APEX ENGINEERING INCORPORATED
27 WEST MARKET STREET NEWPORT, DE 19804
(302) 994-1900 (302) 994-9099 FAX
www.apexengineeringinc.com

November 13, 2024

Apex Project #24156.000

Derrick P. Caruthers
Environmental Engineer
DNREC Division of Water
89 Kings Hwy.
Dover, DE 19901

RE: Temporary Holding Tank Application
Winchelsea Subdivision
New Castle County, DE
Lots 1 through 10 (10 Lots)
Tax Parcel #'s 13-008.34-491 through -500

Dear Mr. Caruthers,

The Winchelsea Subdivision was approved by New Castle County and recorded on May 24, 2023 per Instrument # 20230524-0033206. The subdivision consists of 336 dwelling units to be serviced by New Castle County sanitary sewer and connected to the sanitary sewer in Jamison Corner Road. Unfortunately, the County's timing for the completion of the sanitary sewer connection does not coincide with that of the completion of the dwellings by the developer; therefore, we are requesting permission to provide sanitary sewer service for 10 lots (referenced above) until such time that the sanitary sewer connection is in place.

We are proposing to utilize the existing four (4) manholes on site (MH 3A, MH 23A, and MH 24A, MH 4A and 443 LF of 8" sewer pipe) to store the wastewater, essentially acting as a holding tank. The existing sewer system as noted above has a storage volume of 9,423 Gallons utilizing all storage below the 2-foot freeboard elevation of 57.06', which is 2-feet below the lowest MH top elevation of 59.06'. Supporting calculations provided below:

Manhole volumes taken as: depth*pi*(r^2)
Pipe volume taken as: length ***pi***(r^2)

MH 3A (72"):	57.06 – 38.74 = 18.32' * 9 * pi = 518 cf = 3,874.91 gallons
MH 23A (48"):	57.06 – 51.94 inv out = 5.12' deep * 4' * pi = 64.34 cf = 481.30 gallons
MH 24A (48"):	57.06 – 54.73 = 2.33 * 4 * pi = 29.28 cf = 219.03 gallons
MH 4A (72"):	57.06 – 39.26 = 17.8 * 9 * pi = 503 cf = 3,762.91 gallons
Pipes (8") :	pi * (0.3229)^2 * 443 = 145 cf = 1,084.93 gallons
TOTAL :	**9,423.08 gallons**

Per DNREC's requirements, 90% of the total storage volume (9,423 Gallons) is 8,481 Gallons, which will be the volume at which the alarm is set. This elevation is 55.48' (19" or 1.58' below elevation 57.06').

The daily usage of the 10 homes is as follows:

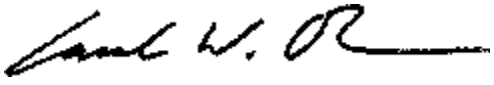
- 10 attached dwellings = (10 Units) x 240 GPD/Unit = 2,400 GPD
- Holding Tank/Manhole to be pumped out every two (2) days = 2 days x 2,400 GPD = 4,800 Gal

Attached with this submission are the following items:

a) DNREC Application Form
b) $750 Application Fee
c) $210 Advertising Fee
d) Project overview (noted in this cover letter)
e) Design Flows (noted in this cover letter)
f) Number of Dwelling Units (noted in this cover letter)
g) Location Plan
h) Alarm specifications
i) Copy of agreement with a Class F licensed liquid waste hauler and license certification
j) Copy of Hardship Waiver request letter

If you need any additional information, please do not hesitate to ask. If you have any questions or comments regarding the attached information, please feel free to contact me by email (cohm@apexengineeringinc.com) or by phone at (302) 994-1900, x-3.

Sincerely,



Carol W. Ohm, P.E.
Vice President