September 23, 2025

Mayor Guy Titus
Board of Public Works and Safety
10 South State Street
Greenfield, IN 46140

Re: Greenfield Wastewater Utility – Collection System Master Plan

Mayor and Board Members,

In April of this year, approval was given to complete a flow monitoring study throughout the sanitary sewer system. The data obtained from this study will serve as one of the key factors in constructing a hydraulic model of our sanitary sewer system as part of a Master Plan. The last time that a full study of the system was completed was about 25 years ago and we need to have this information updated.

Commonwealth Engineers, Inc. and American Structurepoint have provided the included proposal to complete a system wide study for the sanitary system. The primary goal of this study is to provide the Wastewater Utility a Master Plan for the collection system. The City has seen significant growth over the past 25 years since the last Master Plan was completed, and we need to get this information updated. The study will look at multiple factors including, but not necessarily limited to, a review of existing video inspection data, physical survey of manholes within the system on our larger diameter pipes, inspection of the manholes, lift station assessments, and the hydraulic system model.

The development of the Master Plan will include:

1. Identification of deficiencies in the system.
2. Outlining potential growth to the service area as defined in our service territory and the comprehensive plan of the City.
3. Identify alternative improvement options for existing infrastructure.
4. Recommending improvements that will support long term growth in the City (20-year planning period).

The total proposed cost of the Master Plan is $927,813.00. The breakdown of the costs is detailed in the following table:

Wastewater Utility
302 East Davis Road: Greenfield, Indiana 46140
wwtp@greenfieldin.org
Phone 317-477-4360 Fax 317-477-4361

Description of Service	Amount	Basis of Compensation *(Lump Sum or Hourly Rates)*
Task 1.0 – Workshops, Project Management, and QAQC	$114,796	Lump Sum
Task 2.0 – Field Work	$404,708	Hourly
Task 3.0 – Hydraulic Collection System Modeling	$107,194	Lump Sum
Task 4.0 – Alternative Analysis Hydraulic Modeling	$70,999	Lump Sum
Task 5.0 – Wastewater Master Plan	$155,116	Lump Sum
Task 6.0 – Owner Authorized Allowance	$75,000	Hourly
TOTAL COMPENSATION	**$927,813**	

At this time, I am requesting the Board's approval of the proposal provided by Commonwealth Engineers, Inc., with assistance from American Structurepoint, for the Wastewater Utility Collection System Master Plan and study. A copy of the proposal has been included for your review. Please let me know if you have any questions or need any additional information.

Best Regards,

Nicholas Dezelan, CHMM, ASP
Wastewater Utility Manager

Cc: Gregg Morelock – City Attorney
Glenn Morrow – City Engineer
Jane Webb – Utility Coordinator
Scott Evans – Utility Foreman

Wastewater Utility
302 East Davis Road: Greenfield, Indiana 46140
wwtp@greenfieldin.org
Phone 317-477-4360 Fax 317-477-4361

This is CEI Task Order No. 2025-02, consisting of 4 pages.

Task Order

In accordance with Paragraph 1.01 of the Agreement Between Owner and Engineer for Professional Services – Task Order Edition, dated August 13, 2019 ("Agreement"), Owner and Engineer agree as follows:

1. Background Data

   A. Effective Date of Task Order:

   B. Owner: City of Greenfield, Indiana

   C. Engineer: Commonwealth Engineers, Inc.

   D. Specific Project (title): Wastewater Master Plan & Hydraulic Collection System Modeling

   E. Specific Project (description): The primary goal of this project is to develop a Wastewater Master Plan which shall be a comprehensive analysis of the City's wastewater collection system. This analysis shall generally include reviewing existing CCTV data; physical survey (including inverts and orientation) of all manholes that contain sanitary sewer twelve (12) inches and larger; NAASCO's MACP inspection of the surveyed manholes; lift station drawdown tests and assessments; and hydraulic collection system modeling.

2. Services of Engineer

   A. The specific services to be provided or furnished by Engineer under this Task Order are:

   ☒ as follows: As further outlined in the attached Project Description and Scope of Services dated July 14, 2025.

3. Owner's Responsibilities

   Owner shall have those responsibilities set forth in Article 2 of the Agreement and in Exhibit B, subject to the following: N/A.

4. Task Order Schedule

In addition to any schedule provisions provided in Exhibit A or elsewhere, the parties shall meet the following schedule:

Action	Schedule
Task 1.0 – Workshops, Project Management, and QAQC	August 2025 to August 2026
Task 2.0 – Field Work	August 2025 to November 2025
Task 3.0 – Hydraulic Collection System Modeling	October 2025 to March 2026
Task 4.0 – Alternative Analysis Hydraulic Modeling	May 2026 to July 2026
Task 5.0 – Wastewater Master Plan	October 2025 to August 2026

**Task 6.0 – Owner Authorized Allowance provides optional additional services that will be scheduled on an as-needed basis.*

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered under this Task Order as follows:

Description of Service	**Amount**	**Basis of Compensation *(Lump Sum or Hourly Rates)***
Task 1.0 – Workshops, Project Management, and QAQC	$114,796	Lump Sum
Task 2.0 – Field Work	$404,708	Hourly
Task 3.0 – Hydraulic Collection System Modeling	$107,194	Lump Sum
Task 4.0 – Alternative Analysis Hydraulic Modeling	$70,999	Lump Sum
Task 5.0 – Wastewater Master Plan	$155,116	Lump Sum
Task 6.0 – Owner Authorized Allowance	$75,000	Hourly
TOTAL COMPENSATION	**$927,813**	

Compensation items and totals based in whole or in part on Hourly Rates are estimates only. Lump sum amounts and estimated totals included in the breakdown by phases incorporate Engineer's labor, overhead, profit, reimbursable expenses (if any), and Consultants' charges, if any. For lump sum items, Engineer may alter the distribution of compensation between individual phases (line items) to be consistent with services actually rendered, but shall not exceed the total lump sum compensation amount unless approved in writing by the Owner.

B. The terms of payment are set forth in Article 4 of the Agreement and in the applicable governing provisions of Exhibit C.

6. Consultants retained as of the Effective Date of the Task Order: American Structurepoint, Inc.

7. Other Modifications to Agreement and Exhibits:

   a. Article 8.05, "Engineer's Certifications", of the Agreement is hereby amended to include the following:

      "B. Pursuant to Indiana Code 22-5-1.7-11, the Engineer entering into this Agreement with the Owner is required to enroll in and verify the work eligibility status of all its newly hired employees through the E-Verify program. The Engineer is not required to verify the work eligibility status of all its newly hired employees through the E-Verify program if the E-Verify program no longer exists.

      The Engineer hereby certifies to the Owner that the Engineer does not knowingly employ an unauthorized alien. The Engineer further affirms that, prior to entering into its Agreement with the Owner, the Engineer has enrolled in and agrees to verify the work eligibility status of all its newly hired employees through the E-Verify program.

      The Engineer shall provide to Owner a sworn affidavit on an annual basis or as requested by the Owner.

      C. Pursuant to Executive Order 13846, the Engineer hereby certifies to Owner that Engineer is not engaged in Investment Activities in Iran."

8. Attachments:

   - Commonwealth Engineers, Inc., Standard Hourly Rates and Reimbursable Expenses Schedule, July 1, 2025 – June 30, 2026.
   - Project Description and Scope of Services dated July 14, 2025
   - Project Work Plan

9. Project Schedule Other Documents Incorporated by Reference: Exhibits A & C

10. Terms and Conditions

    Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is _____, _____.

OWNER:	ENGINEER:
CITY OF GREENFIELD, INDIANA	COMMONWEALTH ENGINEERS, INC.
By:	By: DocuSigned by: E3A3A0119D374E3...
Print Name: Guy Titus	Print Name: Albert C. Stong, P.E.
Title: Mayor	Title: President
Date:	Date: 7/22/2025
	Engineer License or Firm's Certificate No. (if required): 10201336
	State of: Indiana
Attest:	Attest:
By:	By: DocuSigned by: CE67E1F4E424461...
Lori Elmore	Ann E. Dryer
Title: Clerk-Treasurer	Title: CFO
	CFO/Accounting Approval: DocuSigned by: 8F8D23C207094E8...
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
Name:	Name: Albert C. Stong, P.E.
Title:	Title: President
Address: 10 S. State Street, Room 133	Address: 7256 Company Drive
Greenfield, IN 46140	Indianapolis, IN 46237
E-Mail Address:	E-Mail Address: astong@contactcei.com
Phone: (317) 477-4300	Phone: (317) 888-1177

COMMONWEALTH ENGINEERS, INC.
STANDARD HOURLY RATES AND REIMBURSABLE EXPENSES SCHEDULE
July 1, 2025 – June 30, 2026

Billing Class	Rate Per Hour	Billing Class	Rate Per Hour
Principal III	$ 126.20	Environmental Scientist II	$ 38.64
Principal II	$ 115.80	Environmental Scientist I	$ 34.81
Principal I	$ 105.85		
		Construction Manager	$ 66.23
Project Manager IV	$ 104.76		
Project Manager III	$ 98.01	Resident Project Representative IV	$ 52.52
Project Manager II	$ 79.93	Resident Project Representative III	$ 43.67
Project Manager I	$ 71.96	Resident Project Representative II	$ 39.42
		Resident Project Representative I	$ 35.15
Senior Electrical Engineer	$ 98.01		
		Clerical III	$ 43.68
Senior Process Engineer	$ 86.70	Clerical II	$ 32.87
		Clerical I	$ 24.11
Project Engineer IV	$ 81.37		
Project Engineer III	$ 65.27	Reproduction Processor	$ 30.14
Project Engineer II	$ 61.47		
Project Engineer I	$ 56.99	Trainee	$ 23.42
Engineering Intern III	$ 50.66	CADD Specialist IV	$ 49.56
Engineering Intern II	$ 47.64	CADD Specialist III	$ 45.03
Engineering Intern I	$ 42.97	CADD Specialist II	$ 38.51
		CADD Specialist I	$ 30.84
Designer IV	$ 63.09		
Designer III	$ 57.77	Chief Technology Officer	$ 73.68
Designer II	$ 52.12	IT Tech	$ 34.40
Designer I	$ 42.07	Multimedia Coordinator	$ 58.47
Operations Specialist	$ 51.31	Survey Manager	$ 67.49
		Surveyor	$ 53.15
		Project Surveyor	$ 47.98
		Field Technician	$ 40.62
Environmental Compliance Manager	$ 62.19		
Compliance Specialist	$ 34.81	Grants Manager	$ 66.98

In order to arrive at the total billing rate, the above direct payroll rates shall be multiplied by factors of 56.4556% and 87.4236% to account for payroll and general overhead costs respectively. In addition, a 15% profit level is then added to arrive at total labor costs. This is a total multiplier factor of 3.3722 times direct payroll rates.

Reimbursable Expenses

1. Travel: Starts at the office and shall be at the then approved rate by the U.S. Internal Revenue Service, plus 15% profit.
2. Subsistence and Lodging: Actual Cost, plus 15% profit.
3. Express Charges and Postage, other than first class mail: Actual Cost, plus 15% profit.
4. Paper Prints: $0.75 per square foot, plus 15% profit.
5. Special Tests and Services of Special Consultants: Actual Costs, plus 15% profit.

It is agreed that the Owner will make payment of each invoice presented by Commonwealth within thirty (30) days from the date of the invoice. Payments received after this time shall be subject to an interest charge of 1% per month.

PART 1 Project Description and Scope of Services
Wastewater Master Plan and Hydraulic Collection System Modeling
Greenfield, Indiana

GENERAL:

The Commonwealth Engineers, Inc. and American Structurepoint team (ENGINEER) shall provide the City of Greenfield (City) with professional engineering services to which this scope of services applies. These services include serving as the City's professional representative for the Project, providing professional engineering consultation and advice, furnishing civil engineering services, and other customary services incidental thereto.

PROJECT DESCRIPTION:

The primary goal of this project is to develop a Wastewater Master Plan. The Wastewater Master Plan shall be a comprehensive analysis of the City's wastewater collection system. This analysis shall generally include: reviewing existing sewer CCTV data, physical survey (including inverts and orientation) of all manholes that contain sanitary sewer twelve (12) inches and larger, NAASCO's MACP inspection of the surveyed manholes, lift station drawdown tests and assessments, and hydraulic modeling utilizing metering and rainfall data obtained in a separate contract. This effort shall include: (1) identifying system deficiencies, (2) outlining potential growth to the service area as directed by the City and as supported by documents of record provided by the City, (3) identifying alternative improvements, and (4) recommending improvements that will support ongoing development and long-term growth (20-year planning period). Summary memoranda from key activities will be assembled and provided to the City. These memoranda shall be incorporated as referenced appendices into the Wastewater Master Plan.

SCOPE OF SERVICES:

Detailed tasks are listed below:

1.0 Workshops, Project Management, and QA / QC (LUMP SUM)

1.1 On-Site Kick-Off Workshop: Conduct a Kick-Off Workshop at the City to confirm scope, work plan, coordination with other ongoing projects, lines of communication, and schedule. The Kick-Off Workshop will be held during the data collection phase of the study to provide clarity about the required data to be provided by the City, which includes:

- Relevant as-builts and record drawings (collection system).
- Lift station as-builts, operating points, and design capacities.
- Existing available sewer televising data.
- Locations of complaint areas in the collection system, particularly related to basement backups or unpermitted surcharging.
- Available Permanent Rain Gauge Data.
- Available Permanent Flow Metering Data.
- Future Growth Documentation.

- Water Utility Master Plan.
- Stormwater Master Plan.
- Other relevant information.

1.2 On-Site Calibration Review, Future Growth Assessment, and Alternatives Workshop: Conduct a Workshop at the City to review the calibrated model, review future growth plans, and brainstorm preliminary alternatives.

1.3 On-Site Alternatives Review Workshop: Conduct a Workshop at the City to review the final alternatives.

1.4 DRAFT Wastewater Master Plan Review Workshop: Conduct a Workshop at the City to review the DRAFT Wastewater Master Plan.

1.5 Virtual Meetings: Conduct up to five (5) virtual meetings to assist in the development of the Wastewater Master Plan.

1.6 Board of Works Meeting: Attend up to one (1) Board of Works Meeting to present the findings from the Wastewater Master Plan.

1.7 Workshop / Meeting Notes: Complete and distribute up to nine (9) workshop / meeting notes within seven (7) days of each meeting.

1.8 Project Management: Project management, including general correspondence, project updates, invoicing, scheduling, budget maintenance, etc.

1.9 Quality Assurance / Quality Control: Internal peer-review of results and deliverables.

2.0 Field Work (HOURLY)

2.1 Manhole Survey: The ENGINEER shall survey approximately 580 manhole structures. It is assumed that the 580 manhole structures only contain sanitary sewers twelve (12) inches and larger. It is assumed that the manhole structures are readily accessible. If the manhole structures are inaccessible, the ENGINEER shall notify the City. The manhole survey will provide the horizontal coordinates of the structures (northings and eastings) using US State Plane Coordinates North American Datum 83. The manhole survey will only provide the vertical elevation of the structure's rim using the USGS 1988 North American Vertical Datum. Structure measure downs, which identify pipe size, depth, and orientation, will be completed in Task 2.2. Deliverable includes the associated CAD file detailing the structure rim and pipe invert elevations.

2.2 MACP Manhole Inspections and Summary Memorandum: The ENGINEER shall inspect approximately 580 manhole structures in accordance with NASSCO MACP guidelines. It is assumed that the 580 manhole structures only contain sanitary sewers twelve (12) inches and larger. If the manhole structures are inaccessible, the ENGINEER shall notify the City. It is assumed that a two (2) person crew each individual will inspect eight (8) manhole structures per day. Deliverables include inspection reports following MACP guidelines.

The ENGINEER shall prepare a summary memorandum that identifies manhole NAASCO MACP ratings, manhole defects, recommended improvements, and the engineer's opinion of probable costs. The summary memorandum will be independently peer reviewed prior to delivery to the City.

2.3 Lift Station Inspections and Summary Memorandum: It is ENGINEER's understanding that the City maintains thirty-three (33) lift stations throughout their collection system [premised on a review of the City's GIS]. The ENGINEER shall perform a site visit to document the condition of the lift station and conduct drawdown tests to evaluate the hydraulic capacity of the lift stations. In addition, the lift stations rim and pipe invert elevations will be surveyed. The lift stations that will be inspected are depicted in **Figure 1**.

The ENGINEER shall prepare a summary memorandum that details information obtained during the lift station site visits. The memorandum will identify notable deficiencies, the remaining estimated useful life, recommended improvements, and the engineer's opinion of probable construction costs. The summary memorandum will be independently peer reviewed prior to delivery to the City.

2.4 Existing Sewer CCTV Review Memorandum: It is the ENGINEER'S understanding that the City has existing available sewer CCTV data. The City shall provide the existing sewer CCTV data to the ENGINEER, identify the location of the televising, and the dates the televising occurred. The ENGINEER shall review the CCTV data and determine the condition of the existing sewers (as televising affords). It is assumed that the ENGINEER will review CCTV data for eighty (80) hours. The ENGINEER shall prepare a summary memorandum that identifies the condition of the existing sewers, recommended improvements, and the engineer's opinion of probable construction costs. The summary memorandum will be independently peer reviewed prior to delivery to the City.

3.0 Hydraulic Collection System Modeling (LUMP SUM)

3.1 Create SWMM Physical Model Configuration: Using the field data obtained in Tasks 2.1 and 2.2, create the physical collection system in the hydraulic model, comprised of various nodes and links and other relevant attributes. The hydraulic model will be built in the EPA SWMM 5 platform. **Figure 2** depicts the proposed model extents, which include approximately 900 structures and twenty-one (21) lift stations.

The structures surveyed in Tasks 2.1 and 2.2 will only provide information for sewers with diameters greater than twelve (12) inches (approximately 580 structures). The hydraulic model shall be assembled using 10-inch diameter sewers and larger. It is assumed that the ENGINEER will be able to utilize data from the City's GIS and available as-built drawings to expand the model beyond the surveyed structures (an additional 320 structures). [A review of the City's GIS indicates that there is limited invert elevation available, and the ENGINEER will need to rely heavily on as-built drawings. The ENGINEER shall provide locations to the City where as-builts drawings will be required to expand the model.]

3.2 Dry Weather Calibration and Validation: Using the flow metering data (obtained as a part of a separate project), calibrate and validate the SWMM collection system model to dry weather conditions. Develop dry weather constants and distribute flow based on residential, commercial, and industrial land use. The

hydraulic model will be calibrated in the EPA SWMM 5 platform.

3.3 Wet Weather Calibration and Validation: Using the flow metering data and rain gauge data (obtained as a part of a separate project), calibrate and validate the SWMM collection system model to wet weather conditions. The hydraulic model will be calibrated in the EPA SWMM 5 platform.

3.4 Hydraulic Model Calibration Peer Review: After the completion of dry and wet weather calibration, the hydraulic model's calibration shall be independently peer reviewed. The peer review shall provide a summary of recommended adjustments. The model's calibration will be updated and finalized after incorporating adjustments from the independent peer review.

3.5 Existing Conditions Baseline Hydraulic Assessment: Assess the hydraulic performance of the collection system using the 1-year, 10-year, 25-year, and 50-year design storms (both the 1-hour and 24-hour recurrence intervals will be analyzed). Based on the results of the simulations, the ENGINEER shall identify locations in the collection system that are hydraulic bottlenecks and identify recommended improvements (Task 5.2).

3.6 Future Conditions Hydraulic Assessment: The ENGINEER shall incorporate the 20-year Projected Future Growth (as identified in the summary memorandum developed in Task 5.1) into the hydraulic model and assess the hydraulic performance of the collection system using the 1-year, 10-year, 25-year, and 50-year design storms (both the 1-hour and 24-hour recurrence intervals will be analyzed). Based on the results of the simulations, the ENGINEER shall identify locations in the collection system that are hydraulic bottlenecks and identify recommended improvements (Tasks 5.2 and 5.3).

3.7 Hydraulic Modeling Calibration Summary Memorandum: Develop a summary memorandum that details the SWMM model development, metering, calibration, future growth assumptions, and hydraulic assessments. The summary memorandum will be independently peer reviewed prior to delivery to the City. The summary memorandum will clearly identify system areas of concern that result from the hydraulic modeling.

4.0 Alternative Analysis Hydraulic Modeling (LUMP SUM)

4.1 Existing Conditions Alternatives Hydraulic Modeling: The existing conditions alternative solutions identified in Task 5.2 will be incorporated into the hydraulic model. The ENGINEER shall model up to ten (10) existing conditions alternatives. The feasibility and performance of the proposed alternatives for the 25-year and 50-year design storms (both the 1-hour and 24-hour recurrence intervals will be analyzed) will be assessed. If reasonable, the alternatives will be adjusted to achieve compliance.

4.2 Future Conditions Alternatives Hydraulic Modeling: The future conditions alternative solutions identified in Task 5.3 will be incorporated into the hydraulic model. The ENGINEER shall model up to eight (8) future growth conditions alternatives. The feasibility and performance of the proposed alternatives for the 25-year and 50-year design storms will be assessed (both the 1-hour and 24-hour recurrence intervals will be analyzed). If reasonable, the alternatives will be adjusted to achieve compliance.

4.3 Alternative Analysis Hydraulic Summary Memorandum: Develop a summary memorandum that details the hydraulic performance of the existing conditions alternatives and future conditions alternatives. The summary memorandum will be independently peer reviewed prior to delivery to the City. [This task does not include the assembly of probable construction costs. Probable construction costs for alternative improvements will be assembled in Task 5.4]

5.0 Wastewater Master Plan (LUMP SUM)

5.1 Future Growth Development: The City shall provide the ENGINEER with its Comprehensive Plan and additional planning documents, which identify growth projections. [It is assumed that the ENGINEER will review up to three (3) planning documents.] The ENGINEER shall review the planning documents and identify future growth to be incorporated into the hydraulic model and alternative analyses for a 20-year planning period. The ENGINEER shall prepare a summary memorandum that details the future growth assumptions and flows. The City shall identify the desired expanded service area. The summary memorandum will be independently peer reviewed prior to delivery to the City. The City will review the summary memorandum and confirm the ENGINEER's assumptions prior to the future growth being incorporated into the hydraulic model or alternative analysis.

5.2 Identification of Existing Conditions Alternatives: The City has noted that pipe bursting through the City and the upsizing of sewers is a potential alternative to increase capacity. In addition, the City notes that there are several "daisy-chained" lift stations and if / where possible would like to eliminate redundant lift stations. The City shall provide the ENGINEER with the location of potential alternatives to analyze. The City and ENGINEER shall meet virtually to review City desired alternative improvements.

The ENGINEER shall identify up to ten (10) existing condition alternatives to be analyzed in the hydraulic model. These alternatives will be shared with the City for feedback and input prior to hydraulic modeling occurring.

5.3 Identification of Future Conditions Alternatives: Based on the expanded service area identified by the City, as defined in Task 5.1. The ENGINEER shall identify up to eight (8) future condition alternatives to be analyzed in the hydraulic model. The City and ENGINEER shall meet virtually to review City desired alternative improvements. These alternatives will be shared with the City for feedback and input prior to hydraulic modeling occurring.

5.4 DRAFT Wastewater Master Plan: Utilizing the information, data, and summary memorandums within Tasks 1 through 4, the ENGINEER shall develop the Wastewater Master Plan Report. The Wastewater Master Plan shall include the following sections:

0. Executive Summary
1. Introduction
2. Existing Facilities

3. Future Growth Conditions
4. Alternatives Considered
5. Recommended Improvements

The Wastewater Master Plan will include the assembly of the ENGINEER's opinion of probable construction costs and recommendations associated with the alternative improvements developed in Task 4.0. These cost estimations shall be independently peer reviewed.

The Wastewater Master Plan will only include a Simplistic Revenue Analysis. It is assumed that the City will engage their financial consultant, who may utilize the information contained within the Wastewater Master Plan to perform rate analyses that should be considered prior to selecting alternative improvements projects.

Assessment of the new wastewater treatment plant is specifically excluded from this scope of work. Only design average and peak flow capabilities will be utilized within the collection system modeling. If additional treatment capacity is required, it will be denoted without outlining specific improvements. No MRO analysis will be performed.

The DRAFT Wastewater Master Plan will be independently peer reviewed prior to delivery to the City. Deliverables include an electronic .PDF of the DRAFT Wastewater Master Plan.

5.5 Final Wastewater Master Plan: The Wastewater Master Plan will be finalized based on the workshop in Task 1.4. Deliverables include an electronic .PDF and three (3) hard copies of the Wastewater Master Plan.

6.0 OWNER AUTHORIZED ALLOWANCE (HOURLY)

6.1 Owner Authorized Allowance: If needed, the ENGINEER shall provide additional work authorized by the City and beyond the above scope of work, such as the optional additional services listed below.

SUMMARY OF DELIVERABLES

- Workshop / meeting notes (9).
- Field Surveying Data (electronic files).
- NASSCO MACP Inspection Reports (electronic files).
- MACP Manhole Inspection Summary Memorandum (pdf and three hard copies).
- Lift Station Inspection Reports (electronic files).
- Lift Station Assessment Memorandum (pdf and three hard copies).
- Existing Sewer CCTV Review Memorandum (pdf and three hard copies).
- Hydraulic Modeling Summary Memorandum (pdf and three hard copies).
- Existing Conditions Calibrated SWMM Model Files.
- Future Conditions Calibrated SWMM Model Files.
- Alternatives Hydraulic Modeling Summary Memorandum (pdf and three hard copies).

- Alternative Solutions SWMM Model Files.
- Future Growth Memorandum (pdf and three hard copies).
- DRAFT Wastewater Master Plan (pdf).
- Final Wastewater Master Plan (pdf and three hard copies).

Exclusions: Services not set forth above and not listed in this proposal are specifically excluded from the ENGINEER's scope of work. The ENGINEER assumes no responsibility to perform any services not specifically listed herein.

OPTIONAL ADDITIONAL SERVICES (Not included in proposed scope and fee):

Upon separate written authorization by the City and negotiated fees, the ENGINEER can provide the following additional services:

- Attend additional meetings / workshops beyond scope.
- Perform additional survey and structure inspections beyond scope.
- Develop a typical year or five-year typical span.
- Develop a hydraulic or process model of the City's WWTP (i.e. visual hydraulics, BioWin).
- Develop a Preliminary Engineering Report (PER) suitable for funding agencies.
- Perform final field work, design, permitting, bidding assistance, and construction engineering assistance.
- Develop an Asset Management Plan for the wastewater collection system and treatment facilities.
- Geotechnical analysis.
- Other directed services beyond the scoped effort.

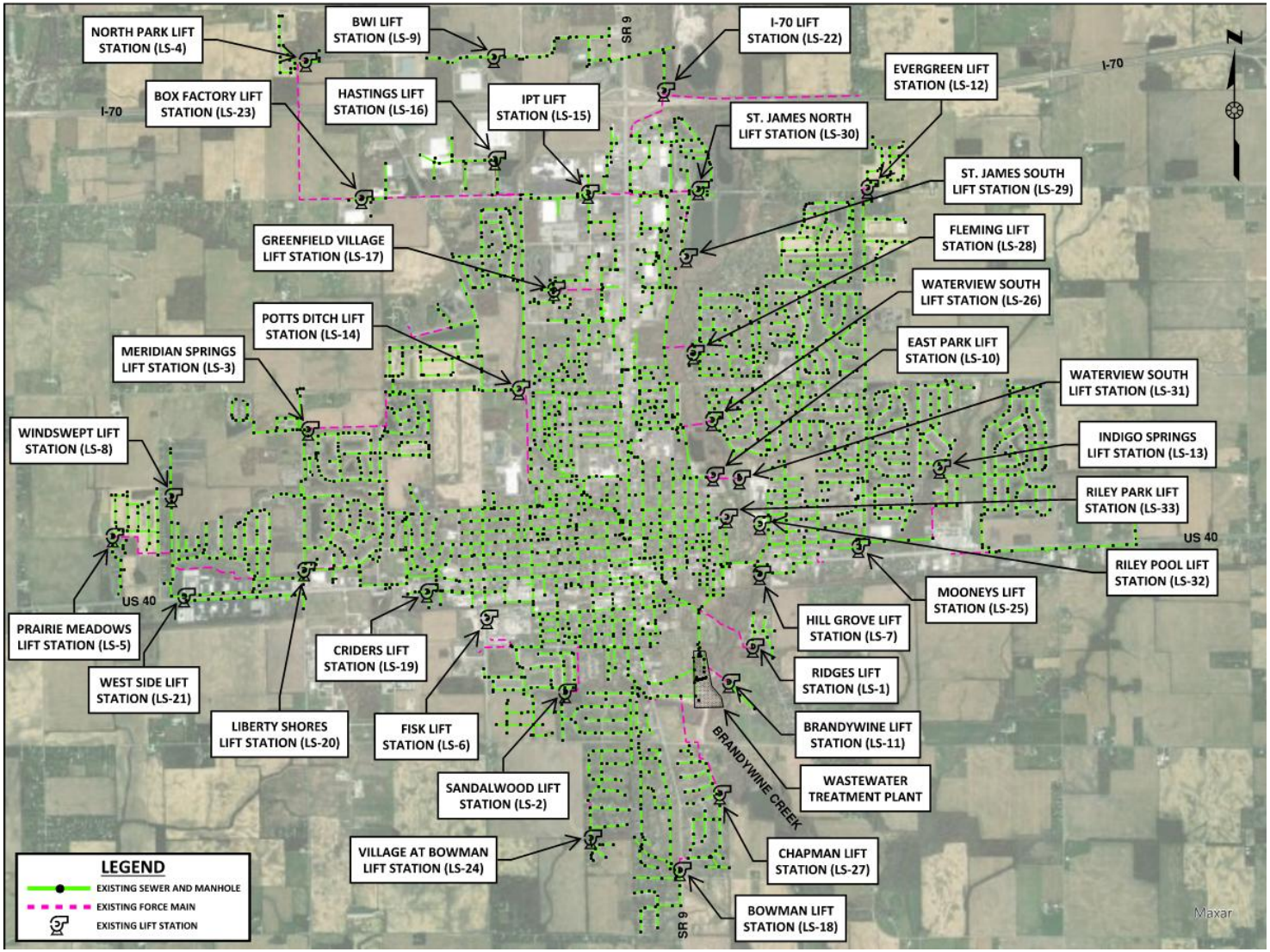

Figure 1: Proposed Lift Station Assessment Locations

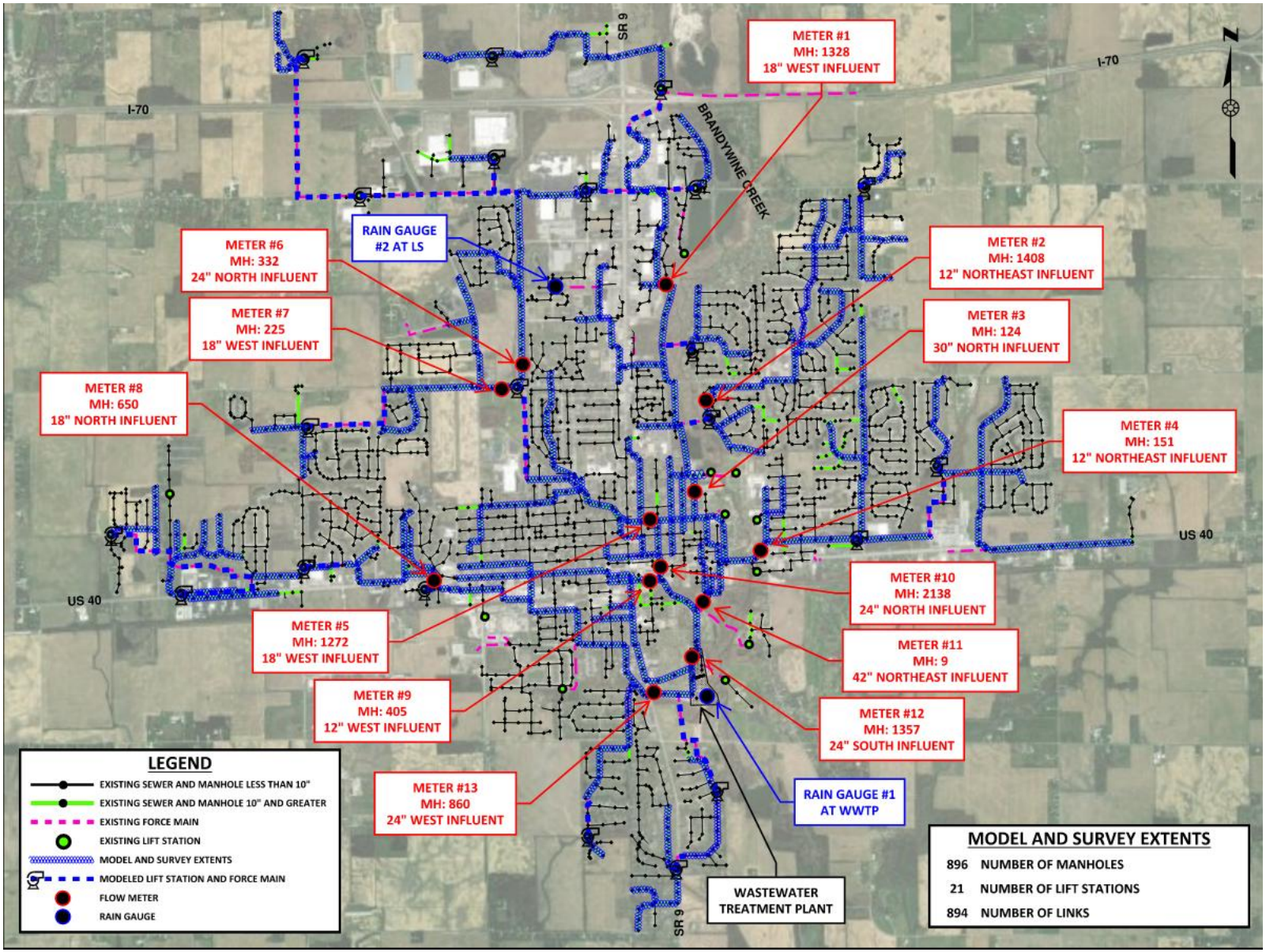

Figure 2: Proposed Hydraulic Model Extents

Project Title - Greenfield Wastewater Master Plan
Project Number - TBD
Project Schedule - See Schedule Tab

DIRECT LABOR MULTIPLIER:	3.3365
SUB-CONSULTANT ADMINISTR	15%
REIMBURSABLE EXPENSES ADN	15%

COMMONWEALTH ENGINEERS, INC.
A wealth of resources to master a common goal.

Project Work Plan w/ Estimated Hours

#	TASKS	PM 4	PM 1	PE 1	EI 3	EI 2	EI 1	DESIGNER 4	DESIGNER 3	CADD 2	CLERICAL 2	SURVEY MANAGER	PROJECT SURVEYOR	TOTAL HOURS	TOTAL COST LABOR	SUB CONSULTANT	CEI EXPENSE	TOTAL EXPENSE COST	SUB TOTALS
		STONG	WILSON	BURNS / PINTOZZI	TBD	TBD	ADAMS	DUGAN	BELL	HIGBIE	DUSTMAN	SANFORD	JANNECK						
TASK 1.0	**WORKSHOPS, PROJECT MANAGEMENT, AND QAQC**																		
1.1	On-Site Kick-Off Workshop	4.0	8.0	4.0												$2,200.00	$200.00		
1.2	On-Site Calibration Review, Future Growth, and Alternatives Workshop	4.0	8.0	4.0												$2,200.00	$200.00		
1.3	On-Site Alternatives Review Workshop	4.0	8.0	12.0												$2,200.00	$200.00		
1.4	DRAFT Wastewater Master Plan Review Workshop	4.0	8.0	4.0												$1,900.00	$200.00		
1.5	Virtual Meetings (5)	5.0	5.0	10.0												$2,800.00			
1.6	Board of Works Meeting	4.0	6.0	4.0												$1,300.00	$200.00		
1.7	Workshop / Meeting Notes (9)	4.5	4.5	10.0															
1.8	Project Management		130.0													$5,500.00			
1.9	QA/QC	100																	
SUB-TOTAL - HOURS		**129.5**	**177.5**	**48.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**355.0**		**$18,100**	**$1,000**		
Per Diem Rate Cost		$334.48	$229.75	$181.97	$161.75	$152.11	$137.20	$201.42	$184.44	$122.95	$104.93	$215.47	$152.44			1.15	1.15		
SUB-TOTAL - COST		**$43,316**	**$40,781**	**$8,735**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	chk	**$92,831**	**$20,815**	**$1,150**	**$0**	**$114,796**
TASK 2.0	**FIELD WORK**																		
2.1	Manhole Survey															$89,600.00			
2.2	MACP Manhole Inspections & Summary Memorandum		4	8												$121,300.00			
2.3	Lift Station Inspections (33) & Summary Memorandum		2	8				160								$83,700.00			
2.4	Existing Sewer CCTV Review Memorandum		4	8												$23,500.00			
SUB-TOTAL - HOURS		**0**	**10**	**24**	**0**	**0**	**0**	**160**	**0**	**0**	**0**	**0**	**0**	**194**		**$318,100**	**$0**		
Per Diem Rate Cost		$334.48	$229.75	$181.97	$161.75	$152.11	$137.20	$201.42	$184.44	$122.95	$104.93	$215.47	$152.44			1.15	1.15		
SUB-TOTAL - COST		**$0**	**$2,298**	**$4,367**	**$0**	**$0**	**$0**	**$32,228**	**$0**	**$0**	**$0**	**$0**	**$0**	chk	**$38,893**	**$365,815**	**$0**	**$0**	**$404,708**
TASK 3.0	**HYDRAULIC COLLECTION SYSTEM MODELING**																		
3.1	Create SWMM Physical Model Configuration		4	8			120												
3.2	Dry Weather Calibration and Validation		8	26			52												
3.3	Wet Weather Calibration and Validation		12	104			78												
3.4	Hydraulic Model Calibration Peer Review															$9,900.00			
3.5	Existing Conditions Baseline Hydraulic Assessment		8	16			16												
3.6	Future Conditions Hydraulic Assessment		8	16			16												
3.7	Hydraulic Modeling Summary Memorandum		12	20			40			16	2					$2,500.00	$50.00		
SUB-TOTAL - HOURS		**0**	**52**	**190**	**0**	**0**	**322**	**0**	**0**	**16**	**2**	**0**	**0**	**582**		**$12,400**	**$50**		
Per Diem Rate Cost		$334.48	$229.75	$181.97	$161.75	$152.11	$137.20	$201.42	$184.44	$122.95	$104.93	$215.47	$152.44			1.15	1.15		
SUB-TOTAL - COST		**$0**	**$11,947**	**$34,575**	**$0**	**$0**	**$44,177**	**$0**	**$0**	**$1,967**	**$210**	**$0**	**$0**	chk	**$92,876**	**$14,260**	**$58**	**$0**	**$107,194**
TASK 4.0	**HYDRAULIC COLLECTION SYSTEM MODELING**																		
4.1	Existing Conditions Alternatives Hydraulic Modeling		16	100			60												
4.2	Future Conditions Alternatives Hydraulic Modeling		16	80			48												
4.3	Alternative Analysis Summary Memorandum		8	20			40			16	2					$2,500.00	$50.00		
SUB-TOTAL - HOURS		**0**	**40**	**200**	**0**	**0**	**148**	**0**	**0**	**16**	**2**	**0**	**0**	**406**		**$2,500**	**$50**		
Per Diem Rate Cost		$334.48	$229.75	$181.97	$161.75	$152.11	$137.20	$201.42	$184.44	$122.95	$104.93	$215.47	$152.44			1.15	1.15		
SUB-TOTAL - COST		**$0**	**$9,190**	**$36,395**	**$0**	**$0**	**$20,305**	**$0**	**$0**	**$1,967**	**$210**	**$0**	**$0**	chk	**$68,067**	**$2,875**	**$58**	**$0**	**$70,999**
TASK 5.0	**HYDRAULIC COLLECTION SYSTEM MODELING**																		
5.1	Future Growth Development		4	8												$25,000.00	$50.00		
5.2	Identification of Existing Conditions Alternatives		16	40			40			25						$5,000.00			
5.3	Identification of Future Conditions Alternatives		16	32			32			20						$5,000.00			
5.4	DRAFT Wastewater Master Plan										2					$5,000.00			
	Section 0 - Executive Summary		4	8			4			2	0.5								
	Section 1 - Introduction		2	4			8			8	0.5								
	Section 2 - Existing Facilities		4	6			10			8	0.5								
	Section 3 - Future Growth Conditions		16	24			10			16	0.5								
	Section 4 - Alternatives Considered		16	24			40			16	0.5								
	Section 5 - Recommended Improvements		8	12			8			8	0.5								
5.5	Final Wastewater Master Plan										2					$2,500.00	$75.00		
	Section 0 - Executive Summary		2	6			2			2	0.5								
	Section 1 - Introduction		1	2			4			4	0.5								
	Section 2 - Existing Facilities		2	3			6			4	0.5								
	Section 3 - Future Growth Conditions		8	12			6			8	0.5								
	Section 4 - Alternatives Considered		8	12			20			8	0.5								
	Section 5 - Recommended Improvements		4	8			4			4	0.5								
SUB-TOTAL - HOURS		**0**	**111**	**201**	**0**	**0**	**194**	**0**	**0**	**133**	**10**	**0**	**0**	**649**		**$42,500**	**$125**		
Per Diem Rate Cost		$334.48	$229.75	$181.97	$161.75	$152.11	$137.20	$201.42	$184.44	$122.95	$104.93	$215.47	$152.44			1.15	1.15		
SUB-TOTAL - COST		**$0**	**$25,502**	**$36,577**	**$0**	**$0**	**$26,616**	**$0**	**$0**	**$16,352**	**$1,049**	**$0**	**$0**	chk	**$106,097**	**$48,875**	**$144**	**$0**	**$155,116**
TASK 6.0	**OWNER AUTHORIZED ALLOWANCE**																		
6.1	OWNER AUTHORIZED ALLOWANCE																		
SUB-TOTAL - COST																			**$75,000**
																		TOTAL PROJECT COST	**$927,813**

Project Title - Greenfield Wastewater Master Plan
Project Number - TBD
Project Schedule -August 2025 thru August 2026

Activity	2025						2026											
	July	August	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	August	Sept	Oct	Nov	Dec
WORKSHOPS, PROJECT MANAGEMENT, AND QAQC																		
On-Site Kick-Off Workshop																		
On-Site Calibration Review, Future Growth, and Alternatives Workshop																		
On-Site Alternatives Review Workshop																		
DRAFT Wastewater Master Plan Review Workshop																		
QA/QC																		
Project Management																		
FIELD WORK																		
Manhole Survey																		
MACP Manhole Inspections & Summary Memorandum																		
Lift Station Inspections (33) & Summary Memorandum																		
Existing Sewer CCTV Review Memorandum																		
HYDRAULIC COLLECTION SYSTEM MODELING																		
Create SWMM Physical Model Configuration																		
Dry Weather Calibration and Validation																		
Wet Weather Calibration and Validation																		
Hydraulic Model Calibration Peer Review																		
Existing Conditions Baseline Hydraulic Assessment																		
Future Conditions Hydraulic Assessment																		
Hydraulic Modeling Summary Memorandum																		
ALTERNATIVE ANALYSIS HYDRAULIC MODELING																		
Existing Conditions Alternatives Hydraulic Modeling																		
Future Conditions Alternatives Hydraulic Modeling																		
Alternative Analysis Summary Memorandum																		
WASTEWATER MASTER PLAN																		
Future Growth Development																		
Identification of Existing Conditions Alternatives																		
Identification of Future Conditions Alternatives																		
Draft Section 0 - Executive Summary																		
Draft Section 1 - Introduction																		
Draft Section 2 - Existing Facilities																		
Draft Section 3 - Future Growth Conditions																		
Draft Section 4 - Alternatives Considered																		
Draft Section 5 - Recommended Improvements																		
Final Section 0 - Executive Summary																		
Final Section 1 - Introduction																		
Final Section 2 - Existing Facilities																		
Final Section 3 - Future Growth Conditions																		
Final Section 4 - Alternatives Considered																		
Final Section 5 - Recommended Improvements																		