



DEPARTMENT OF  
**UTILITIES**

**Department of Utilities**  
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## MEMORANDUM

**Date:** April 12, 2024  
**To:** Chairperson Vered Meltzer  
**CC:** Ryan Rice, Utilities Deputy Director  
**From:** Chris Stempa, Utilities Director  
**Subject:** **Utilities Committee Informational Item: Sole Source Engineering Services Contract to McMahon as part of Summer Street Lift Station Evaluation in the amount of \$11,900 with a 15% contingency of \$1,785 for a Project Total not to exceed \$13,685**

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### BACKGROUND:

There are approximately 335 miles of collection sewer and 14 lift stations within the City of Appleton sewer service area that convey sewage to the Appleton Wastewater Treatment Plant (AWWTP). Failures of lift stations pose the immediate risk of sanitary sewer back-ups into residential basements, businesses, and industries served in these areas. The lift stations currently serving customers within the City of Appleton are a critical component of the sewerage system, and it is vital that their operational integrity be always maintained to prevent sanitary sewer overflows or backups.

The 2024 Capital Improvements Program (CIP) plan identified the Marshall Heights and Water Street lift stations as candidates for upgrades after over 20 years of continuous service. However, staff have recently reprioritized the CIP plan to focus on the Summer Street lift station after an escalating trend of sewage pump blockages, pump failures, and observations of drywell structural deterioration.

The Summer Street lift station is located on the northeast side of the intersection at North Badger Avenue and West Summer Street in Appleton. It was originally constructed in 1939 as an integral wetwell/drywell equipment lift station within the north lane of West Summer Street. Integral design meaning that the pump motor equipment was installed on an intermediate floor above but within the sewage wetwell (i.e. concrete tank). In 1963 this station was upgraded to the a below ground 'can' design located within the terrace on the north side West Summer Street. That upgrade project removed the former pumping equipment from the wetwell in exchange for an independent 25-foot deep drywell enclosure that contained shaft driven centrifugal pumps and controls. The intermediate floor remains within the wetwell today which creates a confined space entry hazard for maintenance or emergency response activities. The drywell equipment structure was replaced in 1993 to the present day below ground drywell structure which requires staff to enter a manway at ground level and climb down a ship ladder approximately 18 feet to the lower elevation to access the self-priming pumps and the associated pump controls. Staff are required to adhere to non-permit confined space entry procedures whenever accessing the drywell space.

AWWTP staff intend to systematically address operational, reliability, and safety concerns with a new submersible pump system design like the 2018 North Briarcliff Drive Lift Station Upgrades Project.

## PROPOSAL

McMahon was asked to provide a proposal to complete a collection area capacity evaluation, an equipment conditions assessment, and project alternatives analysis. Bidding and construction management service costs were not provided because McMahon felt it was appropriate to first critically evaluate viable alternatives knowing the challenges presented by space limitations and numerous existing utilities within the right-of-way. The 2024 budget identified \$1,600,000 in total for engineering and construction costs for the Water Street and Marshall Heights lift station. The Summer Street lift station had been identified as a 2026 CIP project but as stated previously, has since been reprioritized for upgrades in 2024. The McMahon proposal detailed each element of the preliminary engineering services required to provide a deliverable with the following core elements.

- Project Alternatives Evaluation
  - Evaluate options for converting the lift station to a submersible lift station. Options to evaluate include:
    - Reconstruct the top of wet well and convert it to a submersible lift station. Provide a premanufactured above ground valve vault within the right-of-way of the road.
    - Construct a new wet well and submersible lift station within the vicinity of the Summer Street lift station. Work with City on feasible locations for the new lift station.
  - Evaluate the feasibility of providing a permanent back-up generator at the lift station.
  - Preliminary layouts will be provided for each feasible option.
  - Opinions of Probable Capital Costs will be prepared for each feasible option.

The Scope of Services described within their proposal was presented as a lump sum totaling \$11,900.

## JUSTIFICATION

Since 2010, McMahon has provided engineering and/or construction management related services six of the last eight lift station projects. They are familiar with the sewer service area and have developed an effective approach to delivering successful project outcomes. The proposed cost of \$11,900 is consistent with similar scopes of work they have undertaken for the city in the past. McMahon's local presence and experienced team coupled with past City of Appleton collection system project experience has translated into highly responsive and cost-effective services which is reflected in their proposal. For the reasons previously described, I recommend that McMahon be considered for a sole source engineering contract to McMahon #1 through #4 Rehabilitation Project.

## AWARD:

Per city policy Section IV.G.(1), sole source purchases over \$7,500 but less than \$25,000, required written justification to be provided to the city Purchasing Manager. That justification was provided, and concurrence received on April 11, 2024. As such, a professional services contract is being awarded to McMahon as part of Summer Street Lift Station Evaluation in the amount of \$11,900 with a 15% contingency of \$1,785 for a project total not to exceed \$13,685.

If you have any questions regarding this project, please contact Chris Stempa at 920-832-5945.