

#19023-5
AGREEMENT FOR PROFESSIONAL SERVICES
For LAKE COUNTY

This AGREEMENT is entered into by and between Lake County ("County") and Baxter & Woodman, Inc. ("Consultant"), 8678 Ridgefield Road, Crystal Lake, IL 60012.

RECITALS

WHEREAS, Lake County is seeking a Consultant to provide Engineering services for annual inflow and infiltration (I&I) monitoring and sanitary sewer evaluation survey (SSES) services; and

WHEREAS, the Consultant is a professional provider of Engineering services; and

WHEREAS, Lake County Purchasing Division issued Statement of Interest Number 19023 in connection with this procurement; and

WHEREAS, the Purchasing Agent and the selection committee have determined that the Proposals submitted by the Consultant on February 14, 2019 is the most advantageous proposal received, and best serves the interests of Lake County; and

WHEREAS, the Lake County Board has passed a resolution at its regular meeting on September 10, 2019 authorizing the Purchasing Agent to execute this Agreement;

SECTION 1. AGREEMENT DOCUMENTS

The Agreement Documents that constitute the entire Agreement between Lake County and Consultant are in order of precedence:

- A. This Agreement
- B. Consultant's Scope of Work Proposal noted herein as Exhibit A
- C. Statement of Interest (SOI) Number 19023 noted herein as Exhibit B
- D. Task A (Task Order A), Fox Lake Hills Sanitary Sewer System Inflow and Infiltration Reduction Pilot Study noted herein as Exhibit C

In the event of conflict between or among the above Documents, the Documents listed above are in the order of precedence.

SECTION 2. SCOPE OF WORK

Review the sanitary sewer systems owned and operated by the Lake County Public Works Department and recommend a strategic, long-term approach to comprehensively address inflow and infiltration to ensure the systems operate at optimal conditions, reducing stress on infrastructure, including interceptor sewers, lift stations, pump stations, and water reclamation facilities. Perform flow monitoring activities and provide data via an easy to use portal. Complete sanitary sewer evaluation services, including, but not limited to, manhole inspections, smoke testing, dye flooding, and televising. Monitor and assess the success of I&I reduction measures. Provide annual program reports focused on overall strategy, meter basin performance, results achieved, and recommended next steps. Data should be compatible with ESRI Geographic Information Systems (GIS) software. Engage with stakeholders, including outside jurisdictions with competing priorities and limited resources.

For each project the consultant shall provide a detailed scope of work with specific deliverables, as well as an estimate of hours and timeframe for completion for each task order that will be mutually agreed upon by the Parties. Exhibit A identifies the first such project, and additional projects may be assigned at the direction of the Director of Public Works, or their designee. The Consultant shall provide an estimate of hours and timeframe for completion for each additional project that will be mutually agreed upon by the Parties.

SECTION 3. DURATION

This contract shall be in effect for a two (2) years period from the date of award. Lake County reserves the right to renew this contract for three (3) additional one (1) year period(s), subject to acceptable performance by the Consultant. At the end of any contract term, Lake County reserves the right to extend this contract for a period up to sixty (60) days for the purpose of getting a new contract in place.

SECTION 4. AGREEMENT PRICE

The County will pay the Consultant based on an hourly rate and unit rate for services as noted in the Consultant’s proposal based on the following schedule and identified in Exhibit A. The total value of task orders shall not exceed \$350,000 in a fiscal year. Subject to the appropriation of sufficient funds.

BAXTER & WOODMAN, INC
2019 STAFF RATES

<u>PROJECT CLASSIFICATION</u>	<u>HOURLY BILLING RATES</u>
Principal	\$195
Senior Engineer IV	\$180
Senior Engineer III	\$160
Senior Engineer II	\$145
Senior Engineer I	\$130
Engineer IV	\$120
Engineer III	\$110
Engineer II	\$100
Engineer I	\$95
Engineering Tech IV	\$130
Engineering Tech III	\$125
Administrative Support	\$85
Dyed Water Testing (2 Set-ups per Day)	\$2,000 / day

RMS UTILITY SERVICES
2019 UNIT RATES

<u>FIELD SERVICES</u>	<u>UNIT RATE</u>
Manhole Inspection	\$130 / manhole
Smoke Testing / External Inspections	\$0.85 / linear ft.

Hourly rates for services in the optional years 3 through 5 and as noted in the Consultant's proposal based on the following schedule and identified in Exhibit A.

Lake County shall make periodic payments to Consultant based upon actual progress within 30 days after receipt and approval of invoice. Said payments shall not exceed the hourly rates identified in the Agreement, and full payments for each task shall not be made until the task is completed and accepted by Lake County.

SECTION 5. PRICE ESCALATOR

Prices throughout the twelve months initial term of the contract shall remain firm/fixed. Written requests for price revisions after the first twelve months shall be submitted at least sixty (60) days in advance of the annual contract period. Requests must be based upon and include documentation of the actual change in the costs of the components involved in the contract and shall not include overhead and profit. Changes in the contract price shall be made in the amount of the actual change in cost or the percentage increase in the U.S. Average Consumer Price Index for the Midwest Urban - per category "All Items," or 3 percent whichever is less. Surcharges for fuel and/or other costs shall not be allowed. The County reserves the right to reject any price increase and to terminate the contract.

SECTION 6. INVOICES & PAYMENT

- A. A purchase order will be issued for each project task order and Consultant shall submit invoice(s) detailing the products and services provided and identify the purchase order number on all invoices.
- B. Invoices may be submitted for work performed on a monthly basis based upon the percent of work completed in the amount not-to-exceed in Section 6. The County's fiscal year begins December 1st of each year. Prior to December 7th of any year, an invoice shall be submitted for all work completed prior to November 30th of the completed fiscal year. Submit invoice(s) detailing the services provided. Invoices shall clearly identify the work completed during the invoice period, the overall work completed to-date, as well as the percentage completion for each task identified in Appendix A. Payments shall be made in accordance with the Local Government Prompt Payment Act.
- C. Consultant shall maintain records showing actual time devoted and cost incurred. The County will reimburse consultant's other direct costs incurred, without mark-up which have been approved by the County. Consultant shall permit a representative from Lake County to inspect and audit all data and records of Consultant for work and/or services provided under this Agreement. Consultant shall make these records available at reasonable times during the Agreement period and for one year after the termination of this Agreement.
- D. All payments shall be made in accordance with the Illinois Local Government Prompt Payment Act (50 ILCS 505/1 et seq.).

SECTION 7. CHANGE ORDERS

In the event changes to the Scope of the project and/or additional work become necessary or desirable to the parties, the parties shall follow the procedures set forth in this Section. A Change shall be effective only when documented by a written, dated agreement executed by both parties which expressly references this Agreement (a "Change Order"). The Change Order shall set forth in detail: (i) the Change requested, (ii) the reason for the proposed Change; (iii) the cost of the Change; and (iv) the impact of the Change on time for completion of the project.

In the event either party desires a Change, the Project Manager for such party shall submit to the other party's Project Manager a proposed Change Order. If the receiving party does not accept the Change Order in writing within ten (10) days, the receiving party shall be deemed to have rejected the Change Order. If

the parties cannot reach agreement on a proposed Change, Consultant shall nevertheless continue to render performance under this Agreement in accordance with its (unchanged) terms and conditions.

Changes that involve or increase in the amounts payable by the County may require execution by the County Purchasing Agent. Some increases may also require approval by the County Board. In those cases where the County Purchasing Agent's signature is required, or County Board approval is needed, the Change Order shall not be deemed rejected by County after ten (10) days provided the Project Manager has indicated in writing within the ten (10) day period of his intent to present the Change Order for appropriate signature or approval.

SECTION 8. KEY PERSONNEL

Consultant shall not replace any Key Personnel without the County's prior written consent, which shall not be unreasonably withheld. Should one of the Key Personnel be reassigned, become incapacitated, cease employment by Consultant, and/or be unable to perform the functions or responsibilities assigned to him or her, Consultant shall (i) within ten (10) business days, temporarily replace them with another properly qualified employee and (ii) within thirty (30) calendar days, permanently replace the contact. Lake County reserves the right with advance notice, and Consultant having the opportunity to remedy, to request the dismissal and removal of Consultant staff from the project for reasonable cause. Any decision to substitute or replace Key Staff for the implementation of proposed solution, will need a prior written consent from the County.

- Provide a summary organizational chart. Identify the primary contact and describe the roles of each key person.
- Provide detailed resumes for all key professionals who will be directly responsible for providing services to the County. Include the following information; title, number of years at your firm, total number of years of experience, professional designations or licenses.

SECTION 9. STATEMENT OF OWNERSHIP

The drawings, specifications and other documents prepared by the Consultant for this Project are the property of the County, and Consultant may not use the drawings and specifications for any purpose not relating to the Project without the County's consent, except for the Consultant's services related to this Project. All such documents shall be the property of the County who may use them without Consultant's permission for any current or future Lake County project; provided, however, any use except for the specific purpose intended by this Agreement will be at the County's sole risk and without liability or legal exposure to the Consultant.

The Consultant shall retain its copyright and ownership rights in its design, drawing details, specifications, data bases, computer software, and other proprietary property. Intellectual property developed, utilized, or modified in the performance of the services shall remain the property of the Consultant.

SECTION 10. INDEMNIFICATION

Consultant agrees to indemnify, save harmless, and defend Lake County, its agents, servants, and employees, and each of them against and hold it and them harmless from any and all lawsuits, claims, demands, liabilities, losses, and expenses, including court costs and attorney's fees, for or on account of any injury to any person, or any death at any time resulting from such injury, or any damage to property, which may arise or which may be alleged to have arisen out of or in connection with the work covered by this Agreement caused directly by the negligence or willful or wanton conduct of Consultant. The foregoing indemnity shall apply except if such injury, death, or damage is caused directly by the gross negligence or willful or wanton conduct of Lake County, its agents, servants, or employees or any other person indemnified hereunder.

SECTION 11. INSURANCE

The Consultant must obtain, for the Contract term and any extension of it, insurance issued by a company or companies qualified to do business in the State of Illinois with an A.M. Best Rating of at least A-and provide the County with a Certificate of Insurance 15 days before the start of the project, and thereafter annually for contracts/ projects that will last more than one year. Insurance in the following types and amounts is necessary and/or where applicable:

Commercial General Liability Insurance

In a broad form on an occurrence basis shall be maintained, to include, but not be limited to, coverage for property damage, bodily injury (including death), personal injury and advertising injury in the following coverage forms where exposure exists:

- Premises and Operations
- Independent Contractors
- Products/Completed Operations
- Liability assumed under an Insured Contract/ Contractual Liability
- Personal Injury and Advertising Injury

With limits of liability not less than:

\$ 1,000,000 Each Occurrence

\$ 1,000,000 Products-Completed Operations

\$ 1,000,000 Personal and Advertising injury limit

\$ 2,000,000 General aggregate; the CGL policy shall be endorsed to provide that the General Aggregate limit applies separately to each of the contractor's projects away from premises owned or rented to contractor.

Automobile Liability Insurance (if applicable)

Automobile liability insurance shall be maintained to respond to claims for damages because of bodily injury, death of a person, or property damage arising out of ownership, maintenance, or use of a motor vehicle. This policy shall be written to cover any auto whether owned, leased, hired, or borrowed.

The Contractor's auto liability insurance, as required above, shall be written with limits of insurance not less than the following:

\$ 1,000,000 Combined single Limit (Each Accident)

Excess/ Umbrella Liability (if applicable)

The Contractor's Excess/ Umbrella liability insurance shall be written with the umbrella follow form and outline the underlying coverage, limits of insurance will be based on size of project:

\$ 2,000,000 per occurrence limit (*minimum, and may be higher depending on the project*)

Workers Compensation (Coverage A) and Employers Liability (Coverage B)

Workers Compensation Insurance covering all liability of the Contractor arising under the Worker's Compensation Act and Worker's Occupational Disease Act at limits in accordance with the laws of the State of Illinois. Employers' Liability Insurance shall be maintained to respond to claims for damages because of bodily injury, occupational sickness, or disease or death of the Contractor's employees, with limits listed below:

Employers Liability

- a) Each Accident \$1,000,000
- b) Disease-Policy Limit \$1,000,000

- c) Disease-Each Employee \$1,000,000

Such Insurance shall contain a waiver of subrogation in favor of Lake County.

Technology Errors and Omissions (if applicable)

The Contractor's Software Developer and/or IT Architect for the plans, including developing and implementing technology for Lake County, or of the project, shall be written with limits of insurance not less than the following:

\$ 1,000,000 per occurrence limit

Liability Insurance Conditions

Contractor agrees that with respect to the above required insurance:

- a) The CGL policy shall be endorsed for the general aggregate to apply on a "per Project" basis;
- b) The Contractor's insurance shall be primary & non-contributory over Lake County's insurance in the event of a claim.
- c) Contractor agrees that with respect to the above required insurance except for Workers Compensation coverage and Technology Errors and Omissions coverage, Lake County shall be named as additional insured, including its agents, officers, and employees and volunteers and be provided with thirty (30) days' notice, in writing by endorsement, of cancellation or material change. A blanket additional insured ISO endorsement is preferred for Contractors who have multiple projects with the County.
- d) Lake County shall be provided with Certificates of Insurance and the appropriate corresponding ISO form endorsements evidencing the above required insurance, prior to commencement of this Contract and thereafter with certificates evidencing renewals or replacements of said policies of insurance at least thirty (30) days prior to the expiration of cancellation of any such policies. No manuscript endorsements will be accepted. Any hard copies of said Notices and Certificates of Insurance and Endorsements shall be provided to:

**Lake County
Purchasing Division
18 N. County 9th Floor
Waukegan, Illinois 60085
Attn: RuthAnne Hall, Lake County Purchasing Agent**

- e) **Electronic copies of Notices, Certificates of Insurance and Endorsements can be emailed to Purchasing@lakecountyil.gov in place of hard copies.**

Failure to Comply: In the event the Contractor fails to obtain or maintain any insurance coverage required under this agreement, Lake County may purchase such insurance coverage and charge the expense to the Contractor.

SECTION 12. INDEPENDENT CONTRACTOR

Consultant is defined and identified as an independent contractor, not an employee or agent of Lake County and the County has no right to control or direct Consultant's manner, detail, or means by which Consultant accomplishes tasks under this Agreement.

SECTION 13. DISPUTE RESOLUTION

All issues, claims, or disputes arising out of this Agreement shall be resolved in accordance with the Appeals and Remedies Provisions in Article 9 of the Lake County Purchasing Ordinance.

SECTION 14. NO IMPLIED WAIVERS

The failure of either party at any time to require performance by the other party of any provision of this Agreement shall not affect in any way the full right to require such performance at any time thereafter. Nor shall the waiver by either party of a breach of any provision of this Agreement be taken or held to be a waiver of the provision itself.

SECTION 15. SEVERABILITY

If any part of this Agreement shall be held to be invalid for any reason, the remainder of this Agreement shall be valid to the fullest extent permitted by law.

SECTION 16. JURISDICTION, VENUE, CHOICE OF LAW AND PROFESSIONAL STANDARDS

This Agreement shall be governed by and construed according to the laws of the State of Illinois. Jurisdiction and venue shall be exclusively found in the 19th Judicial Circuit Court, State of Illinois.

SECTION 17. NOTICES AND COMMUNICATIONS

All notices and communications which may be given by Lake County to Consultant relative to this Agreement shall be addressed to the Consultant at the address shown herein below:

Baxter & Woodman, Inc.
8678 Ridgefield Road
Crystal Lake, IL 60012
Attn: Dan Bounds

Copies of any notices and communications which propose to alter, amend, terminate, interpret, or otherwise change this Agreement shall be provided to: Lake County Purchasing Division, 18 North County Street, Waukegan, Illinois 60085-4350; Attention: Purchasing Agent.

SECTION 18. ASSIGNMENT

Neither the Consultant nor the County shall assign any duties of performance under this Agreement without the express prior written consent of the other.

SECTION 19. MODIFICATION

This Agreement may be amended or supplemented only by an instrument in writing executed by the party against whom enforcement is sought.

SECTION 20. TERMINATION

The County reserves the right to terminate this Agreement, or any part of this Agreement, upon thirty (30) days written notice. In case of such termination, the Consultant shall be entitled to receive payment from the County for work completed to date in accordance with terms and conditions of this Agreement. In the event that this Agreement is terminated due to Consultant's default, the County shall be entitled to contract for consulting services elsewhere and charge the Consultant with any or all losses incurred, including attorney's fees and expenses.

SECTION 21. CONFIDENTIALITY

Both parties acknowledge that Consultant's documents and dealings related to this Agreement are subject

to the Illinois Open Meetings Act (5 ILCS 120/1 et seq.) and the Illinois Freedom of Information Act (5 ILCS 140/1 et seq.).

SECTION 22. NEWS RELEASES

Consultant may not issue any news releases regarding this Agreement without prior approval from Lake County.

IN WITNESS HEREOF, the undersigned have caused this Agreement to be executed in their respective names on the dates hereinafter enumerated.

Lake County:

Baxter & Woodman, Inc.

Purchasing Agent

John V. Ambrose, P.E.
President/CEO

Date _____

Date _____

EXHIBIT A

July 22, 2019

Lake County Purchasing Division
Purchasing Agent
18 North County Street
Waukegan, IL 60085-4350

Subject: Annual Inflow and Infiltration (I&I) Monitoring and Sanitary Sewer Evaluation Survey (SSES) Services - Lake County SOI Number 19023 Scope and Fee Proposal

Dear Purchasing Agent,

Baxter & Woodman, Inc. is pleased to provide the following scope and fee proposal for Annual Inflow and Infiltration (I&I) Monitoring and Sanitary Sewer Evaluation Survey (SSES) Services. The services will include review of the sanitary sewer systems owned and operated by Lake County Public Works Department and recommendations on a strategic, long-term approach to comprehensively address inflow and infiltration to ensure the systems operate at optimal conditions, reducing stress on infrastructure, including interceptor sewers, lift stations, pump stations, and water reclamation facilities. Services will include:

- Perform flow monitoring activities and provide data compatible with ESRI Geographic Information Systems (GIS) software
- Conduct sewer evaluations including, but not limited to, manhole inspections, smoke testing, dye flooding, and televising review based on NASSCO standards.
- Perform flow monitoring activities including installation of the flow monitors, collecting data, providing the data and analysis to the County. Assess the success of the I/I reductions annually after completion of rehabilitations of the sewers.
- Review the sewer evaluation and test results and provide recommendations for rehabilitation plans and provide the cost of estimates for the sewer rehabilitation plans.
- Flow monitoring and data analysis to determine average daily dry weather flow rates, wet weather flow rates, peak I/I rates, transfer rates and volumes between sanitary and storm sewer systems where necessary.
- For smoke testing and televising, prepare notification letters, door hangers at affected addresses, notify fire department and police department 48 hours prior to the tests.
- Provide annual program reports on what has been achieved and recommended next steps.
- Provide all evaluation and test results to the Department.
- Data collected should be compatible with ESRI (GIS) software.
- Provide NASSCO certifications for personnel performing the testing and evaluations.
- Engaging with stakeholders, including property owners and outside jurisdictions

The key team members that will provide these services are listed below:

Baxter & Woodman, Inc. Staff

Principal in Charge: John V. Ambrose, PE
Project Manager: Dan Bounds, PE

Lead Project Engineer: Eric Murauskas, PE
Project Engineers: Shane Firsching, PE
Mike Kenny, PE
Peter Kozak, PE
Kaitlin Kublank, EIT
T.H. (Hank) Martin, CHMM
Donn Firnbach

Quality Management: Derek Wold, PE
Philip Perna, PE

RMS Utility Services (Midwest Water Group) will be a subconsultant to Baxter & Woodman, Inc. for field services. Key RMS staff include:

RMS Staff: Michelle Harrod
Michael Freye
Irene Harrod

Baxter & Woodman, Inc. will be responsible for comprehensive coordination of the project portfolio, including overall relationship management, and will assist the County with specific projects identified with an individual task order. Project services to be identified in the scope development of each task order proposals will include, but will not be limited to, the following considerations:

- **Joint Scope Meeting:** Baxter & Woodman, Inc. will conduct a scope meeting with relevant LCPWD staff, including internal and external stakeholders, such as LCPWD Operations and Maintenance personnel.
- **Develop Detailed Scope of Work:** Baxter & Woodman, Inc. will develop project proposals for each independent task order, working closely with Lake County Public Works Department (LCPWD) staff. The scope of work will identify specific deliverables and tasks, as well as a proposed value of staff time for the project. The following considerations will be given to scope development:
 - Communications services, including community outreach
 - Coordination convention and milestones
 - Timeline for each project deliverable
 - All permitting requirements

Baxter & Woodman, Inc. will provide annual inflow and infiltration (I&I) monitoring and sanitary sewer evaluation survey (SSES) services per the following rates. RMS Utility Services will provide field services at the unit rates provided for each specific field service.



BAXTER & WOODMAN, INC
2019 STAFF RATES

<u>PROJECT CLASSIFICATION</u>	<u>HOURLY BILLING RATES</u>
Principal	\$195
Senior Engineer IV	\$180
Senior Engineer III	\$160
Senior Engineer II	\$145
Senior Engineer I	\$130
Engineer IV	\$120
Engineer III	\$110
Engineer II	\$100
Engineer I	\$95
Engineering Tech IV	\$130
Engineering Tech III	\$125
Administrative Support	\$85
Dyed Water Testing (2 Set-ups per Day)	\$2,000 / day

RMS UTILITY SERVICES
2019 UNIT RATES

<u>FIELD SERVICES</u>	<u>UNIT RATE</u>
Manhole Inspections	\$130 / manhole
Smoke Testing / External Inspection	\$0.85 / linear ft.

Hourly rates, unit rates, and expenses will be evaluated and adjusted on or about January 1 of each year, with updated rates provided to the County.

Please contact Dan Bounds with any questions related to contract development, the scope of services, or the presented hourly and unit rates. He may be contacted directly at 815-444-3342 or dbounds@baxterwoodman.com.

Sincerely,

BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS

John V. Ambrose, P.E.
President/CEO

I:\Crystal Lake\LKCTY\191005-SSES Services\Contracts\Work\2019.07.30 Master Agreement Exh A.docx

EXHIBIT B



Lake County

Purchasing Division

<http://doingbusiness.lakecountyil.gov/>

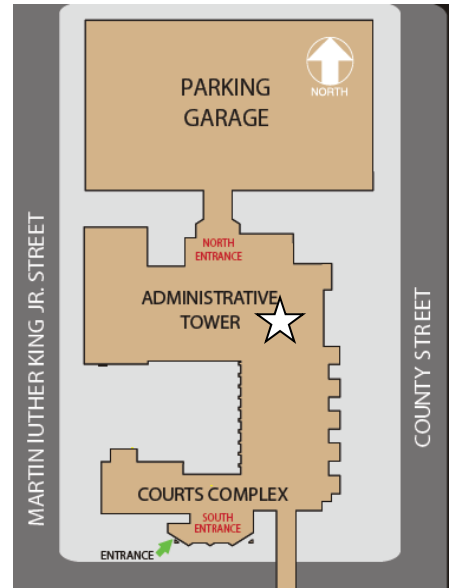
Please note the submission location is:

Lake County
Attn: Purchasing Division
 18 N. County Street – 9th Floor
 Waukegan, IL 60085

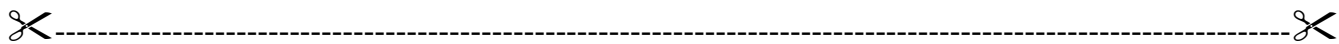
Contact information for Lake County Purchasing is:

Purchasing Division
 Phone 847-377-2992
 Fax 847-984-5889
 Email: purchasing@lakecountyil.gov

Waukegan Campus



ALL SUBMITTALS SHOULD BE LABELED ACCORDINGLY. PLEASE USE BELOW LABEL FOR YOUR CONVENIENCE.



SOI No. 19023	Deliver to: Lake County ATTN: PURCHASING DIVISION 18 N. County Street – 9 th Floor Waukegan, IL 60085
Buyer: Yvette Albarran	
<u>SOI Description</u> Professional Consulting, Surveying and Engineering Services for Lake County Public Works	
<u>SOI Due Date*</u> February 14, 2019 at 2:00 p.m.	

*Please note: Responses are due at the 9th floor reception desk and shall be time stamped by 2:00 p.m. local time on the required due date. Please allow sufficient time for parking, passing through security and arriving at the 9th floor.

STATEMENT OF INTEREST # 19023
STATE OF ILLINOIS
Professional Architectural and Engineering Services
for Lake County

Notice is hereby given that Statements of Interest (SOI) (one original and one electronic unprotected copy) will be received from qualified, professional architectural and engineering firms interested in providing the services, as described herein. Firms are encouraged to submit the minimum amount of information as necessary to indicate their interest, experience, and qualifications to perform the work described for any project, service, or combination thereof. Proposals do not need to cover the entire scope of the project types listed in this SOI; firms may submit for as many or as few services as desired. **To Lake County Purchasing, 18 N. County St., 9th Floor, Waukegan, IL 60085 until February 14, 2019 at 2:00 p.m.**

CONTACT / QUESTIONS: Please submit questions on our website at <http://lakecountypurchasingportal.com> by selecting the SOI number and addendum link. Questions may also be submitted via email to purchasing@lakecountyil.gov. All questions shall be submitted no less than seven (7) days prior to the SOI opening date. No interpretation of the meaning of the Statement of Interest will be made orally. Failure to request an interpretation constitutes a waiver to later claim that ambiguities or misunderstandings caused a firm to improperly submit a proposal. Lake County will review submissions and conduct negotiations in accordance with the Local Government Professional Services Selection Act (50 ILCS 510/).

LAKE COUNTY

Lake County is located in northeast Illinois, between the Chicago and Milwaukee metropolitan areas. Lake County is home to more than 700,000 residents. Lake County is committed to open government and transparency, and the County board's conservative fiscal policies have allowed the County to maintain fiscal stability and achieve AAA bond rating from Standard & Poor's and Moody's. Lake County is governed by a 21-member board and managed by a County Administrator.

PROJECT BACKGROUND

The Lake County Public Works Department (LCPWD) provides essential water and wastewater services to over 40% of the County's residents, and the LCPWD owns and operates three water reclamation facilities, twelve water distribution systems, 345 miles of sewer main, 300 miles of water main, and all associated infrastructure. Additionally, the LCPWD ownership portfolio includes many buildings, including administrative offices, maintenance facilities, and operational buildings (pump houses, treatment processes housing). The LCPWD has undertaken a strategic prioritization process to identify critical capital improvement projects. Major capital projects are anticipated for the foreseeable future, with an estimated annual value of \$10 million.

GENERAL QUALIFICATIONS

The statement of interest must provide your firm's qualifications, including ability of professional staff, its past record and experience, performance data on file, willingness to meet time and budget requirements, location, workload of the firm, work on similar projects, past performance on similar projects and financial stability related to design, bidding, and construction inspection for the following projects. Please indicate, by project type, the project type(S) listed for which your firm is interested in providing Professional Consulting Services.

1. Project and Construction Management Services

Manage and oversee consultant capital improvement projects on behalf of the Lake County Public Works Department (LCPWD). Act as the principal agent of the LCPWD in the management of administrative duties of project management, providing resident engineering services, reviewing design and bid documents. Maintain mission alignment, ensure quality, oversee project timeline, track processes and procedures, perform issue

resolution, arrange and attend regular coordination meetings with County staff, manage pay requests, review and negotiate change orders, and address contract issues in partnership with Lake County staff. Oversee field construction and resolve issues. Projects are often highly complex infrastructure improvements including complex coordination sequencing with stakeholders to maintain operational needs throughout the rehabilitation project. Engage with stakeholders and the public, as necessary.

2. Facility Master Plan/Risk Assessments for Capital Planning

Perform risk assessments of infrastructure owned, operated and/or maintained by the Lake County Public Works Department, which includes 72 lift stations, seven pump houses, 29 well houses, 10 reservoirs, seven water towers, and three water reclamation facilities. At a minimum, the firm will perform an assessment of these assets and will prioritize repair/replacement by risk of failure; establish a multi-year replacement program utilizing a risk-based asset ranking approach and provide an estimated schedule to prepare the preliminary engineering report. Additionally, the repair/replacement program will account for proposed capital projects by other public agencies that may impact the scheduling and completion of water and sewer main replacement projects. Engage with stakeholders, as necessary, and coordinate with villages, the Illinois Department of Transportation, the Lake County Division of Transportation, and Townships to consider their upcoming capital plans that may affect projects planned for the Lake County Public Works Department. A similar assessment has been performed for underground sewer and water mains.

3. Building Facility Improvement Design, Technical Analysis and Construction Oversight

Prepare plans, specifications and cost estimates for various facility improvements at Lake County Public Works Department facilities including, but not limited to:

- Mechanical improvements, including, but not limited to, the replacement of air handling units, variable air volume boxes, ductwork, chillers, piping and appurtenances, independent temperature control systems, motorized control valves, flow meters and direct digital controls.
- Electrical improvements including, but not limited to, the replacement of electrical switchgears, automatic transfer switches, transformers, main distribution panels, local panels, motor control centers, stand-by generators and direct digital controls.
- Elevator modernizations improvements including, but not limited to, traction elevators, hydraulic elevators, screw lifts, escalators and direct digital controls.
- Various security improvements including, but not limited to, IP-wireless duress alarm systems, access control systems, high definition security camera systems, and enterprise security automation systems.
- Various fire alarm improvements including, but not limited to, control panels, initiating devices, notification devices, networking and integration.
- Various fire protection systems improvements including, but not limited to, fire suppression systems, fire barriers, smoke barriers, smoke control, smoke evacuation, space planning and risk analysis.
- Various building automation improvements including, but not limited to, geographical representation of mechanical equipment, geographical representation of electrical equipment, HVAC controls and monitoring, electrical system monitoring, lighting system controls and monitoring, fire alarm system monitoring, life safety controls and monitoring, equipment run conditions, energy usages, and e-mail alarming.

4. Design Standards and Details

Develop design standards and details language for the Lake County Public Works Department (LCPWD). The standards and details will be applied to all construction projects related to LCPWD infrastructure, including new construction, repair, and replacement of the following: water main, gravity sanitary sewer main, sanitary force main, pump stations, lift stations, valves, hydrants, air release valves, manholes, record drawing standards etc. The LCPWD has published standard details, which will be used as the starting point for this document, along with the most recent version of the Standard Specifications for Water and Sewer Construction in Illinois. Coordinate with LCPWD staff to gather input from internal stakeholders, including engineers, field inspectors,

maintenance staff, operations personnel, and leadership. Provide a final draft in Microsoft Word, Adobe PDF, and AutoCAD format to be shared online.

5. Annual Inflow and Infiltration (I&I) Monitoring and Sanitary Sewer Evaluation Survey (SSES) Services

Review the sanitary sewer systems owned and operated by the Lake County Public Works Department and recommend a strategic, long-term approach to comprehensively address inflow and infiltration to ensure the systems operate at optimal conditions, reducing stress on infrastructure, including interceptor sewers, lift stations, pump stations, and water reclamation facilities. Perform flow monitoring activities and provide data via an easy to use portal. Complete sanitary sewer evaluation services, including, but not limited to, manhole inspections, smoke testing, dye flooding, and televising. Monitor and assess the success of I&I reduction measures. Provide annual program reports focused on overall strategy, meter basin performance, results achieved, and recommended next steps. Data should be compatible with ESRI Geographic Information Systems (GIS) software. Engage with stakeholders, including outside jurisdictions with competing priorities and limited resources.

6. Water System Modelling and Capacity Analysis

Perform hydraulic modelling and capacity analysis for portions of the Lake County Public Works Department (LCPWD) water systems. Create a report recommending strategic actions to optimize the LCPWD water systems to support a successful and sustainable facilities, capable of accommodating economic development. Provide resulting analysis in a software or database to be managed by the LCPWD after creation, allowing for in-house analysis of the effectiveness of solutions, evaluation of future land use decisions, and monitoring of long-term system performance. All deliverables should be compatible with ESRI Geographic Information Systems (GIS) software.

7. Sanitary Sewer System Modelling and Capacity Analysis

Perform hydraulic modelling and capacity analysis for portions of the Lake County Public Works Department (LCPWD) sanitary sewer system. Create a report recommending strategic actions to optimize the LCPWD sanitary sewer networks to support a successful and sustainable system, capable of accommodating economic development. Provide resulting analysis in a software or database to be managed by the LCPWD after creation, allowing for in-house analysis of the effectiveness of solutions, evaluation of future land use decisions, and monitoring of long-term system performance. All deliverables should be compatible with ESRI Geographic Information Systems (GIS) software.

8. General Engineering Consulting Services

Provide general engineering consulting services, including, but not limited to, sewer and water investigations, preliminary studies, preliminary design, final studies, and final design for unplanned needs, such as time-sensitive repair/improvement project design/review and analysis of complex development proposals. Monitor construction and assist with issue resolution. In addition to civil engineering expertise, electrical engineering, mechanical engineering, structural engineering and automation engineering services may be required. Complete other related work, as assigned. Engage with stakeholders and the public, as necessary.

9. Underground Utility Design Engineering Consulting Services

Provide engineering consulting services for utility relocation design projects, including, but not limited to, preliminary review, survey, preliminary design, final design, permitting, bidding and construction services. Example projects include, but are not limited to, relocation as a result of a roadway project. Coordinate with roadway or utility authority and their consultant. Essential skills include understanding complex roadway and utility projects, including, but not limited to, understanding complex construction phasing, obtaining variances to allow utilities to remain under the pavement, experience coordinating permitting with roadway authorities, experience coordinating relocation in cooperation with utility companies, negotiating agreements with the transportation authority to perform work as a shared service, securing grant funds where possible, interpreting

conditions of existing easements, and securing new easements. Oversee field construction and resolve issues. Review the history of easements and aid in obtaining necessary easements. Engage with stakeholders and the public, as necessary.

10. General Surveying Consulting Services

Provide general survey consulting services, including, but not limited to, producing map exhibits based on legal descriptions, Parcel Index Number (PIN) lists, and surveyed boundary descriptions, locating and staking property lines and construction improvements, preparing topographic survey exhibits and plats of survey. Locate all easement documents associated with specific properties and projects. Visual renderings of legal descriptions and surveyed boundary descriptions must be provided within five business days. Complete other related work, as assigned.

11. Sewer Facilities Analysis, Design and Construction Oversight

Investigate sanitary sewer system issues and improvement options, prepare all necessary surveys, preliminary and final engineering studies, design documents, and bid documents. Flow monitoring data and reports are available for areas of the system. Provide bidding services, including, but not limited to, addressing all addendum. Conduct construction-related services, including, but not limited to, evaluating shop drawings, monitoring construction, preparing change orders, and reviewing contractor pay requests. Obtain all permit approvals and provide as-built record drawings and related documents. Engage with stakeholders and the public, as necessary. Example projects include miscellaneous investigations, sewer lining, and force main rehabilitation.

12. Water Facilities Analysis, Design and Construction Oversight

Investigate water system issues and improvement options, prepare all necessary surveys, preliminary and final engineering studies, design documents, and bid documents. Provide bidding services, including, but not limited to, addressing all addendum. Conduct construction-related services, including, but not limited to, evaluating shop drawings, monitoring construction, preparing change orders, and reviewing contractor pay requests. Obtain all permit approvals and provide as-built record drawings and related documents. Engage with stakeholders and the public, as necessary. Example projects include miscellaneous investigations, watermain replacement design, and lined watermain construction.

13. Drainage Improvement Analysis, Design and Construction Oversight: North Libertyville Estates Levee

The North Libertyville Estates levy is approximately 5,700 feet in length and protects roughly 200 homes from Des Plaines River flooding. Presently stormwater ponds upstream of the levy, and the Lake County Public Works Department desires to improve the drainage and install an automatic pumping system. Prepare all necessary surveys, preliminary and final engineering studies, design documents, and bid documents. Provide bidding services, including, but not limited to, addressing all addendum. Conduct construction-related services, including, but not limited to, evaluating shop drawings, monitoring construction, preparing change orders, and reviewing contractor pay requests. Obtain all permit approvals and provide as-built record drawings and related documents. Coordinate utility service (electric) to the site. Review and compile an emergency evacuation plan, including graphic exhibits and an executive summary. Prepare educational information materials for local area residents; topics include, but are not limited to, description of the levee and its purpose, improvement notices, explanation of evacuation plans. Engage with stakeholders and the public, as necessary, including attendance at community meetings.

14. Annual Water Tower and Reservoir Repair/Rehabilitation

The Lake County Public Works Department owns seven water towers and 10 water reservoirs and conducts an annual repair/rehabilitation program. Perform all necessary inspections and investigations to prepare bid documents for this work. Engage with stakeholders, as necessary.

15. Supervisory Control and Data Acquisition (SCADA) Engineering Consulting Services

Perform field telemetry survey relative to sites within the Southeast Operational Region of Lake County water and sewer systems. Design a telemetry network based on the results of the field survey, existing SCADA network information and historian. Prepare design documents and bid documents. Provide bidding services, including, but not limited to, addressing all addendum conduct construction-related services, including, but not limited to, evaluating shop drawings, monitoring construction, preparing change orders, and reviewing contractor pay requests. Obtain all permit approvals and provide as-built record drawings and related documents. Engage with stakeholders and the public, as necessary. Due to the geographic distance between sites communication between sites using cellular radios and a private network set up by Verizon Wireless has been configured. Panels will be built to house the cellular modem, Programmable Logic Controllers (PLCs) and other necessary equipment. Previous phases of this project installed 900 MHz unlicensed radio and cellular radio communication in other operational areas of the County.

SUBMISSION REQUIREMENTS

Respondents shall include in their SOI a prioritized listing of the above design projects (1 through 15) which are best suited to the capabilities and qualifications of their firm. The SOI shall include a brief description of why they should be chosen for a project(s). The SOQ should be concise and directly relate to the project(s) of interest. The SOI shall be limited to 1 page and each SOQ shall be limited to 10 pages per project.

The County, in accordance with the laws of the State of Illinois, hereby notifies all firms expressing statements of interest that it will affirmatively insure that the contract entered into pursuant to this advertisement will be awarded without discrimination on the grounds of race, color or national origin.

Where appropriate, the responses provided under this section shall include a brief description of examples of outcome based accomplishments that have measurable success factors to demonstrate a firm's qualifications and expertise. All examples should include owner name and contact information.

Section 1.0 – Executive Summary

Provide a brief summary, which describes and highlights your interest, experience and qualifications for these projects. Submit documentation to establish the professional licensing necessary to be eligible for these projects.

Section 2.0 – Relevant Experience

Relevant Experience shall clearly indicate the firm and which member on the project team participated in all relevant experience submitted. All experience submitted for a team member while in the employment of a different firm shall include their title and role on the project as well as the firm name that held the contract for all work submitted for relevant experience.

Section 3.0 – Project Management Team

Describe your approach relative to the delegation of responsibility and assignment of authority and interaction points with the County. Include a listing of key personnel and/or sub consultants proposed for the project team. Include a resume and/or relevant experience of each key team member and a brief description of the tenure or work history among team members.

Provide an organization chart graphically illustrating how your firm would staff and structure your proposed team to perform these projects. Include delegation of responsibility and assignment of authority and interaction points with the County.

List specific personnel (including sub consultants) proposed for the project team, including the project assignment and role or area of responsibility of each individual. Identify the staff team and each members' availability capacity throughout project stages. Provide a resume for each proposed team member, specifically stating tenure or experience with your firm, experience and qualifications of each individual. The above list represents a minimum submittal for key personnel from the Owner's Representative and Project Manager Team.

Section 4.0 – Budget

Describe your firm's methods to maximize and maintain quality project management and project image while maintaining tight budget constraints. Cite examples of specific things that you have done on other projects to meet this objective.

Describe your firm's approach to value engineering and what contribution does the firm typically provide during each phase of design and construction. Value engineering should include the ability of the proposer to evaluate cost saving opportunities in the construction project and add value to the project by applying a creative approach to optimize lifecycle, energy consumption and operational costs resulting from the design.

Section 5.0 - Quality of Documents

List the steps and describe the quality control processes we can expect from the firm during each phase of the design process to assure careful coordination of all disciplines and a high quality of design and contract documents.

EVALUATION PROCESS

Lake County will review submissions and conduct negotiations in accordance with the Local Government Professional Services Selection Act (50 ILCS 510/). The following qualifications will be considered by the County:

- A. Proven experience in design and successful implementation of similar projects.
- B. The strength of value engineering approach, and the proposed engineering approach.
- C. The evaluation of examples of outcome-based accomplishments that have measurable success factors to demonstrate a firm's qualifications and expertise including the testimonials of owners or owner's agents.
- D. The depth of talent and staffing experienced in the execution of similar projects.
- E. The ability of the proposer to work with other consultants to maximize a design solution while maintaining budgetary discipline.
- F. Design quality control and the ability to understand and translate the client's design goals.
- G. Quality and time availability of key project team members.
- H. A proven consistent engineer team leader that listens to the client and appropriately manages and directs the team's efforts.
- I. Experience and capability presenting to policymakers, stakeholders and the public.

As part of its evaluation process the County may seek additional information from firms found to have resources and methodologies best suited to any one of these projects.

TERM OF AWARDED CONTRACTS

The term of awarded contracts shall be in effect for a two (2) year period from the date of award (initial term) or other period as indicated in each Project Description. Lake County reserves the right to renew the contract for three (3) additional one (1) year periods, or as indicated in each project description, subject to acceptable performance by the Contractor. At the end of any contract term, Lake County reserves the right to extend the contract for a period of up to sixty (60) days for the purpose of getting a new contract in place. For any year beyond the initial year, the contract is contingent on the appropriation of sufficient funds. No charges shall be assessed for failure of the County to appropriate funds in future contract years.

General Information Sheet

AUTHORIZED NEGOTIATORS:

Name: _____ Phone # _____ Email: _____

Name: _____ Phone # _____ Email: _____

RECEIPT OF ADDENDA: The receipt of the following addenda is hereby acknowledged:

Addendum No. _____, Dated _____

Addendum No. _____, Dated _____

In submitting this statement of interest, it is understood that the County reserves the right to reject any or all submittals, to accept any alternate submittals, and to waive any informalities in any submittal.

BUSINESS ORGANIZATION: (check one only)

____ Sole Proprietor: An individual whose signature is affixed to this proposal.

____ Partnership: State full names, titles, and addresses of all responsible principals and/or partners on attached sheet.

____ Corporation: State of Incorporation: _____

____ Non-profit Corporation

____ 501c3-- U.S. Internal Revenue Code

By signing this proposal document, the proposer hereby certifies that it is not barred from bidding on a contract as a result of a violation of either Section 33E-3 or 33E-4 of the Illinois Criminal Code of 1961, as amended.

Business Name

Signature

Print or Type Name

Title

Date

References

Provide FIVE (5) references for projects. Governmental references are preferred over others. (Attach additional pages as needed)

Entity: _____

Address: _____

City, State, Zip Code: _____

Name of Contact Person _____

Email Address: _____

Telephone Number: _____

Description of Services Provided: _____

Date of Service: ____/____/____ To ____/____/____

Entity: _____

Address: _____

City, State, Zip Code: _____

Name of Contact Person _____

Email Address: _____

Telephone Number: _____

Description of Services Provided: _____

Date of Service: ____/____/____ To ____/____/____

Entity: _____

Address: _____

City, State, Zip Code: _____

Name of Contact Person _____

Email Address: _____

Telephone Number: _____

Description of Services Provided: _____

Date of Service: ____/____/____ To ____/____/____

Entity: _____

Address: _____

City, State, Zip Code: _____

Name of Contact Person _____

Email Address: _____

Telephone Number: _____

Description of Services Provided: _____

Date of Service: ____/____/____ To ____/____/____

Entity: _____

Address: _____

City, State, Zip Code: _____

Name of Contact Person _____

Email Address: _____

Telephone Number: _____

Description of Services Provided: _____

Date of Service: ____/____/____ To ____/____/____

COMPANY NAME _____

AUTHORIZED SIGNATURE _____

TITLE _____

DATE _____

FIRM QUALIFICATIONS

Name and Address of Office from which this contract will be administered
(ATTACH ADDITIONAL PAGES AS NEEDED)

Name: _____

Address: _____

Phone: _____ Fax: _____

Email Address _____

Project Manager: _____

Years in Business: _____ Number of Employees: _____

Annual Sales: \$ _____ Dunn & Bradstreet #: _____

Indicate if firm is a certified M/W/DBE and attach certification: _____

List employees who will be dedicated to the Project: (Attach additional pages as necessary)

NAME	POSITION TITLE	NUMBER OF YEARS	AREA OF RESPONSIBILITY/TASK EXPERIENCE
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

EXHIBIT C

PROJECT SCOPE FOR ENGINEERING SERVICES PER CONTRACT NUMBER #19023-5

TASK ORDER A

FOX LAKE HILLS SANITARY SEWER SYSTEM INFLOW AND INFILTRATION REDUCTION PILOT STUDY

The Engineer shall provide the following engineering services.

1. Reports, Meetings, and Project Management
 - a. Project Management
 - Plan, schedule, and control activities to complete the scope of services.
 - Activities include resource management, budgeting, scheduling, and monitoring the scope of services.
 - b. Project Meetings
 - Task Order Scoping Meeting
 - Work Kickoff Meeting
 - Progress Meetings
 - Presentation of Evaluation Results and Recommendations
 - c. Stakeholder Meetings
 - Four (4) stakeholder meetings with outside associations and agencies
 - d. Public Meetings
 - Two (2) public open house meetings to explain goals and work that will be performed, and contact information for questions and concerns
 - e. Property Owner Consultations
 - Perform up to twelve (12) property consultations to identify illegal or inappropriate connections to the sanitary sewer system
 - Notification to residents to call and set up appointments
 - Pictures of exterior and interior of property for any illegal connections and/or defects causing I&I observed
 - Memo of consultation findings
 - Additional consultations may be performed on a time and expenses basis.
 - f. Work and Data Summaries
 - Develop work summaries for final report and deliverables
 - Produce data summaries for final delivery

g. Report

- Prepare a written report detailing the results of the work, conclusions and recommended approaches to address I/I issues.
- Provide rehabilitation costs for recommended repairs.
- A draft report (electronic) will be produced for County review and comment.
- A final report (electronic and hard copy) will be produced after incorporating County review comments.

h. GIS Exhibits

- GIS exhibits will be produced for presentation of data and reporting purposes.

2. Sanitary Manhole Inspections

The method of manhole inspections is classified into two categories by the National Association of Sewer Service Companies (NASSCO). The first is a “Level One” inspection which is performed from the ground surface looking down into the manhole. A Level One inspection provides a lower cost basic condition assessment for evaluating the general condition of a manhole. Defects that are present near the bottom of a manhole are difficult to see and assess. Documentation of this type of inspection is limited, with photographs taken only from the surface.

A “Level Two” inspection consists of a full descent evaluation performed either by manned entry or using a video camera that is lowered from the surface to the bottom of the manhole. The purpose of a Level Two inspection is to gather detailed information to fully document all defects, determine overall condition of the manhole, and provide the better information needed to recommend corrective action.

For this project, RMS will be performing Level Two manhole inspections using a 360 degree panoramic camera. The video inspection allows a perpendicular view of the manhole, which is not possible with static pictures, and an enhanced level of detail. The reviewer is able to play back the video on a computer, zoom in and out of features, and pan around the circumference of the manhole for detailed inspection. This is particularly useful for viewing up the pipes for each connected sewer. The level of detail provides for better and more reliable rehabilitation recommendations. Added value of the video inspection includes the ability to “replay” the video data to re-inspect without additional field work, to answer staff questions, and verify inspection findings and recommendations. The scope of services includes:

- Full descent manhole inspections
- Level Two MACP Survey and report of 211 manholes in the tributary area
- Inspection (video) using Ibak Panoramo 360 SI camera
- Copy of video data and compatible video viewer
- GPS coordinates
- Repair recommendations for each manhole surveyed based on recommended NASSCO standards
- Report delivered via PDF with Excel and Access MDB output delivered via external hard drive
- Provide estimated rehabilitation costs for recommended repairs
- Map grade GPS locate of manholes
- Manhole diameter, material
- Pipe invert measurement
- Connecting sewer diameters
- Connecting sewer material and flow direction
- Evidence of I&I
- Open pickholes in lid
- Frame and adjusting ring condition, including adjustments and chimney seals
- Corbel condition and defects
- Wall condition and defects
- Trough and bench condition and defects
- Pipe seal condition and defects
- Manhole cover condition and seals
- Digital photographs at each manhole
 - Surrounding area
 - Manhole cover
 - Topside, looking down
 - Manhole frame
- Digital copies of data, GIS geodatabases, and photos

3. Smoke Testing / External Inspections

- Smoke testing of 47,211ft of tributary sewer (211 manholes) in accordance with NASSCO Performance Specification Guideline
- NASSCO certified operators for manholes, pipelines and laterals
- Two (2) smoke testing units
- Provide a draft resident notification letter describing the work and precautions to take, to be put on County (or association) letterhead and mailed to the affected residents by the County

- Provide public notification door tags
- Call Center for resident questions
- Notification to appropriate Police and Fire Department
- Posting of signs in the neighborhoods prior to smoke testing project
- Report identifying defects with pictures; green marking paint (or flags) for each defect observed including smoke exfiltration from: Roof gutters, Sewer cleanouts, Leakage in house laterals, Patio or area drains, Storm drain cross connections, Manholes, Sewer vents (lack of smoke), other source not stated above.
- Each smoke defect shall include an address, and accompanied by a photograph.
- Hand drawn corrections to study area maps
- Database format for defects per NASSCO smoke testing code standards
- Paper and electronic formats delivered.
- Cellular device grade GPS points for each defect
- Provide rehabilitation costs for recommended repairs
- Recommendations for rehabilitation, including potential procurement methods

4. Dyed Water Testing

- Conduct dyed-water tests of storm sewer system (in areas where smoke was identified during smoke testing work) using inflatable plugs and dye mixed with water from adjacent fire hydrants.
- Up to 5 days of testing, 2 set-ups per day, for a total of ten set-ups. The extent of the work will not be determined until after the completion of smoke testing.
- Provide rehabilitation costs for recommended repairs.

5. Sewer Televising (CCTV) Data Evaluation

- Review and assess County-provided sewer television inspection videos and logs.
- Provide sewer assessment based on NASSCO PACP rating system.
 - i. Compile data and develop list of defects
 - ii. Incorporate results into GIS
- Provide a recommendation for rehabilitation of each sewer segment requiring repair, including recommended procurement method
 - i. Field verify point repair locations to determine feasibility of excavation.
- Provide rehabilitation costs for recommended repairs
- Prioritize the recommended rehabilitation list by severity.

6. Post Improvement Flow Monitoring

- Once the County completes the recommended repairs in the pilot study area, perform flow monitoring to demonstrate effectiveness of the work.
- SITE SELECTION - Field verify the three locations within the pilot area (NW03-02, NW03-03 and NW03-04) and one location downstream of the NW area (LCNW-3) monitored in 2017 to assess the flow conditions and determine if pipe cleaning is necessary. (see exhibit below)
- IN-HOUSE METER PREPARATION AND MAINTENANCE - Prepare flow meters for use in the field by assembling meters and bands, wires, cables, batteries, and all other equipment necessary for field installation and maintenance.
 - i. Verify flow meters operate properly using in-house flow bench.
- METER INSTALLATION - Install and calibrate the four flow meters in selected locations.
- RAIN GAUGE INSTALLATION – Provide and install an electronic tipping bucket rain gauge near the metering locations to record rainfall amounts during the monitoring period.
- BI-WEEKLY FIELD UPLOADS - Visit flow metering sites every two weeks (for a 12-week period) and upload flow data from meters to a laptop computer.
 - i. Review uploaded and real-time data to verify the data is representative of actual conditions.
 - ii. Clean probe as necessary to maintain proper operation.
 - iii. Replace battery as necessary.
- METER REMOVAL - Remove meters at the completion of monitoring period and return equipment to storage.
- FLOW METERING DATA ANALYSIS - Analyze all data obtained from flow meters to determine key parameters including but not limited to; average daily dry-weather flow, peak wet-weather flow, I/I rates, and general flow hydraulics during wet-weather events.
- PILOT EFFECTIVENESS REPORT - Prepare a written report outlining our findings and conclusions.
 - i. Compare key metrics with values determined by RJN during the pre-rehabilitation flow monitoring with the post-rehabilitation values.

**LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
Pilot SSES in NW Lake FPA**

Detailed Fee Breakdown - Task Order A (2019/2020)

Fee is based on an estimated quantiles for the purpose of calculating unit costs:

Task	Basis of Cost	Amount
1. Office Services:		
a Project Management	24 hrs.	\$ 3,840.00
b Project Meetings (4 x 2 people x 5 hrs/mtg.)	40 hrs.	\$ 6,400.00
c Stakeholder Meetings (4 meetings x 1 person x 3 hrs/mtg)	12 hrs.	\$ 1,920.00
d Public Meetings (2 meetings x 2 people x 3 hrs)	12 hrs.	\$ 1,920.00
e Private consultation for illegal connections	36 hrs.	\$ 5,760.00
f Summary and presentation of evaluated field services	50 hrs.	\$ 7,750.00
g SSES Report (draft and final)	100 hrs.	\$ 14,500.00
h GIS Exhibits	20 hrs.	\$ 2,000.00
i Mileage and Expenses	0.58 1100 miles	\$ 638.00
	Subtotal Office Services	\$ 44,728.00
2a. Manhole Inspections:		
Mapping grade locates	211 MHs /MH	\$ 27,430.00
	\$ 130.00	
2b. Task Specific Project Management	6 hrs.	
	\$ 155.00	\$ 930.00
	Subtotal MH Inspections	\$ 28,360.00
3a. Smoke Testing / External Inspections	47,211 Ft.	
	0.85 /Ft.	\$ 40,129.35

3b.	Task Specific Project Management	6	hrs.	
		\$ 155.00	\$/hr.	<u>\$ 930.00</u>
	Subtotal Smoke Testing			\$ 41,059.35
4a.	Dyed-Water Testing (Approximately 10 setups)		5 days	
		\$ 2,000.00	\$/day	\$ 10,000.00
4b.	Task Specific Project Management	48	hrs.	
		\$ 155.00	\$/hr.	<u>\$ 7,440.00</u>
	Subtotal Dyed-Water Testing			\$ 17,440.00
5.	CCTV Evaluation			
	GCA	-	hrs.	\$ -
	TV Videos Review (47,211 ft.)	160	hrs.	<u>\$ 24,800</u>
	Subtotal CCTV Eval.			\$ 24,800
6.	Post Improvement Flow Monitoring		4 locations plus rain gage	
	Site Selection and Project Management		6 hrs	\$ 960
	In-house Meter Preparation		12 hrs	\$ 1,920
	Meter and Rain Gauge Installation		20 hrs	\$ 2,800
	Bi-weekly Equipment Check and Data Uploads		32 hrs	\$ 4,640
	Data Analysis		40 hrs	\$ 5,800
	Equipment Removal / Site Clean Up		20 hrs	\$ 3,200
	Pilot Effectiveness Report (post flow monitoring)		60 hrs	<u>\$ 9,600</u>
	Subtotal Flow Monitoring			\$ 28,920
	TOTAL			<u>\$ 185,307.35</u>