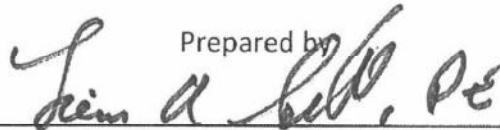


Sewer System Adequacy Calculations
for
Lots 9 & 10, Block 236,
Dennis Township, Cape May County, New Jersey

September 12, 2023

Prepared by

A handwritten signature in black ink, reading "Louis A. Scheidt, P.E.", written over a horizontal line.

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DESCRIPTION

The project site sits within Lots 9 and 10, Block 236 in the Township of Dennis, which has an area of approximately 0.596 acres. There are no wetlands present on the parcel, or the portion of the parcel where the improvements will be constructed.

The subject structure is currently used as a two-bedroom single family residence, and has a pre-existing, functional, and approved sewer system. The existing system was designed to handle the volume of two bedrooms (350 gallons). The proposed use for the subject structure is to house offices, which will change the design volume. According to N.J.A.C. 7:9A (Standards for Individual Subsurface Sewage Disposal Systems), sewage volume from an office building should be calculated as the square footage of the facility multiplied by 0.125. As the floor area of the structure is approximately 685 square feet, this yields a volume of 85.5 gallons, which is less than the volume used in the original design that was used for construction of the existing system (350 gallons). Based on the soil condition used in the original design, this volume yields a required disposal field sizing of 138 square feet, which is less than the size of the existing disposal field of 450 square feet. Additionally, the required septic tank size for installations other than a single-family dwelling is calculated as the sewage volume multiplied by 1.5, which in this case yields 129 gallons. The septic tank provided on site is 1,000 gallons, so this condition is also met.

Based on the above calculations, the existing sewer system that was designed for a single-family two-bedroom residence is adequate to also be used for this same structure under its revised commercial use of housing offices.