



**Consulting & Municipal
ENGINEERS**

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December 8, 2025

Zayibeth Carballo, PE, PLS, PP, CME, CFM, CFS
Director of Engineering/Municipal Engineer
Township of West Orange
66 Main Street
West Orange, New Jersey 07052

**Re: Application No. PB 24.01
 West Essex Highlands, LLC
 Sanitary Sewer Review #1
 Preliminary and Final Site Plan
 Block 179; Lot 32
 Block 179.17 Lots 8 & 9
 Our File No. 115.WRP0179.V01**

Dear Ms. Carballo

We have performed our preliminary sanitary sewer review #1 of the following documents for the above referenced project and are reporting herein:

- “Preliminary and Final Site Plan West Essex Highlands” prepared by Paul W. Anderson, P.E., of Anderson Consulting Services, LLC, last revised October 1, 2024.
- “Preliminary and Final Site Plan West Essex Highlands” plan and profiles of existing sanitary sewer prepared by Paul W. Anderson, P.E., of Anderson Consulting Services, LLC, last revised February 19, 2025.
- Off-Tract Sewer Volume Spreadsheet.

General Comments

1. Provide the following information to complete the application requirements:
 - a. Engineer's Report summarizing existing and proposed sanitary sewerage facilities, pump stations sizing calculations and projected flow estimates in accordance with the NJDEP criteria. A summary of the offsite sewer capacity analysis is to be included in the Report. All capacity and flows are to be represented in gallons per day (GPD).
 - b. Capacity analysis of the off-site sanitary sewer main shall be performed in accordance with N.J.A.C. 7:14A-1.2 for “Adequate Downstream Conveyance Capacity”.



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"In the downstream sewers, the peak dry weather flow does not exceed 80 percent of the depth of the pipe and the peak wet weather flow does not result in overflows or discharges from any unpermitted discharge location; and the ability of downstream facilities to carry the flows proposed to be generated by the Project, signed and sealed by a licensed professional engineer;". This analysis shall be included in the Engineer's Report.

- c. Treatment Works Approval Forms;
 - d. Specifications for the Proposed Sanitary Sewer Facilities signed and sealed by a licensed professional engineer.
2. All on-site sanitary sewerage facilities upstream of the proposed connection to existing manhole on Bakely Terrace including the proposed pump station, gravity sewer mains, manholes, and force main shall be privately owned and operated.
 3. A licensed sanitary sewerage system operator will be required for this system. This comment is to be acknowledged and the information for the licensed operator will be required prior to issuance of any certificates of occupancy.
 4. Sanitary sewer gravity mains, laterals and force mains shall be constructed at least three feet below proposed grade elevation.
 5. All proposed sanitary sewer mains and water distribution mains must comply with the minimum separation requirements set forth in N.J.A.C. 7:14A-23.6 and N.J.A.C. 7:10-11.10. Sewer mains must be separated from water mains by a horizontal distance of at least 10 feet. If the horizontal distance is not obtainable, the sewer must be located at least 18 inches below the bottom of the water main pipe. When separation cannot be maintained, the sewer main shall be either concrete encased or constructed of ductile-iron pipe in accordance with the aforementioned regulations.

Off-Site Sanitary Sewer Comments

1. Provide a key/location map for the existing downstream sanitary sewer proposed to be connected to.
2. The connection of the proposed force main is to be shown to EX-SANMH 1 on Bakely Terrace. In addition, manhole EX-SANMH 1 is to be replaced.
3. Replace existing manholes at all locations along Marie Terrace, Schmitt Road, and Marmon Terrace where sewer main replacement is proposed.
4. All existing sanitary sewer laterals should be identified for replacement wherever sewer main replacement is proposed. The laterals shall be replaced from the cleanout to the new sewer main.



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5. The Applicant shall provide supplemental survey information showing existing utilities and any crossings that may be exposed during construction of the proposed sewer and manhole replacements.
6. The Applicant provided a spreadsheet with the projected off-site sewer demands based on the number of bedrooms for each residential dwelling. The flows calculated from the spreadsheet shall be utilized as part of the conveyance capacity study within the engineer's report. The Applicant shall also include the sanitary sewer pipe capacity calculations in the evaluation. All capacity and flows are to be represented in gallons per day (GPD).
7. The Applicant will be responsible for ensuring compliance with Section 20-1 of the Township of West Orange Code. Specifically, Section 20-1.5f.5, indicates that any road opening must be backfilled with clean dense graded aggregate. Notes should be added to the plans indicating the same.

On-Site Sanitary Sewer Comments

1. Sanitary laterals including sections of curb that will need repair shall be shown from all buildings requiring sewer to the proposed sanitary sewer mains on the Utility Plans.
2. Sheet SP-20 shows a force main between the southwestern-most structure and Building A. Please verify the purpose of this force main and identify what flows are proposed to be conveyed between these two structures.
3. In manhole SAN MH5, identify the invert elevation for the lateral from Building A.
4. The proposed water and sewer main alignments shall be reviewed and adjusted as necessary to minimize the number of crossings between utilities.
5. Provide a plan and profile drawing depicting the construction of the proposed force main from the pump station to the connection in Bakely Terrace.
6. The proposed water main, along with utility crossings, shall be shown on the utility profile drawings.
7. Submit engineering design plans for the proposed pump station shown on SP-23. The proposed sanitary sewer mains are to be revised so only a single gravity sewer enters the wet well. A grinder is to be provided on the influent pipe to the wet well.
8. On Sheet SP-48, the proposed sanitary sewer is shown within the pervious asphalt area with insufficient cover over the pipe. The Applicant should evaluate lowering the sewer to provide adequate cover or relocating it outside the pervious asphalt section.
9. A one-time supplemental sewer fee in accordance with Township's ordinance §19-9.
10. The following construction details should be provided:
 - a. Sewer service lateral detail and sewer main connection;
 - b. Utility crossing



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- c. Sanitary sewer manhole
- d. Sanitary Sewer Discharge Manhole
- e. Manhole frame and casting
- f. Manhole step
- g. Connection to existing manhole
- h. Sanitary sewer pipe trench in accordance with Township's ordinance §20-1.5.
- i. Concrete encasement
- j. Any relevant construction details associated with the construction of the pump station.

We reserve the right to present additional comments pending receipt of revised plans. Should you have any questions regarding this matter, please do not hesitate to contact this office.

Very truly yours,
CME Associates

Mike Dziubeck

Michael Dziubeck, P.E.
Director

MD:cc

cc: West Essex Highlands, LLC – Applicant
Bryan D. Plocker, Esq. – Applicant's Attorney
Paul W. Anderson, PE, PP, CME – Applicant's Engineer
Township of West Orange Planning Board
Diana P. McGovern, Esq. – Planning Board Attorney
Geniece Gary-Adams – Director of Development/Zoning Official
Mark J. Semeraro, Esq. – Township Attorney
Rafiq E. Moorman, Esq. – Township Attorney