



CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

Date: May 28, 2026

To: Finance Committee

From: Community Development and Public Works

Re: Consultant Selection for Sanitary Sewer Master Plan

The Community Development Department and the Public Works Department have been working towards a Sanitary Sewer Master Plan update. Currently the City utilizes several plans that have some good information and some outdated information. In order to continue to move the City forward there is a need to plan for future growth, the impacts on our existing sanitary system, and identify other issues with the system.

To move this process forward, an RFP for professional services was sent to four consultants and we received 3 proposals. Staff met to review the proposals and was unanimous in the recommendation of the top proposal.

At this time staff is seeking Committee and Council approval to accept Foth as the consultant for the project and to direct staff to negotiate the final cost and contract. A copy of the proposal from Foth is attached. It is our intention to have the contract, final cost, and funding source ready for final approval by the Council meeting in June.

If you have any questions or need more information, please feel free to contact me or Greg Minikel at gminikel@manitowocwi.gov or 920-686-6912.



Request for Proposal

SANITARY SEWER MASTER PLAN

City of Manitowoc, WI
May 7, 2026

Foth Infrastructure &
Environment, LLC

7044 South Ballpark Drive
Suite 200
Franklin, WI 53132

Table of Contents

Cover Letter //	p. 1
Consultant Identification //	p. 2
Client References //	p. 3
Fee Schedule //	p. 4
Qualifications & Key Personnel //	p. 6
Project Team //	p. 11
Description of Organization, Management & Team Members //	p. 12
Scope of Work //	p. 15
Schedule //	p. 19
Appendix: Map of Proposed Metering Locations//	p. 20

May 7, 2026

Subject: Request for Proposal | Sanitary Sewer Master Plan

Dear Mr. Minikel:

Thank you for the opportunity to submit our qualifications for the comprehensive Sanitary Sewer Master Plan (SMP) project. Led by Client Director, Tom Ludwig, our team has extensive expertise in assessing, analyzing, and planning for municipal sanitary transmission across the region. As a result, we understand the complexities involved in modifying/augmenting existing sewer infrastructure for new land use and potential development, including balancing needs of existing customers and minimizing impacts to existing neighborhoods and sewer user rates while adding necessary sewer conveyance capacity.

Our approach is rooted in finding solutions that meet your needs; providing a planning document with specific, actionable steps; and creating a partnership with City staff that gives us insight into both your difficulties and your goals. Key highlights of this approach include:

Familiarity with Your System. The 2025 lift station evaluation report we completed for the City gives us an understanding of your existing system, including how it is structured and the way the various components interact. This knowledge allows us to get a quick start on the preliminary investigative phase and will inform the flow monitoring and sewer capacity analysis phases.

Expertise in System Studies and Planning. Team members have been involved in studies and planning for numerous Wisconsin communities, including Sheboygan, Jackson, Lisbon, Caledonia, and Wisconsin Rapids. This work has included flow metering, data collection, modeling, exhibit creation, and comprehensive guiding document preparation covering multi-year planning horizons.

Team Partner Excellence. For this contract, we propose to partner with Ehlers, Inc., which specializes in municipal financial advisory services, for completion of a sewer rate study. Their unique expertise augments our sewer analysis competencies and capital improvement recommendations to provide a unified cash flow financial plan for the City to utilize for orderly, cost effective growth that does not cause undue burden to existing and future rate payers.

Foth has a long history of successfully completing high-quality sanitary projects from investigation through planning and construction. We are confident this expertise along with our dedication and collaborative approach will contribute significantly to Manitowoc and its possibilities, and promote the general welfare of the community.

We look forward to the opportunity to discuss our proposal in greater detail and demonstrate how Foth can bring value to this project. Thank you for considering us for this endeavor; should you have any questions, please don't hesitate to reach out to Tom at (414) 313-3784 or Matt at (608) 628-2785 at any time.

Sincerely,
Foth Infrastructure & Environment, LLC



Tom Ludwig, PE
Client Director



Matt Eberhardt, PE
Project Manager

Client Director

Tom Ludwig, PE
(414) 313-3784
Tom.Ludwig@Foth.com

Project Manager

Matt Eberhardt, PE
(608) 628-2785
Matt.Eberhardt@Foth.com



Office Location

7044 S Ballpark Drive
Suite 200
Franklin, WI 53132
(414) 336-7900

www.Foth.com

CONSULTANT IDENTIFICATION



Foth Infrastructure
& Environment, LLC



Corporate
Headquarters

2121 Innovation Court
Suite 100
De Pere, WI 54115



Primary Office
For This Contract

7044 S Ballpark Drive
Suite 200
Franklin, WI 53132



Day-To-Day Contact
For This Contract

Tom Ludwig, PE
(414) 313-3784
Tom.Ludwig@Foth.com

Founded in 1938 in Green Bay, Foth employs more than 750 members within 30 offices across the United States. Our Infrastructure Division focuses solely on improving our nation's public infrastructure to the betterment of our local communities. We employ 50+ engineers, technicians, surveyors, scientists, and construction personnel at our Franklin location, which will be the primary office under this contract.

We are committed to being a trusted partner for Manitowoc in your infrastructure planning, design, and construction needs—striving to improve safety and quality of living, boosting the community at every possible opportunity, and helping neighborhoods develop critical public services. Our primary service areas encapsulate all components of public infrastructure projects from planning, to survey, to design, to construction.

Wastewater Engineering. We've worked closely with wastewater clients to address their needs, including for large regional sewer systems. In particular, we've completed planning studies and developed master plans to address both aging existing structures and plan for future growth and development. We believe the level of detail associated with our efforts to solve these issues sets the standard for future project design and demonstrates our responsiveness to client expectations.

Our proposed team has worked on similar master plan studies in Wisconsin, Iowa, and Minnesota and has the ability to integrate this project into our current workload. As needed, we plan to call upon subconsultant, Ehlers, Inc., to develop rate study information alongside Foth's development of capacity and master plan information.



CLIENT REFERENCES

Foth has provided wastewater engineering services and planning assistance for the clients referenced below. For more information about the work completed for these clients, please refer to the Qualifications and Key Personnel section.

Kevin Jump, PE City Engineer

2026 New Jersey Avenue
Sheboygan, WI 53081
Kevin.Jump@sheboyganwi.gov
(920) 459-3367



Projects:

- Southshore Interceptor Facility Plan and Revetment Design
- South Side Sanitary Interceptor Sewer System

Tony Bunkelman, PE Public Services Director

5043 Chester Lane
Caledonia, WI 53402
ABunkelman@caledonia-wi.gov
(262) 836-6416



Projects:

- Asset Analysis Project
- On-Call Sewer and Water Utility Engineer

Daniel Green Village Administrator

W234N8676 Woodside Road
Lisbon, WI 53089
DGreen@lisbonwi.gov
(262) 246-6100 x 1003



Projects:

- Master Sewer Service Area (SSA) Plan

Derek Budsberg Wastewater Superintendent

2540 1st Street S
Wisconsin Rapids, WI 5449
DBudsberg@wirapids.gov
(715) 421-8287



Projects:

- Sanitary Sewer Rate Study

In addition, team partner **Ehlers, Inc.**, has completed projects for the following clients:



Joe Ciurro Finance Director

201 Delafield Street
Waukesha, WI 53188
JCiurro@waukesha.com
(262) 524-3851



James Rabe Director of Engineering and Utilities

215 Church Avenue
PO Box 1130
Oshkosh, WI 54903
JRabe@oshkoshwi.gov
(920) 236-5065



Debra Epping HR/Finance Director-Treasurer

300 N Pine Street
Burlington, WI 53105
DEpping@burlington-wi.gov
(262) 342-1176

FEE SCHEDULE

 Basic Services of the Engineer	Estimated Staff Hours					Estimated Fee
	Team Lead	Client Director	Project Manager	Engineer	Administrative	
PROJECT MANAGEMENT						
Project Management (assume 12 months)	4	24	32		20	\$15,160
QA/QC	8	16	16			\$8,880
Kickoff Meeting		5		8		\$2,690
30% Review Meeting		5		8		\$2,690
60% Review Meeting		5		8		\$2,690
90% Review Meeting		5		8		\$2,690
Public Works Committee Presentation		12		12		\$5,063
Total						\$39,863
DOCUMENT REVIEW AND DATA COLLECTION						
Review Sewer Records		2		8		\$1,830
Review WWTP Data and Future Capacity		2	8			\$2,070
Coordination with City Departments		2		8		\$1,961
Review Main Route Inspection Video Reports				12		\$2,016
Sanitary Sewer Inventory		2		8		\$1,830
Total						\$9,707
FIELD INVESTIGATIONS						
Install Flow Meters (2 days; 10 meters @ 13 weeks each)				28		\$24,075
Data Collection (by City)						\$0
Remove Flow Meters (2 days; 10 meters)				28		\$4,965
Data Summary and SCADA Collection from LW Allen		2		24		\$4,518
EPA I/I Rate Summaries		2		12		\$2,502
Total						\$36,060
SEWER MODELING						
SewerGEMS Flow Development and Calibration		12	4	80		\$17,148
Capacity Model Analysis		12	4	40		\$10,428
WWTP Hydraulic Overview			8	4		\$2,256
Total						\$29,832

 Basic Services of the Engineer	Estimated Staff Hours					Estimated Fee
	Team Lead	Client Director	Project Manager	Engineer	Administrative	
CAPACITY RELIEF PROJECTS						
Field Visits (assume 1 day)		8		8		\$3,419
Capacity Priority Ranking		8		8		\$3,288
Alternatives Development	2	12	4	24		\$8,196
Modeling of Recommended Alternatives		4		40		\$7,692
Total						\$22,595
CAPITAL IMPROVEMENT PLAN						
Recommended Alternatives Scoping	2	4		16		\$4,116
Calculations/Cost Estimates		2		16		\$3,174
Preparation of Phasing Plan		8	8	16		\$6,216
Total						\$13,506
RATE REVIEW						
Rate Review and Coordination		4	4			\$1,764
Ehlers Sewer Rate Review						\$9,900
Total						\$11,664
REPORT PREPARATION						
Summary Report	4	40	8	56	8	\$22,264
GIS Figures (4 estimated)		8		24		\$5,976
Appendices		2		16		\$3,174
Total						\$31,414
Assumptions						
City staff will provide confined space topside support for meter installation and removal.						
City will download flow data from all meters at agreed upon intervals over the assumed 3 month flow metering time period.						
City will provide 4 ISCO 2150 meters and will have them calibrated before use.						
Does not include additional band rental for City ISCO units.						
Manhole inspections are not included in this effort.						

QUALIFICATIONS & **KEY PERSONNEL**



SOUTHSHORE INTERCEPTOR FACILITY PLAN AND REVETMENT DESIGN

City of Sheboygan, WI

The Southshore Interceptor Facility Plan and Revetment Design addressed a critical infrastructure and environmental need along the Lake Michigan shoreline. Originally constructed in the 1930s, the aging interceptor system had become increasingly vulnerable due to rising lake levels and shoreline erosion. Manholes along the interceptor were at risk of being breached and access for maintenance had become severely restricted. The City recognized the urgency of protecting this vital sanitary sewer infrastructure and sought a comprehensive solution to ensure its long-term viability.

Foth's approach combined technical precision with environmental sensitivity. We conducted a full system condition and capacity analysis, including CCTV inspections, flow monitoring, and core sampling that revealed the 85-year-old reinforced concrete pipe (RCP) was in excellent condition. Based on these findings, we recommended continued use of the system with targeted improvements, including armoring manholes, installing a maintenance access road, and designing a revetment system to dissipate wave energy and protect the shoreline. The team also evaluated and proposed alternatives, developed cost estimates, and provided guidance on potential funding sources. Our design incorporated removal of ineffective rock groins, restoration of stormwater plunge pools, and removal of debris to improve shoreline stability and access.

The benefits of this work were substantial. Our recommendations preserved a historically significant and structurally sound sewer system, avoiding costly full replacement. The revetment design enhanced shoreline protection, reduced erosion risks, and improved access for future maintenance. By integrating environmental restoration with infrastructure resilience, we helped Sheboygan safeguard public health, protect Lake Michigan's shoreline, and extend the service life of a critical utility asset.

Key Personnel: Tom Ludwig, PE; Michael Yeager, PE; Dan Snyder, PE

SOUTH SIDE SANITARY INTERCEPTOR SEWER SYSTEM

City of Sheboygan, WI

The City of Sheboygan underwent an evaluation of the sanitary sewer system on the City's south side, which showed significant wastewater flow increases from primarily residential development with some minor contributions from commercial, totaling 15.7 MGD. Following the evaluation, Foth was tasked with generating a facility plan and completing a background of the City and study area, an inventory of existing conditions, identification of future conditions, analysis of alternatives, and identification of the recommended interceptor sewer alternative and plan implementation. The plan will serve thousands of acres in the southwestern portion of the city and surrounding areas.

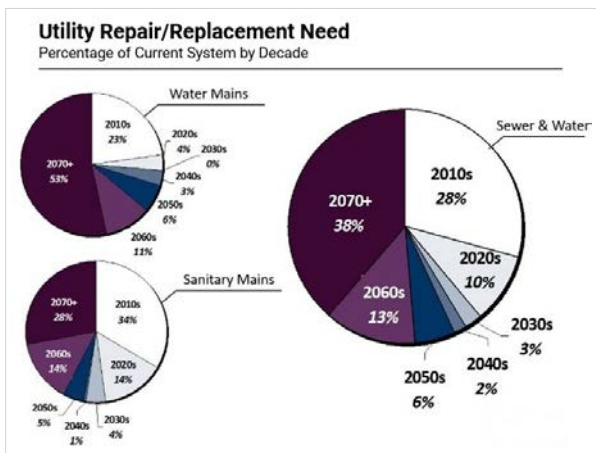


Currently in design, the project consists of installing approximately 23,000 LF of 24-inch to 42-inch gravity sanitary sewer main over four phases, with most sewer being between 20- and 35-feet deep. Phase 1 begins at the intersection of Weeden Creek Road and CTH OK and proceeds north to the Alliant Corridor, then east through the Alliant Corridor to Lakeshore Drive, and north to the WWTP. Phase 2 begins at Stahl Road and proceeds north along future and existing 18th Street to the Alliant Corridor. The sewer will be installed using open-cut construction within City ROW or on City-owned property except within the Alliant Corridor, which is owned by the County of Sheboygan/Alliant Energy. A permanent utility easement will be required for proposed sanitary sewer interceptor within the Alliant Corridor. The Alliant Corridor also includes wetland areas and will require mitigation for installation of the pipeline and the maintenance access road. In addition, the sewer passes two closed landfills, requiring that contaminated groundwater be addressed during dewatering.

Key Personnel: Matt Eberhardt, PE; Tom Ludwig, PE; Michael Yeager, PE; Dan Snyder, PE

ASSET ANALYSIS PROJECT

Village of Caledonia Utility District, WI

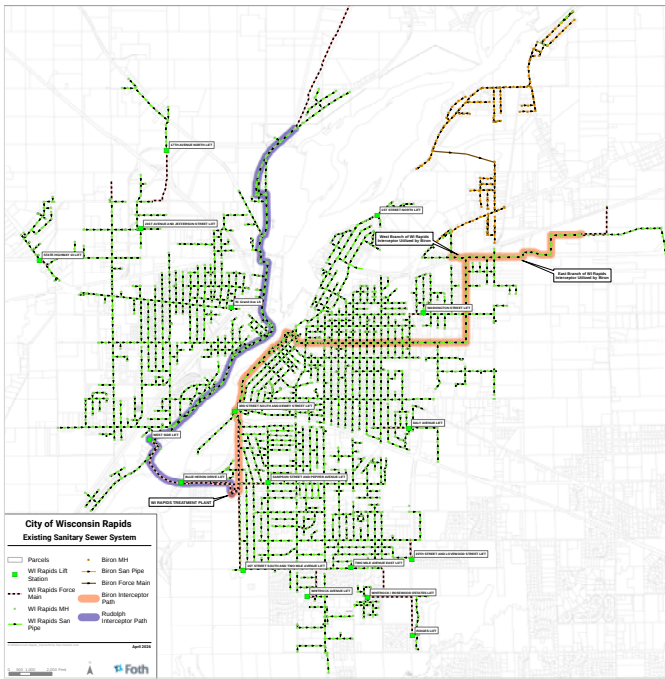


As with many Midwestern communities, the Village of Caledonia experienced a large amount of growth during the Baby Boom of the 1950s and 1960s, necessitating expansion of its sanitary and water infrastructure. As a result, an aging, 50+-year-old portion of the system was reaching the end of its useful life. Foth was tasked with conducting an asset analysis and developing a systematic planning and budgeting approach for repairs. Analysis included review of all in-ground assets, detailing construction dates, typical service life, and estimated replacement dates and costs. The resulting report also established budgetary cost estimates to repair or replace the system over time.

For the sewer system, all mains, laterals, manholes, and lift stations were researched. For the water system, mains, services, curb stops, hydrant assemblies and leads, valves, meters, meter buildings and pits, and booster stations were included. More than 45,470 data assets were involved in this research. Following analysis, Foth assisted the utility district with the following:

- Developing policies regarding level of service definition and selection of performance goals.
- Conducting a GPS condition assessment of all infrastructure assets, surveying all aboveground assets, and developing and facilitating a five-year systemwide televising effort.
- Modeling the sewer system to plan rehabilitation and replacement per a capacity assessment.
- Helping establish a five-year capital improvement plan.

Key Personnel: Tom Ludwig, PE; Stacey Tushaus, PE; Andy Schultz, PE



SANITARY SEWER RATE STUDY

City of Wisconsin Rapids, WI

To address changing demands on its sanitary sewer interceptors, the City of Wisconsin Rapids required a review of sanitary sewer rate fees from the communities of Rudolph and Biron. These neighboring Villages utilize Wisconsin Rapids' interceptors and treatment facility, and updating the fees is an important piece of supplementing improvements to this infrastructure. Together, Foth and Ehlers, Inc. completed the study and subsequent summary report and recommendations.

Ehlers was tasked with creating a cash flow analysis with user fees and long-term O&M expenses to verify positive financial status for existing maintenance and future improvements, while Foth analyzed existing flow metering data to determine sanitary sewer utilization by Biron and Rudolph. Following this analysis, the fee structure was revisited and a rate approach recommended to the City. This approach aligns with future growth, improvements, and maintenance costs for the sewer system.

Key Personnel: Matt Eberhardt, PE; Tom Ludwig, PE; Michael Yeager, PE

MASTER SEWER SERVICE AREA (SSA) PLAN

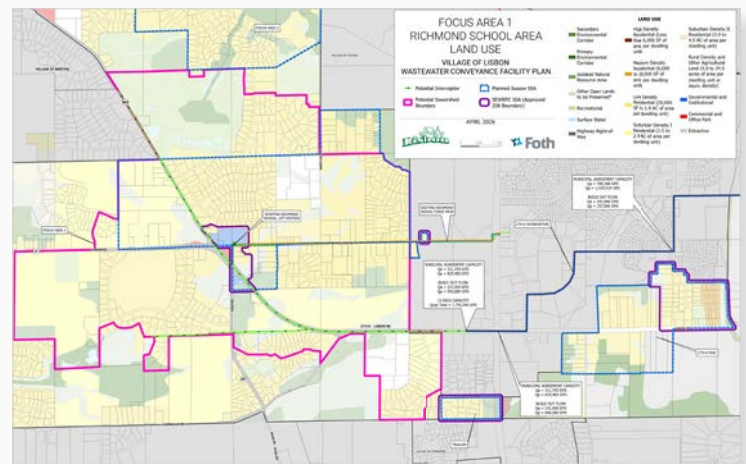
Village of Lisbon, WI

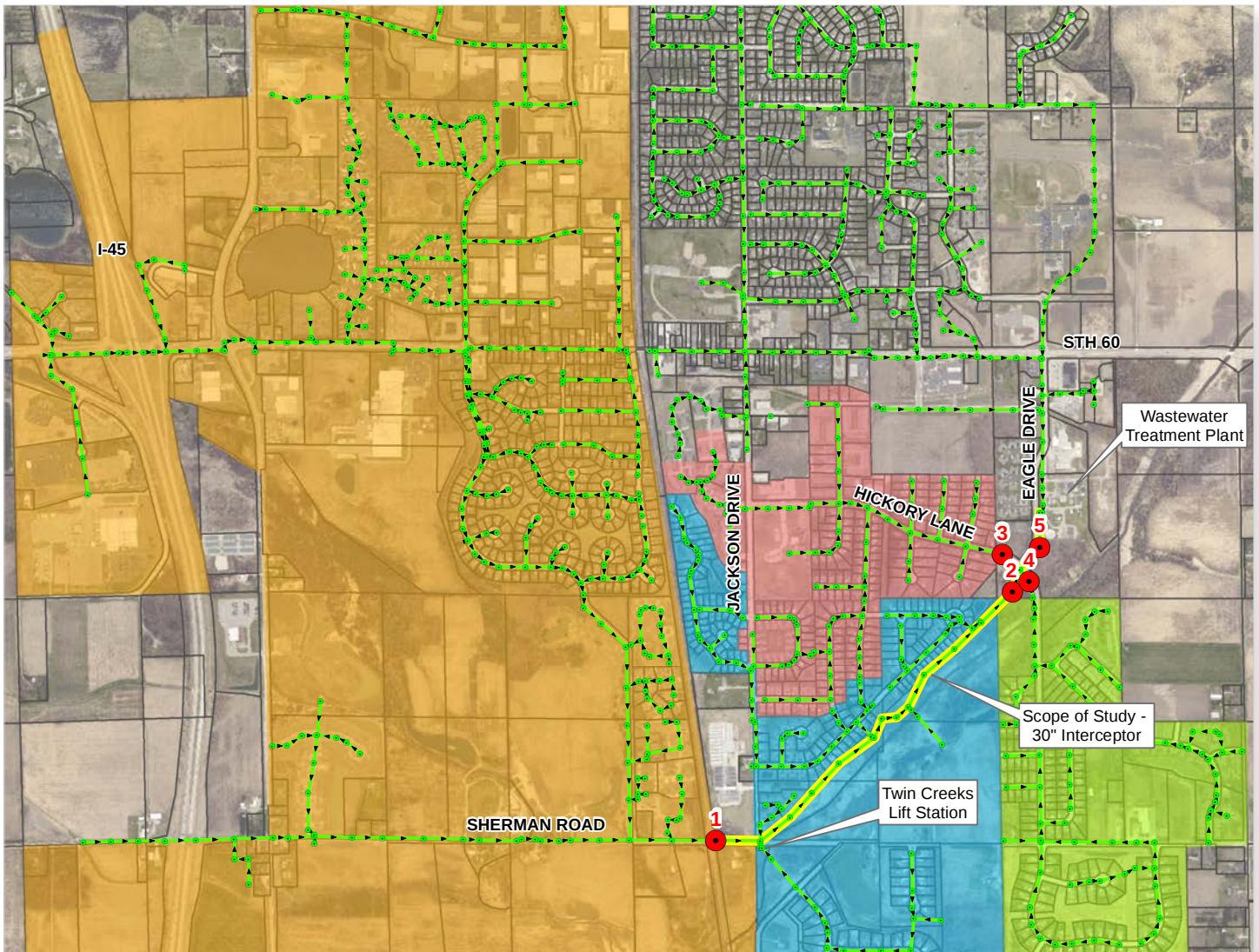
The Village of Lisbon sought to develop a facility plan for unsewered areas within the Village that showed potential for future expansion. These areas lay beyond those previously approved by the Southeast Wisconsin Regional Planning Commission (SEWRPC) 208 boundaries. Foth was tasked with preparing a facility plan that included cost-effective means of providing service to these areas, potential phasing, and coordination with the Village of Sussex, which serves as the regional Wastewater Treatment Facility (WWTF).

Work included review of intermunicipal agreements to determine allotted capacities for Village interceptors and review of topographic contours to determine areas that could be fed by gravity only. Together with Village Board and Plan Commission members, our team finalized areas based on updated land use planning and future development opportunities. Team partner, Ehlers, Inc. developed fee options for payment of construction fees and baseline population densities that would make these fees feasible.

The final plan identifies areas the Village would like to serve in the future through sanitary sewer extensions, with the final report providing a clear path for enacting the plan. SEWRPC approval is still needed for inclusion of the proposed areas into the master regional sewer areas. Additionally, necessary amendments to existing contractual sewer capacities must be requested from Sussex by Village leadership.

Key Personnel: Tom Ludwig, PE; Michael Yeager, PE; Dan Snyder, PE





TWIN CREEKS LIFT STATION AND SANITARY SEWER INTERCEPTOR STUDY

Village of Jackson, WI

The Village of Jackson has experienced significant growth, which is anticipated to continue through 2050. To evaluate the impacts of this future growth, Foth was retained to complete a study on the 30–36 inch gravity interceptor and the Twin Creeks Lift station. This study will help the Village determine whether these facilities are adequate or if they will need improvements for increased capacity.

Work included determining existing capacities and conditions of the lift station and interceptor through field testing and investigation, and flow meter data analysis was compared to our created hydraulic models to confirm existing conditions. Based on future land use and expected growth, wastewater flows were forecasted, confirmed through hydraulic modeling, and evaluated to determine whether the existing system can accommodate future flow needs.

The study determined a specific rain event for which the existing interceptor has adequate capacity for the proposed future growth scenario. Also, flow metering results assisted in establishing areas in which higher than recommended I/I were present. Manhole inspections and reports confirmed existing conditions of the structures along the interceptor. Inspection of the lift station determined existing capabilities and scenarios of response of future flows.

Study results will assist Village leadership in developing future maintenance and improvement projects to proactively prepare for further development.

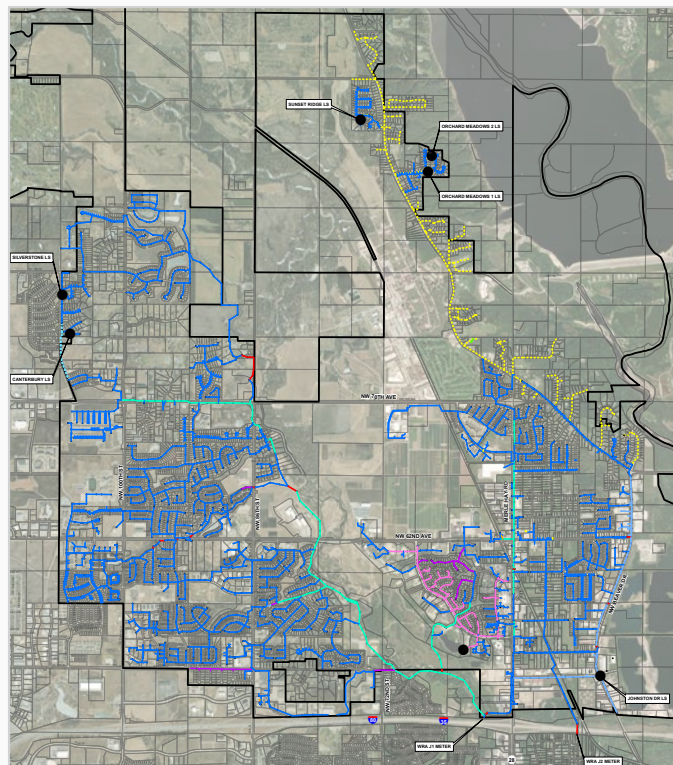
Key Personnel: Tom Ludwig, PE; Michael Yeager, PE

SANITARY SEWER SYSTEM MASTER PLAN

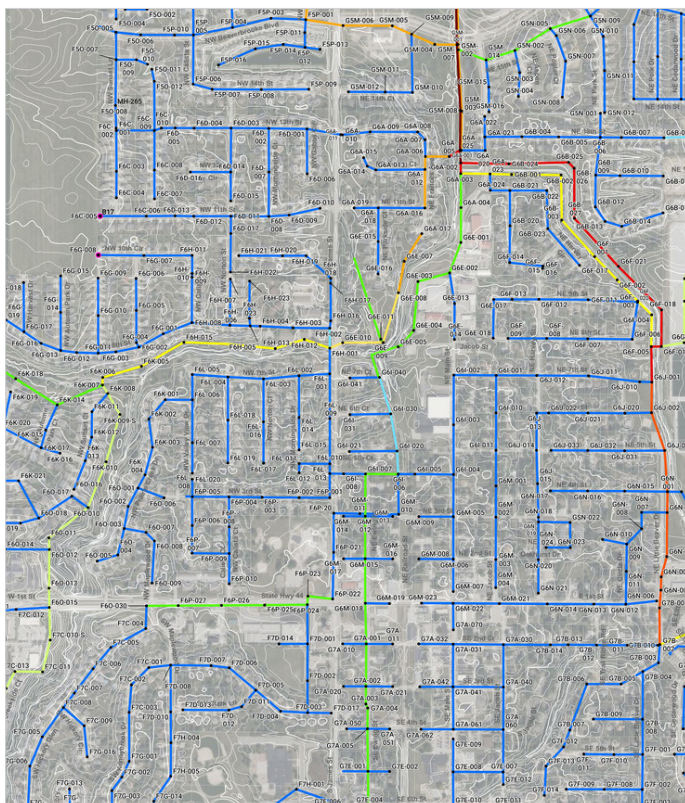
City of Johnston, IA

Over the past 10 years, the City of Johnston—located in the Des Moines metro area—has experienced significant growth that is anticipate to continue through 2040. To adequately evaluate the impact of this growth and prepare for continued development, Foth was tasked with completing a study of the sanitary sewer collection system, which consists of 400,000 LF of gravity sanitary sewer pipe ranging in size from 4 inches to 42 inches in diameter, six lift stations, and 67,000 LF of forcemain ranging in diameter from 1.5 inches to 10 inches.

The study evaluated the existing collection system, future needs, and areas of needed improvement, as well as recommending maintenance procedures. A hydraulic model of the city's system was created to project future growth to year 2040, identify impacts to the sanitary sewer system, and plan for future capital improvements. This formed the basis for developing a CIP totaling \$75 million over 15 years to help the city plan for necessary improvements to accommodate future growth within the collection system and at existing lift stations.



Key Personnel: Matt Eberhardt, PE



SANITARY COLLECTION SYSTEM STUDY

City of Grimes, IA

Located in the Des Moines metro area, the City of Grimes has experienced a decade of unprecedented growth that is expected to continue through 2040. In order to understand the impact of this growth and prepare for continued development, Foth was tasked with completing a study of the sanitary sewer collection system. The system consists of 450,000 LF of gravity sanitary sewer pipe ranging in size from 8 inches to 48 inches in diameter, three lift stations, and 13,000 LF of forcemain ranging in diameter from 8 inches to 18 inches.

Using historical data, current land use and development review information, current flow summaries, and field flow metering, we evaluated the existing collection system, future needs, and areas of needed improvement and recommended maintenance procedures. A hydraulic model of the city's system was created to project future growth to year 2040, identify impacts to the sanitary sewer system, and plan for future capital improvements. This formed the basis of 15-year, \$31 million CIP to help the city plan for necessary improvements to accommodate future growth within the collection system and at existing lift stations.

Key Personnel: Matt Eberhardt, PE; Michael Yeager, PE; Dan Snyder, PE

PROJECT TEAM

The team shown below and whose qualifications are outlined in the following section has been assembled to provide Manitowoc with the best sewer planning and design experience and availability. They offer a wealth of understanding of the data collection, interpretation, and master planning processes—leading to a quality final product.



DAN SNYDER, PE
QA/QC



TOM LUDWIG, PE
Client Director



MATT EBERHARDT, PE
Project
Manager



MICHAEL YEAGER, PE
Flow Metering,
Data Tabulation



BRIAN ROEMER
Senior Municipal
Advisor



BRIDGOT GYSBERS
Senior Fiscal
Consultant

Foth has provided infrastructure engineering for more than 85 years, including municipal wastewater modeling, planning, and design. The primary Foth members presented in this proposal have a combined 127 years of sanitary sewer experience. All proposed members are also licensed professional engineers in the state of Wisconsin. The primary office for this work under this contract is:

7044 S Ballpark Drive
Suite 200
Franklin, WI 53132
(414) 336-7900



For more than 60 years, Ehlers, Inc. has helped governments, school districts, and public agencies build strong, sustainable communities through municipal advisory services. Their staff under this contract will be dedicated to the specialized work of completing utility rate studies. In the last five years, Ehlers has completed over 90 utility rate studies. The primary office for work under this contract is:

N19 W24400 Riverwood Drive
Suite 100
Waukesha, WI 53188
(414) 336-7900



DESCRIPTION OF ORGANIZATION, MANAGEMENT & TEAM MEMBERS



Education:
BSCE, University
of Wisconsin
Milwaukee

PE:
WI

Experience:
39 Years

TOM LUDWIG, PE

CLIENT DIRECTOR



Tom has more than 35 years of experience in all facets of municipal, sanitary, road, bridge stormwater management, and water distribution engineering. He oversees all sanitary sewer and water main utility projects in Wisconsin, including facility planning, sewer and water main master planning and modeling, design, special assessments, and construction administration and management. In addition, Tom also serves as Foth's principal-in-charge for civil engineering and municipal planning services within the state.

Relevant Experience

- **Hoods Creek Sewage Attenuation Basin** | Caledonia Utility District, WI
- **Southshore Interceptor Facility Plan and Revetment Design** | City of Sheboygan, WI
- **South Side Sanitary Interceptor Sewer System** | City of Sheboygan, WI
- **TID No. 5 Sanitary Sewer Facility Planning, Design, and Construction Management Client Director** | Village of Mt. Pleasant, WI
- **Sanitary Sewer Rate Study** | City of Wisconsin Rapids, WI
- **Master Sewer Service Area (SSA) Plan** | Village of Lisbon, WI
- **Twin Creeks Lift Station and Sanitary Sewer Study** | Village of Jackson, WI



Education:
MSEE, University of
California Berkeley

BSCE, University of
Wisconsin Madison

PE:
WI, IA, MN

Experience:
24 Years

MATT EBERHARDT, PE

PROJECT MANAGER



Matt is an environmental engineer and project manager with over 20 years of engineering consulting experience. He is well-versed in all facets of wastewater, including capacity planning, gravity and forcemain design and modeling, forcemain transient analysis, lift station design, odor control, treatment, cost estimating, bidding practices, and operations and maintenance. This all-inclusive wastewater system knowledge provides clients with solutions to any of their wastewater needs.

Relevant Experience

- **Central Lift Station and Attenuation Basin Facilities Plan** | Caledonia Utility District, WI
- **Sanitary Sewer System Master Plan** | City of Johnston, IA
- **Lift Station Evaluation** | City of Manitowoc, WI
- **Hoods Creek Sewage Attenuation Basin** | Caledonia Utility District, WI
- **TID No. 5 Facilities Plan** | Village of Mt. Pleasant, WI
- **Old Mill Lift Station Sanitary Interceptor Facilities Plan** | City of Dubuque, IA
- **Sanitary Sewer Rate Study** | City of Wisconsin Rapids, WI

**Education:**

BSCE, University
of Wisconsin
Milwaukee

BS Geology,
University of
Wisconsin Madison

PE:

WI

Experience:

13 Years

MICHAEL YEAGER, PE

FLOW METERING, DATA TABULATION



Michael is a civil engineer with over 10 years of experience designing sanitary sewer, water main, roadway, and grading infrastructure. He has also worked on facility development plans, flow metering, and utility system modeling, both as standalone projects and as part of larger municipal work. In addition, Michael is involved in ongoing water and sewer facility planning efforts for several area communities, giving him familiarity with the needs, issues, and regulations associated with development work across the region.

Relevant Experience

- **Southshore Interceptor Facility Plan and Revetment Design** | City of Sheboygan, WI
- **South Side Sanitary Interceptor Sewer System** | City of Sheboygan, WI
- **Sanitary Sewer Rate Study** | City of Wisconsin Rapids, WI
- **Twin Creeks Lift Station and Sanitary Sewer Study** | Village of Jackson, WI
- **Master Sewer Service Area (SSA) Plan** | Village of Lisbon, WI
- **TID No. 5 Sanitary Sewer** | Village of Mt. Pleasant, WI

**Education:**

MSCE, Marquette
University

BSCE, Marquette
University

PE:

WI

Experience:

51 Years

DAN SNYDER, PE

QA/QC



Dan has over 50 years of experience in planning, design, and construction of municipal infrastructure projects. He has worked on utility improvements involving sanitary sewer, water mains, and stormwater systems, as well as local and arterial roadways, parkways, and multipurpose pedestrian facilities. Dan has also provided a variety of services to dozens of communities and worked directly with municipal boards and government councils on community involvement and consensus building.

Relevant Experience

- **Southshore Interceptor Facility Plan and Revetment Design** | City of Sheboygan, WI
- **South Side Sanitary Interceptor Sewer System** | City of Sheboygan, WI
- **TID No. 5 Sanitary Sewer** | Village of Mt. Pleasant, WI
- **Ryan Road Trunk Sewer** | City of Franklin, WI
- **Interceptor Control Pipe Reconstruction** | City of Sheboygan, WI
- **Chicory Road Area Sanitary Sewer Evaluation** | Village of Mt. Pleasant, WI

**Education:**

MBA, University of Wisconsin Milwaukee

BS Aeronautics-Aviation Science/Aviation Management, St. Louis University

Experience:

10 Years

BRIAN ROEMER

SENIOR MUNICIPAL ADVISOR



Brian is a Senior Municipal Advisor with Ehlers' Wisconsin Municipal Finance team where he helps clients with fiscal studies, debt planning and issuance, and financial management planning. Since joining Ehlers as an intern in 2016, Brian has quickly risen through the ranks due to his commitment to accuracy, dedication to customer service, and ability to break down complex financial concepts in a way that all client constituents can understand. Brian holds a Master of Business Administration degree from the University of Wisconsin Milwaukee. He is an active member of WIAWWA on the Young Professionals committee and recipient of the 2023 Young Professional of the Year Award.

Additional Information

- **Licenses and Certifications**
Series 50 License: Municipal Advisor Representative
- **Professional Affiliations and Memberships**
American Water Works Association—Wisconsin Chapter
Wisconsin City/County Management Association
Wisconsin Government Finance Officers Association

**Education:**

BS Business Administration/Accounting, Marion University of Fond du Lac

Experience:

26 Years

BRIDGOT GYSBERS

SENIOR FISCAL CONSULTANT



Bridgot is a Senior Fiscal Consultant on Ehlers' Wisconsin team. She brings a strong, combined background in PSC accounting, financial analysis, regulation, and engineering, positioning her to support municipalities with comprehensive utility rate studies and long-term financial management plans. Prior to joining Ehlers, she spent six years serving as Lead Economic Consultant and Project Manager at Ruekert & Mielke, Inc., where she developed deep cost-of-service study experience across water, electric, sewer, and storm water utilities. Prior to that, Bridgot spent sixteen years as an Advanced Utility Auditor with the Public Service Commission of Wisconsin (PSC), gaining a unique "insider's perspective" on water and electric rate applications. She values the strong relationships she has built with local communities and takes pride in helping them make sustainable, well-informed financial decisions.

Additional Information

- **Professional Affiliations and Memberships**
Wisconsin Section, American Water Works Association
Municipal Electric Utilities of Wisconsin

SCOPE OF WORK

Understanding of the City's Needs

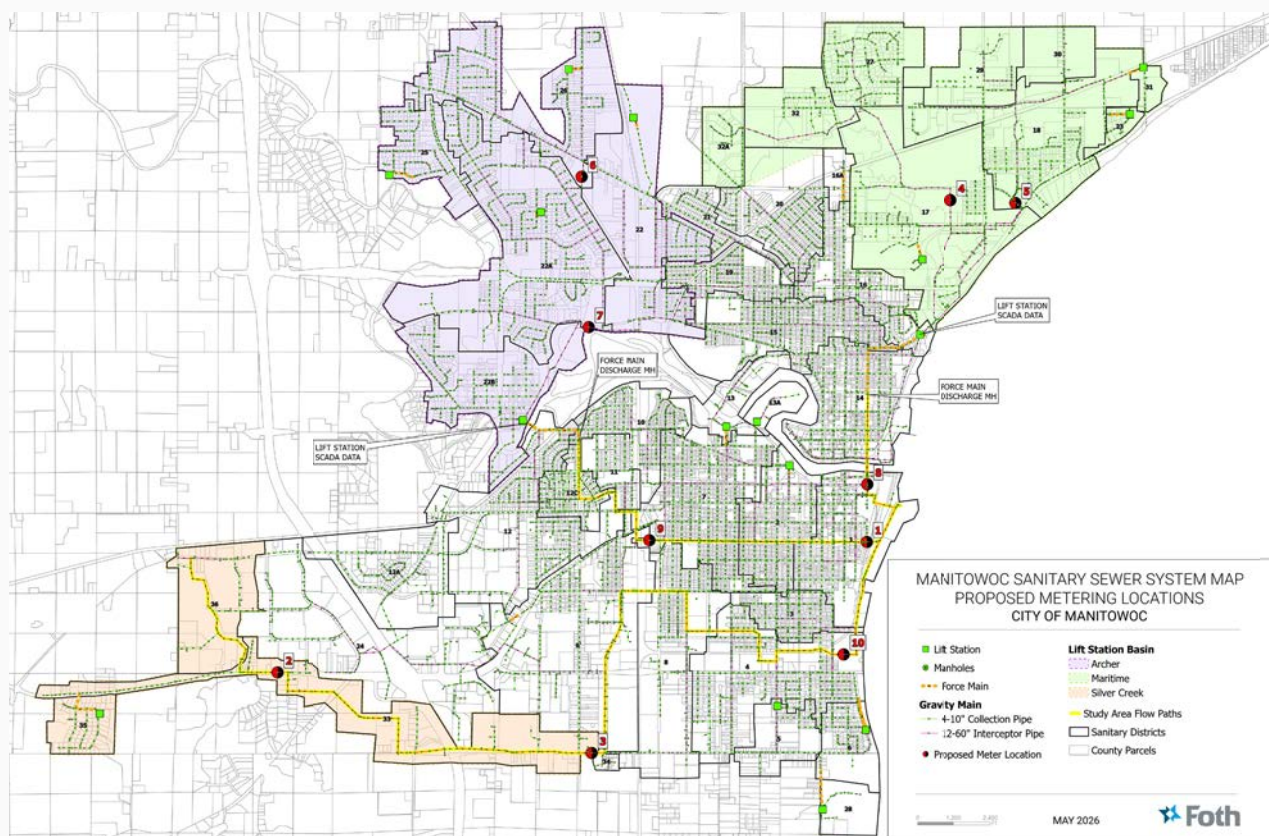
At a meeting on April 23, 2026, Tom Ludwig and Matt Eberhardt of Foth met with City planning and engineering staff, including Greg Minikel (Engineering Division Manager), Dan Koski (Director of Public Works), Adam Tegen (Community Development Director), and Billy Hutterer (Operations Manager), to refine and confirm the scope of services. The City is seeking to evaluate and plan for future sanitary sewer capacity needs in support of anticipated development, outlined in the 2043 Comprehensive Land Use Plan, while confirming that the existing conveyance system can accommodate projected growth under wet-weather conditions. Key outcomes of that discussion included prioritizing capacity evaluation and improvement planning over detailed condition assessment and focusing analysis on sewer segments influenced by future growth areas. Based on this focused need, we are proposing a comprehensive capacity study to analyze the three main growth area conveyance routes.

We recognize that, while the City's sanitary sewer system generally performs well, historic studies—most notably the Strand study—identified localized hydraulic constraints, particularly in the Holly Drive area, that remain the only recent sewer capacity improvement implemented to date. The City has indicated limited systemwide conveyance capacity issues at present, but proactive planning is needed to ensure long-term system reliability and regulatory compliance. The CTE 2006 study will also be a useful reference for pertinent historical data.

Proposed Technical Approach

FLOW MONITORING PROGRAM

Foth will implement a targeted flow metering and modeling program to evaluate wet-weather system performance. A three-month monitoring period is anticipated, beginning in June 2026, to capture summer storm events, including intense rainfall that typically occurs in August, when wet-weather-induced inflow is most pronounced. Proposed metering locations are shown in the map below; a full size version of the map is also available in the Appendix. These locations and the final number of meters can be discussed and finalized at the kickoff meeting.



Flow metering will leverage a combination of:

- Six Foth-provided ISCO 2150 velocity/area flow meters, and
- Up to four City-owned meters, integrated to supplement data coverage and system understanding.

METER INSTALLATION AND COORDINATION

Foth proposes a collaborative installation approach that optimizes staff resources:

- Foth will be responsible for meter setup, calibration, and data management.
- City staff will provide top-side confined space oversight and traffic control support during installation and maintenance activities, and data collection from the meters.

This approach balances efficiency, safety, and cost effectiveness while maintaining City involvement during data collection. Lift station SCADA data will also be used where available to augment the flow metering data during the flow monitoring period. It is assumed that LW Allen will assist in providing either actual magnetic meter flow measurements or run times. The run times would be used in conjunction with the capacity drawdown tests that Foth recently performed with the City.

Dry- and wet-weather average and peak flows will be measured and tabulated. These calibrated flows will be used in the modeling phase as a basis to project future average and peak wet-weather flow events. Inflow and infiltration rates experienced in the three major conveyance routes will be compared to EPA published standards and potential problem sewersheds will be identified for potential field investigations and further study.



Sewer System Modeling and Analysis

MODEL DEVELOPMENT AND CRITERIA

The SewerGEMS (Bentley Software) model will be developed using flow monitoring data and projected development flows from the 2043 Comprehensive Land Use Plan. Identified growth areas will be incorporated into the modeling, such as the:

- Calumet Avenue corridor,
- Alverno Road area north of the industrial park on both sides of I-43,
- Rapids Road corridor, and
- East side of the airport.

Flow generation will consider anticipated land use, development intensity, and tributary basin characteristics. Any additional areas identified by City staff can be easily incorporated into the flow generation process used for modeling.

LEVEL OF PROTECTION

System modeling and capacity evaluation will be based on a 5-year design storm, consistent with WDNR-accepted Level of Protection (LOP) criteria commonly applied for sanitary sewer planning and design. Capacity relief recommendations will be formulated using the same standard for planning and potential future design phase consistency. A 1-year LOP event can be produced similar to past studies as a sensitivity analysis.



Additional model runs for larger storms can also be produced to measure the impacts and provide a further sensitivity analysis and discussion of remedial measures.

As discussed at the recent preliminary scoping meeting, the WWTP is generally operating well within existing capacity limits, so we are not anticipating the need for an in-depth, labor intensive endeavor as part of this scope. Modeling results will be evaluated against the existing WWTP capacity at a total hydraulic level. Our scope excludes a capacity analysis of individual unit processes. Predicted average and peak flows will be compared with current WWTP capacity limits. Foth can deliver a comprehensive unit process capacity report if the City desires, if authorized under a separate, negotiated level of effort.

Focus Areas and System Prioritization

Flow monitoring and hydraulic analysis will concentrate on downstream sewer segments receiving flow from new and future growth areas. These areas convey flow toward the Maritime and Archer Lift Stations and the Silver Creek Interceptor system, making these sewer segments key control points for assessing cumulative impacts. Study emphasis will be:

- Identifying capacity constraints under wet-weather conditions,
- Evaluating the ability of downstream infrastructure to accommodate future flows, and
- Developing capacity relief strategies where required.

Consistent with City input, limited effort will be devoted to detailed pipe condition assessments, unless refined during the kickoff meeting.

- Assessing existing pipe conditions by reviewing existing recent sewer video reports on representative segments of the three main interceptor routes. NASSCO PACP ratings will be utilized where available to assess pipe conditions and the potential need to include them as part of the capital improvement plan.
- Developing cost effective relief alternatives that will consider new sewers, relays and/or sewage attenuation basins.
- Alternatives will consider other City infrastructure projects, such as Rapids Road reconstruction planned for 2030.

Any necessary sewer rehabilitation along the three major conveyance routes will also be estimated and recommended as part of the financial analysis portion of the study.

Capital Improvement Planning

Based on the modeling results, Foth will develop a prioritized sanitary sewer Capital Improvement Plan (CIP). The CIP will:

- Identify recommended capacity relief projects,
- Rank improvements based on hydraulic benefit, urgency, and growth accommodation,
- Provide planning-level sizing and conceptual cost information, and
- Support informed decision-making for phased implementation.

Summary Report

A summary report will be prepared to consolidate the findings and results of the above-described approach into a clear, concise, decision-oriented deliverable. The report will outline the project background and objectives; summarize key observations, data, and assumptions; document applicable criteria and constraints; and present our findings and conclusions in a user-friendly format. Where appropriate, we will identify notable system deficiencies per agreed upon wet-weather criteria, high I/I susceptible sub-sewersheds, and areas requiring additional study. We will provide practical recommendations and a capital improvement plan with next steps to support orderly and sustainable development decisions in concert with the City's 2043 Comprehensive Land Use Plan.



Project Coordination and Kickoff

Final refinements to project scope, monitoring locations, and assessment priorities will be confirmed during a formal project kickoff meeting with City staff. This meeting will ensure alignment on expectations, roles, schedule, and deliverables prior to initiating field activities.

Sewer Rate and Financial Analysis Support

Ehlers, Inc. will assist the City with analysis and recommendations related to sanitary sewer system rates, ensuring that financial planning aligns with the recommended capital improvements and long-term system sustainability. Under this step, Ehlers will perform a detailed review of the City's existing sanitary sewer service rate structure to evaluate whether the sanitary sewer utility is fully recovering the cost of providing services. They will also assess the utility's ability to fund future capital projects, including both short-term needs and long-term improvements. The review will be supported by a long-range cash flow analysis and will consider current and projected system costs and needs, including operation and maintenance expenses; current and future costs to comply with existing and anticipated standards, regulations, and environmental requirements; projected customer demands and flows; and available system capacity. In addition, Ehlers will evaluate the adequacy of funding for routine and planned maintenance projects and the sufficiency of reserves for depreciation, emergencies, and other contingencies, along with other identified impacts affecting the utility's financial condition.

Ehlers will summarize their findings to clearly identify how the current rate structure impacts the utility's ability to fund ongoing operations, maintenance activities, and capital/infrastructure improvements. The long-range cash flow analysis will evaluate the use of cash-versus-debt funding for capital improvement projects and will include financial benchmarking, such as days of cash on-hand, any applicable debt service coverage metrics, and recovery of full revenue requirements (including a reasonable rate of return, as applicable). The end result will be an easy-to-understand evaluation of the utility's current financial health and a roadmap for undertaking future improvements.

Value to the City

This approach provides the City with:

- Data-driven, defensible capacity planning with practical projects that can actually be implemented,
- Alignment with WDNR previously accepted modeling standards,
- Efficient use of City resources with cost-effective field support,
- Clear prioritization of future investments with support from Ehlers' professional financial expertise, and
- A scalable planning framework that can be implemented/staged as development progresses.



PROPOSED PROJECT SCHEDULE

Our team is fully prepared to begin work immediately upon notice to proceed. Before accepting or submitting a proposal for any project, our management team collectively analyzes the contract requirements and our current and future workload capacity. Based on this analysis, we confirm that the proposed project team has the capacity to meet the anticipated demands. The team identified is committed from initiation through completion, ensuring continuity, responsiveness, and efficient delivery.

Project Kickoff	Mid June 2026	2026
Flow Metering	June–September 2026 (May need to be extended to capture a relevant storm event.)	
Meter Flow Analysis and Land Use Flow Generation and Modeling	September–November 2026	
Capacity Improvement Alternatives	December 2026–February 2027	
Cost Estimates and Rate Study	March–April 2027	2027
Draft Summary Report	May 2027	

Overall schedule would be extended if the flow monitoring period is lengthened.



APPENDIX: MAP OF PROPOSED METERING LOCATIONS

