

PROFESSIONAL SERVICES AGREEMENT

This Agreement is made and entered into this _____ day of _____, 2021, by and between the City of Gahanna, Ohio ("City"), an Ohio Municipal Corporation with offices located at 200 South Hamilton Road, Gahanna, Ohio 43230 and EMH&T ("Consultant") located at 5500 New Albany Road, Columbus, Ohio 43054.

The Consultant will provide services in connection with the Sanitary Sewer Evaluation (SSES) Smoke and Dye Testing Services Project ("Project") which are more fully described in the Attached Exhibit A (Scope of Work) and Exhibit B (Consultant's Proposal).

The following Terms and Conditions will apply to this Agreement:

1.1 Contract Type: This contract shall be in form and content satisfactory to the City and shall include, without limitation, the terms and conditions provided for in the RFP and such other terms and conditions as the City deems necessary and appropriate. The standard of performance for the Project shall be in accordance with the highest applicable standards in the sanitary sewer evaluation industry. This contract shall include professional and field services on a not to exceed basis. The initial contract price will be based on prices submitted by the Consultant, subject to contract negotiations with the City, and shall remain firm for the initial term of the contract.

1.2 Contract Term / Termination: This contract shall be effective upon the date the contract is signed by both the City and the Consultant and shall expire upon completion of the Services covered by the contract. The resulting contract may be terminated by the City upon thirty (30) days written notice of such termination. In the event of the City's termination of the resulting contract, there shall be no further obligation on the part of the City to the Consultant save and except for payment of sums due and owing for expenses and work incurred by the Consultant prior to the date of termination, minus any City incurred damages if such termination is for cause. In the event of any termination, Consultant shall agree to cooperate in connection with any necessary transition services and shall be reimbursed for such transition services at Consultant's standard rates. Additional detail regarding the schedule of the Project has been included in the Consultant's Proposal (Exhibit B).

1.3 Payment Terms: Compensation for Services provided under this Agreement shall be in accordance with the Proposal Pricing Form of the Consultant's Proposal (Exhibit B). Payment for work items with an estimated quantity (including 'Task 4B. Private Property Dye Testing – Field Work') will be based on actual work performed at the calculated unit price. For all services performed for this Project, except any work covered through Contract Changes, the Consultant's 'not to exceed' fee shall be **\$246,226**.

1.4 Contract Changes: Written requests for price changes in a resulting term contract after the firm price period must be submitted in writing to the City at least thirty (30) days prior to the commencement of any extension period. Any proposed price increase will be based on the Consultant's actual cost increase only, as shown in written documentation provided to the City. All requests for price increases must be in writing, must not constitute increases in profit, and must contain data establishing or supporting the increase in cost. In connection with any Consultant request for price increases in term contracts after the firm price period, at the option of the City, (1) the request may be granted; (2) the contract may

be cancelled by either party; or (3) the contract may be extended without change with the consent of both parties.

The City will accept or reject all such written requests within fifteen (15) days of the date of receipt of Consultant's request for price increase or receipt of proper written documentation, whichever is later.

If a price increase is approved, the City will issue an amendment to the contract specifying the date the increase will be effective. The Consultant will be required to send notice to all users of the contract. All Services and related accessories are to be billed at prices in effect at the time the service was rendered, or order was placed. All contract changes will be effective only on written agreement signed by both parties.

1.5 Contract Approval: The City's obligation will commence only following the City's and the Consultant's execution of this Agreement. Upon written notice to the Consultant, the City may set a different starting date for the contract. The City will not be responsible for any work done or expense incurred by the Consultant or any subcontractor, even such work was done or such expense was incurred in good faith, if it occurs prior to the contract start date set by the City.

1.6 Contract Dispute: In the event of contract dispute, dispute proceedings will be held in the State of Ohio. Mediation, subject to written agreement of the parties, will be a mandatory first step in the event of a dispute, prior to any legal action as set forth in the contract.

1.7 Confidential Information: Any written, printed, graphic, electronic, or magnetically recorded information furnished by the City for the Consultant's use are the sole property of the City. This proprietary information includes, but is not limited to, customer requirements, customer lists, marketing information, and information concerning City employees, products, services, prices, operations, security measures, and subsidiaries.

The Consultant and its employees shall keep this confidential information in the strictest confidence, and will not disclose it by any means to any person except with City approval, and then only to the extent necessary to perform the work under the contract. These confidentiality obligations also apply to the Consultant's employees, agents, and subcontractors and Consultant shall be liable for a breach of the confidentiality obligations by any such party. On termination of the contract, the Consultant, its employees, agents, and subcontractors will promptly return any confidential information in its possession to the City.

1.8 Insurance Requirements: Consultant shall, at Consultant's expense, secure and maintain in effect throughout the duration of the contract, insurance of the following kinds and limits set forth in this Section. The Consultant shall furnish a certificate of insurance and endorsements in a form acceptable to the City before starting work or within ten (10) days after the notice of award of the contract, whichever date is reached first. All insurance policies, except professional liability insurance, shall be written with insurance companies licensed to do business in the State of Ohio and having a rating of at least A-VII, according to the latest edition of the Best's Key Rating Guide; and shall include a provision preventing cancellation of the insurance policy unless fifteen (15) days prior written notice is given to the City.

The following provision shall also be stated on each applicable certificate of insurance: "Should any of the above described policies be canceled before the expiration date, the issuing company shall mail fifteen (15) days' written notice to the certificate holder named to the left." Consultant shall require any of its subcontractors to secure and maintain insurance as set forth in this Section and indemnify, hold harmless and defend the City, its officers, employees, attorneys and volunteers.

The limits of liability for the insurance required shall provide coverage for not less than the following amounts, or greater where required by law:

A. Commercial General Liability:

- i. Coverage to include, Broad Form Property Damage, Contractual and Personal Injury.
- ii. Limits:
 - a. General Aggregate \$1,000,000.00
 - b. Each Occurrence \$1,000,000.00
 - c. Personal Injury \$1,000,000.00
- iii. Coverage for all claims arising out of the Consultant's operations or premises, anyone directly or indirectly employed by the Consultant.

B. Professional Liability:

- i. Per Claim/Aggregate \$1,000,000.00
- ii. Coverage for all claims arising out of the Consultant's operations or premises, anyone directly or indirectly employed by the Consultant, and the Consultant's obligations under the indemnification provisions of the contract to the extent same are covered.

C. Workers' Compensation:

- i. Workers' compensation insurance shall be in accordance with the provisions of the laws of the State of Ohio, including occupational disease provisions, for all employees who perform work pursuant to the contract, and in case work is subcontracted, the Consultant shall require each subcontractor similarly to provide Workers' Compensation Insurance. All such policies of workers' compensation insurance shall include a waiver of subrogation in favor of the City. In case employees engaged in hazardous work under the contract are not protected under said worker's compensation insurance, the Consultant shall provide, and shall cause each subcontractor to provide, adequate and suitable insurance for the protection of employees not otherwise provided.

D. Comprehensive Automobile Liability:

- i. Coverage to include all owned, hired, non-owned vehicles, and/or trailers and other equipment required to be licensed, covering personal injury, bodily injury, and property damage.
- ii. Limits:
 - a. Combined Single Limit \$1,000,000.00

E. Umbrella:

- i. Limits:
 - a. Each Occurrence/Aggregate \$1,000,000.00

F. The City, its officials, officers, employees, agents, and volunteers shall be named as an additional insured on all insurance policies identified herein except Workers' Compensation and Professional Liability. All such insurance shall be primary and non-contributory coverage as respects a covered loss. The Consultant shall be responsible for the payment of all premiums and deductibles for said insurance policies. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, agents, and employees.

Consultant understands and agrees that, except as to Professional Liability, any insurance protection required by the contract or otherwise provided by the Consultant, shall in no way limit the Consultant's responsibility to indemnify, keep and save harmless, and defend the City, its officers, employees, agents as herein provided.

1.9 Conflict of Interest: Consultant shall at all times observe and comply with all federal, state, and local laws, ordinances, and regulations including all amendments and revisions thereto, which in any manner affect Consultant or the services and/or items to be provided, specifically and not limited to any laws relating to conflicts of interest. Failure to comply with any applicable laws may result in: i) the termination of the contract; ii) the forfeiture by Consultant of all benefits of the Contract; iii) the retainage by City of all Services performed by Consultant and iv) the recovery by City of all consideration, or the value of all consideration, paid to Consultant pursuant to any awarded contract.

1.10 Pending and Recent Litigation: Consultant must disclose any pending or recent litigation they are involved in as a company. Recent is defined as the past three (3) years. Information provided should include the timeline of the litigation history, the subject of the litigation, and the current status of the litigation.

1.11 Rights to Submitted Material: It shall be understood that all Proposals, responses, inquiries, or correspondence relating to or in reference to this Project, and all reports, charts, and Proposals or referencing information submitted in response to this Project, shall become the property of the City, and will not be returned. The City will use discretion with regards to disclosure of proprietary information contained in any response but cannot guarantee information will not be made public. As a government entity, the City is subject to making records available for disclosure.

1.12 Indemnity; Hold Harmless: The Consultant shall indemnify, defend, and hold and save the City and all officials, officers, agents, employees and volunteers of City harmless from and against any and all liabilities, claims, costs, or expenses whatsoever arising out of or resulting from this Agreement or any act, omission, or negligence of Consultant or any officers, agents, servants, employees, or subcontractors of Consultant, including without limitation, any liabilities, claims, costs or expenses arising directly or indirectly, from any patented or otherwise protected invention, software, intellectual property, process, article, or appliance implemented or used in the performance of the contract, including its use by the City.

1.13 Statutory Information: Any contract or agreement resulting from this Project shall be construed in accordance with the laws of the State of Ohio. Any litigation between the parties arising out of, or in connection with, the contract shall be initiated and prosecuted in any federal or state court in Ohio. Mediation, subject to written approval of both parties, will be a mandatory first step in the event of a dispute, prior to any legal action as set forth in the contract.

All Project Vendors, participants, consultants, engineers, and subcontractors must comply with all applicable federal, state, and local laws pertaining to contracts entered into by governmental agencies, including, without limitation, non-discriminating employment. Contracts entered into on the basis of submitted Proposals are revocable if contrary to law.

1.14 Non-Discrimination Clause: During the performance of the contract, the Consultant and all subcontractors will not discriminate against any employee or applicant for employment because of race, color, creed, religion, ancestry, national origin, sex, sexual orientation, disability, age, marital status, or status with regard to public assistance. The Consultant and all subcontractors will take affirmative action to ensure that all employment practices are free of such discrimination. Such employment practices include, but are not limited to, the following: hiring, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

1.15 ADA: The Consultant and all subcontractors agree to comply with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 and not discriminate on the basis of disability in the admission or access to, or treatment of, employment in its services, programs, or activities. The Consultant and all subcontractors agree to hold harmless and indemnify the City from costs, including but not limited to damages, attorney's fees, and staff time, in any action or proceeding brought alleging a violation of ADA and/or Section 504 caused by the Consultant and any subcontractor.

1.16 Laws: The Consultant and all subcontractors will comply with all applicable local, state, and federal laws, ordinances, and regulations in the performance of the contract. The contract will comply with and be governed by all laws of the State of Ohio. Any violation shall constitute a material breach of the executed contract.

1.17 Force Majeure: Neither Party shall be in default by reason of any failure in performance of the resulting contract if such failure is proximately caused by causes beyond their reasonable control and without the fault or negligence of said Party including, without limitation, unforeseeable acts of nature; terrorism or other acts of public enemy; war and epidemics or quarantine restrictions ("force majeure").

If either Party is delayed at any time in the progress of the work governed by the contract by force majeure, the delayed Party shall notify the other Party in writing of such delay, as soon as is practical, of the commencement thereof and shall specify the cause(s) of such delay in the notice. The notice shall be hand-delivered or mailed certified-return receipt and shall make a specific reference to this provision. The delayed Party shall cause such delay to cease as soon as practicable and shall notify the other party in writing when it has done so. The time of completion shall be extended by contract modification for a period of time equal to the time that results or effects of such delay prevent the delayed Party from performing in accordance with this contract.

1.18 Policy Compliance: The Consultant shall, as a condition of being considered for award of the contract, require each of its agents, officers, and employees to abide by the City's policies prohibiting sexual harassment, firearms, and smoking, as well as all other reasonable work rules, safety rules, or policies regulating the conduct of persons on City property at all times while performing duties pursuant to the contract. The Consultant agrees and understands that a violation of any of these policies or rules will constitute a breach of

the contract and will be sufficient grounds for immediate termination of the contract by the City.

1.19 Public Information: It shall be understood that all Proposals, responses, inquiries, or correspondence relating to or in reference to this Project, and all reports, charts and Proposals or referencing information prepared by the Consultant through this this Project, shall become the property of the City, and will not be returned. The City will use discretion with regards to disclosure of proprietary information contained in any response but cannot guarantee information will not be made public. As a governmental entity, the City is subject to making records available for disclosure pursuant to applicable public record disclosure laws, and Proposers, including the Consultant ultimately awarded the contract, shall cooperate in complying with such public disclosure laws at no additional cost to the City.

1.20 Ownership of Data and Transition: Any and all City data stored on the Consultant's servers or within the Consultant's custody, is the sole property of the City. The Consultant, subcontractor(s), officers, agents and assigns shall not make use of, disclose, sell, copy or reproduce the City's data in any manner, or provide to any entity or person outside of the City without the express written authorization of the City.

In the event resulting Agreement is terminated for any reason, or upon expiration, and in addition to all other rights to property set forth, the Consultant shall:

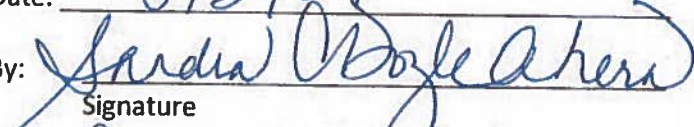
- a. Incur no further financial obligations for materials, Services, or facilities under the Agreement without prior written approval of the City;
- b. Terminate all purchase orders or procurements and any subcontractors and cease all work, except as the City may direct, for orderly completion and transition; and
- c. Make available to the City, at no cost, all City data stored within the system, stored on the Consultant's servers, or within the Consultant's custody, within fifteen (15) days of termination or City request.

In the event resulting Agreement is terminated for any reason, or upon expiration, and in addition to all other rights to property set forth, the City shall retain ownership of all data, work products and documentation created pursuant to the resulting Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement

EMH&T

Date: 8/3/21

By: 

Signature

Sandra C. Doyle Ahern

Printed Name

President

Title

CITY OF GAHANNA, OHIO

Date: _____

By: _____
Signature

Printed Name

Title

Approved as to Form:



Raymond J. Mularski, City Attorney

EXHIBIT A – Scope of Work

Scope Overview

The City of Gahanna is seeking sanitary sewer smoke and dye testing services to allow for the collection of additional information in areas that experienced a significant number of water-in-basement (WIB) reports in the spring of 2020.

The areas of focus for this current project are based on recent flow monitoring, hydraulic modeling and other relevant sewer system data. The area of focus for this current project covers a portion of the City that includes the following:

- 1,069 total parcels
- 269 acres
- 47,804-ft of sanitary sewer
- 90 WIB reports over the previous 5 years

Data obtained through this current project may be used in the future planning and design of improvements to mitigate WIB's and improve sewer system performance. Those future planning and design services will be procured through a future RFP and covered through a separate engineering services contract.

Scope of Services

Task 1. Public Outreach

- a. Consultant will develop and distribute Task 2 smoke testing notification letters with a project area map. These documents will also serve as a public relations tool for reaching out to residents in the areas planned for smoke testing. The Consultant will be responsible for mailing these documents following City review / approval.
- b. Consultant will develop and distribute a public storm sewer dye testing notification letter and right of entry for properties impacted by field work to be performed through Task 3. For the purposes of this proposal, the Consultant shall assume that 3,600-ft of public storm sewer located in backyard areas between Empire Drive and Regents Road will be subject to storm sewer dye testing. The Consultant will be responsible for mailing these storm sewer dye testing notification documents following City review / approval.
- c. Consultant will develop and distribute a separate letter and right-of-entry for single-family home (SFH) properties that are selected to participate in the Task 4 private property dye testing. For the purposes of this proposal, the Consultant shall assume that 500 SFH properties will be subject to private dye testing; this work will be performed on a voluntary basis with the consent of the property owners. The Consultant will be responsible for mailing these notification letters and rights-of-entry following City review / approval.

Task 2. Smoke Testing

- a. Consultant shall develop and distribute a door hanger to provide notification to the 1,069 affected residents in sanitary sewer smoke testing areas (see Attachment E). The door hangers shall describe the smoke testing procedure, advise the residents to fill existing traps, and provide guidance if smoke is observed in the house.
- b. Consultant shall notify local 911 and fire department personnel so they can respond to phone calls.
- c. Consultant shall complete smoke testing of 47,804-ft of public sanitary sewer to identify potential I/I sources including, but not limited to:
 - a. Roof drains
 - b. Yard drains
 - c. Foundation drains
 - d. Sewer main defects
 - e. Sanitary lateral defects
- d. Consultant shall compile the results of smoke testing and document the results of this work using both GIS data as well as summary reports suitable for by an engineering consultant in the future planning and design of sewer improvements. Prior to the initiation of smoke testing field work, a sample GIS file format and field report template shall be supplied to the City for review and approval.

Task 3. Dye Testing of Public Storm Sewers

- a. Consultant shall utilize sanitary and storm sewer mapping data along with the results of the Task 2 smoke testing to identify public storm sewers to be dye tested.
- b. The selected public storm sewers will be tested by filling those storm sewers with dyed water and examining sections of adjacent sanitary sewers through CCTV inspections for infiltration / inflow of dyed water. Consultant shall assume testing will be performed over a total of length of 3,600-ft of storm sewer located in backyard areas (between Empire Drive and Regents Road) ranging in size from 48-inch to 66-inch diameter.
- c. The results of the CCTV inspection of sanitary sewers shall be documented to identify the types and locations of observed dye infiltration / inflow, including joints, cracks, and lateral taps. This information may be used for the future planning and design of sewer improvements.
- d. For sanitary sewer segments where dye infiltration / inflow is observed, CCTV inspections of those sanitary sewers shall be performed and documented using NAASCO PACP standards and methods. Consultant shall assume a total of 3,600-ft of sanitary sewer located in backyard areas (between Empire Drive and Regents Road) ranging in size from 12-inch to 15-inch diameter will be CCTV-inspected.
- e. If storm sewer dye testing leads to observed dye infiltration / inflow into adjacent sanitary

sewers, CCTV inspections of the tested storm sewer shall be performed using NAASCO PACP standards and methods. Consultant shall assume a total of 3,600-ft of storm sewer will be CCTV-inspected in same locations as storm sewer dye testing.

Task 4. Dye Testing on Private Property

- a. Consultant shall utilize results of the Task 2 smoke testing and other data to develop a recommended list of single family home (SFH) properties to be selected for dye testing on private property. The focus of this dye testing shall be the identification of foundation drains that contribute to inflow / infiltration as well as direct connections of private sources (roof downspouts, private drains, etc.). Consultant shall assume that a total of 500 SFH will be included in the recommended dye testing list. Private property dye testing will **not** be performed at the 361 properties that were previously tested as documented in the 1999 memo (Attachment H to this RFP).
- b. Consultant shall prepare and send dye testing request letters to property owners from the recommended list. These letters will include requests for property owners to contact the Consultant to confirm they will be interested in participating in the program.
- c. Consultant shall coordinate directly with the participating property owners to assess each property for suitability of testing. Suitability shall account for property-specific factors (presence of working sump pump system, finished basements which could hinder dye testing, etc.).
- d. Consultant shall schedule testing at participating properties that are deemed suitable. Consultant develop a permission form and coordinate with property owner to obtain signature(s) prior to testing.
- e. Consultant shall perform testing at participating properties based on a rainfall simulation at each property to identify private source inflow / infiltration sources with a focus on foundation drains and direct connections of private sources (roof downspouts, private drains, etc.). The water sources used in this testing shall be either City-owned hydrants (hydrant meter to be provided by City) or Consultant-provided water truck. The City will not charge the Consultant for the use of water taken from a metered City-owned hydrant.
- f. Testing will be performed individually on each property while a closed circuit television camera (CCTV) is in the sewer lateral, launched from inside the resident's house, to record the presence and source of dyed water coming from the lateral of the house being tested. If dyed water is observed, the flowing lateral will be recorded and an estimate of the flow will be assigned to the potential source. Testing at each property will be performed for approximately 40 minutes, on average.
- g. Consultant shall compile the results of private property dye testing using both GIS data as well as summary reports suitable for use by an engineering consultant in the future planning and design of sewer improvements. Prior to initiation of private property dye

testing field work, a sample GIS file format and field report template shall be supplied to the City for review and approval.

Task 5. Summary Report

- a. Consultant shall prepare a Summary Report that documents work performed through this project.
- b. Consultant shall assess potential grant funding for the future design and / or construction of potential sewer / WIB mitigation improvements and provide an opinion in the Summary Report regarding the feasibility of such funding. If feasible sources are identified, any services performed by the Consultant to prepare or submit grant funding application(s) will be covered through a contract amendment or separate contract.
- c. This Summary Report shall be sufficiently detailed to allow for its use in supporting the future planning and design of improvements to mitigate WIB's and improve sewer system performance in the project area.
- d. Consultant shall initially provide the Summary Report as a draft deliverable subject to City review; a final version of the Summary Report shall incorporate City comments.

EXHIBIT B –CONSULTANT PROPOSAL



Engineers, Surveyors, Planners, Scientists

Delivering **Solutions.**



Proposal:

**Sanitary Sewer Evaluation
Survey (SSES) Project
Smoke and Dye Testing Services**

City of Gahanna

July 26, 2021



July 26, 2021

City of Gahanna
Attn: Director of Public Service and Engineering
200 S. Hamilton Road
Gahanna, OH 43230

Subject: Proposal for Sanitary Sewer Evaluation Survey (SSES) Project Smoke and Dye Testing Services

Dear Mr. Crawford,

EMH&T strives to be a one-stop-shop for our municipal partners. This allows us to streamline services and ensure the challenges of specific improvements are investigated to optimize the City's investment and minimize the impact on the residents. We have reviewed the information provided in the Request for Proposal and prepared a detailed scope of services tailored to the needs of this project. We believe the following considerations set us apart and are key to delivering a successful project.

- **Staff Experience:** Marci Bland, PE, ENV SP, LEED Green Associate, will be the point of contact for the City. She will lead a team of infrastructure evaluation specialists, all with dozens of projects around Ohio to their credit and unmatched training in SSES field services, to effectively investigate and document your sewer system inefficiencies.
- **Past Performance:** Marci leads EMH&T's Infratechnologies Division that has a broad history of work within Central Ohio and with Gahanna, providing comprehensive SSES services that include smoke testing, dye testing, and the condition assessment of hundreds of feet of sewer systems. Our results have given communities the tools to plan future sewer system improvements to address wet-weather issues.
- **Workload/Availability:** Our staff is available, able to begin immediately, and committed to this project for the duration. We have provided a right-sized staff, being mindful of budgets and schedules.
- **Project Approach:** We have thoroughly evaluated your request and will provide a sound, economical solution for the City's consideration. Our understanding on the operations and details of this project is highlighted in our approach.

Project Manager Marci Bland is reachable at 614.775.4237 or her email of mbland@emht.com. I am also available at 614.775.4510 or sdoyleahern@emht.com.

We look forward to providing solutions for the City of Gahanna!

Sincerely, _____

A handwritten signature in blue ink that reads 'Sandra C. Doyle-Ahern'.

Sandra C. Doyle-Ahern, MEn
President

A handwritten signature in blue ink that reads 'Marcia M. Bland'.

Marcia M. Bland, PE, ENV SP, LEED Green Associate
Principal, Senior Project Manager



TECHNICAL APPROACH

Project Understanding

After review of the Request for Proposal (RFP), we understand the City is completing ongoing flow monitoring and hydraulic modeling to identify areas with significant inflow and infiltration (I/I) resulting in water in basements (WIBs) during wet weather events. The City has identified the area bounded by Agler Road to the south, Stygler Road to the east, McCutcheon to the north and I-270 to the west, as an area that needs additional investigation to identify sources of I/I. The study area includes the Royal Manor and Brentwood Estates Subdivisions that were constructed in the early 1960's. These subdivisions are a part of the older sections of the City and would typically be suspect to contributing higher volumes of I/I.

EMH&T completed a similar study on the Gramercy Estates Subdivision in 2003. In this study, we identified eight private properties contributing to I/I through broken cleanouts or defective laterals. The smoke testing also identified three storm inlets that had smoke. We completed dyed water testing and identified indirect connections to the sanitary through brick manholes and sanitary joints. Our team estimated that 34% of the mainline manholes and sewers were susceptible to I/I.

EMH&T once again presents the same team members that worked on Gramercy Estates SSES including Marci Bland and Karen Reinhart who completed the fieldwork. Our team has been working together on SSES projects for over 20 years around the Central Ohio Area.

Our team is familiar with the challenges that come with smoke testing and dyed water testing. We have learned that with these types of projects, the most important element to a successful project is coordination with the public. Smoke testing and dye testing of public and private infrastructure is invasive to the resident by nature of the process. It is crucial that proper notification to residents, emergency services, and City staff are performed prior to, during, and upon completion of the testing in an area to help minimize stressful situations. We have found that answering some of the most frequently asked questions prior to commencement of the field activities, can help reduce a resident's stress. Some examples of these questions include:

- What is a smoke test and what is the purpose?
- What will I expect to see?
- Is the smoke harmful?
- Will I get smoke in my house? What do I do if I get smoke inside my house?
- We have a sick person in the house. What should I do if we get smoke inside the home?
- Should I be home when the testing occurs?
- If I get smoke in the home how long will it take to dissipate?
- Will the smoke hurt my pets?
- Can smoke stop up my sewer?

Project Approach

Our team will work with the City to refine the project approach to accomplish the goals of the project while keeping the residents informed. We have found that over communication is better than lack of communication.

Outreach

As stated previously, the most important element of this project is public outreach. The community needs to understand the what, why, how, and when. We understand that not every community is the same. We will work with the City staff to determine the most effective way to communicate with the residents in the area impacted. Some of the possible lines of communication are listed below:

- **General Project Letter:** Typically this letter identifies the project area and notifies the resident of the project and what and when general activities will occur in the area. It typically references Ohio Revised Code 163.03 as Right-of-Entry for the project.
- **Door Hangers:** This notification is typically utilized for smoke testing or dyed water testing on private property 48 hours in advance of the actual testing in the resident's sewer. The door hangers should cover adjacent areas to the smoke testing and near the storm sewer outfall.
- **City's Website:** General project information and map of the study area should be presented on the City's Website.
- **Smoke Testing "In Progress" Sign:** We have found on many projects that it doesn't matter how many notifications and door hangers are delivered, people still ignore them and will

think they were not properly informed. The City could consider the use of a Smoke Testing “In Progress” sign displayed near where the field crews are working. This acts as a visual reminder of the previous notifications.

- **Emergency Services:** The police and fire department will be notified when we are performing testing in specific areas. Our crews typically send out an onsite and offsite email to City Staff and Emergency Services letting them know what the limits of testing are that day.
- **Private Property Dyed Water Testing Coordination:** In conjunction with the City, we will prepare a letter notifying the property owner they have been selected for additional dyed water testing on their property. Our staff will coordinate with the property owner a specific date and time for the testing.

Smoke Testing

Smoke testing is a broad-spectrum type procedure in which the entire sanitary sewer system of the study area is injected with non-toxic smoke. The goal is to identify potential sources of I/I.

The typical sources of I/I sought include:

- Cross connections between the storm and sanitary sewer systems
- Leaking manhole structures (this verifies observed sources and also indicates potential points of leakage that were not readily apparent during manhole inspection)
- Smoke emanating through the ground indicating broken pipe or open joints
- Roof leaders
- Smoke along foundations of buildings indicating potential connection of footer drains and sump pumps
- Area drains/ditch inlets



While the above list is not all-inclusive, it represents the usual sources of I/I that are found in sanitary systems characterized as having high I/I rates. We will prepare reports for each location where smoke is observed. We also take photographs to document each potential I/I source. We typically use smoke testing results to target the dyed water testing in areas where potential cross connections are found.

Public Source Dyed Water Testing

We have learned in past investigations, a positive smoke testing result does not always mean there is a direct connection to the sanitary sewer system. There are both direct and indirect connections that can be identified by the use of dyed water testing. It is necessary to complete dyed water testing of each positive smoke test to verify the type of connection that exists. An indirect connection



could be a parallel storm and sanitary sewer system that I/I is passing from the storm to the sanitary sewer via joints or defects in the lateral. It is critical to complete dye testing with the use of a CCTV camera in the sanitary sewer system to identify the route of infiltration. An example of our dye water testing report is shown above right. This example is a positive smoke test on the storm sewer inlet. When dyed water testing was performed by plugging and flooding the storm sewer with dyed water and televising the sanitary sewer, we determined the clean water was passing through defective laterals and joints in the mainline sewer. It is assumed for this proposal that 3,600 linear feet of storm sewer will be dye tested. During the dyed water testing, our crews will perform PACP CCTV inspection of both the sanitary and storm sewer.

Private Property Inspection and Dyed Water Testing

We will work with the City to identify which homes will be investigated. For the purpose of

this proposal, we will assume up to 500 homes as stated in the RFP. The following steps will be completed in the private property inspections:

1. We will begin the private property inspection with a physical inspection of the exterior and interior (as needed) to identify possible defects.
2. Once we have targeted the high priority areas in the system, we propose using a lateral launch CCTV camera to attempt to inspect the sanitary sewer lateral from the mainline to the house wall. The success of this inspection is directly dependent on the existing condition of the lateral.
3. Once the inspection is complete, the camera will remain in the lateral as we test different I/I sources to identify areas of the house that contribute I/I to the sewer system.
4. Finally, the EMH&T team will prepare an individual summary report for each house tested. These reports will include, at a minimum, a summary of the results of testing performed, with an accompanying sketch. A copy of all individual property inspection reports will also be submitted to the City and a copy mailed to the homeowner.

Ideally, certain field tests should be undertaken only during favorable climatic conditions. For example, dry weather and ground is better for smoke testing and dye water testing adjacent to foundations. We will time our field investigations as much as possible while being sensitive to the project schedule.

Summary Report

EMH&T will provide a summary report of the private and public source I/I investigations that will include:

- Summary and exhibit of the smoke testing findings.
- Summary and exhibit for each location of the public dyed water testing.
- Summary and exhibit for each private property investigation.
- Summary report of the confirmed and suspected clean water connections along with a recommended improvement.

Staff Ability to Meet Schedules

As part of this RFP we have provided a schedule

below for completing the field investigations. It should be noted, the quality of the results of many of these field activities are dependent upon ground conditions at the time of testing. It is recommended the City allows flexibility in the schedule to perform the smoke testing and dyed water testing in dry ground conditions and when the ground is not frozen or snow covered.

Task	Start	Finish
Kick-off Meeting	8/17/21	8/17/21
Public Outreach Documents Review	8/18/21	8/20/21
Project Notification Letter	8/23/21	8/27/21
Prepare GIS for Field Crews	8/18/21	8/27/21
Smoke Testing	8/30/21	9/24/21
Review Smoke Testing Results-Make Dye Testing Recommendations	9/13/21	10/01/21
Public Outreach Dye Water Testing	9/27/21	10/1/21
Public Dye Water Testing Field Work	10/4/21	10/15/21
Public Outreach Private Property Inspection/ Dye Testing	10/4/21	12/15/21
Private Property Inspections/Dye Testing Field Work	10/11/21	12/15/21
Draft Summary Report	12/23/21	1/12/22
Final Summary Report	1/13/22	2/1/22

Funding Application Assistance

EMH&T will work with the City to identify potential funding sources and assess the project related to various funding criteria. We have dedicated staff that know the funding applications and scoring processes.

Equipment and Resources

EMH&T will utilize the following equipment and software to perform: Cues Camera, Cues Lamp II Lateral Inspection System, GIS ArcView, Trimble GeoXH, and GeoXT Handheld Mapping Grade Receivers. All of our trucks are equipped with lateral launching CCTV equipment. Each CCTV truck is also equipped with a push style camera for lines smaller than 6-inch, or a line in, which is only accessible through a cleanout or inside the house.



PROJECT TEAM

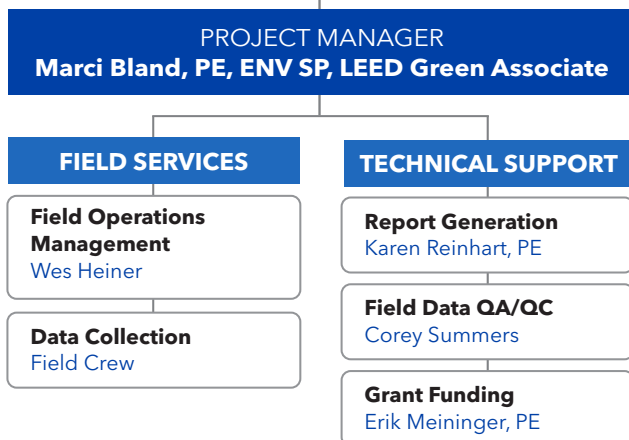
Experience on Similar Projects

EMH&T is unique within Central Ohio because we provide a full spectrum of infrastructure evaluation and management services including closed-circuit televising (CCTV) to determine connectivity, lateral locations and pipe status; light and heavy cleaning for sewer maintenance and NPDES compliance; flow monitoring for both short and long periods; manhole inspections; dyed water testing; and smoke testing.

We offer our clients both field investigations and professional engineering expertise under one roof, providing a seamless transfer of information and efficiency in data collection and interpretation. EMH&T also offers a thorough understanding of state and federal requirements for collection system operations and maintenance, as well as stormwater best management technologies for post construction maintenance.

Team Relationship

The Infratechnologies Division is led by Marci Bland, your Project Manager. She is both a licensed Professional Engineer (PE) and a 24-year veteran of EMH&T. She has spent her career working in municipal engineering, assisting clients with maintenance and operation of their collection systems and meeting regulatory requirements. Marci has worked both in the field completing investigations, and in the office designing improvements and developing overall management plans. She will lead the team outlined below.



Project Manager Experience

Marci Bland, PE, ENV SP, LEED Green Associate



Marci will lead and manage the team for this work. She will be the point-of-contact for the City of Gahanna and ensure EMH&T meets and/or exceeds the goals for the Sanitary Sewer Evaluation Survey project.

Marci has 24 years of experience and is responsible for maintaining project schedules, managing project scopes, meeting with clients and public officials, resolving project issues, and leading meetings between various disciplines. She has experience in managing personnel, preparing final engineering drawings and cost estimates for planning and construction. Marci oversees the Infratechnologies Division that specializes in closed-circuit televising (CCTV), light cleaning and debris washing for sewer maintenance, flow monitoring, manhole inspections, dyed water testing, and smoke testing.

Marci manages the completion of sanitary sewer evaluation surveys, sewer rehabilitation feasibility and cost analysis, preparation of bid documents and construction specifications, as well as regulatory and installation permitting. In addition, she possesses design expertise in sanitary sewers with open cut and trenchless construction technologies, pump stations, storm sewers, and water distribution systems.

Marci also advises local governments on capital improvement programming related to water distribution, storm and wastewater collection systems. She can manage and sift through the condition assessments, operational considerations, regulatory needs, financial constraints, and improvement sequencing to best advance the needs of a municipality.

Marci is Class II Collection Systems Operator and also trained in PACP/MACP standards and methods. She brings direct value to each project with her ability to apply her training through NASSCO, combined with her design familiarity of infrastructure rehabilitation to real-world field applications.

Key Tasks Managers' Experience

Karen Reinhart, PE Report Generation



Karen is an Engineer in the Public Works Division who works closely with Marci on infrastructure evaluation projects. She will be responsible for collating the field information into a concise, informative, clear document for the City. She has 20 years of generating preliminary engineering reports of data gathered from field services. She also supports sanitary sewer evaluations, flow monitoring data analysis, sanitary sewer capacity studies, and sewer design and rehabilitation projects. She has extensive experience in hydraulic/hydrologic modeling of wastewater and stormwater collection systems and is an expert in data analysis and interpretation of sanitary sewer flow monitoring. Her skill is to work with project managers and key personnel to convey an understanding of the system. Karen has a strong ability to monitor and interpret data during the field investigation phase to identify issues and trends which characterize a system.

Wesley Hiener Field Operations Management



Wes supervises field operation for the Infratechnologies Division. He is the point of contact in the field and liaison between the field personnel, Marci, and her staff. Wes has 18 years of hands-on experience performing and supervising sanitary sewer evaluation surveys, sewer rehabilitation feasibility, and cost analysis. He oversees CCTV to determine connectivities, lateral locations and pipe status; light cleaning and debris washing for sewer maintenance and NPDES compliance; flow monitoring installation, manhole inspections, dyed water testing, and smoke testing. He is responsible for documenting deficiencies within the infrastructure systems and reporting them to the project engineer. Wes has performed hundreds of system smoke tests, and is extremely familiar with the safeguards for ensuring an accurate outcome that properly characterizes the condition of the system. In addition, he is thoroughly familiar with the public involvement aspect of such a test, and ensures the proper notification of nearby residences, businesses, and safety service agencies.

Wes is adept at representing both the client and EMH&T with professionalism. Wes holds a Commercial Driver's License, is certified by the NASSCO PACP, and is trained in confined space entry, and surveying techniques.

Corey Summers Field Data Quality Assurance/Quality Control



Corey is a seasoned CAD Technician that supports the Infratechnologies Division. He has 12+ years of experience using Computer Aided Design (CAD) drafting to transform initial rough designs into working documents for municipal infrastructure as well as commercial and private site development. Corey creates plans from field information through final design for public works management. He has a talent for providing precise and efficient CAD drafting and his talent goes beyond just drafting. Corey is relied upon for this insight and experience to collaborate with the project engineer to bring the design plans full circle and within budgetary and schedule parameters. His duties also include GPS field data collection, source material assessment and inventory, documenting project development, and statistical analysis of the data collected. Corey is trained in confined space entry and surveying techniques, and is proficient in using ArcGIS 10.

Erik Meininger, PE Grant Funding



Erik is a Public Works Engineer with 17 years engineering projects ranging from infrastructure planning for private developments to design of large-scale public improvement projects. In addition, he works with EMH&T project teams to identify funding options. He is knowledgeable on the rules, regulations, paper flow, schedules of the funding agencies, and understands the importance of these programs to local governments. Erik has worked on prior grant applications, and examples of his success include securing \$120+ million dollars in grant and loan funding for infrastructure projects between 2007 and 2020 and providing engineering support for the largest single OPWC project award garnered for an EMH&T community-client, equating to over \$6 million.

Location of Key Staff Members

Our team members on this project will provide services from our LOCAL office at 5500 New Albany Road, Columbus.



PAST PERFORMANCE

Quality of Team's Past Work

EMH&T will provide professional people, processes, and tools for the planning and execution of the SSES project. The table below provides a snapshot of our team's project experience with similarities to the Gahanna work noted. The full project descriptions follow.

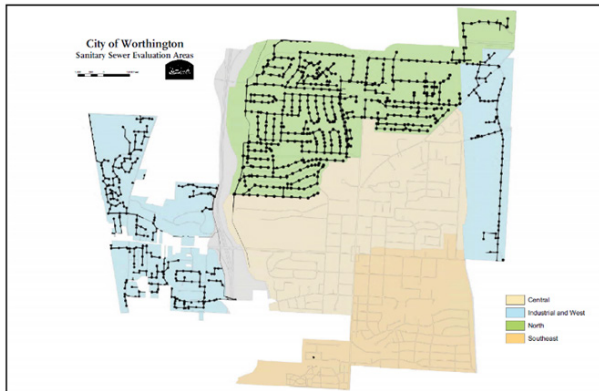
Project	Similarities to the Gahanna SSES Project							
	Number of Parcels	Number of Acres	Sewer Length (Feet)	Sewer Size (Inches)	Smoke Testing	Dye Testing	CCTV (PACP)	Public Outreach & Notification
Gahanna Gramercy Park Estates SSES	264	80	10,600	8	X	X	X	X
Worthington North District SSES	>1,000	1,830	126,000	8-24	X	X	X	X
Dublin Smoke Testing	~150	171	15,000	8-12	X	X	X	X
Grove City Republican Run SSES	>2,500	3,300	277,000	8-36	X	X	X	X
Grove City Orchard Lotz	147	37	7,618	8	X	X	X	X
Grove City Haughn Road SSES	238	77	11,000	8-12	X	X	X	X
Westerville SSES	>2,500	3,117	403,240	8-36	X	X	X	X
Grandview Heights DFFO/SSES	>3,500	830	125,000	8	X	X	X	X
Cirleville Smoke Testing	~400	240	31,806	8-18	X			X
Columbus Sullivant Avenue	324	150	16,000 1,000	8-18 30	X	X	X	X
Fairfield County Earl Peters Subdivision	~50	114	13,293	8-12	X	X	X	X

Gramercy Park Estate Sanitary Sewer Evaluation Survey, Gahanna, OH



The purpose of this study was to identify inflow/infiltration (I/I) connections of “clean” water into sanitary sewers and to assess the structural integrity of the sanitary sewer system. EMH&T utilized record plan review, smoke testing, and CCTV inspection to evaluate the condition of the existing sewer system. EMH&T used the data collected from 264 addresses during this investigation to produce a recommended rehabilitation project to address known I/I contributors and observed deficiencies.

North District Sanitary Sewer Evaluation Survey, Worthington, OH



For the final phase of Worthington’s SSES program required by the Ohio EPA, the City selected a 15-year program that included first investigating and secondly addressing capacity issues and excessive I/I in the sanitary sewer system. The SSES performed by EMH&T, identified sources and quantities of I/I entering the sanitary collection system, and feasible cost-effective actions to minimize excessive I/I entering the sewer system that caused or contributed to

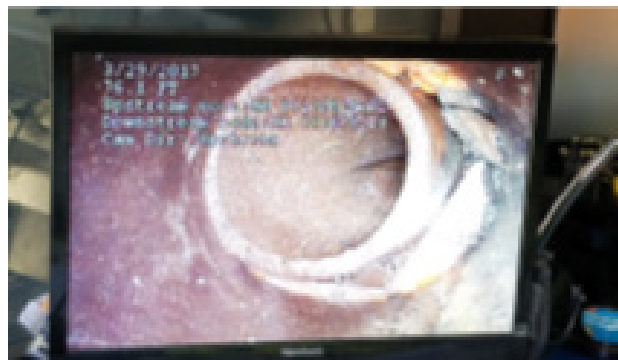
SSO’s and WIB’s within the collection system. Our evaluation also included flow monitoring to characterize flow in the system, hydraulic modeling to identify capacity issues, identification of short- and long-term actions to eliminate structural and hydraulic deficiencies within the sanitary sewer system if necessary, identification of remediation to minimize material source of excessive I/I into the sanitary sewer system if necessary, and a final report to the Ohio EPA with an implementation schedule for improvements along with cost analysis.

Smoke Testing and Dyed Water Testing, Dublin, OH

DYE TEST NO.	INFILTRATION FINDING	PHOTO #1 VIEW UP MAINLINE	PHOTO #2 VIEW UP LATERAL
4	<p>5531 Haddington Dr Leaking lateral pipe, and joints at tap connection</p> <p>Rate: Gusher Sanitary Segment: 2236:2214 Distance from MH: 99’ U/S</p>		

EMH&T performed smoke testing in an effort to collect data within the Deer Run Tributary Area area of Dublin to determine system deficiencies in sections that were experiencing WIBs. The City will use this information to address wet-weather issues and future planning of improvements. Our testing area consisted of 171-acres of residential, 150 parcels, and 15,000 feet of sewer from 8-inch to 12-inch. Our field staff provided door hangers to alert area residents of the work in progress.

Republican Run Sanitary Sewer Evaluation Study Phase 1, Grove City, OH



EMH&T worked with the City to develop a comprehensive SSES that was coordinated to meet the requirements of the Ohio EPA’s Findings and Orders compliance. This SSES project was partnered with a separate system-wide flow monitoring project that characterized the dry-

and wet-weather flow characteristics (over a 6-month monitoring period) for the City, with a specific attention to the Republican Run Tributary Area (to support the SSES and modeling efforts). The SSES assessed the physical condition of the collection system, while the flow monitoring characterized the flow appearance. EMH&T's evaluation study included flow monitoring, smoke testing, modeling, manhole inspections, dye-water testing, and CCTV inspection of the collection system. The collection system encompassed approximately 277,000 linear feet of sewers ranging from 8-inch to 36-inch. EMH&T also worked with the City to develop a systematic, phased field investigation that allowed us to evaluate subareas independently. Upon completing the field investigations, we correlated the findings with the flow monitoring data to prioritize the subareas. Then, defining the proposed projects, we focused on the following prioritization: remediation action for all broken and/or structurally deficient pipe to prevent potential failure within the collection system; rating sub-areas by condition of collection system and flow characteristics; identification of system improvements, grouped into projects, to be added to the City's CIP; resolution of deficiencies within the highest rated sub-area prior to moving to the next sub-area and, prioritization within a neighborhood to allow the team to fully address an issue by grouping the projects and ensuring the residents see the benefits of the City's investment into the collection system.

Director's Final Findings and Orders Planning (DFFO), Grove City, OH



EMH&T worked closely with the administration of Grove City to create a Resident Notification Program, Overflow Emergency Response Plan, and development of an SSES implementation

schedule to meet requirements that were outlined in the Ohio EPA's DFFOs. EMH&T's efforts allowed Grove City to gauge the fiscal impacts of meeting the requirements of the DFFOs and to make the appropriate budgetary decision to plan for the study and implementation phases. Our work included field services necessary to meet the requirements. Our goal was to optimize their existing information on the collection system, minimize the system characterization (SSES) and flow characterization (flow monitoring) efforts, and advance the orders to the CMOM components, which relate to the standard operating procedures of the City's sewer departments.

Orchard Lotz Sanitary Sewer Evaluation Survey, Grove City, OH



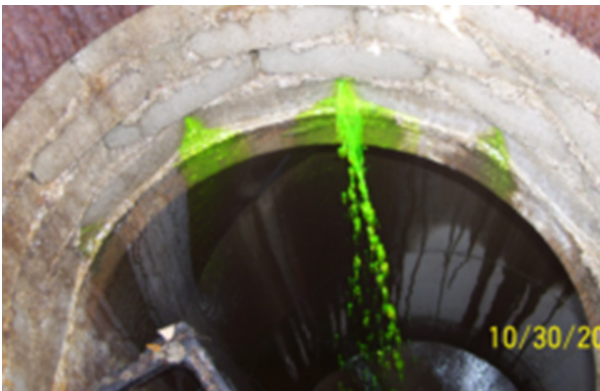
EMH&T completed this SSES of the sanitary sewers within the Orchard/Lotz study area and determined deficiencies in this portion of the collection system. This SSES included manhole inspections, flow monitoring, smoke testing, dye testing, and closed-circuit television (CCTV) sewer inspections and analysis. Based on the findings of the field investigations, we proposed recommendations for rehabilitation and improvements to the operation and maintenance of the system. The study area consisted of a 37-acre area that serves 141 single family residential units, four multi-family residential units, one apartment building, and one community housing unit. EMH&T field staff provided resident questionnaires and compiled recommendations for sewer system improvement projects including cured-in-place pipe rehabilitation, manhole rehabilitation, open cut construction, and private property improvements.

Haughn Road Sanitary Sewer Evaluation Study, Grove City, OH



EMH&T's monitoring data and the subsequent analysis collected showed significant amounts of I/I within this portion of the collection system. To further confirm our findings, EMH&T performed an SSES on the area tributary to the Haughn Road sewer. We utilized flow monitoring, smoke testing, manhole inspections, dyed water testing, and closed circuit televising. The study area consisted of approximately 11,300 linear feet of sanitary sewer and 56 manholes.

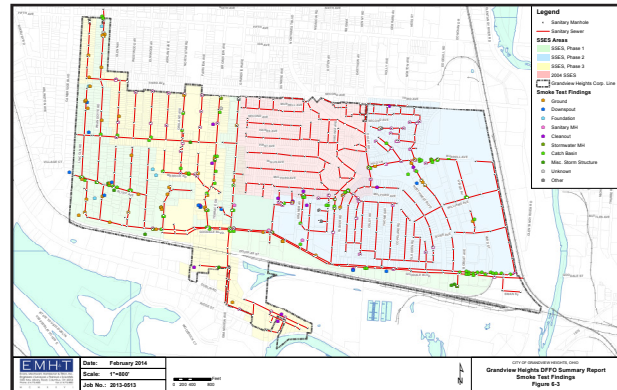
Sanitary Sewer Evaluation Survey, Westerville, OH



EMH&T performed a detailed SSES to determine areas within the City with excessive I/I and hydraulic deficiency through smoke testing and dye testing. Since Westerville owns and operates their own vactor truck, CCTV equipment, and completes annual manhole inspections, City crews were utilized for televising and manhole inspections. This approach allowed EMH&T to work closely with Westerville and take into consideration the City's available resources. The SSES investigations revealed the City had many vented lids and leaky manholes that are

contributing excess I/I. EMH&T provided a number of recommendations including cured-in-place pipe lining, manhole cover replacements, and further manhole and CCTV inspections to be performed by City crews.

Director's Final Findings and Orders Planning, Grandview Heights, OH



EMH&T performed detailed SSES investigations via CCTV inspections, smoke testing, and dye testing to identify and verify system deficiencies and sources of I/I in the City's system for remediation. We also provided recommendations to remediate sources of I/I and improve the overall performance of the collection system to assure adequate capacity for the current service areas. Our staff then evaluated and prioritized recommended projects with a cost-benefit to establish a 10-year implementation plan.



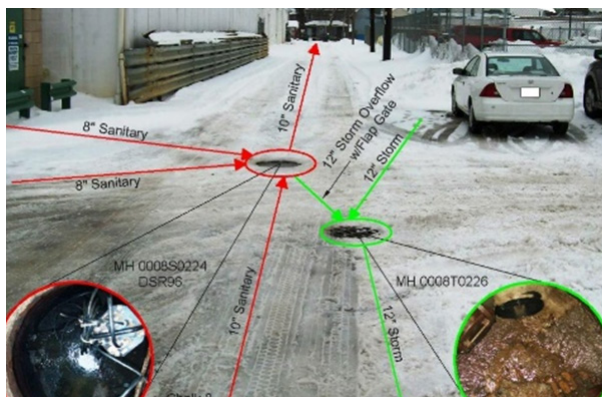
EMH&T's staff includes certified personnel in collection system operations, confined space entry, NASSCO's Pipe Assessment and Certification Program (PACP) and NASSCO's Manhole Assessment and Certification Program (MACP).

Smoke Testing, Circleville, OH



EMH&T performed smoke testing in an effort to collect data within the north most area of Circleville to determine system deficiencies in sections that were experiencing WIBs. The City will use this information to address wet-weather issues and future planning of improvements. Our testing area consisted of 250-acres of residential/private/commercial, 400 parcels, and 31,000 feet of sewer from 8-inch to 18-inch. Our field staff provided door hangers to alert area residents of the work in progress.

Sullivant Avenue Sanitary Sewer Inflow and Infiltration (I/I) Remediation, Columbus, OH



EMH&T was tasked with presenting the City of Columbus a comprehensive, feasible, and cost-effective plan to improve the sanitary collection system in the Sullivant Avenue area while mitigating DSR activations and WIB complaints. The area is approximately 150 acres and comprised of a mix of residential, commercial, and industrial land-use with a majority of the sewers dating to the 1900s. EMH&T provided

field investigations of approximately 16,000 linear feet of sanitary sewer ranging in size from 8-inch to 18-inch and approximately 1,000 feet of 30-inch combined sewer as well as some storm sewer televising. EMH&T also created a hydraulic sanitary sewer model to identify and address existing capacity issues that would result in DSR activations and/or WIBs. Our field services included processing flow meter data, windshield surveys, resident questionnaires, wet weather response, sewer cleaning, CCTV, dyed water testing, and manhole inspections. Preliminarily, we have determined that the collection system appears to be operating within design tolerances and capacity restrictions are not resulting in DSR activations or WIBs considering a clean and well maintained system. Most of the area issues were attributable to localized private property lateral defects. The public property issues appear to have been addressed with the City of Columbus' proactive annual rehabilitation project.

Earl Peters Subdivision, Fairfield County, OH



This subdivision was experiencing excessive I/I during heavy rain events that exceeded the existing pump station capabilities and overburdened the sewer system resulting in unnecessary treatment of the I/I. EMH&T performed smoke testing to locate the areas of infiltration and reported the results to Fairfield County staff for review.

Team's Ability to Meet Project Schedule

With our current staff resources, EMH&T has the availability and staff capacity to dedicate the proposed team to your project and begin immediately. Our careful planning and understanding of projects similar to the Sanitary Sewer Survey project, allows us to efficiently meet short- and long-term milestones successfully. Our experience has proven that when you combine the right staff, management approach, and dedicated hard work, this goal is attainable. From our experience with these projects and others, communicating closely with the client to discuss key decision points, and skillfully managing the "schedule killers" are absolutely key to project success.

PM's Ability to Coordinate Project Activities

Project Manager Marci Bland is a skilled facilitator and will ensure that project team members, the City of Gahanna, and key stakeholders are apprised of tasks, milestones, and mission critical issues. Marci will assure the efficient flow of communications for the project and will route documents, messages, and any other information as appropriate for quick and responsive actions. Our team structure provides the necessary personnel and resources to achieve this goal.

Team's Success in Controlling Project Costs

The EMH&T team is committed to ensuring quality services and products, while providing these services at a reasonable cost. Our cost containment practices include minimizing the number of individuals who work on a project, assigning the most skilled person for the particular work type, and monitoring budgets closely utilizing weekly accounting reports.

Marci Bland is a 24-year veteran who has successfully COMMUNICATED, COORDINATED, and FACILITATED hundreds of projects for clients throughout Ohio.



Team's Ability to Communicate Effectively with Gahanna

EMH&T has worked with the City and project stakeholders over the years and understands the value that can be achieved with renewed infrastructure. Our team is experienced with Gahanna's protocols for field work and the required public outreach/notifications. In fact, our team has performed SSES work within the Gramercy Park Estates following the City's requirements.

ATTACHMENT C – REFERENCE LIST

Please list three (3) public agency clients, along with a very brief description of the work, which the City may contact regarding the Consultant’s work performance.

REFERENCE # 1

AGENCY / CITY NAME:	City of Worthington, Ohio
DEPARTMENT:	Service and Engineering
CONTACT PERSON:	Mr. Dan Whited
TELEPHONE:	614.436.3100
EMAIL ADDRESS:	dan.whited@worthington.org
DOLLAR VALUE OF AGREEMENT:	\$188,710
DATE RANGE OF AGREEMENT:	10/2017-11/2019
NATURE OF WORK PERFORMED:	North District SSES

REFERENCE # 2

AGENCY / CITY NAME:	City of Dublin, Ohio
DEPARTMENT:	Engineering
CONTACT PERSON:	Mr. Todd Garwick (formerly with Dublin, currently with Obetz)
TELEPHONE:	614.409.4414
EMAIL ADDRESS:	tgarwick@obetz.oh.us
DOLLAR VALUE OF AGREEMENT:	\$19,375
DATE RANGE OF AGREEMENT:	12/2018-12/2019
NATURE OF WORK PERFORMED:	Dublin Smoke Testing

REFERENCE # 3

AGENCY / CITY NAME:	City of Grove City, Ohio
DEPARTMENT:	Public Service
CONTACT PERSON:	Mr. Fred Bollinger
TELEPHONE:	314.277.3000
EMAIL ADDRESS:	fbollinger@grovecityohio.gov
DOLLAR VALUE OF AGREEMENT:	\$25,000-\$200,000
DATE RANGE OF AGREEMENT:	2008-Ongoing
NATURE OF WORK PERFORMED:	Multiple DFFO and SSES projects

AFTER COMPLETING, PLEASE SUBMIT ALL PAGES OF THIS REFERENCE LIST. AS IT RELATES TO THIS PROPOSAL, PLEASE TURN IN ALL PAGES.

ATTACHMENT B - PROPOSAL PRICING FORM

Proposer should provide a not-to-exceed amount per task. Fees for Tasks 2A, 3A, 4A and 5 shall be based on hourly labor rates; fees for Tasks 2B, 3B, 3C, 3D and 4B shall be based on unit pricing. The not-to-exceed amount determination should be all inclusive and include any incidental costs such as materials, printing, and transportation fees.

Task	Task Description in Brief	Unit	Est Quantity	Task Fee	Est Hours
2A.	Smoke Testing - Outreach	N/A	N/A	\$3,470.00	
2B.	Smoke Testing (Sanitary Sewer) – Field Work	LF	47,804	\$20,370.00	N/A
3A.	Public Storm Sewer Dye Testing - Outreach	N/A	N/A	\$856.00	
3B.	Public Storm Sewer Dye Testing (Storm Sewer) – Field Work	LF	3,600	\$9,360.00	N/A
3C.	Sanitary Sewer CCTV	LF	3,600	\$4,050.00	N/A
3D.	Storm Sewer CCTV	LF	3,600	\$4,050.00	N/A
4A.	Private Property Dye Testing - Outreach	N/A	N/A	\$7,625.00	
4B.	Private Property Dye Testing – Field Work	Each Property	500	\$166,725.00	N/A
5.	Summary Report	N/A	N/A	\$24,720.00	
Total Project Fee				\$246,226.00*	

Please submit hourly billing rate schedule for Tasks 2A, 3A, 4A and 5 by classification.

Please submit your travel rates, if applicable.

* Includes \$5,000 for Reimbursables (Mileage, Mailings, Liquid Smoke, Dye, Etc.).

Mileage Rate is \$0.56 per mile

This proposal is binding upon the undersigned for 90 days after the Proposal Submittal Deadline.

COMPANY: EMH&T
ADDRESS: 5500 New Albany Road, Columbus, OH 43054
DIR NUMBER: 614.775.4500
CONTACT PERSON: Marci Bland, PE, ENV SP, LEED Green Associate
TELEPHONE: 614.775.4237

SIGNATURES FOR PROPOSER:

If INDIVIDUAL, Sign Below

If CORPORATION, Sign Below
(Show Names of Non-signing Officers)

Signature Date

EMH&T

A CORPORATION

Post Office Address

Ohio

Name of State Where Chartered

Sandra C Doyle-Ahern 7/26/21
Signature Date

If PARTNERSHIP, Sign Below
(Show Names of Non-signing Partners)

Sandra C. Doyle-Ahern, MEn 7/26/21
PRESIDENT Date

Name of Partners

Douglas E. Romer, PE 7/26/21
SECRETARY Date

Signature Date

Douglas E. Romer, PE 7/26/21
TREASURER Date

Post Office Address

5500 New Albany Road, Columbus, OH 43054
Post Office Address

AFTER SIGNING, PLEASE SUBMIT ALL PAGES OF THIS PROPOSAL PRICING FORM, INCLUDING THE SIGNATURE PAGES. AS IT RELATES TO THIS PROPOSAL, PLEASE TURN IN ALL PAGES.

SAMPLE INVOICE



Engineers, Surveyors, Planners, Scientists

Mr. John Moorehead
City Engineer
City of Gahanna
200 South Hamilton Road
Gahanna, OH 43230

INVOICE

Date: August 11, 2020
Project No: 20200352
Invoice No: 0212716

TOTAL THIS INVOICE: \$ 13,366.85

Gahanna ADA Transition Plan

Assist the City of Gahanna with the creation of an ADA Transition Plan. EMH&T will conduct the City's self evaluation of curb ramps, signalized intersections, and park/recreation facilities, prepare and implementation plan, and draft the transition plan report.
Purchase Order No.: 2000462

Professional Services from June 21, 2020 to July 18, 2020

Current Fee:

	Hours	Rate	Amount	
Sidewalk Plan				
Senior Engineer	3.50	170.00	595.00	
Engineer I	46.00	105.00	4,830.00	
Senior Designer	3.00	110.00	330.00	
Project Reports & Log Preparation				
Engineer I	40.50	105.00	4,252.50	
Project Management				
Senior Engineer	7.00	165.00	1,155.00	
Layer/Data Development				
Senior Technician	25.00	85.00	2,125.00	
Total	125.00		13,287.50	
Current Fee Billing				13,287.50

Reimbursable Expenses:

Mileage			79.09	
Total Reimbursable Expenses			79.09	79.09

Direct Expenses:

Prints and Copies			.26	.26
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Total this Invoice \$13,366.85

Project Summary:

	Current	Previously Invoiced	Total
Labor	13,287.50	22,964.75	36,252.25

Please include invoice number on check.

Project	20200352	Gahanna ADA Transition Plan		Invoice	0212716
Reimbursables		79.09	197.40		276.49
Direct Expenses		.26	256.58		256.84
Totals		13,366.85	23,418.73		36,785.58

Please include invoice number on check.

5500 New Albany Road, Columbus, OH 43054 | p. 614.775.4500 | f. 614.775.4800



ADDENDUM #1

**REQUEST FOR PROPOSAL (RFP)
SANITARY SEWER EVALUATION SURVEY (SSES) PROJECT – SMOKE AND DYE TESTING SERVICES**

1. The Scope of Work for Task 5 (Summary Report) has been updated to include an assessment of potential grant funding.

Please include with sealed proposal due on **July 26, 2021 at 11:00 AM**.

ADDENDUM #1 is hereby acknowledged:

Marcia M. Bland Project Manager
Signature and Title

EMH&T
Company Name

7/21/21
Date

Issued: July 19, 2021

Task 5. Summary Report

- a. Consultant shall prepare a Summary Report that documents work performed through this project.
- b. Consultant shall assess potential grant funding for the future design and / or construction of potential sewer / WIB mitigation improvements and provide an opinion in the Summary Report regarding the feasibility of such funding. If feasible sources are identified, any services performed by the Consultant to prepare or submit grant funding application(s) will be covered through a contract amendment or separate contract.
- c. This Summary Report shall be sufficiently detailed to allow for its use in supporting the future planning and design of improvements to mitigate WIB's and improve sewer system performance in the project area.
- d. Consultant shall initially provide the Summary Report as a draft deliverable subject to City review; a final version of the Summary Report shall incorporate City comments.



ADDENDUM #2

**REQUEST FOR PROPOSAL (RFP)
SANITARY SEWER EVALUATION SURVEY (SSES) PROJECT – SMOKE AND DYE TESTING SERVICES**

Question 1: Is water provided at no cost to the Proposer / Consultant per the dye water testing?

Response 1: The City will not charge the selected Proposer / Consultant for the use of water taken from a City hydrant, but a hydrant meter will be required to monitor usage and ensure that an appropriate volume is being used. See attached scope revision for Task 4.

Question 2: Task 4. F states that the CCTV will be launched from inside a resident's home. In my experience the dye is administered and the cctv mainline system is in the gravity main associated with the resident's lateral connection, which then identifies if dye is observed entering the sanitary sewer main. Therefore, where does the City propose the CCTV pushcam access within the residents home?

Response 2: Launching a lateral CCTV camera from inside the house is the City's preferred approach for this project because it typically provides the most useful information regarding the identification of specific I/I sources. Potential entry points for a CCTV camera launched into a lateral from inside the house include a vertical stack clean-out or nearby floor drain.

Question 3: Will there be an engineering firm working with the contractor on this project?

Response 3: The City does not have an existing contract in place with a firm to provide any engineering services required for this project. All services described in the Scope of Work need to be provided by the Proposer / Consultant selected for this project. As noted in the RFP, the Proposer / Consultant may be a team of firms.

Please include with sealed proposal due on **July 26, 2021 at 11:00 AM.**

ADDENDUM #2 is hereby acknowledged:

Maria M. Bland Project Manager
Signature and Title

EMH&T
Company Name

7/21/21
Date

Issued: July 20, 2021

Task 4. Dye Testing on Private Property

- a. Consultant shall utilize results of the Task 2 smoke testing and other data to develop a recommended list of single family home (SFH) properties to be selected for dye testing on private property. The focus of this dye testing shall be the identification of foundation drains that contribute to inflow / infiltration as well as direct connections of private sources (roof downspouts, private drains, etc.). Consultant shall assume that a total of 500 SFH will be included in the recommended dye testing list. Private property dye testing will **not** be performed at the 361 properties that were previously tested as documented in the 1999 memo (Attachment H to this RFP).
- b. Consultant shall prepare and send dye testing request letters to property owners from the recommended list. These letters will include requests for property owners to contact the Consultant to confirm they will be interested in participating in the program.
- c. Consultant shall coordinate directly with the participating property owners to assess each property for suitability of testing. Suitability shall account for property-specific factors (presence of working sump pump system, finished basements which could hinder dye testing, etc.).
- d. Consultant shall schedule testing at participating properties that are deemed suitable. Consultant develop a permission form and coordinate with property owner to obtain signature(s) prior to testing.
- e. Consultant shall perform testing at participating properties based on a rainfall simulation at each property to identify private source inflow / infiltration sources with a focus on foundation drains and direct connections of private sources (roof downspouts, private drains, etc.). The water sources used in this testing shall be either City-owned hydrants (hydrant meter to be provided by City) or Consultant-provided water truck. The City will not charge the Consultant for the use of water taken from a metered City-owned hydrant.
- f. Testing will be performed individually on each property while a closed circuit television camera (CCTV) is in the sewer lateral, launched from inside the resident's house, to record the presence and source of dyed water coming from the lateral of the house being tested. If dyed water is observed, the flowing lateral will be recorded and an estimate of the flow will be assigned to the potential source. Testing at each property will be performed for approximately 40 minutes, on average.
- g. Consultant shall compile the results of private property dye testing using both GIS data as well as summary reports suitable for use by an engineering consultant in the future planning and design of sewer improvements. Prior to initiation of private property dye testing field work, a sample GIS file format and field report template shall be supplied to the City for review and approval.

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