



City of
Peterborough

To: **Members of General Committee**

From: **W. H. Jackson, Commissioner of Infrastructure and Planning Services**

Date: **May 28, 2018**

Subject: **Report IPSEP18-001
Upgrading the Wastewater Treatment Plant Aeration System
Blowers, Valves and Controls**

Purpose

A report to recommend the firm BGL CC as the General Contractor for the work involving upgrading the Wastewater Treatment Plant Aeration System Blowers.

Recommendation

That Council approve the recommendation outlined in Report IPSEP18-001 of the Commissioner of Infrastructure and Planning Services dated May 28, 2018 as follows:

That BGL CC, 608 Colby Drive, Waterloo Ontario, N2V 1A2 be awarded the work at the Wastewater Treatment Plant associated with the removal, transportation, overhaul and re-installation of four blowers, the upgrade of the aeration system air headers and piping, the upgrade of the control instrumentation, the upgrade of the PLC and SCADA system, and all associated mechanical and electrical work at a cost of \$466,733.10 plus HST of \$60,675.30 for a total cost of \$527,408.40.

Budget and Financial Implications

The total net \$474,947.61 requirement, after applicable HST rebates, can be accommodated within the approved 2016 Capital Budget Item 5-9.02 for this project.

Background

Original Tender Process

In 2016 Capital Project (Item 5-9.02) was created to, among other works, replace three of the existing four Hoffman centrifugal air blowers (aged >25 years) with two new turbo blowers at the Wastewater Treatment Plant. These blowers are single speed creating an inefficient operation.

In 2016, a tender was issued for the supply and installation of the three blowers but the lowest cost was almost twice the budget and, for that amount of money, only two of the blowers could be replaced. On top of the price, the tendered blowers were of a different make/model than the existing and required additional pipe work for proper installation. These newer models were also bigger than the existing and, consequently, there would have been space and layout issues.

Accordingly, the tender was cancelled and alternatives to deal with the blowers were investigated.

Activity Since 2016

Since the original tender was withdrawn, much research has occurred and it has been found that a new impeller for the model of blower used at the Treatment Plant has been developed. This new impeller allows for greater turn down of the blower. In consideration of this ability and the fact that for over 25 years the existing blowers have operated exceedingly well with minimal non-planned maintenance, it was decided to see what the cost would be to rebuild the existing blowers. It was expected that this would be cheaper especially considering there would be no necessity to undertake any additional pipe work as the existing piping could still be used.

Ongoing Work at the Wastewater Treatment Plant

In 2017, the City was successful in its application to the Clean Water Wastewater Fund for funding (\$4.02 million) to undertake upgrades to the primary and secondary clarifier tanks at the Wastewater Treatment Plant. In December 2017, this work started and it has been progressed steadily under the general contracting firm of BGL CC. It is expected that the work under this contract will be completed late 2018. The actual work area surrounds the clarifier tanks and the blowers which are adjacent to the tanks.

Moving Forward with Upgrading the Blowers

Given the proximity of the existing clarifier work to the blowers, the best option is to sole source the blower upgrades to the general contractor who is presently on site. In this way, savings would be achieved by the fact that no mobilization costs would be incurred. Also, all construction at the Treatment Plant would be over by the end of 2018 allowing the plant to finally get back to full and complete operation.

Inasmuch as the plan is to retain the existing blowers, the manufacturer of these blowers will be the firm undertaking the overhaul and update of the blowers. Accordingly, the general contractor will simply remove the blowers, transport them to the manufacturer and then reinstall the blowers. Some additional work the general contractor will do is to upgrade some of the electrical, instrumentation and control, elements associated with the blowers SCADA upgrades and modifications to the air piping.

Based on the desire to get the Treatment Plant back to full operation as soon as possible and to minimize disruption, it is proposed that the existing General Contractor (BGL CC) be awarded the additional work to remove, transport and reinstall the four existing blowers as well as upgrade:

- the aeration system air headers and piping;
- the control instrumentation; and
- the PLC and SCADA system;

as well as all associated mechanical and electrical work.

Aspects of Purchasing Policy to be Waived

Section 6.3 of the City's Purchasing By-law 14-127 requires a competitive procurement process be undertaken where the value of the goods and/or services is expected to exceed \$25,000.

Section 9.1.2 d of the City's Purchasing By-law 14-127 permits a non-competitive procurement "When it is necessary to ensure continuity of responsibility, compatibility with ...previous work..." The City Treasurer has approved the non-competitive process for these works.

The work on the blower system is integral to the work currently ongoing with the Secondary treatment units, and is geographically co-located. If, in the future, any aspects of the secondary treatment units failed, it would be easier to deal with knowing there was only one contractor involved in all upgrades.

Recommended Supplier

BGL CC of 608 Colby Drive Waterloo Ontario N2V 1A2 is the recommended supplier. Their work to date for the CWWF project has been exemplary. They have the resources and skills to conduct this work.

Timelines

If the recommendation is approved, the purchase will be confirmed via a purchase order before the work commences. The work will begin immediately after the purchase order is issued.

Summary

It is proposed to sole source some additional work at the Wastewater Treatment Plant to the General Contractor who is now on site completing works under a successful Clean Water Wastewater Fund application. The quote obtained has been scrutinized and provides very good value for the cost.

Submitted by,

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Commissioner of Infrastructure and Planning Services

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