

Consulting Services Contract
City of Waukesha – The Sigma Group, Inc.
Project Name: Sanitary Manhole Inspection & Condition Assessments – 2022-2025

This Contract is by and between the City of Waukesha, a Wisconsin municipal corporation, referred to herein as the City; and The Sigma Group, Inc., referred to herein as the Consultant. Together, the City and Consultant are referred to as the Parties.

Recitals

The City published a Request for Proposals, referred to as the RFP, for consulting services in connection with the following Project:

Sanitary Manhole Inspection & Condition Assessments – 2022-2025

The RFP contained a specific Scope of Work to be incorporated into the successful bidder's contract.

The Consultant submitted a proposal in response to the RFP, and was selected by the City to be awarded the contract for the Project.

The Consultant is willing to perform consulting services according to the Scope of Work stated in the RFP and the Consultant's responsive Proposal, as modified by the Parties, and to accept the award of the contract for the Project.

Now, therefore, the City and the Consultant agree and contract as follows:

1. **Scope of Work.** The Consultant shall perform the services described in Schedule A, as requested by the City in individual written work orders, according to the terms and conditions of this Contract. Services performed by Consultant are referred to herein as the Work. Schedule A is incorporated into this Contract by reference.
2. **Standard of Work.** Consultant will perform the Work according to generally-accepted industry practices and the highest standards of the professions of the individual employees performing the Work for Consultant.
3. **Payment.** The City shall pay Consultant for Work performed, according to the fees shown in Schedule A. Consultant shall invoice the City monthly, and all invoices shall be payable net 30 days.
4. **Term.** This Contract shall expire December 5, 2025.
5. **Ownership of Work Product.** All materials produced in the performance of the Work shall be the sole property of the City, and shall be kept confidential and not disclosed to any third party without the prior written permission of the City.
6. **Changes.** This Contract can only be amended by the written, mutual agreement of the Parties. No change to the scope of the Work, or the total amount to be paid to Consultant, shall be effective unless done by the written mutual agreement of the Parties.
7. **Indemnification.** Consultant shall indemnify, defend, and hold the City and its officials and employees harmless from any and all third-party claims, demands, causes of action, lawsuits, judgments, penalties, and other liabilities of any kind to the extent that they arise out of or in connection with Consultant's performance of the Work, including court costs and actual attorney fees.
8. **Insurance.** Consultant shall maintain insurance of the following kinds and for not less than the following limits, at Consultant's sole expense, at all times during the performance of the Work. Policies shall be occurrence, and not claims-made, policies, except for professional errors and omissions policies. Consultant shall obtain an endorsement making the City an additional insured, and Consultant's insurance shall be primary, not excess, and non-contributory. All policies shall be from insurers licensed to issue such policies in Wisconsin. Upon the execution of this Contract, Consultant shall deliver a certificate of insurance to City showing that all requirements of this section are met.

- a. Commercial general liability, including products-completed operations, \$1,000,000 per occurrence, \$2,000,000 aggregate per project.
 - b. Automobile liability, \$1,000,000 bodily injury, \$1,000,000 property damage.
 - c. Excess liability-umbrella, \$5,000,000.
 - d. Worker compensation, statutory requirements.
 - e. Professional liability-errors and omissions, \$2,000,000, with extended-reporting period endorsement.
9. **Record Keeping.** Consultant shall keep all documents and records generated in the performance of the Work for no less than 7 years after completion of the Work, and shall make them available to the City at the City's request. Consultant acknowledges that such documents and records may be subject to Wisconsin's Open Records Law.
10. **Cooperation by City.** The City shall cooperate with the Consultant in the performance of the Work, and shall respond timely to all reasonable requests for information and access.
11. **Parties Are Independent Contractors.** Nothing in this Contract shall be construed to create any relationship between the Parties other than independent contractors. Unless specifically provided in this Contract, the Parties are not agents for one another, have no authority to bind the other to contracts, and have no vicarious liability for the other's acts or omissions.
12. **Governmental Immunities, Liability Limits, and Notice Requirements Preserved.** Nothing in this Contract shall be construed to be a waiver or modification of the governmental immunities, notice requirements, or limitations of liability imposed by Wis. Stats. §893.80 or any other law.
13. **Permits and Licenses.** Consultant shall be responsible, at Consultant's expense, for obtaining all permits and licenses required for the performance of the Work.
14. **Assignment Prohibited.** This Contract, and the Consultant's responsibility to perform the Work under this Contract, may not be assigned by the Consultant without the City's written consent.
15. **Notices.** All notices required by this Contract, and all other communications between the Parties, shall be addressed as follows:
- To the City: Attention Jonathan Schapekahn, P.E.
City of Waukesha
201 Delafield Street
Waukesha WI 53188
 - To Consultant: Attention Adam J. Roder, P.E., P.G.
Senior Engineer/Project Manager
The Sigma Group, Inc.
1300 West Canal Street
Milwaukee, WI 53233
16. **Corporate Authorization.** The individuals executing this Contract on behalf of the Consultant warrant and represent that they are duly authorized to bind the Consultant to this Contract. Consultant warrants and represents that the execution of this Contract is not prohibited by the Consultant's articles of incorporation, by-laws, operating agreement, or other internal operating orders, or by any applicable law, regulation or court order. Consultant shall provide proof upon request.
17. **Assistance of Counsel, Voluntary Contract.** The Consultant acknowledges that it has either had the assistance of legal counsel in the negotiation, review and execution of this Contract, or has voluntarily waived

the opportunity to do so; that it has read and understood each of this Contract's terms, conditions and provisions, and their effects; and that it has executed this Contract freely and not under conditions of duress.

18. **Adequacy of Consideration.** The Parties acknowledge that the consideration expressed in this Contract is adequate and sufficient to make the obligations contained in this Contract binding upon the Parties.
19. **Costs of Enforcement.** The Parties agree that in the event legal action is necessary to enforce any term or condition of this Contract, then the breaching Party will pay the non-breaching Party's costs incurred in such legal action, including actual attorney fees. If a judgment is taken, then costs of enforcement will be added to the judgment, subject to statutory governmental immunities and liability limits.
20. **Severability.** If any term of this Contract is held unenforceable by a court having jurisdiction, then to the extent the unenforceable term can be severed from the remainder of this Contract without affecting the enforceability of the remainder of this Contract or substantially frustrating its purpose, it will be so severed, and the remainder of this Contract will remain in effect and enforceable.
21. **Survival and Parties Bound.** Unless specifically limited in this Contract, any term, condition or provision of this Contract will survive the execution of this Contract or any stated time periods, to the extent necessary for their performance. This Contract is binding upon, and inures to the benefit of, the Parties' successors, assigns, heirs, executors, trustees and personal representatives.
22. **Governing Law and Jurisdiction.** This Contract will be construed and enforced according to the laws of Wisconsin. If a lawsuit arises out of this Contract, it shall be filed in the state Circuit Court for Waukesha County, Wisconsin. The Parties consent to personal and subject-matter jurisdiction in Wisconsin, and waive all jurisdictional defenses.
23. **Integration, Construction of Contract.** This Contract constitutes the entire agreement of the Parties formed as a result of the City's RFP and the Consultant's responsive proposal. All other agreements and understandings of the parties with respect to the subject matter expressed in this Contract are unenforceable. If there are any conflicts among the terms of this Contract and any documents incorporated into this Contract, including Schedule A, then the terms of this Contract shall control.
24. **Termination.** Either party may terminate this Contract without cause by giving written notice of termination to the other party, with termination to occur no sooner than 20 days after delivery of the notice. Upon termination, Consultant shall be paid for all Work completed as of the date of termination.
25. **Limitation of Liability.** Consultant shall not be liable for incidental or consequential contract damages. There shall be no other limitations of Consultant's liability.
26. **Confidentiality; Public Records.** All documents created pursuant to this Contract, and all documents delivered to the City, are public records and will be subject to disclosure to the public under Wisconsin's Open Records law.
27. **Effective Date.** This Contract shall be effective as of the latest date of execution shown below.

City of Waukesha

By Shawn N. Reilly, Mayor
Date: _____

Attested by Gina L. Kozlik, City Clerk
Date: _____

To certify that funds are provided for payment:

Bridget M. Souffrant, Director of Finance
Date: _____

The Sigma Group, Inc.

By (print name) _____
Title: _____
Date: _____

By (print name) _____
Title: _____
Date: _____

SCOPE OF SERVICES - Sanitary Manhole Inspection & Condition Assessments 2022, 2023, 2024 & 2025

PROVIDED BY THE CONSULTANT:

The City owns approximately 6,400 sanitary manholes. Of these, approximately 6,130 were previously inspected as a part of a multi-year inspection program performed between the years 2011-2019. This project will involve inspecting all City owned manholes, including reinspecting those that were previously inspected. Approximately 1600 manholes are to be completed each year.

Services to be provided by the consultant will be as follows:

Visual inspection of each manhole from the surface. Inspection crews shall note the condition of each manhole along with corresponding recommendations for repair or replacement. All manhole inspection records shall be entered in a web-based form within the City's VUEWorks asset management software. Login credentials will be provided by the City to the consultant's inspection team. Screenshots of the form are provided in Attachment A. A sample of the inspection reports must be supplied to the City after the initial week of work to insure accuracy and consistency in the reports.

A minimum of three digital photographs of each manhole inspection shall be taken:

With the cover on showing the general surrounding paved/ground surface

With the cover off with a clear view of the chimney section

Looking down the manhole with north being located to the "top" of the photo. Entire bottom of manhole shall be visible.

Additional photographs are to be taken as deemed necessary to show detail of any defects found. Photos shall be clear and sufficiently well lit. Digital files of all images shall be in JPEG format and uploaded to the VUEWorks system using the web-based form. The nomenclature for these files will be automatically generated by the system when they are uploaded.

The consultant shall deliver all electronic records, image files, etc. using the VUEWorks web-based form (Attachment A) along with copies of any written records/notes to the City.

Traffic Control shall be the sole responsibility of the consultant. All Traffic Control shall follow the guidelines as set forth in the Manual on Uniform Traffic Control Devices, Part VI, published by the Federal Highway Administration. The cost of such traffic control shall be considered incidental to the project.

All inspection and condition assessment work shall be completed by December 5, 2025.

PROVIDED BY THE CITY OF WAUKESHA:

Through the VUEWorks system, the City will provide the consultant with access to sewer system maps indicating location and manhole numbers.



November 19, 2021

Project Reference #20592

City of Waukesha - Engineering Division
201 Delafield Street
Waukesha, WI 53188
Attn: Jonathan Schapekahm
Email: jschapekahm@waukesha-wi.gov

**Subject: Proposal for Technical Services
Sanitary Manhole Inspection & Condition Assessments – 2022-2025**

Dear Mr. Schapekahm:

The Sigma Group, Inc. (Sigma) appreciates this opportunity to submit our proposal to provide Sanitary Manhole Inspection and Condition Assessments to the City of Waukesha. The information presented is predicated upon the Request for Proposal (RFP) dated October 28, 2021.

BACKGROUND

Sigma is an experienced civil and environmental engineering firm, having served the public and private sectors for over 30 years. Sigma's project team has extensive experience working on behalf of numerous municipalities and governmental entities, including the City of Waukesha and Waukesha County. We have effectively and efficiently evaluated, designed and provided construction services for utility and infrastructure improvement projects.

PROJECT UNDERSTANDING

Sigma understands the City of Waukesha owns approximately 6,400 sanitary manholes and requires a qualified consultant to perform technical services for the inspection and condition assessment of these sanitary manholes in 2022, 2023, 2024, and 2025. Approximately 1,600 manholes are to be inspected each year, with the whole of the assessment work to be completed by December 5, 2025.

SCOPE OF SERVICES

As defined in the RFP, Sigma's inspection crews will note the condition of each manhole along with corresponding recommendations for repair or replacement. All manhole inspection records shall be entered in a web-based form within the City's VUEWorks asset management software.

The following section describes our approach:

1. Kick-Off Meeting

Sigma recommends an initial kick-off meeting to introduce the team, establish lines of communication, and to discuss the delivery process.

2. Data Gathering

The VueWorks system provided by the City of Waukesha will give Sigma locations, maps, and numbers of the manholes. We understand part of the VueWorks inspection sheet has the ability to copy the last inspection if a prior inspection was completed for a given manhole. This allows the entire prior inspection to be recreated and populated with all the previous information with the exception of the date, inspector, and the photos. This approach will help Sigma deliver the project efficiently and enable us to focus on and document the information that has changed from the prior inspection.

3. Inspection

Surface Inspection - Sigma plans to deploy a two-person crew to conduct the manhole inspections from the ground surface (no confined space entry). We will be prepared to integrate a third person if locations and/or traffic conditions warrant extra personnel. Our crew will be equipped with appropriate safety/personnel protection gear (safety vest and PPE), a project-specific *Traffic Control and Safety Plan*, company vehicle with flasher lights, traffic control signs and cones, high intensity portable lights, laptop computers, high resolution digital cameras, cell phones, and tools for removing and replacing manhole covers.

Each structure will be inspected with three to five (average) digital photos taken including a photo of the unique structure code. Measure downs, manhole configurations, and other pertinent observations will be documented on the VUEWorks system. Sigma will maintain a set of field mark-up sanitary sewer system maps with extra notations that may deserve further evaluation. For structures shown on the system plans that cannot be found in the field, Sigma will notify the City of Waukesha in the weekly progress report.

Should obvious discovery of potential hazardous, structural, obstructions, or dry weather flow issues such as water system leakage be observed during the field inspections, Sigma will communicate these issues to the City of Waukesha in a timely manner.

Document Pavement Conditions - Adjacent roadway/ground surface conditions will also be inspected, assessed, and photographed to define existing conditions and problem areas should repairs be needed for deteriorated conditions or settlement in close proximity to the structures.

Provide Traffic Control and Safety Plan - Sigma will prepare a project-specific *Traffic Control and Safety Plan* that will be implemented by our inspection team. An internal team training session will be held in advance to field work ensure traffic control and safety measures are understood. The traffic control planning will be led by Pat Finn, a seasoned civil engineer with WisDOT design and construction experience. Mr. Finn will tailor the *Traffic Control and Safety Plan* to the project by applying industry standard guidelines consistent with the Wisconsin Manual of Uniform Traffic Control Devices, Part VI, published by the Federal Highway Administration.

4. Reporting

Visual Inspection of Each Manhole from the Surface - Sigma's inspection crew will note the condition of each manhole along with corresponding recommendations for repair or replacement. All manhole inspection records will be entered into the web-based form within the City's VUEWorks asset management software. Sigma will supply a sample of the inspection reports to the City after the initial week of work to insure accuracy and consistency in the reports.

Provide Findings with Photos - Sigma will deliver the electronic records, image files, etc. using the VUEWorks web-based form along with copies of written records/notes to the City.

Provide Recommendations - Sigma will prepare a brief conditions assessment letter report each year with recommendations for manhole repairs, as warranted.

RELEVANT PROJECT EXPERIENCE

Sigma has inspected an average of 5,000 to 7,000+ sanitary and storm manholes and electrical and communications system structures per year for multiple municipalities since 2008. Sigma has also provided storm sewer system evaluations for various roadway and pavement improvement projects and understands condition information is useful for scoping repairs as well as providing infiltration and inflow evaluation observations. Sigma's manhole experience is included in **Attachment 1**.

STAFF AVAILABILITY

Sigma has at least six qualified personnel with significant manhole experience that will be available to perform work during the 2022 – 2025 time period. In addition, we have numerous other field staff available to assist with tasks as they arise. As with previous projects, we anticipate having staff prepared and available to address emergency evaluations as they arise.

Presented below is Sigma’s project team, led by Adam Roder. Staff resumes can be provided upon request.

Adam Roder, PE, PG - Senior Project Manager

Adam is a Senior Engineer and will serve as Senior Project Manager responsible for reviewing existing information, managing scheduling, resolving potential issues that may arise during inspections, overseeing reporting and recommendations, and invoicing. Mr. Roder has completed the Pipeline Assessment Certification Program by NASSCO and has also led several condition assessments and accumulated material sampling of sewer systems for the Cities of Milwaukee and Mequon.

Areas of Expertise

- Manhole and Sewer Inspections
- Soil/Groundwater/Vapor Investigations and Remedial Planning
- Brownfield Redevelopment
- Voluntary Party Liability Exemption Program
- Methane/Vapor Intrusion Evaluation and Mitigation

Registrations / Certification

- Professional Engineer, Wisconsin E-35739
- Professional Engineer, Illinois 062-058177
- Professional Geologist/Hydrogeologist, Wisconsin 1369-13

Kristin Kurzka, PE, PG, Geoscience Manager

Kristin will serve in a QA/QC role, managing client satisfaction. Kristin is the Geoscience Manager with responsibilities ranging from the oversight and direction of 23 staff completing NR 700 compliant subsurface investigation and remediation for various brownfield redevelopment projects to assisting clients in securing public sector funding. She has more than 28 years of regulatory and consulting experience having worked for the Wisconsin Department of Natural Resources prior to joining Sigma.

Areas of Expertise

- Environmental Assessment
- Brownfield Redevelopment
- NR 700 Soil/Groundwater Investigations and Remedial Planning
- Grant Writing/Procurement
- Demolition Planning

Registrations / Certification

- Professional Engineer, Wisconsin E-34222-006
- Professional Geologist/Hydrogeologist, Wisconsin 1367-13

Pat Finn, PE - Civil Engineering Lead

Pat Finn, PE will serve as the Civil Engineering Lead responsible for traffic control, safety planning, and providing recommendations for structure and roadway repairs. Mr. Finn has over 15 years of experience providing civil site engineering and management services for industrial, commercial, residential and municipal clients. His experiences include construction inspection, facility management, roadway design, site grading and development design, storm water management design and surveying. Pat is versed in traffic control procedures defined in WisDOT publications.

Areas of Expertise

- Facility Management
- Construction Management
- Site Development/Roadway Design
- Cost Estimating

Registrations / Certification

- Professional Engineer, Wisconsin 41456-6
- Professional Engineer, Illinois 062.063499
- American Society of Civil Engineers
- WisDOT PCCTEC-1

Mike Murray & Tom McCoy - Lead Inspectors

Mike and Tom will serve as the Lead Inspectors responsible for performing the field manhole inspections and traffic control implementation. Both Mr. Murray and Mr. McCoy are field technicians who provide a variety of in-field environmental services for commercial, industrial, and municipal clients. Their experience includes manhole condition inspections for the City of Milwaukee and the City of Mequon, as well as wastewater and groundwater sample collection activities.

Areas of Expertise

- Manhole Condition Inspections/Documentation
- Soil, Sediment, Groundwater, Vapor, and Wastewater Sampling

Registrations / Certification

- Certified Confined Space
- OSHA 40-Hour Health & Safety Training

SCHEDULE

Sigma will abide by the City of Waukesha's desired schedule and anticipate completing 1,600 manholes within an approximately eight-week period each summer, as weather conditions allow. However, if desired, we expect to have adequate capacity to complete the inspection program in a shorter overall timeframe and are happy to discuss the details of a compressed schedule the City of Waukesha, if requested.

COST ESTIMATE

Sigma's fee to conduct the inspection and condition assessment work for 2022 is \$30 per manhole with a year-to-year adjustment of \$1.00 per manhole. Therefore, proposed cost estimates per year will be:

- 2022 - \$30/manhole
- 2023 - \$31/manhole
- 2024 - \$32/manhole
- 2025 - \$33/manhole

In selecting Sigma, the City of Waukesha can consider us a dedicated, experienced, and reliable partner. Thank you for the opportunity to submit this proposal, and please do not hesitate to contact us with any questions.

Respectfully Submitted,

THE SIGMA GROUP, INC.



Adam J. Roder, PE, PG
Senior Engineer/Project Manager
aroder@thesigmagroup.com
414.643.4134



Kristin Kurzka, PE, PG
Geoscience Manager
kkurzka@thesigmagroup.com
414.643.4127

cc: Joshua Neudorfer - Sigma
Pat Finn - Sigma

List of Attachments:

- Attachment 1 - Relevant Project Experience
- Attachment 2 - Certificate of Insurance

Attachment 1

Relevant Project Experience

Annual Manhole Inspection Program

Milwaukee, Wisconsin

Sigma performed the manhole integrity inspections of targeted sanitary, storm, and utility structures for more than 12 years. Averaging between 5,000 and 7,000 structures per year, these inspections consist of visual evaluations, digital photo-documentation, and completion of discrete database inspection forms used to manage inspection reports. The information gathered by our field crews is analyzed and used by the City of Milwaukee to prioritize system maintenance and rehabilitation as part of the street improvements program.

The purpose of the sanitary and storm structure inspections is to determine structural integrity and infiltration sources. Storm structure inspections include all storm manholes, catch basins, and inlets. Utilizing above ground visual inspection techniques, our field crews analyze areas where infiltration is occurring, measure various structural components, and suggest structural and operational repairs. Inspection deliverables include photos and database inspection forms.

The purpose of the utility manhole inspections is to determine the structural integrity of each structure. This is accomplished primarily by confined space entry combined with above surface visual inspections. Our field crews measure and analyze various structural components and suggest structural repairs. Inspection deliverables include sketches of each structure layout including connecting utility conduits, photos, and database inspection forms.

During 2020, along with inspecting approximately 4,500 sanitary, 2,000 storm, and 1,500 utility structure inspections, Sigma evaluated 115 sanitary/storm combined sewer manholes along the potential route of the proposed Milwaukee Streetcar. These inspections included the evaluation of the integrity of the manhole structures as well as plan and profile view sketches containing the structure layout, lateral connections, and channel flow information.

Sigma met aggressive year-round inspection schedules in addition to conducting as-needed emergency basis inspections.

Project Reference

Mr. Zafar Yousuf
City of Milwaukee
zyousu@milwaukee.gov
(414) 286-2467



Sanitary Manhole Inspections

Mequon, Wisconsin

Sigma performed integrity inspections of 251 sanitary manholes in fall 2020. The inspections involved visual evaluations, digital photograph documentation, and live updates of the City of Mequon's GIS database through the ESRI ArcGIS Collector application that was installed on mobile devices.

The information gathered by our field crew was further analyzed and compiled into a Sanitary Manhole Inspection Report, which provided recommendations for a variety of repair work within the manhole structures and the adjacent ground surface.



Project Reference

Mr. Kevin Driscoll, PE

City of Mequon

kdriscoll@ci.mequon.wi.us

(262) 236-2937

Milwaukee County Facilities Management Division, Storm Sewer System Evaluations
Various Sites, Milwaukee, Wisconsin

The Sigma Group provided and coordinated storm sewer system evaluations for the Milwaukee County Facilities Management Division at several Milwaukee County facilities and properties. The purpose of the evaluations was to evaluate the condition of the existing storm sewer systems and provide the County with information needed to decide whether the storm sewer systems should be replaced as part of repaving and site improvement projects planned at the various facilities and properties.

The work generally included televising of designated storm sewers at each facility and preparation of a findings report detailing the condition of the storm sewer segments and making recommendations for additional investigation, corrective action, or replacement. The Pipeline Assessment Certification Program (PACP) and rating system, as adopted by the National Association of Sewer Service Companies (NASSCO) was used to assess the storm sewers. The rating system classifies pipe defects in two categories: structural defects which include cracks, fractures, broken pipe, deformed pipe, surface damage, etc.; and operational and maintenance defects which include deposits, roots, infiltration, etc. Based on the number and severity of the defects, the program calculates a Structural Pipe Rate Index (SPRI), a Maintenance Pipe Rate Index (MPRI) and an Overall Pipe Rate Index (OPRI) on a 1 to 5 scale.

The work also included cleaning of the storm sewers as required to televise the sewers. County facilities/properties at which these services were provided include Lake Park, Doctors Park, Grant Park, the Root River Parkway, the Kinnickinnic River Parkway and the Milwaukee County Transit System Operating Garage.

Project Reference
Mr. Dave Gulgowski, PE
Milwaukee County
david.gulgowski@milwaukeecountywi.gov
(414) 278-2942



Inspection Report							
Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.		
8/24/2013		Dry	PETER MUCHKA	3			
Certificate No. U-203-618	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning Jetting	Sewer Category		
Street123	Lake Park Rd.	Use of Sewer	Stormwater	Upstream MH	CB-3		
City	Milwaukee	Drainage Area		Downstream MH	CB-2		
Loc. details		Flow Control		Dir. of Survey	Upstream		
Location Code	Easement/Right of Way	Length surveyed	96.60 ft	Section Length	96.60 ft		
Purpose of Survey		Joint Length		6 Inch	Vitrified Clay Pipe		
Year Laid		Dia./Height					
Year Rehabilitated		Material					
Tape / Media No.	COMPUTER	Lining Method					
Add. Information :							
1:252	Position	Observation					
	0.00	Downstream Manhole, Survey Begins					
	0.10	Joint Offset Medium					
	9.80	Deposits Attached Encrustation, 5 % of cross sectional area, from 08 to 04 o'clock, , within 8 inches of joint: YES					0.1 FT
	16.50	Deposits Attached Encrustation, 5 % of cross sectional area, from 07 to 05 o'clock, , within 8 inches of joint: YES					
	18.60	Deposits Attached Encrustation, 15 % of cross sectional area, from 07 to 05 o'clock, , within 8 inches of joint: YES					8.8 FT
	24.90	Deposits Attached Encrustation, 20 % of cross sectional area, from 07 to 05 o'clock, , within 8 inches of joint: YES					
	71.80	Joint Offset Medium					16.5 FT
	84.30	Hole, at 12 o'clock, within 8 inches of joint: YES					
	87.60	Hole, at 12 o'clock, within 8 inches of joint: YES					
	89.40	Hole, at 12 o'clock, within 8 inches of joint: YES					
	93.10	Hole, at 12 o'clock, within 8 inches of joint: YES					16.6 FT
	95.50	Upstream Manhole, Survey Ends					
							24.9 FT
QSR	QMR	SPRI	MPRI	OPRI	SPRI	MPRI	OPRI
3412	3222	14	19	24	233	2.6	2.4

General Mitchell International & Timmerman Airports

Milwaukee, Wisconsin

In response to Milwaukee County receiving a Notice of Violation from the Wisconsin Department of Natural Resources to be in violation of the general permit for bypasses or overflows from the Sewage Collection System (WI-0047341-03) and associated stipulate settlement agreement, the County was required to complete manhole rehabilitations and Sewer System Evaluation Surveys (SSES) for their various sanitary sewer facilities. Sigma was engaged to provide consulting services to complete the SSES and manhole evaluations for the County's two airports; General Mitchell International Airport and Timmerman Field. The sewer systems involved approximately 120 manholes and 20,000 linear feet of piping.

Sigma provided field investigation and documentation of the condition of the County's sanitary sewers and manholes at the two airports. This involved special security measures to work within restricted airport areas as well as areas open to the general public. The results were compiled with investigations by other consultants in a completed SSES to meet the settlement requirements. The SSES contained sanitary sewer maps, inventory of manhole and pipe condition assessment, listing of deficiencies, priorities for recommended repairs and construction cost estimates.

The SSES established a baseline condition assessment for identifying rehabilitation and repair efforts to elevate the performance of the systems to acceptable levels of operation that minimizes the amount of inflow and infiltration of clear water.



Specific activities performed by Sigma included:

- Manhole inspections with documentation.
- Defined pipe segments requiring televising through system records review and stakeholder meetings.
- Performed televising, dye testing and smoke testing of identified sewers with specialized subcontractor and documented findings.
- Identified and prioritized deficiencies based on rating system.
- Prepared recommendation and budget cost estimates for replacement/rehabilitation.
- Prepared draft and final SSES report using standardized inspection forms in Access format.

Project Reference

Mr. Karl Stave, PE

Milwaukee County

karl.stave@milwaukeecountywi.gov

(414) 278-4863

Attachment 2

Certificate of Insurance



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
10/12/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Hays Companies 1200 North Mayfair Road, Suite 100 Milwaukee, WI 53226	1-414-443-0000	CONTACT NAME: PHONE (A/C, No. Ext): E-MAIL ADDRESS:	FAX (A/C, No):
INSURED The Sigma Group, Inc. 1300 West Canal Street Milwaukee, WI 53233		INSURER(S) AFFORDING COVERAGE	
		INSURER A: COLONY INS CO	NAIC # 39993
		INSURER B: VALLEY FORGE INS CO	20508
		INSURER C: TRANSPORTATION INS CO	20494
		INSURER D: CONTINENTAL CAS CO	20443
		INSURER E:	
		INSURER F:	

COVERAGES

CERTIFICATE NUMBER: 63483425

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER:			PACE4278191	10/08/21	10/01/22	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Pollution \$ 2,000,000
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			6042795128	10/01/21	10/01/22	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 0			EXC4278192	10/08/21	10/01/22	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 Pollution \$ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y/N N/A	6042795145	10/01/21	10/01/22	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	Professional-C.M.			591952969	10/08/21	10/01/22	Occ./Agg. Limit 5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER**CANCELLATION**

For Information Only	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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