

AN ORDINANCE AUTHORIZING THE CITY MANAGER TO ENTER INTO NEGOTIATIONS AND EXECUTE THE APPROPRIATE DOCUMENTS TO EXTEND THE SERVICE OF CT CONSULTANTS FOR TWELVE MONTHS TO CONTINUE PROVIDING FLOW MONITORING, DATA MANAGEMENT, EQUIPMENT OPERATIONS AND MAINTENANCE IN ACCORD WITH THE CITY'S PHASE II STATUS & PHASE III WASTEWATER SYSTEM IMPROVEMENTS.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF WHEELING:

Section 1. The City Manager is authorized to enter into the necessary agreements in regard to the twelve-month extension of flow monitoring services through 2021, as CT Consultants propose to provide professional services to the WPCD of the City of Wheeling.

Section 2. CT Consultants (CT) has been providing flow monitoring, data management, equipment operations and maintenance in accordance with our Phase II Status Water Waste System Improvements' Agreement, Amendment 7 (PO # PC15-12).

Section 3. Based on City Manager's consultation with the Superintendent of WPCD the continuation of CT in providing flow monitoring serves the needs of improving the system and can be funded as part of the City's on-going Operations and Maintenance Budget.

Section 4. CT Engineers provided a proposal for authorization of continuing data management and equipment operations and maintenance for twelve months through January 2021, which is on file in the Office of the City Clerk and incorporated herein.

Section 5. This ordinance shall be effective from and after the date of its passage.

By the Administration.



January 8, 2020
Mr. Robert Herron
City Manager
Page | 1

Mr. Robert Herron
City Manager
City of Wheeling
City-County Building, Room 302
1500 Chapline Street
Wheeling, West Virginia 26003

Re: City of Wheeling – Phase II Status and Phase III Wastewater System Improvements
Proposal for One Year Flow Monitoring Extension Through 2020

Dear Mr. Herron:

CT Consultants (CT) has been providing flow monitoring data management, overflow reports, and equipment operation and maintenance in accordance with our Phase II Wastewater System Improvements' Agreement, Amendment 7 (PO # PC15-12). Specifically, Tasks 1 and 2 are authorized through January 2020. Based on consultation with Mr. Andy Harris, WPCD staff would like CT to continue providing flow monitoring services as part of the City's on-going Operations and Maintenance Budget. This service was approved through January 2020. This proposal is for authorization of continuing data management and equipment operations and maintenance for twelve months through January 2021.

In regards to a one-year extension of flow monitoring services through 2020, CT proposes to provide professional services to the City of Wheeling, hereinafter referred to as the "Client", in accordance with the terms and conditions set forth herein.

Scope of Services

To assist the Client with continued sewer system flow monitoring, we will:

Task 1 – Data Management through 2020

CT has developed monthly report summary tables for the purposes of reporting overflow activation frequency and duration to the Client as a part of their NPDES reporting requirements. This report is developed on a bi-annual basis from the meter and rainfall data collected during the month, analyzed with the PCSWMM interceptor model, and provided in a monthly overflow event/volume summary. Prior to summarizing the meter data, a quality control review of the data is provided for the purposes of notifying the Client of meters requiring maintenance and adjustment of data where possible due to data anomalies. This task will include the following items:

- A. Maintain data download system through Telog's Enterprise System. Data to be downloaded every 24 hours.
- B. Develop Work Order request system for meter maintenance based on data QC reviews.



January 8, 2020
Mr. Robert Herron
City Manager
Page | 2

- C. QC of data for battery life, data acquisition and reasonable data collection parameters to be performed on a bi-weekly basis for the purposes of identifying meter issues and developed a work order for meter maintenance.
- D. Review Work Order resolutions for impacts to collected data.
- E. Data auditing will be performed on a monthly basis to identify data anomalies and adjust for Work Order resolution impacts that can be adjusted by typical engineering practices and provide a more consistent data set for reporting purposes.
- F. Obtain outside community master meter data from the Client SCADA system for incorporation into Enterprise system.

Incorporate community master meter and rainfall data into the Interceptor System PCSWMM model on a bi-annual basis and analyze the system overflows for event occurrence and volume monthly overflow reporting.

Task 2 – Routine Equipment Maintenance through 2020

CT will develop a long-term equipment maintenance program that characterizes each site's need for maintenance based on the consistency and accuracy of data provided. In order to provide the most efficient meter maintenance system, it is necessary to understand that individual meters can behave differently even though they are provided by the same manufacturer, and each site has its individual conditions that can impact meter data collection. For example, area/velocity meters can be impacted by pressure sensor depth drift on the equipment side and sediment buildup on the site condition side. Ultrasonic transponders can be impacted by such things as losing alignment from road vibration, surcharge submergence, frost or spider webs.

Developing an efficient long-term maintenance program for equipment requires becoming familiar with each individual site's various characteristics and issue and then determining how often each site requires a regularly scheduled visit. It is CT's goal to maintain a 90% uptime for the metering program. In order to maintain this value, this task will consist of the following items:

- A. Review historical data and meter maintenance records.
- B. Provide monthly maintenance for all sites. Maintenance to include the following:
 - a. Review area / velocity probe for debris and clean as necessary.
 - b. Review ultrasonic transponders for debris and clean as necessary.
 - c. Review rain gauge for debris and clean as necessary.
 - d. Communicate on site with meter data collector.
 - e. Take a field measurement of flow depth and check against meter programming.
 - f. Perform Work Order requests and document issue resolution.



January 8, 2020
Mr. Robert Herron
City Manager
Page | 3

- g. Document all field observations.
- C. Communicate equipment replacement needs with the City
- D. Review maintenance program after six (6) months and identify sites with consistence integrity and accuracy issues.
- E. Evaluation of the maintenance program schedule.
- F. Review maintenance program schedule for modification on a bi-annual basis.
- G. Provide annual summary of equipment maintenance program for future planning purposes.

Task 3 – Additional Flow Meter Services through 2020

CT has identified several services outside the scope of Tasks 1 and 2 that may be needed or requested by the City. These services include sewer system investigation, temporary metering, data management, existing equipment troubleshooting and vendor coordination. During the past year, these services have been requested. This task is provided to allow for funding of these services on request and if approved by the Client. This task will consist of the following items:

- A. Flow meter site investigation.
- B. Temporary flow meter installation, operations and maintenance, and removal.
- C. Temporary flow meter data management.
- D. Sewer system investigation.
- E. Vendor equipment troubleshooting.

Additionally, the City has identified two specific projects to consider as a part of Task 3 for budget development. These projects are:

1. Continuing flow metering services with three existing City owned meters in the Overbrook Service Area until July of 2020.
2. Develop a flow metering program to include installation and maintenance of 4 City owned flow meters in the Warwood District for a period not to exceed 4 months. Flow metering is to begin in March 2020 and depending on rainfall events, the monitoring period may be shortened to 3 months with the budget being adjusted accordingly.



January 8, 2020
Mr. Robert Herron
City Manager
Page | 4

Information / Services Provided by Client

To assist CT in the performance of specified tasks, the Client will provide information or services as may be necessary which may include some, but not all, of the following items:

1. Furnish CT with other available information pertinent to the project, including record drawings, sketches, photographs, etc. of key structures as originally constructed and any subsequent modifications. Flow data, as previously described, will also be furnished.
2. Arrange for access to and make all provisions for CT to enter upon public or private property as required for CT to perform services under this proposal.
3. Review documents prepared by CT and render timely written responses or decisions.
4. Give prompt notice to CT whenever Client observes or otherwise becomes aware of any development that affects the scope or timing of CT's services.
5. In regards to field investigations, provide blowers (or other coordination efforts) for manholes with poor air quality, traffic control where necessary, and sewer cleaning services a may be required.
6. In regards to significantly deteriorated weirs which are likely affecting the accuracy and consistency of the data at some sites, arrange for the installation of leveling devices or materials.
7. Purchase new equipment, components or spare parts as may become necessary.

Fee Estimates and Schedule

CT will perform the described services in accordance with the following fee amounts and schedule:

Task 1: Data Management through 2020 (Lump Sum)	\$ 55,920
February 2020 – January 2021 - \$4,660/month = \$55,920 Project Management*	
<i>[Note: Fees stated here are based on CT providing services listed in Task 2. Amounts are subject to increase if Client selects another firm for Task 2 due to additional coordination]</i>	
Task 2: Equipment Maintenance through 2020 (Lump Sum)	\$ 85,200
February 2020 – January 2021 - \$7,100/month = \$85,200**	
Total Tasks 1 and 2:	\$ 141,120

**Included with stated fee estimate.*

***Fee subject to adjustment based on re-evaluation of meter maintenance after 6 months.*



January 8, 2020
Mr. Robert Herron
City Manager
Page | 5

Task 3: Additional Flow Meter Services through 2020 (hourly not-to-exceed)	\$ 25,000
February 2020 – January 2021 - As Needed*** Project Management*	
Task 3.1: Overbrook Continuing Flow Metering (hourly not-to-exceed)	\$ 3,700
February 2020 – July 2020 - As Needed*** Project Management*	
Task 3.2: Warwood Flow Metering Program (hourly not-to-exceed)	\$ 13,100
February 2020 – July 2020 - As Needed*** Project Management*	
Total Tasks 3:	\$ 41,800

**Included with stated fee estimate.*

****Requires Client review and approval of services.*

Tasks 1 and 2 will be lump sum amounts included on the monthly invoices. Invoices will be due and payable upon receipt and past due 30 days after receipt. Fees will remain valid for 60 days. Task 3 will be invoices on an hourly basis based on salary rates of employees performing services times a multiplier of 3.2.

Additional Services

CT remains available to provide additional services which may include some, but not all, of the following potential tasks:

1. Additional data management coordination in the event another consultant is selected for routine equipment maintenance.
2. Special emergency visits to investigate, repair or replace equipment subject to sudden failure.
3. Services associated with any significant changes to the general scope extent and character of the project as outlined in the Scope of Services.
4. Funding assistance, design, bidding, construction services and post-construction services for Phase III Wastewater System Improvements.
5. Additional Asset Management Planning efforts to address comments from the WWDEP.



January 8, 2020
Mr. Robert Herron
City Manager
Page | 6

6. Additional Long-Term Control Planning efforts to address comments from the WWDEP, USEPA or other agencies.
7. Conversion of the City's sewer mapping into an electronic Geographic-Information System (GIS) linked to the Asset Management Plan and a Work Order Management System.
8. Assistance with the development and implementation of the City's MS4 Storm Water Management Program and / or development of a Storm Water Utility.
9. Assistance with procuring or installing new equipment purchased by the Client or relocating other meters currently installed at temporary locations.

In the event an additional service is identified, CT will prepare a separate proposal outlining the associated scope and estimated fee. The additional service will not be performed without CT's receipt of Client's written authorization.

Closure

If you concur with these terms and conditions and would like CT to proceed with the aforementioned work, please sign the enclosed Work Authorization, initial the attached Standard Terms and Conditions and return one (1) copy along with the respective Purchase Order for our files. Our receipt of the City's Purchase Order will constitute your authorization to proceed.

If you have any questions, please do not hesitate to contact me at 614-885-1700. On behalf of CT Consultants, we look forward to this opportunity for continuing to provide professional services to you and the City of Wheeling.

Respectfully,

CT Consultants, Inc.

Jay Shutt, P.E.
Vice President

JWS/saa

Enclosures

cc: Andy Harris, WWTP Superintendent
Chris Rybak, P.E., CT Consultants, Inc

H:\2019\190275\ACCTM\SC\2001 (Proposal Letter) JWS Docx