



**BOLTON
& MENK**

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September 13, 2024

Mr. Justin Wagner
Utilities Manager
City of Northfield
1101 College Street
Northfield, MN 55057

RE: Proposal for Professional Engineering Services
Water Treatment Plant Street & Utility Extensions
Amendment for Trunk Sanitary Sewer Extension & Additional Design Services

Dear Mr. Wagner:

Thank you for the opportunity to submit this proposal to provide professional engineering services to the City of Northfield for the extension of a trunk sanitary sewer to serve the proposed water treatment plant, as well as future development of the surrounding areas. Our team is well equipped to deliver high quality services across the multiple phases of this project, ensuring compliance with regulatory requirements, designing to city standards, and addressing the specific needs of the City. It is our understanding that the City is currently planning for the Water Treatment Plant projects to be bid in time for construction beginning during the 2025 construction season.

Preliminary analyses completed, in accordance with direction from city staff, identifies that this new trunk sanitary sewer line will run from the proposed water treatment plant site east on the future Jefferson Parkway alignment to a future proposed roundabout location. There it will turn north and follow the continued future Jefferson Parkway ROW until the creek. At the creek it will continue northwest along the creek, cross the creek, and connect to the existing trunk sanitary sewer system at a manhole located east southeast of the Spring Creek Road and Woodley Street intersection.

The project is proposed for open cut installation of the sanitary sewer piping and the steel casing through the creek area. It is assumed that bypass pumping will be required for the creek but flow information is not immediately available to determine the impact/level of effort necessary to complete that work. Temporary construction and permanent utility easements will be required for the entire length of the pipe until such time that the future Jefferson Parkway ROW is obtained by the city.

The project plans/specs for this sanitary sewer extension will be incorporated directly into the Water Treatment Plant Street & Utility Extensions plans/specs and bid together as one project. This scope and fee amendment letter identifies the various project tasks and lists each task's scope of work and associated fee to bring the project through design and bidding. A detailed work plan for each of the project tasks is identified below.

Task 1 – Project Management & Coordination Meetings

\$14,500

Work under this task includes conducting project meetings and overall project management to keep the project on schedule and on budget. Anticipated project meetings that are included in our proposal are a

project kickoff meeting with city staff, two design discussion meetings, and one private utility coordination meeting. Meeting materials will be provided for each meeting including agendas and meeting minutes for staff meetings and the preconstruction meeting.

Task 2 – Topographic Survey

\$38,500

Work under this task includes gathering pertinent field information on city infrastructure, physical features in the right-of-way, contours, and private utilities. Underground utility information will be located and described per available as-builts, field markings, and private utility map information facilitated through Gopher State One Call. Structure reports will be completed for located manholes and catch basins in the project area. Right-of-way and property lines will be illustrated based on either found field monumentation, plat information, and/or Rice County GIS parcel linework. Owner and Encumbrance Reports which will include an easement search will only be requested for parcels within project area that are un-platted properties. Property corner monuments will be collected where found, to aid in determining right-of-way.

Full topographic survey will be completed for the proposed project corridor for a 150-foot width along the proposed pipe alignment. Bolton & Menk will establish horizontal and vertical control on Rice County coordinates. Control points will be placed at convenient locations throughout the project corridor. We will generate a drafted survey base drawing which will include topographic and available right-of-way survey information. We are assuming four easement exhibits/descriptions for the project will be required for temporary/permanent easement needs to construct the project. It is assumed that the easements will be negotiated and obtained by city staff.

It is assumed that topographic survey will be authorized in time to allow for scheduling and completion in the fall of 2024, prior to winter snowfall. Given the project location, after snow sticks, topographic survey will not be able to completed until spring of 2025 and would result in a delay to the remaining schedules discussed below. It is also assumed that city staff will coordinate necessary permissions to perform the required topographic survey on private property, after crop harvest. Additional topographic survey beyond that identified above can be negotiated at a fee based on submitted hourly rates.

Task 3 – Final Design

\$83,000

Work under this task includes production of detailed construction documents, plans, and specifications. Our project team will prepare construction plans utilizing AutoCAD Civil 3D 2024 to accurately depict the project improvements for construction. Major design components for each plan set are anticipated to include:

- Existing conditions & removals plan
- Plan detail plates and standard plans
- Stormwater Pollution Prevention Plan (SWPPP)
- Erosion control/restoration plans
- Sanitary sewer plan/profile sheets

Final design will include a tabulation of estimated quantities and a final engineer's opinion of probable construction costs. Our project team will prepare special provision specifications to supplement the city's standard contract documents and technical specifications. The documents will be combined to complete the overall contract documents for bidding and construction purposes based on the city's standards. It is anticipated that design will begin after topographic survey information is available and will be completed by March 2025. Our staff will model the proposed trunk sanitary sewer to verify preliminary assumptions, identify anticipated flows from future sewershed connections to verify capacity, and use that to confirm pipe sizing. It should be noted that flushing velocities may not be achieved until such time of future development, depending on pipe diameters and initial flows. City staff will review the anticipated design to confirm sewer depths and anticipated service area (preliminary design is slightly over depth but there is

sufficient grade to lower the pipe elevation further, if desired). City staff will provide the final future Jefferson Parkway alignment/proposed ROW prior to beginning design to ensure the trunk sanitary sewer falls within the ROW, where applicable. City staff will provide direction on the intended permanent utility easement widths; preliminary design indicated 20-ft to match the existing trunk sanitary sewer, however, it should be noted that maintenance requiring excavation at the proposed depths is not feasible and would require temporary easements again in the future.

It is assumed that the trunk sanitary sewer extension work will be bid as part of the greater Water Treatment Plant Street & Utility Extensions project and therefore bidding administration tasks will not be required solely for the sanitary sewer extension plans. The addition of this trunk sanitary sewer extension will also necessitate an increase in associated construction fees. Given the numerous changes to the greater project as a whole, additional construction fees for construction observation, staking, and contract administration are not identified in this proposal and will be revisited after projects bidding.

We have facilitated a proposal from Braun Intertec to continue the geotechnical work on this project. Soil borings will be necessary to understand soil conditions, receive utility installation recommendation, and most importantly, identify potential rock elevations that may require rock excavation. It is assumed that the City will enter into a contract directly with Braun for the soil borings and geotechnical report at the same time as design authorization. Similar to the above, additional fees for construction materials testing will be required and it is assumed that the city will enter into a contract directly with Braun for those services after project bidding.

Task 4 – Permitting

\$15,000

Work under this task includes preparation and submission of applications/materials for all applicable permits required by the project. The city will be responsible for paying all permit fees. It is anticipated that the following permits will be required:

- MPCA Construction Stormwater permit
- MPCA Sanitary Extension permit
- Aquatic Resource Impact Permitting
 - MnDNR Utility Crossing License
- Threatened and Endangered Species Permitting

Aquatic Resource Impact Permitting: Preliminary investigations into the National Wetlands Inventory (NWI) and Public Waters Inventory (PWI), indicated these features are within the vicinity of the project area. Bolton & Menk will use the aquatic resource delineation to determine and prepare the appropriate permit application to account for any aquatic resource impacts proposed by the project. Preliminary review of the project activities suggests temporary wetland impacts are anticipated. Bolton & Menk will prepare a Wetland Restoration Plan to account for and offset the impacts accrued by the project. This will include the MN Joint Application to the U.S. Army Corps of Engineers and Local Government Unit, and the submittal of the MPARS on-line application to the MNDNR. Ordinary High Water Level (OHWL) elevations will be reviewed to determine the full jurisdictional extent of the MNDNR throughout the project area. These applications will include GIS based figures, permit narrative, and project plan set. A MnDNR Utility Crossing License is anticipated to be required for this project. Based on the same process that was completed for the raw watermain on this project, a few months for review/approval should be anticipated.

Desktop Wetland Review: Bolton & Menk will thoroughly investigate all available background information needed. Based on the proposed activities, the wetland delineation project area will encompass the trunk sanitary sewer extension corridor. A desktop review will identify the approximate wetland boundary and anticipated impacts and survey staff will identify the edge of creek limits to identify on the project plans for impacts. *Please note if it's determined through discussions with permitting agencies that*

Level II field wetland delineations are anticipated, a supplementary scope and fee will be prepared for those services. It should be noted that this work would not be able to be completed until the following spring and would impact the associated schedules.

Threatened and Endangered Species Review: The anticipated aquatic resource permits will trigger State and Federal Threatened/Endangered species review. To ensure the city is in compliance with Minnesota's Endangered Species Statute and the federal Endangered Species Act, Bolton & Menk will complete an NHIS request on the Minnesota Conservation Explorer website early in the project process and will coordinate with MNDNR to be in compliance with the current Minnesota Endangered Species Statute. The Information for Planning and Consultation (IPaC) tool to complete preliminary federal threatened and endangered species coordination with USFWS. As long as the contract is awarded in time to allow for tree clearing between November and April 15th, we are not anticipating significant restrictions to the project's construction (there just may be timeframes where certain areas cannot be worked on, such as the lakes during spring for fish spawning). *If any threatened and endangered species surveys are required, we can provide an additional scope and fee at that time. If the project is not anticipated to be bid in time for tree clearing under the contract prior to April 15th, it is assumed that the city will coordinate for the required tree clearing to be performed by city crews or under a separate contract contracted by the city.*

Meetings and Additional Requests: In some cases, the reviewing agencies request additional information and/or a Technical Evaluation Panel meeting during the review process for both the wetland delineation and wetland permit review. If our attendance is requested at a meeting to discuss the acceptance of the delineated boundaries or the agencies request additional information, this service will be provided on an hourly basis at our Wetland Specialist rate. Our fee associated with permitting is based on the scope indicated above. If additional permitting is required above and beyond that identified, we will be available to provide the additional permitting required for an additional fee based on submitted hourly rates.

Additional Design Services

\$60,000

Throughout the final design process on the Water Treatment Plant project, there have been several additions to the project scope of services which has resulted in additional design fees being accrued. We have been tracking these fees and updating the City of Northfield so the project team could continue to progress the final construction plans to stay on schedule. Below is a list of several of the major changes to the project scope since the original contract was approved:

- Throughout the summer, preliminary investigations into the feasibility of extending a new trunk sanitary sewer line to service the water treatment plant were completed at the direction of the city. These efforts included high-level preliminary design, high-level cost estimating, investigations into anticipated permitting requirements, approximating the future Jefferson Parkway alignment, approximating easement needs, and high-level modeling of potential future service areas. This work resulted in accumulated additional hours to help with project decision making.
- In mid-summer, the City directed our project team to split the project plans into two separate projects; one project for the street and utility extensions necessary to serve the water treatment plant site, and another project for the greater water treatment plant site. Given the progress towards a singular plan, there was significant effort required to split the plans in two and accurately depict proposed improvements from one plan accordingly on the other plan. This additional work resulted in a substantial number of additional hours to progress the plans to the 95% stage submitted to the city for review.
- As a result of these additional design scopes of service and schedule delays related to federal funding, the project has already been delayed over six months and counting. This in and of itself has resulted in additional project management efforts to keep the project moving and all parties

informed on current project updates. Additionally, with the project now planned to be bid as two separate projects with, this will require development of two separate sets of contract documents and specifications.

- Pending city council approval of the final plans and specifications for each project, the two projects will need to be bid separately which will add additional bidding administration fees.

Proposed Fee

In accordance with the City of Northfield's project requirements, Bolton & Menk proposes to complete the scope of work as described above for an estimated hourly fee of **\$211,000** to cover the anticipated fees for the trunk sanitary sewer extension and for the additional design services completed to date and anticipated to finish the original scope of work. Additional services beyond the defined scope can be provided and billed at the associated hourly rates, if requested.

Thank you for inviting Bolton & Menk to offer you this proposal, as well as your continued consideration of our services to the City of Northfield. Bolton & Menk is committed to delivering exceptional engineering services to the City of Northfield. Our experienced team will be dedicated to ensuring the successful completion of this project. We look forward to working with you and the City on this project. If you have any questions or require further information regarding our proposal, please do not hesitate to contact us. This proposal can be tailored further to fit specific requirements and preferences of the City of Northfield.

Sincerely,

BOLTON & MENK, INC.



Brad Fisher, P.E.
Principal Engineer

This document shall serve as an amendment to the Consultant Service Contract between the parties, dated April 18, 2023 (the "Contract"), pursuant to Section I.B. thereof. All other provisions of the Contract shall remain in full force and effect except as herein modified.

Accepted: _____

City of Northfield

Cc: Seth Peterson, P.E., Senior Principal Environmental Engineer
Jason Malecha, P.E., Project Engineer