITE AND SUBSURFACE CONDITIONS	2
Site Description	2
Site Geology.....	2
Soil Description	3
Subsurface Conditions	4
Subsurface Water Information.....	5
ENGINEERING ANALYSIS AND RECOMMENDATIONS	5
Pavement Design	5
Pavement Analysis	8
Pavement Material Specifications	8
Lime Series Curve and Unconfined Compressive Strength	9
Subgrade Preparation.....	9
Drainage	10
Utilities	11
Excavations	11
QUALITY CONTROL	11
Document Review	11
Construction Materials Testing	12
REPORT LIMITATIONS	12
TABLES	13
Sump Foundation Design Parameters	13

PROJECT INFORMATION

Project Authorization:

Frost GeoSciences, Inc. (FGS) has completed a geotechnical engineering study for new pavements and sanitary sewer improvements at the **PARKHOUSE SUBDIVISION** in **Seguin, Texas**. This project was authorized by **Mr. Jeffrey Czar, Jr., of Republic Land and Development Company**, through acceptance of Frost GeoSciences **Proposal No.: FGS-P-G23109 dated April 11, 2023**. Our scope of services for this project is as outlined in that proposal.

Project Description:

We understand that the **PARKHOUSE SUBDIVISION** involves the design and construction of **Type "A", Type "B" and Collector Streets**. The pavement section design will be in accordance with the **Bexar County Flexible Pavement Design Criteria** since **Guadalupe County does not have an established pavement design standard**. **The project also involves the construction of a Sanitary Sewer Force Main which will require foundation recommendations for the sump tank foundation**. A Vicinity Map showing the location of the project is included in the section of this report entitled Illustrations

Purpose and Scope of Services:

The purpose of the geotechnical investigation is to evaluate the subsurface conditions at the project site and develop geotechnical engineering recommendations and guidelines for use in preparing the appropriate design and other related construction documents for this project. Therefore, our scope of services for this project includes the following:

- Drill borings and excavate test pits at selected locations within the project limits to evaluate subsurface conditions and to observe the potential presence of subsurface water;
- Perform geotechnical engineering laboratory tests on selected samples recovered during our field activities to evaluate their physical and engineering properties;
- Perform Engineering analyses to develop the appropriate geotechnical engineering recommendations and guidelines, to include:
 - Soil Bearing Capacity of the soils at the Sanitary Sewer Sump Tank site
 - Appropriate pavement section thickness recommendations;
 - Pavement section material requirements and specifications;
 - General site and subgrade preparation within the construction limits; and

- General comments regarding construction methods, sequences and potential difficulties that may arise during overall construction as it relates to the geotechnical engineering aspects of this project.
- Prepare a written report that includes a boring location plan, boring log at each bore site, and results of the laboratory testing program, descriptions of the subsurface conditions encountered and our geotechnical engineering recommendations and guidelines developed for this project.

Our scope of services for this project did not include the assessment of any potential environmental concerns at this site. Therefore, such concerns are not addressed in this report.

SITE AND SUBSURFACE CONDITIONS

Site Description:

The site conditions were assessed using a combination of aerial photography and observations made by the FGS personnel during our field operations. The following site conditions were noted:

- The site is the **PARKHOUSE SUBDIVISION** on CR-411A in Seguin Texas.

Site Geology:

A review of the Bureau of Economic Geology USGS Texas Geology Online Mapper, accessed 6/30/2021, indicates that the Site is located entirely on **The Wilcox Formation (Ewi)**.

- **The Wilcox Formation (Ewi)**. consists of mudstone with various amounts of sandstone, lignite, ironstone concretions, and is commonly glauconitic. The mudstone in the upper part is massive to thin-bedded pale brown to yellowish brown with silt and very fine sand laminae. This weathers yellowish brown. The mudstone in the lower part is medium to dark gray and weathers yellowish gray. The sandstone in the upper part is light gray to pale yellow, mostly medium to fine grained, moderately well sorted, cross-bedded, lenticular and ranged from 5 to 30 feet thick. The sandstone in the lower part is yellowish brown to moderate brown, very fine grained, well sorted, in part argillaceous, locally burrowed, cross-bedded, and range from a few inches to 10 feet thick. Lignite is brownish black and occurs near the middle with seams 1 to 20 feet thick. Overall thickness of the Wilcox Formation is about 1250 feet.

Soil Description:

According to the United States Department of Agricultural (USDA) Natural Resources Conservation Service (NRCS) Soil Survey of Guadalupe County (March 1977) and the USDA NRCS Web Soil Survey (WSS) website: <https://websoilsurvey.nrcs.usda.gov>, the Site is located on the following soils:

- **Crockett fine sandy loam, 1 to 3 percent slopes (CfB)** is a gently sloping soil in areas ranging from 10 to 200 acres in size. Typically, the surface layer is fine sandy loam about 8 inches thick. The upper 38 inches of the subsoil is clay. It is mottled brownish yellow, light olive brown, and red in the upper 6 inches. In the

next 20 inches it is olive yellow mottled with red and brownish yellow. In the lower 12 inches it is reddish yellow mottles with yellowish brown. The underlying material to a depth of 72 inches is brownish-yellow sandy loam and light brownish-gray clay. Runoff is medium and the hazard of water erosion is moderate.

- **Mabank loam, 1 to 3 percent slopes (MaB)** is a deep, noncalcareous, gently sloping soil on uplands. The areas range from 10 to 100 acres in size. Typically, the surface layer is dark-gray loam about 6 inches thick. The next layer, to a depth of 72 inches, is very firm clay. The upper part is very dark-gray, and the lower part is dark gray with a few brown mottles and small lime concretions. Mabank soils are somewhat poorly drained. Runoff is medium. Internal drainage and permeability are very slow. Available water capacity is medium. The hazard of water erosion is moderate.
- **Crockett loam, 2 to 5 percent slopes, eroded (CsC3)** is found in scattered irregularly shaped areas. Water erosion has removed part of the surface layer from about 20 to 40 percent of the mapped areas. Gullies, about 1 to 6 feet deep and 6 to 20 feet wide make up about 25 to 30 percent of most areas. Typically, the surface layer is brown loam about 4 inches thick. The next layer to a depth of about 60 inches is reddish-brown, very firm clay in the upper part; light olive-brown, very firm clay in the middle part; and light brownish gray, very firm sandy clay in the lower part. It has red, light olive-brown and yellowish-brown mottles. Interbedded sand and clay are below a depth of 60 inches. Runoff is medium and the hazard of water erosion is severe. The soil is mostly abandoned and eroded cropland.
- **Windhorst fine sandy loam, 1 to 5 percent slopes, eroded (WdC3)** is a deep, noncalcareous, gently sloping, loamy soil on uplands. These soils form in interbedded sand and clay. Water erosion has removed part of the surface layer in about 20 to 40 percent of most mapped areas. In other areas the surface layer ranges from about 4 to 8 inches in thickness. Gullies that are about 2 to 6 feet deep, 4 to 20 feet wide, and 200 to 500 feet apart make up about 25 to 30 percent of most mapped areas. Typically, the surface layer is yellowish-brown fine sandy loam about 8 inches thick. The next layer is about 28 inches thick. It is red, very firm clay in the upper part; mottled, red, and yellowish-brown, very firm clay in the next part; and mottled, red, yellowish-brown, and pale-brown sandy clay loam in the lower part. The underlying material to a depth of 72 inches is strong-brown, very firm sandy clay loam that contains interbedded layers of sand. Runoff is medium, permeability is moderately slow, and the hazard of water erosion is severe.
- **Demonia loamy fine sand, 1 to 5 percent slopes (DmC)** is a deep, noncalcareous, gently sloping sandy soil on uplands. Typically, the surface layer is about 24 inches thick. It is pale-brown loamy fine sand in the upper part and very pale brown loamy fine sand in the lower part. The next 12 inches is brownish-yellow, very firm clay. The 14 inches below that is red, firm, sandy clay with light brownish-gray and brownish-yellow mottles. Demonia soils are moderately well-drained. Surface runoff is slow to medium, internal drainage is slow, and permeability is moderately slow. The hazards of wind and water erosion are moderate.

Subsurface Conditions:

Subsurface conditions at the site were evaluated by drilling a total of **Twenty - Four (24)** soil borings, **Twenty-Three (23)** to a depth of **Fifteen (15)** feet and **One (1)** to a depth of Thirty (30) feet. In addition, **Four (4)** test pits to

approximately **two (2) foot depth** were excavated to obtain **soil samples to determine the California Bearing Ratio (CBR)** of the soil samples. **The borings were drilled to the depth at which they were terminated due to auger refusal, this depth is indicated in each of the Boring Logs.** The number of borings and test pits, their locations and their depths were selected by FGS. The borings and test pits were located in the field by FGS personnel using Global Positioning System (GPS) technology. The borings were advanced using solid flight auger drilling methods and soil samples were routinely obtained during the drilling process; the test pits are routinely excavated to the appropriate depth. Drilling and sampling techniques were accomplished in general accordance with ASTM procedures. Logs of the borings are presented in the Appendix section at the end of the report. A Borehole Location Plan with the location of each boring is presented in the Illustrations section of this report.

The soil samples obtained during our field exploration were transported to our laboratory where they were reviewed by qualified geotechnical engineering personnel. Representative samples were selected and tested to determine pertinent engineering properties and characteristics for use in evaluating the project site. Laboratory testing and soil classification were accomplished in general accordance with ASTM procedures.

Based on the field and laboratory data, it is determined that the stratigraphy of the site is generally as follows:

Stratum	Range of Depth, (feet)	Stratum Description and Classification
I	0.0 to 4.0	Clay (CL), Tan, Brown & Dark Brown
II	4.0 to 10.0	Clay (CL), Tan
III	10.0 to 15.0	Sand (SM), Tan
IV		

The subsurface descriptions shown above are general in nature and highlight major subsurface stratification features and material types. The boring logs included in Appendix A should be reviewed for specific information such as soil or rock material descriptions, stratifications, sampling depths and intervals, field test data and laboratory test data. The stratifications shown on each boring log only represent the conditions and approximate boundaries between strata at that actual boring location. The actual transitions between strata may be gradual. Variations will occur and should be expected at locations away from each boring location. Subsurface water level observations made during field operations are also shown on the boring logs. The indicated stratum depths and any subsurface water levels are measured from the ground surface and are estimated to the nearest one-half ($\frac{1}{2}$) foot. Portions of any samples that are not altered or consumed by laboratory testing will be retained for 30 days from the date of issuance of this report. Unless otherwise requested by the client and/or depending upon project requirements, all soil samples will be discarded after that retention period.

The **P.I. values obtained from the soil samples taken near the surface ranged from 3 to 44** in the **CLAY** subgrade soil. Due to the characteristics of the materials found in the area, FGS is of the opinion that the Plastic Index (P.I.) value of the material near the surface will pose a problem in areas where the soil plasticity is greater than twenty (20) if not treated with LIME or replaced with a more suitable material.

Subsurface Water Information:

The borings were advanced using dry drilling techniques to the depth at which they were terminated due to auger refusal in an attempt to detect the potential presence of subsurface water in the material. **Subsurface water was not encountered in any of the borings** upon completion of drilling operations, however it must be kept in mind that subsurface water levels are generally influenced by seasonal and climatic conditions that result in fluctuations of subsurface water levels over time.

ENGINEERING ANALYSIS AND RECOMMENDATIONS

Force Main Sump Tank Recommendations

The force main foundation may be designed using a **net allowable bearing pressure of 4,000 PSF**; this value includes a factor of **safety of three (3)**. The Sandy Clay at the sight has a maximum expansiveness of about 1.5 inches, however the potential vertical rise, (PVR) at the depth of thirty (30) feet will not be affected since the moisture will remain constant at this depth. PVR values are taken into consideration within the first fifteen (15) feet below the surface. The foundation should be constructed with minimal disturbance of the sub-grade.

Pavement Design:

Flexible pavements should be designed and constructed in accordance with the requirements established by local municipalities and the American Association of State Highway and Transportation Officials (AASHTO) "Guide for Design of Pavement Structures", for this project, the Bexar County Flexible Pavement Design Criteria was used.

Below is a table which outlines the Bexar County Flexible Pavement Design Criteria, which was used in the design of the proposed street sections for this project:

Input Parameters used in Asphalt Pavement Section Calculation

Pavement Specifications								
	Primary and Secondary Arterials		Collector Streets		Local Type "B"		Local Type "A"	
W18	ESAL = 3,000,000		ESAL = 2,000,000		ESAL = 2,000,000		ESAL = 100,000	
R	95%		90%		90%		70%	
So	Flexible	Rigid	Flexible	Rigid	Flexible	Rigid	Flexible	Rigid
	0.45	0.35	0.45	0.35	0.45	0.35	0.45	0.35
Po	4.2	4.5	4.2	4.5	4.2	4.5	4.2	4.5
Pt	2.5	2.5	2.5	2.5	2.0	2.5	2.0	2.0
ΔPSI	1.7	2.0	1.7	2.0	2.2	2.0	2.2	2.5
T	20		20		20		20	
SN	Min.	Max	Min.	Max.	Min.	Max.	Min.	Max.
	3.80	5.76	2.92	5.05	2.98	5.05	2.58	4.20

In addition to the parameters shown above, the soil resilient modulus, M_R , of the subgrade soil, must be determined. Typically, this value is obtained through California Bearing Ratio (CBR) testing. Field investigations show that all the soil samples obtained within the subgrade at the site are very similar with very similar (CBR) values. These soils are **Brown Clay with CBR values ranging between 2.9 to 14.3**. We will **use a CBR of 2.9 for our pavement design values** our pavement sections. Information regarding the moisture density relationships of the bulk samples of subgrade soil collected at this site and the CBR test results are presented in the Appendix section of this report.

The Pavement Sections for Soils with a **CBR value of 2.9** are presented in the tables below. **It should be noted, the P.I. value of the subgrade material at this site varies between 3 and 44**. The subgrade soils at this site **will require lime to reduce the soil plasticity in areas with plasticity values greater than twenty (20)**.

For the purposes of developing layer thicknesses for the pavement sections shown below, we have used the following structural coefficients in the calculation of pavement structural numbers:

Material Type	Structural Coefficient	Drainage Coefficient
TXDOT Item 340, Hot Mixed Asphaltic Concrete	0.44	1.00
TXDOT Items 292 or 340, Asphalt Treated Base	0.38	1.00
TXDOT Item 247, Flexible Base - Crushed Limestone	0.14	1.00
TXDOT Item 247, Flexible Base	0.08	1.00
Lime Stabilized Subgrade, (6 inch Min.)	0.08	1.00

Bexar County Minimum Layer Thickness Requirements:

	Type "A"	Type "B"	Collector	Arterials
PAVEMENT LAYER	Min. Thickness Inches	Min. Thickness Inches	Min. Thickness Inches	Min. Thickness Inches
HMAC	2.0	3.0	3.0	4.0
Aggregate Base Course	8.0	8.0	8.0	8.0
Asphalt Treated Base Course	6.0	6.0	6.0	6.0
Lime & Cement Base Course	6.0	6.0	6.0	6.0
Mechanically Stabilized Layer	8.0	8.0	8.0	8.0
Moisture Conditioned Subgrade	6.0	6.0	6.0	6.0

THE NEW TENSAR PROGRAM CALCULATE THE RESILIENT MODULUS (MR) VALUE WITH THE USE OF THE LABORATORY CALIFORNIA BEARING RATIO, (CBR). In this case the **MR value calculates to 4,350 psi.**

WE WILL USE MR=4,350 PSI FOR OUR PAVEMENT DESIGN.

In accordance with the **Bexar County, Texas** design parameters we have developed the following flexible pavement recommendations for a **"Type "A" Street** on a Clay subgrade.

COMPONENT	FLEXIBLE DESIGN SECTION (inches)			
	TYPE "A"			
	Option # 1	Option # 2	Option # 3	Option # 4
Type D HMAC Surface	2.0 inches	2.0 inches		
Flexible Base, (Type A or Type B, Grade 2)	8.0 inches	11.75 inches		
TENSAR GEOGRID (TX-7)	YES	NO		
Design ESAL Value	100,000	100,000		
Actual ESAL Value	349,200	102,700		

In accordance with the **Bexar County, Texas** design parameters we have developed the following flexible pavement recommendations for a **"Type "B" Street** on a Clay subgrade.

COMPONENT	FLEXIBLE DESIGN SECTION (inches)			
	TYPE "B"			
	Option # 1	Option # 2	Option # 3	Option # 4
Type "D" HMAC Surface	3.0 inches	3.0 inches		
Type "C" HMAC Base	NO	3.0 inches		
Flexible Base, (Type A or Type B, Grade 2)	13.75 inches	14.0 inches		
TENSAR GEOGRID (TX-7)	YES	NO		
Design ESAL Value	2,000,000	2,000,000		
Actual ESAL Value	2,106,900	2,035,600		

In accordance with the **Bexar County, Texas** design parameters we have developed the following flexible pavement recommendations for a **"Collector" Street** on a Clay subgrade.

COMPONENT	FLEXIBLE DESIGN SECTION (inches)			
	COLLECTOR			
	Option # 1	Option # 2	Option # 3	Option # 4
Type "D" HMAC Surface	3.0 inches	3.0 inches		
Type "C" HMAC Base	NO	3.0 inches		
Flexible Base, (Type A or Type B, Grade 2)	15.75 inches	16.25 inches		
TENSAR GEOGRID (TX-7)	YES	NO		
Design ESAL Value	2,000,000	2,000,000		
Actual ESAL Value	2,110,800	2,055,300		

Pavement Analysis:

The pavement designs presented in the previous paragraphs INCLUDES designs for lime stabilized subgrade and lime treated subgrade, to be used on pavement sections with a clay subgrade and a P.I. value greater than 20. The **Bexar County pavement design criteria** requires that a minimum of six (6) inches of subgrade soil below the pavement structure be treated or stabilized if the subgrade has a P.I. value greater than 20. If a Geogrid fabric is used to reduce the base course thickness, treatment or stabilization of the underlying high P.I. soil is still required, **the subgrade soils at this site WILL REQUIRE LIME TREATMENT**. In the case that subgrade fill is required to bring the subgrade elevation up to final grade, fills should be made with flexible base, on-site Chalk millings or other material approved by the Project Engineer. Fill material compaction shall be in accordance with subgrade compaction requirement for **Bexar County, Texas**.

Pavement Material Specifications:

The following guidelines have been prepared for use in the selection and preparation of various materials that may be used to construct the pavement sections. Submittals should be made for each pavement material and should be reviewed by the Geotechnical Engineer and other appropriate members of the design team. The submittals should provide the test information necessary to verify full compliance of the materials with the recommended or specified material properties.

Fill Material - If fill is used to raise the grade, approved fill material underneath the pavement should be used. The fill should be free of deleterious material with a **minimum CBR value of 3.0** and preferably a **Plastic Index below 19**. If the material has a PI greater than 20 the lime application rates should be re-evaluated and sulfate content tested for the fill material. The material should be placed as per applicable city or county guidelines.

Hot-Mix Asphaltic Surface Course – Asphaltic concrete should be plant mixed, hot laid, **Type D** meeting the 2014 TX DOT Standard Specification Item 340. Mix should be compacted to between 92 and 97 percent of the maximum theoretical density as determined by TEX-227-F.

Asphalt Treated Base – Asphalt treated base should be placed in **maximum six (6) inch compacted lifts**. These materials should conform to the requirements of the 2014 TX DOT Standard Specification Item 292, Grade 1 or Item 340, Type A or B.

Flexible Base Course – Flexible base materials should be placed in maximum eight (8) inch **compacted lifts**. The base materials should be compacted to at least 95 percent of the maximum dry density as determined by ASTM D 1557. Flexible base materials should be moisture conditioned to between plus or minus two (+2) percentage points of the optimum moisture content. Flexible base materials should meet all requirements specified in 2014 TX DOT Standard Specification Item 247, Type A or B, Grade 1 or 2.

Lime Treated Subgrade – Clay subgrade (with P.I. values greater than 20) should be treated with hydrated lime to reduce its plasticity and improve its strength and load carrying ability. Hydrated lime should be mixed with the subgrade soils in accordance with Bexar County Specifications for Lime Treatment to reduce the P.I. value to 20 or less.

Lime Stabilized Subgrade – Clay subgrade (with P.I. values greater than 20) should be stabilized with hydrated lime to reduce its plasticity and improve its strength and load carrying ability. Hydrated lime should be mixed with the subgrade soils in accordance with BEXAR COUNTY, Texas Specifications for Lime Stabilization. The optimum lime content should result in a soil-lime mixture with a pH of at least 12.4 when tested in accordance with ASTM C 977, Appendix XI and should reduce the P.I. to 20 or less.

3 X 5 Rock Wrapped in Filter Fabric – The City may allow 3 X 5 rock wrapped in Filter Fabric instead of lime stabilization, however the **wrapping fabric must be Mirafi 180N Filter Fabric or equal, and prior approval must be obtained.**

Geogrid – **Tensar TX7** geogrid may be used to provide additional structural support to flexible base materials. The geogrid should be placed as per manufacturer's recommendations at the interface between the flexible base and subgrade.

Moisture Conditioned Subgrade – Exposed subgrade soils that do not need to be stabilized or treated should be scarified and moisture conditioned to between plus or minus three (+-3) percentage points of optimum to a depth of at least six (6) inches. The soils should then be compacted to at least 95 percent of the maximum dry density as determined by ASTM D 698.

Lime Series Curve and Unconfined Compressive Strength:

A Lime Series Curve was developed for the project to determine the optimum amount of hydrated lime required to stabilize the subgrade in accordance with **Bexar County, Texas** design criteria. The optimum lime content should result in a soil-lime mixture with a pH of at least 12.4 when tested in accordance with ASTM C 977 and should reduce the Plasticity Index to 20 or less. The lime series curve depicts the percent lime added to the subgrade and the resulting pH/P.I. A strength verification test was performed on the lime stabilized subgrade to determine the Unconfined Compressive Strength (UCS) of the soil-lime mixture. **Bexar County requires an UCS of 160 psi, a pH of 12.4 or greater and a P.I. of 20 or less. Results of the** Lime Series Curve and the Unconfined Compressive Strength test are presented in the Appendix section of this report. **A 6 % of lime is required to reduce the plasticity value**, this translates into **approximately 29.2 lbs. of lime per square yard** of subgrade. Additional field verification testing will be required during the subgrade stabilization process once the project has started.

Subgrade Preparation:

The pavement alignment should be stripped of topsoil, vegetation, roots, loose or soft soils and any other deleterious materials. The stripped materials should be removed from the site and properly disposed of or used elsewhere on site. Upon completion of stripping operations, the alignment may be either excavated or filled as

necessary to achieve the desired pavement elevation. Prior to the placement of any fill for grade adjustments or the construction of the pavement section, the exposed subgrade should be proof rolled with appropriate construction equipment weighing at least 20 tons. Unstable or non-uniform areas should be removed to expose stable soils and may be replaced with clean, properly compacted flexible base material or other more suitable material approved by the Project Engineer. All fill placed within the paved areas should be free of any deleterious materials and should not contain stones larger than the maximum lift thickness. The fill materials should be placed on prepared surfaces in lifts not to exceed eight (8) inches compacted measure. All fill materials placed in paved areas should be moisture conditioned to between plus or minus three (+-3) percentage points of the optimum moisture content and compacted to at least 95 percent of the maximum dry density as determined by ASTM D 698.

Drainage:

Proper pavement perimeter drainage should be provided and maintained to minimize the infiltration of surface water into the pavement section from surrounding unpaved areas. The infiltration of water into the pavement section typically results in the accelerated degradation of the section with time as vehicular traffic traverses the infiltrated area. Curbs used in paved areas should extend at least three (3) inches into the base materials to help reduce the potential for water infiltration into the pavement section. Prefabricated strip drains or small “French” drains may also be installed behind curbs to intercept and remove water from the pavement perimeter before water infiltrates the pavement section. Furthermore, all concrete and asphalt interfaces should be sealed using a sealant that is compatible with both asphalt and concrete.

Proper pavement drainage is a critical component in the long-term performance of a pavement section. The pavement section recommendations shown above are based on generally recognized structural coefficients. These coefficients reflect the relative strength of each pavement material type and their contribution to the structural integrity of the pavement. The infiltration of water into these pavement materials will generally weaken the materials and result in the degradation of the pavement’s performance. Therefore, proper drainage of the pavement should be carefully considered by the project design team to ensure that water rapidly drains from the pavement and does not pond on or around the pavement.

Utilities:

Care should be exercised to make sure that utility lines do not serve as conduits that transmit water beneath foundations or pavements at this site. Secondary backfill for utility lines that are located beneath pavement, sidewalk and building areas should consist of lean clay (CL), flowable fill or other material in accordance with local municipality or utility provider specifications. Proper compaction of trench backfill is essential in pavement areas where settlement of the trench backfill can cause significant distress to the overlying pavement. Flowable fill materials should be as described in the American Concrete Institute ACI 229R. Granular materials such as sand or gravel are not recommended as secondary backfill in utility trenches located in building pad or pavement areas.

Excavations:

As was discussed previously, these materials that are penetrated by geotechnical augers can generally be excavated with conventional earthmoving equipment. It should be noted that excavation equipment varies and field conditions may vary. Generally, geologic processes (such as faulting, weathering, etc.) are erratic and large variations can occur in small lateral distances. Details regarding “means and methods” to accomplish the work (such as excavation equipment and technique selection) are the sole responsibility of the project contractor.

The Occupational Safety and Health Administration (OSHA) Safety and Health Standards (29 CFR Part 1926, Revised October 1989), require that excavations be constructed in accordance with the current OSHA guidelines. Furthermore, the State of Texas requires that detailed plans and specifications meeting OSHA standards be prepared for trench and excavation retention systems used during construction. The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor’s “responsible person”, as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavation as part of the contractor’s safety procedures.

In no case should slope height, slope inclination or excavation depth exceed those specified in local, state and Federal safety regulations. OSHA addresses the construction of slopes in large excavations that are less than 20 feet

deep on OSHA Table B-1. We have provided this information solely as a service to our client. The OSHA regulations and OSHA Table B-1 should be consulted prior to any excavations that would be subject to OSHA regulations. FGS does not assume responsibility for construction site safety or the contractor’s or other parties’ compliance with local, state and Federal safety or other regulations.

QUALITY CONTROL

Document Review:

Due to the uniqueness of each project and construction site, it is important that all engineering reports, drawings, specifications, change orders and other related documents accurately reflect the recommendations intended by the respective design professionals involved in the project. The performance of the pavements planned for this project will depend on the correct interpretation and implementation of our geotechnical engineering report and guidelines. We should be provided the opportunity to review the final design and construction documents to check that our geotechnical recommendations are properly interpreted and implemented in these documents. This review is not a part of our scope of services for this project and would be an additional service. We cannot be responsible for misinterpretation of our geotechnical recommendations if we have not had an opportunity to review these documents.

Construction Materials Testing:

As the Geotechnical Engineer of Record, we recommend that Frost GeoSciences be retained to monitor the pavement installation and earthwork related activities for this project. Due to our familiarity with this project, it is

important that FGS provide these services to make certain that our geotechnical recommendations are interpreted properly and to make certain that actual field conditions are those described in our geotechnical report. We believe this technical overview and on-site surveillance during these activities is essential to provide well-constructed pavements and to check that the intent of these geotechnical recommendations is met.

REPORT LIMITATIONS

The recommendations and guidelines submitted in this report are based on the available subsurface information developed by FGS and project information provided by the client. If there are any changes in the nature, design or location of the project, the opinions, conclusions, recommendations and guidelines submitted in this report should not be used until we are able to review the changes and respond in writing as to whether the information contained within this report remains applicable.

Subsurface conditions at this site have been observed and interpreted at the Boring Locations only. Substantial variations in subsurface materials resulting from local geologic conditions or previous site use may occur away from the boring locations. These variations may not become evident until construction begins. Therefore, any conditions that vary significantly from those described in our report should be reported to FGS immediately. FGS will then determine whether our conclusions, opinions and recommendations remain valid or whether additional investigation and/or engineering analysis is required.

This study has been performed in accordance with accepted geotechnical engineering practice using the standard of care and skill currently exercised by geotechnical engineers practicing in this area. No warranty, expressed or implied, is made or intended. This report has been prepared exclusively for the specified client; project and client's authorized project team for use in preparing the appropriate design and construction documents for this project. This report may be included in the construction documents for this project provided the report is reproduced in its entirety. This report shall not be reproduced or used for any other purpose without the express written consent of Frost GeoSciences, Inc.

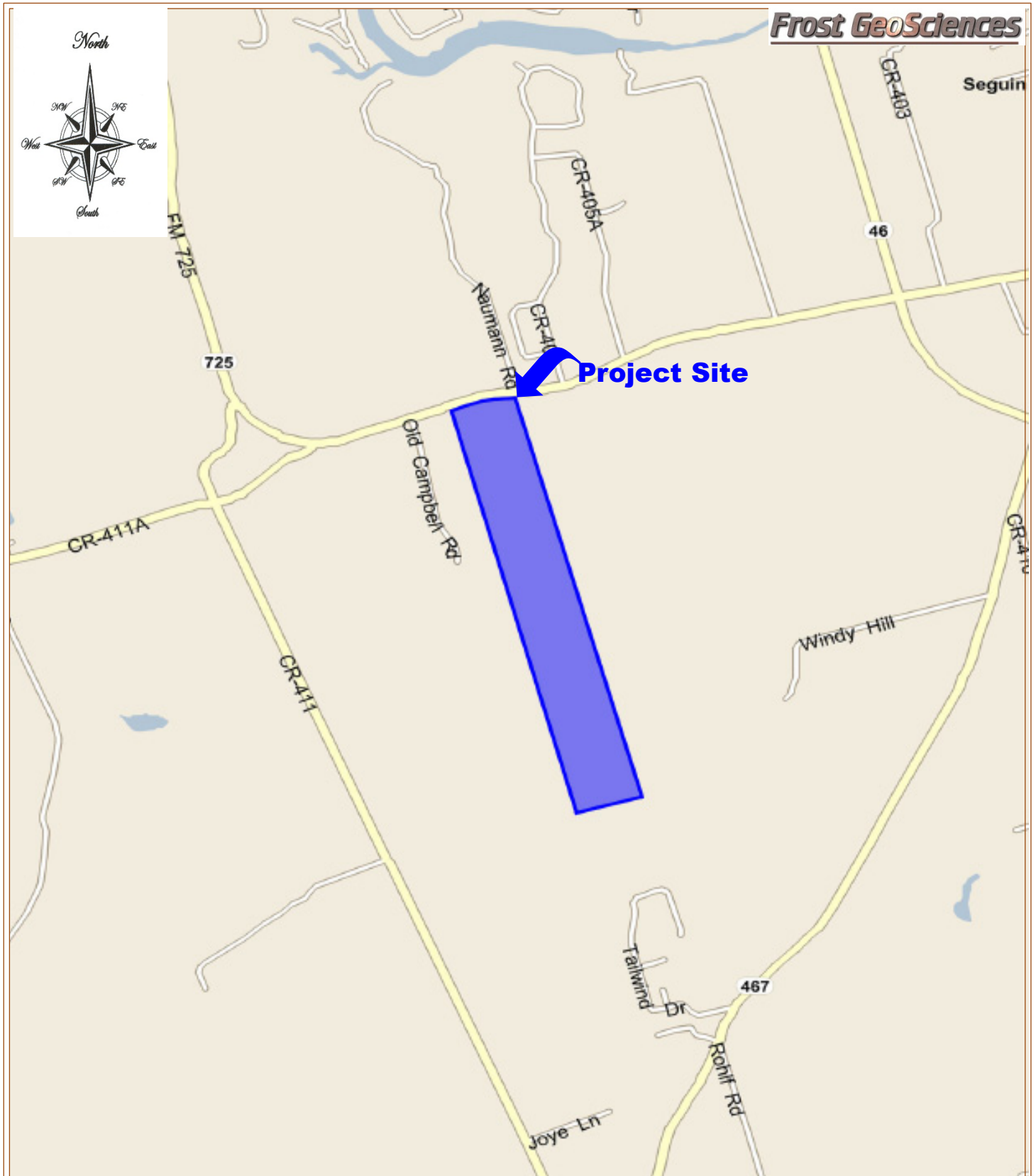
SUMP FOUNDATION DESIGN PARAMETERS

ALLOWABLE BEARING CAPACITY 4,000PSF
SOIL FRICTION ANGLE 36 Degrees
DESIGN PLASTICITY INDEX 21
SOIL COHESION 3.9 TSF
SOIL SUPPORT INDEX 0.93
SHEAR STRENGTH (Su) 114 MPa

ILLUSTRATIONS

**Vicinity Map
Boring Location Plan**

VICINITY MAP



PROJECT NAME: Parkhouse Subdivision Seguin, Texas	VICINITY MAP Parkhouse Subdivision Street Map	
	PROJECT No.: FGS-G-23113	DATE CREATED: April 27, 2023

BORING PLAN



PROJECT NAME:

Parkhouse Subdivision
Seguin, Texas

BORING LOCATIONS

PROJECT No.:

FGS-G-23113

DATE:

April 27, 2023

APPENDIX "A"

**Boring Logs
PVR Values
Symbol Key Sheet**

BORING LOGS

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-01
DRILLING DATE: 4/14/2023
SURFACE ELEVATION: _____

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA				LABORATORY DATA								DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	DRILLING METHOD(S):	
					LL	PL	PI						SUBSURFACE WATER INFORMATION:	
													Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
													DESCRIPTION OF STRATUM	
		G		18	28	13	15						Dark Brown Sandy Clay	
		G		20	40	16	24						Light Tan Sandy Clay at 2'	
	5	G		13	42	12	30						Light Tan Clay at 5'	
	10	G		13	41	14	27						Light Tan Sandy Clay at 8'	
	15	G		7	37	26	11						Boring Terminated at 15 Foot of Depth	
	20													
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION													REMARKS: GPS 596207 3267276	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-02
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA				LABORATORY DATA								DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	SUBSURFACE WATER INFORMATION:	
					LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX						Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
					LL	PL	PI						DESCRIPTION OF STRATUM	
		G		15	60	16	44						Dark Brown Clay	
		G		15	40	12	28							
5		G		13	27	15	12							
				9	26	15	11						Reddish Brown Sandy Clay at 8'	
10		G		17	26	15	11						Olive Green and Brown Sandy Clay at 9.5'	
15													Boring Terminated at 15 Foot of Depth	
20													REMARKS: GPS 596248 3267045	
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION														

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

This log is not valid if separated from the report.

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-03
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA				LABORATORY DATA								DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	Dry auger drilling techniques were used to the termination depth of the boring.	
					LL	PL	PI						SUBSURFACE WATER INFORMATION: Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
														DESCRIPTION OF STRATUM
		G		18	38	12	26						Dark Brown Clay	
		G		10	26	15	11						Brown and Grey Sandy Clay at 2'	
	5	G		13	24	15	9						Tan Sandy Clay at 5'	
		G		16	24	15	9							
	10	G		10	23	15	8							
	15												Boring Terminated at 15 Foot of Depth	
	20												REMARKS: GPS 596421 3267200	
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION														

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-04
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA			LABORATORY DATA									DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	SUBSURFACE WATER INFORMATION:	
					LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX						Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
					LL	PL	PI							
DESCRIPTION OF STRATUM														
		G		12	55	16	39						Reddish Brown Clay	
		G		19	40	12	28							
5		G		6	38	26	12						Tan Sand at 5'	
		G		7	23	15	8							
10		G		6	23	15	8							
		G												
15													Boring Terminated at 15 Foot of Depth	
20														
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION													REMARKS: GPS 596310 3266994	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-05
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA			LABORATORY DATA									DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	DRILLING METHOD(S):	
					LL	PL	PI						SUBSURFACE WATER INFORMATION:	
													Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
													DESCRIPTION OF STRATUM	
		G		16	27	13	14						Reddish Clay	
		G		15	26	13	13							
5		G		13	24	15	9						Tan Sandy Clay at 5'	
		G		11	20	16	4						Tan Sand at 8'	
10		G		4	20	16	4							
15													Boring Terminated at 15 Foot of Depth	
20														
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION													REMARKS: GPS 596303 3266858	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-06
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA				LABORATORY DATA								DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	Dry auger drilling techniques were used to the termination depth of the boring.	
					LL	PL	PI						SUBSURFACE WATER INFORMATION: Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
														DESCRIPTION OF STRATUM
		G		11	30	12	18						Brown Clay	
		G		12	37	11	26							
5		G		13	25	15	10							Reddish Clay at 5'
		G		10	24	15	9						Tan Sandy Clay at 8'	
10		G											Tan Sand at 10'	
		G		6	24	15	9							
15														Boring Terminated at 15 Foot of Depth
20													REMARKS: GPS 596400 3266863	
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION														

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-07
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA				LABORATORY DATA								DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	Dry auger drilling techniques were used to the termination depth of the boring.	
					LL	PL	PI						SUBSURFACE WATER INFORMATION: Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
DESCRIPTION OF STRATUM														
		G		15	42	12	30						Brown Clay	
		G		13	40	16	24							
5		G		13	41	14	27							
		G		11	39	14	25						Olive Green and Brown Sandy Clay at 8'	
10													Tan Sand at 11'	
		G		5	38	26	12							
15													Boring Terminated at 15 Foot of Depth	
20													REMARKS: GPS 596501 3266880	
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION														

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

This log is not valid if separated from the report.

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-08
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

FIELD DATA		LABORATORY DATA										DRILLING METHOD(S): Dry auger drilling techniques were used to the termination depth of the boring.	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSION STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	SUBSURFACE WATER INFORMATION: Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.
					LL	PL	PI						
				9	27	13	14						DESCRIPTION OF STRATUM
				13	28	13	15						
	5			12	38	12	26						Reddish Sandy Clay at 5'
	10			6	37	12	25						Tan Brown Sand at 7.5'
	15			7	36	12	24						Boring Terminated at 15 Foot of Depth
	20												REMARKS: GPS 596403 3266755

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

This log is not valid if separated from the report.

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-09
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA			LABORATORY DATA									DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	Dry auger drilling techniques were used to the termination depth of the boring.	
					LL	PL	PI						SUBSURFACE WATER INFORMATION:	
													Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
DESCRIPTION OF STRATUM														
		G		19	37	12	25						Dark Brown Sandy Clay	
		G		17	37	12	25							
5		G		11	27	13	14						Reddish Sandy Clay at 5'	
		G		10	26	13	13						Tan Grey Sandy Clay at 8'	
10		G		15	26	13	13							
15		G											Boring Terminated at 15 Foot of Depth	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-10
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA			LABORATORY DATA									DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CUFT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	Dry auger drilling techniques were used to the termination depth of the boring.	
					LL	PL	PI						SUBSURFACE WATER INFORMATION:	
													Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
DESCRIPTION OF STRATUM														
		G		18	36	12	24						Reddish Brown Sandy Clay	
		G		18	35	12	23							
5		G		19	28	13	15							Light Brown and Tan Sandy Clay at 5'
		G		15	27	13	14							
10		G												
		G		7	20	16	4						Tan Sand at 11'	
15													Boring Terminated at 15 Foot of Depth	
20													REMARKS: GPS 596483 3266605	
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION														

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

This log is not valid if separated from the report.

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-11
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA			LABORATORY DATA									DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU.FT	COMPRESSIVE STRENGTH (TONS/SQ.FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	DRILLING METHOD(S):	
					LL	PL	PI						SUBSURFACE WATER INFORMATION:	
													Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
													DESCRIPTION OF STRATUM	
	5	G		43	37	11	26							Reddish Brown Sandy Clay
				16	30	17	13							
				12	24	15	9							
				12	23	15	8							
	15	G		20	23	15	8						Olive Green and Grey Sandy Clay at 12'	
	20												Boring Terminated at 15 Foot of Depth	
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION													REMARKS: GPS 596587 3266674	

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-12
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA			LABORATORY DATA									DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CUFT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	Dry auger drilling techniques were used to the termination depth of the boring.	
					LL	PL	PI						SUBSURFACE WATER INFORMATION:	
													Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
DESCRIPTION OF STRATUM														
		G		11	52	16	36						Reddish Brown Sandy Clay	
		G		17	41	14	27							
5		G		14	40	14	26						Reddish Tan Sandy Clay at 5'	
		G		13	37	26	11							
10		G		12	37	26	11							
15		G											Boring Terminated at 15 Foot of Depth	
20														
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION													REMARKS: GPS 596429 3266433	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.:	FGS-G-23113
BORING NO.:	B-13
DRILLING DATE:	4/14/2023
SURFACE ELEVATION:	

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA				LABORATORY DATA								DRILLING METHOD(S): Dry auger drilling techniques were used to the termination depth of the boring.	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU.FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	SUBSURFACE WATER INFORMATION: Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
					LL	PL	PI						DESCRIPTION OF STRATUM	
	5	G		8	38	12	26						Reddish Brown Sandy Clay	
		G		22	37	12	25							
		G		14	28	13	15							
	10	G		13	27	13	14						Reddish Brown and Tan Sandy Clay at 7'	
		G		13	27	13	14							
	15												Boring Terminated at 15 Foot of Depth	
	20													
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION													REMARKS: GPS 596638 3266476	

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-14
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

FIELD DATA		LABORATORY DATA								DRILLING METHOD(S): Dry auger drilling techniques were used to the termination depth of the boring.		
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)
					LL	PL	PI					
				10	35	11	24					
				16	26	13	13					
	5			9	24	15	9					
	10			10	24	15	9					
	15			12	23	15	8					
Boring Terminated at 15 Foot of Depth												
REMARKS: GPS 596569 3266313												

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

This log is not valid if separated from the report.

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-15
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

FIELD DATA		LABORATORY DATA								DRILLING METHOD(S):			
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	DRILLING METHOD(S):
					LL	PL	PI						Dry auger drilling techniques were used to the termination depth of the boring.
													SUBSURFACE WATER INFORMATION:
													Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.
DESCRIPTION OF STRATUM													
				12	34	12	22						Reddish Brown Sandy Clay
				20	32	12	20						
	5			15	26	15	11						
				14	26	15	11						Olive Green Grey Sandy Clay at 8.5'
	10			14	25	14	11						
	15												Boring Terminated at 15 Foot of Depth
	20												
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION													REMARKS: GPS 596546 3266108

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING

 Frost GeoSciences Geologic • Environmental Geotechnical		PROJECT: Park House Subdivision FM 725 Seguin, Tx		PROJECT NO.: FGS-G-23113 BORING NO.: B-16 DRILLING DATE: 4/14/2023 SURFACE ELEVATION:									
		CLIENT: Republic Land and Development Company		PAGE 1 of 1									
FIELD DATA		LABORATORY DATA						DRILLING METHOD(S): Dry auger drilling techniques were used to the termination depth of the boring.					
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	SUBSURFACE WATER INFORMATION: Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.
					LL	PL	PI						
DESCRIPTION OF STRATUM													
		G		8	28	13	15						Reddish Sandy Clay
		G		9	27	13	14						
5		G		10	24	15	9						Tan Sandy Clay at 5'
10		G		9	24	15	9						Olive Green and Grey Sandy Clay at 8.5'
15		G		11	22	15	7						Boring Terminated at 15 Foot of Depth
20	N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION											REMARKS: GPS 596681 3266183	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-17
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA				LABORATORY DATA								DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	Dry auger drilling techniques were used to the termination depth of the boring.	
					LL	PL	PI						SUBSURFACE WATER INFORMATION: Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
														DESCRIPTION OF STRATUM
		G		22	27	13	14						Reddish Brown Sandy Clay	
		G		16	22	15	7							
5		G		8	22	15	7						Light Tan Sand at 5.5'	
		G		9	20	15	5						Light Tan and Grey Sand at 8.5'	
10		G												
		G		13	20	15	5						Reddish and Tan Sandy Clay at 13.5'	
15													Boring Terminated at 15 Foot of Depth	
20														
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION													REMARKS: GPS 596693 3265978	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

This log is not valid if separated from the report.

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-18
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

FIELD DATA		LABORATORY DATA										DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSION STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	DRILLING METHOD(S): Dry auger drilling techniques were used to the termination depth of the boring.
					LL	PL	PI						
													DESCRIPTION OF STRATUM
		G		23	20	15	5						Dark Brown Sand
	5	G		19	20	15	5						Dark Brown Sandy Clay at 2'
		G		15	27	13	14						Reddish Brown Sandy Clay at 6'
	10	G		8	30	17	13						Tan Sandy Clay at 8'
	15	G		9	23	15	8						Grey and Tan Sandy Clay at 12'
	20												Boring Terminated at 15 Foot of Depth
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION													REMARKS: GPS 596723 3265668

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-19
DRILLING DATE: 4/14/2023
SURFACE ELEVATION: _____

CLIENT: Republic Land and Development Company

PAGE 1 of 1

FIELD DATA		LABORATORY DATA								DRILLING METHOD(S):			
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	
					LL	PL	PI						
SUBSURFACE WATER INFORMATION: Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.													
DESCRIPTION OF STRATUM													
		G		5	21	15	6						Brown Sand
		G		14	25	15	10						Brown Sandy Clay at 2'
	5	G		10	20	15	5						Light Tan and Grey Sandy Clay at 5.5'
	10	G		12	20	15	5						Olive Green and Grey Sandy Clay at 8.5'
	15	G		12	20	15	5						Boring Terminated at 15 Foot of Depth
	20												
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION												REMARKS: GPS 596821 3265849	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-20
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA				LABORATORY DATA								DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CUFT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	Dry auger drilling techniques were used to the termination depth of the boring.	
					LIQUID LIMIT LL	PLASTIC LIMIT PL	PLASTICITY INDEX PI						SUBSURFACE WATER INFORMATION: Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
														DESCRIPTION OF STRATUM
		G		9	26	13	13						Reddish Sandy Clay	
		G		11	26	13	13						Reddish and Tan Sandy Clay at 2'	
5		G		15	23	15	8						Olive Green and Grey Sandy Clay at 5'	
		G		17	23	15	8							
10		G		12	23	15	8							
15													Boring Terminated at 15 Foot of Depth	
20													REMARKS: GPS 596823 3265625	
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION														

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-21
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA			LABORATORY DATA									DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	DRILLING METHOD(S):	
					LL	PL	PI						SUBSURFACE WATER INFORMATION:	
													Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
													DESCRIPTION OF STRATUM	
		G		12	19	16	3						Reddish Brown Sandy Clay	
		G		20	19	16	3							
5		G		12	19	16	3						Olive Green and Grey Sandy Clay at 5'	
		G		12	19	16	3							
10		G		12	19	16	3							
		G		12	19	16	3							
15													Boring Terminated at 15 Foot of Depth	
20														
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION													REMARKS: GPS 596670 3265499	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-22
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA				LABORATORY DATA								DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	DRILLING METHOD(S):	
					LL	PL	PI						SUBSURFACE WATER INFORMATION:	
													Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
													DESCRIPTION OF STRATUM	
		G		11	23	15	8						Reddish Brown Sandy Clay	
		G		10	23	15	8							
5		G		8	27	15	12						Grey Sandy Clay at 5.5'	
		G		9	27	15	12						Light Grey and Brown Sandy Clay at 8'	
10		G		9	27	15	12							
		G		9	27	15	12							
15													Boring Terminated at 15 Foot of Depth	
20														
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION													REMARKS: GPS 596948 3265335	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

This log is not valid if separated from the report.

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-23
DRILLING DATE: 4/14/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

	FIELD DATA				LABORATORY DATA								DRILLING METHOD(S):	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CUFT	COMPRESSIVE STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	Dry auger drilling techniques were used to the termination depth of the boring.	
					LL	PL	PI						SUBSURFACE WATER INFORMATION: Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.	
														DESCRIPTION OF STRATUM
		G		15	33	12	21						Brown Sandy Clay	
		G		15	33	12	21						Brown Reddish Sandy Clay at 2'	
5		G		24	22	15	7						Olive Green and Grey Sandy Clay at 5'	
		G		23	22	15	7							
		G		23	22	15	7							
15													Boring Terminated at 15 Foot of Depth	
20	N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION												REMARKS: GPS 596784 3265178	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

LOG OF BORING



PROJECT: Park House Subdivision
FM 725
Seguin, Tx

PROJECT NO.: FGS-G-23113
BORING NO.: B-24
DRILLING DATE: 5/2/2023
SURFACE ELEVATION:

CLIENT: Republic Land and Development Company

PAGE 1 of 1

FIELD DATA		LABORATORY DATA										DRILLING METHOD(S): Dry auger drilling techniques were used to the termination depth of the boring.	
SOIL SYMBOL	DEPTH (FT)	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: BLOWS R: % RQD: %	MOISTURE CONTENT (%)	ATTERBERG LIMITS			DRY DENSITY POUNDS/CU FT	COMPRESSION STRENGTH (TONS/SQ FT)	FAILURE STRAIN (%)	CONFINING PRESSURE (POUNDS/SQ IN)	MINUS NO. 200 SIEVE (%)	SUBSURFACE WATER INFORMATION: Subsurface water was not encountered either during or upon completion of drilling operations and subsurface water observations.
					LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX						
			N = 2	12	34	13	21						DESCRIPTION OF STRATUM
			N = 34	9	33	13	20						
	5		N = 56	12	26	15	11						Tan and Grey Sandy Clay at 6'
			N = 70	13	26	15	11						
	10												Light Grey with Reddish Sandy Clay at 13.5'
			N = 54	16	19	16	3						
	15												Light Tan with White Sandy Clay at 18.5'
			N = 62	15	19	16	3						
	20												White Sand Stone at 28.5' (Very Hard)
			N = 59	17	19	16	3						
	25												Boring Terminated at 30' Foot of Depth
			N = 50/10	11	19	16	3						
	30												
	35												
N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE T - TXDOT CONE PENETRATION RESISTANCE R - ROCK CORE RECOVERY RQD - ROCK QUALITY DESIGNATION												REMARKS: GPS 596811 3265928	

FROST LOG FGS-G23113.GPJ FROST.GDT 5/8/23

This log is not valid if separated from the report.

PVR VALUES

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 1				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	15	3.0	X		
II	24	7.0	X		
III	30	10.0		X	
IV	27	12.0		X	
V	11	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 0.99 inches	
Effective Plasticity Index	
BRAB 22	PCI 22
Soil Support Index	
BRAB 0.93	PCI 0.93
Soil/Climatic Rating Factor	
1 - C _w = 0.07	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 2				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	44	2.0	X		
II	28	5.0	X		
III	12	7.0		X	
IV	11	9.0		X	
V	11	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 1.46 inches	
Effective Plasticity Index	
BRAB 44	PCI 25
Soil Support Index	
BRAB 0.68	PCI 0.90
Soil/Climatic Rating Factor	
1 - C _w = 0.10	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 3				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	26	2.0	X		
II	11	5.0	X		
III	9	7.0		X	
IV	9	9.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 0.54 inches	
Effective Plasticity Index	
BRAB 26	PCI 17
Soil Support Index	
BRAB 0.88	PCI 0.98
Soil/Climatic Rating Factor	
1 - C _w = 0.02	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 4				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	39	2.0	X		
II	28	5.0	X		
III	12	7.0		X	
IV	8	9.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 1.33 inches	
Effective Plasticity Index	
BRAB 39	PCI 24
Soil Support Index	
BRAB 0.73	PCI 0.91
Soil/Climatic Rating Factor	
1 - C _w = 0.09	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 5				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	14	2.0	X		
II	13	5.0	X		
III	9	7.0		X	
IV	8	9.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 0.29 inches	
Effective Plasticity Index	
BRAB 15	PCI 15
Soil Support Index	
BRAB 1.00	PCI 1.00
Soil/Climatic Rating Factor	
1 - C _w = 0.00	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 6				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	18	2.0	X		
II	26	5.0	X		
III	10	7.0		X	
IV	9	9.0		X	
V	9	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR =	0.82 inches
Effective Plasticity Index	
BRAB 19	PCI 19
Soil Support Index	
BRAB 0.97	PCI 0.97
Soil/Climatic Rating Factor	
1 - C _w = 0.03	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 7				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	30	2.0	X		
II	24	5.0	X		
III	27	7.0		X	
IV	25	10.0		X	
V	12	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 1.23 inches	
Effective Plasticity Index	
BRAB 30	PCI 24
Soil Support Index	
BRAB 0.83	PCI 0.90
Soil/Climatic Rating Factor	
1 - C _w = 0.10	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 8				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	14	2.0	X		
II	15	5.0	X		
III	26	7.0		X	
IV	25	10.0		X	
V	24	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR =	0.55 inches
Effective Plasticity Index	
BRAB 20	PCI 20
Soil Support Index	
BRAB 0.96	PCI 0.96
Soil/Climatic Rating Factor	
1 - C _w = 0.04	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 9				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	25	2.0	X		
II	25	5.0	X		
III	14	7.0		X	
IV	13	10.0		X	
V	13	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 0.93 inches	
Effective Plasticity Index	
BRAB 25	PCI 20
Soil Support Index	
BRAB 0.89	PCI 0.94
Soil/Climatic Rating Factor	
1 - C _w = 0.06	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 10				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	24	2.0	X		
II	23	5.0	X		
III	15	7.0		X	
IV	14	10.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR =	0.86 inches
Effective Plasticity Index	
BRAB 24	PCI 19
Soil Support Index	
BRAB 0.90	PCI 0.96
Soil/Climatic Rating Factor	
1 - C _w = 0.04	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 11				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	26	2.0	X		
II	13	5.0	X		
III	9	7.0		X	
IV	8	10.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 0.59 inches	
Effective Plasticity Index	
BRAB 26	PCI 17
Soil Support Index	
BRAB 0.88	PCI 0.98
Soil/Climatic Rating Factor	
1 - C _w = 0.02	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 12				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	36	2.0	X		
II	27	5.0	X		
III	26	7.0		X	
IV	11	10.0		X	
V	11	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR =	1.35 inches
Effective Plasticity Index	
BRAB 36	PCI 24
Soil Support Index	
BRAB 0.77	PCI 0.90
Soil/Climatic Rating Factor	
1 - C _w = 0.10	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 13				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	26	2.0	X		
II	25	5.0	X		
III	15	7.0		X	
IV	14	10.0		X	
V	14	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR =	0.96 inches
Effective Plasticity Index	
BRAB 26	PCI 20
Soil Support Index	
BRAB 0.88	PCI 0.94
Soil/Climatic Rating Factor	
1 - C _w = 0.06	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 14				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	24	2.0	X		
II	13	5.0	X		
III	9	7.0		X	
IV	9	10.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 0.55 inches	
Effective Plasticity Index	
BRAB 24	PCI 17
Soil Support Index	
BRAB 0.90	PCI 0.99
Soil/Climatic Rating Factor	
1 - C _w = 0.01	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 15				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	22	2.0	X		
II	20	5.0	X		
III	11	7.0		X	
IV	11	10.0		X	
V	11	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 0.73 inches	
Effective Plasticity Index	
BRAB 22	PCI 18
Soil Support Index	
BRAB 0.92	PCI 0.98
Soil/Climatic Rating Factor	
1 - C _w = 0.02	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 16				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	15	2.0	X		
II	14	5.0	X		
III	9	7.0		X	
IV	9	10.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR =	0.36 inches
Effective Plasticity Index	
BRAB 15	PCI 15
Soil Support Index	
BRAB 1.00	PCI 1.00
Soil/Climatic Rating Factor	
1 - C _w = 0.00	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 17				
Surcharge Pressure: 1.00 psi Climatic Rating, C_w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	14	2.0	X		
II	8	5.0	X		
III	8	7.0		X	
IV	8	10.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 0.21 inches	
Effective Plasticity Index	
BRAB 15	PCI 15
Soil Support Index	
BRAB 1.00	PCI 1.00
Soil/Climatic Rating Factor	
$1 - C_w = $ 0.00	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 18				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	8	2.0	X		
II	8	5.0	X		
III	14	7.0		X	
IV	13	10.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR =	0.09 inches
Effective Plasticity Index	
BRAB 15	PCI 15
Soil Support Index	
BRAB 1.00	PCI 1.00
Soil/Climatic Rating Factor	
1 - C _w = 0.00	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 19				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	8	2.0	X		
II	10	5.0	X		
III	8	7.0		X	
IV	8	10.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 0.12 inches	
Effective Plasticity Index	
BRAB 15	PCI 15
Soil Support Index	
BRAB 1.00	PCI 1.00
Soil/Climatic Rating Factor	
1 - C _w = 0.00	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 20				
Surcharge Pressure: 1.00 psi Climatic Rating, C_w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	13	2.0	X		
II	13	5.0	X		
III	8	7.0		X	
IV	8	10.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR =	0.26 inches
Effective Plasticity Index	
BRAB 15	PCI 15
Soil Support Index	
BRAB 1.00	PCI 1.00
Soil/Climatic Rating Factor	
$1 - C_w =$ 0.00	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 21				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	8	2.0	X		
II	8	5.0	X		
III	8	7.0		X	
IV	8	10.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR =	0.09 inches
Effective Plasticity Index	
BRAB 15	PCI 15
Soil Support Index	
BRAB 1.00	PCI 1.00
Soil/Climatic Rating Factor	
1 - C _w = 0.00	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 22				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	8	2.0	X		
II	8	5.0	X		
III	12	7.0		X	
IV	12	10.0		X	
V	12	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR =	0.09 inches
Effective Plasticity Index	
BRAB 15	PCI 15
Soil Support Index	
BRAB 1.00	PCI 1.00
Soil/Climatic Rating Factor	
1 - C _w = 0.00	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 23				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	21	2.0	X		
II	21	5.0	X		
III	8	7.0		X	
IV	8	10.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 0.74 inches	
Effective Plasticity Index	
BRAB 21	PCI 18
Soil Support Index	
BRAB 0.93	PCI 0.97
Soil/Climatic Rating Factor	
1 - C _w = 0.03	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

PVR Calculator					
Frost GeoSciences, Inc. 13402 Western Oak Helotes, Texas 78023					
Project Name:	PARK HOUSE SUBDIVISION				
Project Location:	F. M. 725				
Project City:	SEGUIN, TEXAS				
Project Number:	FGS-G-23113				
Boring Number:	B - 24				
Surcharge Pressure: 1.00 psi Climatic Rating, C _w : 16					
Stratum	Plasticity Index	Bottom Depth (feet)	Moisture Condition		
			Dry	Average	Optimum
I	21	2.0	X		
II	11	5.0	X		
III	11	7.0		X	
IV	11	10.0		X	
V	8	15.0			X
VI					
VII					
VIII					

PVR Results	
PVR = 0.44 inches	
Effective Plasticity Index	
BRAB 21	PCI 16
Soil Support Index	
BRAB 0.93	PCI 0.99
Soil/Climatic Rating Factor	
1 - C _w = 0.01	

RULES
1.) Depths should not extend greater than 15 feet. 2.) Use only one moisture condition per stratum. 3.) Moisture conditions must be selected using an "x". 4.) Integers or one-half foot intervals must be used. 5.) Use PI = 8 for none expansive layers. 6.) DO NOT USE PI = 0 FOR NON-EXPANSIVE LAYERS. 7.) Error checking is limited.

SYMBOL KEY

Symbol Key Sheet

Material Symbols

	"FILL"		Clay (CH)		Sandy Clay (CL)		Silty Clay (CL)		Gravelly Clay (CL)
	Asphalt		Clayey Sand (SC)		Sand (SP)		Silty Sand (SM)		Gravelly Sand (SP)
	Base		Clayey Silt (ML)		Sandy Silt (ML)		Silt (ML)		Gravelly Silt (ML)
	Concrete		Clayey Gravel (GC)		Sandy Gravel (GP)		Silty Gravel (GM)		Gravel (GP or GW)
	Conglomerate		Limestone		Marl		Sandstone		Shale

Strength of Cohesive Soils

Consistency	Undrained Shear Strength, KSF
Very Soft	less than 0.25
Soft	0.25 to 0.50
Firm	0.50 to 1.00
Stiff	1.00 to 2.00
Very Stiff	2.00 to 4.00
Hard	greater than 4.00

Soil Plasticity

Degree of Plasticity	Plasticity Index (PI)
None	0 to 5
Low	5 to 10
Moderate	10 to 20
Plastic	20 to 40
Highly Plastic	more than 40

Density of Granular Soils

Descriptive Term	SPT Blow Count (blows/ft)
Very Loose	less than 4
Loose	4 to 10
Medium Dense	10 to 30
Dense	30 to 50
Very Dense	more than 50

Standard Penetration Test (ASTM D 1586) Driving Record

Note: Driving is limited to 50 blows per interval, or 25 blows for 0.25 inch advancement, whichever controls. This is done to avoid damaging sampling tools.

Blows Per Foot

25

75/8"

Ref/2"

Description

Sampler was seated 6 inches, then 25 blows were required to advance the sampler 12 inches.

Sampler was seated 6 inches, 25 blows were required for the second 6 inch increment and the 50 blow limit was reached at 2 inches of the last increment.

Sampler could only be driven 2 inches of the 6 inch seating penetration before the 50 blow limit was reached.

Terms Characterizing Structure

Soil Terms

Blocky
Calcareous
Fissured

Interbedded
Laminated
Nodules
Partings
Pockets
Seams
Slickensided

Streaks or Stains

Description

Contains cracks or failure planes resulting in rough cubes of material.

Contains appreciable quantities of calcium carbonate.

Contains shrinkage cracks, which are frequently filled with fine sand or silt. The fissures are usually near vertical in orientation.

Composed of alternating layers of different soil types.

Composed of thin layers of varying color and texture.

Secondary inclusions that appear as small lumps about 0.1 to 0.3 inch in diameter.

Inclusion of different material less than 1/8 inch thick extending through the sample.

Inclusion of different material that is smaller than the diameter of the sample.

Inclusion of different material between 1/8 and 3 inches thick, and extends through the sample.

Has inclined planes of weakness that are slick and glossy in appearance. Slickensides are commonly thought to be randomly oriented.

Stains of limited extent that appear as short stripes, spots or blotches.

Rock Terms

Bedding Plane
Fracture
Joint
% Recovery
RQD - Rock Quality Designation
Weathering

A surface parallel to the surface of deposition, generally marked by changes in color or grain size.

A natural break in rock along which no displacement has occurred.

A natural break along which no displacement has occurred, and which generally intersects primary surfaces.

The ratio of total length of recovery to the total length of core run, expressed as a percentage.

The ratio of total recovered length of fragments longer than 4 inches to the total run length, expressed as a percentage.

The process by which rock is broken down and decomposed.

Sampler Symbols

	Flight Auger		Core Barrel (NX)		Disturbed Sample		No Recovery		Piston Sampler		Shelby Tube (3")		Split Barrel (SPT)
--	--------------	--	------------------	--	------------------	--	-------------	--	----------------	--	------------------	--	--------------------

APPENDIX "B"

**Moisture Density Relationship
CBR Test Results
Lime / Plastic Index Curve
Lime / Unconfined Curve
Moisture Density Relationship
Tensor Design Analysis**

MOISTURE DENSITY



13406 Western Oak
Helotes, TX 78023
(210) 372-1315 phone (210) 372-1318 fax

Project #: FGS-G23113

Project: Park House Subdivision

Report Date: 4/24/2023
Sample Date: 4/14/2023

Client: Republic Land and Development

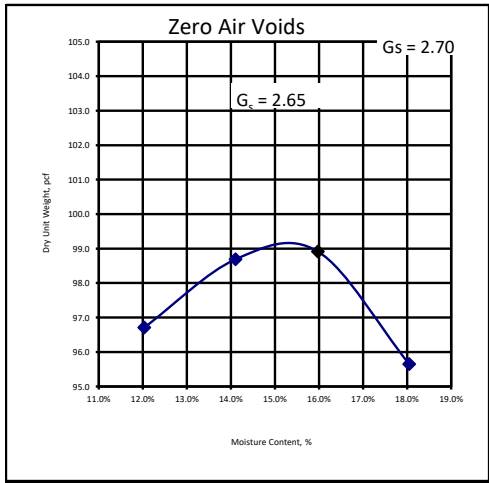
Report: ASTM - Standard Proctor

Material: Subgrade

LAB NO: 4102

Report #: S1 (By B-4)

Moisture-Density Relationship - Subgrade Soil



Test Results

% Moisture

12.0%
14.1%
16.0%
18.0%

Dry Density Lbs./ft³

96.7
98.7
98.9
95.7

Optimum = 15.3

Maximum = 99.2

Sieve	% Passing
3 inch	100.0%
3/4 inch	100.0%
3/8 inch	100.0%
No. 4	100.0%
No.10	99.1%
No. 40	98.1%
No.100	66.2%
No.200	63.9%

Color: Dark Brown
Description: Clay

Liquid Limit: 60
Plastic Limit: 16
Plasticity Index: 44

Desc of Rammer: Mechanical

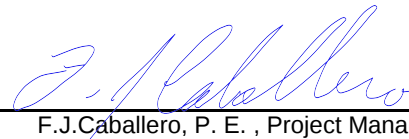
Preparation Method: Dry

Remarks: No comments at this time.

Location: Project Site

Test Method (As Applicable): ASTM D-698 A
ASTM D-4318

Respectfully Submitted,
Frost GeoSciences, Inc.


F.J. Caballero, P. E., Project Manager

THIS REPORT APPLIES ONLY TO THE STANDARDS OR PROCEDURES INDICATED AND TO THE SAMPLE(S) TESTED AND/OR OBSERVED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS OR PROCEDURES, NOR DO THEY REPRESENT AN ONGOING QUALITY ASSURANCE PROGRAM UNLESS SO NOTED. THESE REPORTS ARE FOR THE EXCLUSIVE USE OF THE ADDRESSED CLIENT AND ARE NOT TO BE REPRODUCED WITHOUT PERMISSION.



13406 Western Oak
Helotes, TX 78023
(210) 372-1315 phone (210) 372-1318 fax

Project #: FGS-G-23113

Project: Park House Subdivision

Report Date: 4/24/2023
Sample Date: 4/14/2023

Client: Republic Land and Development

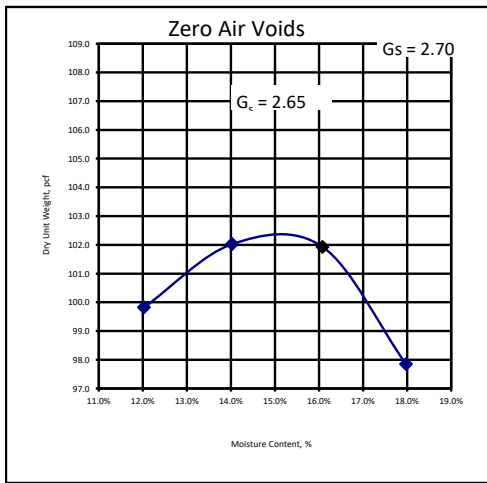
Report: ASTM - Standard Proctor

Material: Subgrade

LAB NO: 4102

Report #: S2 (By B-6)

Moisture-Density Relationship - Subgrade Soil



Test Results

% Moisture

12.0%
14.0%
16.1%
18.0%

Dry Density Lbs./ft³

99.8
102.0
101.9
97.8

Optimum = 15

Maximum = 102.4

Sieve	% Passing
3 inch	100.0%
3/4 inch	100.0%
3/8 inch	100.0%
No. 4	100.0%
No.10	99.2%
No. 40	98.2%
No.100	62.7%
No.200	61.1%

Color: Dark Brown
Description: Clay

Liquid Limit: 42
Plastic Limit: 12
Plasticity Index: 30

Desc of Rammer: Mechanical

Preparation Method: Dry

Remarks: No comments at this time.

Location: Project Site

Test Method (As Applicable): ASTM D-698 A
ASTM D-4318

Respectfully Submitted,
Frost GeoSciences, Inc.


F.J. Caballero, P. E., Project Manager

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13406 Western Oak
Helotes, TX 78023
(210) 372-1315 phone (210) 372-1318 fax

Project #: FGS-G23113

Project: ParkHouse Subdivision

Report Date: 4/21/2023
Sample Date: 4/14/2023

Client: Republic Land and Development Company

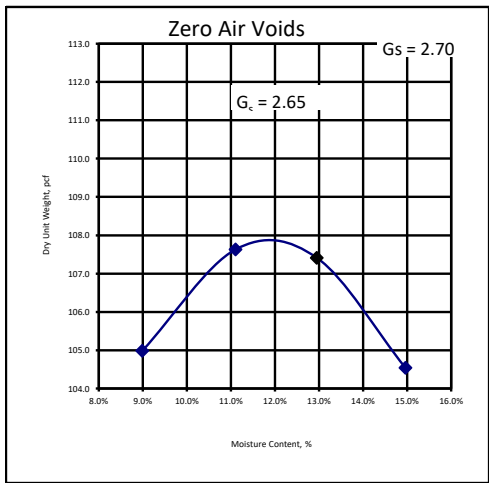
Report: ASTM - Standard Proctor

Material: Subgrade

LAB NO: 4102

Report #: S3 (By B-17)

Moisture-Density Relationship - Subgrade Soil



Test Results

% Moisture

9.0%
11.1%
13.0%
15.0%

Dry Density Lbs./ft³

105.0
107.6
107.4
104.5

Optimum = 12

Maximum = 107.9

Sieve	% Passing
3 inch	100.0%
3/4 inch	100.0%
3/8 inch	100.0%
No. 4	100.0%
No.10	98.1%
No. 40	96.2%
No.100	21.9%
No.200	17.2%

Color: Dark Brown
Description: Sand
Liquid Limit: #DIV/0!
Plastic Limit: #DIV/0!
Plasticity Index: #DIV/0!

Desc of Rammer: Mechanical

Preparation Method: Dry

Remarks: No comments at this time.

Location: Project Site

Test Method (As Applicable): ASTM D-698 A
ASTM D-4318

Respectfully Submitted,
Frost GeoSciences, Inc.


F.J. Caballero, P. E., Project Manager

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13406 Western Oak
Helotes, TX 78023
(210) 372-1315 phone (210) 372-1318 fax

Project #: FGS-G-23113

Project: ParkHouse Subdivision

Report Date: 4/21/2023
Sample Date: 4/14/2023

Client: Republic Land and Development

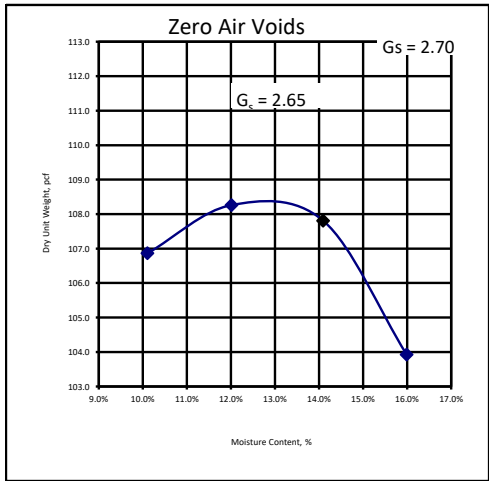
Report: ASTM - Standard Proctor

Material: Subgrade

LAB NO: 4102

Report #: S4 (By B-8)

Moisture-Density Relationship - Subgrade Soil



Test Results

% Moisture

10.1%
12.0%
14.1%
16.0%

Dry Density Lbs./ft³

106.9
108.3
107.8
103.9

Optimum = 13

Maximum = 108.4

Sieve	% Passing
3 inch	100.0%
3/4 inch	100.0%
3/8 inch	100.0%
No. 4	100.0%
No.10	98.2%
No. 40	96.7%
No.100	27.0%
No.200	23.0%

Color: Dark Brown
Description: Sand
Liquid Limit: #DIV/0!
Plastic Limit: #DIV/0!
Plasticity Index: #DIV/0!

Desc of Rammer: Mechanical

Preparation Method: Dry

Remarks: No comments at this time.

Location: Project Site

Test Method (As Applicable): ASTM D-698 A
ASTM D-4318

Respectfully Submitted,
Frost GeoSciences, Inc.


F.J. Caballero, P. E., Project Manager

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CBR RESULTS

Frost GeoSciences, Inc.
13406 Western Oak
Helotes, Texas 78023

CBR (California Bearing Ratio)
ASTM D1883

Project Name: Park House Subdivision
Soil Desc: Dark Brown Clay CBR #1 (By B-4)
Tested By: Miguel Gonzalez Jr.

Project #: FGS-G-23113

Test Date: 04/29/23

Compaction Energy: Rammer: 5.5 lbs. # layers: 3 Blows: 56
w at compaction: 15.30% Mold Dia. 6 in. Soil Ht. 4.584 in.
Volume 0.075 ft.³ Opt. M.C. 15.3
Date/Time 4/26/2023 8:00am 4/29/2023 8:15am %S Opt. Dry Unit wt. 99.2
Swell Data 0.000 0.004 0.09

Mold # 1
Surcharge, lbs. 10
Initial mass of wet soil + mold, lbs. 26.906
Final mass of wet soil + mold, lbs. 26.95
Mass of Mold, lbs. 18.044
Initial mass of wet soil, lbs. 8.862

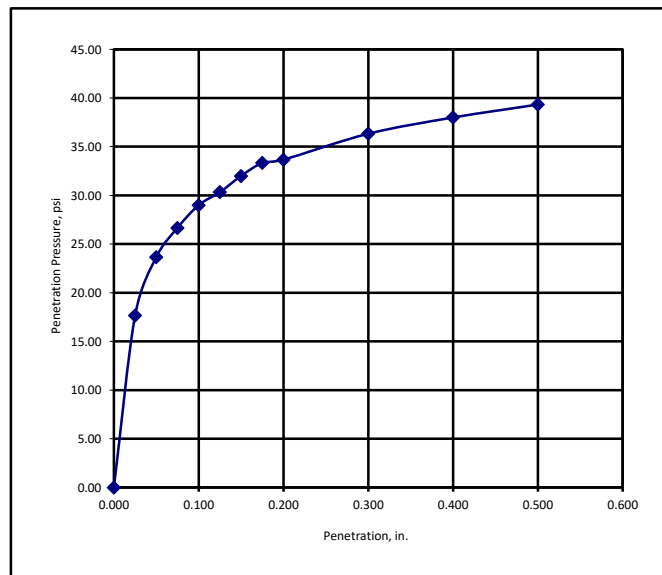
Dry density = 99.1 Comp. 0.99899
Moisture = 15.8 Points Opt. 0.45336

ASTM D2216 Moisture Content

Compaction	Project #	Can No.	Wet Wt. (1)	Dry Wt. (2)	Tare Wt. (3)	(1) - (2) = A	(2) - (3) = B	%MC = A/B*100
Before	GS-G-23113		649.08	547.05	127.81	102.03	419.24	24.3369
After	GS-G-23113		760.84	718.49	127.82	42.35	590.67	7.169824

ASTM D1883 Date: 4/29/2023
Time: 8:30am

Strain, in.	Load, lbs	Stress, psi	CBR
0.000	0.00	0.00	
0.025	53.00	17.67	
0.050	71.00	23.67	
0.075	80.00	26.67	
0.100	87.00	29.00	2.9
0.125	91.00	30.33	
0.150	96.00	32.00	
0.175	100.00	33.33	
0.200	101.00	33.67	2.2
0.300	109.00	36.33	
0.400	114.00	38.00	
0.500	118.00	39.33	



Frost GeoSciences, Inc.
13406 Western Oak
Helotes, Texas 78023

CBR (California Bearing Ratio)
ASTM D1883

Project Name: Park House Subdivision
Soil Desc: Dark Brown Clay CBR #2 (By B-6)
Tested By: Miguel Gonzalez Jr.

Project #: FGS-G-23113

Test Date: 04/29/23

Compaction Energy: Rammer: 5.5 lbs. # layers: 3 Blows: 56
w at compaction: 15.00% Mold Dia. 6 in. Soil Ht. 4.584 in.
Volume 0.075 ft.³ Opt. M.C. 15.0
Date/Time 4/26/2023 8:45am 4/29/2023 9:00am %S Opt. Dry Unit wt. 102.4
Swell Data 0.000 0.005 0.11

Mold # 2
Surcharge, lbs. 10
Initial mass of wet soil + mold, lbs. 26.816
Final mass of wet soil + mold, lbs. 26.844
Mass of Mold, lbs. 18.052
Initial mass of wet soil, lbs. 8.764

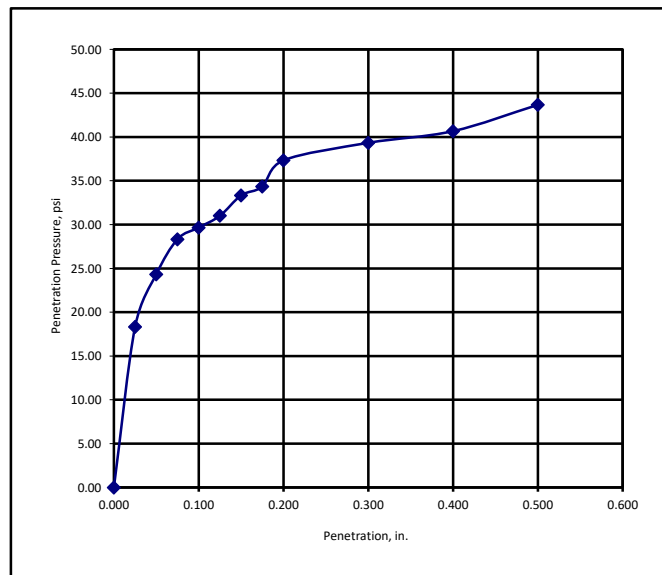
Dry density = 101.0 Comp. 0.98633
Moisture = 15.0 Points Opt. 0.00154

ASTM D2216 Moisture Content

Compaction	Project #	Can No.	Wet Wt. (1)	Dry Wt. (2)	Tare Wt. (3)	(1) - (2) = A	(2) - (3) = B	%MC = A/B*100
Before	GS-G-23113		674.44	562.05	128.82	112.39	433.23	25.94234
After	GS-G-23113		742.26	718.49	133.13	23.77	585.36	4.060749

ASTM D1883 Date: 4/29/2023
Time: 9:15am

Strain, in.	Load, lbs	Stress, psi	CBR
0.000	0.00	0.00	
0.025	55.00	18.33	
0.050	73.00	24.33	
0.075	85.00	28.33	
0.100	89.00	29.67	3.0
0.125	93.00	31.00	
0.150	100.00	33.33	
0.175	103.00	34.33	
0.200	112.00	37.33	2.5
0.300	118.00	39.33	
0.400	122.00	40.67	
0.500	131.00	43.67	



Frost GeoSciences, Inc.
13406 Western Oak
Helotes, Texas 78023

CBR (California Bearing Ratio)
ASTM D1883

Project Name: ParkHouse Subdivision
Soil Desc. Dark Brown Sand CBR #3 (BY B-17)
Tested By: Miguel Gonzalez Jr.

Project #: FGS-G-23113

Test Date: 04/25/23

Compaction Energy: Rammer: 5.5 lbs. # layers: 3 Blows: 56
w at compaction: 12.00% Mold Dia. 6 in. Soil Ht. 4.584 in.
Volume 0.075 ft.³ Opt. M.C. 12.0
Initial Final %S Opt. Dry Unit wt. 107.09

Date/Time	4/22/23 8:00am	4/25/23 8:15am	
Swell Data	0.000	0.005	0.11

Mold # 3
Surcharge, lbs. 10
Initial mass of wet soil + mold, lbs. 27.15
Final mass of wet soil + mold, lbs. 27.274
Mass of Mold, lbs. 18.046
Initial mass of wet soil, lbs. 9.104

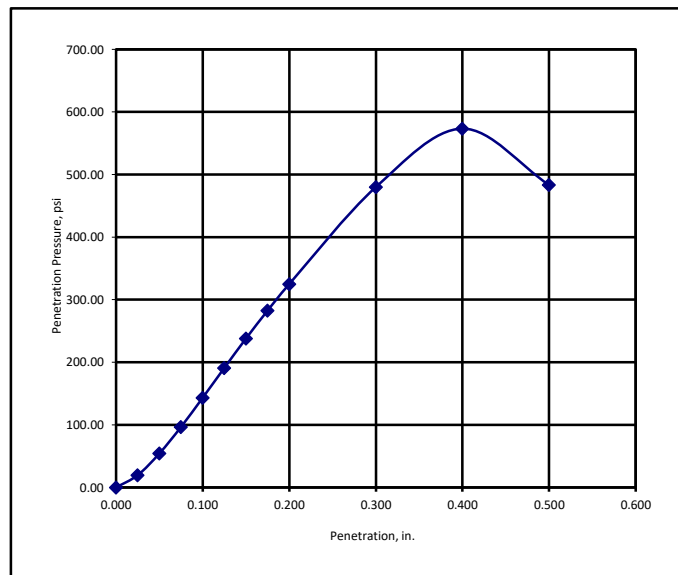
Dry density = 107.7 Comp. 1.00581
Moisture = 12.7 Points Opt. 0.69507

ASTM D2216 Moisture Content

Compaction	Project #	Can No.	Wet Wt. (1)	Dry Wt. (2)	Tare Wt. (3)	(1) - (2) = A	(2) - (3) = B	%MC = A/B*100
Before	GS-G-23113		659.93	600.47	128.11	59.46	472.36	12.58786
After	GS-G-23113		668.84	607.43	127.75	61.41	479.68	12.80228

ASTM D1883 Date: 4/25/2023
Time: 8:30am

Strain, in.	Load, lbs	Stress, psi	CBR
0.000	0.00	0.00	
0.025	59.00	19.67	
0.050	163.00	54.33	
0.075	290.00	96.67	
0.100	430.00	143.33	14.3
0.125	573.00	191.00	
0.150	714.00	238.00	
0.175	848.00	282.67	
0.200	975.00	325.00	21.7
0.300	1440.00	480.00	
0.400	1720.00	573.33	
0.500	1450.00	483.33	



Frost GeoSciences, Inc.
13406 Western Oak
Helotes, Texas 78023

CBR (California Bearing Ratio)
ASTM D1883

Project Name: **ParkHouse Subdivision**

Project #: **FGS-G-23113**

Soil Desc. **Dark Brown Sand CBR # 4 (By B-8)**

Tested By: **Miguel Gonzalez Jr.**

Test Date: **04/25/23**

Compaction Energy: Rammer: **5.5** lbs. # layers: **3** Blows: **56**
w at compaction: **13.00%** Mold Dia. **6** in. Soil Ht. **4.584** in.
Volume **0.075** ft.³ Opt. M.C. **13.0**
Opt. Dry Unit wt. **108.4**
Date/Time **4/22/2023 8:45am** **4/25/23 9:00am** **%S**
Swell Data **0.000** **0.01** **0.22**

Mold # **4**
Surcharge, lbs. **10**
Initial mass of wet soil + mold, lbs. **27.266**
Final mass of wet soil + mold, lbs. **27.3**
Mass of Mold, lbs. **18.092**
Initial mass of wet soil, lbs. **9.174**

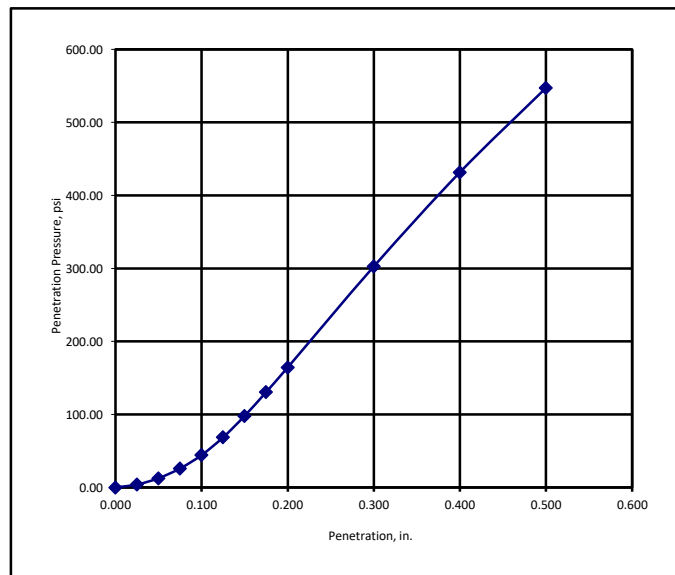
Dry density = **107.4** Comp. **0.99055**
Moisture = **13.9** Points Opt. **0.91752**

ASTM D2216 Moisture Content

Compaction	Project #	Can No.	Wet Wt. (1)	Dry Wt. (2)	Tare Wt. (3)	(1) - (2) = A	(2) - (3) = B	%MC = A/B*100
Before	GS-G-23113		667.97	601.46	128.58	66.51	472.88	14.06488
After	GS-G-23113		755.51	679.54	127.84	75.97	551.7	13.77016

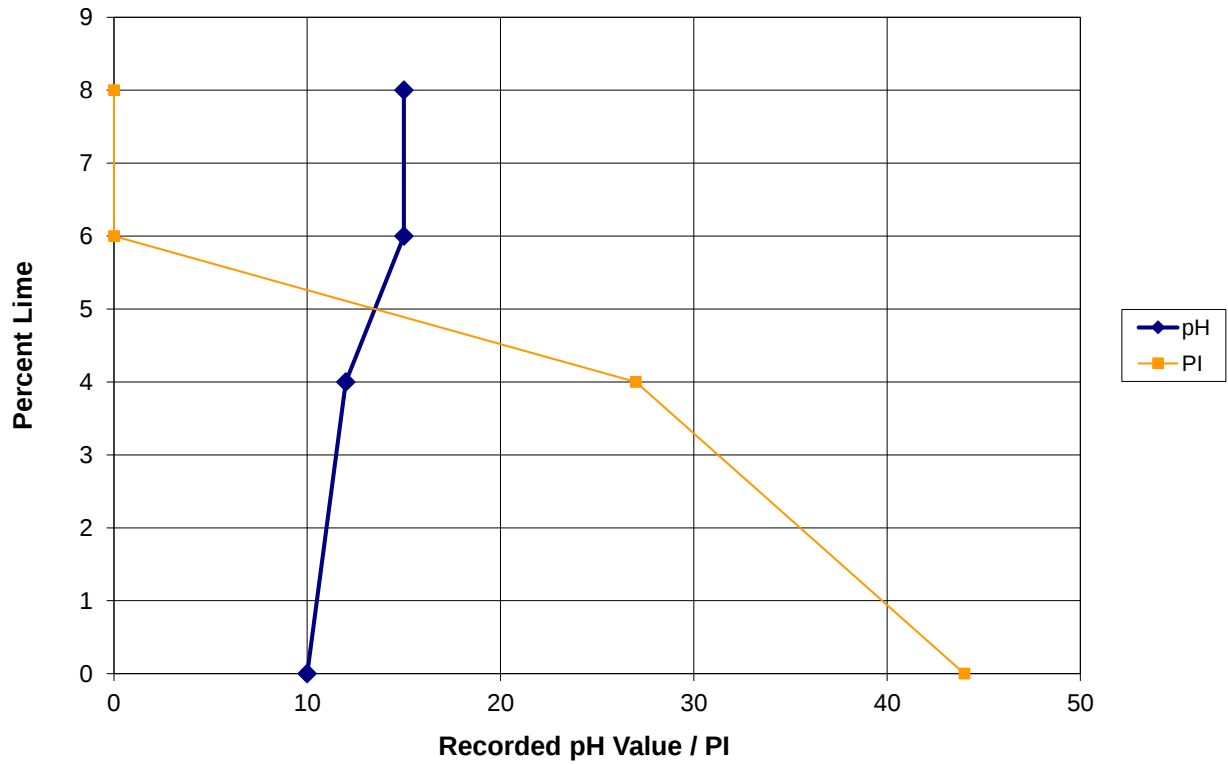
ASTM D1883 Date: **4/25/2023**
Time: **9:15am**

Strain, in.	Load, lbs	Stress, psi	CBR
0.000	0.00	0.00	
0.025	12.00	4.00	
0.050	38.00	12.67	
0.075	78.00	26.00	
0.100	133.00	44.33	4.4
0.125	206.00	68.67	
0.150	294.00	98.00	
0.175	392.00	130.67	
0.200	493.00	164.33	11.0
0.300	908.00	302.67	
0.400	1295.00	431.67	
0.500	1642.00	547.33	



LIME / PLASTIC INDEX CURVE

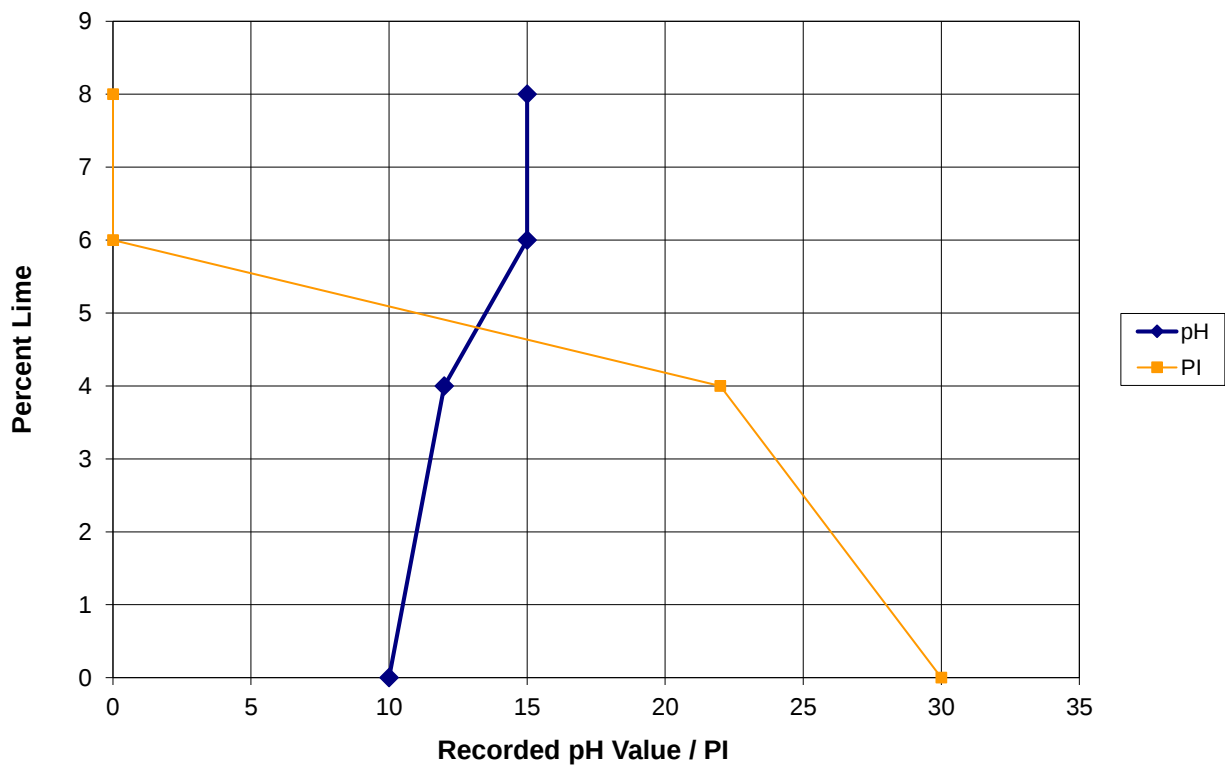
Lime % vs. pH Value



Project Name: Park House Subdivision (By B-4)
Project Number: FGS-G-23113
Soil Description: Dark Brown Clay

%Lime	pH	PI
0	10	44
4	12	27
6	15	0
8	15	0

Lime % vs. pH Value



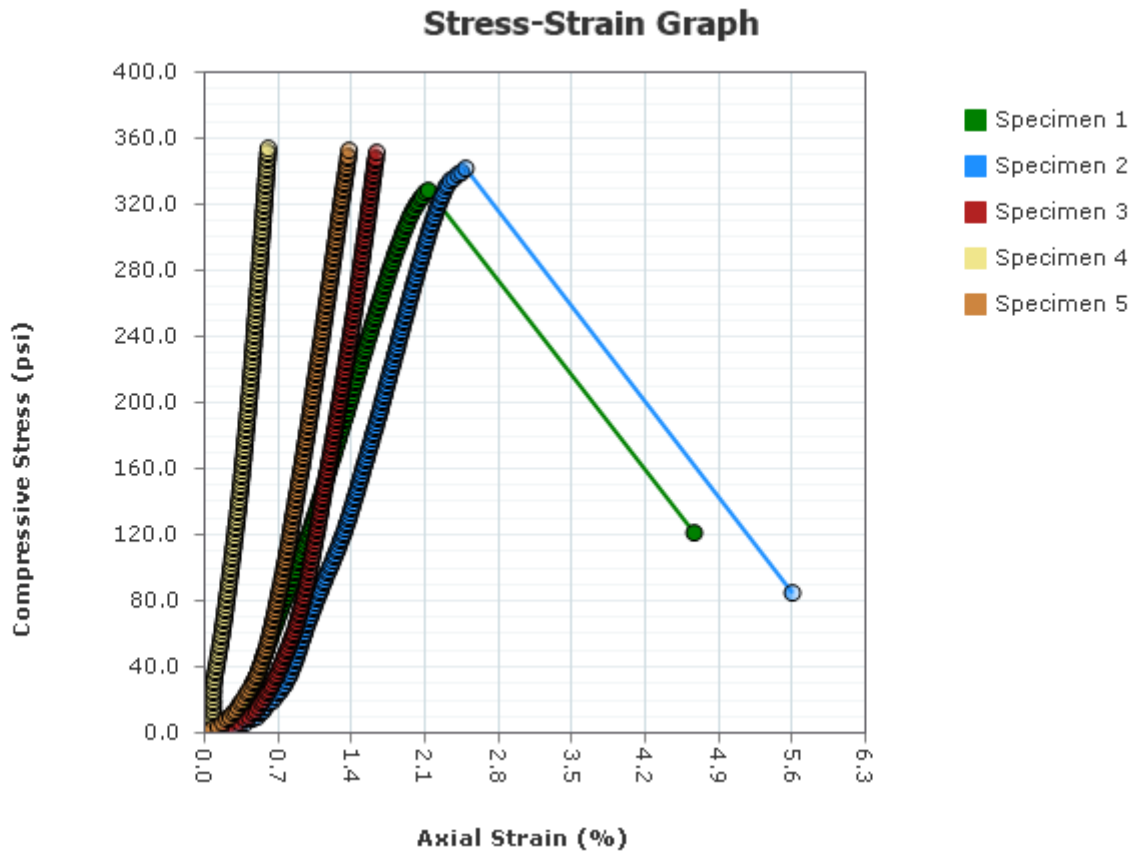
Project Name: Park House Subdivision (By B-6)
Project Number: FGS-G-23113
Soil Description: Dark Brown Clay

%Lime	pH	PI
0	10	30
4	12	22
6	15	0
8	15	0

**LIME / UNCONFINED
STRENGTH CURVE**

Unconfined Compression Test

ASTM D2166



Project: Park House Subdivision
Project Number: FGS-G-23113
Received Date: 4/27/2023
Sampling Date: 4/28/2023
Sample Number: S1
Sample Depth:
Boring Number:
Location: By (B-4)
Client Name: King Fish
Remarks:

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test

ASTM D2166

	Specimen Number							
Before Test	1	2	3	4	5	6	7	8
Moisture Content (%):	0.0	0.0	0.0	0.0	0.0			
Wet Density (pcf)	0.0	0.0	0.0	0.0	0.0			
Dry Density (pcf)	0.0	0.0	0.0	0.0	0.0			
Saturation (%):	0.0	0.0	0.0	0.0	0.0			
Void Ratio:	0.000	0.000	0.000	0.000	0.000			
Height (in)	4.5000	4.5000	4.5000	4.5000	4.5000			
Diameter (in)	4.0000	4.0000	4.0000	4.0000	4.0000			
Strain Limit @ 15% (in)	0.7	0.7	0.7	0.7	0.7			
Height To Diameter Ratio:	1.13	1.13	1.13	1.13	1.13			
Test Data	1	2	3	4	5	6	7	8
Failure Angle (°):	0	0	0	0	0			
Strain Rate (in/min)	0.09	0.09	0.09	0.09	0.09			
Strain Rate (%/min):	2.00	2.00	2.00	2.00	2.00			
Unconfined Compressive Strength (psi)	329.0	341.4	351.2	354.3	352.2			
Undrained Shear Strength (psi)	164.5	170.7	175.6	177.1	176.1			
Strain at Failure (%)	2.1	2.5	1.6	0.6	1.4			

Specific Gravity:	2.72	Plastic Limit:	16	Liquid Limit:	60
Type:	Grab	Soil Classification:	CH		

Project:	Park House Subdivision
Project Number:	FGS-G-23113
Sampling Date:	4/28/2023
Sample Number:	S1
Sample Depth:	
Boring Number:	
Location:	By (B-4)
Client Name:	King Fish
Remarks:	

Specimen 1 Failure Sketch	Specimen 2 Failure Sketch	Specimen 3 Failure Sketch	Specimen 4 Failure Sketch	Specimen 5 Failure Sketch	Specimen 6 Failure Sketch	Specimen 7 Failure Sketch	Specimen 8 Failure Sketch
							

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test

ASTM D2166

LIMS Code: [TO COME FROM LIMS]

Specimen 1

Other Associated Tests:

Sampling Method:	Material Moisture: Trimmings	Source Moisture: Before Shear
Molding Date: 5/5/2023	Test Date: 5/5/2023	
Large Particle: NO	Sensitivity: 0	
Technician:	Test Time: 5/5/2023	
Specimen Description: Dark Brown Clay		
Test Remarks: Lime '6/.		

Specimen 2

Other Associated Tests:

Sampling Method:	Material Moisture: Trimmings	Source Moisture: Before Shear
Molding Date: 5/5/2023	Test Date: 5/5/2023	
Large Particle: NO	Sensitivity: 0	
Technician:	Test Time: 5/5/2023	
Specimen Description: Dark Brown Clay		
Test Remarks: Lime 6'/.		

Specimen 3

Other Associated Tests:

Sampling Method:	Material Moisture: Trimmings	Source Moisture: Before Shear
Molding Date: 5/5/2023	Test Date: 5/5/2023	
Large Particle: NO	Sensitivity: 0	
Technician:	Test Time: 5/5/2023	
Specimen Description: Dark Brown Clay		
Test Remarks: Lime 8'/.		

Specimen 4

Other Associated Tests:

Sampling Method:	Material Moisture: Trimmings	Source Moisture: Before Shear
Molding Date: 5/5/2023	Test Date: 5/5/2023	
Large Particle: NO	Sensitivity: 0	
Technician:	Test Time: 5/5/2023	
Specimen Description: Dark Brown Clay		
Test Remarks: Lime 8'/.		

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test

ASTM D2166

LIMS Code: [TO COME FROM LIMS]

Specimen 5

Other Associated Tests:

Sampling Method:	Material Moisture: Trimmings	Source Moisture: Before Shear
Molding Date: 5/5/2023	Test Date: 5/5/2023	
Large Particle: NO	Sensitivity: 0	
Technician:	Test Time: 5/5/2023	
Specimen Description: Dark Brown Clay		
Test Remarks: Lime 8'/.		

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 1

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.07302	0.0025	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:01	50.3841	0.0040	25.3	0.0015	0.0	12.571	2.0	2.0
2	00:00:02	75.14671	0.0063	50.1	0.0038	0.1	12.577	4.0	4.0
3	00:00:05	100.1914	0.0099	75.1	0.0074	0.2	12.587	6.0	6.0
4	00:00:06	125.3099	0.0120	100.2	0.0095	0.2	12.593	8.0	8.0
5	00:00:08	150.4034	0.0137	125.3	0.0112	0.2	12.598	10.0	9.9
6	00:00:09	175.1543	0.0151	150.1	0.0126	0.3	12.602	11.9	11.9
7	00:00:10	200.4619	0.0163	175.4	0.0138	0.3	12.605	14.0	13.9
8	00:00:11	225.1659	0.0175	200.1	0.0150	0.3	12.608	15.9	15.9
9	00:00:11	250.2599	0.0186	225.2	0.0161	0.4	12.611	17.9	17.9
10	00:00:12	275.7553	0.0196	250.7	0.0171	0.4	12.614	19.9	19.9
11	00:00:13	300.7022	0.0205	275.6	0.0180	0.4	12.617	21.9	21.8
12	00:00:13	325.3587	0.0213	300.3	0.0188	0.4	12.619	23.9	23.8
13	00:00:14	350.2025	0.0220	325.1	0.0195	0.4	12.621	25.9	25.8
14	00:00:15	375.9301	0.0227	350.9	0.0202	0.4	12.623	27.9	27.8
15	00:00:15	400.3999	0.0234	375.3	0.0209	0.5	12.625	29.9	29.7
16	00:00:16	425.2808	0.0240	400.2	0.0216	0.5	12.627	31.8	31.7
17	00:00:16	450.4134	0.0246	425.3	0.0221	0.5	12.629	33.8	33.7
18	00:00:17	475.3149	0.0252	450.2	0.0227	0.5	12.630	35.8	35.6
19	00:00:17	500.9105	0.0257	475.8	0.0232	0.5	12.632	37.9	37.7
20	00:00:18	525.763	0.0263	500.7	0.0238	0.5	12.633	39.8	39.6
21	00:00:18	550.879	0.0268	525.8	0.0243	0.5	12.635	41.8	41.6
22	00:00:19	575.2902	0.0272	550.2	0.0247	0.5	12.636	43.8	43.5
23	00:00:19	600.2928	0.0277	575.2	0.0252	0.6	12.637	45.8	45.5
24	00:00:19	625.6435	0.0282	600.6	0.0257	0.6	12.639	47.8	47.5
25	00:00:20	650.7806	0.0287	625.7	0.0262	0.6	12.640	49.8	49.5
26	00:00:20	675.7852	0.0292	650.7	0.0267	0.6	12.641	51.8	51.5
27	00:00:21	700.6675	0.0297	675.6	0.0272	0.6	12.643	53.8	53.4
28	00:00:21	726.0304	0.0302	701.0	0.0277	0.6	12.644	55.8	55.4
29	00:00:22	751.1758	0.0307	726.1	0.0282	0.6	12.646	57.8	57.4
30	00:00:22	776.1901	0.0312	751.1	0.0287	0.6	12.647	59.8	59.4
31	00:00:22	800.1995	0.0317	775.1	0.0292	0.6	12.648	61.7	61.3
32	00:00:23	825.1791	0.0322	800.1	0.0297	0.7	12.650	63.7	63.3
33	00:00:23	850.1079	0.0327	825.0	0.0302	0.7	12.651	65.7	65.2

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Unconfined Compression Test - Specimen 1

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:00:24	875.1032	0.0332	850.0	0.0307	0.7	12.653	67.6	67.2
35	00:00:24	900.7003	0.0337	875.6	0.0312	0.7	12.654	69.7	69.2
36	00:00:25	925.2903	0.0342	900.2	0.0317	0.7	12.656	71.6	71.1
37	00:00:25	950.7001	0.0347	925.6	0.0322	0.7	12.657	73.7	73.1
38	00:00:26	975.8602	0.0353	950.8	0.0328	0.7	12.659	75.7	75.1
39	00:00:26	1000.611	0.0358	975.5	0.0333	0.7	12.660	77.6	77.1
40	00:00:26	1025.463	0.0363	1,000.4	0.0338	0.8	12.661	79.6	79.0
41	00:00:27	1050.246	0.0368	1,025.2	0.0343	0.8	12.663	81.6	81.0
42	00:00:27	1075.82	0.0374	1,050.7	0.0349	0.8	12.664	83.6	83.0
43	00:00:28	1100.289	0.0379	1,075.2	0.0354	0.8	12.666	85.6	84.9
44	00:00:28	1125.831	0.0384	1,100.8	0.0359	0.8	12.667	87.6	86.9
45	00:00:29	1150.508	0.0389	1,125.4	0.0365	0.8	12.669	89.6	88.8
46	00:00:29	1175.119	0.0395	1,150.0	0.0370	0.8	12.670	91.5	90.8
47	00:00:30	1200.634	0.0400	1,175.6	0.0375	0.8	12.672	93.5	92.8
48	00:00:30	1226.049	0.0405	1,201.0	0.0380	0.8	12.673	95.6	94.8
49	00:00:30	1250.46	0.0410	1,225.4	0.0385	0.9	12.675	97.5	96.7
50	00:00:31	1275.817	0.0415	1,250.7	0.0390	0.9	12.676	99.5	98.7
51	00:00:31	1300.966	0.0420	1,275.9	0.0395	0.9	12.678	101.5	100.6
52	00:00:32	1325.75	0.0426	1,300.7	0.0401	0.9	12.679	103.5	102.6
53	00:00:32	1350.813	0.0431	1,325.7	0.0406	0.9	12.681	105.5	104.5
54	00:00:33	1375.585	0.0436	1,350.5	0.0411	0.9	12.682	107.5	106.5
55	00:00:33	1400.175	0.0442	1,375.1	0.0417	0.9	12.684	109.4	108.4
56	00:00:34	1425.701	0.0447	1,400.6	0.0422	0.9	12.685	111.5	110.4
57	00:00:34	1451.107	0.0452	1,426.0	0.0427	0.9	12.687	113.5	112.4
58	00:00:35	1476.033	0.0457	1,451.0	0.0432	1.0	12.688	115.5	114.4
59	00:00:35	1500.377	0.0462	1,475.3	0.0437	1.0	12.690	117.4	116.3
60	00:00:35	1525.551	0.0467	1,500.5	0.0442	1.0	12.691	119.4	118.2
61	00:00:36	1550.699	0.0472	1,525.6	0.0447	1.0	12.692	121.4	120.2
62	00:00:36	1575.835	0.0477	1,550.8	0.0452	1.0	12.694	123.4	122.2
63	00:00:37	1600.39	0.0481	1,575.3	0.0456	1.0	12.695	125.4	124.1
64	00:00:37	1625.272	0.0486	1,600.2	0.0461	1.0	12.696	127.3	126.0
65	00:00:37	1651.095	0.0490	1,626.0	0.0465	1.0	12.698	129.4	128.1
66	00:00:38	1676.079	0.0495	1,651.0	0.0470	1.0	12.699	131.4	130.0
67	00:00:38	1700.78	0.0499	1,675.7	0.0474	1.1	12.700	133.3	131.9

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 1

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
68	00:00:39	1725.167	0.0503	1,700.1	0.0478	1.1	12.701	135.3	133.9
69	00:00:39	1751.155	0.0508	1,726.1	0.0483	1.1	12.703	137.4	135.9
70	00:00:39	1775.992	0.0512	1,750.9	0.0487	1.1	12.704	139.3	137.8
71	00:00:40	1800.932	0.0516	1,775.9	0.0491	1.1	12.705	141.3	139.8
72	00:00:40	1826.112	0.0520	1,801.0	0.0496	1.1	12.706	143.3	141.7
73	00:00:41	1850.266	0.0525	1,825.2	0.0500	1.1	12.707	145.2	143.6
74	00:00:41	1875.718	0.0529	1,850.6	0.0504	1.1	12.709	147.3	145.6
75	00:00:41	1900.29	0.0533	1,875.2	0.0508	1.1	12.710	149.2	147.5
76	00:00:42	1925.081	0.0537	1,900.0	0.0512	1.1	12.711	151.2	149.5
77	00:00:42	1950.785	0.0541	1,925.7	0.0517	1.1	12.712	153.2	151.5
78	00:00:42	1975.287	0.0545	1,950.2	0.0521	1.2	12.713	155.2	153.4
79	00:00:43	2000.226	0.0550	1,975.2	0.0525	1.2	12.715	157.2	155.3
80	00:00:43	2025.181	0.0554	2,000.1	0.0529	1.2	12.716	159.2	157.3
81	00:00:43	2050.491	0.0558	2,025.4	0.0533	1.2	12.717	161.2	159.3
82	00:00:44	2075.435	0.0562	2,050.4	0.0537	1.2	12.718	163.2	161.2
83	00:00:44	2100.542	0.0566	2,075.5	0.0541	1.2	12.719	165.2	163.2
84	00:00:45	2125.864	0.0571	2,100.8	0.0546	1.2	12.721	167.2	165.1
85	00:00:45	2150.942	0.0575	2,125.9	0.0550	1.2	12.722	169.2	167.1
86	00:00:45	2175.518	0.0579	2,150.4	0.0555	1.2	12.723	171.1	169.0
87	00:00:46	2201.221	0.0584	2,176.1	0.0559	1.2	12.724	173.2	171.0
88	00:00:46	2225.843	0.0588	2,200.8	0.0563	1.3	12.726	175.1	172.9
89	00:00:46	2251.301	0.0592	2,226.2	0.0567	1.3	12.727	177.2	174.9
90	00:00:47	2275.676	0.0596	2,250.6	0.0571	1.3	12.728	179.1	176.8
91	00:00:47	2300.097	0.0600	2,275.0	0.0575	1.3	12.729	181.0	178.7
92	00:00:47	2325.391	0.0605	2,300.3	0.0580	1.3	12.730	183.1	180.7
93	00:00:48	2350.75	0.0609	2,325.7	0.0584	1.3	12.732	185.1	182.7
94	00:00:48	2375.208	0.0613	2,350.1	0.0588	1.3	12.733	187.0	184.6
95	00:00:48	2400.908	0.0617	2,375.8	0.0592	1.3	12.734	189.1	186.6
96	00:00:49	2426.194	0.0622	2,401.1	0.0597	1.3	12.735	191.1	188.5
97	00:00:49	2450.321	0.0626	2,425.2	0.0601	1.3	12.736	193.0	190.4
98	00:00:49	2475.93	0.0630	2,450.9	0.0605	1.3	12.738	195.0	192.4
99	00:00:50	2500.268	0.0634	2,475.2	0.0610	1.4	12.739	197.0	194.3
100	00:00:50	2525.929	0.0639	2,500.9	0.0614	1.4	12.740	199.0	196.3
101	00:00:51	2550.187	0.0643	2,525.1	0.0618	1.4	12.741	200.9	198.2

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 1

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
102	00:00:51	2575.981	0.0647	2,550.9	0.0622	1.4	12.743	203.0	200.2
103	00:00:51	2600.731	0.0651	2,575.7	0.0626	1.4	12.744	205.0	202.1
104	00:00:52	2625.693	0.0655	2,600.6	0.0630	1.4	12.745	207.0	204.1
105	00:00:52	2651.463	0.0659	2,626.4	0.0634	1.4	12.746	209.0	206.1
106	00:00:52	2675.681	0.0663	2,650.6	0.0638	1.4	12.747	210.9	207.9
107	00:00:53	2700.328	0.0667	2,675.3	0.0642	1.4	12.748	212.9	209.9
108	00:00:53	2725.188	0.0671	2,700.1	0.0646	1.4	12.749	214.9	211.8
109	00:00:53	2751.279	0.0675	2,726.2	0.0650	1.4	12.750	216.9	213.8
110	00:00:54	2776.265	0.0678	2,751.2	0.0653	1.5	12.752	218.9	215.8
111	00:00:54	2800.964	0.0682	2,775.9	0.0657	1.5	12.753	220.9	217.7
112	00:00:54	2825.88	0.0686	2,800.8	0.0661	1.5	12.754	222.9	219.6
113	00:00:55	2850.534	0.0690	2,825.5	0.0665	1.5	12.755	224.8	221.5
114	00:00:55	2876.032	0.0694	2,851.0	0.0669	1.5	12.756	226.9	223.5
115	00:00:55	2900.386	0.0698	2,875.3	0.0673	1.5	12.757	228.8	225.4
116	00:00:56	2926.147	0.0702	2,901.1	0.0678	1.5	12.758	230.9	227.4
117	00:00:56	2950.446	0.0706	2,925.4	0.0682	1.5	12.760	232.8	229.3
118	00:00:56	2975.691	0.0711	2,950.6	0.0686	1.5	12.761	234.8	231.2
119	00:00:57	3000.95	0.0715	2,975.9	0.0690	1.5	12.762	236.8	233.2
120	00:00:57	3026.072	0.0719	3,001.0	0.0694	1.5	12.763	238.8	235.1
121	00:00:58	3050.097	0.0723	3,025.0	0.0698	1.6	12.764	240.7	237.0
122	00:00:58	3075.525	0.0727	3,050.5	0.0702	1.6	12.766	242.7	239.0
123	00:00:58	3101.028	0.0731	3,076.0	0.0706	1.6	12.767	244.8	240.9
124	00:00:59	3126.047	0.0736	3,101.0	0.0711	1.6	12.768	246.8	242.9
125	00:00:59	3151.272	0.0740	3,126.2	0.0715	1.6	12.769	248.8	244.8
126	00:00:59	3175.219	0.0744	3,150.1	0.0719	1.6	12.770	250.7	246.7
127	00:01:00	3200.174	0.0749	3,175.1	0.0724	1.6	12.772	252.7	248.6
128	00:01:00	3225.661	0.0753	3,200.6	0.0728	1.6	12.773	254.7	250.6
129	00:01:00	3250.818	0.0757	3,225.7	0.0732	1.6	12.774	256.7	252.5
130	00:01:01	3275.592	0.0761	3,250.5	0.0736	1.6	12.775	258.7	254.4
131	00:01:01	3300.76	0.0766	3,275.7	0.0741	1.6	12.777	260.7	256.4
132	00:01:01	3325.784	0.0770	3,300.7	0.0745	1.7	12.778	262.7	258.3
133	00:01:02	3350.918	0.0774	3,325.8	0.0749	1.7	12.779	264.7	260.3
134	00:01:02	3375.607	0.0778	3,350.5	0.0753	1.7	12.780	266.6	262.2
135	00:01:03	3401.335	0.0783	3,376.3	0.0758	1.7	12.782	268.7	264.2

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Unconfined Compression Test - Specimen 1

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
136	00:01:03	3425.401	0.0787	3,400.3	0.0762	1.7	12.783	270.6	266.0
137	00:01:03	3451.372	0.0791	3,426.3	0.0766	1.7	12.784	272.7	268.0
138	00:01:04	3475.541	0.0795	3,450.5	0.0770	1.7	12.785	274.6	269.9
139	00:01:04	3500.383	0.0800	3,475.3	0.0775	1.7	12.786	276.6	271.8
140	00:01:04	3526.305	0.0804	3,501.2	0.0779	1.7	12.788	278.6	273.8
141	00:01:05	3551.258	0.0809	3,526.2	0.0784	1.7	12.789	280.6	275.7
142	00:01:05	3575.653	0.0813	3,550.6	0.0788	1.8	12.790	282.5	277.6
143	00:01:06	3600.279	0.0817	3,575.2	0.0792	1.8	12.792	284.5	279.5
144	00:01:06	3625.969	0.0822	3,600.9	0.0797	1.8	12.793	286.6	281.5
145	00:01:06	3651.269	0.0827	3,626.2	0.0802	1.8	12.794	288.6	283.4
146	00:01:07	3675.228	0.0831	3,650.2	0.0806	1.8	12.796	290.5	285.3
147	00:01:07	3701.183	0.0836	3,676.1	0.0811	1.8	12.797	292.5	287.3
148	00:01:08	3725.402	0.0841	3,700.3	0.0816	1.8	12.798	294.5	289.1
149	00:01:08	3750.898	0.0846	3,725.8	0.0821	1.8	12.800	296.5	291.1
150	00:01:08	3775.651	0.0851	3,750.6	0.0826	1.8	12.801	298.5	293.0
151	00:01:09	3800.697	0.0856	3,775.6	0.0831	1.8	12.803	300.5	294.9
152	00:01:09	3825.896	0.0861	3,800.8	0.0836	1.9	12.804	302.5	296.8
153	00:01:10	3850.281	0.0866	3,825.2	0.0841	1.9	12.806	304.4	298.7
154	00:01:10	3875.435	0.0871	3,850.4	0.0846	1.9	12.807	306.4	300.6
155	00:01:11	3900.97	0.0876	3,875.9	0.0851	1.9	12.809	308.4	302.6
156	00:01:11	3925.392	0.0882	3,900.3	0.0857	1.9	12.810	310.4	304.5
157	00:01:12	3950.226	0.0887	3,925.2	0.0862	1.9	12.812	312.4	306.4
158	00:01:12	3975.542	0.0893	3,950.5	0.0868	1.9	12.814	314.4	308.3
159	00:01:13	4000.337	0.0899	3,975.3	0.0874	1.9	12.815	316.3	310.2
160	00:01:13	4025.898	0.0905	4,000.8	0.0880	2.0	12.817	318.4	312.1
161	00:01:14	4050.546	0.0911	4,025.5	0.0886	2.0	12.819	320.3	314.0
162	00:01:14	4075.495	0.0918	4,050.4	0.0893	2.0	12.821	322.3	315.9
163	00:01:15	4100.133	0.0925	4,075.1	0.0900	2.0	12.823	324.3	317.8
164	00:01:15	4125.426	0.0933	4,100.4	0.0908	2.0	12.825	326.3	319.7
165	00:01:16	4150.651	0.0941	4,125.6	0.0916	2.0	12.828	328.3	321.6
166	00:01:17	4175.542	0.0950	4,150.5	0.0925	2.1	12.830	330.3	323.5
167	00:01:18	4200.58	0.0960	4,175.5	0.0935	2.1	12.833	332.3	325.4
168	00:01:19	4225.22	0.0971	4,200.1	0.0946	2.1	12.836	334.2	327.2
169	00:01:20	4250.129	0.0985	4,225.1	0.0960	2.1	12.840	336.2	329.0

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Unconfined Compression Test - Specimen 1

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
170	00:02:27	1630.087	0.2125	1,605.0	0.2100	4.7	13.182	127.7	121.8

Test Date: 5/5/2023

Project Name: Park House Subdivision Project Number: FGS-G-23113

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 2

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.04271	0.0246	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:04	50.07663	0.0316	25.0	0.0070	0.2	12.586	2.0	2.0
2	00:00:08	75.14574	0.0377	50.1	0.0132	0.3	12.603	4.0	4.0
3	00:00:11	100.1665	0.0420	75.1	0.0174	0.4	12.615	6.0	6.0
4	00:00:14	125.0796	0.0450	100.0	0.0205	0.5	12.624	8.0	7.9
5	00:00:15	150.333	0.0470	125.3	0.0224	0.5	12.629	10.0	9.9
6	00:00:17	175.363	0.0484	150.3	0.0238	0.5	12.633	12.0	11.9
7	00:00:18	200.0719	0.0496	175.0	0.0250	0.6	12.637	13.9	13.9
8	00:00:20	225.4074	0.0508	200.4	0.0262	0.6	12.640	15.9	15.9
9	00:00:21	250.1749	0.0521	225.1	0.0275	0.6	12.644	17.9	17.8
10	00:00:22	275.1863	0.0536	250.1	0.0291	0.6	12.648	19.9	19.8
11	00:00:23	300.3625	0.0549	275.3	0.0304	0.7	12.652	21.9	21.8
12	00:00:24	325.3636	0.0560	300.3	0.0315	0.7	12.655	23.9	23.7
13	00:00:25	350.1781	0.0570	325.1	0.0325	0.7	12.658	25.9	25.7
14	00:00:25	375.1269	0.0580	350.1	0.0334	0.7	12.660	27.9	27.7
15	00:00:26	400.6218	0.0589	375.6	0.0343	0.8	12.663	29.9	29.7
16	00:00:27	425.3297	0.0597	400.3	0.0352	0.8	12.665	31.9	31.6
17	00:00:28	450.4907	0.0605	425.4	0.0359	0.8	12.668	33.9	33.6
18	00:00:28	475.8736	0.0612	450.8	0.0366	0.8	12.669	35.9	35.6
19	00:00:29	500.3204	0.0617	475.3	0.0372	0.8	12.671	37.8	37.5
20	00:00:29	525.5988	0.0623	500.6	0.0378	0.8	12.673	39.8	39.5
21	00:00:30	550.4249	0.0628	525.4	0.0383	0.9	12.674	41.8	41.5
22	00:00:30	575.1553	0.0633	550.1	0.0388	0.9	12.676	43.8	43.4
23	00:00:31	600.5128	0.0638	575.5	0.0392	0.9	12.677	45.8	45.4
24	00:00:31	625.5604	0.0643	600.5	0.0397	0.9	12.678	47.8	47.4
25	00:00:32	650.4208	0.0647	625.4	0.0402	0.9	12.680	49.8	49.3
26	00:00:32	675.9494	0.0652	650.9	0.0407	0.9	12.681	51.8	51.3
27	00:00:33	700.5795	0.0657	675.5	0.0411	0.9	12.682	53.8	53.3
28	00:00:33	725.9028	0.0661	700.9	0.0416	0.9	12.684	55.8	55.3
29	00:00:34	750.1096	0.0666	725.1	0.0420	0.9	12.685	57.7	57.2
30	00:00:34	775.127	0.0670	750.1	0.0425	0.9	12.686	59.7	59.1
31	00:00:35	800.9479	0.0675	775.9	0.0429	1.0	12.687	61.7	61.2
32	00:00:35	825.5658	0.0680	800.5	0.0434	1.0	12.689	63.7	63.1
33	00:00:36	850.2639	0.0684	825.2	0.0439	1.0	12.690	65.7	65.0

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 2

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:00:36	875.114	0.0689	850.1	0.0444	1.0	12.692	67.6	67.0
35	00:00:37	900.3967	0.0694	875.4	0.0449	1.0	12.693	69.7	69.0
36	00:00:37	925.1407	0.0700	900.1	0.0454	1.0	12.694	71.6	70.9
37	00:00:38	950.4899	0.0705	925.4	0.0460	1.0	12.696	73.6	72.9
38	00:00:38	975.147	0.0710	950.1	0.0465	1.0	12.698	75.6	74.8
39	00:00:39	1000.275	0.0716	975.2	0.0470	1.0	12.699	77.6	76.8
40	00:00:39	1025.4	0.0721	1,000.4	0.0475	1.1	12.701	79.6	78.8
41	00:00:40	1050.546	0.0726	1,025.5	0.0481	1.1	12.702	81.6	80.7
42	00:00:41	1075.608	0.0732	1,050.6	0.0486	1.1	12.704	83.6	82.7
43	00:00:41	1100.777	0.0737	1,075.7	0.0492	1.1	12.705	85.6	84.7
44	00:00:42	1125.865	0.0743	1,100.8	0.0497	1.1	12.707	87.6	86.6
45	00:00:42	1150.695	0.0748	1,125.7	0.0503	1.1	12.708	89.6	88.6
46	00:00:43	1176.009	0.0754	1,151.0	0.0509	1.1	12.710	91.6	90.6
47	00:00:43	1200.238	0.0760	1,175.2	0.0514	1.1	12.712	93.5	92.5
48	00:00:44	1225.248	0.0766	1,200.2	0.0520	1.2	12.713	95.5	94.4
49	00:00:44	1250.645	0.0772	1,225.6	0.0526	1.2	12.715	97.5	96.4
50	00:00:45	1275.633	0.0778	1,250.6	0.0532	1.2	12.717	99.5	98.3
51	00:00:45	1300.492	0.0783	1,275.5	0.0538	1.2	12.718	101.5	100.3
52	00:00:46	1325.156	0.0789	1,300.1	0.0544	1.2	12.720	103.5	102.2
53	00:00:46	1350.861	0.0795	1,325.8	0.0550	1.2	12.722	105.5	104.2
54	00:00:47	1375.54	0.0801	1,350.5	0.0555	1.2	12.723	107.5	106.1
55	00:00:47	1400.32	0.0806	1,375.3	0.0561	1.2	12.725	109.4	108.1
56	00:00:48	1425.914	0.0812	1,400.9	0.0567	1.3	12.727	111.5	110.1
57	00:00:48	1450.335	0.0817	1,425.3	0.0572	1.3	12.728	113.4	112.0
58	00:00:48	1476.081	0.0823	1,451.0	0.0577	1.3	12.730	115.5	114.0
59	00:00:49	1500.16	0.0828	1,475.1	0.0582	1.3	12.731	117.4	115.9
60	00:00:49	1526.038	0.0833	1,501.0	0.0588	1.3	12.733	119.4	117.9
61	00:00:50	1550.76	0.0838	1,525.7	0.0593	1.3	12.734	121.4	119.8
62	00:00:50	1576.152	0.0844	1,551.1	0.0598	1.3	12.736	123.4	121.8
63	00:00:51	1600.846	0.0849	1,575.8	0.0603	1.3	12.737	125.4	123.7
64	00:00:51	1625.085	0.0853	1,600.0	0.0608	1.4	12.738	127.3	125.6
65	00:00:51	1650.748	0.0858	1,625.7	0.0612	1.4	12.740	129.4	127.6
66	00:00:52	1675.433	0.0862	1,650.4	0.0616	1.4	12.741	131.3	129.5
67	00:00:52	1700.722	0.0866	1,675.7	0.0621	1.4	12.742	133.3	131.5

Project Name: Park House Subdivision Project Number: FGS-G-23113

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Unconfined Compression Test - Specimen 2

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
68	00:00:53	1725.327	0.0871	1,700.3	0.0625	1.4	12.743	135.3	133.4
69	00:00:53	1751.143	0.0875	1,726.1	0.0630	1.4	12.745	137.4	135.4
70	00:00:53	1775.838	0.0879	1,750.8	0.0634	1.4	12.746	139.3	137.4
71	00:00:54	1801.095	0.0884	1,776.1	0.0638	1.4	12.747	141.3	139.3
72	00:00:54	1826.135	0.0888	1,801.1	0.0642	1.4	12.748	143.3	141.3
73	00:00:55	1850.322	0.0892	1,825.3	0.0646	1.4	12.749	145.3	143.2
74	00:00:55	1875.81	0.0896	1,850.8	0.0650	1.4	12.751	147.3	145.2
75	00:00:55	1900.319	0.0900	1,875.3	0.0655	1.5	12.752	149.2	147.1
76	00:00:56	1925.194	0.0904	1,900.2	0.0659	1.5	12.753	151.2	149.0
77	00:00:56	1951.307	0.0908	1,926.3	0.0663	1.5	12.754	153.3	151.0
78	00:00:56	1975.706	0.0912	1,950.7	0.0667	1.5	12.755	155.2	152.9
79	00:00:57	2001.046	0.0916	1,976.0	0.0670	1.5	12.756	157.2	154.9
80	00:00:57	2025.319	0.0920	2,000.3	0.0674	1.5	12.758	159.2	156.8
81	00:00:57	2050.442	0.0924	2,025.4	0.0678	1.5	12.759	161.2	158.7
82	00:00:58	2075.806	0.0928	2,050.8	0.0682	1.5	12.760	163.2	160.7
83	00:00:58	2101.152	0.0932	2,076.1	0.0686	1.5	12.761	165.2	162.7
84	00:00:59	2126.391	0.0936	2,101.3	0.0690	1.5	12.762	167.2	164.7
85	00:00:59	2150.626	0.0940	2,125.6	0.0694	1.5	12.763	169.1	166.5
86	00:00:59	2175.35	0.0944	2,150.3	0.0698	1.6	12.764	171.1	168.5
87	00:01:00	2201.067	0.0948	2,176.0	0.0702	1.6	12.766	173.2	170.5
88	00:01:00	2225.758	0.0952	2,200.7	0.0706	1.6	12.767	175.1	172.4
89	00:01:00	2250.254	0.0956	2,225.2	0.0710	1.6	12.768	177.1	174.3
90	00:01:01	2276.226	0.0960	2,251.2	0.0714	1.6	12.769	179.1	176.3
91	00:01:01	2300.69	0.0964	2,275.6	0.0718	1.6	12.770	181.1	178.2
92	00:01:01	2325.506	0.0968	2,300.5	0.0722	1.6	12.771	183.1	180.1
93	00:01:02	2350.156	0.0971	2,325.1	0.0726	1.6	12.772	185.0	182.0
94	00:01:02	2376.388	0.0976	2,351.3	0.0730	1.6	12.774	187.1	184.1
95	00:01:02	2400.115	0.0980	2,375.1	0.0734	1.6	12.775	189.0	185.9
96	00:01:03	2425.314	0.0984	2,400.3	0.0738	1.6	12.776	191.0	187.9
97	00:01:03	2450.527	0.0988	2,425.5	0.0742	1.6	12.777	193.0	189.8
98	00:01:03	2475.638	0.0991	2,450.6	0.0746	1.7	12.778	195.0	191.8
99	00:01:04	2501.313	0.0995	2,476.3	0.0750	1.7	12.779	197.1	193.8
100	00:01:04	2525.608	0.0999	2,500.6	0.0753	1.7	12.780	199.0	195.7
101	00:01:04	2551.281	0.1003	2,526.2	0.0757	1.7	12.781	201.0	197.6

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

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Unconfined Compression Test - Specimen 2

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
102	00:01:05	2575.321	0.1006	2,550.3	0.0761	1.7	12.782	202.9	199.5
103	00:01:05	2600.515	0.1010	2,575.5	0.0764	1.7	12.784	204.9	201.5
104	00:01:05	2625.863	0.1013	2,600.8	0.0768	1.7	12.785	207.0	203.4
105	00:01:06	2650.331	0.1017	2,625.3	0.0771	1.7	12.786	208.9	205.3
106	00:01:06	2675.801	0.1021	2,650.8	0.0775	1.7	12.787	210.9	207.3
107	00:01:06	2701.402	0.1025	2,676.4	0.0779	1.7	12.788	213.0	209.3
108	00:01:07	2725.576	0.1028	2,700.5	0.0783	1.7	12.789	214.9	211.2
109	00:01:07	2751.259	0.1032	2,726.2	0.0786	1.7	12.790	216.9	213.2
110	00:01:07	2775.741	0.1035	2,750.7	0.0790	1.8	12.791	218.9	215.1
111	00:01:08	2800.427	0.1039	2,775.4	0.0794	1.8	12.792	220.9	217.0
112	00:01:08	2825.09	0.1043	2,800.0	0.0797	1.8	12.793	222.8	218.9
113	00:01:08	2850.655	0.1047	2,825.6	0.0801	1.8	12.794	224.9	220.9
114	00:01:09	2876.448	0.1051	2,851.4	0.0805	1.8	12.795	226.9	222.8
115	00:01:09	2900.56	0.1055	2,875.5	0.0809	1.8	12.796	228.8	224.7
116	00:01:09	2926.158	0.1058	2,901.1	0.0813	1.8	12.798	230.9	226.7
117	00:01:10	2950.167	0.1062	2,925.1	0.0816	1.8	12.799	232.8	228.6
118	00:01:10	2976.094	0.1066	2,951.1	0.0820	1.8	12.800	234.8	230.6
119	00:01:10	3000.591	0.1069	2,975.5	0.0824	1.8	12.801	236.8	232.5
120	00:01:11	3026.144	0.1073	3,001.1	0.0827	1.8	12.802	238.8	234.4
121	00:01:11	3050.861	0.1076	3,025.8	0.0831	1.8	12.803	240.8	236.3
122	00:01:11	3076	0.1080	3,051.0	0.0834	1.9	12.804	242.8	238.3
123	00:01:12	3100.611	0.1084	3,075.6	0.0838	1.9	12.805	244.7	240.2
124	00:01:12	3125.198	0.1087	3,100.2	0.0842	1.9	12.806	246.7	242.1
125	00:01:12	3151.389	0.1091	3,126.3	0.0845	1.9	12.807	248.8	244.1
126	00:01:13	3176.178	0.1095	3,151.1	0.0849	1.9	12.808	250.8	246.0
127	00:01:13	3201.025	0.1098	3,176.0	0.0853	1.9	12.809	252.7	247.9
128	00:01:13	3225.902	0.1102	3,200.9	0.0856	1.9	12.810	254.7	249.9
129	00:01:14	3250.469	0.1105	3,225.4	0.0860	1.9	12.811	256.7	251.8
130	00:01:14	3276.371	0.1109	3,251.3	0.0863	1.9	12.812	258.7	253.8
131	00:01:14	3300.734	0.1112	3,275.7	0.0867	1.9	12.813	260.7	255.6
132	00:01:15	3325.191	0.1116	3,300.1	0.0870	1.9	12.814	262.6	257.5
133	00:01:15	3350.774	0.1120	3,325.7	0.0874	1.9	12.815	264.7	259.5
134	00:01:15	3375.719	0.1123	3,350.7	0.0878	2.0	12.816	266.6	261.4
135	00:01:16	3401.107	0.1127	3,376.1	0.0881	2.0	12.817	268.7	263.4

Project Name: Park House Subdivision Project Number: FGS-G-23113

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LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in²)	Stress (psi)	Compressive Stress (psi)
136	00:01:16	3425.323	0.1130	3,400.3	0.0885	2.0	12.818	270.6	265.3
137	00:01:16	3450.666	0.1134	3,425.6	0.0889	2.0	12.820	272.6	267.2
138	00:01:17	3475.97	0.1138	3,450.9	0.0893	2.0	12.821	274.6	269.2
139	00:01:17	3501.109	0.1142	3,476.1	0.0896	2.0	12.822	276.6	271.1
140	00:01:17	3526.048	0.1145	3,501.0	0.0900	2.0	12.823	278.6	273.0
141	00:01:18	3551.229	0.1149	3,526.2	0.0904	2.0	12.824	280.6	275.0
142	00:01:18	3576.289	0.1153	3,551.2	0.0908	2.0	12.825	282.6	276.9
143	00:01:18	3601.057	0.1157	3,576.0	0.0912	2.0	12.826	284.6	278.8
144	00:01:19	3625.523	0.1161	3,600.5	0.0916	2.0	12.827	286.5	280.7
145	00:01:19	3650.228	0.1165	3,625.2	0.0920	2.0	12.829	288.5	282.6
146	00:01:19	3676.071	0.1169	3,651.0	0.0924	2.1	12.830	290.5	284.6
147	00:01:20	3700.499	0.1173	3,675.5	0.0928	2.1	12.831	292.5	286.5
148	00:01:20	3725.881	0.1177	3,700.8	0.0932	2.1	12.832	294.5	288.4
149	00:01:20	3750.132	0.1181	3,725.1	0.0935	2.1	12.833	296.4	290.3
150	00:01:21	3775.06	0.1185	3,750.0	0.0939	2.1	12.834	298.4	292.2
151	00:01:21	3801.337	0.1189	3,776.3	0.0943	2.1	12.835	300.5	294.2
152	00:01:22	3825.959	0.1193	3,800.9	0.0947	2.1	12.837	302.5	296.1
153	00:01:22	3850.542	0.1197	3,825.5	0.0951	2.1	12.838	304.4	298.0
154	00:01:22	3875.53	0.1201	3,850.5	0.0956	2.1	12.839	306.4	299.9
155	00:01:23	3901.148	0.1206	3,876.1	0.0960	2.1	12.840	308.5	301.9
156	00:01:23	3926.079	0.1210	3,901.0	0.0964	2.1	12.842	310.4	303.8
157	00:01:23	3951.328	0.1214	3,926.3	0.0968	2.2	12.843	312.4	305.7
158	00:01:24	3975.394	0.1218	3,950.4	0.0973	2.2	12.844	314.4	307.6
159	00:01:24	4001.251	0.1223	3,976.2	0.0978	2.2	12.845	316.4	309.5
160	00:01:25	4025.539	0.1228	4,000.5	0.0982	2.2	12.847	318.3	311.4
161	00:01:25	4050.678	0.1232	4,025.6	0.0987	2.2	12.848	320.3	313.3
162	00:01:25	4076.148	0.1237	4,051.1	0.0991	2.2	12.849	322.4	315.3
163	00:01:26	4100.573	0.1241	4,075.5	0.0996	2.2	12.851	324.3	317.1
164	00:01:26	4125.673	0.1246	4,100.6	0.1001	2.2	12.852	326.3	319.1
165	00:01:27	4150.384	0.1251	4,125.3	0.1006	2.2	12.854	328.3	320.9
166	00:01:27	4175.57	0.1257	4,150.5	0.1011	2.2	12.855	330.3	322.9
167	00:01:28	4200.62	0.1262	4,175.6	0.1017	2.3	12.857	332.3	324.8
168	00:01:28	4225.291	0.1268	4,200.2	0.1022	2.3	12.859	334.2	326.7
169	00:01:29	4250.567	0.1274	4,225.5	0.1029	2.3	12.860	336.3	328.6

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 2

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
170	00:01:29	4275.462	0.1281	4,250.4	0.1035	2.3	12.862	338.2	330.5
171	00:01:30	4300.414	0.1289	4,275.4	0.1044	2.3	12.865	340.2	332.3
172	00:01:31	4325.124	0.1299	4,300.1	0.1054	2.3	12.868	342.2	334.2
173	00:01:32	4350.329	0.1314	4,325.3	0.1069	2.4	12.872	344.2	336.0
174	00:01:33	4375.162	0.1331	4,350.1	0.1086	2.4	12.877	346.2	337.8
175	00:01:34	4400.146	0.1347	4,375.1	0.1102	2.4	12.882	348.2	339.6
176	00:01:36	4425.074	0.1365	4,400.0	0.1120	2.5	12.887	350.1	341.4
177	00:03:00	1161.764	0.2767	1,136.7	0.2521	5.6	13.312	90.5	85.4

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 3

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.01583	0.0404	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:06	50.0996	0.0494	25.1	0.0091	0.2	12.592	2.0	2.0
2	00:00:09	75.19804	0.0532	50.2	0.0128	0.3	12.602	4.0	4.0
3	00:00:11	100.1875	0.0556	75.2	0.0153	0.3	12.609	6.0	6.0
4	00:00:13	125.2908	0.0576	100.3	0.0173	0.4	12.615	8.0	7.9
5	00:00:14	150.2802	0.0595	125.3	0.0191	0.4	12.620	10.0	9.9
6	00:00:16	175.1587	0.0611	150.1	0.0208	0.5	12.625	11.9	11.9
7	00:00:17	200.3001	0.0623	175.3	0.0220	0.5	12.628	13.9	13.9
8	00:00:18	225.0896	0.0635	200.1	0.0231	0.5	12.631	15.9	15.8
9	00:00:19	250.1196	0.0645	225.1	0.0242	0.5	12.634	17.9	17.8
10	00:00:20	275.2464	0.0655	250.2	0.0252	0.6	12.637	19.9	19.8
11	00:00:21	300.1542	0.0664	275.1	0.0261	0.6	12.640	21.9	21.8
12	00:00:22	325.2346	0.0672	300.2	0.0268	0.6	12.642	23.9	23.7
13	00:00:23	350.312	0.0679	325.3	0.0276	0.6	12.644	25.9	25.7
14	00:00:24	375.1264	0.0686	350.1	0.0283	0.6	12.646	27.9	27.7
15	00:00:24	400.3437	0.0693	375.3	0.0290	0.6	12.648	29.9	29.7
16	00:00:25	425.5222	0.0700	400.5	0.0297	0.7	12.650	31.9	31.7
17	00:00:26	450.2179	0.0707	425.2	0.0304	0.7	12.652	33.8	33.6
18	00:00:26	475.5158	0.0714	450.5	0.0311	0.7	12.654	35.8	35.6
19	00:00:27	500.8058	0.0720	475.8	0.0317	0.7	12.656	37.9	37.6
20	00:00:27	525.1221	0.0726	500.1	0.0323	0.7	12.657	39.8	39.5
21	00:00:28	550.8047	0.0733	525.8	0.0329	0.7	12.659	41.8	41.5
22	00:00:29	575.2823	0.0738	550.3	0.0335	0.7	12.661	43.8	43.5
23	00:00:29	600.8521	0.0744	575.8	0.0341	0.8	12.662	45.8	45.5
24	00:00:30	625.8292	0.0750	600.8	0.0346	0.8	12.664	47.8	47.4
25	00:00:30	650.4081	0.0755	625.4	0.0352	0.8	12.665	49.8	49.4
26	00:00:31	675.3823	0.0761	650.4	0.0358	0.8	12.667	51.8	51.3
27	00:00:31	700.8459	0.0767	675.8	0.0363	0.8	12.669	53.8	53.3
28	00:00:32	726.0245	0.0772	701.0	0.0368	0.8	12.670	55.8	55.3
29	00:00:32	750.6933	0.0777	725.7	0.0374	0.8	12.672	57.7	57.3
30	00:00:33	775.6177	0.0782	750.6	0.0379	0.8	12.673	59.7	59.2
31	00:00:33	800.4976	0.0787	775.5	0.0384	0.9	12.674	61.7	61.2
32	00:00:34	825.7574	0.0792	800.7	0.0389	0.9	12.676	63.7	63.2
33	00:00:34	850.2301	0.0796	825.2	0.0393	0.9	12.677	65.7	65.1

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 3

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:00:35	875.9582	0.0801	850.9	0.0397	0.9	12.678	67.7	67.1
35	00:00:35	900.9344	0.0805	875.9	0.0401	0.9	12.679	69.7	69.1
36	00:00:35	925.1686	0.0808	900.2	0.0405	0.9	12.680	71.6	71.0
37	00:00:36	951.2535	0.0813	926.2	0.0409	0.9	12.682	73.7	73.0
38	00:00:36	975.5444	0.0816	950.5	0.0413	0.9	12.683	75.6	74.9
39	00:00:36	1001.187	0.0820	976.2	0.0416	0.9	12.684	77.7	77.0
40	00:00:37	1026.329	0.0823	1,001.3	0.0420	0.9	12.685	79.7	78.9
41	00:00:37	1050.781	0.0827	1,025.8	0.0423	0.9	12.686	81.6	80.9
42	00:00:37	1076.038	0.0830	1,051.0	0.0427	0.9	12.687	83.6	82.8
43	00:00:38	1100.454	0.0833	1,075.4	0.0430	1.0	12.688	85.6	84.8
44	00:00:38	1126.352	0.0837	1,101.3	0.0433	1.0	12.689	87.6	86.8
45	00:00:38	1151.465	0.0840	1,126.5	0.0436	1.0	12.689	89.6	88.8
46	00:00:39	1176.004	0.0843	1,151.0	0.0439	1.0	12.690	91.6	90.7
47	00:00:39	1200.83	0.0846	1,175.8	0.0442	1.0	12.691	93.6	92.6
48	00:00:39	1226.042	0.0848	1,201.0	0.0445	1.0	12.692	95.6	94.6
49	00:00:40	1250.344	0.0851	1,225.3	0.0447	1.0	12.693	97.5	96.5
50	00:00:40	1276.489	0.0854	1,251.5	0.0450	1.0	12.693	99.6	98.6
51	00:00:40	1300.877	0.0856	1,275.9	0.0453	1.0	12.694	101.5	100.5
52	00:00:41	1325.846	0.0859	1,300.8	0.0455	1.0	12.695	103.5	102.5
53	00:00:41	1350.748	0.0862	1,325.7	0.0458	1.0	12.696	105.5	104.4
54	00:00:41	1375.903	0.0864	1,350.9	0.0461	1.0	12.696	107.5	106.4
55	00:00:41	1401.251	0.0867	1,376.2	0.0463	1.0	12.697	109.5	108.4
56	00:00:42	1425.404	0.0869	1,400.4	0.0466	1.0	12.698	111.4	110.3
57	00:00:42	1450.199	0.0872	1,425.2	0.0469	1.0	12.699	113.4	112.2
58	00:00:42	1476.464	0.0875	1,451.4	0.0471	1.0	12.699	115.5	114.3
59	00:00:42	1501.357	0.0878	1,476.3	0.0474	1.1	12.700	117.5	116.2
60	00:00:43	1526.094	0.0880	1,501.1	0.0477	1.1	12.701	119.5	118.2
61	00:00:43	1550.993	0.0883	1,526.0	0.0479	1.1	12.702	121.4	120.1
62	00:00:43	1576.244	0.0885	1,551.2	0.0482	1.1	12.702	123.4	122.1
63	00:00:44	1601.368	0.0888	1,576.4	0.0485	1.1	12.703	125.4	124.1
64	00:00:44	1625.215	0.0890	1,600.2	0.0487	1.1	12.704	127.3	126.0
65	00:00:44	1650.974	0.0893	1,626.0	0.0489	1.1	12.705	129.4	128.0
66	00:00:44	1675.202	0.0895	1,650.2	0.0492	1.1	12.705	131.3	129.9
67	00:00:45	1701.224	0.0898	1,676.2	0.0494	1.1	12.706	133.4	131.9

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 3

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
68	00:00:45	1725.355	0.0900	1,700.3	0.0497	1.1	12.707	135.3	133.8
69	00:00:45	1750.041	0.0902	1,725.0	0.0499	1.1	12.707	137.3	135.8
70	00:00:45	1776.464	0.0905	1,751.4	0.0501	1.1	12.708	139.4	137.8
71	00:00:46	1801.253	0.0907	1,776.2	0.0504	1.1	12.709	141.3	139.8
72	00:00:46	1825.769	0.0909	1,800.8	0.0506	1.1	12.709	143.3	141.7
73	00:00:46	1850.08	0.0912	1,825.1	0.0508	1.1	12.710	145.2	143.6
74	00:00:46	1876.74	0.0914	1,851.7	0.0511	1.1	12.711	147.4	145.7
75	00:00:47	1901.687	0.0917	1,876.7	0.0513	1.1	12.711	149.3	147.6
76	00:00:47	1926.777	0.0919	1,901.8	0.0516	1.1	12.712	151.3	149.6
77	00:00:47	1951.637	0.0922	1,926.6	0.0518	1.2	12.713	153.3	151.6
78	00:00:47	1976.309	0.0924	1,951.3	0.0521	1.2	12.713	155.3	153.5
79	00:00:48	2001.151	0.0927	1,976.1	0.0523	1.2	12.714	157.3	155.4
80	00:00:48	2025.966	0.0929	2,001.0	0.0526	1.2	12.715	159.2	157.4
81	00:00:48	2050.794	0.0932	2,025.8	0.0528	1.2	12.716	161.2	159.3
82	00:00:48	2075.344	0.0934	2,050.3	0.0531	1.2	12.716	163.2	161.2
83	00:00:49	2100.642	0.0937	2,075.6	0.0533	1.2	12.717	165.2	163.2
84	00:00:49	2125.527	0.0939	2,100.5	0.0536	1.2	12.718	167.2	165.2
85	00:00:49	2150.665	0.0942	2,125.6	0.0538	1.2	12.718	169.2	167.1
86	00:00:49	2175.618	0.0944	2,150.6	0.0541	1.2	12.719	171.1	169.1
87	00:00:50	2200.702	0.0946	2,175.7	0.0543	1.2	12.720	173.1	171.0
88	00:00:50	2225.896	0.0949	2,200.9	0.0545	1.2	12.721	175.1	173.0
89	00:00:50	2251.026	0.0951	2,226.0	0.0548	1.2	12.721	177.1	175.0
90	00:00:50	2276.268	0.0954	2,251.3	0.0550	1.2	12.722	179.1	177.0
91	00:00:51	2301.531	0.0956	2,276.5	0.0553	1.2	12.723	181.2	178.9
92	00:00:51	2326.631	0.0959	2,301.6	0.0555	1.2	12.723	183.2	180.9
93	00:00:51	2350.197	0.0961	2,325.2	0.0558	1.2	12.724	185.0	182.7
94	00:00:51	2375.723	0.0964	2,350.7	0.0560	1.2	12.725	187.1	184.7
95	00:00:52	2401.067	0.0966	2,376.1	0.0562	1.2	12.725	189.1	186.7
96	00:00:52	2426.504	0.0968	2,401.5	0.0565	1.3	12.726	191.1	188.7
97	00:00:52	2450.435	0.0971	2,425.4	0.0568	1.3	12.727	193.0	190.6
98	00:00:52	2476.036	0.0973	2,451.0	0.0570	1.3	12.728	195.0	192.6
99	00:00:53	2501.622	0.0976	2,476.6	0.0572	1.3	12.728	197.1	194.6
100	00:00:53	2526.72	0.0978	2,501.7	0.0575	1.3	12.729	199.1	196.5
101	00:00:53	2550.251	0.0981	2,525.2	0.0577	1.3	12.730	201.0	198.4

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 3

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
102	00:00:53	2575.707	0.0983	2,550.7	0.0580	1.3	12.730	203.0	200.4
103	00:00:53	2601.75	0.0986	2,576.7	0.0582	1.3	12.731	205.1	202.4
104	00:00:54	2626.138	0.0988	2,601.1	0.0584	1.3	12.732	207.0	204.3
105	00:00:54	2650.327	0.0990	2,625.3	0.0586	1.3	12.732	208.9	206.2
106	00:00:54	2676.48	0.0993	2,651.5	0.0589	1.3	12.733	211.0	208.2
107	00:00:54	2700.833	0.0995	2,675.8	0.0591	1.3	12.734	212.9	210.1
108	00:00:55	2725.042	0.0997	2,700.0	0.0593	1.3	12.734	214.9	212.0
109	00:00:55	2750.983	0.0999	2,726.0	0.0596	1.3	12.735	216.9	214.1
110	00:00:55	2775.272	0.1001	2,750.3	0.0598	1.3	12.736	218.9	216.0
111	00:00:55	2801.62	0.1004	2,776.6	0.0600	1.3	12.736	221.0	218.0
112	00:00:56	2825.67	0.1006	2,800.7	0.0602	1.3	12.737	222.9	219.9
113	00:00:56	2852.102	0.1008	2,827.1	0.0605	1.3	12.738	225.0	221.9
114	00:00:56	2876.496	0.1011	2,851.5	0.0607	1.3	12.738	226.9	223.9
115	00:00:56	2900.683	0.1013	2,875.7	0.0609	1.4	12.739	228.8	225.7
116	00:00:57	2925.4	0.1015	2,900.4	0.0611	1.4	12.739	230.8	227.7
117	00:00:57	2951.9	0.1017	2,926.9	0.0614	1.4	12.740	232.9	229.7
118	00:00:57	2976.171	0.1019	2,951.2	0.0616	1.4	12.741	234.8	231.6
119	00:00:57	3000.881	0.1021	2,975.9	0.0618	1.4	12.741	236.8	233.6
120	00:00:57	3025.733	0.1024	3,000.7	0.0620	1.4	12.742	238.8	235.5
121	00:00:58	3050.531	0.1026	3,025.5	0.0622	1.4	12.743	240.8	237.4
122	00:00:58	3075.231	0.1028	3,050.2	0.0625	1.4	12.743	242.7	239.4
123	00:00:58	3100.037	0.1030	3,075.0	0.0627	1.4	12.744	244.7	241.3
124	00:00:58	3126.895	0.1033	3,101.9	0.0629	1.4	12.745	246.8	243.4
125	00:00:59	3151.737	0.1035	3,126.7	0.0631	1.4	12.745	248.8	245.3
126	00:00:59	3176.762	0.1037	3,151.7	0.0633	1.4	12.746	250.8	247.3
127	00:00:59	3201.767	0.1039	3,176.8	0.0636	1.4	12.746	252.8	249.2
128	00:00:59	3226.734	0.1041	3,201.7	0.0638	1.4	12.747	254.8	251.2
129	00:01:00	3252.09	0.1043	3,227.1	0.0640	1.4	12.748	256.8	253.2
130	00:01:00	3275.323	0.1045	3,250.3	0.0642	1.4	12.748	258.7	255.0
131	00:01:00	3300.876	0.1048	3,275.9	0.0644	1.4	12.749	260.7	257.0
132	00:01:00	3326.32	0.1050	3,301.3	0.0646	1.4	12.749	262.7	258.9
133	00:01:00	3351.573	0.1052	3,326.6	0.0648	1.4	12.750	264.7	260.9
134	00:01:01	3376.826	0.1054	3,351.8	0.0650	1.4	12.751	266.7	262.9
135	00:01:01	3400.694	0.1056	3,375.7	0.0652	1.4	12.751	268.6	264.7

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 3

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
136	00:01:01	3426.427	0.1058	3,401.4	0.0654	1.5	12.752	270.7	266.7
137	00:01:01	3451.99	0.1060	3,427.0	0.0656	1.5	12.752	272.7	268.7
138	00:01:02	3475.303	0.1062	3,450.3	0.0658	1.5	12.753	274.6	270.5
139	00:01:02	3500.983	0.1064	3,476.0	0.0660	1.5	12.753	276.6	272.6
140	00:01:02	3526.395	0.1066	3,501.4	0.0662	1.5	12.754	278.6	274.5
141	00:01:02	3552.101	0.1068	3,527.1	0.0664	1.5	12.755	280.7	276.5
142	00:01:02	3575.868	0.1070	3,550.9	0.0666	1.5	12.755	282.6	278.4
143	00:01:03	3601.764	0.1071	3,576.7	0.0668	1.5	12.756	284.6	280.4
144	00:01:03	3626.057	0.1073	3,601.0	0.0670	1.5	12.756	286.6	282.3
145	00:01:03	3651.908	0.1075	3,626.9	0.0672	1.5	12.757	288.6	284.3
146	00:01:03	3675.53	0.1077	3,650.5	0.0674	1.5	12.757	290.5	286.1
147	00:01:04	3701.376	0.1079	3,676.4	0.0676	1.5	12.758	292.6	288.2
148	00:01:04	3726.76	0.1081	3,701.7	0.0678	1.5	12.758	294.6	290.1
149	00:01:04	3750.829	0.1083	3,725.8	0.0680	1.5	12.759	296.5	292.0
150	00:01:04	3776.589	0.1085	3,751.6	0.0681	1.5	12.760	298.5	294.0
151	00:01:04	3800.677	0.1087	3,775.7	0.0683	1.5	12.760	300.5	295.9
152	00:01:05	3826.399	0.1089	3,801.4	0.0685	1.5	12.761	302.5	297.9
153	00:01:05	3852.236	0.1091	3,827.2	0.0687	1.5	12.761	304.6	299.9
154	00:01:05	3875.987	0.1093	3,851.0	0.0689	1.5	12.762	306.5	301.8
155	00:01:05	3902.006	0.1095	3,877.0	0.0691	1.5	12.762	308.5	303.8
156	00:01:05	3925.904	0.1097	3,900.9	0.0693	1.5	12.763	310.4	305.6
157	00:01:06	3952.1	0.1099	3,927.1	0.0695	1.5	12.764	312.5	307.7
158	00:01:06	3975.91	0.1101	3,950.9	0.0697	1.5	12.764	314.4	309.5
159	00:01:06	4002.129	0.1103	3,977.1	0.0699	1.6	12.765	316.5	311.6
160	00:01:06	4026.133	0.1104	4,001.1	0.0701	1.6	12.765	318.4	313.4
161	00:01:07	4050.205	0.1106	4,025.2	0.0703	1.6	12.766	320.3	315.3
162	00:01:07	4076.189	0.1108	4,051.2	0.0705	1.6	12.766	322.4	317.3
163	00:01:07	4100.222	0.1110	4,075.2	0.0707	1.6	12.767	324.3	319.2
164	00:01:07	4126.956	0.1112	4,101.9	0.0708	1.6	12.767	326.4	321.3
165	00:01:07	4151.1	0.1114	4,126.1	0.0710	1.6	12.768	328.3	323.2
166	00:01:08	4175.126	0.1115	4,150.1	0.0712	1.6	12.768	330.3	325.0
167	00:01:08	4201.165	0.1117	4,176.1	0.0714	1.6	12.769	332.3	327.1
168	00:01:08	4227.223	0.1119	4,202.2	0.0716	1.6	12.769	334.4	329.1
169	00:01:08	4251.098	0.1121	4,226.1	0.0717	1.6	12.770	336.3	330.9

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 3

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
170	00:01:09	4275.382	0.1123	4,250.4	0.0719	1.6	12.770	338.2	332.8
171	00:01:09	4301.784	0.1125	4,276.8	0.0721	1.6	12.771	340.3	334.9
172	00:01:09	4325.846	0.1126	4,300.8	0.0723	1.6	12.772	342.2	336.8
173	00:01:09	4351.976	0.1128	4,327.0	0.0725	1.6	12.772	344.3	338.8
174	00:01:09	4375.653	0.1130	4,350.6	0.0727	1.6	12.773	346.2	340.6
175	00:01:10	4401.401	0.1132	4,376.4	0.0729	1.6	12.773	348.3	342.6
176	00:01:10	4425.281	0.1134	4,400.3	0.0731	1.6	12.774	350.2	344.5
177	00:01:10	4450.985	0.1136	4,426.0	0.0733	1.6	12.774	352.2	346.5
178	00:01:10	4476.422	0.1138	4,451.4	0.0735	1.6	12.775	354.2	348.4
179	00:01:11	4512.423	0.1141	4,487.4	0.0738	1.6	12.776	357.1	351.2

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 4

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.16199	0.0393	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:01	50.72237	0.0408	25.6	0.0015	0.0	12.571	2.0	2.0
2	00:00:02	75.27185	0.0414	50.1	0.0022	0.0	12.572	4.0	4.0
3	00:00:02	100.405	0.0419	75.2	0.0026	0.1	12.574	6.0	6.0
4	00:00:03	125.6814	0.0423	100.5	0.0030	0.1	12.575	8.0	8.0
5	00:00:03	150.7519	0.0426	125.6	0.0033	0.1	12.576	10.0	10.0
6	00:00:04	175.8533	0.0429	150.7	0.0036	0.1	12.576	12.0	12.0
7	00:00:04	200.2043	0.0429	175.0	0.0037	0.1	12.577	13.9	13.9
8	00:00:04	225.7809	0.0430	200.6	0.0037	0.1	12.577	16.0	16.0
9	00:00:05	250.5396	0.0429	225.4	0.0037	0.1	12.577	17.9	17.9
10	00:00:05	275.4185	0.0429	250.3	0.0037	0.1	12.577	19.9	19.9
11	00:00:06	301.2644	0.0429	276.1	0.0037	0.1	12.577	22.0	22.0
12	00:00:06	325.3876	0.0429	300.2	0.0037	0.1	12.577	23.9	23.9
13	00:00:07	350.6943	0.0430	325.5	0.0037	0.1	12.577	25.9	25.9
14	00:00:07	375.408	0.0431	350.2	0.0038	0.1	12.577	27.9	27.8
15	00:00:07	400.7635	0.0432	375.6	0.0039	0.1	12.577	29.9	29.9
16	00:00:08	425.7383	0.0433	400.6	0.0041	0.1	12.578	31.9	31.8
17	00:00:08	450.2687	0.0435	425.1	0.0042	0.1	12.578	33.8	33.8
18	00:00:08	475.3423	0.0437	450.2	0.0045	0.1	12.579	35.8	35.8
19	00:00:09	500.9183	0.0440	475.8	0.0047	0.1	12.580	37.9	37.8
20	00:00:09	525.8212	0.0442	500.7	0.0050	0.1	12.580	39.8	39.8
21	00:00:09	550.3281	0.0445	525.2	0.0052	0.1	12.581	41.8	41.7
22	00:00:09	575.5077	0.0447	550.3	0.0055	0.1	12.582	43.8	43.7
23	00:00:10	600.9943	0.0450	575.8	0.0057	0.1	12.582	45.8	45.8
24	00:00:10	625.2255	0.0452	600.1	0.0059	0.1	12.583	47.8	47.7
25	00:00:10	651.1902	0.0455	626.0	0.0062	0.1	12.584	49.8	49.7
26	00:00:11	676.1616	0.0457	651.0	0.0065	0.1	12.584	51.8	51.7
27	00:00:11	701.4667	0.0460	676.3	0.0067	0.1	12.585	53.8	53.7
28	00:00:11	725.2698	0.0462	700.1	0.0069	0.2	12.586	55.7	55.6
29	00:00:11	751.1895	0.0464	726.0	0.0071	0.2	12.586	57.8	57.7
30	00:00:12	775.3694	0.0466	750.2	0.0074	0.2	12.587	59.7	59.6
31	00:00:12	801.7197	0.0469	776.6	0.0076	0.2	12.588	61.8	61.7
32	00:00:12	827.0195	0.0471	801.9	0.0078	0.2	12.588	63.8	63.7
33	00:00:13	850.7033	0.0473	825.5	0.0080	0.2	12.589	65.7	65.6

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 4

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:00:13	876.6132	0.0475	851.5	0.0082	0.2	12.589	67.8	67.6
35	00:00:13	900.7706	0.0477	875.6	0.0084	0.2	12.590	69.7	69.5
36	00:00:13	926.8893	0.0479	901.7	0.0086	0.2	12.590	71.8	71.6
37	00:00:14	951.3982	0.0481	926.2	0.0088	0.2	12.591	73.7	73.6
38	00:00:14	976.3857	0.0483	951.2	0.0090	0.2	12.592	75.7	75.5
39	00:00:14	1001.195	0.0485	976.0	0.0092	0.2	12.592	77.7	77.5
40	00:00:14	1026.641	0.0487	1,001.5	0.0094	0.2	12.593	79.7	79.5
41	00:00:15	1052.154	0.0488	1,027.0	0.0096	0.2	12.593	81.7	81.6
42	00:00:15	1076.067	0.0490	1,050.9	0.0097	0.2	12.594	83.6	83.4
43	00:00:15	1100.407	0.0492	1,075.2	0.0099	0.2	12.594	85.6	85.4
44	00:00:15	1126.444	0.0494	1,101.3	0.0101	0.2	12.595	87.6	87.4
45	00:00:16	1150.582	0.0496	1,125.4	0.0103	0.2	12.595	89.6	89.4
46	00:00:16	1177.054	0.0498	1,151.9	0.0105	0.2	12.596	91.7	91.5
47	00:00:16	1201.764	0.0500	1,176.6	0.0107	0.2	12.596	93.6	93.4
48	00:00:16	1226.602	0.0501	1,201.4	0.0109	0.2	12.597	95.6	95.4
49	00:00:16	1251.642	0.0503	1,226.5	0.0110	0.2	12.597	97.6	97.4
50	00:00:17	1276.925	0.0505	1,251.8	0.0112	0.2	12.598	99.6	99.4
51	00:00:17	1300.212	0.0507	1,275.1	0.0114	0.3	12.598	101.5	101.2
52	00:00:17	1325.909	0.0508	1,300.7	0.0116	0.3	12.599	103.5	103.2
53	00:00:17	1351.68	0.0510	1,326.5	0.0117	0.3	12.599	105.6	105.3
54	00:00:18	1375.42	0.0512	1,350.3	0.0119	0.3	12.600	107.5	107.2
55	00:00:18	1401.676	0.0514	1,376.5	0.0121	0.3	12.600	109.5	109.2
56	00:00:18	1426.144	0.0515	1,401.0	0.0123	0.3	12.601	111.5	111.2
57	00:00:18	1450.744	0.0517	1,425.6	0.0124	0.3	12.601	113.4	113.1
58	00:00:18	1475.83	0.0519	1,450.7	0.0126	0.3	12.602	115.4	115.1
59	00:00:19	1500.62	0.0521	1,475.5	0.0128	0.3	12.602	117.4	117.1
60	00:00:19	1525.554	0.0522	1,500.4	0.0130	0.3	12.603	119.4	119.1
61	00:00:19	1550.676	0.0524	1,525.5	0.0131	0.3	12.603	121.4	121.0
62	00:00:19	1576.086	0.0526	1,550.9	0.0133	0.3	12.604	123.4	123.1
63	00:00:19	1602.004	0.0528	1,576.8	0.0135	0.3	12.604	125.5	125.1
64	00:00:20	1625.561	0.0529	1,600.4	0.0136	0.3	12.605	127.4	127.0
65	00:00:20	1651.342	0.0531	1,626.2	0.0138	0.3	12.605	129.4	129.0
66	00:00:20	1675.174	0.0533	1,650.0	0.0140	0.3	12.606	131.3	130.9
67	00:00:20	1701.323	0.0534	1,676.2	0.0141	0.3	12.606	133.4	133.0

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 4

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
68	00:00:20	1727.55	0.0536	1,702.4	0.0143	0.3	12.606	135.5	135.0
69	00:00:21	1751.591	0.0537	1,726.4	0.0145	0.3	12.607	137.4	136.9
70	00:00:21	1775.797	0.0539	1,750.6	0.0146	0.3	12.607	139.3	138.9
71	00:00:21	1802.605	0.0541	1,777.4	0.0148	0.3	12.608	141.4	141.0
72	00:00:21	1827.027	0.0542	1,801.9	0.0149	0.3	12.608	143.4	142.9
73	00:00:21	1851.958	0.0544	1,826.8	0.0151	0.3	12.609	145.4	144.9
74	00:00:22	1876.714	0.0545	1,851.6	0.0152	0.3	12.609	147.3	146.8
75	00:00:22	1901.974	0.0547	1,876.8	0.0154	0.3	12.610	149.4	148.8
76	00:00:22	1927.496	0.0548	1,902.3	0.0155	0.3	12.610	151.4	150.9
77	00:00:22	1952.812	0.0550	1,927.7	0.0157	0.3	12.610	153.4	152.9
78	00:00:22	1975.847	0.0551	1,950.7	0.0158	0.4	12.611	155.2	154.7
79	00:00:23	2001.667	0.0552	1,976.5	0.0160	0.4	12.611	157.3	156.7
80	00:00:23	2025.479	0.0554	2,000.3	0.0161	0.4	12.611	159.2	158.6
81	00:00:23	2050.988	0.0555	2,025.8	0.0162	0.4	12.612	161.2	160.6
82	00:00:23	2076.92	0.0557	2,051.8	0.0164	0.4	12.612	163.3	162.7
83	00:00:23	2100.406	0.0558	2,075.2	0.0165	0.4	12.613	165.1	164.5
84	00:00:23	2126.555	0.0559	2,101.4	0.0167	0.4	12.613	167.2	166.6
85	00:00:24	2152.86	0.0561	2,127.7	0.0168	0.4	12.613	169.3	168.7
86	00:00:24	2176.526	0.0562	2,151.4	0.0169	0.4	12.614	171.2	170.6
87	00:00:24	2200.657	0.0563	2,175.5	0.0171	0.4	12.614	173.1	172.5
88	00:00:24	2227.36	0.0565	2,202.2	0.0172	0.4	12.615	175.2	174.6
89	00:00:24	2251.353	0.0566	2,226.2	0.0173	0.4	12.615	177.2	176.5
90	00:00:25	2275.675	0.0567	2,250.5	0.0175	0.4	12.615	179.1	178.4
91	00:00:25	2302.564	0.0569	2,277.4	0.0176	0.4	12.616	181.2	180.5
92	00:00:25	2326.68	0.0570	2,301.5	0.0177	0.4	12.616	183.1	182.4
93	00:00:25	2350.785	0.0571	2,325.6	0.0179	0.4	12.616	185.1	184.3
94	00:00:25	2375.308	0.0573	2,350.1	0.0180	0.4	12.617	187.0	186.3
95	00:00:25	2402.267	0.0574	2,377.1	0.0181	0.4	12.617	189.2	188.4
96	00:00:26	2426.563	0.0575	2,401.4	0.0182	0.4	12.618	191.1	190.3
97	00:00:26	2451.767	0.0577	2,426.6	0.0184	0.4	12.618	193.1	192.3
98	00:00:26	2477.09	0.0578	2,451.9	0.0185	0.4	12.618	195.1	194.3
99	00:00:26	2502.037	0.0579	2,476.9	0.0186	0.4	12.619	197.1	196.3
100	00:00:26	2526.616	0.0580	2,501.5	0.0188	0.4	12.619	199.1	198.2
101	00:00:26	2551.4	0.0582	2,526.2	0.0189	0.4	12.619	201.0	200.2

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Unconfined Compression Test - Specimen 4

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
102	00:00:27	2576.739	0.0583	2,551.6	0.0190	0.4	12.620	203.0	202.2
103	00:00:27	2602.199	0.0584	2,577.0	0.0192	0.4	12.620	205.1	204.2
104	00:00:27	2628.079	0.0586	2,602.9	0.0193	0.4	12.620	207.1	206.2
105	00:00:27	2650.969	0.0587	2,625.8	0.0194	0.4	12.621	209.0	208.1
106	00:00:27	2676.787	0.0588	2,651.6	0.0195	0.4	12.621	211.0	210.1
107	00:00:27	2702.35	0.0589	2,677.2	0.0197	0.4	12.622	213.0	212.1
108	00:00:28	2725.469	0.0591	2,700.3	0.0198	0.4	12.622	214.9	213.9
109	00:00:28	2751.285	0.0592	2,726.1	0.0199	0.4	12.622	216.9	216.0
110	00:00:28	2776.891	0.0593	2,751.7	0.0200	0.4	12.622	219.0	218.0
111	00:00:28	2800.374	0.0594	2,775.2	0.0201	0.4	12.623	220.8	219.9
112	00:00:28	2827.07	0.0595	2,801.9	0.0202	0.4	12.623	223.0	222.0
113	00:00:28	2850.746	0.0596	2,825.6	0.0203	0.5	12.623	224.9	223.8
114	00:00:29	2877.357	0.0597	2,852.2	0.0205	0.5	12.624	227.0	225.9
115	00:00:29	2901.394	0.0599	2,876.2	0.0206	0.5	12.624	228.9	227.8
116	00:00:29	2925.334	0.0600	2,900.2	0.0207	0.5	12.624	230.8	229.7
117	00:00:29	2952.038	0.0601	2,926.9	0.0208	0.5	12.625	232.9	231.8
118	00:00:29	2976.23	0.0602	2,951.1	0.0209	0.5	12.625	234.8	233.7
119	00:00:29	3000.521	0.0603	2,975.4	0.0210	0.5	12.625	236.8	235.7
120	00:00:30	3028.025	0.0604	3,002.9	0.0211	0.5	12.626	239.0	237.8
121	00:00:30	3052.143	0.0605	3,027.0	0.0212	0.5	12.626	240.9	239.7
122	00:00:30	3076.065	0.0606	3,050.9	0.0213	0.5	12.626	242.8	241.6
123	00:00:30	3100.796	0.0607	3,075.6	0.0214	0.5	12.627	244.8	243.6
124	00:00:30	3125.614	0.0608	3,100.5	0.0216	0.5	12.627	246.7	245.5
125	00:00:30	3150.449	0.0609	3,125.3	0.0217	0.5	12.627	248.7	247.5
126	00:00:31	3175.731	0.0610	3,150.6	0.0218	0.5	12.627	250.7	249.5
127	00:00:31	3200.175	0.0612	3,175.0	0.0219	0.5	12.628	252.7	251.4
128	00:00:31	3228.269	0.0613	3,203.1	0.0220	0.5	12.628	254.9	253.7
129	00:00:31	3253.348	0.0614	3,228.2	0.0221	0.5	12.628	256.9	255.6
130	00:00:31	3275.294	0.0615	3,250.1	0.0222	0.5	12.629	258.6	257.4
131	00:00:31	3300.535	0.0616	3,275.4	0.0223	0.5	12.629	260.6	259.4
132	00:00:31	3325.987	0.0617	3,300.8	0.0224	0.5	12.629	262.7	261.4
133	00:00:32	3351.532	0.0618	3,326.4	0.0225	0.5	12.630	264.7	263.4
134	00:00:32	3377.116	0.0619	3,352.0	0.0226	0.5	12.630	266.7	265.4
135	00:00:32	3402.7	0.0620	3,377.5	0.0227	0.5	12.630	268.8	267.4

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 4

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in²)	Stress (psi)	Compressive Stress (psi)
136	00:00:32	3428.449	0.0621	3,403.3	0.0229	0.5	12.631	270.8	269.4
137	00:00:32	3450.979	0.0622	3,425.8	0.0229	0.5	12.631	272.6	271.2
138	00:00:32	3476.082	0.0623	3,450.9	0.0231	0.5	12.631	274.6	273.2
139	00:00:32	3502.146	0.0624	3,477.0	0.0232	0.5	12.631	276.7	275.3
140	00:00:33	3527.801	0.0625	3,502.6	0.0233	0.5	12.632	278.7	277.3
141	00:00:33	3550.179	0.0626	3,525.0	0.0234	0.5	12.632	280.5	279.1
142	00:00:33	3576.454	0.0628	3,551.3	0.0235	0.5	12.632	282.6	281.1
143	00:00:33	3602.437	0.0629	3,577.3	0.0236	0.5	12.633	284.7	283.2
144	00:00:33	3625.902	0.0630	3,600.7	0.0237	0.5	12.633	286.5	285.0
145	00:00:33	3652.376	0.0631	3,627.2	0.0238	0.5	12.633	288.6	287.1
146	00:00:33	3675.444	0.0632	3,650.3	0.0239	0.5	12.633	290.5	288.9
147	00:00:34	3701.896	0.0633	3,676.7	0.0240	0.5	12.634	292.6	291.0
148	00:00:34	3728	0.0634	3,702.8	0.0241	0.5	12.634	294.7	293.1
149	00:00:34	3750.657	0.0635	3,725.5	0.0242	0.5	12.634	296.5	294.9
150	00:00:34	3777.128	0.0636	3,752.0	0.0243	0.5	12.635	298.6	297.0
151	00:00:34	3802.82	0.0637	3,777.7	0.0244	0.5	12.635	300.6	299.0
152	00:00:34	3825.663	0.0638	3,800.5	0.0245	0.5	12.635	302.4	300.8
153	00:00:35	3852.401	0.0639	3,827.2	0.0246	0.5	12.635	304.6	302.9
154	00:00:35	3876.161	0.0640	3,851.0	0.0247	0.5	12.636	306.5	304.8
155	00:00:35	3902.081	0.0641	3,876.9	0.0248	0.6	12.636	308.5	306.8
156	00:00:35	3928.358	0.0642	3,903.2	0.0249	0.6	12.636	310.6	308.9
157	00:00:35	3951.516	0.0643	3,926.4	0.0250	0.6	12.637	312.4	310.7
158	00:00:35	3977.575	0.0644	3,952.4	0.0251	0.6	12.637	314.5	312.8
159	00:00:35	4000.25	0.0645	3,975.1	0.0252	0.6	12.637	316.3	314.6
160	00:00:36	4026.726	0.0646	4,001.6	0.0253	0.6	12.638	318.4	316.6
161	00:00:36	4053.179	0.0647	4,028.0	0.0254	0.6	12.638	320.5	318.7
162	00:00:36	4075.823	0.0648	4,050.7	0.0255	0.6	12.638	322.3	320.5
163	00:00:36	4101.87	0.0649	4,076.7	0.0256	0.6	12.638	324.4	322.6
164	00:00:36	4128.117	0.0650	4,103.0	0.0257	0.6	12.639	326.5	324.6
165	00:00:36	4150.752	0.0651	4,125.6	0.0258	0.6	12.639	328.3	326.4
166	00:00:36	4176.665	0.0652	4,151.5	0.0259	0.6	12.639	330.4	328.5
167	00:00:37	4202.642	0.0653	4,177.5	0.0260	0.6	12.640	332.4	330.5
168	00:00:37	4228.432	0.0654	4,203.3	0.0261	0.6	12.640	334.5	332.5
169	00:00:37	4250.813	0.0655	4,225.7	0.0262	0.6	12.640	336.3	334.3

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 4

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
170	00:00:37	4276.394	0.0656	4,251.2	0.0264	0.6	12.640	338.3	336.3
171	00:00:37	4301.905	0.0658	4,276.7	0.0265	0.6	12.641	340.3	338.3
172	00:00:37	4327.276	0.0659	4,302.1	0.0266	0.6	12.641	342.4	340.3
173	00:00:37	4352.14	0.0660	4,327.0	0.0267	0.6	12.641	344.3	342.3
174	00:00:38	4377.042	0.0661	4,351.9	0.0268	0.6	12.642	346.3	344.3
175	00:00:38	4401.894	0.0662	4,376.7	0.0269	0.6	12.642	348.3	346.2
176	00:00:38	4426.96	0.0663	4,401.8	0.0270	0.6	12.642	350.3	348.2
177	00:00:38	4451.984	0.0664	4,426.8	0.0271	0.6	12.642	352.3	350.2
178	00:00:38	4476.728	0.0665	4,451.6	0.0272	0.6	12.643	354.2	352.1
179	00:00:38	4504.314	0.0666	4,479.2	0.0273	0.6	12.643	356.4	354.3

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 5

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.06715	0.0023	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:02	50.08542	0.0056	25.0	0.0033	0.1	12.576	2.0	2.0
2	00:00:04	75.23763	0.0082	50.2	0.0059	0.1	12.583	4.0	4.0
3	00:00:05	100.1708	0.0101	75.1	0.0078	0.2	12.588	6.0	6.0
4	00:00:07	125.3045	0.0118	100.2	0.0095	0.2	12.593	8.0	8.0
5	00:00:08	150.2924	0.0133	125.2	0.0110	0.2	12.597	10.0	9.9
6	00:00:09	175.2697	0.0145	150.2	0.0122	0.3	12.600	12.0	11.9
7	00:00:10	200.5485	0.0156	175.5	0.0133	0.3	12.604	14.0	13.9
8	00:00:11	225.1136	0.0166	200.0	0.0143	0.3	12.606	15.9	15.9
9	00:00:11	250.5923	0.0176	225.5	0.0153	0.3	12.609	17.9	17.9
10	00:00:12	275.1061	0.0186	250.0	0.0163	0.4	12.612	19.9	19.8
11	00:00:13	300.4832	0.0196	275.4	0.0173	0.4	12.615	21.9	21.8
12	00:00:14	325.2057	0.0205	300.1	0.0182	0.4	12.617	23.9	23.8
13	00:00:15	350.2387	0.0213	325.2	0.0190	0.4	12.620	25.9	25.8
14	00:00:15	375.4099	0.0222	350.3	0.0199	0.4	12.622	27.9	27.8
15	00:00:16	400.4052	0.0230	375.3	0.0207	0.5	12.624	29.9	29.7
16	00:00:17	425.6987	0.0237	400.6	0.0214	0.5	12.626	31.9	31.7
17	00:00:17	450.0962	0.0243	425.0	0.0220	0.5	12.628	33.8	33.7
18	00:00:18	475.7274	0.0249	450.7	0.0226	0.5	12.630	35.9	35.7
19	00:00:18	500.1269	0.0255	475.1	0.0232	0.5	12.631	37.8	37.6
20	00:00:19	525.8329	0.0260	500.8	0.0237	0.5	12.633	39.8	39.6
21	00:00:19	550.1712	0.0265	525.1	0.0242	0.5	12.634	41.8	41.6
22	00:00:20	575.4935	0.0270	550.4	0.0247	0.5	12.636	43.8	43.6
23	00:00:20	600.6467	0.0274	575.6	0.0251	0.6	12.637	45.8	45.5
24	00:00:21	625.7335	0.0279	600.7	0.0256	0.6	12.638	47.8	47.5
25	00:00:21	650.6887	0.0283	625.6	0.0260	0.6	12.639	49.8	49.5
26	00:00:21	675.4816	0.0287	650.4	0.0264	0.6	12.641	51.8	51.5
27	00:00:22	700.8137	0.0291	675.7	0.0268	0.6	12.642	53.8	53.5
28	00:00:22	726.0177	0.0295	701.0	0.0272	0.6	12.643	55.8	55.4
29	00:00:23	750.6532	0.0299	725.6	0.0276	0.6	12.644	57.7	57.4
30	00:00:23	775.9467	0.0302	750.9	0.0279	0.6	12.645	59.8	59.4
31	00:00:23	800.3417	0.0306	775.3	0.0283	0.6	12.646	61.7	61.3
32	00:00:24	825.6919	0.0309	800.6	0.0286	0.6	12.647	63.7	63.3
33	00:00:24	851.5529	0.0313	826.5	0.0290	0.6	12.648	65.8	65.3

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 5

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in²)	Stress (psi)	Compressive Stress (psi)
34	00:00:24	876.1068	0.0316	851.0	0.0293	0.7	12.649	67.7	67.3
35	00:00:25	901.174	0.0319	876.1	0.0296	0.7	12.650	69.7	69.3
36	00:00:25	926.553	0.0322	901.5	0.0299	0.7	12.650	71.7	71.3
37	00:00:25	950.5955	0.0325	925.5	0.0302	0.7	12.651	73.7	73.2
38	00:00:26	975.2697	0.0328	950.2	0.0305	0.7	12.652	75.6	75.1
39	00:00:26	1000.237	0.0331	975.2	0.0308	0.7	12.653	77.6	77.1
40	00:00:26	1025.743	0.0334	1,000.7	0.0311	0.7	12.654	79.6	79.1
41	00:00:26	1051.274	0.0337	1,026.2	0.0314	0.7	12.655	81.7	81.1
42	00:00:27	1076.043	0.0340	1,051.0	0.0317	0.7	12.655	83.6	83.0
43	00:00:27	1100.816	0.0343	1,075.7	0.0320	0.7	12.656	85.6	85.0
44	00:00:27	1125.617	0.0346	1,100.6	0.0323	0.7	12.657	87.6	87.0
45	00:00:28	1150.286	0.0349	1,125.2	0.0326	0.7	12.658	89.5	88.9
46	00:00:28	1175.362	0.0351	1,150.3	0.0328	0.7	12.659	91.5	90.9
47	00:00:28	1200.763	0.0354	1,175.7	0.0331	0.7	12.660	93.6	92.9
48	00:00:28	1226.498	0.0357	1,201.4	0.0334	0.7	12.660	95.6	94.9
49	00:00:29	1250.498	0.0360	1,225.4	0.0337	0.7	12.661	97.5	96.8
50	00:00:29	1276.419	0.0363	1,251.4	0.0340	0.8	12.662	99.6	98.8
51	00:00:29	1301.101	0.0365	1,276.0	0.0342	0.8	12.663	101.5	100.8
52	00:00:30	1326.177	0.0368	1,301.1	0.0345	0.8	12.663	103.5	102.7
53	00:00:30	1350.916	0.0371	1,325.8	0.0348	0.8	12.664	105.5	104.7
54	00:00:30	1375.983	0.0373	1,350.9	0.0350	0.8	12.665	107.5	106.7
55	00:00:30	1401.499	0.0376	1,376.4	0.0353	0.8	12.666	109.5	108.7
56	00:00:31	1425.559	0.0378	1,400.5	0.0355	0.8	12.666	111.4	110.6
57	00:00:31	1451.714	0.0381	1,426.6	0.0358	0.8	12.667	113.5	112.6
58	00:00:31	1475.835	0.0383	1,450.8	0.0360	0.8	12.668	115.4	114.5
59	00:00:31	1502	0.0386	1,476.9	0.0363	0.8	12.668	117.5	116.6
60	00:00:32	1526.733	0.0388	1,501.7	0.0365	0.8	12.669	119.5	118.5
61	00:00:32	1551.325	0.0390	1,526.3	0.0367	0.8	12.670	121.5	120.5
62	00:00:32	1576.138	0.0392	1,551.1	0.0369	0.8	12.670	123.4	122.4
63	00:00:32	1601.229	0.0395	1,576.2	0.0372	0.8	12.671	125.4	124.4
64	00:00:33	1626.378	0.0397	1,601.3	0.0374	0.8	12.672	127.4	126.4
65	00:00:33	1651.449	0.0400	1,626.4	0.0377	0.8	12.672	129.4	128.3
66	00:00:33	1676.594	0.0402	1,651.5	0.0379	0.8	12.673	131.4	130.3
67	00:00:33	1701.686	0.0404	1,676.6	0.0381	0.8	12.674	133.4	132.3

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 5

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
68	00:00:34	1725.24	0.0406	1,700.2	0.0383	0.9	12.674	135.3	134.1
69	00:00:34	1751.038	0.0409	1,726.0	0.0386	0.9	12.675	137.3	136.2
70	00:00:34	1776.556	0.0411	1,751.5	0.0388	0.9	12.676	139.4	138.2
71	00:00:34	1802.049	0.0414	1,777.0	0.0391	0.9	12.676	141.4	140.2
72	00:00:35	1825.693	0.0416	1,800.6	0.0393	0.9	12.677	143.3	142.0
73	00:00:35	1851.291	0.0418	1,826.2	0.0395	0.9	12.678	145.3	144.0
74	00:00:35	1875.414	0.0421	1,850.3	0.0398	0.9	12.678	147.2	145.9
75	00:00:35	1901.67	0.0423	1,876.6	0.0400	0.9	12.679	149.3	148.0
76	00:00:35	1926.173	0.0426	1,901.1	0.0403	0.9	12.680	151.3	149.9
77	00:00:36	1950.391	0.0428	1,925.3	0.0405	0.9	12.680	153.2	151.8
78	00:00:36	1976.582	0.0430	1,951.5	0.0407	0.9	12.681	155.3	153.9
79	00:00:36	2001.205	0.0433	1,976.1	0.0410	0.9	12.682	157.3	155.8
80	00:00:36	2027.089	0.0435	2,002.0	0.0412	0.9	12.683	159.3	157.9
81	00:00:37	2051.242	0.0438	2,026.2	0.0415	0.9	12.683	161.2	159.8
82	00:00:37	2075.561	0.0440	2,050.5	0.0417	0.9	12.684	163.2	161.7
83	00:00:37	2101.613	0.0442	2,076.5	0.0419	0.9	12.685	165.2	163.7
84	00:00:37	2125.989	0.0445	2,100.9	0.0422	0.9	12.685	167.2	165.6
85	00:00:38	2150.26	0.0447	2,125.2	0.0424	0.9	12.686	169.1	167.5
86	00:00:38	2176.855	0.0449	2,151.8	0.0426	0.9	12.687	171.2	169.6
87	00:00:38	2201.437	0.0451	2,176.4	0.0428	1.0	12.687	173.2	171.5
88	00:00:38	2226.082	0.0453	2,201.0	0.0430	1.0	12.688	175.2	173.5
89	00:00:39	2250.585	0.0456	2,225.5	0.0433	1.0	12.688	177.1	175.4
90	00:00:39	2277.025	0.0458	2,252.0	0.0435	1.0	12.689	179.2	177.5
91	00:00:39	2301.718	0.0460	2,276.7	0.0437	1.0	12.690	181.2	179.4
92	00:00:39	2326.325	0.0462	2,301.3	0.0439	1.0	12.690	183.1	181.3
93	00:00:39	2350.65	0.0464	2,325.6	0.0441	1.0	12.691	185.1	183.2
94	00:00:40	2375.214	0.0467	2,350.1	0.0444	1.0	12.691	187.0	185.2
95	00:00:40	2401.918	0.0469	2,376.9	0.0446	1.0	12.692	189.1	187.3
96	00:00:40	2426.599	0.0471	2,401.5	0.0448	1.0	12.693	191.1	189.2
97	00:00:40	2451.284	0.0473	2,426.2	0.0450	1.0	12.693	193.1	191.1
98	00:00:41	2476.023	0.0475	2,451.0	0.0452	1.0	12.694	195.0	193.1
99	00:00:41	2500.645	0.0477	2,475.6	0.0454	1.0	12.695	197.0	195.0
100	00:00:41	2525.211	0.0479	2,500.1	0.0456	1.0	12.695	199.0	196.9
101	00:00:41	2550.399	0.0482	2,525.3	0.0459	1.0	12.696	201.0	198.9

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Unconfined Compression Test - Specimen 5

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
102	00:00:42	2575.637	0.0484	2,550.6	0.0461	1.0	12.696	203.0	200.9
103	00:00:42	2600.835	0.0486	2,575.8	0.0463	1.0	12.697	205.0	202.9
104	00:00:42	2626.066	0.0488	2,601.0	0.0465	1.0	12.698	207.0	204.8
105	00:00:42	2651.127	0.0490	2,626.1	0.0467	1.0	12.698	209.0	206.8
106	00:00:42	2676.462	0.0492	2,651.4	0.0469	1.0	12.699	211.0	208.8
107	00:00:43	2701.887	0.0494	2,676.8	0.0471	1.0	12.699	213.0	210.8
108	00:00:43	2726.901	0.0496	2,701.8	0.0473	1.1	12.700	215.0	212.7
109	00:00:43	2752.064	0.0499	2,727.0	0.0476	1.1	12.701	217.0	214.7
110	00:00:43	2775.376	0.0501	2,750.3	0.0478	1.1	12.701	218.9	216.5
111	00:00:44	2800.501	0.0503	2,775.4	0.0480	1.1	12.702	220.9	218.5
112	00:00:44	2826.056	0.0505	2,801.0	0.0482	1.1	12.702	222.9	220.5
113	00:00:44	2851.716	0.0507	2,826.6	0.0484	1.1	12.703	224.9	222.5
114	00:00:44	2875.081	0.0509	2,850.0	0.0486	1.1	12.704	226.8	224.3
115	00:00:44	2900.93	0.0511	2,875.9	0.0488	1.1	12.704	228.9	226.4
116	00:00:45	2926.625	0.0514	2,901.6	0.0491	1.1	12.705	230.9	228.4
117	00:00:45	2950.326	0.0516	2,925.3	0.0493	1.1	12.705	232.8	230.2
118	00:00:45	2975.769	0.0518	2,950.7	0.0495	1.1	12.706	234.8	232.2
119	00:00:45	3001.367	0.0520	2,976.3	0.0497	1.1	12.707	236.8	234.2
120	00:00:46	3027.334	0.0522	3,002.3	0.0499	1.1	12.707	238.9	236.3
121	00:00:46	3051.124	0.0524	3,026.1	0.0501	1.1	12.708	240.8	238.1
122	00:00:46	3077.272	0.0526	3,052.2	0.0503	1.1	12.708	242.9	240.2
123	00:00:46	3101.05	0.0528	3,076.0	0.0505	1.1	12.709	244.8	242.0
124	00:00:46	3126.823	0.0530	3,101.8	0.0507	1.1	12.710	246.8	244.0
125	00:00:47	3150.616	0.0532	3,125.5	0.0509	1.1	12.710	248.7	245.9
126	00:00:47	3176.513	0.0534	3,151.4	0.0511	1.1	12.711	250.8	247.9
127	00:00:47	3200.416	0.0536	3,175.3	0.0513	1.1	12.711	252.7	249.8
128	00:00:47	3226.75	0.0538	3,201.7	0.0515	1.1	12.712	254.8	251.9
129	00:00:48	3250.596	0.0540	3,225.5	0.0517	1.1	12.712	256.7	253.7
130	00:00:48	3276.851	0.0542	3,251.8	0.0519	1.2	12.713	258.8	255.8
131	00:00:48	3300.973	0.0544	3,275.9	0.0521	1.2	12.714	260.7	257.7
132	00:00:48	3325.123	0.0546	3,300.1	0.0523	1.2	12.714	262.6	259.6
133	00:00:48	3351.754	0.0548	3,326.7	0.0525	1.2	12.715	264.7	261.6
134	00:00:49	3375.511	0.0550	3,350.4	0.0527	1.2	12.715	266.6	263.5
135	00:00:49	3401.978	0.0552	3,376.9	0.0529	1.2	12.716	268.7	265.6

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Unconfined Compression Test - Specimen 5

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
136	00:00:49	3426.192	0.0554	3,401.1	0.0531	1.2	12.717	270.7	267.5
137	00:00:49	3450.734	0.0556	3,425.7	0.0533	1.2	12.717	272.6	269.4
138	00:00:50	3476.857	0.0558	3,451.8	0.0535	1.2	12.718	274.7	271.4
139	00:00:50	3501.014	0.0560	3,475.9	0.0537	1.2	12.718	276.6	273.3
140	00:00:50	3526.855	0.0563	3,501.8	0.0540	1.2	12.719	278.7	275.3
141	00:00:50	3550.816	0.0565	3,525.7	0.0542	1.2	12.719	280.6	277.2
142	00:00:50	3577.274	0.0567	3,552.2	0.0544	1.2	12.720	282.7	279.3
143	00:00:51	3601.493	0.0569	3,576.4	0.0546	1.2	12.721	284.6	281.2
144	00:00:51	3625.804	0.0571	3,600.7	0.0548	1.2	12.721	286.5	283.1
145	00:00:51	3651.796	0.0573	3,626.7	0.0550	1.2	12.722	288.6	285.1
146	00:00:51	3675.425	0.0575	3,650.4	0.0552	1.2	12.722	290.5	286.9
147	00:00:51	3701.418	0.0577	3,676.4	0.0554	1.2	12.723	292.6	289.0
148	00:00:52	3725.28	0.0578	3,700.2	0.0555	1.2	12.723	294.5	290.8
149	00:00:52	3751.224	0.0581	3,726.2	0.0558	1.2	12.724	296.5	292.8
150	00:00:52	3776.6	0.0583	3,751.5	0.0560	1.2	12.725	298.5	294.8
151	00:00:52	3800.543	0.0584	3,775.5	0.0561	1.2	12.725	300.4	296.7
152	00:00:53	3826.239	0.0587	3,801.2	0.0564	1.3	12.726	302.5	298.7
153	00:00:53	3851.886	0.0589	3,826.8	0.0566	1.3	12.726	304.5	300.7
154	00:00:53	3875.278	0.0590	3,850.2	0.0567	1.3	12.727	306.4	302.5
155	00:00:53	3900.602	0.0592	3,875.5	0.0569	1.3	12.727	308.4	304.5
156	00:00:53	3926.386	0.0594	3,901.3	0.0571	1.3	12.728	310.5	306.5
157	00:00:54	3952.1	0.0596	3,927.0	0.0573	1.3	12.729	312.5	308.5
158	00:00:54	3975.596	0.0598	3,950.5	0.0575	1.3	12.729	314.4	310.4
159	00:00:54	4000.99	0.0600	3,975.9	0.0577	1.3	12.730	316.4	312.3
160	00:00:54	4026.116	0.0602	4,001.0	0.0579	1.3	12.730	318.4	314.3
161	00:00:55	4051.253	0.0604	4,026.2	0.0581	1.3	12.731	320.4	316.3
162	00:00:55	4076.938	0.0606	4,051.9	0.0583	1.3	12.731	322.4	318.3
163	00:00:55	4100.675	0.0608	4,075.6	0.0585	1.3	12.732	324.3	320.1
164	00:00:55	4126.54	0.0610	4,101.5	0.0587	1.3	12.733	326.4	322.1
165	00:00:55	4152.22	0.0613	4,127.2	0.0590	1.3	12.733	328.4	324.1
166	00:00:56	4175.539	0.0615	4,150.5	0.0592	1.3	12.734	330.3	325.9
167	00:00:56	4201.144	0.0617	4,176.1	0.0594	1.3	12.734	332.3	327.9
168	00:00:56	4226.684	0.0619	4,201.6	0.0596	1.3	12.735	334.4	329.9
169	00:00:56	4251.971	0.0621	4,226.9	0.0598	1.3	12.736	336.4	331.9

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

Unconfined Compression Test - Specimen 5

ASTM D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
170	00:00:57	4276.9	0.0623	4,251.8	0.0600	1.3	12.736	338.4	333.8
171	00:00:57	4300.106	0.0625	4,275.0	0.0602	1.3	12.737	340.2	335.6
172	00:00:57	4325.37	0.0627	4,300.3	0.0604	1.3	12.737	342.2	337.6
173	00:00:57	4350.662	0.0629	4,325.6	0.0606	1.3	12.738	344.2	339.6
174	00:00:58	4375.935	0.0631	4,350.9	0.0608	1.4	12.739	346.2	341.6
175	00:00:58	4400.86	0.0633	4,375.8	0.0610	1.4	12.739	348.2	343.5
176	00:00:58	4425.259	0.0635	4,400.2	0.0612	1.4	12.740	350.2	345.4
177	00:00:58	4451.787	0.0637	4,426.7	0.0614	1.4	12.740	352.3	347.5
178	00:00:58	4476.553	0.0639	4,451.5	0.0616	1.4	12.741	354.2	349.4
179	00:00:59	4512.76	0.0642	4,487.7	0.0619	1.4	12.742	357.1	352.2

Project Name: Park House Subdivision Project Number: FGS-G-23113

Test Date: 5/5/2023

Technician:

Checked By: _____ Date: _____

Report Created: 5/5/2023

TENSAR PAVING DESIGN

LOCAL "A"



Pavement Optimization Design Analysis

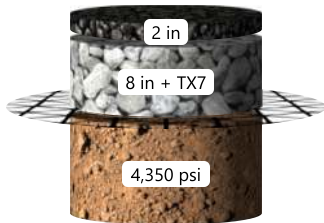


Design	LOCAL "A" STREET	Reference	FGS-G23113
Project	PARKHOUSE SUBDIVISION	Location	Seguin, TX 78155, USA
Customer	KING FISH DEVELOPMENT, LLC	Designer	FLORENTINO CABALLERO, P. E.
Company	FROST GEOSCIENCES, Inc.	Date	May 13, 2023

Results

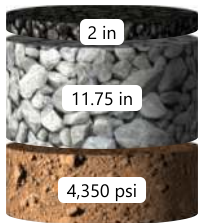
TriAx Stabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	2 in	0.440	0.880
Mechanically stabilized layer	8 in	0.271	2.168
Structural number (SN)			3.048
Calculated traffic (ESALs)			349,200



Unstabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	2 in	0.440	0.880
Aggregate base	11.75 in	0.140	1.645
Structural number (SN)			2.525
Calculated traffic (ESALs)			102,700



Parameters

Project Information

Subgrade resilient modulus	Target ESALs	Reliability	Standard deviation	Serviceability	
				Initial	Terminal
4,350 psi	100,000	70%	0.45	4.2	2

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LOCAL “B”



Pavement Optimization
Design Analysis

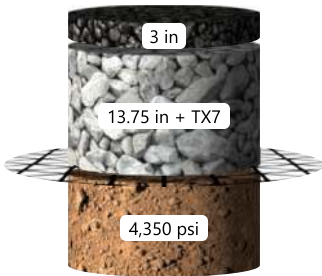


Design	LOCAL "B" STREET	Reference	FGS-G23113
Project	PARKHOUSE SUBDIVISION	Location	Seguin, TX 78155, USA
Customer	KING FISH DEVELOPMENT, LLC	Designer	FLORENTINO CABALLERO, P. E.
Company	FROST GEOSCIENCES, Inc.	Date	May 13, 2023

Results

TriAx Stabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
Mechanically stabilized layer	13.75 in	0.227	3.121
Structural number (SN)			4.441
Calculated traffic (ESALs)			2,106,900



Unstabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
HMA layer 2	3 in	0.380	1.140
Aggregate base	14 in	0.140	1.960
Structural number (SN)			4.420
Calculated traffic (ESALs)			2,035,600



Parameters

Project Information

Subgrade resilient modulus	Target ESALs	Reliability	Standard deviation	Serviceability	
				Initial	Terminal
4,350 psi	2,000,000	90%	0.45	4.2	2

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COLLECTOR



Pavement Optimization
Design Analysis



Design	COLLECTOR STREET	Reference	FGS-G23113
Project	PARKHOUSE SUBDIVISION	Location	Seguin, TX 78155, USA
Customer	KING FISH DEVELOPMENT, LLC	Designer	FLORENTINO CABALLERO, P. E.
Company	FROST GEOSCIENCES, Inc.	Date	May 13, 2023

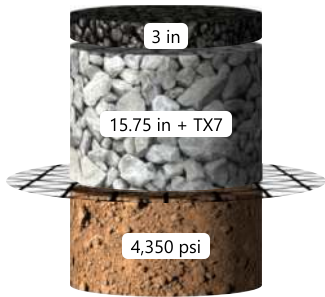
Results

TriAx Stabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
Mechanically stabilized layer	15.75 in	0.218	3.433
Structural number (SN)			4.753
Calculated traffic (ESALs)			2,110,800

Unstabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
HMA layer 2	3 in	0.380	1.140
Aggregate base	16.25 in	0.140	2.275
Structural number (SN)			4.735
Calculated traffic (ESALs)			2,055,300



Parameters

Project Information

Subgrade resilient modulus	Target ESALs	Reliability	Standard deviation	Serviceability	
				Initial	Terminal
4,350 psi	2,000,000	90%	0.45	4.2	2.5

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ARTERIAL

TENSAR PAVING DESIGN

