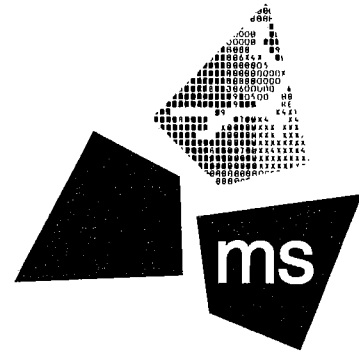


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June 13, 2002

Mr. Tom Komlanc
Assistant City Engineer
City of Gahanna
200 S. Hamilton Road
Gahanna, Ohio 43230-2996

**Re: Proposal for Engineering Services
Sanitary Sewer System Inventory & Management System-Data Entry**

Dear Mr. Komlanc:

The following represents a proposal to assist the City of Gahanna in the development of the Sanitary Sewer System Inventory & Management System.

Scope of Services:

Please refer to Exhibit A for a detailed scope of work regarding the above referenced project.

Period of Service:

We will complete the services outlined in Tasks 1 through 3 within a 180-day time frame, commencing upon written authorization to proceed and provided that all necessary record plan data from the City is received.

Fee for Services:

We have estimated a budget amount of Forty Seven Thousand Dollars (\$47,000.00) for the services identified in the scope of work.

EXHIBIT A

Mr. Tom Komlanc
June 13, 2002
Page 2

We will invoice monthly as work progresses. Refer to Exhibits B and C for a detailed breakdown of the estimated labor and budget amounts.

We trust your review of this proposal will be favorable. Should you have any questions, desire further information, or wish to discuss specific elements of this proposal in more detail, do not hesitate to call myself or Bill Johngrass.

Sincerely,



Kenneth W. Ricker, P.E.
Project Manager

KWR/WJ:ztk

cc: George Jackson, City of Gahanna
Bill Johngrass, P.E.
File: 002-275.304

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Attachment

Exhibit A - Scope of Services

TECHNICAL APPROACH

Task 1.0 Data Collection

Task 1.1 Collect and review available reports, maps, and interview City of Gahanna personnel to evaluate the improvements made to the sanitary sewer system infrastructure since the previous mapping update was conducted.

Task 1.2 **ms** personnel will prepare a drawing inventory report based on a review of the sanitary sewer projects completed since the last analysis was prepared. The inventory report will include the project name and number, construction status, date of as-built drawing, date when record drawing was received, and date when added to the AutoCAD Map sanitary sewer base map. Following the identification of sanitary sewer projects, **ms** shall request record drawings and any available database information for the sewers (i.e.: pipe size, length, and slopes) from the City.

Task 2.0 Sanitary Sewer System Inventory and Data Input

Task 2.1 Develop a manhole and pipe labeling system. **ms** can develop a unique system or use an existing format specified by the City.

Task 2.2 **ms** shall provide the City with a Microsoft Access database of the sanitary sewer system infrastructure within the City of Gahanna corporation limits. The database shall be spatially referenced to the AutoCAD Map base drawing. **ms** shall coordinate the database structure with the City based on specific infrastructure inventory and management needs and programs. The database shall include the following:

- Sanitary manholes
 - ID, year constructed, improvement number, top of casting elevation, invert elevation
- Sanitary sewer pipes
 - ID, year constructed, improvement number, upstream manhole number and invert elevation, downstream manhole number and invert elevation, pipe slope, material type, diameter, force or gravity
- Pump stations
 - ID, year constructed, address, improvement number, no. of pumps, size of pumps, pump manufacturer
- Tributary area
 - Graphical overlay



Exhibit A - Scope of Services

Based on a review of the existing atlas mapping, approximately 3500 manhole structures in the City of Gahanna system. For budgetary purposes, it is assumed that pertinent data can be entered into the database for an average of 100 structure elements per work-day.

Task 3.0 Submittals

Task 3.1 Electronic Data

Electronic submittals shall be transmitted on a CD and include the following:

- LDT 2002 drawing file
- ERSI shape file of sanitary sewer system objects
- Microsoft Access 2000 Access database file

Task 3.2 System Maps

- One copy of the updated atlas mapping shall be submitted to the City for review and comment. The atlas mapping shall include manhole and pipe IDs as well as attribute data as selected by the City.

