HAL OWEN & ASSOCIATES, INC.

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2 January 2023

Mr. Matthew Szalecki
Family Building Co.

Reference: Soil Investigation and Septic System Design
79 Ponchartrain Street, Fuquay Varina NC;
Captains Landing Lot 9; PIN 0613-73-1807

Dear Mr. Szalecki,

A site investigation was conducted on 14 December 2024 for the above referenced property, which is located on the western side of Ponchartrain Street in the Buckhorn Township of Harnett County, North Carolina. The purpose of the investigation was to determine the ability of this lot to support a subsurface sewage waste disposal system and repair area for a three-bedroom home. Public water supplies and individual septic systems will be utilized for this lot.

All sewage disposal ratings and determinations were made in accordance with the Rules for "Wastewater Treatment and Dispersal Systems", 15A NCAC 18E. This report represents my professional opinion as a Licensed Soil Scientist but does not guarantee or represent permit approval for any lot by the Local Health Department. The permit you receive from the Local Health Department may contain some modifications or amendments to our submitted design. Please carefully review your permit and adhere to all prescribed requirements.

It is our understanding that this lot was recorded prior to 1979, and that the lot is exempt from the repair area requirement of the referenced regulations. Any repair area (even partial) that may be available should be reserved for future use.

SOIL INVESTIGATION

The soils were evaluated under moist soil conditions through the advancing of auger borings. This evaluation included observations of soil morphology (texture, structure, clay mineralogy, organics), topography, and landscape position. Results of the borings located within the proposed areas for the initial system and repair area are provided in the attached Soil/Site Evaluation form.

A portion of this lot was investigated and found to be underlain by suitable soils for subsurface sewage waste disposal systems. These soils were observed to be firm sandy clays to greater than 35 inches and will support long term acceptance rates of 0.3 gal/day/ft^2.

Soils in the area indicated as drip repair (Figure 2) were observed to have suitable soils for drip dispersal systems. These soils were observed to have clay subsoils with usable soil depths of 13 inches or more below surface and appear to support long term acceptance rates of 0.1 gal/day/ft^2 for drip dispersal systems.

SEPTIC SYSTEM DESIGN

The proposed single family residential home will contain three bedrooms and generate a design flow of 360 gallons per day (Figure 2). A 1000 gallon (minimum) septic tank is required with an approved effluent filter. The home will not have a basement.

The initial septic system is proposed as a gravity driven system to 300 feet of accepted status drainlines (EZ Flow or chamber) utilizing a long term application rate of 0.3 gal/day/ft^2. Serial distribution will be used to distribute effluent to six variable length drainlines**.** The drainlines should be installed on contour with maximum trench bottom depths at 22 inches below surface.

All regulatory setbacks for a septic system shall be maintained. Drainlines must be installed at least 9 feet apart on center. The septic system (including tanks) must be at least 5 feet from a property line, 5 feet from a home, 50 feet from a surface water, and 100 feet from an individual well (50ft for repair systems).

The repair septic system is proposed as a drip dispersal system utilizing a long term acceptance rate of 0.1 gal/day/ft^2. The drip dispersal field will require a 3,600ft^2 area (minimum) and have 1800 linear feet of drip tubing. Drip tubing should be installed at 6 inches below surface.

Potential septic system drainlines have been demonstrated with various colored pin flags that are located on the lot. It is important to protect the areas designated for installation of the septic system or repair area from all land disturbing activities.

CONCLUSION

This report and the attached septic system design information will need to be submitted to the Local Health Department for review and the permitting process. I appreciate the opportunity to provide this service and hope to be allowed to assist you again in the future. If you have any questions or need additional information, please contact me at your convenience.

Sincerely,

Hal Owen
Licensed Soil Scientist

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Figure 1. Soil Map showing Septic Suitability

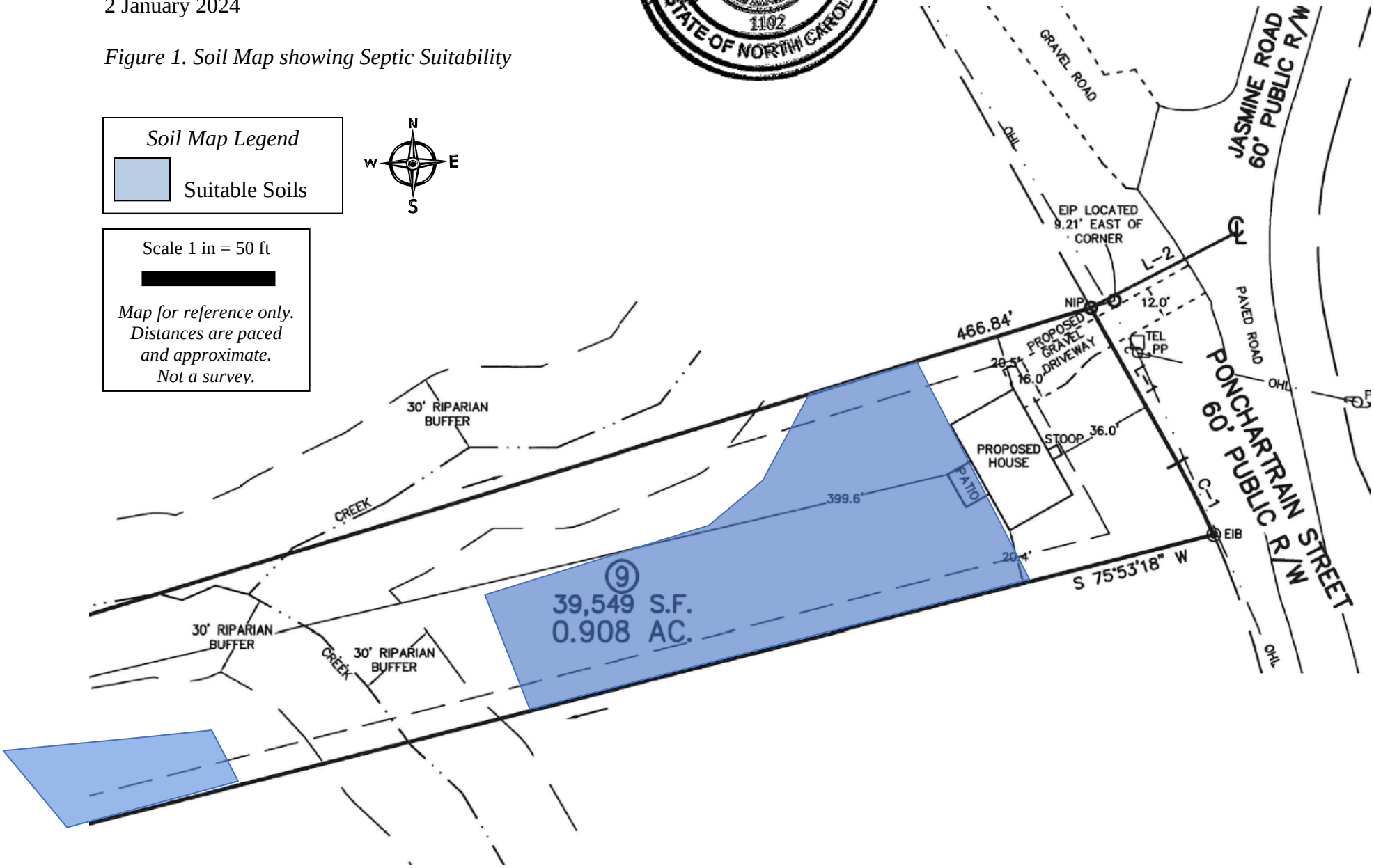

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Figure 2. Septic System Layout