



**TOWN OF STRATFORD
PURCHASING DEPARTMENT
STRATFORD, CONNECTICUT**

REQUEST FOR QUALIFICATIONS

RFQ No. 2015-062

Issued: December 11, 2015

Subject: Infiltration / Inflow Study

The Town of Stratford through the Office of the Purchasing Agent will receive SEALED PROPOSALS for furnishing the equipment described in the accompanying specifications, in accordance with the instructions, conditions and reservations that follow:

A. CLOSING DATE:

Proposals will be received until 3:00 pm January 6, 2016, in the Office of the Purchasing Agent, Room 202, Town Hall, 2725 Main Street, Stratford, CT 06615.

Any proposal may be withdrawn prior to the above-scheduled time for receiving bids or authorized postponement thereof. Any proposals received after the date and time specified shall NOT be considered. No bidder may withdraw a proposal within 45 days after the actual opening thereof.

B. INSTRUCTIONS:

Proposals are to be submitted (FIVE COPIES) and ONE digital copy in a sealed envelope/box and clearly marked with the bid number and description on the outside of the envelope, including all outer packaging (DHL, FedEx, UPS, etc).

Proposals must be delivered to:

Purchasing Department
Stratford Town Hall — Rm 202
2725 Main Street
Stratford, CT 06615

C. CONDITIONS:

Bid Surety:

A Bid Surety is not required.

Taxes: The Town of Stratford is exempt from all State and Federal taxes. Do not include these amounts in your quotation.

Addendums: All addendums will be posted on the town website www.townofstratford.com. It is the responsibility of the bidder to check the website for any addendums before submitting their bid.

Conflict of Interest: No public official or employee shall, while serving as such, have any financial interest or engage in any business, employment, transaction or professional activity or incur any obligation of any nature which is in substantial conflict with the proper discharge of his/her duties or employment in the public interest.

D. RESERVATIONS:

The Town of Stratford may consider informal any proposal not prepared and submitted to the Town in accordance with the provisions herein stated. The Town of Stratford reserves the right to reject any or all proposals or parts of proposals; to waive defects in same proposals; or to accept any proposal or part thereof deemed to be in the best interests of the Town of Stratford.

RFQ 2015-062
INFILTRATION / INFLOW STUDY
TOWN OF STRATFORD

BACKGROUND

The Town of Stratford owns and operates a sanitary sewer collection system, twelve wastewater pumping stations and an advanced secondary treatment plant. The Town provides wastewater collection and treatment services to approximately 90% of its 50,000 residents, as well as its commercial and industrial establishments. The Town also provides services to a limited number of wholesale customers in Shelton, Bridgeport and Trumbull. The wastewater collection system consists of approximately 170 miles of collector sewers (ranging in size from 8 to 18 inches in diameter), 20 miles of trunk sewers and interceptors (ranging in size from 18 to 54 inches), 4,500 manholes, 20 brook and stream crossings (including about 800 feet of 30 inch diameter steel pipe on piers) and two double barrel siphons on the Lower Housatonic Interceptor. Nine of the twelve wastewater pumping stations range in size from 0.7 to 9.4 million gallons per day (MGD). The other three pump stations have capacities that are less than 0.2 MGD. The total length of force mains is about five miles (ranging in size from 4 to 20 inches in diameter). The oldest sewers in Stratford were built about 1920. The Stratford Wastewater Treatment Facility (WWTF) treats an average daily flow of about 9.5 MGD. The WWTF underwent a major upgrade in 2009. The design flows are 11.1 MGD average daily flow, 19.5 MGD maximum daily flow and 39.0 MGD peak hourly flow.

INTENT

The Town of Stratford is seeking Qualifications Statements from qualified engineering firms for the purpose of selecting a consultant to prepare an Infiltration / Inflow Study for the Town's Water Pollution Control Authority (WPCA). Engineers should have experience in conducting infiltration / inflow (I/I) studies in accordance with Connecticut Department of Energy and Environmental Protection (DEEP) guidelines, updating Geographic Information System (GIS) databases and hydraulic modeling. **Specific emphasis shall be placed on investigation of capacity issues in the following areas of concern.**

- The Broadbridge Avenue Pump Station area including the upstream Silver Lake Trunk Sewer, a portion of which is located in a wetland area, as well as the collector sewers downstream of the force main discharge located in Porter Street, Marina Drive, Second Hill Lane, Albert Avenue, Albright Avenue and Greenfield Avenue.
- The Pecks Mill Pond Pump Station area including the upstream Pumpkin Brook Trunk Sewer, a portion of which is located in a wetland area.
- The Oronoque Interceptor from south of Oronoque Lane to River Road.
- The Middle Trunk Sewer located in Paradise Green Place, Huntington Road, Allyndale Drive, Wilcoxson Avenue, Fenelon Place, and Middlebrook Road.
- Collector sewers in Main Street, Barnum Avenue, Stratford Avenue and Wells Place.
- The main trunk sewer into the WWTF on Birdseye Street.

- Collector sewers in Lordship Boulevard upstream of the Access Road Pump Station.
- Collector sewers in the wetland crossing between Seabreeze Drive and Johnson Lane.
- The Raven Trunk Sewer in the wetlands crossing between Wigwam Lane and Euclid Avenue.
- The Lower Housatonic Interceptor from Stratford Avenue to Barnum Avenue Cutoff, as well as from East Main Street to Platt Street.

OUTLINE SCOPE OF WORK

REVIEW AND EVALUATION OF EXISTING INFORMATION

The consultant will review and evaluate the existing information, listed below, to gain an understanding of the specific services required to identify areas of excessive infiltration and inflow within the collection system.

- GIS database information and as-built drawings including;
 - Collections system map in GIS format
 - Sewer layers from Engineering
 - Parcel and aerial layers from GBRC (via the Town)
 - Documentation of all sewer easements
 - CCTV inspection videos completed in the last year and condition assessments in GIS format
 - Scanned images of all sewer as-built plans
 - Linen, mylar and paper originals
 - 100 scale prior to 1946
 - 40 scale post 1946
 - Scanned images of connection cards
 - Scanned images of pump station and force main as-built and rehabilitation drawings
 - Scanned images of wastewater treatment plant as-built and rehabilitation drawings
- Previous engineering and planning studies including;
 - 1968 and 2001 Facilities Plans
 - 1975 and 1990 I/I Studies
 - 2013 Master Plan of Conservation and Development
 - 2014 refinement of the Transit Oriented Development overlay district
 - 2015 Evaluation of Six Pumping Stations
- EPA Administrative Order No. 10-012, dated June 24, 2010, relative to collection system capacity, management, operation and maintenance (CMOM)
 - EPA letter to the Town summarizing their review of deliverables pursuant to the Order dated February 11, 2014
 - Town of Stratford response to EPA's letter dated April 11, 2014
 - CMOM Corrective Action Plan (Appendix H of the Town of Stratford response to EPA's letter dated April 11, 2014)
 - CMOM Annual Report submitted to EPA on June 30, 2015
- NPDES Permit # CT0101036

UPDATE THE GIS COLLECTION SYSTEM DATABASE

Based on the review and evaluation of the information listed above, the consultant will update the GIS collection system database to accurately represent current collection system conditions. The consultant will develop and implement a field inspection program to supplement or verify the information in the GIS database, as required.

FLOW MONITORING PROGRAM

Based on the information contained in the updated collection system GIS database, the consultant will plan and implement an eight week flow monitoring program during the spring of 2016. The flow monitoring program data will be utilized by the consultant to identify areas of excessive I/I in the collection system and to calibrate and validate the hydraulic model.

The consultant will install, calibrate and maintain approximately 50 flow metering devices and three rain gauges at selected locations throughout the collection system. Field reconnaissance will be conducted at each proposed flow metering site to assess hydraulic conditions and overall suitability. Five minute data will be compiled, reviewed and made available to the Town via the consultant's website.

HYDRAULIC MODEL

Based on the information contained in the updated collection system GIS database, the consultant will develop a PCSWMM hydraulic model that accurately represents current collection system conditions and is appropriate for supporting long term planning and future design projects to reduce excessive I/I and address collection system capacity issues.

The hydraulic model will be calibrated and validated for dry and wet weather flow conditions utilizing the rainfall and flow metering data collected during the flow monitoring program.

INFILTRATION / INFLOW STUDY REPORT

The consultant will utilize the updated collection system database information, the flow monitoring program data and the hydraulic model to identify areas of excessive infiltration and inflow within the collection system. The consultant will quantify base wastewater flow, infiltration, inflow and rainfall induced infiltration (RII) components of flow in each meter area. Based on the infiltration rates and inflow/RII volumes in each meter area, the consultant will develop recommendations for a Sewer System Evaluation Survey (SSES) to identify I/I sources in areas likely to be cost-effective for implementation of rehabilitation activities. The I/I Study Report will include specific SSES tasks to be conducted, an estimated cost for the SSES and an implementation schedule.

The consultant will also utilize the updated collection system database information, the flow monitoring program data and the hydraulic model to assess capacity issues within the areas of concern listed above and other areas identified during the study. In assessing the capacities, the consultant will also factor in known proposed developments and unsewered areas that may be proposed to become sewered. The I/I Study Report will include specific remedial measures to address capacity issues, an estimated cost for design and construction, and an implementation schedule.

QUALIFICATIONS STATEMENTS

SUBMITTAL REQUIREMENTS AND SELECTION PROCESS

Interested firms should submit 5 hardcopies and one digital copy of their Qualification Statement and to the office of the Purchasing Agent, 2725 Main Street, Stratford, CT 06615 by the date and time specified. A shortlist of engineers may be selected for interview. Submittals shall include, at a minimum, the following information:

- List of references for recently completed I/I studies, GIS updates and hydraulic modeling projects in Connecticut
- Resumes of key personnel who will actually be involved in the Stratford project
- Description of your understanding and approach to the needs of the project
- Detailed scope of work

Engineering consultants shall be selected using the Qualifications Based Selection (QBS) process. Any contract awarded under this Request for Qualifications (RFQ) is expected to be funded in part by Connecticut DEEP. This procurement will be subject to requirements contained in Section 22a-482-4(h), (i), and (o) of the regulations of Connecticut State Agencies. The State of Connecticut is not a party to this RFQ and will not be a party to any resulting contract. Any contract awarded under this RFQ is also subject to the availability of Town funding.

Qualified firms shall ensure that all appropriate licenses and certifications required by the State of Connecticut are in place and shall meet all municipal, state and federal affirmative action and equal employment opportunity practices.

MBE/WBE INVOLVEMENT

This project is expected to be funded in part by the Connecticut DEEP Clean Water Fund (CWF) Program. The consultant shall be responsible for complying with all State of Connecticut DEEP and / or other state requirements including the utilization of Minority Business Enterprises (MBE) and Women Business Enterprises (WBE).