



**TETRA TECH**

March 22, 2017

Ms. Marlene Chockley  
Northfield Township Supervisor  
8350 Main Street  
Whitmore Lake, MI 48189

**Re: Interceptor Flow Monitoring**

Dear Ms. Chockley:

Tetra Tech has appreciated our long history of services to Northfield Township. During the 2016 Trunk Sewer Study, the projections of the Township's sewer capacity suggested that the main interceptor upstream of Eight Mile Road was at capacity with existing connections. Tetra Tech has discussed on several occasions conducting flow monitoring to more precisely determine the available flows in this portion of the sewer system. Tetra Tech has prepared a proposal to assist Northfield Township with this flow monitoring and is pleased to present our proposal within this letter.

**SCOPE OF SERVICES**

We propose the following scope of services:

1. Install three flow meters in the sewer system at the following locations:
  - a. 18" sewer upstream of Eight Mile Road
  - b. 15" sewer east of US-23
  - c. 12" sewer serving East Shore Drive and tributary area

These are the locations where the previous office analysis determined that limited capacity was likely available and that may be impacted by potential development.

2. Install a recording rain gauge at a secure location within the Township. A continuous record of rainfall is needed to correlate the observed flow rates with rainfall.

We will maintain the rain gauge and the flow meters for a period of three months. This will consist of two visits per month to collect data and confirm the reliability of the meters.

3. Produce a report outlining the observations and updating the capacity calculations produced in the 2016 Trunk Sewer Study.
4. Attend one meeting with Township staff to discuss the results.
5. Attend one meeting of the Board of Trustees to present the results of the study.

**Tetra Tech**

710 Avis Drive, Ann Arbor, MI 48108

Tel 734.665.6000 Fax 734.213.3003 [www.tetrattech.com](http://www.tetrattech.com)



**SCHEDULE**

Work will need to be initiated in early April to maximize the potential of recording data from spring (wet weather) conditions. The results should be available in late August and we will inform the Township of our interim findings.

**COMPENSATION**

We suggest a time and materials budget of \$34,800 be established. This budget will not be exceeded without your prior written approval. Our standard terms and conditions are attached and considered a part of this proposal.

It is Tetra Tech’s opinion that this study can be reimbursed under the Michigan DEQ’s SAW grant program (90% grant/10% match). Tetra Tech prepared Northfield Township’s grant application and Northfield is expected to receive this grant in the fall of 2017. Costs incurred prior to the receipt of the grant can be reimbursed upon receipt of the grant.

**ASSUMPTIONS**

- WWTP staff may need to assist in exposing buried manholes.
- This scope of work for a MDEQ Infiltration/Inflow Analysis (a requirement for low interest loans) is much more extensive than that presented within this proposal. While this proposal will provide useful data, it will not serve as a prerequisite for a low interest loan.
- Most times a 3-month monitoring period is sufficient for flow monitoring but no guarantees can be provided that large rains will be observed during the study period.
- Computer modeling of the Township’s sanitary sewer system will not be performed at this time (this is planned as part of the pending SAW grant).

**EXECUTION**

Please sign in the space provided and return one original copy to indicate your acceptance. Tetra Tech appreciates the opportunity to provide this proposal and our long history of service to Northfield Township.

Sincerely,

Brian M. Rubel, P.E.  
Vice President

**PROPOSAL ACCEPTED BY:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_



## Tetra Tech of Michigan, PC

### Engineering Services Standard Terms & Conditions

**Services** Consultant will perform services for the Project as set forth in the provisions for Scope of Work/Fee/Schedule in the proposal and in accordance with these Terms & Conditions. Consultant has developed the Project scope of service, schedule, and compensation based on available information and various assumptions. The Client acknowledges that adjustments to the schedule and compensation may be necessary based on the actual circumstances encountered by Consultant in performing their services. Consultant is authorized to proceed with services upon receipt of an executed Agreement.

**Compensation** In consideration of the services performed by Consultant, the Client shall pay Consultant in the manner set forth above. The parties acknowledge that terms of compensation are based on an orderly and continuous progress of the Project. Compensation shall be equitably adjusted for delays or extensions of time beyond the control of Consultant. Where total project compensation has been separately identified for various tasks, Consultant may adjust the amounts allocated between tasks as the work progresses so long as the total compensation amount for the project is not exceeded.

**Fee Definitions** The following fee types shall apply to methods of payment:

- **Salary Cost** is defined as the individual's base salary plus customary and statutory benefits. Statutory benefits shall be as prescribed by law and customary benefits shall be as established by Consultant employment policy.
- **Cost Plus** is defined as the individual's base salary plus actual overhead plus professional fee. Overhead shall include customary and statutory benefits, administrative expense, and non-project operating costs.
- **Lump Sum** is defined as a fixed price amount for the scope of services described.
- **Standard Rates** is defined as individual time multiplied by standard billing rates for that individual.
- **Subcontracted Services** are defined as Project-related services provided by other parties to Consultant.
- **Reimbursable Expenses** are defined as actual expenses incurred in connection with the Project.

**Payment Terms** Consultant shall submit invoices at least once per month for services performed and Client shall pay the full invoice amount within 30 days of the invoice date. Invoices will be considered correct if not questioned in writing within 10 days of the invoice date. Client payment to Consultant is not contingent on arrangement of project financing or receipt of funds from a third party. In the event the Client disputes the invoice or any portion thereof, the undisputed portion shall be paid to Consultant based on terms of this Agreement. Invoices not in dispute and unpaid after 30 days shall accrue interest at the rate of one and one-half percent per month (or the maximum percentage allowed by law, whichever is the lesser). Invoice payment delayed beyond 60 days shall give Consultant the right to stop work until payments are current. Non-payment beyond 70 days shall be just cause for termination by Consultant.

**Additional Services** The Client and Consultant acknowledge that additional services may be necessary for the Project to address issues that may not be known at Project initiation or that may be required to address circumstances that were not foreseen. In that event, Consultant notify the Client of the need for additional services and the Client shall pay for such additional services in an amount and manner as the parties may subsequently agree.

**Site Access** The Client shall obtain all necessary approvals for Consultant to access the Project site(s).

**Underground Facilities** Consultant and/or its authorized subcontractor will conduct research and perform site reconnaissance in an effort to discover the location of existing underground facilities prior to developing boring plans, conducting borings, or undertaking invasive subsurface investigations. Client recognizes that accurate drawings or knowledge of the location of such facilities may not exist, or that research may reveal as-built drawings or other documents that may inaccurately show, or not show, the location of existing underground facilities. In such events, except for the sole negligence, willful misconduct, or practice not conforming to the Standard of Care cited in this Agreement, Client agrees to indemnify and hold Consultant and/or its Subcontractor harmless from any and all property damage, injury, or economic loss arising or allegedly arising from borings or other subsurface penetrations.

**Regulated Wastes** Client is responsible for the disposal of all regulated wastes generated as a result of services provided under this Agreement. Consultant and Client

mutually agree that Consultant assumes no responsibility for the waste or disposal thereof.

**Contractor Selection** Consultant may make recommendations concerning award of construction contracts and products. The Client acknowledges that the final selection of construction contractors and products is the Client's sole responsibility.

**Ownership of Documents** Drawings, specifications, reports, programs, manuals, or other documents, including all documents on electronic media, prepared under this Agreement are instruments of service and are, and shall remain, the property of Consultant. Record documents of service shall be based on the printed copy. Consultant will retain all common law, statutory, and other reserved rights, including the copyright thereto. Consultant will furnish documents electronically; however, the Client releases Consultant from any liability that may result from documents used in this form. Consultant shall not be held liable for reuse of documents or modifications thereof by the Client or its representatives for any purpose other than the original intent of this Agreement, without written authorization of and appropriate compensation to Consultant.

**Standard of Care** Services provided by Consultant under this Agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances. Consultant makes no warranty or guaranty, either express or implied. Consultant will not be liable for the cost of any omission that adds value to the Project.

**Period of Service** Consultant shall perform the services for the Project in a timely manner consistent with sound professional practice. Consultant will strive to perform its services according to the Project schedule set forth in the provisions for Scope of Work/Fee/Schedule above. The services of each task shall be considered complete when deliverables for the task have been presented to the Client. Consultant shall be entitled to an extension of time and compensation adjustment for any delay beyond Consultant control.

**Insurance and Liability** Consultant shall maintain the following insurance and coverage limits during the period of service. The Client will be named as an additional insured on the Commercial General Liability and Automobile Liability insurance policies.

Worker's Compensation – as required by applicable state statute

Commercial General Liability - \$1,000,000 per occurrence for bodily injury, including death and property damage, and \$2,000,000 in the aggregate

Automobile Liability –\$1,000,000 combined single limit for bodily injury and property damage

Professional Liability (E&O) - \$1,000,000 each claim and in the aggregate

The Client shall make arrangements for Builder's Risk, Protective Liability, Pollution Prevention, and other specific insurance coverage warranted for the Project in amounts appropriate to the Project value and risks. Consultant shall be a named insured on those policies where Consultant may be at risk. The Client shall obtain the counsel of others in setting insurance limits for construction contracts.

**Indemnification** Consultant shall indemnify and hold harmless the Client and its employees from any liability, settlements, loss, or costs (including reasonable attorneys' fees and costs of defense) to the extent caused solely by the negligent act, error, or omission of Consultant in the performance of services under this Agreement. If such damage results in part by the negligence of another party, Consultant shall be liable only to the extent of Consultant's proportional negligence.

**Dispute Resolution** The Client and Consultant agree that they shall diligently pursue resolution of all disagreements within 45 days of either party's written notice using a mutually acceptable form of mediated dispute resolution prior to exercising their rights under law. Consultant shall continue to perform services for the Project and the Client shall pay for such services during the dispute resolution process unless the Client issues a written notice to suspend work.

**Suspension of Work** The Client may suspend services performed by Consultant with cause upon fourteen (14) days written notice. Consultant shall submit an invoice for services performed up to the effective date of the work suspension and the Client shall pay Consultant all outstanding invoices within fourteen (14) days. If the work suspension exceeds thirty (30) days from the effective work suspension date, Consultant shall be entitled to renegotiate the Project schedule and the compensation terms for the Project.

**Termination** The Client or Consultant may terminate services on the Project upon seven (7) days written notice without cause or in the event of substantial failure by the other party to fulfill its obligations of the terms hereunder. Consultant shall submit an invoice for services performed up to the effective date of termination and the Client shall pay Consultant all outstanding invoices within fourteen (14) days. The Client may withhold an amount for services that may be in dispute provided that the Client furnishes a written notice of the basis for their dispute and that the amount withheld represents a reasonable value.

**Authorized Representative** The Project Manager assigned to the Project by Consultant is authorized to make decisions or commitments related to the project on behalf of Consultant. Only authorized representatives of Consultant are authorized to execute contracts and/or work orders on behalf of Consultant. The Client shall designate a representative with similar authority.

**Project Requirements** The Client shall confirm the objectives, requirements, constraints, and criteria for the Project at its inception. If the Client has established design standards, they shall be furnished to Consultant at Project inception. Consultant will review the Client design standards and may recommend alternate standards considering the standard of care provision.

**Independent Consultant** Consultant is and shall be at all times during the term of this Agreement an independent consultant and not an employee or agent of the Client. Consultant shall retain control over the means and methods used in performing Consultant's services and may retain subconsultants to perform certain services as determined by Consultant.

**Compliance with Laws** Consultant shall perform its services consistent with sound professional practice and endeavor to incorporate laws, regulations, codes, and standards applicable at the time the work is performed. In the event that standards of practice change during the Project, Consultant shall be entitled to additional compensation where additional services are needed to conform to the standard of practice.

**Permits and Approvals** Consultant will assist the Client in preparing applications and supporting documents for the Client to secure permits and approvals from agencies having jurisdiction over the Project. The Client agrees to pay all application and review fees.

**Limitation of Liability** In recognition of the relative risks and benefits of the project to both the Client and Consultant, the risks have been allocated such that the Client agrees, to the fullest extent permitted by law, to limit the liability of Consultant and its subconsultants to the Client and to all construction contractors and subcontractors on the project for any and all claims, losses, costs, damages of any nature whatsoever or claims expenses from any cause or causes, so that the total aggregate liability of Consultant and its subconsultants to all those named shall not exceed \$50,000 or the amount of Consultant's total fee paid by the Client for services under this Agreement, whichever is the greater. Such claims and causes include, but are not limited to negligence, professional errors or omissions, strict liability, breach of contract or warranty.

**Consequential Damages** Neither the Client nor Consultant shall be liable to the other for any consequential damages regardless of the nature or fault.

**Waiver of Subrogation** Consultant shall endeavor to obtain a waiver of subrogation against the Client, if requested in writing by the Client, provided that Consultant will not increase its exposure to risk and Client will pay the cost associated with any premium increase or special fees.

**Environmental Matters** The Client warrants that they have disclosed all potential hazardous materials that may be encountered on the Project. In the event unknown hazardous materials are encountered, Consultant shall be entitled to additional compensation for appropriate actions to protect the health and safety of its personnel, and for additional services required to comply with applicable laws. The Client shall indemnify Consultant from any claim related to hazardous materials encountered on the Project except for those events caused by negligent acts of Consultant.

**Cost Opinions** Consultant shall prepare cost opinions for the Project based on historical information that represents the judgment of a qualified professional. The Client and Consultant acknowledge that actual costs may vary from the cost opinions prepared and that Consultant offers no guarantee related to the Project cost.

**Contingency Fund** The Client acknowledges the potential for changes in the work during construction and the Client agrees to include a contingency fund in the Project budget appropriate to the potential risks and uncertainties associated with the Project. Consultant may offer advice concerning the value of the contingency fund; however, Consultant shall not be liable for additional costs that the Client may incur beyond the contingency fund they select unless such additional cost results from a negligent act, error, or omission related to services performed by Consultant.

**Safety** Consultant shall be responsible solely for the safety precautions or programs of its employees and no other party.

**Information from Other Parties** The Client and Consultant acknowledge that Consultant will rely on information furnished by other parties in performing its services under the Project. Consultant shall not be liable for any damages that may be incurred by the Client in the use of third party information.

**Force Majeure** Consultant shall not be liable for any damages caused by any delay that is beyond Consultant's reasonable control.

**Waiver of Rights** The failure of either party to enforce any provision of these terms and conditions shall not constitute a waiver of such provision nor diminish the right of either party to the remedies of such provision.

**Warranty** Consultant warrants that it will deliver services under the Agreement within the standard of care. No other expressed or implied warranty is provided by Consultant.

**Severability** Any provision of these terms later held to violate any law shall be deemed void and all remaining provisions shall continue in force. In such event, the Client and Consultant will work in good faith to replace an invalid provision with one that is valid with as close to the original meaning as possible.

**Survival** All provisions of these terms that allocate responsibility or liability between the Client and Consultant shall survive the completion or termination of services for the Project.

**Assignments** Neither party shall assign its rights, interests, or obligations under the Agreement without the express written consent of the other party.

**Governing Law** The terms of agreement shall be governed by the laws of the state where the services are performed provided that nothing contained herein shall be interpreted in such a manner as to render it unenforceable under the laws of the state in which the Project resides.

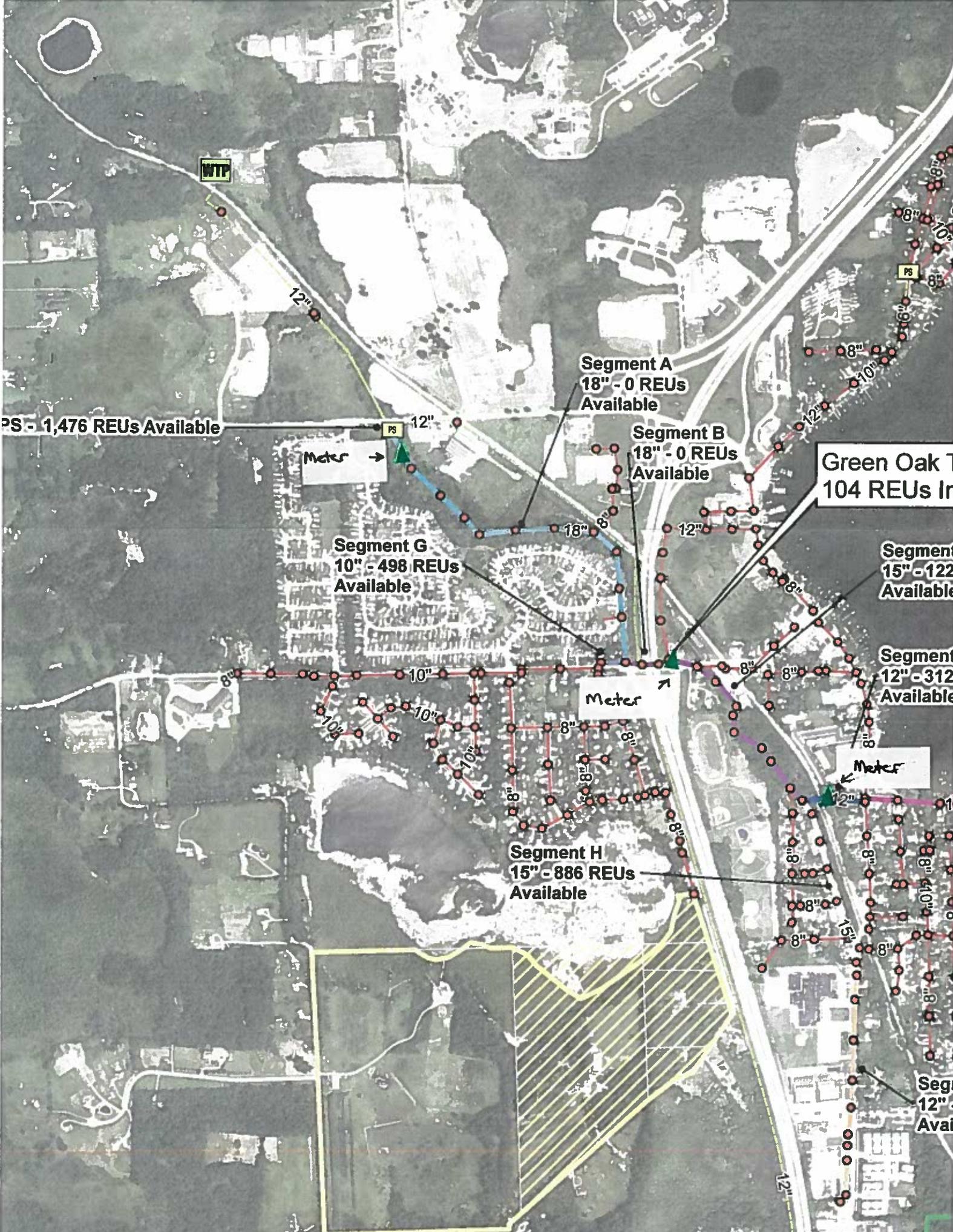
**Collection Costs** In the event that legal action is necessary to enforce the payment provisions of this Agreement if Client fails to make payment within sixty (60) days of the invoice date, Consultant shall be entitled to collect from the Client any judgment or settlement sums due, reasonable attorneys' fees, court costs, and expenses incurred by Consultant in connection therewith and, in addition, the reasonable value of Consultant's time and expenses spent in connection with such collection action, computed at Consultant's prevailing fee schedule and expense policies.

**Equal Employment Opportunity** Consultant will comply with federal regulations pertaining to Equal Employment Opportunity. Consultant is in compliance with applicable local, state, and federal regulations concerning minority hiring. It is Consultant's policy to ensure that applicants and employees are treated equally without regard to race, creed, sex, color, religion, veteran status, ancestry, citizenship status, national origin, marital status, sexual orientation, or disability. Consultant expressly assures all employees, applicants for employment, and the community of its continuous commitment to equal opportunity and fair employment practices.

**Attorney Fees** Should there be any suit or action instituted to enforce any right granted in this contract, the substantially prevailing party shall be entitled to recover its costs, disbursements, and reasonable attorney fees from the other party. The party that is awarded a net recovery against the other party shall be deemed the substantially prevailing party unless such other party has previously made a bona fide offer of payment in settlement and the amount of recovery is the same or less than the amount offered in settlement. Reasonable attorney fees may be recovered regardless of the forum in which the dispute is heard, including an appeal.

**Third Party Beneficiaries** Nothing in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Client or the Consultant. The Consultant's services under this Agreement are being performed solely for the Client's benefit, and no other entity shall have any claim against the Consultant because of this Agreement or the performance or nonperformance of services hereunder. The Client agrees to include a provision in all contracts with contractors and other entities involved in this project to carry out the intent of this paragraph.

**Captions** The captions herein are for convenience only and are not to be construed as part of this Agreement, nor shall the same be construed as defining or limiting in any way the scope or intent of the provisions hereof.



WTP

PS - 1,476 REUs Available

PS

Meter →

Segment A  
18" - 0 REUs  
Available

Segment B  
18" - 0 REUs  
Available

Green Oak 104 REUs In

Segment G  
10" - 498 REUs  
Available

Segment  
15" - 122  
Available

Meter ↗

Segment  
12" - 312  
Available

Meter ←

Segment H  
15" - 886 REUs  
Available

Segm  
12" -  
Avai