

**TOWNSHIP OF VERONA  
COUNTY OF ESSEX, STATE OF NEW JERSEY**

**RESOLUTION No. 2024-107**

A motion was made by Deputy McEvoy; seconded by Councilman Roman that the following resolution be adopted:

**AUTHORIZING A CONTRACT WITH BOSWELL ENGINEERING FOR  
FIRST PHASE OF THE INFLOW AND INFILTRATION STUDY**

**WHEREAS** the Wastewater Treatment Plant (TWP) experiences peak flows in excess of the average flow during extreme wet weather events; and

**WHEREAS**, a peaking factor of this magnitude is indicative of excessive rainfall derived inflow and infiltration (I/I) commonly explained as groundwater and stormwater entering the sanitary sewer system through defects in the pipes and manholes and through illicit connections into the system; and

**WHEREAS**, excessive I/I is a common issue with older sanitary collection systems and can significantly impact operating conditions at the WTP; and

**WHEREAS**, the Township Engineer recommends a comprehensive I/I study to identify sources of extraneous flow in order to minimize peak flow challenges; and

**WHEREAS**, phase 1 of the I/I study is to conduct smoke testing of the sanitary system to identify illicit connections, including cross connections between storm and sanitary systems, connected roof and cellar drains, leaking manholes, yard and fountain drains and sump pumps;

**WHEREAS**, information will be coordinated with home and business owners explaining the process;

**WHEREAS**, there is a need to acquire such services pursuant to *N.J.S.A. 19-44A-20.5*; and

**WHEREAS**, the Township Manager has determined that the value of said services will exceed \$17,500.00; and

**WHEREAS**, this expenditure shall be charged to Bond Ordinance No. 2024-19 or any other account that may be deemed appropriate by the Chief Financial Officer or her designee, and the availability of funds have been contingently certified by the Chief Financial Officer.

**NOW, BE IT RESOLVED** that the Township Council of the Township of Verona, in the County of Essex, New Jersey that Boswell Engineering, 330 Phillips Avenue, South Hackensack, New Jersey 07606 is hereby awarded a contract for the conducting smoke testing of approximately 181,500 linear feet of sanitary sewer lines in the Township in an amount not to exceed \$200,000.00.

**BE IT FURTHER RESOLVED** that the Township Manager and the Municipal Clerk are hereby authorized to enter into an agreement for the aforementioned services a copy of which shall be available for public inspection in the Office of the Municipal Clerk.

**ROLL CALL:**

**AYES:** Holland, McGrath, Roman, McEvoy, Tamburro

**NAYS:**

**THIS IS TO CERTIFY THAT THE FOREGOING IS A TRUE AND EXACT COPY OF A RESOLUTION ADOPTED BY THE TOWNSHIP COUNCIL OF THE TOWNSHIP OF VERONA AT THE REGULAR MEETING HELD ON JUNE 17, 2024.**

  
JENNIFER KIERNAN  
MUNICIPAL CLERK





June 10, 2024

The Honorable Mayor and Council  
Township of Verona  
Municipal Building,  
600 Bloomfield Avenue, 2nd Floor  
Verona, NJ 07044

Attention: Kevin O'Sullivan, Deputy Township Manager

Re: Professional Services for  
I/I Study Phase 1  
Township of Verona  
Essex County, New Jersey  
Our Proposal No. PR-24-12726

Dear Mayor Tamburro and Council:

In accordance with the request from the Township of Verona (Township), Boswell Engineering (Boswell) is pleased to submit this proposal for the first phase of the Inflow and Infiltration (I/I) Study in the Township. The Wastewater Treatment Plant (WTP) currently experiences peak flows in excess of four (4) times the average flow during extreme wet weather events. A peaking factor of this magnitude is indicative of excessive rainfall derived inflow and infiltration (I/I). I/I is groundwater and stormwater that enters the sanitary sewer system through defects in the pipes and manholes and through illicit connections into the system. Excessive I/I is a common issue with older sanitary collection systems and can significantly impact operating conditions at the WTP.

For this reason, a comprehensive I/I study is recommended to identify sources of extraneous flow. Elimination of excessive I/I will minimize peak flow challenges at the WTP and normalize flows allowing for increased operating efficiencies.

In the first phase of the I/I study, smoke testing of the sanitary system will be performed to identify illicit connections, including but not limited to:

- Cross connections between the storm and sanitary systems;
- Connected roof and cellar drains;
- Leaking manholes
- Yard and foundation drains
- Sump pumps

**Task 1 – Smoke Testing**

Boswell will coordinate with a subconsultant to conduct smoke testing of approximately 181,500 linear feet of sanitary sewer in the Township to identify cross connections into the sanitary sewer system, including roof leaders, sump pumps, defective connections. The smoke utilized is nontoxic and non-hazardous. Boswell and the subconsultant will coordinate with the Township, Fire Department and Police during the smoke testing. Boswell will also coordinate with home and business owners, but homeowners do not need to be present for test to be performed. This coordination with homeowners will include letters explaining the process and what to expect during the smoke testing.

All pipe deficiencies and cross connections will be documented on the sewer and storm system maps.

**Schedule and Fee**

Boswell is prepared to commence work immediately after receiving a notice to proceed.

Boswell will perform the work as previously outlined on a time and materials basis in accordance with the following estimated fee:

Task 1 - Smoke Testing	\$200,000
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The work **not** included in this Proposal is as follows:

1. Field Surveys
2. Engineering report
3. Design
4. Police Traffic Directors during smoke testing

Honorable Mayor and Council  
Township of Verona  
June 10, 2024  
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We wish to thank you for the opportunity of presenting this proposal and look forward to working with the Township on this project. Should you have any questions or require additional information, please do not hesitate to contact Giselle Diaz, P.E. or me.

Very truly yours,

BOSWELL ENGINEERING



Peter C. Ten Kate, P.E.

GD:PCTK:jm