City of Milwaukee

Department of Public Works

Ghassan Korban, P.E.
Commissioner of Public Works

March 28, 2018

Honorable Members of the Common Council

Subject: Feasibility Study – Performing Infrastructure Contracting Work In-House

Dear Honorable Council Members:

In Resolution File Number 171384, the Commissioner of Public Works was directed to study the feasibility of performing Infrastructure repairs and improvements using City staff as opposed to current practice of contracting this work out. In order to accomplish this requirement, the department took several steps to evaluate the feasibility of the directive.

The first step was to identify all of the Infrastructure work that is currently contracted out by various sections in Public Works. This work includes the following general categories:

Bridges & Buildings - bridge maintenance, rehabilitation and replacement, building maintenance and rehabilitation, and maintenance and rehabilitation of city-owned park facilities

Transportation Infrastructure - asphalt and concrete paving

Transportation Operations - street lighting, traffic signals and signs, underground conduit

Environmental Engineering - sewer main replacement, green infrastructure, and bypass and lift station rehabilitation and replacement

Milwaukee Water Works – treatment plant maintenance, rehabilitation and replacement projects, pump station rehabilitation and replacement, water main replacement, and lead service lateral replacement

The next step was to identify the types of positions that are needed, estimate the number of each type of position, and develop an approximate salary for each position. This was done by reviewing the contacts used for this work, discussions with contractors, and discussions with the department's construction inspection staffs. The assumption was made the amount of infrastructure work being performed annually would be the same as is currently budgeted for the department.

Through this process, 72 different positions types were identified, with a total number of employees identified at 887. The estimated annual cost for these positions is $65,671,143, which does include fringe benefits costs but does not include any indirect charges. The attached spreadsheet breaks down the positions and costs by section.

The next step was to identify the types of equipment, the number of units needed to perform the work, and the cost. The information was developed by reviewing the daily reports for current contracts, discussions with contractors, and department's construction and maintenance staffs. Similar to determining the amount of staffing, we used the assumption that current funding levels for these programs would remain. The cost estimate is based on purchasing the equipment new. The attached spreadsheet breaks down the type and amount of equipment identified for each section. The estimated cost to purchase the equipment is $62,095,000.

In addition to equipment needs, we will need to consider the purchase of the tools used by the crews, safety equipment (trench shields, road plates, etc), and traffic control devices for the job sites (barricades, cones, barriers, etc). These additional tools and safety related equipment still need to be quantified and costs determined out.

During the review of the infrastructure work performed, some types of infrastructure projects were identified as not being feasible to be performed in-house. These were types of project that are done infrequently, involve higher risks for problems during construction, and require specialized equipment that would be utilized infrequently. Examples of types of this work include rehabilitation or replacement of movable bridges, lining of large diameter sewers, and tunneling for sewer or water mains.

In addition, bridge work and street paving work funded through State and Federal funding were not included in the projects used to determine staffing and equipment needs. Many of these projects are bid by the State Department of Transportation and could not be performed in-house.

At this time, there are several additional aspects that need to be considered and costs determined in order to fully analyze the feasibility of performing this work using city staff. Items that require additional investigation include:

- Construction or leasing of facilities for field offices, locker rooms, break rooms, restrooms for construction staff, supervisors, and support staff
- Land and garage space to store the additional equipment
- Additional facilities and land for storage yards and warehouses for construction materials, tools, and other inventory
- Additional garage capacity and vehicle technicians to maintain the equipment and storage for associated parts needed for the equipment maintenance, including additional fueling stations
- Additional department administrative and safety staff and office space to process payroll, injury claims, safety training, etc.
- Staffing and time needed to provide required training to new employees on operating construction equipment
- Additional staff needed by the Department of Employee Resources for the recruitment, hiring, and processing of benefits of the additional staff

- Addition unemployment insurance costs to the city as many of these positions would be laid off during the winter months when much of the construction work is halted due to weather

An additional consideration with regards to the city self-performing this construction work relates to the additional liability the city will be exposed to with regards to damage to property and/or underground utilities during construction. Currently, the contractor is liable for the cost of repair for any damage that occurs during the construction project. The City, as self-insured, would be responsible for these claims resulting from any damaged caused by our crews. Although this is difficult to quantify, there would need to be some type of contingency account to cover these types of damages.

Due to the complexity of issues that still need to be considered in determine the feasibility of self-performing infrastructure repairs and improvements, I am submitting this information and requesting additional time to complete the feasibility study. In order to finish this study, I am request an extension until May 31, 2018, with an additional update provided on April 30.

Very truly yours,

Ghassan Korban, P.E.
Commissioner of Public Works

Enclosure

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