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November 25, 2002

Mr. Ernie Stickler  
Public Utilities Superintendent  
Mason Municipal Center  
6000 Mason-Montgomery Road  
Mason, Ohio 45040

Re: Mason, Ohio  
Golf Course Sewer Improvements  
Proposal



Dear Mr. Stickler:

We are pleased to present this proposal to provide engineering services to the City of Mason for the design and construction phases of the Golf Course Sewer Improvements project. The improvement project consists of extending the existing 16-inch Western Row force main from its discharge location to a manhole near Kings Mills Road for a distance of approximately 7,500 linear feet. The proposed force main size and alignment will be determined during the design phase.

#### Design Phase Services

In the Master Plan Update, the East Trunk Sewer service area was evaluated for land use and the appropriate unit flow rates were applied to the drainage areas tributary to the trunk sewer and to the Western Row Lift Station. We will utilize the information contained in the Master Plan to verify the required pumping capacities to serve the growing service area.

The Western Row Lift Station was designed with a pumping capacity to serve future development in the surrounding area. There is currently extra capacity available. However, if the force main is extended, additional head loss due to friction could reduce the pumping capacity. During the initial stages of the design phase we will perform an evaluation of the pumping system to examine alternatives such as a larger force main or upsizing the pumps.

Other tasks that will be included during the design phase of the project will consist of the following:

- Perform a topographical survey along the proposed force main alignment. The survey will be centered over the proposed force main and will include topography approximately 50 feet on either side of the proposed alignment. The topo survey will include the following tasks:
  - Notify OUPS of the design project to have all buried utilities field marked.
  - Locate all field-marked utilities including telephone, electric, gas, water mains, overhead utilities, etc.
  - Locate and show the caliber of all trees irrespective of their size.

- Locate all poles, driveway culverts and other physical objects within a 100-foot wide path following the centerline of the proposed force main.
- Locate the edge of pavement and driveways along the proposed force main route.
- Establish benchmarks for the project.
- Evaluate the need to obtain subsurface soil information and recommend a geotechnical engineering firm to be hired by the City to perform soil borings, if necessary, to test soil samples and submit a written report and recommendations for construction based on the test results.
- Prepare an estimate of construction costs.
- Complete plans and technical specifications for use in bidding the project. We understand that the City's "front-end" documents will be utilized for the project.
- Assist the City in submitting the design documents to OEPA for plan approval. The City will provide the associated fees for application and plan review.
- Provide Record Drawings of the sanitary sewer after the construction is completed. Provide one mylar set and one electronic file in AutoCAD.

#### **Bidding and Construction Phase Engineering Services**

Bidding and construction phase services will include assisting the City in advertising and bidding the project, provide general administration of the Construction Contract, make visits to the construction site, issue necessary clarifications and interpretations of the Contract Documents as appropriate, recommend Change Orders and Work Change Directives as appropriate, review shop drawings, review and recommend contractor's applications for payment, and conduct a final inspection of the contractor's work to determine the acceptability.

We understand that the City will provide construction observation services. We will work closely with the City's field representative to aid in answering construction-related questions.

#### **Easement Development**

It is anticipated that the force main will be constructed within permanent utility easements that will traverse the Golf Center at Kings Island and the Kings Mills Business Park properties. The permanent easements will be 20-feet in width, centered on the force main. Temporary easements will also be required to allow for construction of the force main. Property research, dialogue with property owners, and plat preparation will be necessary for easement development.

Depending on the alignment selected, permanent and temporary utility easements will be required on at least two parcels. Our experience has shown that on similar projects, many hours are required to notify, meet with, and finalize easements with property owners. Our tasks during this phase will include the following:

- Prepare preliminary plats for use in negotiating easements with property owners.
- Prepare final easement plats for recording at the Warren County Recorder's Office. This task will include development of the easement plats and any necessary legal descriptions to be signed by the property owner and the appropriate City and County officials.
- We will not be involved in any meetings or negotiations with property owners.

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### Engineering Fee

We propose the following fees calculated on a not-to-exceed basis for each of the phases of the project:

Design Phase	\$31,900
Bidding and Construction Phase	\$16,500
Easement Development	<u>\$ 4,000</u>
Total	\$52,400

These fees are cost-reimbursement/multiplier fees, and will not be exceeded unless there is a mutually agreed-upon revision to the scope of the project. As for all of our projects with the City of Mason, services will be invoiced only to the extent that time is charged to the project.

We are available to discuss this proposal at your convenience. Please contact us if you wish to do so. If you find the proposal acceptable, we will prepare an Engineering Services Agreement for execution by both parties. We appreciate the opportunity to continue to be of service to the City of Mason. Thank you again for thinking of us.

Yours truly,



Allen J. Aspacher, P.E.

c: Mr. Art Oliver