



DRAINAGE REPORT

LEVY BORROW PIT

LEVY COUNTY, FLORIDA

Prepared for:

Anderson Columbia Co., Inc.

Prepared by:

Kimley-Horn and Associates, Inc.

242202000

May 2025

© Kimley-Horn and Associates, Inc.

800 SW 2nd Avenue, Suite 100

Gainesville, Florida 32601

352 374 3274 TEL

Kimley»Horn

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THIS IS TO CERTIFY THAT THE ENCLOSED
ENGINEERING CALCULATIONS WERE
PERFORMED BY ME OR UNDER MY DIRECT
SUPERVISION.

Jose A. Lopez Jr, P.E.
Florida Registration #86446
Registry #35106

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INTRODUCTION

Anderson Columbia Co., Inc., the Permittee, has been granted an Environmental Resource Permit (ERP) on February 17, 2025 to operate a proposed sand mine on Levy County Parcel ID No. 0322100200, located off State Road 24 in Unincorporated Levy County northeast of the City of Bronson. The past and current use of the subject project property is partially wooded vacant land with gate access from State Road 24. The proposed mining project area will encompass ± 98.96 acres.

The mining excavations will occur in a single phase with mining depths varying depending on the quality of materials being excavated from the proposed borrow pit. Maximum mining depths shall be as specified by the Florida Department of Environmental Protection (FDEP) and Southwest Florida Water Management District (SWFWMD) rules and regulations. Per a pre-application meeting with SWFWMD held on February 8th, 2023, the maximum depth of excavation is limited to one foot above the aquitard or the top of the confining layer, whichever is higher. Hauling trucks and hauling routes will vary based on specific client needs. Upon completion of mining activities, the project site will be reclaimed according to FDEP, SWFWMD, and Levy County rules and regulations.

Access to the site will be via a proposed private driveway connecting to State Road 24. Access and Drainage Permits have been granted by the Florida Department of Transportation (FDOT) on March 6, 2025. No buildings or impervious surfaces are proposed to be constructed on the subject property other than the driveway connection to State Road 24

PERMITTEE

The following is the permittee information for the proposed project and the responsible authority for operation and maintenance.

Permittee:	Anderson Columbia Co., Inc.
Mailing Address:	871 NW Guerdon Street
City, State, ZIP:	Lake City, FL 32055
Phone Number:	(813) 323-7203
Email Address:	zeb.cheshire@andersoncolumbia.com

FLOODPLAIN

According to FEMA Flood Insurance Rate Maps (FIRM) No's: 12075C0205F and 12075C0090F, effective 11/02/2012, the proposed project area is not located within an established flood plain, refer to the Appendix for a FEMA FIRM exhibit.

WETLANDS

No wetlands are to be impacted during the proposed mining activities.

DESIGN AND METHODOLOGY

Water Table investigation

The project site is in mostly Candler Fine Sands with small areas of Orlando Fine and Astatula Fine Sands along the perimeter of the site, which are classified as well drained soils as shown on the soils map in the Appendix. Potentiometric surface DIS Data was reviewed from the Florida Geological Survey and in the 2016 contours, the potentiometric surface is indicated to be at elevation 50.0 along within the subject property (see Appendix for map). The proposed mining operations shall not penetrate elevation 52.0 which is 2-feet above the potentiometric surface elevation exceeding SWFWMD requirements. Based upon the Geotechnical Report prepared by Geotech, Inc. on May 17, 2024 (see Appendix), the estimated seasonal high ground water table (ESHGWT) was estimated to range from elevation 50.8 to 71.2. The average ESHGWT was calculated to be at elevation 64.0. It is anticipated that mining below the ESHGWT may result in seasonal ponding and is addressing the Reclamation Plan.

Water Quality and Quantity

Pre-development storm runoff patterns will be maintained during mining activities. Stormwater Best Management Practices (BMP's) shall include the maintenance of a proposed 150-setback from adjacent properties of existing residential use and a 100-foot setback from remaining adjacent property boundaries which will include provisions to allow off-site drainage runoff to continue as in the pre-development condition. No additional water quality measures are proposed for the project as any stormwater runoff will be contained on-site during mining operations. There are no impervious areas to be constructed on-site, thus the stormwater runoff rate will not increase because of the proposed mining operation. The mining operation will ultimately generate approximately 491.05 acre-feet of storm runoff storage between the ESHGWT and the lowest top of bank elevation due to resource removal from the site. The peak stage for the 100-year, 24-hour design storm event is 66.51-ft. which is approximate 5.5-ft. below the lowest point along the site perimeter (see Appendix for storm runoff calculations). Negative environmental impacts resulting from mining operations are not expected.

Erosion Control and Maintenance

The proposed 150-setback from existing residential abutting properties and a 100-foot setback from all other abutting properties will serve to prevent sediment from washing off-site. No dewatering activities are anticipated for the project. Water trucks will be utilized regularly for dust control.

APPENDICES

STORM WATER CALCULATIONS

**PR-Borrow Pit
DRAINAGE BASIN
PROPOSED CONDITION
CURVE NUMBER CALCULATIONS**

Total Area:	203.60	AC
Total DCIA Area:	59.41	AC
Percent (%) DCIA of Area:	29.18%	
Total Weighted CN Area:	203.60	AC
Weighted Curve Number:	56.22	

Land Use Description	Area		% DCIA	% Impervious	% Pervious
Open Space, Type "A" Soil	144.19	AC	0.0% DCIA	0.0% Impervious	100.0% Pervious
Borrow Pit	59.41	AC	100.0% DCIA	0.0% Impervious	0.0% Pervious
TOTAL AREA ----->	203.60	AC			

	% LAND USED	DCIA AREA (AC)	C.N.	
Open Space, Type "A" Soil	0%	0.00	100	
Borrow Pit	100%	59.41	100	
TOTAL --->		59.41		
				Percent (%) DCIA of Area = 29.18%

WEIGHTED C.N.					
	% LAND USED	AREA (AC)	% AREA	C.N.	%XC.N.
Open Space, Type "A" Soil	100%	144.19	70.8%	39	27.62
Borrow Pit	0%	59.41	29.2%	98	28.60
TOTAL ----->		203.60	100%		56.22

PR-Borrow Pit
PROPOSED CONDITION
AREA & STAGE-STORAGE VOLUME

Stage (ft)	Area (ac)	Area (sf)	Stor. Vol. (cf)	Stor. Vol. (ac-ft)	
64.00	59.41	2588030	0	0.00	ESHGWT
65.00	59.91	2609468	2598749	59.66	
66.00	60.40	2630906	5218937	119.81	
67.00	60.89	2652344	7860562	180.45	
68.00	61.38	2673782	10523625	241.59	
69.00	61.87	2695220	13208126	303.22	
70.00	62.37	2716658	15914065	365.34	
71.00	62.86	2738096	18641443	427.95	
72.00	63.35	2759534	21390258	491.05	TOB
Stage-Storage Volume @ T.O.B.			72.00	=	491.05 ac-ft
100-24 Design Storm Peak Stage				=	66.51 ft

PR-Borrow Pit
SJRWMD 100-24 RAINFALL EVENT
STORM RUNOFF CALCULATIONS

Total Runoff Volume = 151.53 ac-ft

Rainfall Intensity = 11.50 inches

Total DCIA Area (excluding Pond) = 59.41 AC

Total Weighted CN Area: 203.60 AC
Weighted Curve Number: 56.22

DCIA Runoff Volume in Acre-Feet

V = 59.41 x 11.50 x 1/12 inches/ft

V = 56.94 acre-feet

Based on SCS Runoff Curve Number Method

Runoff in Inches

S = $\frac{1.000}{56.22} - 10$ S = 7.79

Q = $\left[\frac{11.50 - 0.2 \times 7.79}{11.50 + 0.8 \times 7.79} \right]^2$

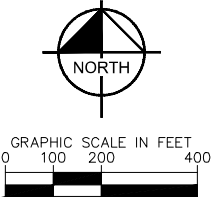
Q = 5.58 inches

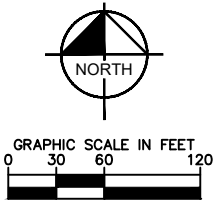
Runoff Volume in Acre-feet

V = 203.60 x 5.58 x 1/12 inches/ft

V = 94.59 acre-feet

DCIA Runoff Volume = 56.94 acre-feet
Runoff Volume = 94.59 acre-feet
Total Runoff Volume ac-ft = 151.53 acre-feet

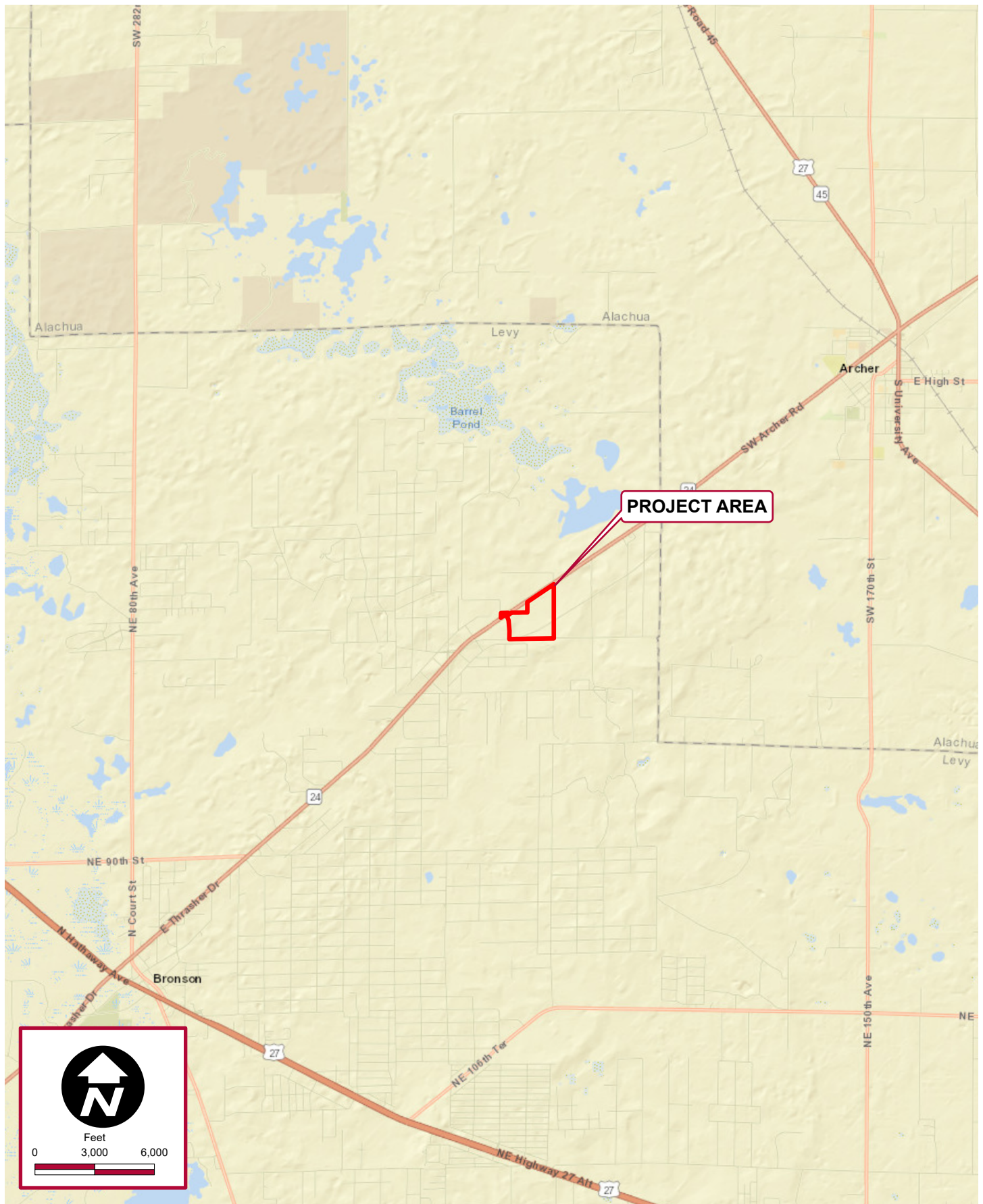
[illegible]



- RATIONAL METHOD: $Q=CiA=4.18$ cfs
 - $A=1.95$ ACRES
 - $i=7.14$ IN/HR (10 YR/10 MIN DESIGN STORM)
 - $C=0.3$

[illegible]

MAP FIGURES



Kimley»Horn

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1700 SE 17th Street, Suite 200, Ocala FL 34471
Phone: (352) 438-3000
www.kimley-horn.com Registry Number 35106

LOCATION MAP

**BORROW PIT
LEVY COUNTY, FLORIDA**

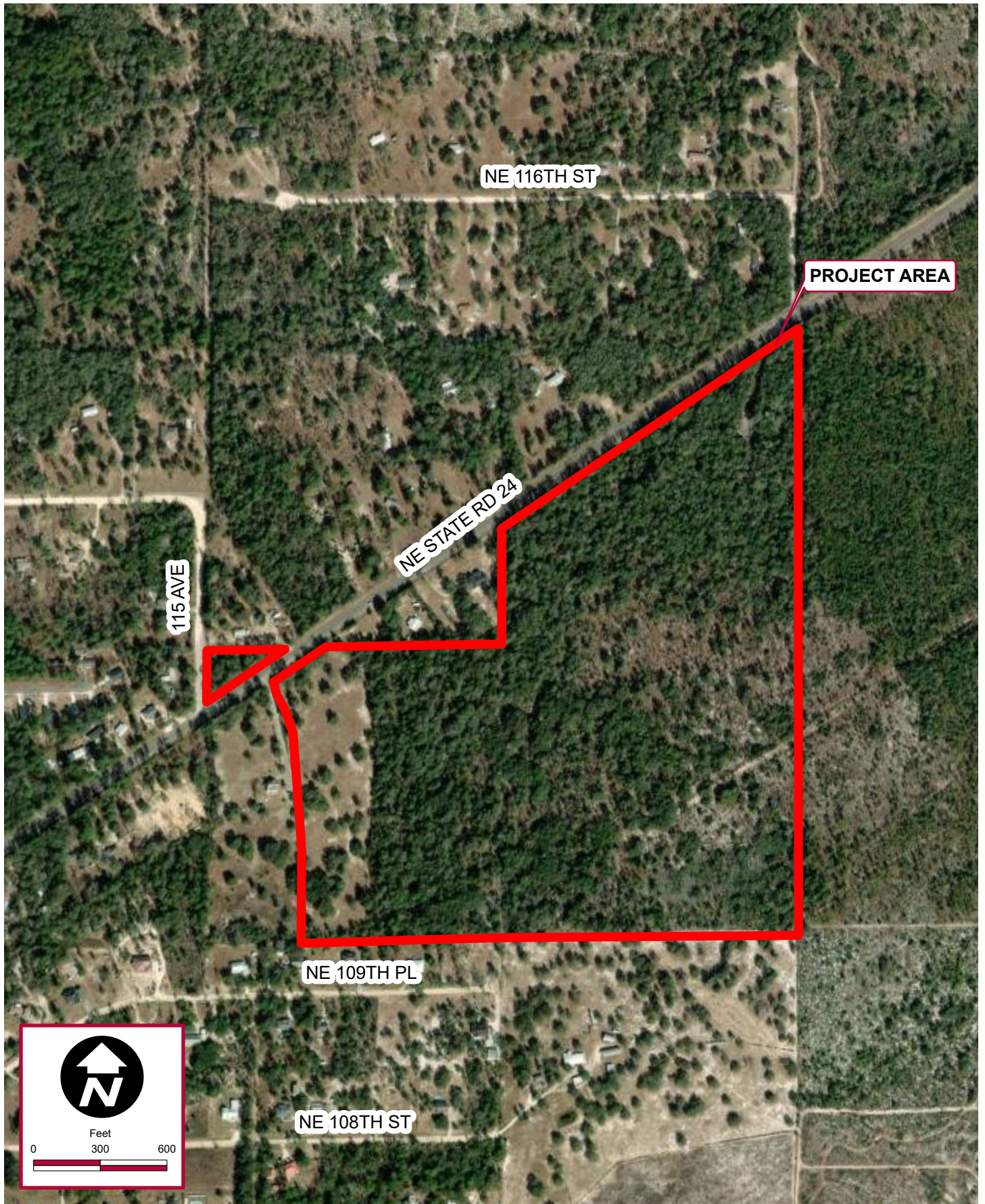
Scale: As Noted

Project No.: 242202000

May 2024

Figure 1

K:\OCA_Civil\242202000-Levy County Borrow Pit\GIS\GIS Exhibits.aprx - 5/20/2024 9:35 AM - josh.lucero



Kimley»Horn

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Phone: (352) 438-3000
www.kimley-horn.com Registry Number 35106

AERIAL MAP

BORROW PIT
LEVY COUNTY, FLORIDA

Scale: As Noted

Project No.: 242202000

May 2024

Figure 2

Legend

FEMA Flood Zones 2017

 FEMA Flood Zone A

 FEMA Flood Zone AE

PROJECT AREA



Feet

0 500 1,000

Data Source: FEMA Firm ID: 12075C0090F
Effective Date: November 2, 2012

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Phone: (352) 438-3000
www.kimley-horn.com Registry Number 35106

FEMA FLOOD MAP

**BORROW PIT
LEVY COUNTY, FLORIDA**

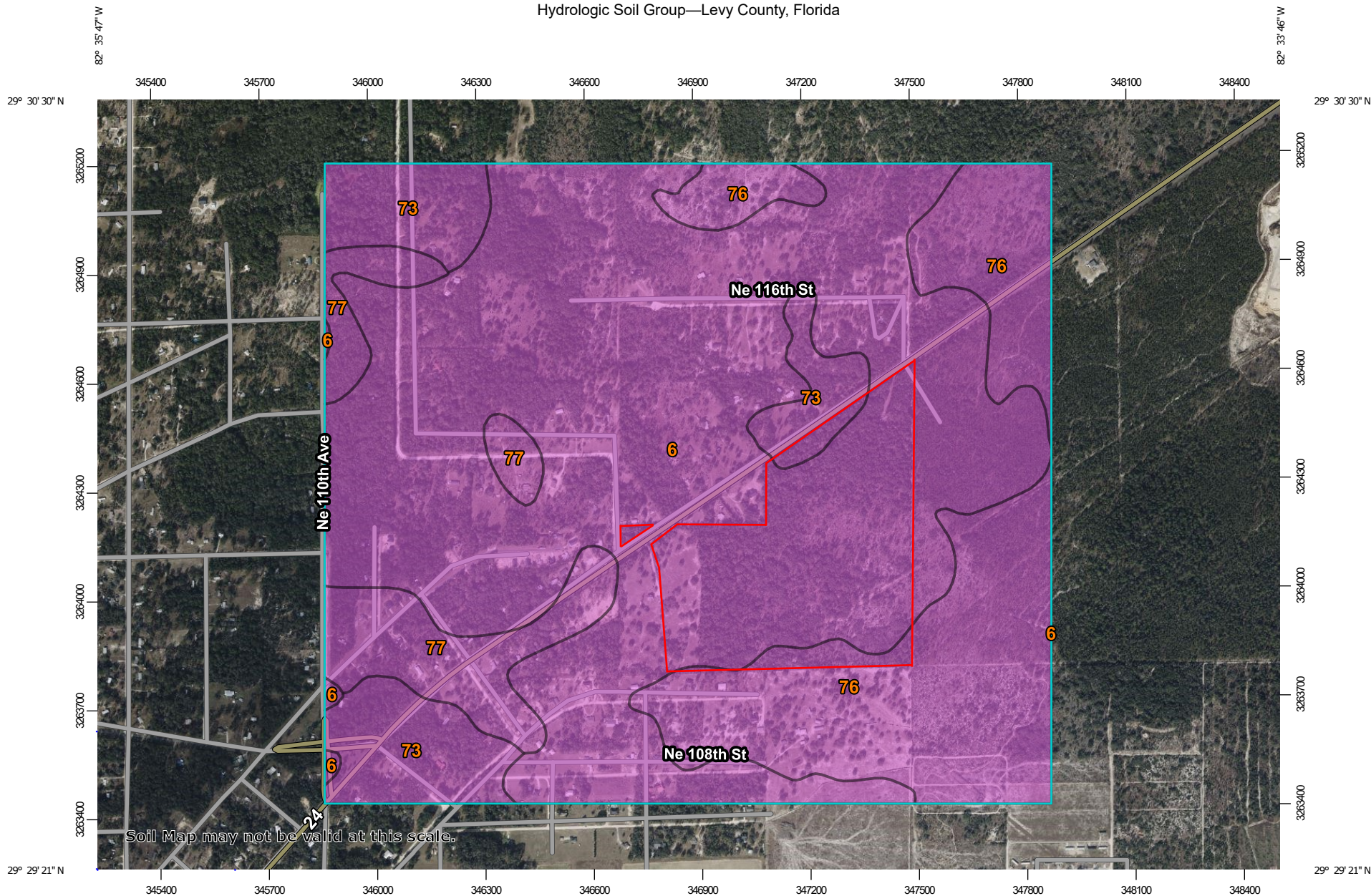
Scale: As Noted

Project No.: 242202000

May 2024

Figure 3

Hydrologic Soil Group—Levy County, Florida



Soil Map may not be valid at this scale.

Map Scale: 1:15,000 if printed on A landscape (11" x 8.5") sheet.

0 200 400 800 1200 Meters

0 500 1000 2000 3000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



**Natural Resources
Conservation Service**

**BORROW PIT
LEVY COUNTY, FLORIDA**

5/20/2024
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Levy County, Florida
 Survey Area Data: Version 20, Sep 6, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 9, 2022—Feb 10, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
6	Candler fine sand, 1 to 5 percent slopes	A	546.3	62.0%
73	Orlando fine sand, 1 to 5 percent slopes	A	80.8	9.2%
76	Astatula fine sand, 1 to 8 percent slopes	A	187.1	21.2%
77	Candler fine sand, 5 to 8 percent slopes	A	66.3	7.5%
Totals for Area of Interest			880.4	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

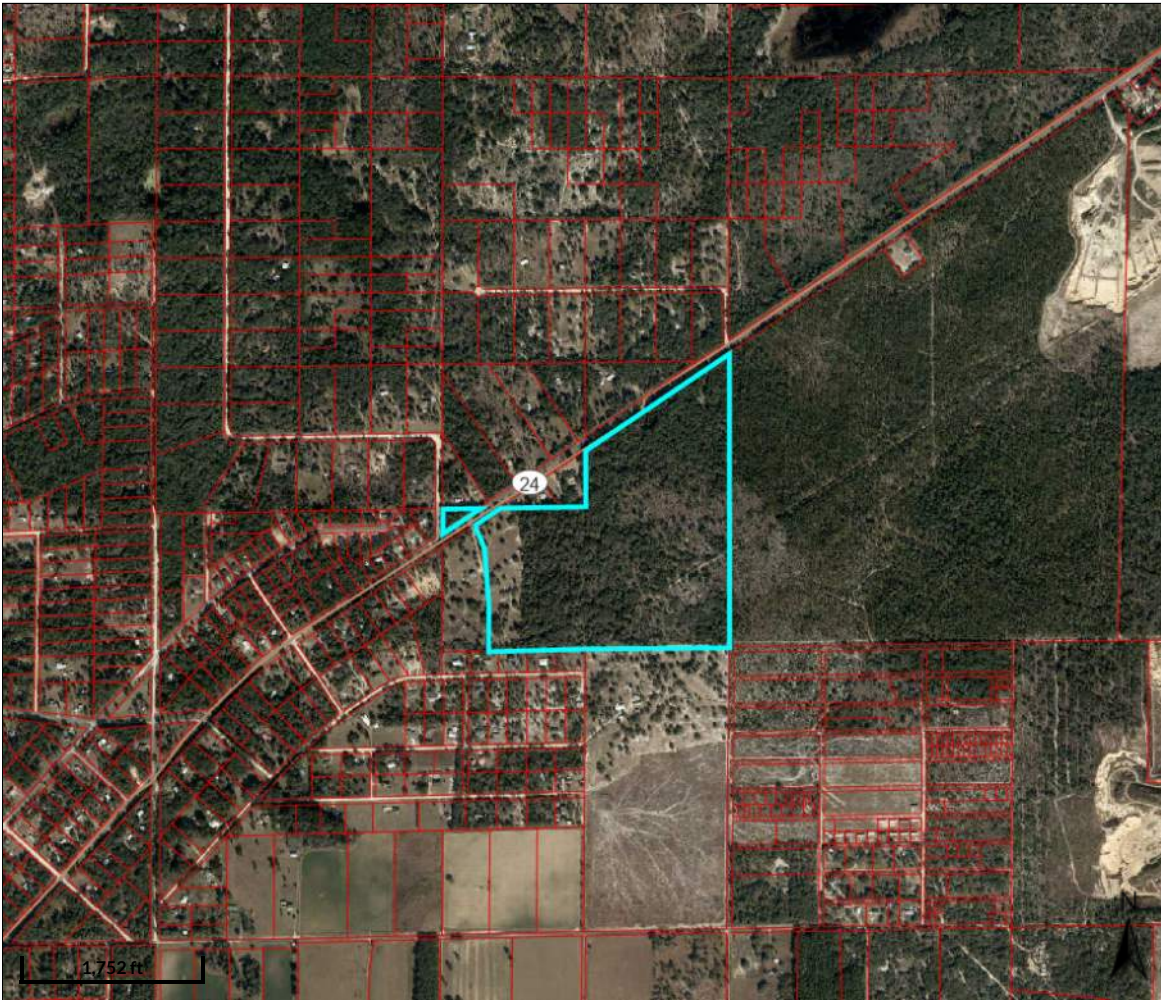
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

PROPERTY OWNERSHIP



Levy County, FL



Overview



Legend

-  Parcels
-  Roads
-  City Labels

Parcel ID	0322100200	Physical Address	11986 NE STATE ROAD 24 UNIT	Building Value	\$0	Last 2 Sales			
Property Use	6000 - PASTURE	Address	TOWER	Extra Feature	\$0	Date	Price	Reason	Qual
	LAND 1		ARCHER	Value		n/a	0	n/a	n/a
Taxing	SW FLORIDA WT	Mailing	JOHNS MILDRED M	Market Land	\$698,360	n/a	0	n/a	n/a
District	MG	Address	2795 SEMINOLE VILLAGE DR	Value					
Acres	99.0		MIDDLEBURG FL 32068-5825	Ag Land Value	\$74,100				
				Just Value	\$698,360				
				Assessed Value	\$74,100				
				Taxable Value	\$74,100				

Date created: 3/4/2024

Last Data Uploaded: 3/1/2024 7:47:18 PM

Developed by  Schneider
GEOSPATIAL

SURVEY

GEOTECHNICAL REPORT



ENGINEERING CONSULTANTS IN GEOTECHNICAL • ENVIRONMENTAL • CONSTRUCTION MATERIALS TESTING

May 16, 2024
Project No. 23-264.29.1

Zeb Cheshire
Anderson Columbia Company, Inc.
P.O. Box 1829
Lake City, Florida 32056

Reference: Proposed Borrow Pit, Parcel No. 0322100200, NE State Road 24, Archer, Florida
Preliminary Geotechnical Site Evaluation

Dear Mr. Cheshire:

Geo-Technologies, Inc. (Geo-Tech) completed a preliminary geotechnical evaluation of the project site as requested by you. Services were conducted in accordance with portions of Geo-Tech Proposal No. 13032 Revision B dated February 15, 2023.

Our findings and preliminary evaluations are presented in the following report. Generally accepted soils and foundation engineering practices were employed in the preparation of this report.

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



Purposes

Purposes of this preliminary evaluation were to characterize subsurface soils conditions at the site to provide our findings.

Site Description

The site is located at Parcel No. 0322100200 on the south side of NE State Road 24 in Archer, Florida. The site was covered with native trees and grasses at the time of drilling.

Field Exploration Program

Field exploration services for this geotechnical site evaluation consisted of the following:

- Thirteen (13) direct push borings to depths of approximately thirty-five (35) feet below existing site grade in accessible areas of the site (ASTM D6282 [disc.]). Direct push borings were performed on April 30, 2023.
- Four (4) laboratory vertical permeability tests on soil samples retrieved from the proposed drainage retention areas soil borings. Laboratory permeability testing was performed on May 5, 2023.

Boring locations were provided by Kimley-Horn on their Soil Boring Location Map dated March 2023.

Sampling & Testing Descriptions

Direct Push Boring

Direct push borings were performed in accordance with discontinued ASTM D6282. This direct push sampling method consists of advancing a sampling device into subsurface soils by applying static pressure, impacts, vibration, or any combination thereof, to the sampler extensions until the sampler has been advanced to the desired depth. The sampler is recovered from the borehole and removed from the sampler. Sampling can be continuous or incremental for specific sampling.

Soil samples recovered during the performance of our direct push borings were transported to our laboratory for further analysis.

Gradation (-200) Testing

Gradation (-200) testing is used to determine the percentage of fine material in a soil sample by washing over a seventy-five (75) μm (No. 200) sieve. Clay and other particles dispersed by washing, as well as water-soluble materials, are removed from the soil sample during testing. The loss in mass resulting from washing is calculated as mass percent of the original sample. This value is reported as the percentage of material finer than a seventy-five (75) μm (No. 200) sieve.

Findings

General subsurface conditions found in borings are graphically presented on the soil profiles in Appendix I. Horizontal lines depicted on the soil profiles designate interfaces between differing materials and represent approximate boundaries.

Soils found in borings SB-01, SB-02, SB-03 and SB-06 thru SB-13 generally consisted of a surficial layer of fine sand ranging from approximately eleven and one-half (11 ½) to twenty-four (24) feet thick underlain by clayey sand to the depths drilled.

Soils found in boring SB-04 generally consisted of a surficial layer of fine sand approximately thirteen (13) feet thick underlain by clayey sand, slightly sandy clay and limestone to the depth drilled.

Soils found in boring SB-05 generally consisted of a surficial layer of fine sand approximately fourteen (14) feet thick underlain by clayey sand and slightly sandy clay to the depth drilled.

Groundwater was not found in our borings at the time of drilling.

Seasonal High Water Table Levels

Estimated seasonal high water table levels were found in our borings at depths ranging from approximately eleven and one-half (11 ½) to thirty-two and one-half (32 ½) 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 not found in borings SB-01, SB-02, SB-03 and SB-06 thru SB-13 within the depths drilled. Confining layers were found in borings SB-04 and SB-05 at depths ranging from approximately nineteen (19) to twenty-eight (28) feet below existing site grade. Confining layers are indicated on the soil profiles at the appropriate depths.

Permeability

Laboratory vertical permeability tests were performed on soil samples retrieved from soil borings SB-01, SB-02, SB-06 and SB-10 performed at depths of approximately four (4) feet below existing site grade.

Resulting coefficients of vertical permeability are noted on the soil profiles presented in Appendix I and in Table 1 below.

Table 1 Permeability Testing Results

Boring No.	Depth of Test (feet)	Kv Rate (feet/day)
SB-01	4.0	32.13
SB-02	4.0	43.34
SB-06	4.0	21.72
SB-10	4.0	33.42

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

Gradation (-200) Testing Results

Fine sand and clayey sand soils found in the soil borings performed yielded passing fines ranging from one and one-tenth (1.1) to thirty-seven (37) percent on the samples tested. We refer you to the soil profiles presented in Appendix I for the various soils found.

Preliminary Evaluations

Surficial fine sand soils found in our borings appear to be suitable material for pavement construction and conventional foundation systems.

Clayey sand soils found in our borings are typically not used as structural fill material due to the inherent moisture retention and the natural weight of the material which makes compaction requirements difficult to achieve. However, clayey soils can be utilized for non-structural grading as desired.

Closure/General Qualifications

The scope of this report is limited to this specific project. Preliminary evaluations submitted in this report are based on our findings from the soil borings, gradation testing and laboratory permeability testing performed. Soil, limestone and groundwater conditions may vary between boring locations. These variations were not taken into consideration for this report.

APPENDIX I
SOIL PROFILES

Log of Borehole: SB-01

Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue

Ocala, Florida

352.694.7711

WWW.GEOTECHFL.COM

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6					
7					
8					
9					
10					
11		% PASS -200 AT APPROX. 10.0 FEET = 2.2			
12					
13					
14			14.5		
15		CLAYEY SAND			
16		YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
17					
18		% PASS -200 AT APPROX. 16.0 FEET = 17			
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35			35.0		
36		End of Borehole			
37					

LABORATORY VERTICAL PERMEABILITY RATE
AT APPROX. 4.0 FEET = 32.13 FEET/DAY

ESHWTL AT APPROX. 14.5 FEET

CONFINING LAYER GREATER THAN DEPTH
DRILLED

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 1 OF 13

Log of Borehole: SB-02

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue

Ocala, Florida

352.694.7711

WWW.GEOTECHFL.COM

Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22			22.5		
23		CLAYEY SAND			
24		YELLOWISH BROWN CLAYEY SAND (SC)			
25					
26					
27					
28					
29			29.0		
30		CLAYEY SAND			
31		YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
32					
33					
34					
35			35.0		
36		End of Borehole			
37					

LABORATORY VERTICAL PERMEABILITY RATE
AT APPROX. 4.0 FEET = 43.34 FEET/DAY

ESHWTL AT APPROX. 29.0 FEET

CONFINING LAYER GREATER THAN DEPTH
DRILLED

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 2 OF 13

Log of Borehole: SB-03

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue
Ocala, Florida
352.694.7711

WWW.GEOTECHFL.COM

Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6					
7					
8				1	
9					
10					
11		% PASS -200 AT APPROX. 10.0 FEET = 3.9			
12					
13					
14			15.0		
15					
16		CLAYEY SAND			
17		YELLOWISH BROWN CLAYEY SAND (SC)	17.0	2	
18					ESHWTL AT APPROX. 17.0 FEET
19		CLAYEY SAND			
20		YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
21					
22					
23					
24					
25					
26				3	
27					
28					
29					
30					
31					
32					
33					
34					
35			35.0		
36		End of Borehole			CONFINING LAYER GREATER THAN DEPTH DRILLED
37					

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 3 OF 13

Log of Borehole: SB-04

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue
Ocala, Florida
352.694.7711

WWW.GEOTECHFL.COM

Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

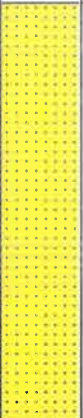
Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

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					
12					
13			13.0	1	ESHWTL AT APPROX. 13.0 FEET
14		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
15					
16					
17					
18					
19			19.0	2	CONFINING LAYER AT APPROX. 19.0 FEET
20		SLIGHTLY SANDY CLAY GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)			
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33			33.5	3	
34		LIMESTONE LIGHT BROWN LIMESTONE	35.0	4	
35					
36		End of Borehole			
37					

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 4 OF 13

Log of Borehole: SB-05

Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

GEO-TECH, INC.

ENGINEERING CONSULTANTS

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Ocala, Florida
352.694.7711

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6					
7					
8				1	
9					
10					
11		% PASS -200 AT APPROX. 10.0 FEET = 2			
12					
13			14.0		
14					ESHWTL AT APPROX. 14.0 FEET
15		CLAYEY SAND			
16		YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
17					
18					
19					
20					
21		% PASS -200 AT APPROX. 20.0 FEET = 37			
22				2	
23					
24					
25					
26					
27			28.0		
28					CONFINING LAYER AT APPROX. 28.0 FEET
29		SLIGHTLY SANDY CLAY			
30		GREY AND YELLOWISH BROWN SLIGHTLY SANDY CLAY (CH)			
31					
32				3	
33					
34					
35			35.0		
36		End of Borehole			
37					

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 5 OF 13

Log of Borehole: SB-06

Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14			14.0		
15		CLAYEY SAND	15.0	2	
16		YELLOWISH BROWN CLAYEY SAND (SC)			
17		CLAYEY SAND			
18		YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35			35.0		
36		End of Borehole			
37					

LABORATORY VERTICAL PERMEABILITY RATE
AT APPROX. 4.0 FEET = 21.72 FEET/DAY

ESHWTL AT APPROX. 15.0 FEET

CONFINING LAYER GREATER THAN DEPTH
DRILLED

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 6 OF 13

Log of Borehole: SB-07

GEO-TECH, INC.

ENGINEERING CONSULTANTS

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Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6				1	
7					
8					
9					
10					
11			11.5		ESHWTL AT APPROX. 11.5 FEET
12		CLAYEY SAND			
13		YELLOWISH BROWN AND GREY CLAYEY			
14		SAND (SC)			
15					
16					
17					
18					
19					
20					
21					
22					
23				2	
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35			35.0		CONFINING LAYER GREATER THAN DEPTH DRILLED
36		End of Borehole			
37					

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 7 OF 13

Log of Borehole: SB-08

Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

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352.694.7711

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6					
7					
8					
9					
10				1	
11					
12					
13					
14					
15					
16					
17					
18					
19			19.0		
20		CLAYEY SAND			
21		YELLOWISH BROWN CLAYEY SAND (SC)		2	
22					
23			23.0		ESHWTL AT APPROX. 23.0 FEET
24		CLAYEY SAND			
25		YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
26					
27					
28					
29				3	
30					
31					
32					
33					
34					
35			35.0		CONFINING LAYER GREATER THAN DEPTH DRILLED
36		End of Borehole			
37					

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 8 OF 13

Log of Borehole: SB-09

Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

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Ocala, Florida

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24			24.0		
25		CLAYEY SAND			
26		YELLOWISH BROWN AND GREY CLAYEY			
27		SAND (SC)			
28		% PASS -200 AT APPROX. 25.0 FEET = 21			
29					
30					
31					
32					
33					
34					
35			35.0		
36		End of Borehole			
37					

ESHWTL AT APPROX. 24.0 FEET

CONFINING LAYER GREATER THAN DEPTH DRILLED

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 9 OF 13

Log of Borehole: SB-10

GEO-TECH, INC.

ENGINEERING CONSULTANTS

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Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6					
7					
8					
9					
10					
11		% PASS -200 AT APPROX. 10.0 FEET = 1.1			
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22			22.5		
23		CLAYEY SAND			
24		YELLOWISH BROWN CLAYEY SAND (SC)	24.5	2	
25		CLAYEY SAND			
26		YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
27					
28					
29		% PASS -200 AT APPROX. 25.0 FEET = 21			
30					
31					
32					
33					
34					
35			35.0		
36		End of Borehole			
37					

LABORATORY VERTICAL PERMEABILITY RATE
AT APPROX. 4.0 FEET = 33.42 FEET/DAY

ESHWTL AT APPROX. 24.5 FEET

CONFINING LAYER GREATER THAN DEPTH
DRILLED

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 10 OF 13

Log of Borehole: SB-11

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue

Ocala, Florida

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Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6					
7					
8					
9					
10				1	
11					
12					
13					
14					
15					
16					
17					
18					
19			19.0		
20		CLAYEY SAND			
21		YELLOWISH BROWN CLAYEY SAND (SC)			
22					
23					
24					
25					
26				2	
27					
28					
29					
30					
31					
32					
33			32.5		ESHWTL AT APPROX. 32.5 FEET
34		CLAYEY SAND			
35		YELLOWISH BROWN AND GREY CLAYEY SAND (SC)		3	
36			35.0		CONFINING LAYER GREATER THAN DEPTH DRILLED
37		End of Borehole			

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 11 OF 13

Log of Borehole: SB-12

Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue

Ocala, Florida

352.694.7711

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Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6					
7				1	
8					
9					
10		% PASS -200 AT APPROX. 10.0 FEET = 1.5			
11					
12			13.0		
13		CLAYEY SAND	14.0	2	
14		YELLOWISH BROWN CLAYEY SAND (SC)			ESHWTL AT APPROX. 14.0 FEET
15		CLAYEY SAND			
16		YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
17					
18					
19		% PASS -200 AT APPROX. 15.0 FEET = 24			
20					
21					
22					
23					
24				3	
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35			35.0		
36		End of Borehole			CONFINING LAYER GREATER THAN DEPTH DRILLED
37					

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 12 OF 13

Log of Borehole: SB-13

GEO-TECH, INC.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue

Ocala, Florida

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Project: BORROW PIT, PID NO. 0322100200, NE SR 24, ARCHER, FL

Project No: 23-264.29.1

Boring Location: (SEE BORING LOCATION MAP)

Engineer: NJH/CAH

Client: ANDERSON COLUMBIA COMPANY, INC.

Enclosure: BORING MAP

Depth (ft)	Symbol	Description	Depth/Elev.	Number	Remarks
0		Ground Surface	0.0		
1		FINE SAND			
2		BROWN FINE SAND (SP)			
3					
4					
5					
6					
7					
8					
9				1	
10					
11		% PASS -200 AT APPROX. 10.0 FEET = 1.1			
12					
13					
14					
15					
16					
17			17.5		
18		CLAYEY SAND	19.0	2	
19		YELLOWISH BROWN CLAYEY SAND (SC)			ESHWTL AT APPROX. 19.0 FEET
20		CLAYEY SAND			
21		YELLOWISH BROWN AND GREY CLAYEY SAND (SC)			
22					
23		% PASS -200 AT APPROX. 20.0 FEET = 18			
24					
25					
26					
27				3	
28					
29					
30					
31					
32					
33					
34					
35			35.0		CONFINING LAYER GREATER THAN DEPTH DRILLED
36		End of Borehole			
37					

Ground Water Depth: NOT FOUND

Drill Date: APRIL 30, 2023

Drilled By: RD/MC

Drill Method: ASTM D-6282

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

Soil Profile : 13 OF 13

APPENDIX II
BORING LOCATION MAP



NE STATE ROAD 24

80-08

88

SB-07

11-07

SB-06

0

JB-03

• C



•

SB-13

3

SB-12

2

SB-11

—

SB-10

0

SB-09

5

0322100200

☐ = APPROXIMATE DIRECT PUSH BORING LOCATION
NE 100TH PL

PROPOSED BORROW PIT
PARCEL NO. 0322100200, STATE ROAD 24
ARCHER, FLORIDA

BORING LOCATION MAP

GEO-TECH, INC.

■ GEOTECHNICAL ■ ENVIRONMENTAL
■ CONSTRUCTION MATERIALS TESTING ■ GEOPHYSICAL EXPLORATION
1016 SE 3rd AVENUE, OCALA, FLORIDA 34471 ~ (352) 694-7711

PROJECT NO.

24-264.29.1

SCALE: N.T.S.

DATE: 5-16-24

FIGURE:
1