



ENGINEERING CONSULTANTS IN GEOTECHNICAL • ENVIRONMENTAL • CONSTRUCTION MATERIALS TESTING

August 26, 2021
Project No. 21-7670.02Dustin Owen
R+L Carriers
600 Gillam Road
Wilmington, Ohio 45177Reference: Proposed OICP Truck Terminal (Ocala 2), Ocala, Florida
Geotechnical Site Exploration

Dear Mr. Owen:


As requested, Geo-Technologies, Inc. (Geo-Tech) has performed a site exploration at the project site. Services were conducted in accordance with our Proposal No. 11511 dated June 4, 2021.

The following report summarizes our findings, evaluations and recommendations. Generally accepted soils and foundation engineering practices were employed in the preparation of this report.

Proposed finish floor elevations and loading conditions had not been established at the time of this report. The design of building foundation systems for this project was not included in Geo-Tech's scope of services.

Geo-Tech appreciates the opportunity to provide our services for this project. Should you have any questions regarding the contents of this report or if we may be of further assistance, please do not hesitate to contact the undersigned.

Sincerely,


Grady N. Polk, E.I.
Staff Engineer

GNP/CAH/ca



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Purposes

Purposes of this study were to explore the subsurface conditions in the proposed drainage retention, roadway, and building areas and provide geotechnical engineering site preparation recommendations to guide design and construction of the drainage retention areas, roadways, and building foundations systems.

Site Description

The project site is located seven hundred (700) feet east from the intersection at NW 8th Street and NW 48th Terrace in Ocala, Florida. At the time of our site exploration, the project site was covered with native trees and grasses. Boring locations and quantities were provided to Geo-Tech by Tillman and Associates Engineering, LLC.

Exploration Program

Field exploration services for the geotechnical exploration consisted of the following:

Drainage Retention Areas

- Twenty-five (25) direct push borings (SB-1 thru SB-10 and SB-13 thru SB-27) to depths ranging from approximately ten (10) feet to thirty (30) feet below existing site grade in the proposed drainage retention areas (ASTM D-6282). Direct Push borings were performed on July 15 and August 20, 2021.
- Fifteen (15) field horizontal and fifteen (15) field vertical permeability tests in the proposed drainage retention areas. Permeability testing was performed on August 19 and 20, 2021.

Roadway Areas

- Four (4) direct push borings (SB-31 thru SB-34) to depths approximately ten (10) feet below existing site grade in the proposed roadway areas (ASTM D-6282). Direct Push borings were performed on July 15, 2021.

Building Areas

- Five (5) Standard Penetration Test (SPT) borings (SB-11, SB-12, SB-28, SB-29, and SB-41) to depths ranging from approximately seven (7) feet to thirty (30) feet below existing site grade in the proposed truck terminal area (ASTM D-1586). SPT borings were performed on July 15 and August 9, 2021.
- Five (5) Standard Penetration Test (SPT) borings (SB-30 and SB-35 thru SB-38) to depths ranging from approximately twenty-five (25) feet to thirty-five (35) feet below existing site grade in the proposed maintenance building area (ASTM D-1586). SPT borings were performed on July 12, 2021.
- Two (2) Standard Penetration Test (SPT) borings (SB-39 and SB-40) to a depth of approximately thirty (30) feet below existing site grade in the proposed fuel canopy building area (ASTM D-1586). SPT borings were performed on July 13, 2021.

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Sampling & Testing Descriptions

Direct Push Sampling

Direct Push (DP) soil sampling method (ASTM D-6282) consists of advancing a sampling device into subsurface soils by applying static pressure, by applying impacts, or by applying vibration, or any combination thereof, to the above ground portion of the sampler extensions until sampler has been advanced to the desired sampling depth. The sampler is recovered from the borehole and the sample removed from the sampler. The sampler is cleaned and the procedure repeated for the next desired sampling interval.

Sampling can be continuous for full depth borehole logging or incremental for specific interval sampling. Samplers used can be protected type for controlled specimen gathering or unprotected for general soil specimen collection. Direct push methods of soil sampling are used for geologic investigation, soil chemical composition studies, and water quality investigations. Continuous sampling is used to provide a lithological detail of the subsurface strata and to gather samples for classification and index.

Samples recovered during performance of our direct push borings were visually classified in the field and were transported to our laboratory for further analysis.

Standard Penetration Testing

A Standard Penetration Test (SPT) boring (ASTM D-1586) is defined as a standard split-barrel sampler driven into the soil by a one hundred and forty (140) pound hammer falling thirty (30) inches. The number of blows required to drive the sampler one (1) foot, after seating six (6) inches, is designated resistance, or "N"-Value is an index to soil strength and consistency.

Samples recovered during performance of our SPT borings were visually classified in the field and representative portions of the samples were placed in containers and transported to our laboratory for further analysis.

Findings

Drainage Retention Areas

Boring locations and general subsurface conditions found in our soil borings SB-1 thru SB-10 and SB-13 thru SB-27 are graphically presented on the soil profiles in Appendix I. Horizontal lines designating the interface between differing materials found represent approximate boundaries. Transition between soil layers is typically gradual.

Soils found at our boring locations SB-1, SB-9, SB-26, and SB-27 generally consisted of a surficial layer of fine sand ranging from approximately four (4) feet to five and one-half (5½) feet thick underlain by slightly clayey sand, clayey sand, slightly sandy clay, and limestone to the depths pushed.

Soils found at our boring locations SB-2, SB-3, SB-5, SB-7, SB-10, SB-14, SB-15, SB-17, and SB-19 generally consisted of a surficial layer of fine sand ranging from approximately three (3) feet to eleven (11) feet thick underlain by clayey sand, slightly sandy clay, and limestone to the depths pushed.

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Soils found at our boring locations SB-4, SB-6, SB-8, SB-13, SB-16, SB-18, and SB-20 thru SB-24 generally consisted of a surficial layer of fine sand ranging from approximately four (4) feet to seventeen (17) feet thick underlain by clayey sand and slightly sandy clay to the depths pushed.

Soils found at our boring location SB-25 generally consisted of a surficial layer of fine sand approximately thirteen (13) feet thick underlain by clayey sand and fine sand to the depth pushed.

Ground water table levels were found at our boring locations SB-1, SB-15, SB-17, SB-25, and SB-27 at depths ranging from approximately twenty-two and one-half (22½) feet to twenty-seven (27) feet below the existing site grade.

Seasonal High Water Table Levels

Estimated seasonal high water table levels were found at depths ranging from approximately four and one-half (4½) feet to seventeen and one-half (17½) feet below existing site grade. Estimated seasonal high water table levels are indicated on the soil profiles at the appropriate depths.

Confining Layers

Confining layers were found at depths ranging from approximately six (6) feet below existing site grade to greater than the depths pushed. Confining layers are indicated on the soil profiles at the appropriate depths.

Permeability

Fifteen (15) field horizontal and fifteen (15) field vertical permeability tests were performed adjacent to our boring locations listed in Table 1 at depths ranging from approximately four (4) feet to eight (8) feet below existing site grade. The resulting coefficients of horizontal and vertical permeabilities are noted on the soil profiles and in Table 1 below.

Table 1: Results of Permeability Testing

Boring No.	Depth of Test (feet)	K _H Rate (feet/day)	K _V Rate (feet/day)
SB-1	4.5	22.3	12.3
SB-4	5.0	19.9	11.0
SB-5	4.5	12.1	6.7
SB-6	6.5	17.4	9.9
SB-7	5.0	13.0	7.2
SB-8	5.0	23.3	12.6
SB-10	8.0	16.3	9.1
SB-13	6.0	18.9	10.9
SB-16	4.0	7.5	4.0

Table 1 Cont.: Results of Permeability Testing

Boring No.	Depth of Test (feet)	KH Rate (feet/day)	Kv Rate (feet/day)
SB-18	5.5	16.1	8.8
SB-21	7.0	4.0	2.6
SB-23	7.5	15.6	8.1
SB-25	8.0	4.5	2.8
SB-26	6.5	4.4	2.4
SB-27	7.0	4.0	2.2

Geo-Tech utilizes the U.S. Department of the Navy, Naval Facilities Engineering Command (1974) Standard methods for performing variable head tests to determine and calculate hydraulic conductivities.

Measured permeability rates should not be used for design purposes without an appropriate safety factor. Actual pond exfiltration rates will depend on many factors such as ground water mounding, pond bottom siltation, construction technique, and the amount of soil compaction during construction.

Roadway Areas

Boring locations and general subsurface conditions found in our soil borings SB-31 thru SB-34 are graphically presented on the soil profiles in Appendix I. Horizontal lines designating the interface between differing materials found represent approximate boundaries. Transition between soil layers is typically gradual.

Soils found at our boring locations SB-31 and SB-32 generally consisted of a surficial layer of fine sand ranging from approximately two (2) feet to nine (9) feet thick underlain by clayey sand to the depths pushed.

Soils found at our boring location SB-33 generally consisted of a surficial layer of fine sand to the depth pushed.

Soils found at our boring location SB-34 generally consisted of a surficial layer of fine sand approximately seven and one-half (7½) feet thick underlain by slightly sandy clay to the depth pushed.

Ground water table levels were not found at our boring locations at the time of drilling. In Geo-Tech's opinion, groundwater levels are not expected to influence near surface construction. After periods of prolonged rainfall water may become perched above the clayey soils and deeper foundation systems may encounter a perched water condition.

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Building Areas

Boring locations and general subsurface conditions found in our soil borings SB-11, SB-12, SB-28 thru SB-30, and SB-35 thru SB-41 are graphically presented on the soil profiles in Appendix I. Horizontal lines designating the interface between differing materials found represent approximate boundaries. Transition between soil layers is typically gradual.

Soils found at our boring location SB-11 generally consisted of a surficial layer of fine sand approximately four (4) feet thick underlain by loose to medium dense clayey sand, medium dense fine sand, and limestone to the depth drilled.

Soils found at our boring location SB-12 generally consisted of a surficial layer of very loose to loose fine sand approximately ten (10) feet thick underlain by limestone to the depth drilled. A Weight-of-Hammer (WOH) zone was encountered at a depth of approximately six and one-half (6½) feet to eight and one-half (8½) feet below the existing site grade.

Soils found at our boring locations SB-28 and SB-30 generally consisted of a surficial layer of very loose fine sand ranging from approximately three (3) feet to six (6) feet thick underlain by loose to medium dense clayey sand, medium stiff to hard slightly sandy clay, and limestone to the depths drilled.

Soils found at our boring locations SB-29, SB-40, and SB-41 generally consisted of a surficial layer of loose fine sand ranging from approximately two (2) feet to ten (10) feet thick underlain by loose to very dense clayey sand and limestone to the depths drilled.

Soils found at our boring location SB-35 generally consisted of a surficial layer of fine sand approximately four (4) feet thick underlain by very loose slightly clayey sand, very loose clayey sand, and limestone to the depth drilled. A Weight-of-Hammer (WOH) zone was encountered at a depth of approximately seven and one-half (7½) feet to nine and one-half (9½) feet below the existing site grade.

Soils found at our boring location SB-36 generally consisted of a surficial layer of loose to medium dense fine sand approximately twelve (12) feet thick underlain by medium stiff to stiff slightly sandy clay and limestone to the depth drilled.

Soils found at our boring location SB-37 generally consisted of a surficial layer of fine sand approximately three (3) feet thick underlain by slightly sandy clay, limestone, and very loose clayey sand to the depth drilled. A Weight-of-Hammer (WOH) zone was encountered at a depth of thirteen and one-half (13½) feet to fifteen (15) feet below the existing site grade.

Soils found at our boring location SB-38 generally consisted of a surficial layer of fine sand approximately four and one-half (4½) feet thick underlain by medium dense slightly clayey sand, medium dense fine sand, medium dense clayey sand, medium stiff to stiff slightly sandy clay, and limestone to the depth drilled.

Soils found at our boring location SB-39 generally consisted of a surficial layer of very loose fine sand approximately nine (9) feet thick underlain by clayey sand and stiff to very stiff slightly sandy clay to the depth drilled.

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Ground water table levels were not found at our boring locations at the time of drilling. In Geo-Tech's opinion, groundwater levels are not expected to influence near surface construction. After periods of prolonged rainfall water may become perched above the clayey soils and deeper foundation systems may encounter a perched water condition.

Evaluations and Recommendations

Roadway Areas

Based on the information from our borings, it is Geo-Tech's opinion that the upper fine sand soils appear to be suitable for roadway construction and will likely need to be stabilized prior to the addition of the limerock basecourse and asphalt pavement sections. However, if the final site grade is significantly lowered or if shallow pockets of sandy clay soils are found during the earthwork phase of construction, a minimum separation of two (2) feet should be maintained from the base of the stabilized subgrade to the top of the unsuitable clay soils. Stabilized subgrade should produce a minimum LBR of forty (40).

Building Areas

Geo-Tech observed indications of sinkhole type activity in borings SB-12, SB-35, and SB-37 at depths ranging from approximately six and one-half (6½) feet to fifteen (15) feet below existing site grade. As a sinkhole develops the loose zones propagate upward to the ground surface. Upward movement can cause very loose zones such as those found at our boring locations. These very loose zones can cause settlement to structures found above them.

Most sinkhole activity in Florida is the result of subterranean erosion or "raveling" of the soils into solution channels and cavities in the underlying limestone formation. The process of internal erosion is generally caused by downward seepage of groundwater (recharge) into the limestone aquifer. Recharge occurs when there is a hydraulic connection through the confining beds and a difference in piezometer level between the surficial and limestone aquifers. Under certain circumstances, soil particles will migrate downward during the groundwater recharge process and a subsoil structure will erode. With time, "raveled" conditions can propagate upward and cause a sinkhole at the surface. In some instances, sinkhole activity is manifested at the surface as a shallow depression or minor settlement of the foundation soils which develop gradually rather than a sudden collapse. Typical indicators of sinkhole conditions encountered during the drilling of Standard Penetration Test borings are zones of abnormally soft and/or "raveled" subsoil generally accompanied by loss of drilling fluid circulation.

Geo-Tech recommends excavations to the extents listed in Table 2 and backfilled with suitable structural fill material in accordance with the Structural Fill Material and Compaction of Fill Soils sections of this report. Grouting recommendations can be provided for soil boring SB-37 if requested.

Table 2: Depth of Excavations

Boring No.	Anticipated Depth of Excavation (feet)
SB-12	10.0

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Table 2 Cont.: Depth of Excavations

Boring No.	Anticipated Depth of Excavation (feet)
SB-35	10.0
SB-37	15.0

Proposed Truck Terminal Area

Based on the soil borings performed, the clayey sand and slightly sandy clay soils found at our boring locations SB-11, SB-12, SB-28, SB-29, and SB-41 typically exhibit moderate to high shrink/swell behavior with moisture content changes. Generally, these clay soils will swell upon wetting and shrink upon drying thus causing movement of structures placed on them. Plastic/Trash and organic debris was encountered in soil borings SB-11 and SB-12. This material should be removed to the extents. This would be performed in conjunction with the excavation of the loose zone in the SB-12 location.

The foundation system may utilize a monolithic thickened edge slab or a perimeter footing and finish site grades should be selected so that the **bottom of the foundation and floor slabs** are at least two (2) feet above the underlying unsuitable clayey soils (see attached Figure 2).

It should be noted that shallow limestone was encountered at our boring locations SB-29 and SB-41 at depths ranging from approximately four (4) feet to six (6) feet below the existing site grade. In the event that this limestone is continuous and not a boulder, a minimum of two (2) feet of separation should be maintained between the bottom of the footing and top of the limestone.

In Geo-Tech's opinion, there are three (3) suitable options for the site:

Option 1: Excavate the clayey soils to create the minimum buffer between the foundation and floor slabs and the top of the clayey soils. If excavating for the foundation system to provide the recommended separation, excavation should extend a minimum of two (2) feet beyond each side of the footing. Care should be taken to ensure the foundation system bears in the backfilled area(s).

The depth of excavation should be controlled so that a "bathtub effect" that will trap water is not created. The bottom of the undercut should be graded to drain to a positive gravity outfall. If it is not feasible to have a positive gravity outfall, an underdrain should be placed in the bottom of the excavation to drain stormwater that may accumulate in the excavation.

Structural fill should be placed in accordance with the Structural Fill Material and Compaction of Fill Soils sections of this report.

We wish to emphasize that the excavation and replacement of the underlying clay soils from beneath the building is not a guarantee that the deeper clays will not cause foundation movements. However, the risk is reduced significantly.

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Option 2: Raise the existing site grade to provide the recommended separation. However, prior to importing and placing fill soils to raise the existing site grade the building area should be proof-rolled to increase the density of the near surface soils. Proof-rolling should occur after stripping and grubbing.

Structural fill should be placed in accordance with the Structural Fill Material and Compaction of Fill Soils sections of this report.

Option 3: Combine Options 1 and 2 in order to attain the desired finish floor elevation.

If excavating to attain the recommended separation, Geo-Tech recommends that we be notified to verify the depth of excavation, daylight gravity drain (if required), compaction of backfill and foundation is properly located within boundaries of excavation.

Geo-Tech recommends that due to the very loose soil conditions in soil boring SB-28, the existing sand soils should be removed to a depth of six (6) feet below the bottom of footings and floor slabs. The excavation should then be proof-rolled in accordance with the Proof-Rolling section of this report, and sand soils should be replaced in accordance with the Structural Fill Specifications and Compaction of Fill Soils sections of this report.

Soil borings SB-11, SB-12 and SB-41 were performed with a depressed area and it is anticipated this area to be filled to meet the existing elevation of the surrounding areas. Backfilling of the depressed area should meet the Structural Fill Specifications and Compaction of Fill Soils sections of this report. Unsuitable soils intended to be exported can potentially be utilized in the base of the depressed area. Additional recommendations can be provided should unsuitable soils be utilized in the base of the depressed area.

Proposed Maintenance Building Area

Based on the soil borings performed, the clayey sand and slightly sandy clay soils found at our boring locations SB-30 and SB-35 thru SB-38 typically exhibit moderate to high shrink/swell behavior with moisture content changes. Generally, these clay soils will swell upon wetting and shrink upon drying thus causing movement of structures placed on them.

The foundation system may utilize a monolithic thickened edge slab or a perimeter footing and finish site grades should be selected so that the **bottom of the foundation and floor slabs** are at least four (4) feet above the underlying unsuitable clayey soils (see attached Figure 2).

It should be noted that shallow limestone was encountered at our boring location SB-37 at a depth of approximately four (4) feet below the existing site grade. In the event that this limestone is continuous and not a boulder, a minimum of two (2) feet of separation should be maintained between the bottom of the footing and top of the limestone.

In Geo-Tech's opinion, there are three (3) suitable options for the site:

Option 1: Excavate the clayey soils to create the minimum buffer between the foundation and floor slabs and the top of the clayey soils. If excavating for the foundation system to provide the recommended separation, excavation should extend a minimum of

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two (2) feet beyond each side of the footing. Care should be taken to ensure the foundation system bears in the backfilled area(s).

The depth of excavation should be controlled so that a "bathtub effect" that will trap water is not created. The bottom of the undercut should be graded to drain to a positive gravity outfall. If it is not feasible to have a positive gravity outfall, an underdrain should be placed in the bottom of the excavation to drain stormwater that may accumulate in the excavation.

Structural fill should be placed in accordance with the Structural Fill Material and Compaction of Fill Soils sections of this report.

We wish to emphasize that the excavation and replacement of the underlying clay soils from beneath the building is not a guarantee that the deeper clays will not cause foundation movements. However, the risk is reduced significantly.

Option 2: Raise the existing site grade to provide the recommended separation. However, prior to importing and placing fill soils to raise the existing site grade the building area should be proof-rolled to increase the density of the near surface soils. Proof-rolling should occur after stripping and grubbing.

Structural fill should be placed in accordance with the Structural Fill Material and Compaction of Fill Soils sections of this report.

Option 3: Combine Options 1 and 2 in order to attain the desired finish floor elevation.

If excavating to attain the recommended separation, Geo-Tech recommends that we be notified to verify the depth of excavation, daylight gravity drain (if required), compaction of backfill and foundation is properly located within boundaries of excavation.

Proposed Fuel Canopy Area

Based on the soil borings SB-39 and SB-40 performed, the shallow fine sand soils appear to be suitable for conventional foundation systems. Geo-Tech recommends incorporating the following proof-rolling recommendations to compact the upper sands. In Geo-Tech's opinion, the clayey sand and slightly sandy clay soils are at a depth that should not affect the near surface construction.

Geo-Tech recommends that due to the very loose soil conditions in the proposed fuel canopy area, the existing sand soils should be removed to a depth of six (6) feet below the bottom of footings and floor slabs. The excavation should then be proof-rolled in accordance with the Proof-Rolling section of this report, and sand soils should be replaced in accordance with the Structural Fill Specifications and Compaction of Fill Soils sections of this report.

Recommended Site Preparation

Building Areas

Stripping and Grubbing

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The “footprint” of the proposed building, plus an additional horizontal margin of ten (10) feet, should be stripped of the existing vegetation, stumps, surface debris, or other deleterious materials as found. Expect clearing and grubbing to depths of about eight (8) to twelve (12) inches. Deeper clearing and grubbing depths may be encountered in heavily vegetated areas where major root systems are found. Actual depth(s) of stripping and grubbing must be determined by visual observation and judgment during the earthwork operation.

Proof-Rolling

Proof-rolling of the cleared surface is recommended to: 1) locate any soft areas or unsuitable surface or near surface soils; 2) increase the density of the upper two (2) feet of the in-situ soils to at least ninety-five (95) percent of the maximum density as determined by the modified proctor test method (ASTM D- 1557) maximum dry density value; and 3) prepare the existing surface for the addition of fill soils (if required). Proof-rolling of the building area should consist of at least ten (10) passes of a self-propelled static compactor. Each pass of the compactor should overlap the preceding pass by thirty (30) percent to insure complete coverage. If deemed necessary, in areas that continue to “yield,” remove all deleterious material and replace with a clean, compacted sand backfill. Proof-rolling should occur after cutting and before filling. Vibratory compaction equipment should not be used within one-hundred (100) feet of neighboring structures.

Structural Fill Material

Structural fill material should be free of organic material such as roots and/or vegetation. Geo-Tech recommends using sand fill with between three (3) to twelve (12) percent by dry weight of material passing the U.S. Standard No. 200 sieve size. All structural fill should be pre-qualified prior to importing and placing.

Upper fine sands found on site should meet these requirements and can be used if kept separate from the clayey soils during the earthwork phase of construction. Clayey soils are typically not used for structural fill due to inherent nature to retain moisture and the natural weight of the material makes compaction requirements difficult to achieve. However, the clayey soils can be utilized for other non-structural grading as desired.

Compaction of Fill Soils

Structural fill should be placed in level lifts not thicker than twelve (12) inches (uncompacted). Each lift in the proposed building area should be compacted to at least ninety-eight (98) percent of the maximum density as determined by the Modified Proctor Test Method (ASTM D-1557) maximum dry density value. If hand-held compaction equipment is used, reduce the uncompacted lift thickness to six (6) inches. Filling and compaction operation should continue in lifts until the desired elevation is attained.

Foundation Support

Foundations for the proposed structure may consist of shallow foundations placed on compacted engineered fill material. Such footings may be designed for maximum allowable soils contact pressures of two thousand five hundred (2,500) pounds per square foot. For purposes of confinement, exterior footings should be embedded at least twenty-four (24) inches below the lowest adjacent grade as measured to the base of the footing. Interior footings should be embedded a minimum of eighteen (18) inches below the lowest adjacent grade as measured to the base of the footing.

Moisture entry from the underlying subgrade soils should be minimized. An impervious membrane placed between the subgrade soils and floor slab will help to accomplish this. A polyethylene film (six [6] mil) is commonly used for this purpose. Care should be used so that the membrane is not punctured when placing reinforcing steel (or mesh) and concrete.

Quality Control

Geo-Tech recommends establishing a comprehensive quality control program to insure that site preparation and foundation construction is conducted according to the plans and specifications. Materials testing and inspection services should be provided by Geo-Technologies, Inc. An engineering technician should be on-site to monitor all stripping and grubbing, to verify that all deleterious materials have been removed.

Density testing should be performed during backfill and below all footings and floor slabs to check the required compaction. Field density values should be compared to laboratory proctor moisture-density results for each different natural and fill soil encountered.

Geotechnical engineering design does not end with the advertisement of construction documents. The design is an ongoing process throughout construction. Because of Geo-Tech's familiarity with the site conditions and the intent of the engineering design, we are most qualified to address problems that might arise during construction in a timely and cost-effective manner.

Roadway Areas

General Pavement Construction Recommendations

The following are our recommendations for overall site preparation and mechanical densification work for the pavement construction portion of the project, based on the anticipated construction and our boring results. These recommendations should be used as a guideline for the project general specifications, which are prepared by the Design Engineer. Site preparation and filling should be in accordance with the latest edition of the Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction and Standard Index 505.

1. The pavement area plus a five (5) foot margin should be stripped and cleared of surface vegetation, organic or root laden topsoil, and grubbed of roots and stumps. Organic soil or near surface clays and silts found and any other soils with organic content in excess of five (5) percent should be over excavated or hauled elsewhere for restricted use as permitted by FDOT Indexes 500 and 505. A representative of our firm should observe the stripped grade to document adequate depth of stripping prior to filling.
2. The stripped area should be leveled sufficiently to permit equipment traffic, cut to grade if necessary, and then compacted using a large diameter, self-propelled, or tractor drawn vibratory roller. The vibratory drum roller should have a static drum weight of about four (4) tons and should be capable of exerting a minimum impact force of fifteen (15) tons. Careful observations should be made during proof-rolling to help identify any areas of soft yielding soils that may require over excavation and replacement. Care should be used when operating the compactor near existing structures to avoid transmissions of vibrations that could cause settlement damage or disturb occupants. Use of smaller vibratory or static compactor may be necessary in some instances. Construction operations that may be affected by vibration, such

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as pouring concrete, should be scheduled at times when nearby compaction operations are not taking place.

3. Prior to beginning compaction, soil moisture contents may need to be controlled in order to facilitate proper compaction. If additional moisture is necessary to achieve compaction objectives, then water should be applied in such a way that it will not cause erosion or removal of the subgrade soils. Moisture content within two (2) percentage points of the optimum indicated by the Modified Proctor test (ASTM D-1557) is recommended.
4. A minimum of ten (10) overlapping passes should be made by the vibratory drum roller across the stripped or cut ground surface. Compaction should continue to develop a minimum density requirement of ninety-eight (98) percent of the maximum Modified Proctor dry density established in accordance with ASTM D-1557, for a minimum depth of two (2) feet below the compacted surface, as determined by field density (compaction) test or in accordance with FDOT Index 505, whichever is higher.
5. Following satisfactory completion of the initial compaction on the existing grade, the pavement area may be brought up to finished subgrade levels if required. Fill should consist of fine sand with between three (3) to twelve (12) percent by dry weight passing a US Standard No. 200 sieve, free of rubble, organics, clay, debris, and other unsuitable material. **All structural fill should be pre-qualified prior to importing and placing.** Soils removed from the building cut areas can be used in this area also. Approved sand fill should be placed in loose lifts not exceeding twelve (12) inches in thickness and should be compacted to a minimum of ninety-eight (98) percent of the maximum Modified Proctor dry density. Density tests to confirm compaction should be performed in each fill lift before the next lift is placed.
6. Undercutting clayey soils should follow the recommendations in the previous section.
7. A representative from our firm should be retained to provide on-site observation of earthwork activities. The field technician would monitor the excavation of detrimental soil such as organics and plastic soils, placement of approved fills, proof-rolling and provide compaction testing. Density tests should be performed in surficial sands after proof rolling and in each fill lift thereafter. It is important that careful observation be made to confirm that the subsurface conditions are as we have discussed herein, and that foundation construction and fill placement is in accordance with our recommendations.

Flexible/Semi-Flexible Pavement Structure

Limerock could be considered as a base course for this site. Normal wet season groundwater levels should be controlled to at least eighteen (18) inches below a limerock base or associated stabilized subgrade (clean sand subgrade stabilized with a suitable imported cohesive soil), if one is used. Traffic loading conditions were not supplied to Geo-Tech at the time of this report writing, however, this design has been used as a general pavement section design and should be reviewed by Geo-Tech after loading conditions have been established.

As a guideline for pavement design, we recommended that the base course be a minimum of six (6) inches thick in standard parking areas and should be compacted to at least ninety-eight (98) percent of the Modified Proctor maximum dry density A stabilized subgrade (LBR= forty [40])

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August 26, 2021
Project No. 21-7670.02

should be used below the limerock base course. Stabilized subgrade soils should be a minimum of eight (8) inches (standard pavement section) to twelve (12) inches (heavy pavement section) thick and should be compacted to at least ninety-eight (98) percent of the Modified Proctor maximum dry density. Limerock should conform to FDOT specifications and should have a minimum LBR value of one-hundred (100), and should be compacted to at least ninety-eight (98) percent of the Modified maximum dry density (ASTM D-1557).

At a minimum, the asphaltic concrete wearing surface should consist of at least one and one-half (1½) inches of either Superpave 9.5 or Superpave 12.5 asphaltic concrete meeting current Florida Department of Transportation specifications and placement and compaction procedures. **Specific requirements for asphaltic concrete are outlined in sections 333 and 331 in FDOT Standard Specifications for Road and Bridge Construction – latest edition.** Superpave 9.5, although somewhat more expensive, offers increased stability. Superpave 12.5, which is more durable, should not be used unless the surface course is at least one and one-half (1½) inches thick because of the coarse aggregate. Superpave 9.5, which is somewhat finer aggregate, is also relatively durable and can be used in one (1) inch thickness. Superpave 9.5 or Superpave 12.5 is the preferred surface course. It is, however, important to point out that many combinations of asphaltic concrete, base course, and stabilized subgrade can be considered and that the above suggestions/guidelines are based only on our past experience with similar projects.

Rigid Pavement Structure

Experience has indicated that high quality concrete placed on compacted free draining clean natural or fill subgrade can provide satisfactory, long-term performance as a pavement wearing surface. Good performance and low maintenance is highly dependent on satisfactory subgrade drainage and closely spaced joints. A control pattern of fifteen (15) feet by fifteen (15) feet is highly recommended by the Florida Concrete Products Association. We suggest that there should be at least twenty-four (24) inches between the bottom of the surface course and the seasonal high groundwater table.

Pavement thickness and concrete design strength will depend on such variables as anticipated wheel loads, number of load applications, and the subgrade LBR value of the native soils. Based on our local experience, Geo-Tech recommends stabilizing the subgrade beneath all concrete pavements to a depth of twelve (12) inches and a minimum LBR of forty (40). Reinforcement should consist of 6"x 6"x10" gauge wire mesh.

The pavement areas should first be cleared and grubbed of any surface vegetation, tree root systems and organic topsoil. The stripped subgrade should be compacted to ninety-five (95) percent of the Modified Proctor maximum density (ASTM D-1557) to a depth of twelve (12) inches. Site raising fill should consist of clean sand, placed in twelve (12) inch lifts. Each lift compacted to ninety-five (95) percent of the Modified Proctor maximum dry density. The final twelve (12) inch lift shall consist of stabilized subgrade, compacted to ninety-eight (98) percent of the Modified Proctor maximum dry density.

Transverse reinforcement and load transfer devices should be employed as recommended by the Florida Concrete Products Association's design guidelines. Expansion joints should be incorporated into the pavement, at its juncture with building perimeters, manholes, inlet boxes,

Proposed OICP Truck Terminal (Ocala 2)
Ocala, Florida

August 26, 2021
Project No. 21-7670.02

radii, and other appropriate locations. We also recommend control joints should be cut at fifteen (15) foot intervals in both directions to a depth of four (4) inches.

Table 3: Pavement Design Summary

Component	Asphalt		Concrete Heavy
	Standard	Heavy	
Stabilized Subgrade LBR 40	8 inches	12 inches	12 inches
Base Material Limerock LBR 100 (stone, sand/shell, etc.)	6 inches	9 inches	--
Asphalt Base Course	(not required)		
Leveling Binder Course	--	--	--
Surface Course	1½ inches	3 inches	8 inches

Note: This information shall not be used separately from the geotechnical report and should be reviewed by Geo-Tech when traffic loading conditions are established.

Closure/General Qualifications

This report has been prepared in order to aid evaluation of the project site and to assist various design professionals in the design of the drainage retention areas, roadways and building foundation systems. The scope is limited to the specific project and the location described herein, and our description of the project represents our understanding of the significant aspects relevant to soil and foundation characteristics. In the event that any changes in present project concepts as outlined in this report are planned, we should be informed so the changes can be reviewed and the conclusions of this report modified as necessary in writing by the soils and foundation engineer.

It is recommended that all construction operations dealing with earthwork and foundations be reviewed by our soil engineer to provide information on which to base a decision whether the design requirements are fulfilled in the actual construction. Evaluations and recommendations submitted in this report are based upon the data obtained from the soil borings performed at the locations indicated on the Boring Location Map, and from any other information discussed in this report. This report does not reflect any variations, which may occur between these borings. In the performance of subsurface investigations, specific information is obtained at specific locations at specific times. Variations in soil and rock conditions exist on most sites between boring locations. Groundwater levels may also vary from time to time. The nature and extent of variations may not become evident until the course of construction. If variations then appear evident, it will be necessary for a re-evaluation of the recommendations of this report after performing on-site observations during the construction period and noting the characteristics of any variations.

APPENDIX I
SOIL PROFILES

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

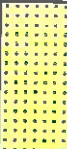





Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 4.5 FEET = 22.3 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 4.5 FEET = 12.3 FEET/DAY ESHWTL AT APPROXIMATELY 9.0 FEET
2			4.5		
3					
4					
5		SLIGHTLY CLAYEY SAND YELLOWISH BROWN SLIGHTLY CLAYEY SAND (SP-SC)		2	
6			8.0		
7					
8			9.0	3	
9		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)		4	
10			10.5		
11		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
12					
13		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH) WITH LIMESTONE		5	
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24			24.5		
25		LIMESTONE LIGHT BROWN LIMESTONE		6	
26			27.0		
27					
28		End of Borehole			BORING TERMINATED AT APPROXIMATELY 27.0 FEET DUE TO LIMESTONE
29					
30					
31					
32					
33					
34					
35					

Ground Water Depth: **AT APPROXIMATELY 25.0 FEET**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **1 OF 41**

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

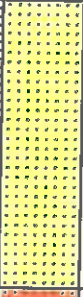
Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	ESHWTL AT APPROXIMATELY 8.5 FEET
2					
3					
4					
5					
6					
7					
8					
9		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	8.5	2	CONFINING LAYER AT APPROXIMATELY 18.5 FEET
10					
11					
12					
13					
14					
15					
16					
17					
18					
19		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)	18.5	3	BORING TERMINATED AT APPROXIMATELY 26.0 FEET DUE TO LIMESTONE
20					
21					
22					
23					
24					
25					
26					
27					
26		LIMESTONE LIGHT BROWN LIMESTONE	25.0 26.0	4	
27		End of Borehole			
28					
29					
30					
31					
32					
33					
34					
35					

Ground Water Depth: GREATER THAN DEPTH PUSHED

Drill Date: JULY 15, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 2 OF 41

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

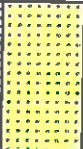




Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	ESHWTL AT APPROXIMATELY 7.0 FEET CONFINING LAYER AT APPROXIMATELY 8.0 FEET BORING TERMINATED AT APPROXIMATELY 10.0 FEET DUE TO LIMESTONE
2					
3			4.5		
4		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)	7.0	2	
5			8.0	3	
6		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	9.0	4	
7			10.0	5	
8		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH) WITH LIMESTONE			
9					
10		LIMESTONE LIGHT BROWN LIMESTONE			
11					
12					
13					
14					
15		End of Borehole			
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 3 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**




Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 5.0 FEET = 19.9 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 5.0 FEET = 11.0 FEET/DAY
2					
3					
4					
5					
6			6.0		
7		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	7.0	2	ESHWTL AT APPROXIMATELY 6.0 FEET CONFINING LAYER AT APPROXIMATELY 7.0 FEET
8					
9					
10		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH) WITH SOME LIMESTONE		3	
11					
12					
13					
14					
15					
16					
17					
18					
19					
20			20.0		
21		End of Borehole			
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 4 OF 41

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL





Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)			FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 4.5 FEET = 12.1 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 4.5 FEET = 6.7 FEET/DAY ESHWTL AT APPROXIMATELY 5.0 FEET CONFINING LAYER AT APPROXIMATELY 6.0 FEET
2			3.5	1	
3					
4		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)	5.0	2	
5			6.0	3	
6		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
7					
8					
9					
10		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)			
11					
12					
13					
14					
15				4	
16					
17					
18					
19					
20					
21					
22					
23			23.0		
24		LIMESTONE LIGHT BROWN LIMESTONE	24.0	5	BORING TERMINATED AT APPROXIMATELY 24.0 FEET DUE TO LIMESTONE
25					
26		End of Borehole			
27					
28					
29					
30					
31					
32					
33					
34					
35					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 5 OF 41

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

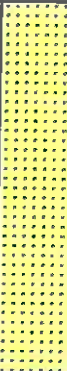


Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)			
2					
3					
4					
5					
6				1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 6.5 FEET = 17.4 FEET/DAY
7					FIELD VERTICAL PERMEABILITY RATE AT APPROX. 6.5 FEET = 9.9 FEET/DAY
8					
9					
10					
11			11.0		
12		CLAYEY SAND YELLOW BROWN CLAYEY SAND (SC)	12.5	2	ESHWTL AT APPROXIMATELY 12.5 FEET
13					
14		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
15				3	
16					
17					
18					
19			19.0		CONFINING LAYER AT APPROXIMATELY 19.0 FEET
20		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH) WITH TRACE LIMESTONE			
21					
22					
23					
24					
25				4	
26					
27					
28					
29					
30			30.0		
31		End of Borehole			
32					
33					
34					
35					

Ground Water Depth: GREATER THAN DEPTH PUSHED

Drill Date: JULY 15, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 6 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

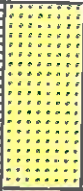



Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 5.0 FEET = 13.0 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 5.0 FEET = 7.2 FEET/DAY
2					
3					
4					
5			5.5		
6		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)	7.0	2	ESHWTL AT APPROXIMATELY 7.0 FEET
7					
8			8.5		
9		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)		3	CONFINING LAYER AT APPROXIMATELY 8.5 FEET
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23			23.0	4	
24		LIGHT BROWN LIMESTONE	24.0		
25				5	BORING TERMINATED AT APPROXIMATELY 24.0 FEET DUE TO LIMESTONE
26		End of Borehole			
27					
28					
29					
30					
31					
32					
33					
34					
35					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **7 OF 41**

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

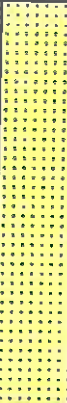



Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1-12		FINE SAND BROWN TO YELLOWISH BROWN FINE SAND (SP)		1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 5.0 FEET = 23.3 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 5.0 FEET = 12.6 FEET/DAY
12			12.0		
13-14		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)	14.0	2	ESHWTL AT APPROXIMATELY 14.0 FEET
14-21		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)		3	
21			21.0		CONFINING LAYER AT APPROXIMATELY 21.0 FEET
22-30		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH) WITH LIMESTONE		4	
30			30.0		
31		End of Borehole			
32					
33					
34					
35					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 8 OF 41

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL





Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	
2					
3					
4					
5			5.5		
6		SLIGHTLY CLAYEY SAND YELLOWISH BROWN SLIGHTLY CLAYEY SAND (SP-SC)	7.5	2	
7					
8			8.5	3	
9		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)			ESHWTL AT APPROXIMATELY 8.5 FEET
10		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
11					
12					
13					
14					
15				4	
16					
17					
18					
19			19.0		CONFINING LAYER AT APPROXIMATELY 19.0 FEET
20		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)		5	
21					
22					
23					
24					
25					
26					
27					
28					
29			29.0		
30		LIMESTONE LIGHT BROWN LIMESTONE	30.0	6	
31					
32		End of Borehole			
33					
34					
35					

Ground Water Depth: GREATER THAN DEPTH PUSHED

Drill Date: JULY 15, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 9 OF 41

NEW Exhibit H - Geotech Report
Log of Borehole: SB-10

CONTRACT# CIP/230168

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue
 Ocala, Florida
 352.694.7711

WWW.GEOTECHFL.COM

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL




Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 8.0 FEET = 16.3 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 8.0 FEET = 9.1 FEET/DAY
2					
3					
4					
5					
6					
7					
8					
9					
10					
11			11.0		
12		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)	12.0	2	ESHWTL AT APPROXIMATELY 12.0 FEET
13		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)		3	
14					
15			16.5		CONFINING LAYER AT APPROXIMATELY 16.5 FEET
16		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)		4	
17					
18					
19					
20					
21					
22					
23					
24					
25			25.0		
26		LIMESTONE LIGHT BROWN LIMESTONE		5	
27					
28					
29					
30					
31		End of Borehole			
32					
33					
34					
35					

Ground Water Depth: GREATER THAN DEPTH PUSHED

Drill Date: JULY 15, 2021

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Soil Profile : 10 OF 41

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

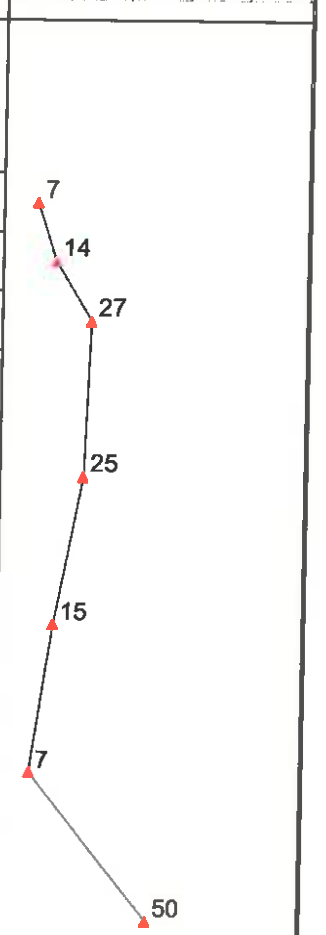
Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test	
								▲	◆
0		Ground Surface		0.0					
1-4		FINE SAND BROWN FINE SAND (SP)	HAND AUGER POSSIBLE UTILITIES	4.0					
5-8		CLAYEY SAND BROWN CLAYEY SAND (SC)	LOOSE	7.0	1		7	7	
8-9		CLAYEY SAND BROWN CLAYEY SAND (SC) WITH TRACE ORGANICS	MEDIUM DENSE	8.0	2		14	14	
9-10		CLAYEY SAND BROWN CLAYEY SAND (SC) WITH TRACE ORGANICS	MEDIUM DENSE		3		27	27	
11-14		FINE SAND BROWN TO LIGHT BROWN FINE SAND (SP)	MEDIUM DENSE		4		25	25	
15-19		FINE SAND BROWN TO LIGHT BROWN FINE SAND (SP)	MEDIUM DENSE		5		15	15	
20-23		FINE SAND BROWN TO LIGHT BROWN FINE SAND (SP)	MEDIUM DENSE						
24-26		CLAYEY SAND GREY CLAYEY SAND (SC)	LOOSE	23.5	6		7	7	
27		LOSS OF CIRCULATION AT APPROX. 27.0 FEET							
28-29		LIMESTONE LIGHT BROWN LIMESTONE	50 BLOWS - 2"	28.5					
30				30.0	7		50	50	
31-40		End of Borehole							

Standard Penetration Test
 N-Values



Ground Water Depth: **GREATER THAN 10.0 FEET**

Drill Date: **AUGUST 9, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-1586**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 11 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values									
								0	20	40	60	80	100				
0		Ground Surface		0.0													
1		FINE SAND BROWN FINE SAND (SP)	HAND AUGER POSSIBLE UTILITIES														
2																	
3																	
4																	
5			VERY LOOSE		1		1										
6			W.O.H. (6.5' - 8.5')														
7																	
8		FINE SAND BROWN FINE SAND (SP) WITH TRASH PLASTIC DEBRIS	LOOSE	8.0	2		0										
9																	
10				10.0	3		9										
11		LIMESTONE LIGHT BROWN LIMESTONE WITH TRASH DEBRIS															
12																	
13																	
14																	
15			5 BLOWS - 12"		4		5										
16																	
17																	
18																	
19																	
20			44 BLOWS - 12"		5		44										
21																	
22																	
23			50 BLOWS - 2"		6		50										
24			50 BLOWS - 5"		7		50										
25				25.0													
26		End of Borehole															
27																	
28																	
29																	
30																	
31																	
32																	
33																	
34																	
35																	
36																	
37																	
38																	
39																	
40																	

Ground Water Depth: **GREATER THAN 10.0 FEET**

Drill Date: **AUGUST 9, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-1586**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **12 OF 41**

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

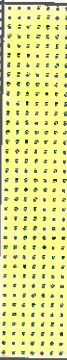
Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)			
2					
3					
4					
5					
6					
7					
8					
9					
10					
11		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	10.5	1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 6.0 FEET = 18.9 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 6.0 FEET = 10.9 FEET/DAY
12		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)	12.0	2	ESHWTL AT APPROXIMATELY 10.5 FEET CONFINING LAYER AT APPROXIMATELY 12.0 FEET
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30			30.0	3	
31		End of Borehole			
32					
33					
34					
35					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 13 OF 41

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

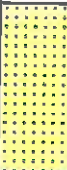



Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	
2					
3					
4					
5			5.0		
6		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)		2	ESHWTL AT APPROXIMATELY 7.5 FEET
7			7.5		
8					
9					
10			10.5		
11		SLIGHTLY SANDY CLAY GREY SLIGHTLY SANDY CLAY (CH) WITH LIMESTONE		4	CONFINING LAYER AT APPROXIMATELY 10.5 FEET
12			11.5		
13					
14					
15					
16		LIMESTONE LIGHT BROWN LIMESTONE		5	BORING TERMINATED AT APPROXIMATELY 21.0 FEET DUE TO LIMESTONE
17					
18					
19					
20					
21			21.0		
22		End of Borehole			
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					

Ground Water Depth: GREATER THAN DEPTH PUSHED

Drill Date: JULY 15, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 14 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**







Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	
2					
3					
4			4.5		
5		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)		2	
6					
7			7.0		ESHWTL AT APPROXIMATELY 7.0 FEET
8		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)		3	
9					
10			10.5		CONFINING LAYER AT APPROXIMATELY 10.5 FEET
11		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)	11.5	4	
12					
13		LIMESTONE LIGHT BROWN LIMESTONE		5	
14					
15					
16			16.5		
17		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)			
18					
19					
20					
21					
22					
23					
24				6	
25					
26					
27					
28					
29					
30			30.0		
31		End of Borehole			
32					
33					
34					
35					

Ground Water Depth: **AT APPROXIMATELY 27.0 FEET**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **15 OF 41**

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

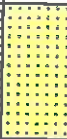
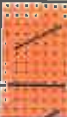

Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 4.0 FEET = 7.5 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 4.0 FEET = 4.0 FEET/DAY ESHWTL AT APPROXIMATELY 6.5 FEET CONFINING LAYER AT APPROXIMATELY 7.5 FEET
2					
3			4.0		
4					
5		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)		2	
6			6.5		
7			7.5	3	
8					
9				4	
10		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)			
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30			30.0		
31		End of Borehole			
32					
33					
34					
35					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: JULY 15, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 16 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**






Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	ESHWTL AT APPROXIMATELY 4.5 FEET
2			3.0		
3					
4		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)	4.5	2	ESHWTL AT APPROXIMATELY 4.5 FEET
5					
6					
7		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)		3	CONFINING LAYER AT APPROXIMATELY 10.5 FEET
8					
9					
10			10.5		CONFINING LAYER AT APPROXIMATELY 10.5 FEET
11		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)		4	
12					
13					
14					CONFINING LAYER AT APPROXIMATELY 10.5 FEET
15					
16					
17					CONFINING LAYER AT APPROXIMATELY 10.5 FEET
18					
19					
20					CONFINING LAYER AT APPROXIMATELY 10.5 FEET
21					
22					
23					CONFINING LAYER AT APPROXIMATELY 10.5 FEET
24					
25					
26					CONFINING LAYER AT APPROXIMATELY 10.5 FEET
27					
28			28.0		
29		LIMESTONE LIGHT BROWN LIMESTONE	29.0	5	BORING TERMINATED AT APPROXIMATELY 29.0 FEET DUE TO LIMESTONE
30					
31		End of Borehole			
32					BORING TERMINATED AT APPROXIMATELY 29.0 FEET DUE TO LIMESTONE
33					
34					
35					BORING TERMINATED AT APPROXIMATELY 29.0 FEET DUE TO LIMESTONE

Ground Water Depth: **AT APPROXIMATELY 23.0 FEET**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 17 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**




Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 5.5 FEET = 16.1 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 5.5 FEET = 8.8 FEET/DAY
2					
3					
4					
5					
6					
7					
8					
9					
10					
11			10.5		
12		FINE SAND LIGHT GREY FINE SAND (SP)	11.5	2	ESHWTL AT APPROXIMATELY 10.5 FEET
13		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
14					
15					
16			16.0		CONFINING LAYER AT APPROXIMATELY 16.0 FEET
17		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)			
18					
19					
20					
21				4	
22					
23					
24					
25					
26					
27					
28					
29					
30					
31		End of Borehole	30.0		
32					
33					
34					
35					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **18 OF 41**

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

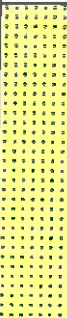


Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	
2					
3					
4					
5					
6					
7					
8					
9					
10		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	9.5 10.5	2	ESHWTL AT APPROXIMATELY 9.5 FEET CONFINING LAYER AT APPROXIMATELY 10.5 FEET
11		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH) WITH LIMESTONE		3	
12					
13					
14		LIMESTONE LIGHT BROWN LIMESTONE	22.0	4	
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26		End of Borehole	25.0		
27					
28					
29					
30					
31					
32					
33					
34					
35					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 19 OF 41

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

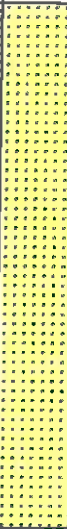


Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
15.5			15.5		ESHWTL AT APPROXIMATELY 15.5 FEET
16		FINE SAND LIGHT GREY FINE SAND (SP)	17.0	2	CONFINING LAYER AT APPROXIMATELY 18.5 FEET
17		CLAYEY SAND GREY AND YELLOWISH BROWN CLAYEY SAND (SC)	18.5	3	
18		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)		4	
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30			30.0		
31		End of Borehole			
32					
33					
34					
35					

Ground Water Depth: GREATER THAN DEPTH PUSHED

Drill Date: JULY 15, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 20 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

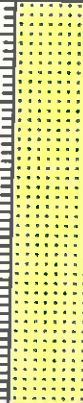



Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1-12		FINE SAND BROWN FINE SAND (SP)		1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 7.0 FEET = 4.0 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 7.0 FEET = 2.6 FEET/DAY
12			12.0		
13-16		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)		2	
16			16.0		
17-19		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)		3	ESHWTL AT APPROXIMATELY 16.0 FEET
19			19.0		
20-29		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)		4	CONFINING LAYER AT APPROXIMATELY 19.0 FEET
29					
30			30.0		
31-35		End of Borehole			

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **21 OF 41**

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

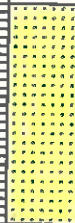


Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	
2					
3					
4					
5					
6			6.5		
7		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	8.0	2	ESHWTL AT APPROXIMATELY 6.5 FEET
8					CONFINING LAYER AT APPROXIMATELY 8.0 FEET
9		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH) WITH TRACE LIMESTONE		3	
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20			20.0		
21		End of Borehole			
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 22 OF 41

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL



Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 7.5 FEET = 15.6 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 7.5 FEET = 8.1 FEET/DAY
2					
3					
4					
5					
6					
7					
8					
9					
10					
11		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)	10.5	2	ESHWTL AT APPROXIMETLY 11.5 FEET
12		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	11.5		
13					
14				3	CONFINING LAYER AT APPROXIMATELY 17.5 FEET
15					
16					
17					
18		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)	17.5	4	
19					
20					
21					
22					
23					
24					
25					
25		End of Borehole	25.0		
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: JULY 15, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 23 OF 41

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL




Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN TO LIGHT BROWN FINE SAND (SP)		1	
2					
3					
4					
5			5.5		
6		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	6.5	2	ESHWTL AT APPROXIMATELY 5.5 FEET CONFINING LAYER AT APPROXIMATELY 6.5 FEET
7					
8		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH) WITH TRACE LIMESTONE		3	
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30			30.0		
31		End of Borehole			
32					
33					
34					
35					

Ground Water Depth: GREATER THAN DEPTH PUSHED

Drill Date: AUGUST 20, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 24 OF 41

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

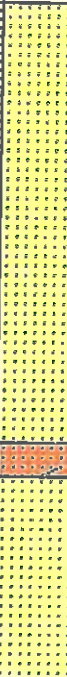


Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN TO LIGHT BROWN FINE SAND (SP)			
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
13.0			13.0	1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 8.0 FEET = 4.5 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 8.0 FEET = 2.8 FEET/DAY
14		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	14.0	2	ESHWTL AT APPROXIMATELY 13.0 FEET
15					
16		FINE SAND LIGHT GREY FINE SAND (SP)			
17					
18					
19					
20					
20.0			20.0	3	CONFINING LAYER GREATER THAN THE DEPTH PUSHED
21		End of Borehole			
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					

Ground Water Depth: AT APPROXIMATELY 22.5 FEET

Drill Date: AUGUST 20, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 25 OF 41

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL






Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND BROWN FINE SAND (SP)		1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 6.5 FEET = 4.4 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 6.5 FEET = 2.4 FEET/DAY ESHWTL AT APPROXIMATELY 7.0 FEET CONFINING LAYER AT APPROXIMATELY 9.0 FEET
2					
3					
4			4.0		
5		SLIGHTLY CLAYEY SAND YELLOWISH BROWN SLIGHTLY CLAYEY SAND (SP-SC)		2	
6					
7			7.0		
8		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)		3	
9			9.0		
10		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH) WITH TRACE LIMESTONE		4	
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24			24.5		
25		LIMESTONE LIGHT BROWN LIMESTONE		5	
26					
27					
28					
29					
30			30.0		
31		End of Borehole			
32					
33					
34					
35					

Ground Water Depth: GREATER THAN DEPTH PUSHED

Drill Date: JULY 15, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile : 26 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

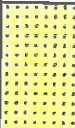




Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0-4		FINE SAND BROWN FINE SAND (SP)	4.0	1	FIELD HORIZONTAL PERMEABILITY RATE AT APPROX. 7.0 FEET = 4.0 FEET/DAY FIELD VERTICAL PERMEABILITY RATE AT APPROX. 7.0 FEET = 2.2 FEET/DAY ESHWTL AT APPROXIMATELY 10.5 FEET CONFINING LAYER AT APPROXIMATELY 11.5 FEET
4-10.5		SLIGHTLY CLAYEY SAND YELLOWISH BROWN SLIGHTLY CLAYEY SAND (SP-SC)	10.5	2	
10.5-11.5		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC)	11.5	3	
11.5-18.0		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH) WITH LIMESTONE	18.0	4	
18.0-25.0		LIMESTONE LIGHT BROWN LIMESTONE	25.0	5	
25.0		End of Borehole			BORING TERMINATED AT APPROXIMATELY 25.0 FEET DUE TO LIMESTONE
26-35					

Ground Water Depth: **AT APPROXIMATELY 24.0 FEET**

Drill Date: **AUGUST 20, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 27 OF 41

NEW Exhibit H - Geotech Report
Log of Borehole: SB-28

CONTRACT# CIP/230168

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue
 Ocala, Florida
 352.694.7711

WWW.GEOTECHFL.COM

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test	
								N-Values	
0		Ground Surface		0.0					
1-5		FINE SAND BROWN TO LIGHT BROWN FINE SAND (SP)	HAND AUGER POSSIBLE UTILITIES						
6			VERY LOOSE	6.0	1		3		3
7-8		CLAYEY SAND LIGHT BROWN CLAYEY SAND (SC)	LOOSE	8.0	2		4		4
9-12		SLIGHTLY SANDY CLAY BROWN AND GREY SLIGHTLY SANDY CLAY (CH)	VERY STIFF		3		22		22
13		LIMESTONE LIGHT BROWN LIMESTONE	50 BLOWS - 4"	12.5					
14				14.0	4		50		50
15-40		End of Borehole							

Ground Water Depth: **GREATER THAN 10.0 FEET**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-1586**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 28 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

Project No: **21-7670.02**

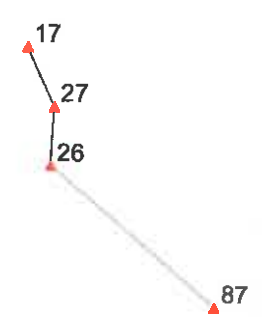
Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test	
								▲	▲
								N-Values	
								0	100
								20	40
								60	80
0		Ground Surface		0.0					
1		FINE SAND	HAND AUGER POSSIBLE UTILITIES						
2		BROWN FINE SAND (SP)		2.0					
3		CLAYEY SAND							
4		BROWN CLAYEY SAND (SC)		4.0					
5		LIMESTONE	17 BLOWS - 12"						
6		LIGHT BROWN LIMESTONE							
7						1		17	
8						2		27	
9			27 BLOWS - 12"						
10			26 BLOWS - 12"						
11									
12									
13				13.0					
14		NO RECOVERY	50 BLOWS - 0"						
15		NO RECOVERY				4		87	
16		End of Borehole		14.5					
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									



Ground Water Depth: **GREATER THAN 10.0 FEET**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-1586**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **29 OF 41**

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values									
								0	20	40	60	80	100				
0		Ground Surface		0.0													
1		FINE SAND BROWN FINE SAND (SP)	HAND AUGER POSSIBLE UTILITIES	3.0													
4		CLAYEY SAND BROWN AND GREY CLAYEY SAND (SC)	MEDIUM DENSE	6.0	1		17										17
7		SLIGHTLY SANDY CLAY GREY SLIGHTLY SANDY CLAY (CH)	HARD VERY STIFF		2		42										42
9					3		23										23
15			STIFF		4		10										10
18.5		LIMESTONE LIGHT BROWN LIMESTONE	41 BLOWS - 12"	18.5													
20		SLIGHTLY SANDY CLAY GREY SLIGHTLY SANDY CLAY (CH) WITH LIMESTONE LOSS OF CIRCULATION AT APPROX. 20.0 FEET	MEDIUM STIFF	20.0	5		41										41
25					6		8										8
28.5		LIMESTONE LIGHT BROWN LIMESTONE	35 BLOWS - 12"	28.5													
30				30.0	7		35										35
31		End of Borehole															

Ground Water Depth: **GREATER THAN 10.0 FEET**

Drill Date: **JULY 12, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-1586**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **30 OF 41**

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

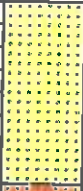

Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0 to 2		FINE SAND BROWN FINE SAND (A-3)	2.0	1	
2 to 10		CLAYEY SAND BROWN TO GREY AND YELLOWISH BROWN CLAYEY SAND (A-2-6)		2	
10		End of Borehole	10.0		
11					
12					
13					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(A-3) AASHTO SOIL CLASSIFICATION SYSTEM**

Soil Profile : **31 OF 41**

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

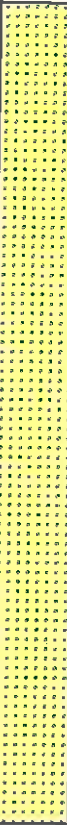

Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0 to 9		FINE SAND BROWN FINE SAND (A-3)		1	
9 to 10		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (A-2-6)	9.0	2	
10		End of Borehole	10.0		
11					
12					
13					

Ground Water Depth: GREATER THAN DEPTH PUSHED

Drill Date: JULY 15, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (A-3) AASHTO SOIL CLASSIFICATION SYSTEM

Soil Profile : 32 OF 41

NEW Exhibit H - Geotech Report
Log of Borehole: SB-33

CONTRACT# CIP/230168

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue
 Ocala, Florida
 352.694.7711
 WWW.GEOTECHFL.COM

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**


Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0		FINE SAND BROWN FINE SAND (A-3)		1	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10		End of Borehole	10.0		
11					
12					
13					

Ground Water Depth: **GREATER THAN DEPTH PUSHED**

Drill Date: **JULY 15, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-6282**

Remarks: **(A-3) AASHTO SOIL CLASSIFICATION SYSTEM**

Soil Profile : **33 OF 41**

Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL



Project No: 21-7670.02

Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
0 to 7.5		FINE SAND BROWN FINE SAND (A-3)		1	
7.5 to 10.0		SLIGHTLY CLAYEY SAND YELLOWISH BROWN SLIGHTLY CLAYEY SAND (A-2-4)		2	
10.0		End of Borehole	10.0		
11					
12					
13					

Ground Water Depth: GREATER THAN DEPTH PUSHED

Drill Date: JULY 15, 2021

Drilled By: TB/CC/TK

Drill Method: ASTM D-6282

Remarks: (A-3) AASHTO SOIL CLASSIFICATION SYSTEM

Soil Profile : 34 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test										
								N-Values										
0		Ground Surface		0.0														
1		FINE SAND LIGHT BROWN TO LIGHT BROWN AND BROWN FINE SAND (SP)	HAND AUGER POSSIBLE UTILITIES															
2				4.0														
3																		
4		SLIGHTLY CLAYEY SAND REDDISH BROWN SLIGHTLY CLAYEY SAND (SP-SC)	VERY LOOSE		1		3											
5																		
6																		
7																		
8					2		2											
9				8.0														
10		CLAYEY SAND LIGHT BROWN CLAYEY SAND (SC) WITH LIMESTONE LOSS OF CIRCULATION AT APPROX. 11.0 FEET	WOH (7.5' - 9.5')		3		0											
11																		
12																		
13																		
14				13.5														
15		LIMESTONE LIGHT BROWN LIMESTONE	34 BLOWS - 12"		4		34											
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
32		End of Borehole		30.0	7		31											
33																		
34																		
35																		
36																		
37																		
38																		
39																		
40																		

Ground Water Depth: **GREATER THAN 10.0 FEET**

Drill Date: **JULY 12, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-1586**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 35 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values									
								0	20	40	60	80	100				
0		Ground Surface		0.0													
1-12		FINE SAND LIGHT BROWN FINE SAND (SP)	HAND AUGER POSSIBLE UTILITIES LOOSE LOOSE MEDIUM DENSE														
13-23		SLIGHTLY SANDY CLAY GREY AND BROWN SLIGHTLY SANDY CLAY (CH) LOSS OF CIRCULATION AT APPROX. 21.0 FEET	STIFF MEDIUM STIFF	12.0	1		4										
24-30		LIMESTONE LIGHT BROWN LIMESTONE	18 BLOWS - 12"	23.5	2		6										
30-31		End of Borehole	19 BLOWS - 12"	30.0	3		11										
31-40					4		15										
					5		7										
					6		18										
					7		19										

Ground Water Depth: **GREATER THAN 10.0 FEET**
 Drill Date: **JULY 12, 2021**

Drilled By: **TB/CC/TK**
 Drill Method: **ASTM D-1586**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **36 OF 41**

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test	
								N-Values	
0		Ground Surface		0.0					
0-2		FINE SAND BROWN FINE SAND (SP)	HAND AUGER POSSIBLE UTILITIES	3.0					
2-4		SLIGHTLY SANDY CLAY BROWN SLIGHTLY SANDY CLAY (CH) WITH TRAC LIMESTONE		4.0					
4-5					1		23		23
5-7		LIMESTONE LIGHT BROWN LIMESTONE	23 BLOWS - 12"		2		14		14
7-10			14 BLOWS - 12"		3		20		20
10-11			20 BLOWS - 12"	10.0					
11-14		CLAYEY SAND LIGHT BROWN TO BROWN AND GREY CLAYEY SAND (SC) LOSS OF CIRCULATION AT APPROX. 11.0 FEET	WOH (13.5' - 15.0') VERY LOOSE		4		0		0
14-15					5		2		2
15-20			9 BLOWS - 12"		6		4		4
20-21		LIMESTONE LIGHT BROWN LIMESTONE		20.0					
21-25			50 BLOWS - 4"	25.0	7		50		50
25-26		End of Borehole							
26-40									

Ground Water Depth: **GREATER THAN 10.0 FEET**
 Drill Date: **JULY 12, 2021**

Drilled By: **TB/CC/TK**
 Drill Method: **ASTM D-1586**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **37 OF 41**

NEW Exhibit H - Geotech Report
Log of Borehole: SB-38

CONTRACT# CIP/230168

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Project: PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL

Project No: 21-7670.02

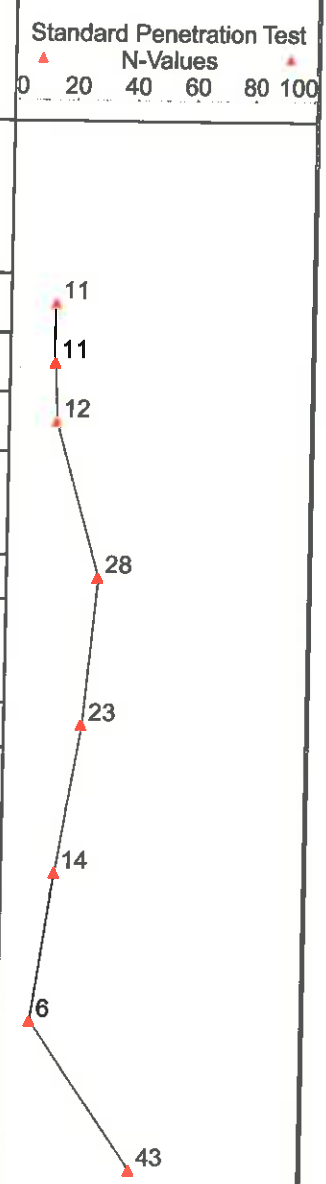
Boring Location: (SEE SITE PLAN)

Engineer: NJH/DAC

Client: R+L CARRIERS

Enclosure: SITE PLAN

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test	
								N-Values	
0		Ground Surface		0.0					
1-4		FINE SAND BROWN FINE SAND (SP)	HAND AUGER POSSIBLE UTILITIES						
5-7		SLIGHTLY CLAYEY SAND BROWN SLIGHTLY CLAYEY SAND (SP-SC)	MEDIUM DENSE	4.5	1		11	11	
7-9		FINE SAND BROWN FINE SAND (SP)	MEDIUM DENSE	6.0	2		11	11	
9-11		FINE SAND BROWN FINE SAND (SP)	MEDIUM DENSE	10.0	3		12	12	
11-15		SLIGHTLY CLAYEY SAND BROWN SLIGHTLY CLAYEY SAND (SP-SC)	MEDIUM DENSE	15.0	4		28	28	
15-19		CLAYEY SAND BROWN CLAYEY SAND (SC)	MEDIUM DENSE	20.0	6		23	23	
19-26		SLIGHTLY SANDY CLAY GREY TO GREY AND REDDISH BROWN SLIGHTLY SANDY CLAY (CH)	STIFF		7		14	14	
26-27		LOSS OF CIRCULATION AT APPROX. 26.0 FEET							
27-34			MEDIUM STIFF		8		6	6	
34-35		LIMESTONE LIGHT BROWN LIMESTONE	43 BLOWS - 12"	33.5					
35-36				35.0	9		43	43	
36-40		End of Borehole							



Ground Water Depth: **GREATER THAN 10.0 FEET**

Drill Date: **JULY 12, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-1586**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : 38 OF 41

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values										
								0	20	40	60	80	100					
0		Ground Surface		0.0														
1		FINE SAND BROWN FINE SAND (SP)	HAND AUGER POSSIBLE UTILITIES															
2																		
3																		
4																		
5				VERY LOOSE		1		2										
6																		
7				VERY LOOSE		2		1										
8																		
9				VERY LOOSE	9.5	3		2										
10		CLAYEY SAND BROWN CLAYEY SAND (SC)																
11																		
12		SLIGHTLY SANDY CLAY BROWN TO GREY AND BROWN																
13			SLIGHTLY SANDY CLAY (CH)															
14																		
15				VERY STIFF		4		22										
16																		
17																		
18																		
19				STIFF		6		13										
20																		
21																		
22																		
23																		
24																		
25			STIFF		7		12											
26																		
27																		
28																		
29																		
30			STIFF	30.0	8		15											
31		End of Borehole																
32																		
33																		
34																		
35																		
36																		
37																		
38																		
39																		
40																		

Ground Water Depth: **GREATER THAN 10.0 FEET**

Drill Date: **JULY 13, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-1586**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **39 OF 41**

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test				
								N-Values				
0		Ground Surface		0.0								
1	[Dotted Pattern]	FINE SAND LIGHT BROWN FINE SAND (SP)	HAND AUGER POSSIBLE UTILITIES									
2												
3												
4												
5			LOOSE		1	[Vertical Lines]	7		7			
6			LOOSE		2	[Vertical Lines]	9		9			
7			LOOSE		3	[Vertical Lines]	8		8			
8				10.0								
9												
10												
11	[Diagonal Lines]	CLAYEY SAND BROWN AND GREY TO GREY AND BROWN CLAYEY SAND (SC)	MEDIUM DENSE									
12												
13												
14												
15												
16												
17												
18												
19						MEDIUM DENSE		6	[Vertical Lines]	19		19
20												
21												
22												
23												
24			LOOSE		7	[Vertical Lines]	7		7			
25												
26												
27		LOSS OF CIRCULATION AT APPROX. 27.0 FEET										
28				28.5								
29	[Horizontal Lines]	LIMESTONE LIGHT BROWN LIMESTONE WITH TRACE SLIGHTLY SANDY CLAY (CH)	29 BLOWS - 12"									
30						8	[Vertical Lines]	29		29		
31												
32												
33		End of Borehole										
34												
35												
36												
37												
38												
39												
40												

Ground Water Depth: **GREATER THAN 10.0 FEET**

Drill Date: **JULY 13, 2021**

Drilled By: **TB/CC/TK**

Drill Method: **ASTM D-1586**

Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **40 OF 41**

Project: **PROPOSED OICP TRUCK TERMINAL (OCALA 2), OCALA, FL**

Project No: **21-7670.02**

Boring Location: **(SEE SITE PLAN)**

Engineer: **NJH/DAC**

Client: **R+L CARRIERS**

Enclosure: **SITE PLAN**

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values								
								0	20	40	60	80	100			
0		Ground Surface		0.0												
1		FINE SAND BROWN FINE SAND (SP)	HAND AUGER POSSIBLE UTILITIES	3.0												
4		CLAYEY SAND YELLOWISH BROWN CLAYEY SAND (SC) WITH LIMESTONE	VERY DENSE	6.0	1		65									
7		LIMESTONE LIGHT BROWN LIMESTONE	66 BLOWS - 2"	7.0	2		66									
8		End of Borehole														
9																
10																
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40																

Ground Water Depth: **GREATER THAN DEPTH DRILLED**
 Drill Date: **AUGUST 9, 2021**

Drilled By: **TB/CC/TK/LE**
 Drill Method: **ASTM D-1586**

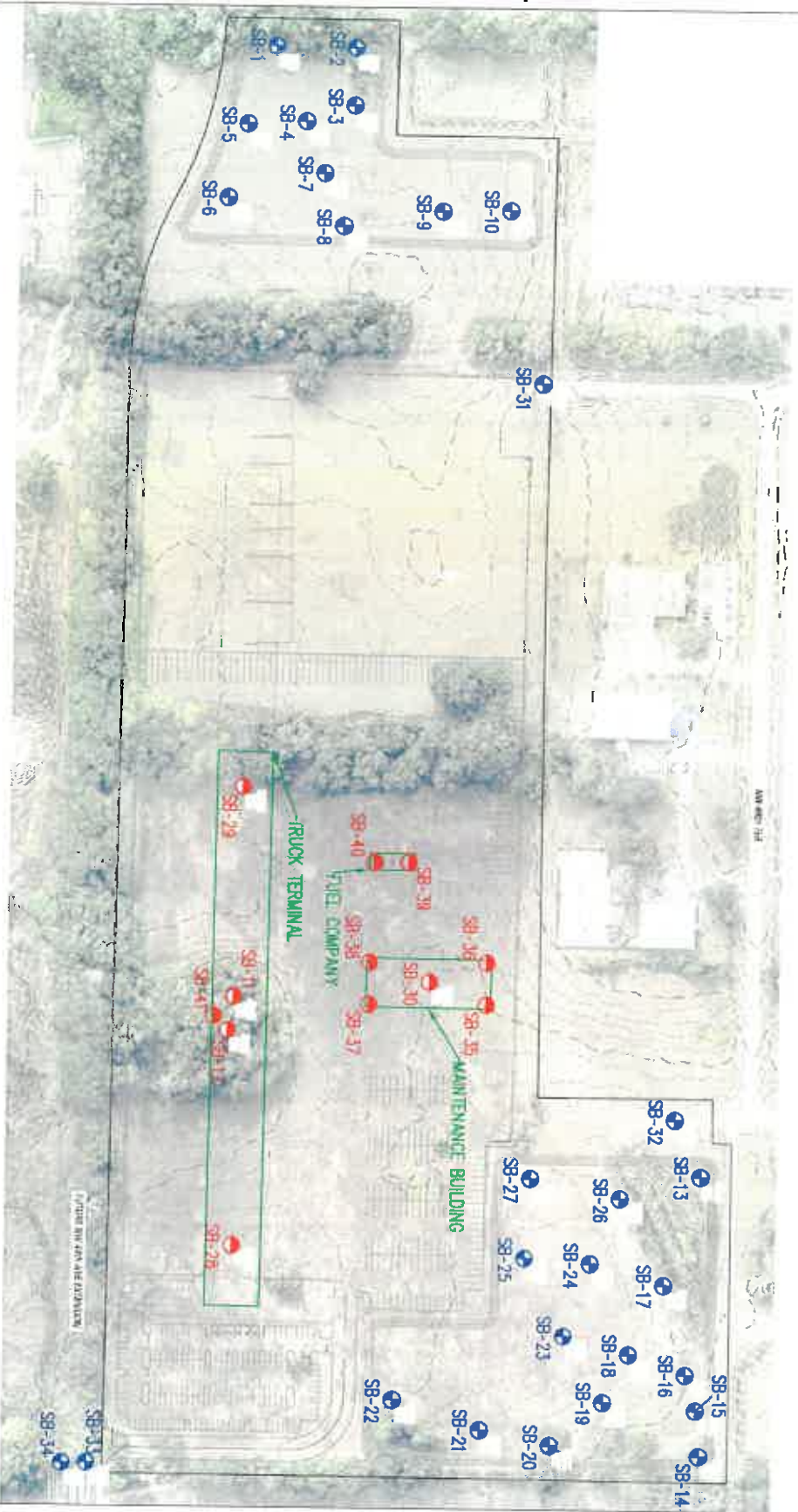
Remarks: **(SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW**

Soil Profile : **41 OF 41**

APPENDIX II
BORING LOCATION MAP



- + = APPROXIMATE DIRECT PUSH BORING LOCATION
- = APPROXIMATE STANDARD PENETRATION TEST (SPT) BORING LOCATION



R + L CARRIERS
 PROPOSED OICP TRUCK TERMINAL (OCALA 2)
 OCALA, FLORIDA

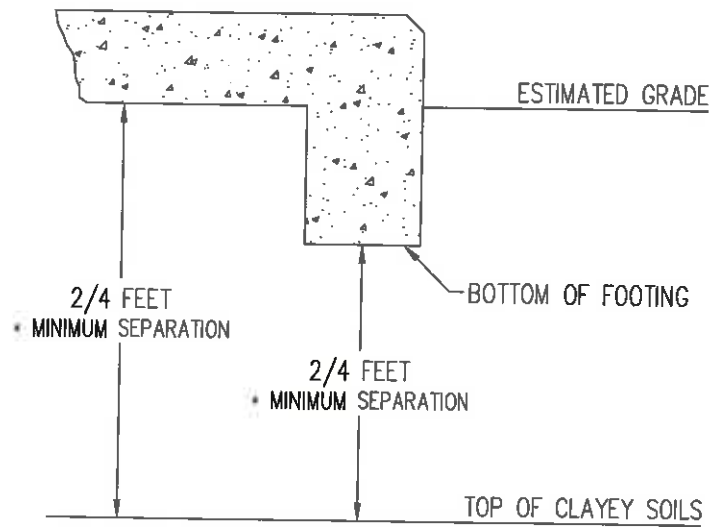
BORING LOCATION MAP

GEO-TECH, INC.

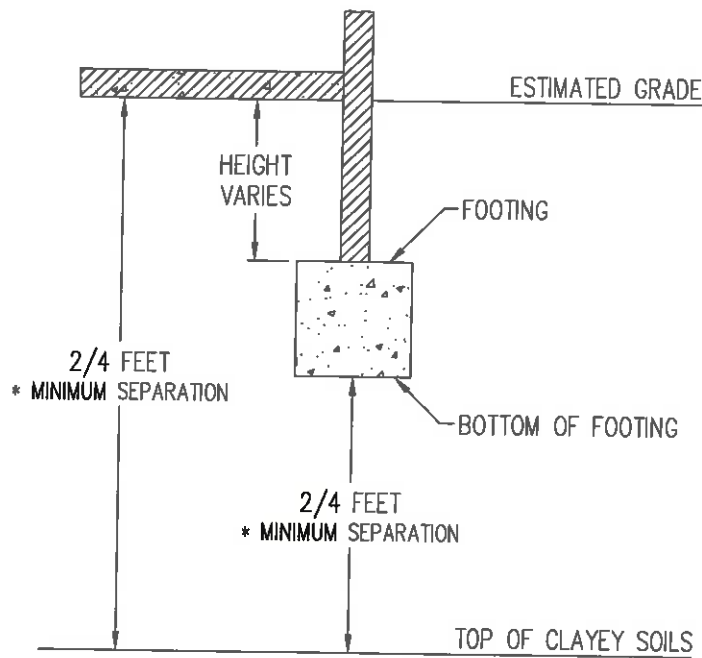
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PROJECT NO.	21-7670-02
SCALE	N.T.S.
DATE	8-2-21
FIGURE	1

APPENDIX III
SEPARATION DETAILS



MONOLITHIC FOOTING DETAIL
NOT TO SCALE



STEM WALL FOOTING DETAIL
NOT TO SCALE

*MAY VARY DEPENDING UPON CONSTRUCTION TECHNIQUE

RECOMMENDED SEPARATION

GEO-TECH, INC.

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■ CONSTRUCTION MATERIALS TESTING ■ GEOPHYSICAL EXPLORATION
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Figure

2