

Village of Antioch

RESOLUTION 18 - 38

A RESOLUTION APPROVING CONTRACTS WITH HR GREEN FOR MUNICIPAL ENGINEERING SERVICES FOR THE EAST HALF OF THE VILLAGE SANITARY SEWER SYSTEM FLOW MONITORING

WHEREAS, acting with the direction and approval of the Board, the Administrator and his staff have worked to study the existing sanitary sewer system and the flow moving through said system over time, and

WHEREAS, the results and finding of the Administrator's study show that the wet weather flow that is received at the waste water treatment facility is in excess of the expected flow from the tributary area of the easterly sanitary collection system of the Village,

WHEREAS, it has been determined that it is in the best interests of the Village and it's residents to eliminate the excess flow from the collection system flow due to the cost savings associated with not treating and handling excess flow, and

WHEREAS, the Village's strategic plan contains an initiative to study and eliminate the excess flow from the sanitary collection system,

WHEREAS, the Administrator has negotiated draft contracts with HR Green in the form attached as Exhibit A, and

WHEREAS, the Board has been duly apprised of these contracts, their terms and conditions, and finds that the same are in proper form and should be approved,

NOW THEREFORE, BE IT RESOLVED by the Village of Antioch, Lake County, Illinois, as follows:

SECTION ONE: The Administrator, Clerk and other necessary elected or appointed individuals within Village government are directed to sign and implement the contracts with HR Green for the engineering of the east half of the Village sanitary sewer system flow monitoring and modeling.

SECTION TWO: This resolution shall take effect immediately upon passage.

PASSED BY THE BOARD OF TRUSTEES OF THE VILLAGE OF ANTIOCH, ILLINOIS, ON THIS 23RD DAY OF MAY, 2018.

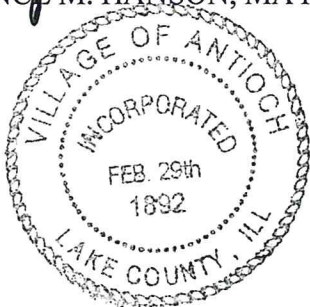
ATTEST:



LAWRENCE M. HANSON, MAYOR



CHERYL MATEJA, DEPUTY VILLAGE CLERK





PROFESSIONAL SERVICES AGREEMENT

For

Sanitary Sewer System Hydraulic Study- East Half of Village

Village of Antioch
Jim Keim, Village Administrator
874 Main Street
Antioch, IL, 60002

Prepared by:
Ravi S. Jayaraman, PE
Senior Project Manager

Reviewed by:
Timothy J. Hartnett
Vice President/Practice Leader-Governmental Services Midwest

HR Green Job No.: 86160151.01

April 16, 2018

TABLE OF CONTENTS

- 1.0 SCOPE OF SERVICES
- 2.0 DELIVERABLES AND SCHEDULES INCLUDED IN THIS AGREEMENT
- 3.0 ITEMS NOT INCLUDED IN AGREEMENT/SUPPLEMENTAL SERVICES
- 4.0 SERVICES BY OTHERS
- 5.0 CLIENT RESPONSIBILITIES
- 6.0 PROFESSIONAL SERVICES FEE
- 7.0 TERMS AND CONDITIONS

THIS **AGREEMENT** is between Village of Antioch (hereafter "CLIENT") and HR Green, Inc. (hereafter "COMPANY").

1.0 Scope of Services

The CLIENT agrees to employ COMPANY to perform the following services:

Task 1 – Data Collection

- Objective: To obtain electronic copies of the sewer main GIS map data files that show the gravity collection system, lift stations, and force mains for use in development of the sewer model.
- Approach: COMPANY will collect and review existing CLIENT system data for identifying the sewer system components.
- Assumptions: CLIENT will provide GIS map data files to COMPANY. COMPANY understands that Mr. Ross Kaminsky (GIS Specialist) will gather and provide the requested information.

Task 2 – Lift Station Drawdown Analysis

- Objective: To obtain actual pump capacities for each pump installed in select lift station locations within the collection system. Pump capacity data will be used with pump recorded run time data to compare sub-catchment sewage flows to water use, revealing wet and dry weather inflow and infiltration trends. Wet and dry weather flow data will be used to calibrate the hydraulic model of the system.
- Approach: COMPANY will utilize drawdown data from the existing lift stations (LS) in the CLIENT's wastewater collections system. COMPANY will perform one drawdown data collection visit at each of the identified lift stations used for the analysis and will instruct CLIENT public works staff how to perform the subsequent drawdowns as required to assist in analysis.
- The results of the lift station drawdown analysis and sewer system modeling will identify the sub-catchments that may require further evaluation and a more detailed localized flow monitoring effort in the future under a separate contract or by CLIENT's staff. For the system evaluation, the selected lift station locations will provide useful information for each of the tributary catchments of each sub-system including dry weather base line and inflow and infiltration estimates. From the distilled data, rainfall induced system peaking characteristics will be determined. Precipitation data will be obtained from CLIENT's rain gauge located near the system.
- Assumptions: CLIENT will provide access to the selected lift station locations, and will assist in conducting the drawdown analysis. CLIENT will provide the rain gauge data in electronic format.
 - Deliverables: Draft lift station drawdown analysis Technical Memorandum, including findings, data interpretation and recommendations, shall be prepared and submitted to CLIENT for review.

Task 3 – Development of Hydraulic Model

- **Objective:** Build and calibrate a SewerGEMS software hydraulic model of the existing sanitary sewer system for both existing dry weather and wet weather flow. COMPANY will also allow for up to and including one additional scenario, to be developed with CLIENT input throughout the project. Utilizing the SewerGEMS model, the team will identify hydraulic bottlenecks in the system during the peak wet weather flows and engineering options to address the problem(s).
- **Approach:** Input available data into a SewerGEMS model of the existing sanitary system collected during the drawdown analysis task and provided by CLIENT. Data will include electronic file GIS data, electronic rainfall data and lift station operational data collected by COMPANY and CLIENT. GIS data typically includes characteristics such as: manhole locations, manhole material, manhole center invert, pipe locations, pipe inverts (drop connections), pipe size, pipe material, structure rim elevations, and lift station structure data. Calibration of the sewer system in the model will utilize sanitary flow data provided by CLIENT and lift station run time records. Wet weather flow through the system will be analyzed and calibrated to the storm events monitored then expanded to larger storm events for evaluating system flow restrictions. The frequency and duration of the larger storm employed shall be dictated by CLIENT. The storms shall be selected from the Illinois State Water Survey Bulletin 70 standard Intensity-Duration-Frequency (IDF) curves.
- **Deliverables:** The deliverables for this task will include a Hydraulic Modeling Technical Memorandum of findings with results interpretation and an electronic copy of the model input and output files. The Technical Memorandum will include a description of all assumptions used in preparing the model, the methodology used to prepare the model, and any anomalies identified during the modeling process. Interpretation of the results will include noting areas of concern in the system, probable causes of the concern, and recommendations regarding solutions or further evaluation. Another deliverable included in this task is a workshop presentation to CLIENT and Staff of the model results that includes snapshots of the extended period simulations showing potential problems identified in the system. The Technical Memorandum will be finalized after the workshop presentation.

Project Management

- **Approach:** This task will be on-going throughout the duration of the project. The COMPANY project manager will be responsible for the overall effort of the project. Work items and responsibilities will include:
 1. Periodically review the scope, progress, budget, and staff allocations and assignments to meet the contract scope, budget, and schedule requirements.
 2. Develop monthly estimates of work remaining on each task; analyze and adjust as necessary.
 3. Input information into project progress monitoring system.
 4. From time and expense charges, prepare monthly billing and associated backup documentation.
 5. Prepare monthly progress reports.

6. Arrange project status/team meetings, develop agendas, prepare handouts, attend and facilitate meetings, and prepare and distribute meeting minutes, as required.
- Deliverables: Monthly reports and progress payment requests. Project status and team meeting agendas, handouts, and meeting minutes.

2.0 Deliverables and Schedules Included in this Agreement

Task 2: Lift Station Drawdown Analysis Technical Memorandum

– Delivery Date TBD (based on spring weather pattern)

Task 3: Hydraulic Modeling Technical Memorandum and Electronic Files

–Delivery Date TBD

This schedule was prepared to include reasonable allowances for review and approval times required by the CLIENT and public authorities having jurisdiction over the project. This schedule shall be equitably adjusted as the project progresses, allowing for changes in the scope of the project requested by the CLIENT or for delays or other causes beyond the control of COMPANY.

3.0 Items not included in Agreement/Supplemental Services

The following items are not included as part of this agreement:

1. Development and updating of CLIENT's Sewer System GIS database.
2. Field survey of CLIENT's existing facilities.
3. Updating the existing sewer system atlas maps.

Supplemental services not included in the agreement can be provided by COMPANY under separate agreement, if desired.

4.0 Services by Others

None.

5.0 Client Responsibilities

1. Provide existing GIS data files to COMPANY. Mr. Ros Kaminsky (GIS Specialist - CLIENT) will gather and provide the requested information.
2. Provide existing water use data separated by sub-catchment boundary, lift station run time data for each pump in each lift station, and lift station OM&R records.
3. Assist COMPANY with providing the services of the CLIENT's staff to perform lift station drawdown analysis.
4. Provide rain gauge data in electronic format.

6.0 Professional Services Fee

6.1 Fees

The fee for services will be based on COMPANY standard hourly rates current at the time the agreement is signed. These standard hourly rates are subject to change upon 30 days' written notice. Non salary expenses directly attributable to the project such as: (1) living and traveling expenses of employees when away from the home office on business connected with the project; (2) identifiable communication expenses; (3) identifiable reproduction costs applicable to the work; and (4) outside services will be charged in accordance with the rates current at the time the service is done.

6.2 Invoices

Invoices for COMPANY's services will be submitted, on a monthly basis. Invoices will be due and payable upon receipt in accordance with the Illinois Prompt Payment Act 50ILCS 505. If any invoice is not paid within these timelines, COMPANY may, without waiving any claim or right against the CLIENT, and without liability whatsoever to the CLIENT, suspend or terminate the performance of services.

6.3 Extra Services

Any service required but not included as part of this contract shall be considered extra services. Extra services will be billed on a Time and Material basis with prior approval of the CLIENT.

6.4 Exclusion

This fee does not include attendance at any meetings or public hearings other than those specifically listed in the Scope of Services. These service items are considered extra and are billed separately on an hourly basis.

6.5 Payment

The CLIENT AGREES to pay COMPANY on the following basis:

Time and Material in the amount of: \$111,140.00

7.0 Terms and Conditions

This Agreement is an addendum to and is considered part of the Master Agreement between CLIENT and COMPANY. All terms and conditions contained in that agreement apply to this Agreement.

This Agreement is approved and accepted by the CLIENT and COMPANY upon both parties signing and dating the Agreement. Services will not begin until COMPANY receives a signed agreement. COMPANY's services shall be limited to those expressly set forth in this Agreement and COMPANY shall have no other obligations or responsibilities for the Project except as agreed to in writing. The effective date of the Agreement shall be the last date entered below.

Sincerely,

HR GREEN, INC.

L. Jayaraman

L. Jayaraman, PE

Approved by: Timothy J. Hartnett

Printed/Typed Name: Timothy J. Hartnett
Vice President/Practice Leader

Title: Governmental Services Midwest Date: April 16, 2018

VILLAGE OF ANTIOCH

Accepted by: Jim Keim

Printed/Typed Name: JIM KEIM, PE

Title: VILLAGE ADMINISTRATOR Date: 5/23/18

Approved by Board
5/23/18
S.O
1 absent



HR GREEN, INC.
Billing Rate Schedule
Effective January 1, 2018

Professional Services	Billing Rate Range
Principal	\$195- \$280
Senior Professional	\$170- \$250
Professional	\$110- \$195
Junior Professional	\$85- \$140
Senior Technician	\$115- \$140
Technician	\$80- \$125
Senior Field Personnel	\$100- \$170
Field Personnel	\$90- \$165
Junior Field Personnel	\$50- \$95
Administrative Coordinator	\$65-\$105
Administrative	\$60- \$110
Corporate Admin	\$80- \$140
Operators/Interns	\$50- \$100
Reimbursable Expenses	

1. All materials and supplies used in the performance of work on this project will be billed at cost plus 10%.
2. Auto mileage will be charged per the standard mileage reimbursement rate established by the Internal Revenue Service. Survey and construction vehicle mileage will be charged on the basis of \$0.85 per mile or \$65.00 per day.
3. Charges for sub-consultants will be billed at their invoice cost plus 15%.
4. All other direct expenses will be invoiced at cost plus 10%.