

SUPPLEMENTAL WORK ORDER 1 for the CITY OF CLEARWATER

Date: 7/10/19

M&C Proposal Number:

City Project Number: 18-0023-UT

1. PROJECT TITLE:

Inflow & Infiltration Flow Monitoring

2. SCOPE OF SERVICES:

The City of Clearwater Utility department has requested the McKim & Creed to provide an extension of up to six months to the existing permanent flow monitoring services for the sewer collection system in the Marshall Street, East and Northeast WRF service areas. McKim & Creed shall provide its' rainfall gauging and flow monitoring equipment and its' remote telemetry unit communication platform (Telog) to record the collected data and shall provide the City with access to the data through a dedicated web portal. Included in this work order is maintenance and calibration of the previously installed rainfall and flow monitoring equipment. McKim & Creed will not perform any data analysis of the captured data or prepare any reports.

Task 1 - The existing locations of the Northeast WRF flow monitoring equipment is identified below.

Major Sewer Outfall:

1. N. Belcher @ Beginning of Alligator Creek
2. US 19 & Alligator Creek

Major Lift Stations:

1. Lift Station 53
2. Lift Station 42
3. Lift Station 46
4. Lift Station 58 (2 Meters)

Task 1.1 – NE Basin Rainfall Gauges include the LS 53, LS 55, LS 46, and LS 58.

Task 2 - The existing locations of the East Plant monitoring equipment

Major Sewer Outfall:

1. Bayshore Blvd. (East WRF)
2. Gulf to Bay Blvd. (East WRF)
3. Corona Interceptor (East WRF)

Task 2.1 – East Basin rainfall gauges are located at LS-40 and LS-33

Task 3 – Marshall Street WRF flow monitoring equipment is identified below.

Major Sewer Outfall:

1. Marshall Street (Marshall St. WRF)
2. Lift Station 19 Outfall (Marshall St. WRF)
3. Holt Avenue (Marshall St. WRF)

Major Lift Stations:

1. Lift Station 11 (Marshall Street WRF)
2. Lift Station 14 (Marshall Street WRF)
3. Lift Station 16 (Marshall Street WRF)
4. Lift Station 20 (Marshall Street WRF)
5. Lift Station 24 (Marshall Street WRF)
6. Lift Station 45 (Marshall Street WRF)

Task 3.1 – Marshall Street Basin Rainfall Gauges include Lift Station 45, Lift Station 9, McKim & Creed's office, and Lift Station 24.

3. PROJECT GOALS:

- FLOW AND RAIN DATA RETRIEVAL
- EQUIPMENT MAINTENANCE

4. BUDGET:

See Attachment "B"

This price includes all labor and expenses anticipated to be incurred by McKim & Creed for the completion of these tasks for six (6) months in accordance with Professional Services Method "A" – Cost Times Multiplier Basis, **for a fee not to exceed Ninety six thousand six hundred dollars (\$96,600).**

No permitting is anticipated for this project.

5. SCHEDULE:

Maintenance of equipment will start on July 1, 2019 and continue throughout for up to a six (6) month period.

Invoicing for maintenance/calibrations and recording of data will commence July 1, 2019. With the first invoice to the City by August 15, 2019.

The project will span up to **184 days** from July 1, 2019. The project deliverables are to be phased as follows:

Begin Meter/Gauge Maintenance	1 calendar day
Perform Maintenance/Calibration	184 calendar days

6. STAFF ASSIGNMENT:

City's Staff:

Jeff Walker, PE

Project Manager

Jeremy J. Brown, PE	Utilities Engineering Manager
Richard G. Gardner, PE	Public Utilities Assistant Director

McKim & Creed Project Staff

Aubrey Haudricourt, PE	Project Manager
Pratika Patil	Project Team Designer
Sunil Khanal, EI,	Project Systems Analysis
Craig Watts, EI,	Project Systems Analysis

Mc Kim& Creed Field Installation, Maintenance and Calibration Staff

Delvin Carter, Patrick Goode, Quint Shelton, Tony Goode

CORRESPONDENCE/REPORTING/COMMUNICATION PROCEDURES:

ENGINEER's project correspondence shall be directed to Jeff Walker, PE.

All City project correspondence shall be directed to the Project Manager, with copies to the Utilities Engineering Manager and Public Utilities Assistant Director.

ENGINEER shall provide a minimum of forty-eight (48) hours' notice prior to conducting fieldwork/site visits. ENGINEER shall provide a minimum of seven (7) days notification for site visits requiring the assistance of City Operations and Maintenance personnel.

ENGINEER acknowledges that all City directives shall be provided by the City Project Manager.

7. INVOICING/FUNDING PROCEDURES:

For work performed, invoices shall be submitted monthly to the:

City of Clearwater, Engineering Department
Attention.: Veronica Josef, Senior Staff Assistant
PO Box 4748
Clearwater, Florida 33758-4748.

City Invoicing Code:	MS Basin 4211354-530100 \$43,200
	E Basin – 4211356-530100 \$16,200
	NE Basin–4211355-530100 \$37,800

8. INVOICING PROCEDURES

At a minimum, in addition to the invoice amount(s) the following information shall be provided on all invoices submitted on the Work Order:

- A. City Project Number, Purchase Order Number and Contract Amount.
- B. The time period (begin and end date) covered by the invoice.

- C. A short narrative summary of activities completed in the time period
- D. Contract billing method – Lump Sum or Cost Times Multiplier
- E. If Lump Sum, the percent completion, amount due, previous amount earned and total earned to date for all tasks (direct costs, if any, shall be included in lump sum amount).
- F. If Cost Times Multiplier, hours, hourly rates, names of individuals being billed, amount due, previous amount earned, total earned to date for each task and other direct costs (receipts will be required for any single item with a cost of \$50 or greater or cumulative monthly expenses greater than \$100).
- G. If the Work Order is funded by multiple funding codes, an itemization of tasks and invoice amounts by funding code.

9. SPECIAL CONSIDERATIONS:

- The consultant named above is required to comply with Section 119.0701, Florida Statutes (2013) where applicable.

PREPARED BY:

Aubrey Haudricourt, PE.
Senior Project Manager
McKim & Creed

Date

APPROVED BY:

Tara Kivett, PE
City Engineer
City of Clearwater

Date



CITY OF CLEARWATER ENGINEERING DEPARTMENT

WORK ORDER INITIATION FORM CITY DELIVERABLES

1. **FORMAT**

The design plans shall be compiled utilizing the following methods:

1. City of Clearwater CAD standards.
2. Datum: Horizontal and Vertical datum shall be referenced to North American Vertical Datum of 1988 (vertical) and North American Datum of 1983/90 (horizontal). The unit of measurement shall be the United States Foot. Any deviation from this datum will not be accepted unless reviewed by City of Clearwater Engineering/Geographic Technology Division.

2. **DELIVERABLES**

The design plans shall be produced on bond material, 24" x 36" at a scale of 1" = 20' unless approved otherwise. Upon completion the consultant shall deliver all drawing files in digital format with all project data in Autodesk Civil 3D file format. If not available Land Desktop files are still acceptable, however the City or Clearwater is currently phasing out Land Desktop.

NOTE: If approved deviation from Clearwater CAD standards are used the Consultant shall include all necessary information to aid in manipulating the drawings including either PCP, CTB file or pen schedule for plotting. The drawing file shall include only authorized fonts, shapes, line types or other attributes contained in the standard release of Autodesk, Inc. software. All block references and references contained within the drawing file shall be included. Please address any questions regarding format to Mr. Tom Mahony, at (727) 562 4762 or email address Tom.Mahony@myClearwater.com.

All electronic files must be delivered upon completion of project or with 100% plan submittal to City of Clearwater.



PERMANENT WASTEWATER FLOW MONITORING

SUPPLEMENTAL 1 WORK ORDER PROJECT BUDGET

Task	Description	Unit Price	Total # Units	Total
1.0	NE Flow Meter Maintenance and Calibrations:			
	7 – FloWav Sensors with Telog Ru-33 RTUs for 6 months.	\$800ea./month	42	\$33,600
				\$33,600
1.1	Rainfall Gauge Maintenance and Calibration:			
	4 – Texas Electronics Tipping Buckets with Telog RG-32 RTUs	\$150ea./month	24	\$3,600
				\$3,600
NE Basin Subtotal				\$37,200

Task	Description	Unit Price	Total # Units	Total
2.0	East Basin Flow Meter Maintenance and Calibrations:			
	3 – FloWav Sensors with Telog Ru-33 RTUs for 6 months.	\$800ea./month	18	\$14,400
2.1	East Basin Rainfall Gauge Maintenance and Calibration:			
	2 – Texas Electronics Tipping Buckets with Telog RG-32 RTUs	\$150ea./month	12	\$1,800
East Basin Subtotal				\$16,200

Attachment "B"

Task	Description	Unit Price	Total # Units	Total
3.0	Marshall Street Basin Flow Meter Maintenance and Calibrations:			
	8 – FloWav Sensors with Telog Ru-33 RTUs for 6 months.	\$800ea./month	48	\$38,400
	1 – Fuji Transit Time C with Telog Ru-32 RTUs for 6 months.	\$200ea./month	6	\$1,200
3.1	Marshall Street Rainfall Gauge Maintenance and Calibration:			
	4 – Texas Electronics Tipping Buckets with Telog RG-32 RTUs	\$150ea./month	24	\$3,600
Marshall Street Basin Subtotal				\$43,200
Grand Total (For 6 months monitoring maintenance and calibration.)				\$96,600