ATTACHMENTS

III

4.6

Res. No. 162- 19 - 20. By Alderpersons Wolf and Sorenson.
February 3, 2020.

A RESOLUTION authorizing the Purchasing Agent to advertise the Digester Complex Roof Replacement Capital Improvement Project at the Wastewater Treatment Plant for bids.

WHEREAS, the Department of Public Works has had plans and specifications for the Digester Complex Roof Replacement Capital Improvement Project prepared by Tremco Inc. to allow the project to be put out to bid pursuant to Wis. Stat. § 62.15.

NOW, THEREFORE, BE IT RESOLVED: That the Purchasing Agent is hereby authorized and directed to advertise the Digester Complex Roof Replacement Capital Improvement Project at the Wastewater Treatment Plant for bids pursuant to the plans and specifications prepared by Tremco Inc. with the requirement pursuant to Wis. Stat. § 62.15(3) that bids be accompanied by a certified check or a bid bond equal to five percent (5%) of the bid payable to the city as a guaranty that if the bid is accepted the bidder will execute and file the proper contract and bond within the time limited by the city.

BE IT FURTHER RESOLVED: That the Purchasing Agent shall comply with all requirements imposed on an Advertisement for Bids under federal, state, and local law, including noting the bid bond requirement pursuant to Wis. Stat. § 62.15(3) in the Advertisement for Bids.

BE IT FURTHER RESOLVED: That the Purchasing Agent is directed to submit a resume of bids received to the Common Council for further consideration.

Public Works

I HEREBY CERTIFY that the foregoing Resolution was duly passed by the Common Council of the City of Sheboygan, Wisconsin, on the _____ day of _____, 20____.

Dated _____ 20____. _____, City Clerk

Approved _____ 20____. _____, Mayor

CITY OF SHEBOYGAN

REQUEST FOR PUBLIC WORKS COMMITTEE CONSIDERATION

ITEM DESCRIPTION: Resolution authorizing the Purchasing Agent to advertise the Digester Complex Roof Replacement Capital Improvement Project at the Wastewater Treatment Plant for bids.

REPORT PREPARED BY: Steve Jossart, Superintendent of Wastewater

REPORT DATE: February 6, 2020 **MEETING DATE: February 11, 2020**

FISCAL SUMMARY:

Budget Line Item:	N/A
Budget Summary:	N/A
Budget Expenditure:	N/A
Budgeted Revenue:	N/A

STATUTORY REFERENCE:

Wisconsin Statues:	N/A
Municipal Code:	N/A

BACKGROUND / ANALYSIS: The roof over the east digester complex has been leaking for a number of years and is in need of replacement. This roof was installed when the plant was upgraded in 1980 and has been in service beyond its expected life. During an inspection last fall, core samples of the roof membrane and insulating material were taken to determine the extent of damage to the roof and whether or not it contained asbestos. The core samples showed that the layers below the top membrane were saturated with water and that the entire roof would need to be removed and replaced down to the concrete decking. Tests for asbestos containing materials in the roof membrane came back positive and all roofing materials will need to be removed by a contractor certified for asbestos abatement and properly disposed of.

STAFF COMMENTS: For the past number of years during rain events water has leaked into the building creating areas of standing water. Repairs have been attempted, but none have corrected the issue. This building houses equipment which is critical to the operation of the anaerobic sludge digesters which includes pumps, digester gas and biosolids distribution piping and controls for these systems. This roof is regularly accessed to maintain equipment on top of the digesters, so the new roof must be designed to handle regular foot traffic.

The project scope includes the removal and proper disposal of all existing roofing membranes, flashing and insulating materials from the east digester complex roof. The new roof will include a water proof bottom membrane, an insulating layer, and an upper membrane which will be sealed with hot asphalt and topped with pea gravel.

Cost Breakdown: *Costs estimated by Tremco Inc. based off of an inspection completed in December of 2019.*

Component/Service	Supplier/Contractor	Estimated Cost
Remove Existing Roof and Dispose	TBD	$ 50,000.00
Install New Roof	TBD	$ 80,000.00
Electrical Removal and Installation	WWTP Staff	$ 1,500.00
Contingency (10%)		$ 12,850.00
TOTAL		**$ 144,350.00**

ACTION REQUESTED: Motion to recommend the Common Council adopt Res. No. 162-19-20 authorizing the Purchasing Agent to advertise the Digester Complex Roof Replacement Capital Improvement Project at the Wastewater Treatment Plant for bids.

ATTACHMENTS:

I. Res. No. 162-19-20
II. Specification for East Digester Complex Roof Replacement.
III. Project Management Project Plan Submittal

Project Name: Digester Complex Roof

Project Location: Wastewater

Dates

Projected Start Date: 9/1/2020
Projected End Date: 11/6/2020

Strategic Plan Focus Area(s):

- ☐ Quality of Life
- ☒ Infrastructure and Public Facilities
- ☐ Economic Development
- ☐ Neighborhood Revitalization
- ☐ Governing and Fiscal Management
- ☐ Communication

Project Description (Scope) and Purpose

Complete replacement of the built-up roof over the east digester complex complex which is at the end of life. The scope includes removal of all existing materials down to the concrete deck, followed by the installation of a new built-up roof per specification. The new built-up roof will use a hot asphalt coating with a tapered polyisocyanurate insulating system and ½" gypsum board decking. The installation contractor will provide a 20-year roof system warranty for all components.

Project Deliverables

The demolition of the existing roof will need to be done by a contractor certified to remove and properly dispose of asbestos containing materials which have been found in the existing roof. All curbing and drains will be inspected and replaced/modified as required by the specification. The new roof will be installed per specifications, including the replacement of all flashing.

Cost and Funding

Estimated Design Cost $0
Estimated Construction Cost: $144,350
Estimated DPW Labor Hours: 20

Is Project Identified in Budget? ☒ Yes ☐No Budget Year:
Is Project a CIP Project? ☒ Yes ☐No CIP Year:
Is Project Funding Multi-year?* ☐ Yes ☒No Years:
*Include Documentation to Identify/Describe Funding

Account Number	Description	Funding Available	Notes:
60138300-621200	Anaerobic Digestion New Digester Complex Roof	$ 100,000	Roof was found to contain asbestos. Money will be used from North Entrance Gate Project to Cover
60138300-631100	Improvements other than building	$ 50,000	Alotted for the North Entrance Gate Project, but will be used for this project.
		$	
		$	
		$	

If more than 5 account numbers are to be used, attach separate listing of accounts, descriptions and amounts.
Identify accounts as expenditure or revenue (grant) accounts

Background and/or Additional Information

While putting together the specification and scope for the new roof, samples were collected and it was determined that the existing roofing materials contained asbestos. This will result in additional costs to complete the project, which will be funded from the North entrance gate project ($50,000), which can be completed the following year if there are insuffient funds to complete all of the wastewater projects scheduled for 2020.

Project Team and Assignments

Name(Department/Division)	Role
Steve Jossart Wastewater	**Project Manager**
Mark Wittstock Wastewater	Environmental Manager
Brian Willadsen Wastewater	Operations Resource
Mark Oldenburg Wastewater	Maintenance Resource

Coordination with others, including city issued permits

Name(Department/Division)	Role
Planning/Building Permits	Building Permit

Public Information

Select one of the options below:

None ☒
Inform ☐
Consult ☐
Involve ☐

Description of how public will be informed:
Internal wastewater project to maintain structures. No communication to public required except through normal council and committee approvals.

External Permits

Notification to state by the roofing contractor to communicate the waste materials from the existing roof contain asbestos. The notification by the contractor will also need to include the proper manifests for disposal.

Detailed Schedule

Deadline	Task
1/28/2020	Submit IFC for approval to go out for bids.
2/3/2020	Council refers to public works committee.
2/11/2020	Public Works approves purchasing to go out on bids for project
2/17/2020	Council Approval
3/13/2020	Project is out for bids and pre-bid meeting is complete.
3/20/2020	Bids due. Bids opened.
3/27/2020	Contractor selected.
4/8/2020	Council refers IFC with contract costs to public works committee.
4/14/2020	Public works committee approves project.
4/20/2020	Council approves project
9/7/2020	Contractor mobilizes and begins demolition.
9/15/2020	Demolition and assessment of structure are complete.
9/16/2020	Contractor begins installation of new roof.
10/2/2020	Project is substancially complete. Punchlist is developed.
10/16/2020	Punchlist items are completed and contractor is demobilized.

III

4.7

Res. No. 163- 19 - 20. By Alderpersons Wolf and Sorenson.
February 3, 2020.

A RESOLUTION authorizing the appropriate City Officials to enter into a contract with Foth Infrastructure and Environment, LLC for the Sheboygan Southside Interceptor Feasibility Study.

RESOLVED: That the appropriate City officials are hereby authorized to enter into a contract with Foth Infrastructure and Environment, LLC in substantially similar form to that attached, for the Sheboygan Southside Interceptor Feasibility Study.

BE IT FURTHER RESOLVED: That the appropriate City officials are authorized to draw funds not to exceed $338,000 from Account No. 60134110-649200 (Wastewater - Sanitary Maintenance - Equipment Replacement Fund).

BE IT FURTHER RESOLVED: That the director of public works or the director's designee is appointed as the City's Authorized Representative pursuant to Section 2.2 of the contract with Foth Infrastructure and Environment, LLC.

Public Works

I HEREBY CERTIFY that the foregoing Resolution was duly passed by the Common Council of the City of Sheboygan, Wisconsin, on the _____ day of _____, 20____.

Dated _____ 20____. _____, City Clerk

Approved _____ 20____. _____, Mayor

AGREEMENT FOR SERVICES

Project Title (the "Project"): Southside Interceptor Feasibility Study

FOTH Project Number: _____

CLIENT Project Number: (If applicable) _____

This Agreement for Services (hereinafter "Agreement") is made and entered into this _____ day of _____, 20_____, by and between Choose an item., (hereinafter "Consultant") and City of Sheboygan, (hereinafter "Client"), for the services described under the Scope of Services (the "Services").

CLIENT: City of Sheboygan

Address: Department of Public Works, 2026 New Jersey Avenue, Sheboygan WI 53081-4714

Phone No: 920-459-3368 Email Address: Scott.isaacs@sheboyganwi.gov

Scope of Services: Client hereby agrees to retain Consultant to perform the following Services and as further described in the Statement of Qualifications (SOQ) in Exhibit A:

	Phase	Estimated Fee
1	Flow Monitoring Phase	$55,000 - $65,000
2	Televising Phase (primarily sub-contractor)	$40,000 - $44,000
3	Preliminary Investigation Phase – Pipeline	$44,000 - $49,000
4	Preliminary Investigation Phase – Shoreline	$16,000 - $19,000
5	Feasibility Study Phase – Shoreline	$56,000 - $61,000
6	Feasibility Study Phase – Pipeline & Shore Combined Summary Report	$95,000 - $100,000
	Total Estimated Engineering Fee Range	$ 306,000 - $ 338,000

This contract scope has been reduced from the original SOQ submittal to only include the feasibility study portion of the project. A new contract will be executed for the design of the recommended alternative derived from the feasibility study.

Schedule: Services shall be performed according to the following schedule:

Phase	Duration	Time Frame
Flow Monitoring Phase	4-6 Months	March – July 2020
Televising Phase	2.5 Months	March – May 2020
Preliminary Investigation Phases	2.5 Months	March – May 2020
Feasibility Study Phases	3.5 Months	May – August 2020

Compensation: In consideration of these Services, the Client agrees to pay Consultant compensation as follows:

☐ Lump-Sum in the amount of $ .00

☐ Unit Cost/Time Charges (Standard Rates)

☒ Other as stated here: Per standard 2020 hourly rates summarized above in the scope phase estimated fee ranges and described in Exhibit B.

Special Conditions (if any):

If at any time during the investigation portion of the study it is determined that the existing interceptor physical condition or capacity is in a state such that any repairs are infeasible, the study will be suspended and a new scope and fee will be determined and negotiated, respectively..

The attached Agreement for Services Standard Terms and Conditions is made a part hereof and incorporated into this Agreement.

IN WITNESS WHEREOF, this Agreement is accepted on the date last written below, subject to the terms and conditions above stated and the provisions set forth herein.

CLIENT

Signed: _____

Name (printed): _____

Title: _____

Date: _____

CONSULTANT

Signed: _____

Name (printed): _____

Title: _____

Date: _____

Signed: _____

Name (printed): _____

Title: _____

Date: _____

AGREEMENT FOR SERVICES
STANDARD TERMS AND CONDITIONS

1.0 Commencement of Services - The Services will commence consistent with the schedule referenced herein or as otherwise agreed to by the parties, upon receipt of this signed Agreement. If after commencement of the Services, the Project is delayed for any reason beyond the control of Consultant for more than sixty (60) days, the terms and conditions contained herein are subject to revision by Consultant.

1.1 Standard of Care - The standard of care for any professional Services performed or furnished by Consultant under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Consultant makes no other warranties, express or implied, under this Agreement or otherwise, in connection with any Services performed or furnished by Consultant. Subject to the standard of care, Consultant and its sub-consultants may use and rely upon data, reports, design elements and information ordinarily or customarily furnished by others, including, but not limited to Client, Client's other contractors or consultants, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.

Consultant shall not be required to sign any document, no matter by whom requested, that would result in the Consultant having to certify, guarantee, or warrant the existence of conditions whose existence the Consultant cannot ascertain.

1.2 Compliance with Laws - In performing the Services under this Agreement, Consultant shall comply with any and all applicable federal, state, and local statutes, ordinances, plans, and regulations.

2.0 Client Responsibilities - Client shall provide, at Client's expense, all criteria, design, and construction standards including full information as to Client's requirements for the Project, including all document specifications. The provision or production of such data or information is not included in the Services, except where explicitly referenced in the Scope of Services. As stated in Section 1.1, Consultant shall be entitled to rely upon such data and information in the performance of the Services and shall not be liable for any incorrect advice, judgment or decision based on any inaccurate information furnished by Client, Client's agents or Clients other consultants. Such data and information shall include but not be limited to the following:

a. If not included in the Scope of Services, a complete survey of the Project site which shall include but not be limited to easements, right-of-way, encroachments, zoning and deed restrictions, subterranean structures or utilities, existing buildings and improvements.

b. If not included in the Scope of Services, soils data, laboratory tests, reports and inspections of samples, materials or other items, with appropriate professional interpretations.

c. Legal counseling services necessary for the Project including legal review of the construction contract documents.

d. Accounting, bond and financial advisory (including, if applicable, "municipal advisor" services as described in Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) and the municipal advisor registration rules issued by the Securities and Exchange Commission), independent cost estimating, and insurance counseling services.

e. If not included in the Scope of Services, permits and approvals from any authorities having jurisdiction over the Project.

2.1 Right of Entry - Client shall provide for entry for the employees, agents and subcontractors of Consultant and for all necessary equipment.

2.2 Client Authorized Representative - Client shall designate a person authorized to act as Client's representative. Client or his representative shall receive and examine documents submitted by Consultant and shall be empowered to interpret and define Client's policies and render decisions and authorizations in writing promptly to prevent unreasonable delay in the progress of Consultant's Services. Client shall give prompt written notice to Consultant whenever Client observes or otherwise becomes aware of any defect in the Project, Services or other event which may substantially affect Consultant's performance of Services under this Agreement.

3.0 Fees and Payment

3.1 Invoice Payment Due - Client shall compensate Consultant for Services and expenses rendered under this Agreement. Consultant's fee for Services will be based on Consultant's rates currently in effect at the time the Services are done; lump sum or other schedules as identified under the Compensation section. Rates of Consultant are subject to annual revision. Payment shall be due within thirty (30) days after the date of invoice describing the Services performed and expenses incurred during the preceding invoice period.

3.2 Failure to Pay. Client agrees that timely payment is a material term of this Agreement and that failure to make timely payment as agreed constitutes a breach hereof. In the event payment for Services rendered has not been made within thirty (30) days from the date of invoice, Consultant may, after giving seven (7) days' written notice to Client and without penalty or liability of any nature, and without waiving any claim against Client, suspend all work on all Services as set forth herein. Upon receipt of payment in full for Services rendered, plus interest charges, Consultant will continue with Services. Payment of all compensation due Consultant pursuant to this Agreement shall be a condition precedent to Client using any of Consultant's work product and/or deliverables under this Agreement.

3.3 Interest on Late Payments - In order to defray carrying charges resulting from delayed payments, simple interest at the maximum rate allowed by law will be added to the unpaid balance of each invoice. The interest period shall commence thirty (30) days after the date of the original invoice and shall terminate upon date of payment. Payments will be first credited to interest and then to principal.

4.0 Insurance/Limitation of Consultant's Liability - Consultant will maintain the following insurance coverages:

a. Worker's compensation insurance pursuant to state law.

b. Comprehensive automobile and vehicle liability insurance covering claims for injuries to members of the public and/or damages to property of others arising from use of motor vehicles, including onsite and offsite operations, and owned, non-owned, or hired vehicles, with $1,000,000 combined single limits.

c. Commercial general liability insurance covering claims for injuries to members of the public or damage to property of others arising out of any covered negligent act or omission of Consultant or of any of its employees, agents, or subcontractors, with $1,000,000 per occurrence and $2,000,000 in the aggregate.

d. Professional liability insurance, if applicable, of $1,000,000 per claim and in the aggregate.

4.1 Liability Limits - Notwithstanding any provision in this Agreement to the contrary, Client and Consultant each agree not to assert against the other any claim, demand or suit for consequential, incidental, indirect or special damages arising from any aspect of the performance or nonperformance of the other party or any third-party engaged by such other party under this Agreement, and each party hereto waives any such claim, demand or suit against the other in connection with this Agreement.

4.2 Waiver of Subrogation - Both parties hereby waive, and shall cause their respective insurers to waive, all rights of subrogation against the other party, their employees, officers, directors, shareholders, agents, or sub-consultants for damages caused by risks covered by insurance, except such rights as they may have to the proceeds of the insurance.

5.0 Indemnification - Consultant, to the fullest extent permitted by law, shall indemnify and defend Client and any of Client officers, directors, employees and agents from and against claims, losses, damages, and liabilities, including legal fees and expenses, for third party claims of bodily injury, sickness, or death, and property damage or destruction to the extent caused by the negligent acts or omissions of Consultant or Consultant's separate contractors or anyone for whose acts any of them may be liable.

6.0 Hazardous Materials - Client hereby understands and agrees that Consultant has not created nor contributed to the creation or existence of any types of hazardous or toxic wastes, materials, chemical compounds, or substances, or any other type of environmental hazard or pollution ("Hazardous Materials"), whether latent or patent, at Client's premises, or in connection with or related to the Project with respect to which Consultant has been retained to provide Services. Therefore, to the fullest extent permitted by law, except for Hazardous Materials introduced onto the site by Consultant and not required or permitted in the performance of Consultant's Services, Client agrees to indemnify, and hold Consultant, its officers, directors, shareholders, employees, and Consultants, harmless from and against any and all claims, damages, and expenses, whether direct, indirect, consequential or otherwise, including, but not limited to, attorney fees and court costs, arising out of, or resulting from the discharge, escape or release, of Hazardous Materials. Nothing contained within this Agreement shall be construed or interpreted as requiring Consultant to assume the status of a generator, transporter, or owner or operator of a treatment, storage or disposal facility, as those terms appear within the Resource Conservation and Recovery Act, 42 U.S.C.A., §6901 et seq., as amended, or within any State statute governing the generation, treatment, storage, and disposal of waste.

7.0 Design Without Construction Phase Services - Notwithstanding any provisions in this Agreement to the contrary, if this Project involves construction and Consultant is not retained to provide construction phase services including, but not limited to, observation, site visits, shop drawing review, and design clarifications, Client agrees that Consultant shall be responsible only for those construction phase services expressly required in Consultants Scope of Services. With the exception of such expressly required Services, Consultant shall have no design, shop drawing review, or other obligations during construction, and Client assumes all responsibility for construction phase services. Client waives all claims against the Consultant that may be

connected in any way to construction phase services except for those Services that are expressly required in Consultants Scope of Services.

8.0 Documents- Ownership of Work Product and Proprietary Information - The deliverables prepared under this Agreement shall become the property of the Client only upon completion of the Services and payment in full of all monies due to Consultant. In the event Client reuses or makes any modifications to the deliverables without prior written authorization of Consultant, the Client agrees, to the fullest extent permitted by law, to indemnify and hold Consultant, its consultants, agents, officers, directors, shareholders and employees harmless from any claim, liability or cost (including reasonable attorneys' fees and defense costs) arising or allegedly arising out of any unauthorized reuse or modifications of Consultant's Services, work product, and/or deliverables by the Client or any person or entity that acquires or obtains the such work product and/or deliverables from or through the Client without the written authorization of Consultant.

Notwithstanding the foregoing Consultant's liability to Client for any computer programs, software products, or related data furnished hereunder is limited solely to the correction of residual errors, minor maintenance, or update(s) as agreed. CONSULTANT MAKES NO WARRANTIES OF ANY KIND, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE, or against infringement, with respect to computer programs, software products, related data, technical information, or technical assistance provided by Consultant under this agreement. The Consultant will take reasonable precautions to prevent the transmission of any virus, or other contamination with the exchange of electronic media, but Consultant makes no assurances that those precautions are adequate to assure a contamination free transmission.
Consultant retains title and interest in all of its standard details, plans, specifications, methodologies, tools, and computation documents, whether in written or electronic form, which have been incorporated into the documents and instruments of service, but which were developed by Consultant independent of this Agreement.

9.0 Injury to Workers on Project Consultant has no responsibility for site safety or for the means and methods employed by Client's construction contractor(s). Client agrees that Consultant will be named as an additional insured on construction contractor's insurance policy for Commercial General Liability and Builders All Risk Liability, and Client agrees to insert into all contracts for construction between Client and construction contractor(s) arising out of these Services a provision requiring the construction contractor(s) to defend, indemnify, and hold harmless both Client and Consultant from any and all actions arising out of the construction Project, including, but not limited to, injury to or death of any worker on the job site, not caused by the sole negligence of Client or Consultant,. Client will be responsible for any damages caused by Client's failure to comply with the above requirements.

10.0 Probable Construction Costs Opinions - Any opinion of the construction cost prepared by Consultant represents his judgment and is supplied for the general guidance of the Client. Since Consultant has no control over the cost of labor and material, or over competitive bidding or market conditions, Consultant does not guarantee that bids or actual construction costs to the Client will not vary from Consultant's opinions of probable cost. If the Client desires greater assurance as to construction costs, Client shall employ an independent cost estimator.

11.0 Site Visits - Visits to the construction site and observations made by Consultant as part of Services during construction under this Agreement shall not make Consultant responsible for the obligation to conduct, comprehensive monitoring of the work of the contractor(s) sufficient to ensure conformance with the intent of the construction contract documents, and shall not make Consultant responsible for, nor relieve the construction contractor(s) of the full responsibility for, constructions means, methods, techniques, sequences, and procedures necessary for coordinating and completing portions of the contractor(s) work under the construction contract documents, and for all safety precautions incidental thereto. Such visits by Consultant are not to be construed as part of the observation duties of the on-site observation personnel defined below.

12.0 On-Site Observation - When Consultant provides on-site observation personnel as part of Services during construction under this Agreement, the on-site observation personnel will make reasonable efforts to advise Client of observed defects and deficiencies in the work of the contractor(s), and to help determine if the provisions of the construction contract documents are being fulfilled. Consultant shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of any construction work and Consultant's obligations are limited to becoming generally familiar with the progress of the construction. Consultant's observation will not cause Consultant to be responsible for those duties and responsibilities which belong to the construction contractor(s), including, but not limited to, full responsibility for the means, methods, techniques, sequences, and progress of construction, and the safety precautions incidental thereto, and for performing the construction work in accordance with the construction contract documents.

13.0 Termination or Abandonment - If any portion of the Services or Project is terminated or abandoned by Client, the provisions of these Terms and Conditions in regard to compensation and payment shall apply insofar as possible to that portion of the work not terminated or abandoned. If said termination occurs prior to completion of any phase of the Project, the fee for Services performed during such phase shall be based on Consultant's reasonable estimate of the portion of such phase completed prior to said termination, plus a reasonable amount to reimburse Consultant for termination costs.

This Agreement may be terminated by either party if the other party fails to fulfill its obligations under this Agreement through no fault of the terminating party. No such termination may be effected unless the other party is given not less than ten calendar days written notice of intent to terminate and an opportunity for correcting the default (plus such additional time as is reasonably necessary to correct the default, other than any payment default) and for consultation with the terminating party before termination. Consultant shall be paid for Services performed to the termination date including reimbursable expenses due plus termination expenses.

14.0 Jurisdiction - This Agreement shall be governed by the laws of the State of the Project .

14.1 Notices - Any notice required by this Agreement shall be made in writing to the individuals and addresses specified below:

i. City of Sheboygan: City Clerk, City of Sheboygan, 828 Center Ave., Sheboygan, WI 53083
ii. Foth Infrastructure & Environment, LLC : 2121 Innovation Ct., Suite 300, De Pere, WI 54115 Attn: Chief Risk Officer
iii. Nothing in this Section shall be construed as limiting or prohibiting communication between the parties in the ordinary course of the Agreement.

15.0 Dispute Resolution - The parties will use good faith efforts to resolve any dispute, controversy or claim arising out of or relating to this Agreement or the relationship between the parties (a "Dispute") through negotiation. To invoke the dispute resolution procedures in this section, one party must give the other party a written notice of its intent to negotiate. The notice will include a detailed description of the Dispute and a proposed resolution. Within five (5) business days after delivery of the notice, each party will designate a senior executive with authority to resolve the Dispute. The designated executives will engage in discussions in an effort to resolve the Dispute. If the designated executives do not agree on a resolution within twenty (20) days after the dispute notice has been delivered, the parties may agree to submit the Dispute to non- binding mediation by any mutually agreed-upon mediator, rules and location. Any mediation fees and expenses will be allocated and paid by the parties equally. If the parties do not reach a resolution through negotiation or mediation, either party may pursue all remedies available under this Agreement, at law or in equity in a court of competent jurisdiction. Each party hereby irrevocably waives its rights to trial by jury in any Dispute or proceeding arising out of this agreement or the transactions relating to its subject matter.

15.1 Open Records - Both parties understand that the Client is bound by the Wisconsin Public Records Law and, as such, this contract is subject to that law. Consultant acknowledges that it is obligated to assist the Client in retaining and producing records that are subject to the Wisconsin Public Records Law, and that the failure to do so shall constitute a material breach of the contract, and that Consultant must defend and hold the Client harmless from liability under that law resulting from Consultant's action or inaction with respect to public records in its sole control. Except as otherwise authorized, those records shall be maintained for a period of seven (7) years after receipt of final payment under this Agreement.

16.0 Waiver - Consultant's waiver of any term, condition, or covenant or breach of any term, condition, or covenant, shall not constitute a waiver of any other term, condition, or covenant, or the breach thereof.

17.0 Successors and Assigns - All of the terms, conditions, and provisions hereof shall inure to the benefit of and be binding upon the parties hereto, and their respective successors and assigns, provided, however, that no assignment of this Agreement shall be made without written consent of the parties to this Agreement.

18.0 Severability - If any provision of this Agreement is declared invalid, illegal, or incapable of being enforced by any Court of competent jurisdiction, all of the remaining provisions of this Agreement shall nevertheless continue in full force and effect, and no provision shall be deemed dependent upon any other provision unless so expressed herein.

19.0 Force Majeure - Neither party to this Agreement will be liable to the other party for delays in performing the Services, or for the direct or indirect cost resulting from such delays, that may result from acts of God, acts of governmental authorities, extraordinary weather conditions or other natural catastrophes, or any other cause beyond the reasonable control or contemplation of either party. Each party will take reasonable steps to mitigate the impact of any force majeure. Consultant's schedule and compensation under this Agreement will be equitably adjusted in the event of any such delay.

20.0 Entire Agreement - This Agreement, and its attachments, constitutes the entire understanding between Client and Consultant relating to Services to be provided by Consultant and, excepting only confidentiality agreements between the parties pertaining to the Project, supersede any prior or contemporaneous agreements, promises, negotiations, or representations not expressly set forth herein. Subsequent modifications or amendments to this Agreement must be in writing and signed by the parties to this Agreement. The foregoing notwithstanding, if the Client, its officers, agents, or employees request Consultant to perform extra work or Services pursuant to this Agreement, Client will pay for the additional Services even though an additional written Agreement is not issued or signed. The obligations of Consultant under this Agreement shall survive in accordance with applicable State statutes.

Exhibit A

Statement of Qualifications for:

SOUTHSIDE INTERCEPTOR SYSTEM

City of Sheboygan, Wisconsin

Foth Building Infrastructure. Building Trust.

Revised January 2020
November 8, 2019

Lincoln Center II • 2514 South 102nd Street • Suite 278
West Allis, WI 53227
(414) 336-7900 • Fax: (414) 336-7901
www.foth.com

November 8, 2019 (Updated January 2020)

Mr. Ryan Sazama, PE, AIA, City Engineer
City of Sheboygan
2026 New Jersey Avenue
Sheboygan, WI 53081

RE: Statement of Qualifications (SOQ)
Southside Interceptor Sewer Rehabilitation/Feasibility Plan

Dear Ryan,

Thank you for the opportunity to provide this SOQ for the above referenced project. Per our recent meeting and Dale's follow up site visit at the Kentucky Avenue Sewage Pumping Station (KASPS), we have a firm grasp of the approach that will be required to tackle the interceptor's current environmental challenges, while partnering with you to come up with the most cost effective long term solution for the operation of the interceptor system. Foth has the experience and technical expertise to work with you on obtaining key system data, analyze it with your team, and formulate a long term, conservative design for the chosen system to last the City another 80+ years.

We have assembled a skilled project team and are committed to assist you in completing your main goals for this project (included services are shown in black, future services are shown in gray):

- Obtain a quick snapshot of the interceptor and take any necessary immediate remediation measures.
- Assist in a flow management/televising operation to obtain the best visual condition assessment.
- Implement flow metering at key points to establish existing dry and wet weather flow characteristics and available capacity.
- Obtain and analyze the KASPS flow data and establish capacity.
- Estimate future development flows.
- Depending on capacity analysis, develop rehabilitation alternatives and, if necessary, any relief trunk sewers.
- Prepare a cost effective analysis using a 20, and possibly a 40, year present worth analysis.
- Design the least cost alternative. (future services)
- Design the sewage bypass system. (future services)
- Prepare plans and bidding documents. (future services)
- Provide construction management team or augment your staff team as directed. (future services)

At Foth, we enjoy solving our client's toughest engineering and scientific challenges, so we truly look forward to teaming with you and your staff as we systematically approach this very important City infrastructure project.

Please contact us with any further questions regarding this proposal.

Sincerely,

Thomas J. Ludwig, PE
Client Director
tom.ludwig@foth.com
(414) 336-7905

Dale Broeckert, PE
Project Manager
dale.broeckert@foth.com
(608) 242-5919

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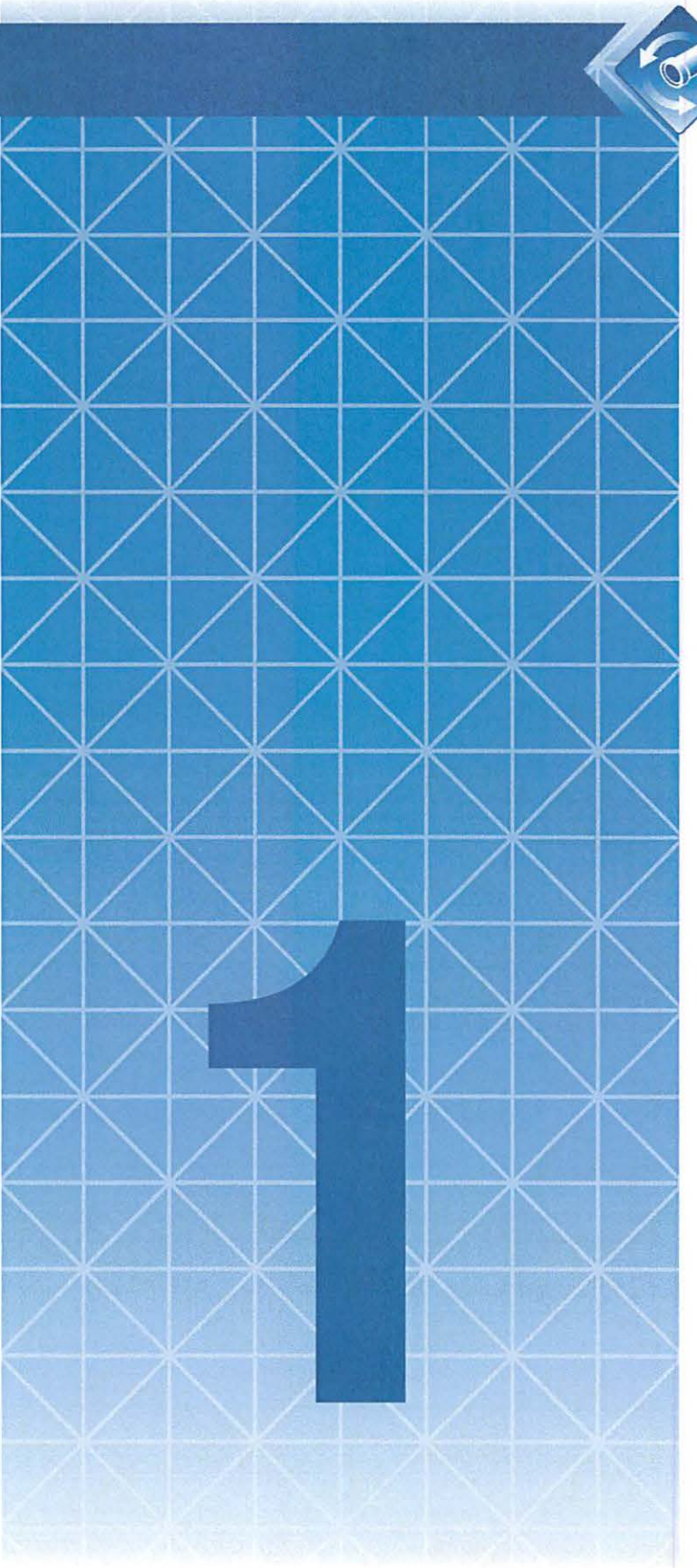
1 Approach to Your Project



1 Approach to Your Project

TASK 1: KICK-OFF MEETING

We will start with a kick-off meeting to bring the team together, including key Foth members and City Staff. We will explain and confirm the first steps, goals, and discuss any initial known hurdles to overcome. City staff will be invited to help identify critical aspects of the project and share their knowledge of the system.

Some topics to be discussed include the following:

- Confirm envisioned schedule.
- Coordinate flow meter field operations.
- Pump station performance and site data.
- Discuss and gather SCADA history.
- Discuss known wet, dry, seasonal flow trends.
- Traffic control restrictions.
- Easement or right-of-way details.
- Preferred points of access – metering.
- Preferred points of access – televising.
- WDNR/ACOE coordination.
- Public relation concerns.
- Open conversation and idea sharing.

The intent of this meeting is to unite all key project members. We firmly believe that the City staff's knowledge and expertise with their system, and their ideas, are extremely important. Leaving this meeting, we will have a clear path moving forward, key personnel will be connected, and lines of communication will be open.

Prior to the kick-off meeting, we will perform a Wetland Indicators Review to determine if a delineation will be required in any disturbance areas. Following the kick-off meeting, a wetland delineation will be coordinated by Foth staff, if needed.

TASK 2: TELEVISING PLAN & PIPELINE CONDITION EVALUATION

Verification of the condition of all pipes and structures from the Kentucky Avenue pump station to the WWTP will be required. A detailed televising plan will be established to account for the televising challenges on this project (such as access) and providing a clean and empty pipe.

Access: Access to portions of the interceptor will be a challenge as indicated on the Project Understanding Map. Some areas will likely need to be tackled from both ends. We will work closely with our televising contractors to review their equipment access needs and limitations. If access road improvements are absolutely needed, we will evaluate all the options and assist the City accordingly.

CITY OF SHEBOYGA
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Clean & Empty Pipe: A clean & empty pipe is ideal for capturing the best video; however, due to the realities of this site, achieving that may be difficult. Spot checks will be made at a few points along the interceptor to get an idea of how much build-up may be on the pipe walls. Due to occasional high flows, we are hopeful that the pipe is adequately scoured and jetting it won't be necessary throughout. If not, and jetting is absolutely needed, we will evaluate all the options and assist the City accordingly. To provide a near empty pipe, we plan to utilize the wet well and upstream pipe storage volume to its maximum surcharge capacity. We will evaluate this and create a "smart on/off pump cycling" plan to be implemented at the lowest flow time of the day during a dry spell. When the pumps are off, the pipe will empty and the televising crew will start televising. When the wet well fills, the televising crew will stop the camera and the pumps will cycle on. The camera will remain in the flow stream during the on cycle and stop recording. Once the cycle is complete, the pipe will empty again and the televising will continue. This process will repeat until the entire pipeline is televised. This strategy takes good planning and coordination; however, it avoids the need for bypass pumping which is critical. We anticipate that the smaller gravity sewers feeding into the interceptor will have insignificant flows during the low flow time of day. This will be confirmed with our metering efforts. If the small sewers pose a problem we will coordinate and implement a solution with the City prior to televising.

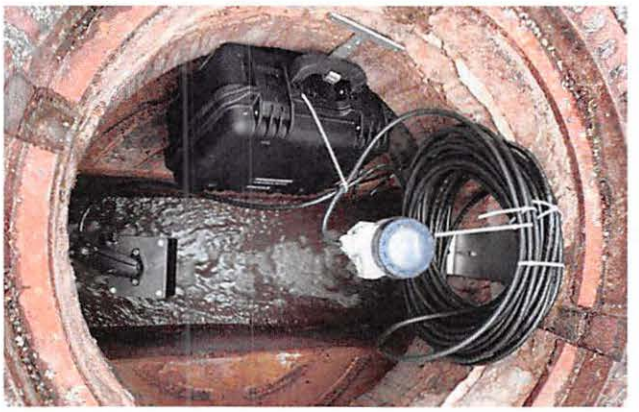
Evaluation Process: The video will be compiled into an organized and easy to view format. We will evaluate the entire pipeline to NASSCO pipeline rating standards. Pipeline overview sheets will be created indicating all segments in the pipeline that have a NASSCO structural rating of four (4) and five (5). These defects, along with all other defects found, will be summarized in an overall condition report. The report, pictures, and video clips will be reviewed and discussed with the City in great detail. This information will be used to evaluate the pipeline rehabilitation option(s) in the overall feasibility study.

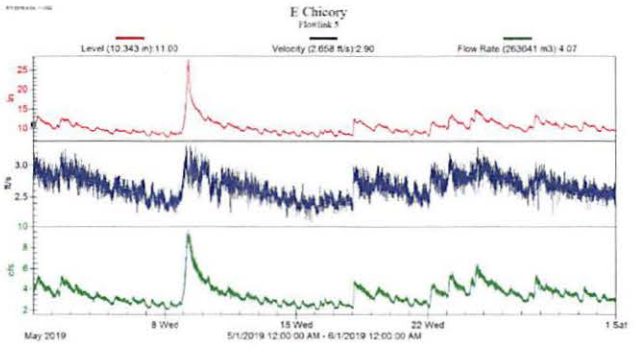
TASK 3: PIPELINE CAPACITY ASSESSMENT

Detailed capacity calculations will be performed for both the forcemain and gravity interceptor portions to determine the maximum flow that the pipeline system can convey. Information from televising will be utilized to account for roughness, low and high spots in the system, or anything else that could impede capacity. We will compare the current capacity calculation to a lined-pipe capacity. These results will be reviewed and discussed with the City and utilized in the overall feasibility study.

TASK 4: METERING

All sewers flowing into the interceptor will need to be metered. A flow metering plan for all sewers flowing into the interceptor will be established early in the process. Foth has extensive knowledge of the ISCO Flowlink software which is used for managing and calibrating the flow meter field data. Foth will provide reliable and seamless data. Experience with handling data and calibrating the meters properly is critical. We will also place a meter right before the interceptor enters the WWTP. This data we will allow us to calculate and quantify the volume of Lake Michigan infiltration and inflow (I&I) that the interceptor experiences. This I&I would be eliminated post rehabilitation. All the data will be analyzed for use in the capacity analysis and feasibility study portions of the project.



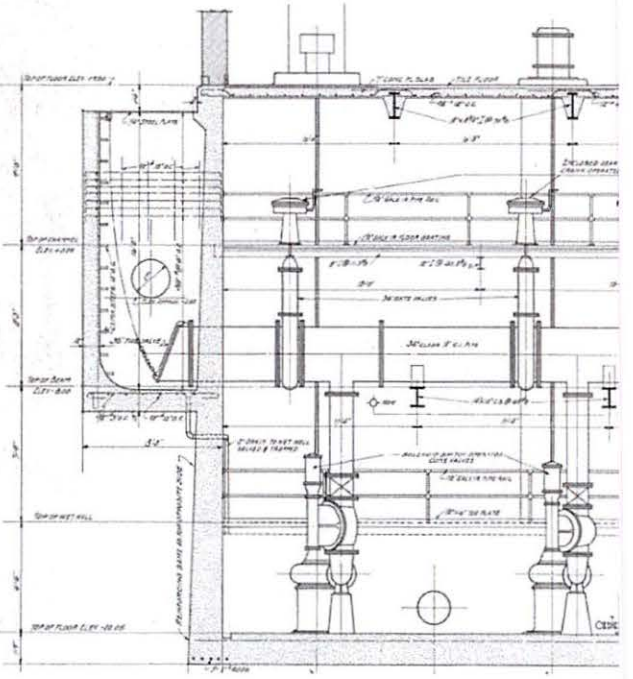


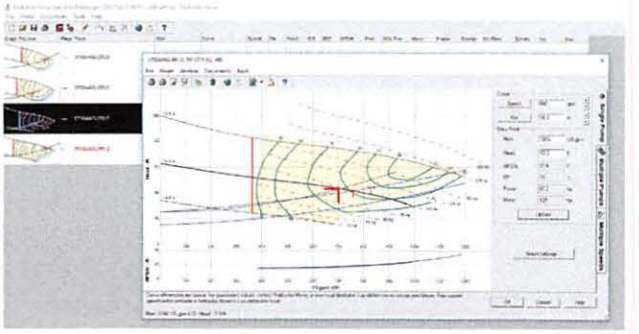
TASK 5: CAPACITY EVALUATIONS

Understanding current and future peak flows is a critical step in this project. In order to consider rehabbing the interceptor it needs to properly convey all future project peak hourly flows. If adequate capacity cannot be maintained, alternative capacity interceptor capacity measures need to be considered. Future development, projected land uses, I&I, any subtractions from the Kohler contributing sewershed, and net developable projected sewershed land will all be considered in sizing the future Southside Interceptor system. We will work closely with City staff to envision what the future sewershed will entail. This capacity evaluation will be used in the project's feasibility study mentioned below.

TASK 6: BYPASS PUMPING PLAN

Foth has extensive experience with bypass pumping. Evaluating bypass pumping options is a critical component of this project. Current peak lift station flows and wetwell levels will be evaluated to determine the level of bypass pumping required. Understanding the extent of bypass pumping will play a big part in the feasibility cost evaluation. **We will do everything that we can to utilize the existing station pumps for bypassing.** Mr. Broeckert is extremely familiar with the five (5) Fairbanks 16-inch 5711, 890 rpm, 125hp pumps that are in currently in operation. In this case, we will investigate designing a custom fitting to be installed on the existing 36-inch Tide Valve. Hydraulic calculations will be performed to determine if the existing pumps can handle the required peak flow rate through temporary HDPE pipes. A number of pipe combinations and bypass pipe routes will be evaluated to determine if the hydraulics could work. Bypass piping routes will be a challenge and creativity will be required. We will work closely with the City staff to determine and evaluate the options. If needed, upgrades to the existing pump impellers, motor speeds and/or motor horsepower will also be evaluated (within the limits of the electrical service available). Utilizing the existing pump station, even if a variety of station upgrades are required, would potentially save the City hundreds of thousands of dollars in cost. If it is determined that utilizing the pump station is in no way feasible, Foth will work with our industry contacts to obtain bids from 3rd party bypass pumping contractors.





TASK 7: ANALYZING THE OPTIONS & CONCEPTUAL DESIGN

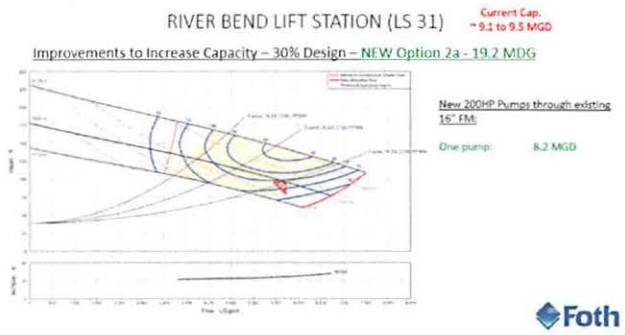
After the previously discussed tasks are complete, our team will have the necessary information to analyze all the options. The driving factors are:

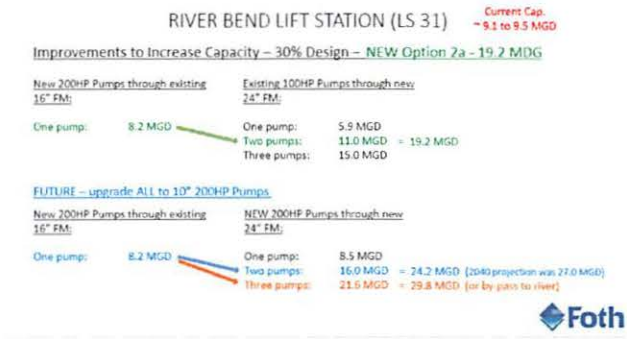
1. **Condition of the pipe (and structures) and the degree of repair/rehab needed.**
2. **Capacity compared to the future expected flows.**
3. **Feasible modifications to the existing pipeline.**
4. **Feasible new routes.**

These factors will dictate what options we will evaluate. Options such as doing nothing (not likely due to age), partial rehab, full rehab, relaying larger forcemain/interceptor in place, modify the existing pump station and extending the forcemain all the way to the plant and rerouting any collector connections (if possible), or relaying larger forcemain/ interceptor along an alternate route may all be investigated. The applicable options will each require conceptual designs to properly capture the costs, constructability, possible shoreline and structure improvements and protection, possible permitting and easements, etc. Our team is highly experienced with performing these evaluations. **We have experts to perform evaluations of wave and ice force effects to shoreline infrastructure and how to design structures to withstand these environmental conditions.** We are fully equipped to handle all variations and challenges that the various design options will entail.

TASK 8: FEASIBILITY STUDY & PROJECT DECISION MAKING

A feasibility study will be performed and will provide a cost effective analysis for all the applicable conceptual design options. Each option will be broken down into many sub components. All-inclusive present worth cost estimates will be provided for each for easy comparison and discussion. Other factors besides cost will also be evaluated such as sustainability, ease of future maintenance, long-term protection of the assets, and risk. The feasibility study will provide all the necessary information for the most informed decision. We will work closely with the City staff, Committee members, and others to explain and summarize the results in simple terms. Our goal is to make the results clear, and the decision process easy for everyone involved to choose the most cost effective, sound alternative to serve the City for another 80+ years.





VILLAGE OF CALEDONIA UTILITY DISTRICT
RIVER BEND SEWER REHABILITATION
PRESENT WORTH COST ANALYSIS - SEWER OPTION 2

Interest Rate = 4.375%, n=20 years

ITEM	UNIT	YEAR 1 QUANTITY	YEAR 1 COST	ANNUAL O&M COST	SERVICE LIFE	SALVAGE VALUE
Lift Station Upgrades	EA	1	$600,000.00	$ 102,200.00	20	$ 218,000.00
New 24" Force Main to 36" Gravity	L.F.	2,600	$1,150,000.00	$ 1,000.00	50	$ 475,000.00
Rehab Existing 27" Gravity Sewer	L.F.	1,600	$220,000.00	$ 410.00	50	$ 152,000.00
Rehab Existing 18" FM	L.F.	1,200	$80,000.00	$ 450.00	50	$ 48,000.00
12" Gravity Sewer Force Main	L.F.	600	$200,000.00	$ 250.00	50	$ 120,000.00
TOTALS			$2,250,000.00	$ 103,000.00		$ 1,294,000.00
PRESENT VALUE FACTORS			1.0000	13.1500		0.4247
PRESENT VALUES			$2,250,000.00	$ 1,360,700.00		$(97,100.00)

SUMMARY OF ESTIMATED PRESENT VALUE COSTS	
Total Construction Cost	$ 2,250,000.00
Legal, Engineering & Contingencies (35%)	$ 788,000.00
Total Estimated Cost	$ 3,038,000.00
Present Value O&M (20 Years)	$ 1,360,700.00
Present Day Salvage Costs	$ (97,100.00)
Total Present Worth	$ 4,301,600.00

1. This is a budgetary cost estimate prepared primarily for the cost effective comparison between alternatives. No representation is made that proposals, bids or costs have been received from contractors.
2. Annual O&M Cost for lift stations = $5,000 - $6,000*Average Daily Flow in MGD + 0.05 * Year 1 Cost
3. Annual O&M Cost for force mains and gravity sewer = $2,500 per mile
4. Salvage value for lift stations based on 60% over a 20 year life. Assume 60% of Year 1 Cost is associated with mechanical/electrical.
5. In accordance with s. NR 110.09(2)(a), Wisconsin Administrative Code, the interest rate to be used in facility planning cost effective analysis on or after October 1, 2015 shall be 4.375%
6. 20 Year present worth at 4.375% gives a future amount = 0.4247
7. 20 Year present worth at 4.375% gives an annual amount = 13.1500
8. The above estimate includes engineering, administration, construction and contingencies.
9. Assumes the lift station boundary on the current facility plan remains unchanged for the 20 year period as used.

TASK 9: IDENTIFYING FUNDING/GRANTS FOR THE SELECTED DESIGN OPTION

Our shoreline specialists believe that certain categories of work on this project may qualify for grant funding. Grants are established specifically for exposed shoreline infrastructure requiring protection due to rising lake levels. If our grant team believes there is a high probability of securing dollars, we will account for that in the feasibility study appropriately. In the past five years, Foth has helped our clients secure over $45,000,000 in grants for sediment management and shoreline infrastructure related projects, some with many similarities to this project. Our team has the extensive experience in this arena which we believe will potentially provide a great financial benefit to the City. We will work closely with staff to explain all applicable grant or low interest Clean Water Fund loan opportunities.

TASK 10: DESIGN PLANS & SPECIFICATIONS

Using the information gathered from the previous tasks and City staff review meetings, we will finalize the design and specifications for the project. We will work with the City and other stakeholders to develop construction plans as well as traffic control and shoreline access details considering a maintenance road and/or barge construction techniques. Traffic control will be approved by the City prior to any work occurring. Any shoreline improvements will be approved by the applicable regulatory agencies.

As applicable, final regulatory permit applications will be submitted during the final design phase to assure construction permits are acquired before bidding. This permitting could affect the schedule that we have identified.

A comprehensive constructability review will take place around the 90% design milestone. Foth strongly believes in working with the contractors prior to bid to understand their comments and concerns. This review will identify any issues in the plans and specifications that may result in a change order during construction.

We will also conduct a review meeting with City staff for approval of plans, specifications, and review the construction cost estimate. Utility staff will be asked to comment on the design and those comments will be implemented into the final contract documents prior to bidding. Contract documents will be sealed by a Professional Engineer(s) for distribution to potential contractors.

TASK 11: BIDDING & RELATED SERVICES

Foth will assist the City staff in bidding of the project. We will complete the following services:

- Submit advertisement for bid to trade and local publications.
- Deliver electronic copies of contract documents to on-line plan room for delivery to potential contractors.
- Answer any questions from prospective bidders and issue any addenda.
- Attend the bid opening.
- Analyze the bid tab, check references, and prepare a letter of recommendation to the City for contract award.
- Prepare contract documents.

TASK 12: CONSTRUCTION MANAGEMENT

If requested, Foth will provide a construction project manager to manage and provide technical support to the City or the contactor. Typical activities are:

- Construction staking (if necessary).
- Monitor quality control and adherence to the project plans and specifications.
- On site during all buried construction activities.

- Log and confirm with the contractor's foreman all contract pay quantities.
- Monitor and log any changed site conditions encountered during construction.
- Communicate with the contractor regarding any technical questions that arise on site.
- Monitor time and equipment utilized by the contractor.
- Log all daily site and weather conditions and visitors to the job site.
- Monitor and ensure that proper erosion control and dust control operations are utilized by the contractor.
- Ensure that wetland impacts are minimized and occur only as approved by WDNR (if needed).
- Coordinate field measurements for accurate record drawing preparation.
- Record drawing preparation.

TASK 13: PROJECT CLOSEOUT

In addition to construction management, Foth offers project closeout services. No Owner likes any loose ends or punch-list items to go unaddressed. We work closely with the contractor and City to ensure that the project is fully complete. Any impacted areas would be required to be completely cleaned up and restored per the contract requirements. We have found that frequent meetings and open communication with the contractor can make this process go very smoothly if managed properly.

2 Commitment of Resources, Capacity to Serve, and Schedule

2

2 Commitment of Resources, Capacity to Serve, and Schedule

COMMITMENT AND CAPACITY

Our team has the availability & capacity to start work immediately upon award. We will commit our team to keep all tasks moving along efficiently, while keeping City staff informed and involved with key decision points. This project will be a top priority in for the Foth team we have assembled, and it will not be placed on the "back-burner" or delayed as we are keenly aware of the potential environmental impacts that are involved with this sewer system. As the project manager, Mr. Broeckert will keep a close watch on the schedule from the project's start to finish, continually providing updates to the City.

SCHEDULE

The project kick-off meeting will be scheduled at the earliest convenience.

Several initial tasks would be run in parallel immediately following the kick-off meeting such as:

- Developing a meter plan & placing flow meters;
- creating a televising plan & conducting televising (to be done in winter dry conditions)*;
- historical data analysis & future flow projections;
- and evaluating bypass pumping options & developing a conceptual bypass plan.

Completion goal for the above tasks: June 2020
*Note: If any immediate pipeline repair needs are found during televising, Foth will work quickly with the City to assist with a solution.

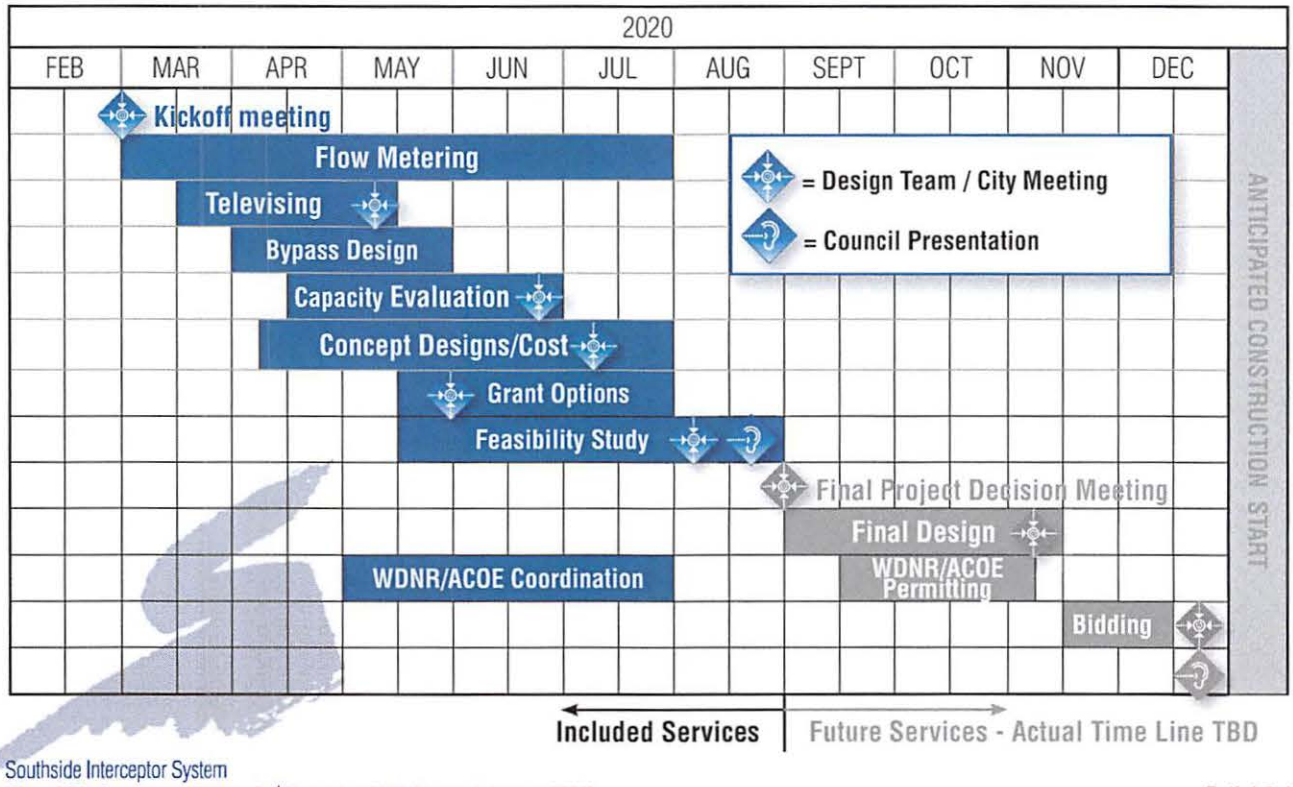
Following the initial tasks & data collection period, we will begin the conceptual designs, cost evaluations, and the overall feasibility study. In order to have complete data, we will need to capture a significant I&I event with all meters in place which would presumably occur in early spring or summer of 2020. We will be able to finalize our study and recommendation with a higher degree of accuracy following the capture of a significant I&I event.

Feasibility study, conceptual designs, final project recommendation completion goal: August 2020

We will proceed with final design of the selected solution as soon as practicable. Our goal is to have the final design ready for 90% review in late summer of 2020, dependent on the selected designs' access challenges, permitting, shoreline protection needs, and potential grant application review periods.

Final plans, specifications, and bidding goal: Future Services - Time line TBD

Construction start goal: Future Services - Time line TBD



3 Project Experience

3 Project Experience

YOUR NEEDS MATCH OUR EXPERIENCE

Our team is the perfect fit for your project! Here are just a few highlights of recent Foth team experience that demonstrate how our customized team is ready to step right in and serve on the South Side Interceptor project:

Flow Metering

Our flow meter team stands ready to install multiple ISCO 2150 flow meters in the system upon our notice to proceed with the study. Mike Yeager is the same team leader who previously worked with the City of Sheboygan performing confined space entry for meter installation, data collection/downloading for 5 separate sites for approximately a year, with relocation of 3 meters to new sites for an additional 7-8 months. We are currently using 6 meters for a Village of Mount Pleasant I/I study and are actively managing 2 meters currently in the Village of Caledonia for a sewage attenuation basin project. We have the relevant experience to immediately implement a well-planned metering system, and to download and manage the flow data in ISCO's integrated Flowlink Software.

Sewer Rehabilitation and Bypass Pumping Designs

Tom Ludwig and Rachael Kranz have managed and performed numerous pipeline rehabilitation designs including one located on a Lake Michigan beach bluff and large diameter relining projects for the Minneapolis Metropolitan Council Environmental Services - all involving extensive traffic control and bypass pumping plans. Dale Broeckert previously worked for a CIPP installing contractor and has first-hand experience in the entire process.

Sewage Pumping Station Evaluation and Design

Dale Broeckert and Matt Eberhardt have evaluated existing sewage pumping station and forcemain systems and designed key regional facilities including our current Mount Pleasant TID 5 development 40 MGD (future 75 MGD) sewage pumping station.

Facility Planning and Cost Effective Analysis

Tom Ludwig and Matt Eberhardt have both recently completed two Regional I-94 corridor facility plans that identified the least cost alternative to serve the Villages of Caledonia and Mount Pleasant for over 20 miles of sewer system.

Major Conveyance System Design and Construction

Tom Ludwig and Matt Eberhardt are currently leading, the design efforts for the Mount Pleasant TID 5 Interceptor system. The sewer is about 50% complete with the pump station beginning in early 2020. Dale Broeckert is assisting with the pumps and controls design for the pumping station $30 million sewer infrastructure improvement. John Laning is heading up construction management and Drew Miazga is providing all necessary design survey and construction staking.

Funding

Brian Hinrichs leads a very successful grant and low interest loan funding team, with some of that success highlighted below.

GRANT AND FUNDING ASSISTANCE

Foth provides proven professional assistance with funding strategies, application development, grant administration and special appropriation requests. In the past two years, Foth has assisted our clients in obtaining more than $45,000,000 for sediment management and coastal infrastructure projects.

We regularly research alternatives, prepare applications and coordinate supporting data for grants, from $20,000 to more than $5 million, for single projects. Grant administrative services are provided through construction and project close-out. Our project managers are experienced with designing and scheduling projects within grant requirements, as well as agency expectations, for project success.

CONSULTING SERVICES	GRANT & LOAN PROGRAMS	
◆ Grant Database Search	◆ Comprehensive Planning	◆ Public Water Supply & Distribution
◆ Grant Eligibility Studies	◆ Economic Development	◆ Parks & Recreation
◆ Grant Funding Strategies	◆ Highways/Roadways/Streets/Railroads	◆ Stormwater/Watershed
◆ Applications/Administration	◆ Harbors/Rivers	◆ Wastewater Collection & Treatment
◆ Interagency Coordination	◆ Lake Management	
◆ Preliminary Engineering/Technical Reports	◆ Municipal Buildings	
◆ Tax Incremental Finance	◆ Nonpoint Pollution	
◆ Special Appropriations Requests	◆ Public Utilities	

MICHIGAN BOULEVARD RELINING, PHASE 1 AND PHASE 2

Caledonia Utility District, Racine County, Wisconsin

RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN

Forcemain relining along the Lake Michigan shoreline, CIPP lining, condition assessment.

After a sinkhole appeared over the forcemain along the lakefront on Racine's Michigan Boulevard, Foth was consulted to provide alternatives to costly pipebursting and replacement alternatives for the 30 inch diameter pipe. Owned by the Caledonia Utility District, televising revealed the pipe to have sustained substantial corrosion and collapsed portions due to the buildup of hydrogen sulfide gas in portions of the gravity sewer.

This force main passes in front of the Racine Water Treatment Plant and crosses underneath the large water mains serving the Greater Racine area. Due to the political impacts of the project, Foth was required to determine the least invasive method of repair, while meeting the needs of the City of Racine, Caledonia Utility District, and Racine Water Utility.

Ultimately, 2,100 lineal feet of structural cured-in-place pipe was installed during Phase 1.

- The project and all restoration was completed by Memorial Day weekend, which was the deadline imposed by the City of Racine.
- The structural liner specified by Foth ensures that the pipe is structurally sound, that no additional deterioration of the pipe occurs, and that impacts to the City of Racine are minimized.
- The structural liner was installed $100,000 under original budget.
- The Utility saved more than 15% over the cost of traditional methods of pipe installation.

Phase 2 required more extensive coordination with various public agencies due to its location, including the City of Racine Department of Public Works, the Racine Wastewater Utility, Racine County Department of Public Works, Racine Aldermen, Village of North Bay, Racine Convention and Visitors Bureau, and Racine Zoological Park. The active coordination helped determine when each regulatory agency would allow work to be performed at each site. Of the 12 access points, each had separate requirements for when work could be performed. Sites 1-3 are within the City of Racine, adjacent to a major beach and on a bus route. Work was not allowed during summer or winter at these sites. Since the road is a bus route, Racine limits winter construction to allow for quick snow removal, and the routes are designated "clean street" routes, which means they are completely cleared of snow. Many activities are centered on North Beach during summer, so construction was not feasible during that time.

Sites 4 and 5 are within the zoo property. Since visitor activity is higher during the summer months, work was restricted to late fall and winter months. Sites 6, 7, 8 and 9 are all within Racine on residential streets and have few restrictions. Sites 10, 11 and 12 are on a Racine County road and also have few restrictions.

Communication with elected officials in Racine and North Bay was initiated to provide a contact point for any concerns or issues that the constituents have during construction.

REFERENCE

Bob Lui, Village of Caledonia Utility District Manager
333 4 1/2 Mile Road, Racine, WI 53402
(262) 681-3900 | Email: blui@caledoniautility.com

NORTH AREA INTERCEPTOR REHABILITATION PHASE 8, FRIDLEY, MN

Metropolitan Council Environmental Services, Minneapolis-St. Paul Metropolitan Area

RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN

Large diameter CIPP rehabilitation, MH rehabilitation, high capacity bypass pumping design.

This project includes the design for the largest pipe diameter with CIPP lining ever undertaken by MCES at 96 inches. Complete in 2017, this project included design, bid document preparation, and construction support services for the rehabilitation of portions of four Interceptors. Additional project highlights include:

- Design for the rehabilitation of 6,200 LF of 48-inch to 96-inch pipe.
- Design of 5 complex corrosion resistant structures.
- Manhole rehabilitation design using FRP inserts.
- Design including concrete encased FRPMP structures of various sizes.
- Design for the installation of 160 LF of dual 42-inch forcemain.
- Design for a complex temporary conveyance system to accommodate very high flows of 30,000 gpm daily average and 60,000 gpm daily peak.
- Design for the reconstruction of a baseball field.
- Design for the reconstruction of 2,000 LF of bituminous trail.
- The project location was parallel and perpendicular to two CenterPoint Energy large transmission lines (600 psi). It was designed for the protection of the gas lines included soil stabilization grouting, settlement monitoring, and vibration monitoring.
- Installation included tunneling under the BNSF Railroad.
- Design for several large FRP structures to improve hydraulic conditions and improve accessibility for MCES Operations staff.

INTERCEPTOR 7122 PHALEN REHABILITATION

Metropolitan Council Environmental Services, Minneapolis-St. Paul Metropolitan Area

RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN

Large diameter CIPP rehabilitation, MH rehabilitation, high capacity bypass pumping design.

This project included design, bid document preparation, and construction support services for the CIPP lining of existing of 72-inch RCP and the rehabilitation of 19 associated manholes located in City of St. Paul, MN parkways, Lake Phalen Regional Park, and Phalen Golf Course, a City owned public course. Additional project details include:

- Design for the CIPP lining of Design for 8,200 LF of 72-inch RCP
- Design the rehabilitation of 19 manholes with fiberglass inserts and coatings
- Design for the construction of 1 new manhole
- Design of the temporary bypass system required to convey average daily flows of 7,200 gpm
- Design of a subsurface stormwater drain system
- Design for restoration of the Phalen Golf Course
- Coordination with City of St. Paul Parks and private management company at Phalen Golf Course
- Construction inspection services were also provided for this project under a separate MCES contract.

1-MN-341 Interceptor Rehabilitation during construction and after site restoration.

1-MN-341 INTERCEPTOR REHABILITATION

Metropolitan Council Environmental Services, Minneapolis-St. Paul Metropolitan Area

RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN

Large diameter CIPP rehabilitation, MH rehabilitation, utility relays, high capacity bypass pumping design.

This project included design, preparation of bid documents, and construction support services for interceptor sewer reconstruction through a sensitive area (the Roberts Bird Sanctuary) causing opposition from several groups. The project required permitting and coordination with multiple stakeholders including the City of Minneapolis, Minneapolis Park and Recreation Board, Minneapolis Neighborhood Associations, Minnehaha Creek Watershed District, Minnesota Department of Natural Resources, and the US Army Corps of Engineers.

The failing manholes within the Roberts Bird Sanctuary were constructed on the cast-in-place concrete interceptor. These manholes were replaced using polymer mortar structures supported on helical piles. This provided a continuous rehabilitated system after CIPP lining installation. The area's poor soil conditions were cause for concern relative to neighborhood impacts. Foth developed a plan to support the reconstructed pipes and structures on helical piles, minimizing construction vibration and providing long-term stability to the installation.

Foth supported communicating the construction details, work impacts, and restoration improvements. Ongoing communication with Minneapolis Park and Recreation Board and neighborhood associations was essential to the success of this project.

The project included the design for:

- Rehabilitation of 16,000 LF of sanitary sewer ranging from 9-inch to 60-inch diameter.

"In early design, Foth conducted the Lean Project Delivery Process to identify critical milestones, tasks and potential impediments to making this a successful project. As a result the design met the challenges of the neighborhood political issues, geological issues, and utility conflicts....."

Rex Huttes,PE, MCES Project Manager on the 1-MN-342 Interceptor Reconstruction

- Removal and replacement of
  - 2,800 LF of 9-inch VCP gravity sewer line with 12-inch PVC;
  - 600 LF of 6-inch watermain;
  - 1,300 LF of 12-inch to 18-inch RCP storm sewer; and manholes on piling.
- Reconnection of 80 sanitary services.
- Helical piles to prevent pipe sags and manhole settlements.
- Rehabilitation of 700 LF of 33-inch pipe with CIPP.
- Reconnection of 32 water services.
- Replacement of 9,200 square yards of bituminous pavement.
- Sheeted access shafts to allow for the required space for lining and construction of a new accessibility structure at the nonstandard brick manholes built on the 60-inch portion of the interceptor.
- MH rehabilitation.
- Tunneling plan to protect a 42-inch Lockbar water transmission line (owned by the City of Minneapolis), including soil solidification preventing settlement during construction.

TID #5 SANITARY SEWER INTERCEPTOR SYSTEM

Village of Mount Pleasant, Racine County, Wisconsin

RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN

Interceptor concept study and design, feasibility and cost evaluations, future capacity planning, permitting.

The State, County and Mt. Pleasant successfully attracted amanufacturer from China to locate a new $10B, 22,000,000 square feet production campus within the Village of Mt. Pleasant. The State, County, and Village are providing infrastructure incentives to facilitate the new development, as well as the 13,000 anticipated new jobs. The Village of Mt. Pleasant has retained Foth to provide all planning, design and construction phase engineering for the new sanitary sewer system that will extend from the shores of Lake Michigan to serve the development and major adjacent areas within the Village, as well as a large portion of the Village of Caledonia along Interstate 94.

The Tax Increment Financing District #5 project includes design and construction services for over 40,000 lineal feet of gravity sanitary sewers ranging from 24 to 60 inches in diameter, over 40,000 lineal feet of 36 inch force main and a 36 MGD lift station (expandable to 75 MGD). Multiple railroad crossings, coordination with WisDOT, and highway permits were required as well as coordination with a team of consultants, private utilities and local, county and state stakeholders.

Unique fast track program/facility planning, permitting and design concepts were developed to enable the project to save over $50M in future infrastructure costs and provide service to over 10 square miles. Foth was initially retained by Racine County and the Village of Mount Pleasant to assist the Racine County Economic Development Corporation in strategy development, site selection and evaluation, preliminary engineering and presentation assistance. Foth was also the engineering representative with the Wisconsin delegation that traveled overseas to successfully bring the project to Wisconsin.

Foth worked with Racine County and both Villages (Mt Pleasant and Caledonia) to identify cost allocation and coordination. The Foth team coordinated and evaluated project delivery in order to facilitate successful project completion, evaluating the prepurchasing of key material items to meet tight construction requirements.

The project required coordination with WDOT, WDOA, Racine and Kenosha Counties, Racine Water and Wastewater Utilities and SEWRPC.

REFERENCE

Tony Beyer, PE, Mt. Pleasant Village Engineer/Sanitary Sewer & Storm Water Utility Manager
8811 Campus Drive
Mt. Pleasant, WI 53406
PH (262) 664-7800
tbeyer@mtpleasantwi.gov

I-94 REGIONAL INTERCEPTOR SEWER AND WATERMAIN EXTENSIONS
Caledonia, Wisconsin

RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN
Interceptor concept study and design, feasibility and cost evaluations, lift station design, future capacity planning, permitting.

Due to growing commercial interest in the area along the I-94 corridor between Milwaukee and Chicago, the Village of Caledonia recognized the need to extend sewer and water facilities to the Interstate to facilitate quality development in their community. The Caledonia Utility District was tasked with extending both utilities from the current connections approximately 2 miles to the south of its border with the Village of Mount Pleasant. The District hired Foth to develop the facility plan to determine the most cost effective approach to serving the 6 mile I-94 corridor in Caledonia (an area of approximately 8 square miles).

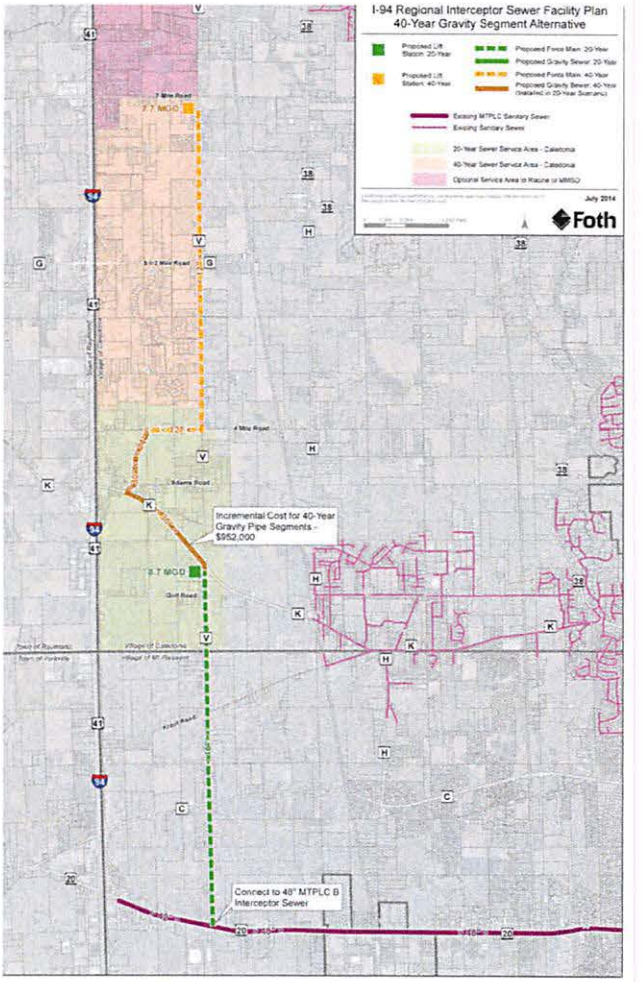
The plan included the extension of 2 miles of 48 inch, 42 inch, and 36 inch diameter gravity sewer, an 8.7 MGD lift station, 2.5 miles of dual 18 inch diameter forcemain, and approximated 5 miles of 20" and 16" forcemain. Foth provided facility planning, design and construction observation services, as well as the technical and cost estimating portion of the Tax Increment Financing (TID) feasibility study.

The study was the precursor to the creation of TID 4, which provided for the financing the $22 million in improvements:

- 8.7 MGD Lift Station
- 11,000 lf of dual force main
- 5,500 lf of 42 inch and 36 inch diameter interceptor sewer
- 5,500 lf of 16 inch diameter water main
- Coordination with multiple municipal jurisdictions

Foth also assisted with the complex inter-municipal agreements with the City of Racine for purchased treatment capacity and the Village of Mount Pleasant for the conveyance capacity for connection to an existing interceptor sewer system.

The project required coordination with the Army Corp of Engineers, Wisconsin Department of Natural Resources, Wisconsin Department of Transportation and Racine County.



"I really enjoy working with Foth. Their energy and enthusiasm and smart approach to projects makes it a pleasure to work with them."

Robert Lui, Manager Caledonia Utility District, Wisconsin

REFERENCE
Caledonia Utility District
Robert Lui, District Manager
333 4 ½ Mile Road, Caledonia, WI 53402
PH (262) 681-3900
blui@caledoniautility.com

CTH K&V SANITARY SYSTEM EXTENSION
Caledonia, Wisconsin

RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN
Interceptor and forcemain concept study and design, lift station design, future capacity planning, permitting.

REFERENCE
When the Caledonia Utility District in Racine County, Wisconsin decided to create a new TID District and provide service to an unserved area of the Village with huge development potential, Foth was there to help. Foth provided sanitary and water planning, design, and construction services. The result was three projects that showcased Foth's abilities:

- CTH K Interceptor Sewer - 6,000 lf 36 inch and 42 inch diameter interceptor sewer along CTH K to collect and convey wastewater for the developing lands around the I-94 and CTH K corridor.
- K&V Lift Station - 4.5 MGD lift station that is expandable to 8.3 MGD as need dictates. The 40 feet deep reinforced concrete structure was designed to serve the entirety of the I-94 corridor in Caledonia. Foth coordinated and completed site selection, environmental and facility permitting, civil site, structural, and architectural designs, process engineering and construction management and startup.

  Inside of the unassuming aesthetic are pump, hatch, generator room, electrical controls, and mechanical rooms. Each room has been laid out and planned for the addition of respective items needed for the full capacity buildout.

  The finished product has a multi-tone stone facade, landscaping, and a functional pavement area that does not intrude on the surrounding rural landscape.
- CTH V Force Main - Including an 11,000 lineal feet long, 18 inch diameter, dual force main system installed along CTH V to a waiting interceptor in the adjacent community. Alternative force main materials, construction methods, and winter construction were incorporated into the plans and specifications to increase competitiveness in the bids.

HOODS CREEK LIFT STATION AND PIPING
Caledonia, Wisconsin

RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN
Lift Station and forcemain concept study and design, future capacity planning, permitting.

The Hoods Creek Lift Station had reached the end of its useful life and was unable to safely convey the sewage demands, especialy during peak wet weather storm events.

The recommended alternative was to construct a sewage attenuation basin upstream of the Hoods Creek Lift Station. The attenuation basin was designed to limit the flow rate of wastewater to the lift station such that the capacity of the station would not be exceeded and capacity issues in the downstream sewer would be alleviated. The attenuation basin will receive flow from two major interceptors in the system.

The ultimate 2035 peak flow through the interceptor system is 12 MGD. The Hoods Creek Lift Station ultimate capacity is limited to 5.3 MGD, thus, the peak diversion flow to the attenuation basin is planned at 6.7 MGD. The basin is designed with an ultimate storage capacity of 4.5 MGD. XPSWMM modeling was utilized to simulate the 40 year level of protection storm recommended by the Racine Wastewater Utility.

The project is located within a planned subdivision and the control building was designed as a residence to conform to the subdivision's architectural standards. The basin in completely underground covered by turf grass and conventional landscape features.

REFERENCE
Bob Lui, Village of Caledonia Utility District Manager
333 4 1/2 Mile Road, Racine, WI 53402
(262) 681-3900 | Email: blui@caledoniautility.com

SUPERFUND SITE
Ashland, Wisconsin

RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN
Shoreline wave and ice protection, structural analysis and design, special permitting.

Design-build contract to design and install a 1,400 foot-long shoreline bulkhead wall along Chequamegon Bay, Lake Superior near Ashland, Wisconsin. The wall was designed and constructed of sealed interlocking hot-rolled steel sheet pile driven into the underlining sediment along with a tieback anchoring system. The system was designed to withstand ice heave and shoving as well as rotational forces caused by unsupported excavation of sediment on the lakeside. The pile was coated with epoxy to protect the steel from corrosion common along the south and west shoreline of Lake Superior.

Foth provided the geotechnical evaluation, structural modeling and failure analysis, and permitting. Foth also provided construction-related services as part of a Joint Venture including construction quality assurance.

Foth was also retained by Xcel Energy to design and build a breakwater to provide wave sheltering in order to carry out dredging of contaminated sediments in Chequamegon Bay, Lake Superior.

Foth provided the geotechnical evaluation, design and permitting services for the construction of the 840 foot-long breakwater which involved placing 56,000 tons of stone. Extensive coordination was required between Foth and WDNR, USEPA, USACE, USCG, and the City of Ashland. Foth worked closely with the City to plan trucking haul routes and noise mitigation in order to maintain the 24-hour construction schedule. Through Foth's construction management of this expedited project, the client saved $1.1M.

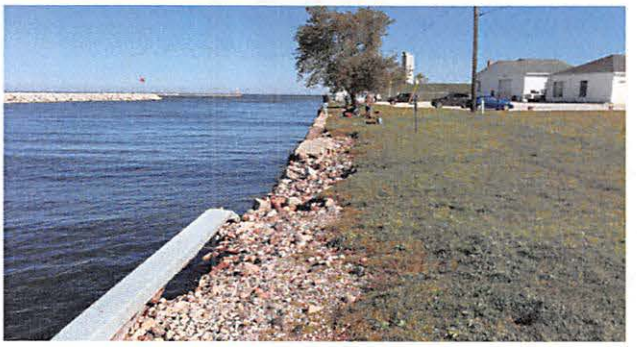
BREAKWATER
Port Washington, Wisconsin

RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN
Shoreline design, state and federal grants, special permitting.

This project involved the design of improvements to the seawall attached to the north breakwater. The nearshore seawall was widened to create an ADA accessible fishing/viewing platform, which will improve the shoreline, and provide tourism, recreational, and educational opportunities.

The seawall, breakwater and the art deco lighthouse, located on the end cap, are major tourist attractions and central to the City's identity. The existing vegetated and rubble-filled disturbed parcel will be revegetated with native habitat communities to provide improved wetland habitat. A stormwater wetland/forebay will filter runoff from adjacent parking lots, streets, and developed properties. A multi-use path will extend the existing harbor walk to connect with the County's Inter-Urban Trail. Educational elements will be incorporated into the gateway project, describing wetland benefits, critical species, and provide information about nearby nature areas and restoration projects.

To help fund this project, our team was instrumental in securing over $4 million from various federal and state grants. We worked closely with WDNR and USACE to obtain the necessary permits for the project. The Gateway Project provides increased recreational access to the seawall area, including fishing, birdwatching and non-motorized boat access. The project also serves as a stormwater filter from runoff originating from the nearby parking lot.



DOCKWALL REHABILITATION
Kewaunee, Wisconsin

RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN
Shoreline rehabilitation, structural analysis and design, special permitting

The aging Kewaunee Harbor dockwall was deemed too hazardous for public use when sink holes started to form behind the dockwall and the concrete cap was crumbling into the harbor channel.

With funding from Wisconsin's Harbor Assistance Program (HAP), the City of Kewaunee hired Foth to design a new dockwall that would replace 720 feet of city-owned dockwall. The new design uses high grade steel with a tie-back anchor system to combat the poor quality soils present throughout the site. The straight alignments of the wall will enable charter fishing and recreational boats to dock, allowing direct access to businesses along the waterfront and within Kewaunee's downtown.

To further enhance Kewaunee's waterfront and create a destination for locals and visitors, the Harbor Park adjacent to the new dockwall also received site improvements. A new central plaza space serves as the gateway to a riverfront walkway which extends the length of the new wall and connects to the concrete pier leading to Kewaunee's historic lighthouse. The height of the dockwall was lowered in some locations using a natural stone stepped slope to allow for public access to the water. New pathways are lit by low level lighting to enable park use in the evening. Fishing stations with ADA access along the dockwall walkway further foster Kewaunee's active fishing community.

The design brings together many users in a harmonious way and helps the City's ongoing effort to revitalize Kewaunee's downtown.

SEAWALL AND STONE REVETMENT
Town of Scituate, Massachusets

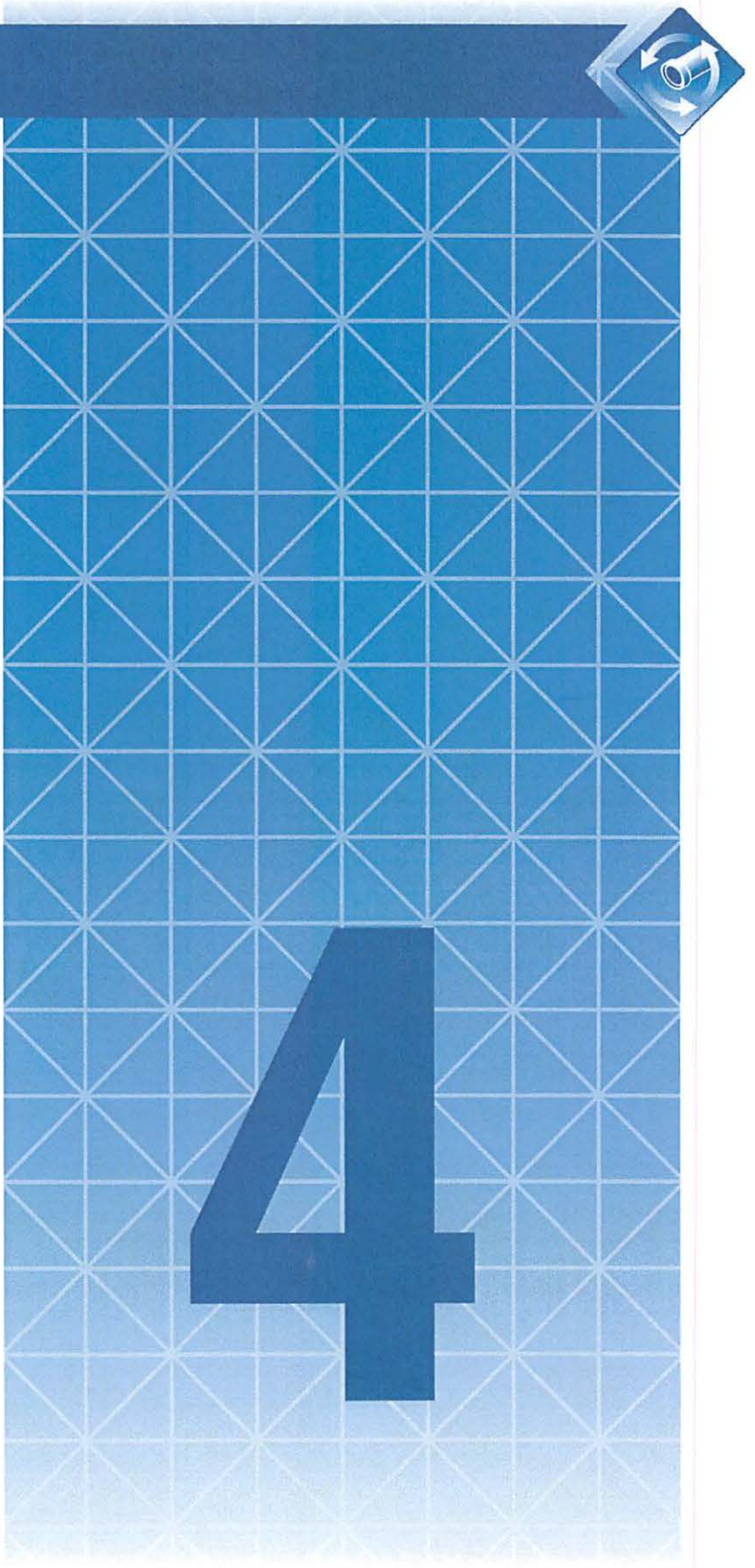
RELEVANCE TO THE NEEDS OF THE CITY OF SHEBOYGAN
Shoreline rehabilitation, structural analysis and design, special permitting

Foth was selected by the Town of Scituate, MA to perform an engineering evaluation, topographic survey, subsurface investigations, engineering design, environmental permitting, preparation of bid documents, contractor bidding services, and construction management for the replacement of approximately 2,000 linear feet of existing concrete seawall and stone revetment along Oceanside Drive in Scituate, MA.

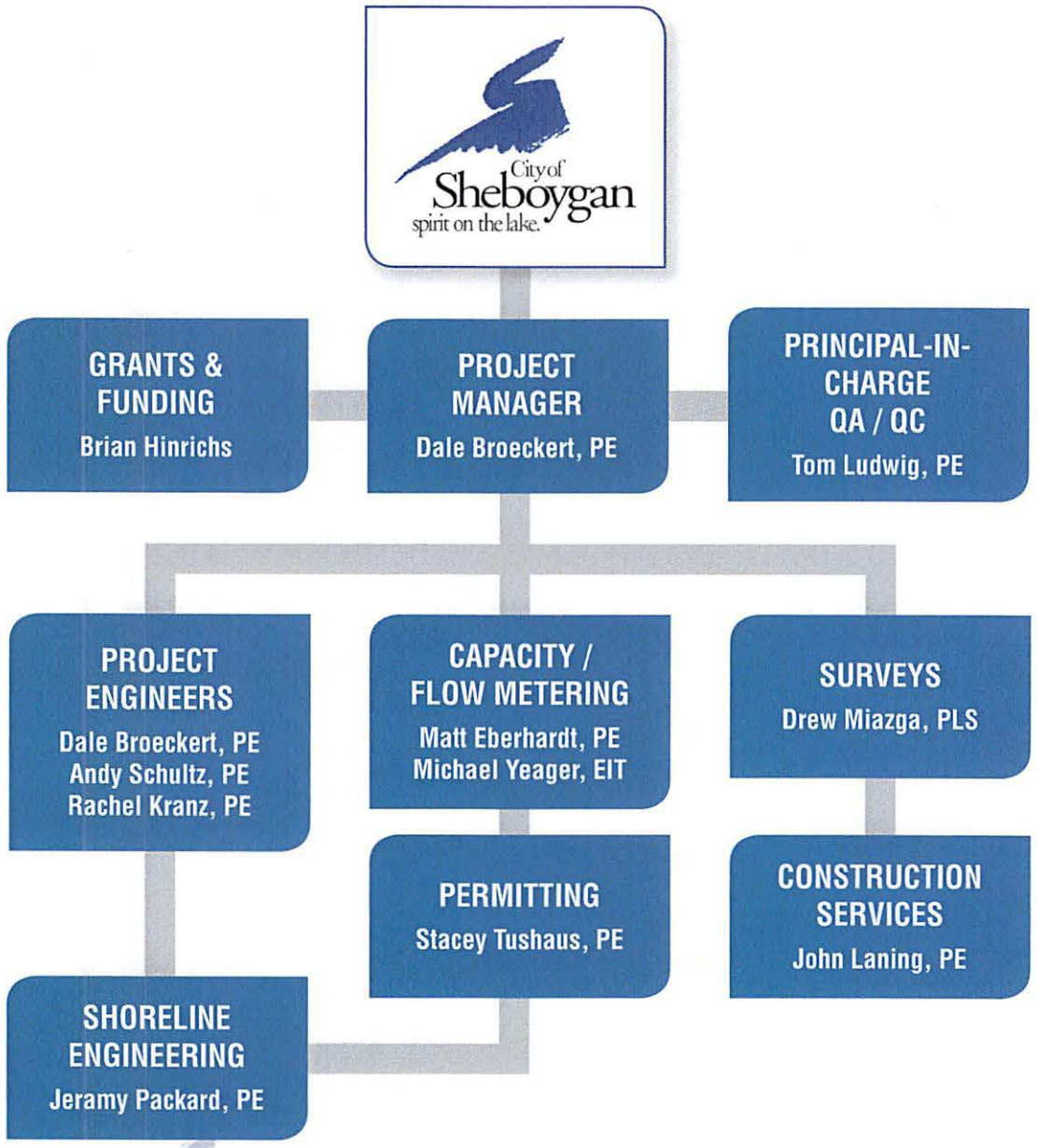
The replacement seawall consisted of a steel reinforced, cantilever concrete structure, approximately 18 feet high, and included a shear key along the base of the footing for increased stability during coastal storm events. The new seawall section was raised approximately two feet to enhance coastal resiliency against storm and wave action and account for future sea level rise. Weep holes were installed to alleviate water pressure behind the new wall section, and 10-ton revetment stone was designed and placed in front of the wall to protect the structure from scour.

Foth also provided construction services which included review/recommendations of contractor submittals and shop drawings, and coordination/clarification of contractor requests for information. This project was successfully completed on-time and within budget despite the added challenge of being in close proximity to existing homes.

4 Project Team



TEAM ORGANIZATION



EDUCATION
BS Civil and Environmental Engineering, University of Wisconsin-Madison

REGISTRATION
Wisconsin PE

RELEVANT SKILLS
Pump & Hydraulic Specialist
Post-NASSCO Certified Trainer
CIPP Install & Spot Repair
Utility Design
Project Management
Client Relations

Dale Broeckert, PE

Project Manager, Lead Project Engineer

Dale has over fifteen years of experience in the areas of civil engineering, construction estimating/management, CIPP installation and spot repairs, water system design, engineered water & wastewater pump and control systems.

Over the past several years Dale has served as a sales engineer working directly with various consulting engineers and system owners/operators throughout Wisconsin. His focus was on water & wastewater pump and control/SCADA systems with duties including detailed review and design assistance, system troubleshooting, product solutions & recommendations, specification & drawing review, cost proposals, bidding, project management and system startup/training. Dale has created a strong network throughout Wisconsin's water & wastewater industry through his past sales engineering position. Dale was a Foth member from 2007-2011, and returned in 2019.

- River Bend Lift Station, Village of Caledonia, Wisconsin. Project manager, designer, pump system equipment and hydraulic specialist for capacity improvements to the River Bend Lift Station. The project involves doubling the existing station capacity from approximately 9 MGD to 19 MGD. Improvements include adding a new parallel force main, replacement of existing pumping & control equipment and providing an automated emergency by-pass system.
- Dominican Lift Station Facilities Plan, Village of Caledonia, Wisconsin. Project manager, designer, pump system equipment and hydraulic specialist for the Dominican Lift Station Facilities Plan. The project involves increasing the existing lift station capacity to handle the future flows from a developing TID. The Facility Plan involves determining the future needs and evaluating the most cost effective options/alternatives for the list station improvements.
- TID 5 Attenuation Basin Facilities Plan, Village of Caledonia, Wisconsin. Project manager, designer, pump system equipment and hydraulic specialist for the TID 5 Attenuation Basin Facilities Plan. The project involves adding an attenuation basin to handle the future flows from a developing TID. The Facility Plan involves determining the future needs and evaluating the most cost effective options/alternatives for the station.
- Brazeau Sanitary District No. 1 - Lift Station Evaluations & Rehabilitation, White Potato Lake, Wisconsin. Pump system equipment & hydraulic specialist, equipment project manager and estimator for the rehabilitation of six (6) dry pit/wet well sewage lift stations. A pump system evaluation was performed at each station to determine the capacity shortfalls, reasons for pump ragging/plugging issues and the control improvements required. The outcome of the project provided the District with significant cost savings by rehabilitating the existing lift stations to like-new condition, increasing capacity, meeting current electrical codes and eliminating the pump clogging/ragging problems in the stations. (for others)
- Ross Avenue and Mesker/Colleen Lift Station Replacements, Weston, Wisconsin. Pump system equipment & hydraulic specialist, equipment project manager and estimator for the replacement of two (2) submersible sewage lift stations. Pump selections were performed at each station to optimize the stations' performance and minimize clogging/ragging. Premium efficient pumps with vortex impeller designs and new VFD control systems were installed at each station. (for others)
- Working for a Contractor: Various CIPP installations and spot repairs throughout Wisconsin and Minnesota. Project manager, estimator, and QA/QC specialist. Oversaw thousands of linear feet of pre/post televising, liner curing process, liner testing, re-opening laterals, and final cleanup and closeout.

EDUCATION
BS Civil Engineering
University of
Wisconsin-Milwaukee

REGISTRATION
Wisconsin PE

RELEVANT SKILLS
Feasibility Studies
Cost Evaluations
Utility Design
Project Management

Tom Ludwig, PE

Principal-in-Charge, Quality Assurance / Quality Control

Tom is Foth's principle-in-charge for civil engineering and municipal planning services. He has over 32 years of civil engineering experience in all facets of municipal, sanitary, road, bridge, stormwater management, and water distribution engineering. He has managed projects from inception through budgeting, facility planning, design, and the eventual construction management phase, gaining comprehensive knowledge of local municipal government in the process. This invaluable experience enables him to assist municipalities and utilities with any of their engineering project needs. Tom is responsible for overall client services, resources and quality control and is the State Operations Director for Foth's three Wisconsin offices and manages Foth's sanitary sewer and water main utility projects consisting of facility planning, sewer and water main master planning and modeling, design, special assessments, and construction management.

- Michigan Boulevard Relining Project, Caledonia Utility District, City of Racine, Racine County, Wisconsin. Principle-in-Charge for a forcemain pipe located on the top of a sandy bluff along Lake Michigan, within the City of Racine, and owned by the Caledonia Utility District. The forcemain was televised and found to have substantial corrosion and collapsed portions due to the buildup of hydrogen sulfide gas in portions of the pipe which are actually gravity sewer. The project involved researching potential repairs to the pipe and coordinating with various City of Racine departments for approvals. The project resulted in a structural relining of the pipe and the televising of the rest of the two miles of sewer pipe to determine possible further damage.

- TID #5 Sanitary Sewer Improvements, Village of Mount Pleasant, Racine County, Wisconsin. Principal in charge for water and sewer infrastructure extension planning, cost estimates, design, and construction phase engineering for a new sanitary sewer system extending over 16 miles from Lake Michigan. The extension will serve Foxconn and the I-94 corridor in both Mount Pleasant and Caledonia. Tom was involved in the initial development planning efforts to attract the manufacturer to Racine County, working with the Racine County Economic Development Corporation (RCEDC) to assist the Village, County, and State of Wisconsin. The successful, multi-agency effort attracted the Foxconn campus within the Village of Mount Pleasant.

- I-94 Sanitary Sewer Interceptor Facility Planning Report, Design, and Construction, Caledonia Utility District, Racine County, Wisconsin. Principal in charge responsible for the team developing a facility plan to determine the most cost effective approach to extending sewer service to the 6 mile I-94 corridor in Caledonia. The plan included the extension of two miles of 48 inch, 42 inch, and 36 inch diameter gravity sewer, an 8.7 MGD lift station, and 2.5 miles of dual 18 inch forcemain, as well as preparing the engineering report for submittal to the DNR for review and approval. In response to growing interest in developing the I-94 corridor between Milwaukee and Chicago, the Village of Caledonia recognized the need to extend utilities to the interstate to attract highly beneficial land uses to their growing community and was tasked with extending both utilities from the previous termination points to approximately 2 miles to the south of its border with the Village of Mount Pleasant. Tom was an integral part of the negotiation team for the inter-municipal agreements with Racine and Mount Pleasant.

- Hoods Creek Lift Station, Caledonia Sewer Utility District No. 1, Village of Caledonia, Wisconsin. Project manager for the design of a pre-fabricated, high-capacity lift station. The lift station is among the largest below grade steel lift stations ever built in Wisconsin - approximately 38 feet long, 14 feet wide, and 14 feet high and weighing roughly 54 tons. The station can convey a peak sewage flow of 3,000 gallons per minute (gpm) and will eventually handle 7,200 gpm with a 50-year capacity. The underground structure resulted in a significant time savings of 4-5 months and cost savings of 25-50% less than an above ground structure. The total cost of the project was $1.5 million.

EDUCATION
BS Civil Engineering
BS Environmental Engineering, University of Wisconsin-Platteville

REGISTRATION
Wisconsin PE

RELEVANT SKILLS
Utility Design
Utility Construction
Contractor Coordination
Cost Estimating
Constructibility
Project Management

Andy Schultz, PE
Project Engineer

Andy specializes in municipal engineering services including project management and construction administration and management. His experience includes water and sewer utility modeling, planning, design and construction, as well as roadway design. He has an extensive background serving in the public sector which has gained him a strong understanding of budgetary challenges and responsibilities, as well as public coordination and communications. His work in construction has included contract compliance, dispute resolution, and constructability review.

- TID #4 Utility Extensions, Caledonia Water Utility District, Caledonia, Wisconsin. Project manager for the design and construction of a 4.5 MGD Lift Station, 11,000 lineal feet of dual force main, 5,500 lineal feet of 42 inch and 36 inch diameter interceptor sewer, and 5,500 lineal feet of 16 inch diameter water main. The project also included extensive coordination with multiple municipal jurisdictions, three different general contractors, and environmental regulators.
- TID #5 Sanitary Sewer Improvements, Village of Mt. Pleasant, Wisconsin. Project engineer for planning and coordination for over 40,000 lineal feet of gravity sewers ranging from 24-54 inches in diameter, over 40,000 lineal feet of twin 24 inch diameter forcemains, and a 36 MGD lift station.
- CTH K&V, Village of Caledonia, Wisconsin. Project manager for the design of interceptor sewers and force main, as well as construction manager for all aspects of the extension of services to an unserved area of the village. The project included 6,000 linear feet of 36 inch and 42 inch interceptor along CTH K, 11,000 linear feet of 18 inch diameter dual force mains, and 4.5 MGD, 40 feet deep lift station.
- Hoods Creek Attenuation Basin, Caledonia Utility District, Caledonia, Wisconsin. Construction manager for the construction of a 1.5 million gallon, underground, reinforced concrete sewage attenuation basin, and a 4.5 MGD lift station designed with aesthetic treatments. The project includes the construction of four underground reinforced concrete structures, extensive site work, and regulatory coordination.
- Foxconn Development, Racine County, Wisconsin. Responsible for sewer planning and estimating on behalf of the team assembled by RCEDC to lure the manufacturer to Wisconsin. Performed many iterations of proposed service areas, densities, and contributing flows to preliminarily size gravity mains, lift stations, and force mains to serve the development area.
- Beaver Dam Site, Alliant Energy, Wisconsin. Responsible for sanitary sewer and water infrastructure planning for the 500 acre Certified Development site. Provided proposed corridors, quantities, and estimates to the client in order for them to analyze site feasibility.
- Ivy & West Johnson Area Water Relay and Sanitary Rehabilitation, Caledonia Utility District, Caledonia, Wisconsin. Project manager for the 2,800 LF of water main relay and 9,200 LF of sanitary sewer rehabilitation project. The project design was coordinated with two different Utility Districts to maximize bidding efficiency and to drive market competitiveness.
- Kremer Area Sewer and Water, Caledonia Utility District, Caledonia, Wisconsin. Construction manager for the utility and roadway reconstruction project which relayed 6,200 LF of sanitary sewer, 7,000 LF of water main, 7,100 LF or urban roadway construction, and 22,000 LF of sanitary sewer rehabilitation with CIPP and associated manhole rehabilitation.

EDUCATION
BS Civil Engineering,
Iowa State University

REGISTRATION
Minnesota PE
Wisconsin PE

RELEVANT SKILLS
CIPP Specialist
CIPP Installation
NASSCO Certified
Utility Design

Rachel Kranz, PE
Project Engineer

Rachel is an experienced design team member responsible for the planning, design and construction support of interceptor sewers, meter stations and lifts stations, in addition to municipal sanitary sewer systems. Rachel has coordinated and assisted confined space entry for structure and pipe condition assessments as part of preliminary design efforts. She has been responsible for pipeline condition assessment reports utilizing her NASSCO Pipeline Assessment Certification Program (PACP) certification. Her experience includes the design of cured-in-place lining for pipes ranging in size from 6-inches to 72-inches in diameter.

- Interceptor 7122 Phalen Rehabilitation, St. Paul, Minnesota, Metropolitan Council Environmental Services.Lead engineer. The project involved design, bidding document preparation, and construction support services for the rehabilitation of 8,200 LF of 72-inch with CIPP, rehabilitation of 19 MHs, and coordination with City of St. Paul and Ramsey County.

- 1-MN-341 Interceptor Rehabilitation, Minneapolis, Minnesota, Metropolitan Council Environmental Services. Lead project engineer for plans and specifications to rehabilitate 16,000 lineal feet of sanitary sewer varying in size from 33 inch to 60 inch diameter and MH rehabilitation. The project involved multiple agencies and stakeholders in the City of Minneapolis with work around sensitive park areas that require special design considerations as well as coordination with Minnehaha Creek Watershed District, MnDNR, and the Army Corps of Engineers. The project included 6,800 lineal feet of 33 inch and 39 inch diameter CIPP lining, 3,600 lineal feet of 60 inch diameter CIPP Lining and rehabilitation of 54 MHs by coating and removal/replacement.

- North Area Interceptor Rehabilitation, Phase 5, Blaine, Mounds View, and Fridley, Minnesota, Metropolitan Council Environmental Services. Rachel was the lead project engineer for plans and specifications for the rehabilitation of three non-contiguous areas of Interceptor 4-NS-523in the norther Twin Cities metropolitan area. The total interceptor rehabilitation length was approximately 8,338 lf of 30-inch to 66-inch pipe and included CIPP lining 7,500 feet of pipe varying from 36-inch to 66-inch diameters, sliplining 3,100 feet of 60-inch and 66-inch sanitary sewer, rehabilitation of 28 manhole structures, reconstruction of 250 feet of 30-inch sanitary sewer, rehabilitation of four flow meter structures and cleaning and televising 1,600 feet of 24-inch forcemain. Pipe rehabilitation methods evaluated for capacity impacts included both cured-in-place-pipe lining and slip lining. Manhole rehabilitation methods included FRP inserts, replacement polymer MHs, and MH reconstruction. Special site conditions included high groundwater, coordination with Minnesota Commercial Railway, and contaminated soils and groundwater. Coordination was also required with the Cities of Blaine, Circle Pines, Shoreview, Mounds View, and Fridley; Anoka and Ramsey Counties; Rice Creek Watershed District, and MnDOT.

- Golden Valley Interceptor Rehabilitation, Golden Valley, Minnesota, Metropolitan Council Environmental Services. Project manager and lead engineer for the rehabilitation of a sewer interceptor at three locations (due to corrosion and sags) within Golden Valley. The rehabilitation methods include a combination of CIPP lining, removal and replacement on helical piling, and tunneling. The total pipe length was over 2,050 lf of 24-inch to 36-inch pipe including 16 rehabilitated, reconstructed, or new manhole structures. Capacity analysis was a key component in selecting rehabilitation methods ensuring minimal or no loss of capacity to the owner. Coordination was required with Hennepin County, MnDOT, Bassett Creek Watershed Management Commission, and private commercial property owners.

- North Area Phase 10 Interceptor Rehabilitation, Hugo and White Bear Township, Minnesota, Metropolitan Council Environmental Services. Project engineer for the rehabilitation of 3,520 lf of 36-inch to 42-inch pipe, including 14 manhole structures. The pipe rehabilitation considerations included pipe condition assessment and cured-in-place-pipe lining design.

EDUCATION
BS Civil Engineering
University of Wisconsin-Madison

REGISTRATION
Wisconsin PE

RELEVANT SKILLS
Permitting
Agency Coordination

Stacey Tushaus, PE
Permitting

Stacey is a civil and environmental engineer with over 25 years of diverse engineering, permitting and management experience. Stacey has served as a project engineer for stormwater, sanitary sewer, water main, and landfill projects. Her stormwater management experience includes site drainage, erosion control, floodplain studies, MS4 permitting and grants for Phase II communities, and stormwater utilities. She has proven expertise in navigating the fluid complexities of regulatory permitting, understanding the importance of timing and how it affects the project schedule. Stacey brings excellent communication skills to all projects she undertakes, and she enjoys helping build strong relationships between communities and local and state regulators.

- Ongoing Environmental Compliance Services, Wisconsin. These projects involve ongoing coordination with local, state and federal agencies to obtain necessary storm water, construction, sewer/water extension, and wetland/waterway permitting or exemptions. Agencies include Wisconsin Department of Natural Resources, Wisconsin Department of Energy, State Historic Preservation Office, US Fish & Wildlife Service, and US Army Corps of Engineers.
  - Village of Mount Pleasant – TID5 Intercepter Sewer System, a multi-phased project to provide services to Foxconn and surrounding area
  - Caledonia Utility District - TID4 Sewer and Water, a multi-phased project to extend services to the I-94 Corridor
  - City of Oak Creek – 2018 Oak Creek I94 Utility Crossings
  - Caledonia Utility District – Riverbend Lift Station Safety Site
  - Caledonia Utility District – STH 32 Stream Restoration
  - Alliant Energy Corporate Services – Beaver Dam Business Park
  - Village of Caledonia Storm Water Utility District – Wind Dale and Wind Point West Storm Water Utility Improvements
- Recent Environmental Compliance Services, Wisconsin.
  - Village of Mount Pleasant – Project Flying Eagles (Foxconn) Environmental Services
  - Racine County – CTH K & V Roundabout
  - City of Oak Creek – I94 Ryan Road Water Main Replacement
  - Caledonia Utility District - TID #3 Industrial Park Water Main
  - Caledonia Utility District – Caddy Vista and Jellystone Park Utility Improvements
  - Caledonia Utility District – STH 38 Water Main
  - Caledonia Utility District - Hoods Creek Sewage Attenuation Basin
  - Caledonia Utility District – Ivy Lane Water Main
  - Caledonia Utility District – Wind Point Sewer Rehabilitation
  - Caledonia Utility District – Caddy Lane Water Main
  - Caledonia Utility District – DeBack Industrial Park
  - Caledonia Utility District - Kremer Area Road & Utility Reconstruction
  - City of Sturgeon Bay - Bradley Lake Wetland Forebay Project
  - Caledonia Utility District – Goley's Lane Sanitary Sewer
  - Caledonia Utility District – Birch Creek Lane Sanitary Sewer
  - Caledonia Utility District – STH 31 Water Main
  - Brown County Port & Solid Waste Department - Cat Island Chain Wave Barrier Construction

Matt Eberhardt, PE
Modeling

Relevant Expertise: Type it

MS Environmental Engineering, University of California, Berkley
BS Civil Engineering - Environmental Option, University of Wisconsin-Madison

Wisconsin PE, Iowa PE

Matt is a civil and environmental engineer with over 17 years of engineering consulting experience. He is versed in all facets of wastewater including capacity planning, gravity and forcemain design and modeling, forcemain hammer analysis, lift station design, odor control, treatment, cost estimating, bidding practices, and operations and maintenance. This all-inclusive wastewater system knowledge provides our team and our clients with solutions to any of their wastewater needs.

- Wastewater Lift Station, Caledonia Utility District, Wisconsin. Project engineer for lift station design, including design of the pumping system. Project included evaluating pipe sizes for a multi-pipe force main, the use of motor-operated valves for automatic backup, calculation of energy savings from the use of VFDs, and facilitating phasing over a 40 year period. The ultimate design flow for this lift station is 16.1 MGD.
- Wastewater Lift Station, Mount Pleasant, Wisconsin. Project engineer for lift station design including the unique self-cleaning trench wet well and pumping system. This project included evaluating pipe sizes and combinations for a multi-pipe force main, forcemain hammer analysis, wet well scaled model and testing, and facilitating phasing. The initial design flow is 40 MGD and ultimate design flow is 75 MGD.
- Sewage Attenuation Basin, Caledonia Utility District, Wisconsin. Project engineer for Hoods Creek sewage attenuation basin design including process design of sewer interceptor diversion structures, influent/effluent pumping station, attenuation basin, and odor control system. This project utilized the GNA Hydroself basin flushing system. The design capacity for this facility is 1.5 MG with a build-out capacity of 4.5 MG.
- Sanitary Sewer Evaluation Study, City of Edgerton, Wisconsin. Project engineer for the sanitary sewer evaluation study including installation of flow meters, flow data collection, data analysis, development of recommended infiltration and inflow mitigation actions, and composition of the final report.
- 50 Year Master Plan, Madison Metropolitan Sewerage District, Wisconsin. Project engineer for development of 50 year district wastewater master plan. Duties included analysis of sewage conveyance system, on-site inspection of district-owned pumping stations, and development of conveyance system technical report.

Michael Yeager, EIT
Staff Engineer

Relevant Expertise: Flow Metering

BS Civil Engineering
University of Wisconsin-Milwaukee
BS Geology/Geophysics
University of Wisconsin-Madison

Wisconsin EIT

Mike has been a civil engineer intern with Foth since June of 2017 and is a recent University of Wisconsin-Milwaukee graduate, earning his B.S. in Civil Engineering in May 2019. Mike has broadened his municipal engineering experience by assisting in projects from design through construction. He has civil design experience for sanitary sewer, water main and roadway projects, has generated construction quantities and specifications for the bidding process, and has performed construction inspections and staking for various municipal projects. He has also conducted flow monitoring and modeling on existing systems to analyze capacity needs.

- Chicory Rd Area Sanitary Sewer Eval, Village of Mount Pleasant, Wisconsin. Determined logistics of installation of sanitary sewer meter installation and data collection. Analyzed sanitary flow data to identify potential excessive infiltration and inflow (I/I) with large rain events. The Village of Mount Pleasant has an area of 9 basins within its limits that have been experiencing high sanitary flows and wanted to determine a scope of possible excessive infiltration.
- Sheboygan Flow Monitoring, City of Sheboygan, Wisconsin. Developed a Health and Safety Plan for confined space entry for meter installation. Monitored and collected data from sanitary flow meters to be analyzed.
- Sewer Capacity Modeling, Village of Caledonia, Wisconsin. Modeled entire sanitary sewer system in Civil 3D within the Village of Caledonia to determine the capacity of specific basins. Information from modeling was used to calculate capacity of new construction within the area.
- TID #4 DeBack Sewer & Water Improvements, Village of Caledonia, Wisconsin. Developed revised plot files, traffic control plans, and sized storm sewer pipes. Metered hydrant flows to determine if current system meets sprinkler system demands.
- TID #5 CTH KR & CTH H Sewer (GS-2), Village of Mount Pleasant, Wisconsin. Determined sanitary boring locations and sanitary manhole sizes. Developed details for sanitary manholes, sanitary sewer installation, erosion control, and construction. Refined locations of soil borings to analyze subsurface.

John Laning, PE
Construction Period Services

Relevant Expertise: Construction Administration, Inspection, and Oversight

BS Civil Engineering, University of Wisconsin-Milwaukee

Wisconsin PE

Mr. Laning has over 20 years of construction management experience, including transportation, municipal, utility, and site development projects. His experience includes supervision of construction inspection and survey crews, infrastructure management systems, and public and agency coordination with regard to construction efforts.

- TID #4 DeBack Phase 3 Sewer, Water, and Site Improvements, Caledonia Utility District, Wisconsin. Construction administration including hosting of preconstruction conferences, material submittals and approvals, construction project staffing, scheduling and oversight, and constructability review for construction of a sanitary lift station, force main and water main in an area containing wetlands.
- TID 5 CTH KR & CTH H Sewer, Village of Mount Pleasant, Wisconsin. Construction administration including hosting of preconstruction conferences, material submittals and approvals, construction project staffing, scheduling and oversight for the installation of deep sanitary interceptor sewer pipeline to service the FoxConn Development.
- STH 32 Road Reconstruction Utility Planning, Caledonia Utility District, Caledonia, Wisconsin. Construction administration and inspection including hosting of preconstruction conferences, material submittals and approvals, construction project staffing, scheduling and oversight.
- International Drive Sewer Extension, Village of Mount Pleasant, Wisconsin. Construction administration including hosting of preconstruction conferences, material submittals and approvals, construction project staffing, scheduling, oversight, and constructability review for installation of a sanitary sewer in the right-of-way prior to the commencement of WisDOT project road work within the same corridor.

Drew Miazga, PLS
Surveys

Areas of Expertise: 3D Laser Scanning, sUAS, ALTA/ACSM

AAS Land Surveying Technician, Nicolet Area Technical College

Wisconsin PLS

Drew is Professional Land Surveyor with experience in all aspects of land surveying, utilizing the latest in technology to ensure accuracy and efficiency for every project.

- Lead Surveyor for:
  - Riverbend Lift Station Safety Site, Village of Caledonia Utilities, Wisconsin
  - CTH V and K Roundabout Design, Racine County, Wisconsin
  - STH 32 Road Reconstruction Utility Planning, Village of Caledonia Utilities, Wisconsin
  - Jellystone Park Public Sewer and Water, Village of Caledonia Utilities, Wisconsin
  - Caddy Lane Water Main, Village of Caledonia, Wisconsin
  - Sewer and Water Mapping, Village of Caledonia, Wisconsin
  - Wind Point Sewer Rehab, Village of Caledonia Utilities, Wisconsin
  - Wind Dale Storm Drainage Improvements, Village of Caledonia Utilities, Wisconsin
  - Wind Point West Improvements, Village of Caledonia Utilities, Wisconsin
  - Storm Sewer GPS Locates, Village of Caledonia Utilities, Wisconsin
  - TID 5 CTH H to Pike River Sewer, CTH KR & STH 32 Force Main, STH 11 to Braun Road Sewer, CTH KR & CTH H Sewer, Village of Mount Pleasant, Wisconsin
  - TID 4 DeBack Sewer and Water Improvements, Village of Caledonia Utilities, Wisconsin
  - Caddy Vista Utility Improvements, Village of Caledonia Utilities, Wisconsin
  - International Drive Sewer Extension South, Village of Mount Pleasant, Wisconsin

Jeramy Packard, PE
Coastal Infrastructure

Relevant Expertise: Coastal infrastructure design | Permitting

BS Civil Engineering, University of Massachusets

Massachusets PE

Jeramy has 10 years of experience in civil engineering, including land surveying, roadway design, coastal infrastructure design, and environmental permitting. He has managed the design, permitting, and construction management of a variety of projects including seawall reconstruction and rehabilitation, shared-use paths, piers, docks, and revetments. His responsibilities include managing projects from the conceptual level through final design and construction, preparation and submittal of permit application, and development of construction level bid documents.

- Scituate Department of Public Works - 138 Edward Foster Road Seawall Replacement – Scituate, MA. Responsible for contract document preparation including design plans, cost estimates, and project specifications for the replacement of 185' of concrete seawall and stone revetment along the shoreline of Scituate, MA. Worked closely with the local conservation commission, Town DPW, and abutting homeowners to achieve successful project closeout.
- Scituate Department of Public Works – Oceanside 4th-6th & 7th-10th Seawall Replacement – Scituate, MA. Responsible for contract document preparation including design plans, cost estimates, and project specifications for the replacement of 1200' of concrete seawall and stone revetment along the shoreline of Scituate, MA. Provided bid canvas and construction administration services including submittal review and construction inspections and administration. Worked closely with the local conservation commission, Town DPW, and abutting homeowners throughout
all project phases.
- Various Clients – Floodplain Services – Massachusetts: Provided floodplain services for various coastal clients throughout Massachusetts. Services include survey, analysis, and application preparation required for elevation certificates, LOMR's and LOMA's.

Brian Hinrichs, PSS
Grants and Funding

Relevant Expertise: Shoreline Grants and Funding Acquisition and Management

BS Soil Science (Natural Resouces), University of Wisconsin-Madison

Wisconsin Professional Soils Scientist

Mr. Hinrichs is a client team leader and lead environmental scientist with 30 years of experience in developing, funding and executing sediment management and coastal infrastructure projects. He is a senior member of the American Association of Port Authorities (AAPA) Harbor and Navigation and Energy and Environment Technical Advisory Committees, a member of the Menomonie River Area of Concern (AOC) Technical Advisory Committee, and a founding member of the Governor appointed Wisconsin Brownfield Study Group. His current focus is on developing beneficial reuse methodologies for sediments dredged or captured from estuaries of Lakes Superior, Erie and Michigan.

Mr. Hinrichs is an experienced grant and funding manager, adept at dentifying and developing funding portfolios for water resource projects throughout the United States. Secured over $100,000,000 in grant funds for water resource projects in the last 10 years.

- Breakwater Improvement Project, City of Port Washington, Wisconsin. Client Team Leader/Regulatory Liaison for breakwater improvement project that includes pedestrian access along the breakwater and public features such as small craft launch and fishing platforms.
- Racine County Dredging/Public Access Projects. Client Team Leader/Funding Manager/Regulatory Liaison, multiple projects in the Racine Harbor. This project provided a Great lakes first by dredging the public launch basin and beneficially using the dredged material to fill an underutilized marina on the Root River. The Root River site is being advanced by the County for redevelopment. In addition to the dredging projects I directed efforts and funding for the demolition and replacement of an existing boat ramp in "the wet" with a precast concrete plank system. Project featured significant design and construction challenges due to the in-water depths at which the planks were installed and tight schedule constraints. Project was successfully completed on time and within budget.

5 About Foth

5

5 About Foth

WE STRIVE TO EARN YOUR TRUST.

Earning trust is the first step in turning a relationship into a partnership. At Foth, we do more than create cost-effective solutions for infrastructure challenges—we foster relationships by delving deeply into all aspects of every project so we can help our clients succeed. We keep your goals in sight and your best interests at heart.

Foth focuses on earning trust by delivering personalized, client-centered service on every project. Our clients continuously choose us because they know we create more than solutions; we create trust.

Foth was founded in Green Bay, Wisconsin, in 1938. We offer a tradition of high-level engineering services and intelligent solutions to government, industrial, and commercial clients. Since the day the doors opened, we have set out to separate ourselves by providing client-centered, values-based service to each and every one of our clients.

Our philosophy and product delivery system has led us to consistently rank among the nation's top engineering consulting firms. More than 85 percent of our business comes from repeat clients. We have offices throughout the United States, strategically located to allow us to serve our partners in a timely, consistent, and cost-effective manner.

We pride ourselves on continuously improving our product and ourselves, adding value to our clients and our communities. Our members consistently apply Foth principles as the foundation of our product delivery; whether it be consulting or developing infrastructure, environmental, or industrial solutions.

FULL RANGE OF SERVICES

Earning trust is only the beginning. Our members continuously learn, teach, and utilize state-of-the-art technologies and technical practices to deliver practical solutions for today's infrastructure challenges. With each service we offer, Foth has a team of public coordination and communications experts to support your communications throughout the project process. We are proud to provide services in the following areas:

- Water / Wastewater
- Planning
- Environmental
- Geospatial
- Transportation
- Aviation
- Construction

Foth clients understand the benefits of our staff having a full range of engineering expertise available at all times. Our specialty engineering team can step into the project at any point to provide expertise, such as:

- Grants and Funding
- Environmental Impact Statements and Assessments
- Wetland Delineation and Mitigation
- Shoreline Protection and Armoring
- sUAS (drone) Imagery

Federal Grant Assistance

In the past five years, Foth has assisted our clients in obtaining more than $45,000,000 for sediment management and coastal infrastructure projects. Of this total, more than $7M has been from federal programs. Foth also helps clients comply with the management and reporting requirements of grant funds. Examples of projects for which Foth has helped secure and/or manage federal funds:

S.S. Badger Docking Facilities, Ludington and Manitowoc, WI

- $5 million in grant funds
- USDOT FASTLANE Program
- Analysis, design, and repairs to docking facilities for SS Badger ferry

Bay Lake Regional Planning Commission, WI

- $250,000 in grant funds
- Great Lakes Restoration Initiative
- Beach Sanitary Study

Washington Island, WI Detroit Channel Dredging

- $30,000 in grant funds
- Coastal Management Program
- Waterfront Master Plan

Kenosha, WI, Harbor Improvements

- $155,400 in grant funds
- Boating Infrastructure and Coastal Management Program
- Marina dredging, harbor entrance re-design, sedimentation study

Kewaunee, WI Harbor Improvements

- $45,000 in grant funds
- Recreational Trails (through state Stewardship program)
- Landing boating accessibility improvements

Two Rivers, WI Waterfront

- $934,266 in grant funds
- Community Development Block Grants and Coastal Management Program, Clean Vessel Act, Land & Water Conservation Program, Recreational Trails Program
- Harbor Master Plan, seawall replacement, Harbor Park improvements, Veterans Park improvements, East Twin River dredging, transient marina & public access

Sturgeon Bay, WI - Bradley Lake

- $282,229 in grant funds
- Coastal Management Program; Sustain our Great Lakes Program
- Bradley Lake swale & biofiltration system, wetland restoration, planning

Zephyr Oil Refinery Site, Muskegon, MI

- $17 million in grant funds
- Michigan Department of Environmental Quality, USEPA, USACE
- Remediation of former oil refinery site

Port Washington, WI Breakwater Repair

- $257,650 in grant funds
- Boating Infrastructure Grant Program, Coastal Management Program
- Breakwwater repair sections A,B,C; public access project

Conneaut Port Authority, OH

- $39,600 in grant funds
- Coastal Management Program
- Site and sediment characterization for beneficial re-use

Algoma, WI Harbor Master Plan

- $75,000 in grant funds
- Community Development Block Grant - Planning; Sport Fish Restoration
- Harbor planning and design; feasibility study/preliminary engineering

Saxon Harbor, WI

- Help secure/administer funding from FEMA, USACE, Boating Infrastrructure Grant, Clean Vessel Grant, Knowles-Nelson Stewardship Program
- Dredging and repair of navigation structures

Exhibit B

Foth

Lincoln Center II
2514 South 102nd Street, Ste. 278
West Allis, WI 53227
(414) 336-7900
www.foth.com

December 11, 2019 (Updated January 2020)

Mr. Ryan Sazama, PE, AIA
City Engineer
City of Sheboygan
2026 New Jersey Avenue
Sheboygan, WI 53081

Dear Ryan:

RE: Proposed Level of Effort for the City of Sheboygan, WI
Southside Interceptor System Feasibility Study

We greatly appreciate being selected to assist you and your staff with the analysis of the Southside Sewer Interceptor System, which has been a valuable sewer infrastructure asset that has served the City for the last 80 plus years. We are pleased to provide the City with the following proposed level of effort and associated estimated fee range. The fee estimate is to complete the feasibility study services phase for the Southside Interceptor System Project as discussed in our Statement of Qualifications and the follow-up interview meeting. As we had indicated, we are providing the estimated fee ranges due to the large amount of unknowns associated with this aging sewer that is difficult to access along the rising waters of Lake Michigan.

Project Understanding

The Southside Interceptor System Feasibility Study includes the evaluation of approximately 500 LF of 36-inch cast iron forcemain and 8,760 LF of 48-inch and 60-inch interceptor and associated manholes (MHs). The project work area is from the Kentucky Avenue Sewage Pumping Station to the Wastewater Treatment Plant. This stretch includes a short section of residential area, but primarily follows the shores of Lake Michigan.

As discussed, we will approach the project in phases, the first of which will be the Feasibility Study to investigate existing conditions, forecast future growth needs, formulate potential alternatives, develop budgetary level cost estimates, compare alternatives, and summarize findings with a final capital improvement recommendation plan. The study will also identify likely grant and loan assistance opportunities to pursue to offset anticipated engineering and construction costs.

Once the City approves the study findings, we will then proceed to the design and construction phases. At that time we will prepare a level of effort for the design and construction activities as we will have an understanding of the scope and extent of the new conveyance system improvements.

Project Phases and Estimated Level of Effort

The following phases identify the level of effort for Foth to complete the Feasibility Study.

Flow Monitoring Phase

- Perform four to six months of flow monitoring:
  - Install flow meters at eight (8) sites
  - Download data from flow meters at two week intervals for the first two months and monthly thereafter for a total of five (5) site visits
  - Process flow data and provide data summary upon completion of monitoring
  - Remove meters from eight (8) locations and return sewers to normal service
  - Provide technical support during metering

Televising Phase – Sub-contractor to Foth

- The estimated cost of the CCTV inspection of the entire pipeline is included. The televising work will be performed by a sub-contractor to Foth.
- Cleaning and/or jetting is not anticipated during the initial investigation phase. Repairs of defects such as mineral deposits, roots, I/I, and sags is planned during the construction phase of the project under the construction contract.
- Interceptor cleaning and/or necessary pipeline improvements for CIPP lining installation will be included in the construction bid as part of a chosen alternative.

Preliminary Investigation Phase – Pipeline

- Prepare inventory of desired existing and owner provided data
- Review existing plans of record
- Review City topographic and utility survey
  - The City has collected topographic and utility information in the area. Foth will utilize the information provided by the City to create the overall project base file.
- Utility locate request (Digger's Hotline)
- Prepare project base files in AutoCAD Civil3D using information from City and shoreline survey (See Preliminary Investigation Phase – Shoreline)
- Perform non-entry field investigation on accessible MHs

- Document condition and number/height of adjustment rings
- Document any visible connections and verify with survey information
- Document structure size and any visible deterioration of the structure

Preliminary Investigation Phase – Shoreline

- Review City topographic and utility survey
- Shoreline zone survey
  - Investigation into the shoreline elevations and slope from structures out into lake
  - Used to establish breaking wave conditions including wave run-up up the beach

Feasibility Study Phase – Shoreline

- Grant program and agency vetting
  - US Army Corps of Engineers
  - Wisconsin DOA Community Development Block Grant
  - Wisconsin DOA Coastal Zone Management
  - Wisconsin DNR
  - FEMA
  - Alternative Funding Source Possibilites
- Identify required permits and licenses
- Preliminary meetings with regulatory agencies
  - Wisconsin DNR
  - US Army Corps of Engineers
- Conceptual shoreline protection design

Feasibility Study Phase – Pipeline

- Identify required permits and licenses
- Preliminary discussions with regulatory agencies
  - Wisconsin DNR
- CCTV review
- Pipeline capacity assessment
- Kentucky Avenue Sewage Pumping Station (KASPS) evaluation
- Service area capacity evaluation (current and future)
  - Review existing service area reports
  - Obtain community connection point existing flows
  - Generate/confirm future peak flows by community (if needed)

  - Compare projected peak flows with the KASPS/forcemain and gravity system capacities
  - Wetwell capacity drawdown test
  - Identify deficiencies, if any
- Conceptual bypass pumping and access plan
- Develop conceptual rehabilitation or re-routing alternatives
- Contractor/vendor conceptual design review meetings
- Present Worth Cost analysis for both shoreline and pipe portions of the concept plans
- Community cost sharing model
- Potential funding assistance impacts
- Feasibility Report
- Present Feasibility Report to staff

Note: Recent WDNR rule changes require certain Administrative Code Facility Plan requirements if CWF loans are utilized for funding of a sewer rehabilitation project, regardless of any capacity changes.

Total Level of Effort Summary

Foth will complete the Feasibility Study for the Southside Interceptor System Project as identified above. The actual cost for this work will be on a time and material basis within the ranges described. Reimbursable expenses, such as mileage, printing, and plans, are included in this estimate and will be itemized on all invoices per standard rates.

	Phase	Estimated Fee
1	Flow Monitoring Phase	$55,000 - $65,000
2	Televising Phase (primarily sub-contractor)	$40,000 - $44,000
3	Preliminary Investigation Phase – Pipeline	$44,000 - $49,000
4	Preliminary Investigation Phase – Shoreline	$16,000 - $19,000
5	Feasibility Study Phase – Shoreline	$56,000 - $61,000
6	Feasibility Study Phase – Pipeline & Shore Combined Summary Report	$95,000 - $100,000
	Total Estimated Engineering Fee Range	$ 306,000 - $ 338,000

Schedule

Schedule will begin upon receiving authorization from the City. A summary of the anticipated schedule is shown below:

Phase	Duration	Time Frame
Flow Monitoring Phase	4-6 Months	March – July 2020
Televising Phase	2.5 Months	March – May 2020
Preliminary Investigation Phases	2.5 Months	March – May 2020
Feasibility Study Phases	3.5 Months	May – August 2020

Agreement to Proceed

It is understood that the services will be provided under a contract with the City of Sheboygan. Foth will proceed with work upon contract authorization from the City.

Thanks again for allowing us to team with you on this complex engineering challenge as we improve this important City investment for another 80 plus years. If you have any questions regarding our proposal, please call me at (414) 336-7905.

Sincerely,
Foth Infrastructure & Environment, LLC

Thomas J. Ludwig, P.E.
Principal Engineer / Client Director

Dale R. Broeckert, P.E.
Project Manager

c: David Biebel, Director of Public Works, City of Sheboygan

FOTH INFRASTRUCTURE AND ENVIRONMENT, L.L.C
2020 STANDARD HOURLY RATE SCHEDULE

Classification	Hourly Rate	Classification	Hourly Rate
Director	$202.00	Project Scientist II	$143.00
Project Manager IV	$197.00	Project Scientist I	$117.00
Project Manager III	$188.00	Technology Manager	$164.00
Project Manager II	$178.00	Lead Technician	$142.00
Project Manager I	$169.00	Technician VI	$134.00
Lead Project Engineer	$188.00	Technician V	$130.00
Project Engineer IV	$173.00	Technician IV	$119.00
Project Engineer III	$160.00	Technician III	$108.00
Project Engineer II	$150.00	Technician II	$ 95.00
Project Engineer I	$142.00	Technician I	$ 80.00
Staff Engineer IV	$140.00	Construction Manager	$164.00
Staff Engineer III	$134.00	Land Surveyor IV	$168.00
Staff Engineer II	$125.00	Land Surveyor III	$156.00
Staff Engineer I	$115.00	Land Surveyor II	$144.00
Planner IV	$188.00	Land Surveyor I	$132.00
Planner III	$159.00	Project Administrator II	$ 98.00
Planner II	$132.00	Project Administrator I	$ 78.00
Planner I	$115.00	Administrative Assistant	$ 60.00

REIMBURSABLE EXPENSES

1. All materials and supplies used in the performance of work on this project will be billed at cost plus 10%.
2. Auto mileage will be reimbursed per the standard mileage reimbursement established by the Internal Revenue Service. Service vehicle mileage will be reimbursed on the basis of $0.88 per mile.
3. Charges for outside services such as soils and materials testing, fiscal, legal and all other direct expenses will be invoiced at cost plus 10%.

ADJUSTMENTS TO FEE SCHEDULE

1. Fee schedule effective January 1, 2020. Rates subject to change annually on January 1.

CITY OF SHEBOYGAN

REQUEST FOR PUBLIC WORKS COMMITTEE CONSIDERATION

ITEM DESCRIPTION: Resolution authorizing the appropriate City Officials to enter into a contract with Foth Infrastructure and Environment, LLC for the Sheboygan Southside Interceptor Feasibility Study.

REPORT PREPARED BY: Ryan Sazama, City Engineer

REPORT DATE: February 6, 2020 **MEETING DATE:** February 11, 2020

FISCAL SUMMARY:

Budget Line Item:	60134110-649200
Budget Summary:	Wastewater Sanitary Sewer – Equipment Replacement Fund
Budget Expenditure:	$338,000
Budgeted Revenue:	N/A

STATUTORY REFERENCE:

Wisconsin Statues:	N/A
Municipal Code:	N/A

BACKGROUND / ANALYSIS: In 1936 a sanitary interceptor sewer was constructed along the Southside Lake Michigan shoreline in the City of Sheboygan. The Department of Public Works through this consultant contract will have this sanitary sewer analyzed for design capacity, current sewer pipe integrity and have the sanitary interceptor sewer cleaned and televised. During this process city staff will also have the lake embankment analyzed for any potential needed repairs.

STAFF COMMENTS: The Department of Public Works received three Statement of Qualifications and interviewed each consultant for the implementation of this sanitary interceptor sewer study. Based on each consultants qualifications and experience City staff felt that Foth Infrastructure and Environment, LLC. is the most qualified for this work.

ACTION REQUESTED: Motion to recommend the Common Council adopt Res. No. 163-19-20 authorizing the appropriate City Officials to enter into a contract with Foth Infrastructure and Environment, LLC for the Sheboygan Southside Interceptor Feasibility Study.

ATTACHMENTS:

I. Res. No. 163-19-20
II. Agreement between Client and Foth Infrastructure and Environment, LLC.

III

4.8

Res. No. 164 - 19 - 20. By Alderpersons Wolf and Sorenson.
February 3, 2020.

A RESOLUTION authorizing the Engineering Division of the Department of Public Works to advertise the 2020 Capital Improvement Projects for bids.

WHEREAS, the Engineering Division of the Department of Public Works, on behalf of the board of public works, will obtain plans and specifications for the 2020 Capital Improvement Projects identified in this Resolution.

NOW, THEREFORE, BE IT RESOLVED: That upon completion of the plans and specifications for the projects, the Engineering Division of the Department of Public Works is hereby authorized and directed to advertise the following projects for bids pursuant to the plans and specifications prepared by the City Engineer with the requirement pursuant to Wis. Stat. § 62.15(3) that bids be accompanied by a certified check or a bid bond equal to five percent (5%) of the bid payable to the city as a guaranty that if the bid is accepted the bidder will execute and file the proper contract and bond within the time limited by the city:

1. The Citywide Sidewalk Program.

2. The Roosevelt Park - Tennis Courts.

3. The Citywide Mini Storm Sewer Program.

4. The Number Six Digester - Rebuild Floating Cover.

5. The South Pier Plaza.

6. The Anaerobic Digester Heat Exchanger Replacement.

7. The Indiana Avenue Lift Station Corrosion Prevention.

8. The Moose Park - Playground.

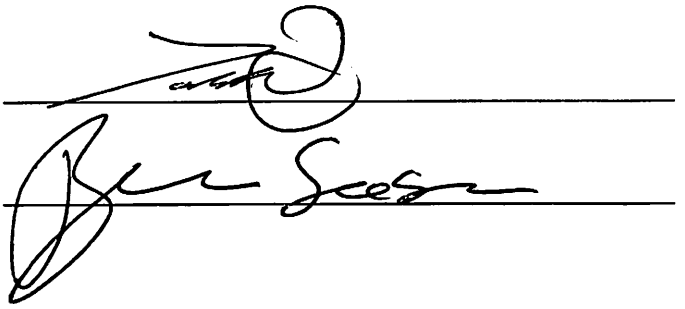
9. The Optimist Park - Playground.

10. The Ash Tree Removal Project.

BE IT FURTHER RESOLVED: That the Engineering Division shall comply with all requirements imposed on an Advertisement for Bids under federal, state, and local law, including noting the bid bond requirement pursuant to Wis. Stat. § 62.15(3) in the Advertisement for Bids.

Public Works

BE IT FURTHER RESOLVED: That the Engineering Division is directed to submit a resume of bids received to the Common Council for further consideration.



I HEREBY CERTIFY that the foregoing Resolution was duly passed by the Common Council of the City of Sheboygan, Wisconsin, on the _____ day of _____, 20____.

Dated _____ 20____. _____, City Clerk

Approved _____ 20____. _____, Mayor

CITY OF SHEBOYGAN

REQUEST FOR PUBLIC WORKS COMMITTEE CONSIDERATION

ITEM DESCRIPTION: Resolution authorizing the Engineering Division of the Department of Public Works to advertise the 2020 Capital Improvement Projects for bids.

REPORT PREPARED BY: Ryan Sazama, City Engineer

REPORT DATE: February 6, 2020 **MEETING DATE:** February 11, 2020

FISCAL SUMMARY:

Budget Line Item:	N/A
Budget Summary:	N/A
Budgeted Expenditure:	N/A
Budgeted Revenue:	N/A

STATUTORY REFERENCE:

Wisconsin Statutes:	N/A
Municipal Code:	N/A

BACKGROUND / ANALYSIS: The plans and specifications are at the stage to solicit bids for the 2020 Capital Improvement Projects. The designs are based on the budget as presented previously and approved in the Capital Improvements Plan.

STAFF COMMENTS: The resolution only authorizes soliciting bids for the 2020 Capital Improvement Projects and does not commit to entering into a contract. These projects are part of the approved 2020 Capital Improvement Projects. The following are the 2020 Capital Improvement Projects:

1. The Citywide Sidewalk Program
2. The Roosevelt Park – Tennis Courts
3. The Citywide Mini Storm Sewer Program
4. The Number Six Digester – Rebuild Floating Cover
5. The South Pier Plaza
6. The Anaerobic Digester Heat Exchanger Replacement
7. The Indiana Avenue Lift Station Corrosion Prevention
8. The Moose Park – Playground
9. The Optimist Park – Playground
10. The Ash Tree Removal Project

ACTION REQUESTED: Motion to recommend the Common Council adopt Res. No. 164-19-20 authorizing the Engineering Division of the Department of Public Works to advertise the 2020 Capital Improvement Projects for bids.

ATTACHMENTS:

I. Res. No. 164-19-20