



Real People. Real Solutions.

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November 11, 2022

Mr. Bruce Westby, P.E.  
City Engineer / Interim Director of Public Works  
City of Ramsey  
7550 Sunwood Drive NW  
Ramsey, Minnesota 55303

RE: Proposal for Engineering Services – Trott Brook Lift Station Improvement Project

Dear Mr. Westby:

Bolton & Menk, Inc. appreciates the opportunity to submit this proposal for professional engineering services related to the above referenced project. The project includes construction of a lift station, valve vault and forcemain.

## UNDERSTANDING

A summary of the primary project components is presented below:

**Lift Station Site** – The site is located in the southwest portion of the Makowsky Addition development area.

**Lift Station** - A wet well structure will be installed to capture sanitary sewer flow from the Makowsky Addition development, along with areas to the north and east of the lift station site. The future sanitary sewer line to the east is estimated at 29 feet deep. The bottom of the lift station will be approximately 4 to 6 feet lower, or 33 to 35 feet deep.

**Valve Vault** – The structure will be placed near the lift station.

**Forcemain** – The forcemain will be installed from the lift station to an existing manhole located in Variolite Street. The estimated length of forcemain is 2,300 feet. Final sizing of the forcemain will be completed as a portion of the project design.

**Site Improvements** – Improvements at the site will include an access drive and maintenance pad. We will work with the developer as we prepare the site grading plan.

## ASSUMPTIONS

Our proposal is based on the best information available and accounts for minor scope revisions as the project moves forward. For clarity, we have listed a majority of the assumptions below as they relate to the project as a whole:

**Plans and Specifications** will be prepared to allow for a public bidding process. Project specifications will be prepared using Bolton & Menk specifications.

**The Project Schedule** will allow for 2023 bidding and construction.

**The Preliminary Construction Cost** for the improvements is estimated at \$1,375,000.

## **WORK PLAN**

Our Work Plan includes all services required to deliver the project, with some assistance from the City of Ramsey as outlined below. Our services are anticipated to include:

### **Task 1: Project Management, Meetings and Procedural**

#### Agency Coordination Meetings (2 Meetings)

Meetings are anticipated as described below:

##### **City of Ramsey (Two Meetings)**

Two meetings are anticipated with City of Ramsey staff. These meetings will discuss findings, issues, needs, and schedule to keep the project progressing.

##### **Lower Rum River Watershed Management Organization (Telephone and Email Communications)**

We will communicate with representatives of the Lower Rum River Watershed Management Organization to discuss the project scope and determine permitting requirements.

##### **Developer / Developer's Engineer**

We will coordinate as needed to allow for seamless integration of the lift station and forcemain with proposed improvements by the developer. We will keep the City apprised of all communications with the developer.

#### Meeting Exhibits and Documents

We will prepare all necessary layouts, handouts, etc. for each meeting. These are anticipated to include conceptual design layouts, final design layouts, schedule updates, cost spreadsheets and other materials needed throughout project delivery.

#### Document Formatting

The following programs will be used as we proceed through the project processes:

- Microsoft Word,
- Microsoft Excel,
- AutoCAD Civil 3D, and
- Adobe Acrobat.

#### Key Deliverables

Key project deliverables will include the following:

- All permit applications for signature and submittal,
- Signed plans and specifications, and
- Electronic copies of all documents in formats requested by the City of Ramsey. Formats will include AutoCAD Civil 3D, Word, Excel and pdf files.

### **Task 2: Data Collection, Analysis and Review**

#### Topographic Survey

We will complete the following tasks:

- Set Survey Control – Anoka County Coordinates and NAD 88 elevation datum,

- Perform a Gopher State One Call,
- Perform a topographic survey, and
- Reduce the data and create a base map.

#### Geotechnical Exploration

We will work with American Engineering Testing (AET) to complete a deep boring in the area of the proposed structures. The deep soil bring will be used to determine soil types, groundwater elevation and structural capacity of the soils. As a portion of their services, AET will:

- Provide utility clearance,
- Drill one deep boring (exact depth to be determined),
- Drill four borings associated with the directionally drilled forcemain,
- Provide laboratory testing services, and
- Provide a geotechnical report.

#### **Task 3: Preliminary Design Alternatives**

We will prepare design layout for review and consideration. Benefits and impacts of the layout developed will be presented for review and consideration. The layout will include access drive, lift station, valve vault, maintenance pad, transformer pad, lighting, forcemain alignment, and construction limits.

#### Pump and Forcemain Sizing

We will complete a pump design and forcemain sizing during the preliminary design phase of the project. Once the pump and forcemain design has been completed, we will proceed to design the lift station manhole for the site.

#### Utility Coordination

We will contact private utility companies whose facilities may be impacted by construction. This will include sending preliminary layout drawings and final construction plans to the utility companies. We will also contact power suppliers to determine requirements for providing service to the site.

#### Preliminary Cost Estimates

The preliminary cost estimates will be completed to verify the construction estimates for the work.

#### **Task 4: Construction Documents, Permitting and Approvals**

##### Construction Plans and Specifications

Bolton & Menk will provide the City of Ramsey with final review construction plans and special provisions. Bolton & Menk will incorporate all City of Ramsey comments prior to completing final plans and special provisions for bidding.

##### **Lift Station Plans**

Our team will develop plans related to the lift station site based upon the preliminary design. Plans will include detailed drawings related to:

- Lift station,
- Valve vault,
- Access Drive,

- Maintenance pad,
- Electrical and controls, and
- Other site improvements.

### **Stormwater Pollution Prevention Plan (SWPPP)**

Our team will design a stormwater management plan that adequately manages the runoff from and through the project area.

Plans will be prepared and included in the plan set, as well as submitted to the permitting agencies upon completion of this effort.

### Final Cost Estimate

An updated engineer's cost estimate will be prepared upon completion of final design.

### NPDES/SDS Permit Application

We do not anticipate the project will disturb more than one acre of land. No fees were included in our proposal for this effort.

### Lower Rum River Watershed Management Organization Application and Related Activities

We anticipate that a grading permit will be required from the Lower Rum River Watershed Management Organization. The \$800 permit application fees will be invoiced to the City with no mark up from Bolton & Menk.

Storm water modeling will be extremely limited for the project. Based on the final configuration of the concrete pad(s) at the lift station site, the new impervious area will likely be between 400 and 600 square feet. We are assuming this will be directed towards a pond located south of the site. We will work with the City to describe the minimal impacts in the permit application.

No wetlands are anticipated along the corridor. We will provide a cursory wetland review to ensure that any excavations occur outside of wetland limits.

### MPCA/MCES

Our understanding is the MPCA or the MCES require permit applications when lift stations are added to the sanitary sewer system. We have included fees for preparation of the necessary permits.

### **Task 5: Bidding Phase Services**

#### Coordinate Solicitation of Bids

We will prepare and submit the Advertisements for Bid for the appropriate publications and upload the bidding documents onto Quest CDN.

#### Pre-Bid Conference

None anticipated.

#### Bidding Questions

We will be available throughout the Bidding Phase of the project to answer questions from potential Bidders as they arise.

Addenda

We will prepare Addenda for the project during the Bidding Phase, if required. This will include preparing revisions to plans and specifications to include with the Addenda.

Bid Opening and Bid Tab

Bolton & Menk will attend and help facilitate the bid opening and will tabulate the bids.

Review Bids and Bidders

We will review the bids to verify accuracy and validity.

Recommendation of Award

We will recommend an award based on the review of the bids.

**SCHEDULE AND COMPENSATION**

**Project Schedule**

We will begin our work immediately after authorization. We will work with the City of Ramsey to advance the schedule to allow for bidding in the winter of 2022/2023. Construction is anticipated to begin in early summer of 2023. Some items such as controls and pumps have longer lead times, meaning final completion may not occur until the end of 2023.

**Compensation**

We have prepared an estimate of time and included not-to-exceed fees associated with completing the tasks described in this letter. The estimate is attached to this letter for review and concurrence.

If there are any questions related to this proposal, please call me at (651) 968-7760.

Sincerely,

**Bolton & Menk, Inc.**



**Kevin P. Kielb, P.E.**  
Project Manager

**ATTACHMENTS**

Fee and Cost Spreadsheets

**SUMMARY OF HOURS AND FEES**

| <b>CLIENT: City of Ramsey</b><br><b>PROJECT: Trott Brook Lift Station Improvements</b> |  |                 |                  |              |                        |                            |            |             |             |                    |  |
|--|--|-----------------|------------------|--------------|------------------------|----------------------------|------------|-------------|-------------|--------------------|--|
| TASK NO.   | WORK TASK DESCRIPTION                            | Project Manager | Project Engineer | Task Manager | Licensed Land Surveyor | EIT / CAD / GIS Technician | Clerical   | Total Hours | Total Fees  |                    |  |
|  | <b>Personnel ----&gt;</b>                        | Kielb           | Lingl            | Salo         | Hill                   | Staff                      | Ogren      |             |             |                    |  |
| 1  | Project Management, Meetings and Procedural      | 6               | 14               | 4            | 0                      | 0                          | 4          | 28          | \$4,266.00  |                    |  |
| 2  | Data Collection, Review and Analyses             | 2               | 6                | 0            | 4                      | 64                         | 0          | 76          | \$12,530.00 |                    |  |
| 3  | Preliminary Design                               | 8               | 34               | 10           | 0                      | 0                          | 2          | 54          | \$8,408.00  |                    |  |
| 4  | Construction Documents, Permitting and Approvals | 10              | 172              | 68           | 0                      | 0                          | 6          | 256         | \$39,034.00 |                    |  |
| 5  | Bidding Phase Services                           | 3               | 10               | 4            | 0                      | 0                          | 6          | 23          | \$3,264.00  |                    |  |
| <b>TOTAL BASE HOURS</b>  |  | 29              | 236              | 86           | 4                      | 64                         | 18         | 437         |             |                    |  |
| <b>AVERAGE HOURLY RATE</b>   |  | \$200.00        | \$145.00         | \$170.00     | \$175.00               | \$165.00                   | \$89.00    |             |             |                    |  |
| <b>SUBTOTAL</b>  |  | \$5,800.00      | \$34,220.00      | \$14,620.00  | \$700.00               | \$10,560.00                | \$1,602.00 |             |             |                    |  |
| <b>TOTAL BASE LABOR COSTS</b>  |  |                 |                  |              |                        |                            |            |             |             | <b>\$67,502.00</b> |  |
| <b>Sub-Consultant Fees (Barr Engineering)</b>  |  |                 |                  |              |                        |                            |            |             |             | \$9,000.00         |  |
| <b>Sub-Consultant Fees (AET Geotechnical)</b>  |  |                 |                  |              |                        |                            |            |             |             | \$5,500.00         |  |
| <b>Estimated Permit Fees</b>   |  |                 |                  |              |                        |                            |            |             |             | \$800.00           |  |
| <b>TOTAL FEE</b>   |  |                 |                  |              |                        |                            |            |             |             | <b>\$82,802.00</b> |  |