



W.E. STILSON
CONSULTING GROUP

355 E. Campus View Blvd.
Suite 250
Columbus, OH 43235
phone 614.847.4670
fax 614.847.1648
email@stilsonconsulting.com

Pride in the Details. Passion in our People.

February 22, 2010

Mr. Jeff Feltz
Water Resource Engineer
200 South Hamilton Road
Gahanna, OH 43230

RE: **Engineering Services Proposal**
Unidirectional Flushing Sequencing Report

Dear Mr. Feltz,

Per your request, submitted herewith is W.E. Stilson Consulting Group's (WESCG) proposal to provide engineering services for the sequencing of a unidirectional hydrant flushing (UDF) program in the City of Gahanna.

The report will include review of the current GIS mapping of water distribution infrastructure as well as the 2008 Water Model Update in order to layout and analyze the most efficient sequence to unidirectionally flush the City's distribution system. The following engineering services to be provided are based upon our understanding of the project at this time. These services and scope can be modified as the City's water utility personnel sees fit.

- **Pre-Design**
WESCG personnel completed the City's 2008 Water Model Update and are very familiar with the distribution system. We will review this computer model along with the recent water projects that have updated the system since the last update. We will also use the most current City GIS mapping and detailed record drawings to ensure we possess the most current information.
- **Sequencing**
WESCG personnel will utilize the current WaterCAD computer model and the most current GIS mapping as provided by the City to layout the most efficient flushing sequence. We will aim to limit the unidirectional flushing length to 1,500 feet and achieve a minimum velocity of 3 fps while the flushing occurs. We will input these layouts into WaterCAD to verify that the minimum velocity is achieved.
- **Sequencing Binder**
A sequencing binder will be created based upon our layout and analysis of the City's infrastructure and computer model. The binder will include a map of each run of pipe to be flushed as well as a brief description of the procedure to correctly accomplish the projects goal. The binder will be used for City field personnel to be able to quickly and accurately unidirectionally flush the entire distribution system. Maps will be grouped by neighborhoods or

similar areas of town. Once we are 30% complete with the sequencing, we will produce draft maps and procedures for the City's review. Once the sequencing is complete, WESCG will provide four original binders to the City.

- **Meetings**

WESCG personnel plan to meet with City officials once the sequencing project is 30% complete to review our findings. We will also meet once the project is complete to detail our findings of the UDF sequence.

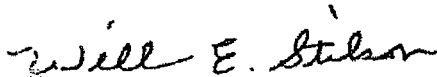
All engineering services described and set forth in this proposal will be completed within three months, after notification to proceed, exclusive of review times.

The engineering fee will be a lump sum of \$12,000.00. Please see the attached breakdown of cost by task for your review.

We appreciate the opportunity to submit this proposal. Should you need additional information or have questions, please contact me at 614-847-4670; we are available at your convenience.


Sincerely,

W.E. STILSON CONSULTING GROUP



William E. Stilson, P.E.
President

WES/JED/cad



James E. Decker, P.E.
Project Engineer

FINAL DEVELOPMENT PHASE PROPOSAL COST SUMMARY

C/R/S : Unidirectional Flow Sequencing

CLIENT: City of Gahanna, Ohio

CONSULTANT: W.E. Stilson Consulting Group, LLC

DATE: 2/22/2010

Task - Description	Total Hours	Total Cost
PRE-DESIGN	6	\$136
SEQUENCING	128	\$9,066
SEQUENCE BINDER	16	\$1,638
MEETINGS	8	\$1,160
GRAND TOTAL		\$12,000