BOLTON & MENK
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August 8, 2023

Elizabeth Mursko, City Administrator
City of Columbus
16319 Kettle River Blvd NE
Columbus, MN 55025

RE: Proposal for Water Treatment System Study
Columbus, Minnesota

Dear Ms. Mursko:

Bolton & Menk, Inc. is pleased to submit this scope and fee letter for completing a Water System Study and Water Model for the City of Columbus. This letter outlines our understanding of the project, proposed scope of services, and proposed fees for completing your Water Model and Water Treatment System Study.

I. Project Understanding

The existing facilities consist of three wells, a booster pump, and a ground storage tank. The City has expressed interest in a new water tower and water treatment facility. The primary needs for the current water system includes improved water treatment and transitioning to elevated water storage. This water system study and associated water model aims to provide an evaluation of existing water demand and quality, and an evaluation of the existing water system to determine needed improvements for the City's water system over the next 20 years.

II. Scope of Services

Bolton & Menk will provide the following scope of work separated into major tasks. It is anticipated that the water model and water study together will take approximately six months to complete.

Task 1 – Project Meeting and Data Request
A project meeting will be held with key members of our project team and City staff. The project meeting provides an opportunity for the project team members to exchange information and review scope of work items and overall objectives. Bolton & Menk will have reviewed the reports previously prepared on the water supply.

A summary of the major activities that will be requested and discussed during the project meeting are as follows:

A. Review and summarize previous well construction and water supply data.

B. Review and collect information on historical water usage and projected future demand.

C. Review existing water treatment.

D. Review current water storage capacities.

E. Review water quality data and treatment goals.

F. Review project schedule.

G. Data collection: Collect historical water usage, well records, pumping records, water quality data, existing infrastructure elevations and layout, GIS data, and any additional data needed for the water model.

Task 2 – Water Demand Projections
Projections of the future (20-year) water demand will be developed based on available planning documents and discussions with staff and officials. The projected demand will be used as the basis for the existing and future water treatment and storage analyses.

Task 3 – Develop Water Model
We will develop a water model of the existing system, and this will allow us to determine areas that need improvement and model future improvements and the impacts to the water distribution system. The modeling effort will consist of the following:

- Importing GIS data and putting model components together
- Entering infrastructure settings, elevations, and water demand
- Reviewing watermain connections and layout with the city
- Hydrant testing
- Calibrating the model
- Analyzing the model
- Report memo with the results including figures for system pressure and fire flows

Task 4 – Evaluate Water Supply and Storage Adequacy
The adequacy of the existing well water source of supply and storage will be evaluated both in terms of capacity and water quality.

The capacity of each well and storage will be summarized based on available pumping data. Recommendations for any water supply or additional treatment improvements will be developed if needed. These recommendations will be based on the quantity of water supply and storage needed in the future and will not specifically evaluate potential future water sources. If future water sources are required, they will be evaluated in a future document.

Task 5 – Evaluate Water Quality and Treatment Facility Improvements
The existing data regarding raw and finished water quality will be reviewed. The existing treatment process and storage will be evaluated for adequacy in meeting the projected water demand and treatment goals. The design team will review the physical condition of existing water treatment and storage. Recommendations for water treatment improvements, rehabilitation, and/or replacement items will be developed.

Task 6 – Funding Options
We will evaluate various funding options for potential future projects, and we can use the findings of the report to complete future funding applications for the Project Priority List (PPL) and Intended Use Plan (IUP) through the MDH and Public Facilities Authority (PFA).

Task 7 – Draft Report
The results of the evaluations will be summarized in a draft report for review and discussion with City staff. The report will include the following major components:

- Water Demand Analysis
- Water Supply and Finished Water Quality Goals
- Evaluation of Existing Treatment, Storage, and Water Supply
- Cost Opinions and Implementation Schedule
- Recommendations and Funding Options

Task 8 – Final Report
Comments on the draft report will be incorporated into a final report and provided to the City.

III. Proposed Fees

Bolton & Menk has calculated the time and effort required to complete the Water System Study and Water Modeling and proposes a fee of **$35,900** which will not be exceeded without prior authorization from the City. This fee represents more than 200 hours of engineering and technical time for developing options, developing the water model, preparing the plan and report, providing information on future funding options, attending meetings and presenting details to the City.

Thank you for the opportunity to present this scope and fee letter. If you have any questions or comments, please do not hesitate to contact me.

Bolton & Menk, Inc.

Seth A. Peterson, P.E.
Senior Principal Environmental Engineer

cc: Jim Windingstad, Public Works Director
Kevin Bittner – Bolton & Menk, Inc.
Adam O'Gorman – Bolton & Menk, Inc.