Yorktown Town Hall
363 Underhill Avenue, P.O. Box 703
Yorktown Heights, NY 10598

(914) 962-5722
www.yorktownny.org

November 7, 2018

RE: Request for Proposals (RFP) for Pump Station Rehabilitation
Crystal Lake, Hanover East, Mohansic & Salem Pump Stations
Yorktown Heights Water Pollution Control Plant/Hallocks Mill Sewer District

The Town of Yorktown seeks to obtain the services of a professional engineering firm for the rehabilitation of four (4) wastewater pumping stations in Yorktown, New York.

Each company, if interested, should respond to this Request for Proposals by the close of business on **Wednesday 12/19/2018**. Format shall be two (2) printed copies submitted to Diana Quast, Town Clerk, at the following mailing address: Yorktown Town Hall, 363 Underhill Ave, Yorktown Heights, NY 10598. The following information must be provided:

1. Statement indicating your interest in providing professional engineering services.
2. Firm brochure outlining the firm's background and experiences. If sub-consultants are proposed, a similar brochure shall be submitted.
3. A listing and brief narrative description of up to five (5) projects involving similar type services provided to public or private clients within the last 5 years. References with names and telephone numbers must be included for the projects.
4. A project organization chart indicating key personnel who will be assigned to the project. Sub-consultant personnel should be included as appropriate. Limit key personnel to no more than five (5) names.
5. Include resumes of personnel noted on the project organization chart.
6. Describe your Project Approach, 1-page maximum using standard font size.

A pre-bid meeting will be held for interested parties on Wednesday 12/5/2018 at 10 am at the Yorktown Heights Water Pollution Control Plant, 2200 Greenwood Street.

Any questions may be submitted to Diana Quast, Town Clerk, via email at dquast@yorktownny.org or at the following mailing address: Yorktown Town Hall, 363 Underhill Ave, Yorktown Heights, NY 10598.

We look forward to a response from your firm.

Please complete the following & send back for our records/distribution list:

_____ Yes, we plan to submit a RFP for professional services:

Contact Person: _____ Phone: _____

Email Address: _____

RFP for Pump Station Rehabilitation

Crystal Lake, Hanover East, Mohansic & Salem Pump Stations

11/5/2018

The Town of Yorktown owns and operates the Hallocks Mill Sewer District (HMSD), which serves the northeast portion of the Town. There are approximately 5,200 parcels in the district, of which approximately 4,000 are connected to Town sewer (the remainder are on still individual septic systems). The infrastructure includes a wastewater treatment plant rated for 1.5 million gallons per day, a total of nine (9) pumping stations, sewer collection piping, manholes and force mains.

The Town recently started a pump station rehabilitation program and awarded contracts for upgrades to three (3) pump station in July 2018 (Jefferson Park, Jefferson Valley and Walden Woods).

At this time the Town is seeking the services of a professional engineering firm to undertake the planning and design for the next group of pump stations to be rehabilitated: Crystal Lake, Hanover East, Mohansic and Salem.

The scope of services for pump station rehabilitation will be as outlined herein. In addition, the Town would like an engineering study done of the Farmwalk Pump Station, which has had longstanding operational issues and has been the subject of several force main breaks causing release of wastewater to the environment. The Town received a Notice of Violation from the NYSDEC in December 2016 and is looking to explore options for repair and/or replacement of the pumping equipment/force main.

Project Background

The pump stations that will be rehabilitated in this phase of work were constructed many years ago and are approaching the end of their useful life. See Attachment #1 for a data sheet for each pump station.

Sewer department personnel have maintained the equipment and control systems through the years, however we are finding it increasingly difficult to obtain spare parts for needed repairs. Our primary objectives after completing the upgrades is to replace again and obsolete equipment systems, bring the structures up to current code, increase system reliability, enhance the instrumentation & control systems and allow for more communication through SCADA.

The Town would also like to standardize the pump station designs where possible. For underground stations undergoing rehabilitation, our preference is for a pre-fabricated above grade structure t house electrical and instrumentation panels so that workers can perform maintenance in a dry environment with the proper lighting and with adequate work space.

For SCADA work, the Town hired an engineering consultant in 2017 to perform a system evaluation and to make recommendations for future planned work, i.e. the pump station rehab program. A Technical Memo dated 1/27/17 is included as Attachment #2 and should be followed insofar as possible.

Detailed Project Scope

Provide engineering services for the design and construction of four (4) wastewater pump stations: Crystal Lake, Hanover East, Mohansic and Salem. The Town has established a preliminary budget of $2M for the pump station upgrade project. It is envisioned that the four facilities will be packaged together into one set of design documents for a single construction bid.

Crystal Lake, Hanover East, Mohansic and Salem Pump Stations

1. Remove/replace sewage pumps (with variable frequency drives if beneficial)
2. Remove/replace suction and discharge pipe, check and gate valves
3. Remove/replace pump control panel.
4. Remove/replace level control with float back up
5. Remove/replace manually cleaned bar screen
6. Complete replacement of electric service, i.e. utility service connection, utility meter, power and lighting panel, automatic transfer switch, disconnect switch, combination starters and disconnect switches, and interior and exterior lighting
7. New instrumentation and controls (i.e. communication, including antenna, Remote Telemetry unit, and control panel
8. New pressure transmitter and flow meter
9. New mixer in wet well
10. New gas monitoring system
11. New heating & ventilating systems including supply/exhaust fans, ductwork and intake louvers with motorized dampers
12. Determine feasibility of installing new equipment and control systems in a pre-fabricated building. (For Mohansic will likely need to rehabilitation the existing structure, i.e. new doors, windows, roofing, exterior repairs, painting, etc.)
13. If required, remove/replace isolation valves to prepare pump stations for bypass pumping
14. New emergency generator. Also provide a connection box to allow for a mobile generator to be used in the event of a power outage/emergency generator failure
15. Upgrade water service with new meter and backflow prevention.
16. Improve the site with new driveway, perimeter fencing, grading and drainage where required
17. Provide intrusion alarm contacts on all hatches and for the pre-fabricated building
18. Note: there are no odor control systems and not required in the planned upgrade

Additional Work Scope:

1. Perform a boundary survey and geotechnical evaluation of each facility

2. Perform an assessment of existing facilities to determine if any hazardous materials are existing. If required, develop a plan for handling hazardous materials, i.e. mercury, lead, asbestos, etc.
3. Perform flagging of any wetlands and confirm if the work will be done in wetland buffer areas, which will require permitting
4. Identity if any locations are within the 100-year flood plain and make recommendations for locating equipment systems above the base flood elevation if required.
5. Confirm wet wells are correctly sized and up to current code standards for capacity
6. All new equipment for each pump station shall be integrated into the Town SCADA system for monitoring and control.

Farmwalk Pump Station

The Town has experienced issues at the Farmwalk Pump Station in recent years and the scope of work will include a detailed evaluation and recommendation for how to address the problems that lead to the Town receiving a Notice of Violation from the NYSDEC in December 2016.

The issues are summarized in a technical memo prepared by GHD Consulting Engineers and dated 2/16/18. Although the Town was initially considering elimination of the Farmwalk Pump Station, for various legal reasons concerning the adding or removing parcels from sewer districts, the preferred option at this time is to address the existing issues without any type of re-districting.

Scope of Professional Services

General Design Requirements

The design shall be in accordance with all Federal, State, County and local codes and regulations. The design shall incorporate the latest energy conservation standards and utilize Energy Star rated equipment whenever practical.

The electrical design shall include, but not be limited to, power, lighting, telephone and data requirements as well as fire alarm, access control and CCTV systems. In addition, the electrical design must clearly indicate all branch feeders, branch circuitry, associated schedules and wiring diagrams.

The Consultant shall, at a minimum, incorporate the New York State Department of Environmental Conservation (hereinafter "NYSDEC") technical standards for erosion and sediment control contained in the document, New York Standards and Specifications for Erosion and Sediment Control, as the same may be amended from time to time. In addition, the Consultant shall incorporate for the design of water quality and water quality controls (post-construction stormwater control practices), the NYSDEC standards detailed in the New York State Stormwater Management Design Manual, as the same may be amended from time to time. Both documents should be obtained from the NYSDEC website to insure that the Consultant has the latest versions of such documents. The Consultant shall determine if the project shall require any permits from regulatory agencies, including, but not limited to, permits that concern stormwater management. To the extent that any permits are required for the project, the Consultant shall complete the permit application and prepare the necessary information required by the permitting agency, including, but not limited to, the preparation of a Stormwater Pollution Prevention Plan.

Design Review Meetings will be held at the project's commencement and as required during the design phase to facilitate the progress of the project. The Consultant will be expected to attend all Design Meetings, prepare minutes of the proceedings and submit them to all involved parties in a timely manner.

Professional Services Scope of Work

Schematic Design

At inception of the Project, the Consultant shall review the existing site conditions and meet with the Town Sewer Department to discuss current operations and maintenance procedures. Information and data gathered should be presented in an Engineering Report, which must address the following items:

1. Geotechnical conditions and impacts on structures.
    - Two soil boring shall be taken at each pump station location to confirm the subsurface conditions.
2. Wetland flagging, if present
3. Survey of property lines and wetland boundary
4. Flood mitigation if needed
5. Hazardous materials inventory. i.e. check for presence of lead, asbestos, mercury, etc.
6. Confirm wet well and pump size to see if larger sizes needed
7. Process design and new equipment systems
    - New pumps, valves, piping, flow meter, sump pump
    - Preference for pre-fabricated lift station if feasible
8. Bypass pumping, if required
9. Architectural and structural upgrades
10. New electric feeds and replacement of electrical infrastructure
11. Emergency power generation to provide redundant source of electric service
12. Replace power/control wiring and lighting (with new fixtures rated for occupancy)
13. Instrumentation and control
14. HVAC systems for unmanned operation

The Engineering Report shall include construction cost estimates.

Design Development & Contract Document Phase

Following approval of the Schematic Design Documents, the Consultant shall prepare contract documents consisting of drawings and specifications setting forth the requirements for bidding for the construction of the Project (including multiple prime contracts if required by Municipal Bid Laws). The documents shall clearly establish the scope, and the size and character of the entire Project as to architectural, structural, civil, mechanical and electrical systems/materials.

The Consultant shall also assist in the preparation of the necessary bidding information, bidding forms, the Conditions of the Contract, and the form of Agreement between the Town and the Contractor.

The Consultant shall be responsible for conducting the environmental review for the project in accordance with the State Environmental Quality Review Act and its implementing regulations 6 NYCRR Part 617. The Consultant shall prepare any related documentation as required in connection with the Town's responsibility for filing documents, including but not limited to, permits, easements, SEQRA

(Environmental Assessment Form), sign-offs and coordination with utilities, required for the approval of governmental authorities having jurisdiction over the Project. This will include but is not limited to the completion of the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity and preparation of all related documentation, as required.

The Consultant shall submit to the Town sixty percent (60%) and ninety percent (90%) design documents for review and comment. The Town shall review the sixty percent (60%) and ninety percent (90%) design submittals and provide comments to the Consultant in a timely manner. A workshop shall be held, and the Consultant shall incorporate the Town's comments, where applicable. Upon incorporation of comments, ninety percent (90%) design documents and all applicable information shall be submitted to necessary agencies for review and approval.

The Consultant shall submit to the Town an Estimate of Construction Cost based upon the sixty percent (60%) and ninety percent (90%) estimated quantities, to assure that the proposed work fits within the Town's budget.

The Consultant shall submit a schedule for construction based upon the ninety percent (90%) documents taking into account permits, required approvals by all authorities having jurisdiction, shop drawing review, long lead items, sequence of construction operations and maintenance of facility operations (or traffic).

Once project approval is obtained from the Town and from all required regulatory agencies, the Consultant shall provide one hundred percent (100%) documents (drawings and specifications) in both hard copy and electronic format, signed and sealed by a professional architect or engineer duly licensed in New York State.

The Consultant shall submit a Final Estimate of Construction Cost, based upon one hundred percent (100%) Construction Documents, to assure that the proposed work is still within the Town's Budget.

Bidding Phase

The Consultant shall attend pre-bid site inspections as scheduled by the Town. During the bidding phase, the Consultant shall provide answers to pre-bid questions either verbally or by addendum.

The Consultant shall assist the Town in obtaining bids or negotiated proposals, perform an analysis of up to three low bids to determine if the low bid is within an acceptable range, perform reference checks, and assist in awarding contracts for construction.

Design Services During Construction

The Construction Phase will commence with the award of the Contract for Construction and will terminate when final payment to the Contractor is approved, or in the absence of a final Certificate for Payment, sixty (60) days after the Date of Completion of the Work.

During the Construction Phase the Consultant shall visit the site approximately four times per month to attend project job meetings and to become generally familiar with the progress and quality of the Work. The Consultant shall prepare the minutes of the job meetings and submit them to all involved parties in a timely manner. In addition, based upon the on-site observations, the Consultant shall keep the Town

informed of the progress and quality of the Work, and shall endeavor to guard against defects and deficiencies of the Work of the Contractor.

If there is a conflict in the design documents or a design issue that precludes the Contractor from continuing to construct, then the Consultant shall prepare any sketches, plans, drawings or other documents and shall visit the site as often as is required until the issue is rectified. In addition, the Consultant shall assist in negotiating with the Contractor for the necessary work.

The Consultant shall advise the Town, but not have control or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, for the acts or omissions of the Contractor, Sub-contractors or any other persons performing any of the Work, or for the failure of any of them to carry out the Work in accordance with the Contract Documents.

The Consultant shall prepare written responses to requests for interpretations of the meaning and intent of the Drawings and Specifications. Such action shall be taken in accordance with the Contract Documents regarding reasonable promptness so as to cause no delay per the Contract Specifications. The Consultant shall maintain and continuously update the Request for Information log.

The Consultant shall review and approve the Contractor's submittals such as Shop Drawings, Product Data, Samples including Color Schedules and Coordination Drawings, but only for conformance with the design concept of the Work and with the information given in the Contract Documents. Such action shall be taken in accordance with the Contract Documents regarding reasonable promptness so as to cause no delay per the Contract Specifications. The Consultant's approval of a specific item shall not indicate approval of an assembly or system of which the item is a component. The Consultant shall maintain and continuously update a log of all submittals.

The Consultant shall review the Operations and Maintenance Manual prepared by the Contractor in accordance with the manufacturer's recommendations. In addition to the O&M Manual, the Consultant shall insure that the Contractor provides the necessary training services relative to the equipment supplied by this Contract.

The Consultant shall observe the Contractor’s final testing and start-up of all utilities, operational systems and equipment. The Consultant shall provide written certification that all monitoring and alarm points have been tested/verified, all equipment and systems are performing as intended and are in conformance with the design requirements.

The Consultant shall prepare a set of "as-built" (record) drawings showing changes in the work made during construction based on marked-up prints, drawings and other data furnished by the Contractor.

<u>Optional Construction Inspection Services</u>

The Consultant shall furnish a project representative with field experience in the construction of wastewater treatment and pumping systems. Services shall include the following tasks:

- Observe and document daily construction activities
- Determine acceptability of construction materials and methods with the contract documents
- Verify quantities for unit price payments, if required

- Confirm contractor's record drawings are updated monthly throughout construction
- Review and accept contractor applications for payment
- Observe and document testing, commissioning and start-up

Updates and Additions to Work Order Management System

The Town has a Work Order Management System (WOMS) that is used to plan, schedule, and track maintenance activities for each pump station. The Consultant shall compile information on all new assets added under this contract for import into the Town's WOMS. The standard templates will be furnished to Consultant by the Town. The following data shall be entered as a minimum:

1. Asset description
2. Asset hierarchy relationship
3. Asset specifications (class, manufacturer, model no., serial no., class specific nameplate data)
4. Recommended spare parts
5. Preventive maintenance requirements
6. All required asset management data (cost data, criticality, etc...)

Minority Participation Requirements

Not required at this time.

RFP for Pump Station Rehabilitation

Crystal Lake, Hanover East, Mohansic & Salem Pump Stations

Firm Name: _____

Prepared By: _____

Date: _____

Professional Service Fee

Task	Task	Quantity	Units	Rate	Subtotal
A	Farmwalk PS Evaluation				
B	Optional Assistance with Funding Applications	1	LS	ALLOWANCE	$8,000
1	Survey/Geotech/Testing				
2	Design Development & Construction Docs				
3	Permitting				
4	Bidding Phase				
5	Design Services During Construction				
6	Project Close-Out				
7	Optional Construction Inspection Services				
	TOTAL BID PRICE				