

SOIL REPORT

**25-7111 Palmetto Property
Buyers LLC - Lincoln St**

December 1, 2025

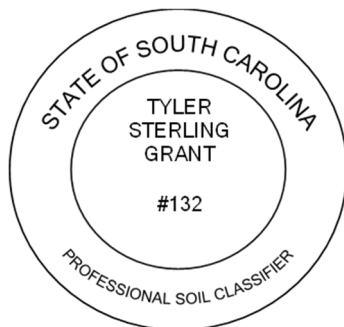
Prepared By:

Tyler Sterling Grant, SC PSC #132

Davis Horizons

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Site Location and Characteristics

The project site is located in Orangeburg County, South Carolina and was reviewed on November 25, 2025. The sampled locations are geographically situated on a flat area of a broadly described terrace. The vegetative community in the sampled area is generally described as shrub brush, and more specifically is an emergent vegetative community. Elevation data recorded at these locations shows elevations ranging no more than 5 inches between sample points.

Soil Sampling Methodology

In order to measure site elevations, a Trimble R10-2 external GNSS receiver was used to measure elevations at each soil boring location. Fixed real-time kinematic (RTK) positioning was obtained in order to maximize data accuracy. Elevation error was measured to not exceed 1 inch, based on data provided from the GNSS receiver. Orthometric elevation data was recorded at each data point and recorded on the subsequent data sheet. Elevation ranges between the soil borings were obtained by computing the difference between elevation points.

Soil colors described in the data sheets were determined using a Munsell Soil Color Book. Soil textures described in the enclosed data sheets were determined using field techniques provided by the United States Department of Agriculture, Natural Resource Conservation Service (see: Thien, S.J., 1979. *Flow Chart to Determine Soil Texture by Feel*). In total, 3 data points were recorded for the purposes of finalizing the footprint of the proposed drainfield and repair area.

SCDHEC Regulations and Standards

This site was examined for suitability for an onsite wastewater system as outlined in SCDHEC Regulations 61-56. Based on the observations described in the enclosed data sheets, estimated zone of seasonal saturation (ZOS), elevation gradient in the sampled area, and depth to limiting soil textures, the recommended standard for the investigated area is the 100/101 System - Conventional with 14" Aggregate.

The criteria used to determine the estimated zone of seasonal saturation (ZOS) was primarily based on the presence of wetness characteristics, described as low chroma soil colors identified with a Munsell Soil Color Book and/or evidence of redoximorphic reactions. The presence of low chroma soil colors and redoximorphic features are indicative of the prolonged presence of water and/or a fluctuating water table. In addition, other criteria, such as position on the landscape, surface color (estimate of organic carbon), and experience of the Soil Classifier were utilized to obtain the ZOS. The data in this report is intended to be used for land use planning purposes, as well as supplemental soil data that can be submitted to SCDHEC and/or a Professional Engineer to assist in the onsite wastewater permitting process. The point data utilized to inform this report does not guarantee the denial or issuance of a permit for an on-site wastewater system and is solely a recommendation, based on the observations of the Soil Classifier during the site visit. The final decision of issuance or denial of permits is a decision made by SCDHEC.

Design Criteria and Recommendations

A ZOS of >42 inches will be used as design criteria. Depths to apparent water tables (if observed) can be found on the corresponding data sheets. In all test locations, apparent water tables were not observed above (more shallow) than the identified ZOS. A minimum of a six-inch separation between the ZOS and the bottom of the trenches is required for this system recommendation. Horizons with more than trace amounts of organic carbon content existed to maximum depths of 6 inches. The aforementioned soil horizons with more than trace amounts of soil organic carbon do not need to be removed. However, the root mat should be removed prior to adding fill material if required. Based on the recommended system design, a 14 inch aggregate depth is suggested. Also, backfill will be necessary for the installation of the recommended system. Soil textures and amounts of backfill needed for the recommended system can be found within the system standard descriptions within the 61-56 Regulations.

Class 3 textures are the most limiting texture in the excavated soil profile. A long-term acceptance rate (LTAR) of 0.5 gallons per day (GPD)/square foot (SF) will be utilized for the loading rate². If applicable based on system recommendations, upon the completion of the construction of the drain field/disposal area, the fill material over this area will be immediately seeded and protected with straw or mulch or sodded to establish a permanent vegetative cover. The final grading plan will be designed to remove surface water from the drain field/disposal area.

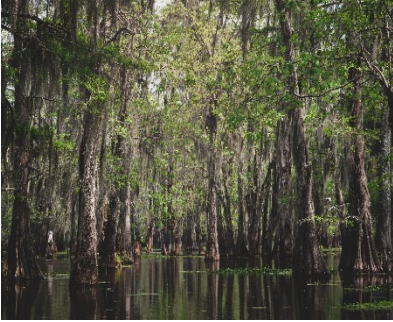
Based on the recommended system, a septic tank with a maximum flow capacity that does not exceed 1500 gallons per day (gpd) can be installed. The minimum total linear footage required for the trench lines is 320 feet, based on an expected gallons per day (gpd) of 480 gpd and a system design utilizing a 3' wide trench. However, the proposed design intends to incorporate the usage of alternative aggregate product. As such, the aforementioned required total linear footage will be reduced by 25%. Lastly it will be required that a licensed septic installer authorized by Infiltrator complete the installation of this system.

Soil Classification

The soils in this area formed in sandy and loamy marine sediments typical of the Coastal Plain. Thus, the soil conditions reflect drainage characteristics typical of soils of the mapped series below. This soil classification was based on the observed soil morphology in the excavated soil profile. Descriptions to further depths are not necessary to make interpretations for onsite wastewater disposal systems. The soil observations provided in this report and the below classification are derived by soil conditions in the observed sampled locations/area only. It should be noted that the below classification does not take into account any inclusions that might exist with the sampled area.

Similar to soils of the Norfolk series: Fine-loamy, kaolinitic, thermic Typic Kandiudults

Other Considerations



Adherence to Report:

The depth to the ZOS, water table separation, LTAR, and the land preparation prescriptions outlined in this report are site condition minimums that must be adhered to in the design and installation of an onsite wastewater disposal system. Any expenses incurred due to deviations from the soil prescriptions outlined in this report that result in system malfunctions or repairs will be the liability of the responsible party.

Notification Regarding Wetlands:

It is the responsibility of the landowner and/or equipment operators to avoid regulated impacts to waters of the United States (WOTUS), including wetlands. Should any part of the proposed onsite wastewater system be located in WOTUS, including wetlands, approval from the appropriate State and/or Federal agency [i.e., US Army Corps of Engineers, SCDHEC, etc.] must accompany the application for an onsite wastewater system. It is recommended that the landowner and/or equipment operators contact the applicable State and/or Federal agencies prior to initiating site work in order to avoid regulated impacts to WOTUS, including wetlands.

Footnotes:

1. Where applicable, fill material should be inspected and approved by Tyler Sgro prior to placement of material and system installation.
2. Long-term acceptance rates (LTAR) are **estimated** using the South Carolina Department of Health and Environmental Control, Bureau of Environmental Health Long Term Acceptance Rate Standard for Onsite Wastewater Systems. The long-term acceptance rate is based on the most hydraulically limiting naturally occurring soil texture from the ground surface to 12 inches below the bottom of the proposed absorption trenches/disposal tubing. Estimates on the acceptance rates are based on soil texture.



Site and Soil Evaluation for Onsite Wastewater Treatment and Disposal



Applicant and Project Name: 25-7111 Palmetto Property Buyers LLC - Lincoln St

County: OrangeburgLand Use/Earth Cover: _____

Property Address: _____Landform: _____

Location/Subdivision: _____Hillslope/Profile Position: flat

Percent Slope/Measured Elevations (if applicable): 250.8728578307845 ft.

Applicant Name: _____Slope Shape: _____

Address: _____Slope Aspect: _____

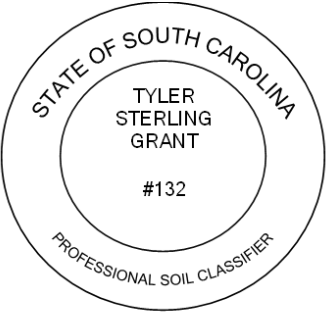
Soil Classifiers Embossment/Stamp: _____

Phone #: _____Date: November 25, 2025

Lot #: _____Soil Classifier: Tyler Sterling GrantSignature: _____

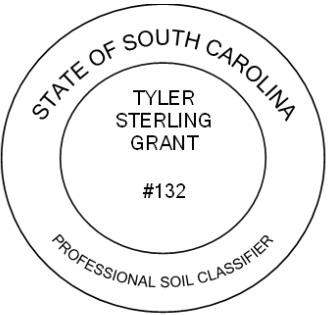
Test Hole #: Data Point 1Repair Area? ☐ Yes ☒ NoSoil Classifier Address: PO Box 80070, Charleston SC 29416

Latitude/Longitude: 33.409817303333334 / -81.01966515833334Phone#: 843-484-5117



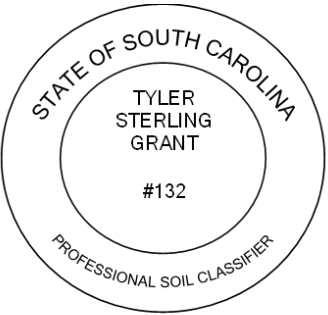
Method: Pit: ☐ Auger: ☒ Probe: ☐

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Comments and Other Pertinent Soil Features
		Munsell Color (hue, value, chroma)										
Horizon Suffix	Depth (inches)	Matrix Color	Redoximorphic Features/Mottles		Texture			Structure		Consistence (Moist)		
			Concentrations	Depletions	LTAR Class USDA Class	Sticki Class	Plastic. Class	Grade	Type (shape)			
A	0-6	10yr 4/2			1	LS	SO	PO	0 - Structur eless	GR - Granular	L - Loose	
E	6-16	10yr 6/4			1	LS	SO	PO	0 - Structur eless	GR - Granular	L - Loose	
Bt	16-42	10yr 6/8	7.5yr 6/8 @ 36"		3	SCL	SO	PO	1 - Weak	SBK - Subangu lar Blocky	FR - Friable	
Most Limiting Soil Conditions		Depth (in.) and Description	Most Limiting Soil Conditions	Depth (in.) and Description	Soil Series and Soil Taxonomy			Comments/Recommendations				
Zone of Saturation		>42	Overburden/Fill Material					Additional Comments:				
Clean Saprolite												
Restrictive Horizon		none	Loading Rate ga/da/ft2	0.5	Vegetation Observed							
Weather Conditions			Free Water	none								



Tyler

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Comments and Other Pertinent Soil Features
		Munsell Color (hue, value, chroma)										
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features/Mottles		Texture			Structure		Consistence (Moist)		
Suffix			Concentrations	Depletions	LTAR Class	USDA Class	Sticki Class	Plastic. Class	Grade			Type (shape)
A	0-6	10yr 4/2			1	LS	SO	PO	0 - Structur eless	GR - Granular	L - Loose	
E	6-15	10yr 6/4			1	LS	SO	PO	0 - Structur eless	GR - Granular	L - Loose	
Bt	15-42	10yr 6/8	7.5yr 6/8 @ 37"		3	SCL	SO	PO	1 - Weak	SBK - Subangu lar Blocky	FI - Firm	
Most Limiting Soil Conditions		Depth (in.) and Description	Most Limiting Soil Conditions	Depth (in.) and Description	Soil Series and Soil Taxonomy			Comments/Recommendations				
Zone of Saturation		>42	Overburden/Fill Material					Additional Comments:				
Clean Saprolite												
Restrictive Horizon		none	Loading Rate ga/da/ft2	0.5	Vegetation Observed							
Weather Conditions			Free Water	none								



Soil Classifiers Embossment/Stamp: _____

Tyler

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Comments and Other Pertinent Soil Features
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Suffix			Concentrations	Depletions	LTAR Class	USDA Class	Sticki Class	Plastic. Class	Grade	Type (shape)		
A	0-5	10yr 4/2			1	LS	SO	PO	0 - Structur eless	GR - Granular	L - Loose	
E	5-14	10yr 6/4			1	LS	SO	PO	0 - Structur eless	GR - Granular	L - Loose	
Bt	14-42	10yr 6/8	7.5yr 6/8 @ 29"		3	SCL	SO	PO	1 - Weak	SBK - Subangu lar Blocky	FR - Friable	
Most Limiting Soil Conditions		Depth (in.) and Description	Most Limiting Soil Conditions	Depth (in.) and Description	Soil Series and Soil Taxonomy			Comments/Recommendations				
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Restrictive Horizon		none	Loading Rate ga/da/ft2	0.5	Vegetation Observed							
Weather Conditions			Free Water	none								

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Please note that this site map is not considered final until final permit to construct issuance from SC DES. Upon permit issuance, any deviations during the installation process relating to the drainfield area should be initially coordinated with Davis Horizons and approved by SC DES. To contact Davis Horizons about changes to the drainfield area, please call 843-484-5117, or contact the applicable local/regional SC DES office.



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|---------------------|-----------------------|---------------------------------|
| Soil Data Form | Drain Lines | Parcels ReportAll FeatureServer |
| Septic Design Point | Repair Lines | World Imagery |
| Well | Distribution Line | Low Resolution 15m Imagery |
| Septic Tank | Septic Design Polygon | High Resolution 60cm Imagery |
| Septic Design Line | House | High Resolution 30cm Imagery |
| Distance/Setback | Driveway | Citations |

