



Track Maintenance Contract

Date: June 12, 2018
To: TTC Board
From: Chief Operating Officer

Summary

The purpose of this report is to obtain authorization for the award of a contract for rail milling services for the TTC mainline for a duration of three years from notification of award to Rhomberg Sersa Rail Canada Ltd. in the upset limit amount of \$11,260,000 inclusive of all taxes, on the basis of the only acceptable submission.

The work for the rail milling service includes labour, equipment and tooling for the milling of rails on the operating subway track during the overnight maintenance window and weekend subway closures. Rail milling is a rail maintenance operation that extends the rail life and reduces noise and vibration during revenue service of the subway, while minimizing impact to rolling stock components and providing a better quality ride for subway customers.

Recommendations

It is recommended that the Board authorize:

1. Award of a contract for Rail Milling Services for the TTC mainline for the duration of three years from notification of award to Rhomberg, in the upset limit amount of \$11,260,000 inclusive of all taxes, on the basis of the only acceptable submission.

Financial Summary

The TTC's 2018-2027 Capital Budget and Plan approved by City Council on February 12, 2018 includes an estimated cost of \$66.3 million with spending authorization of \$20.6 million for the Subway Rail Grinding Project under Program 1.1 Subway Track. The 2017 year-end actuals spending was amounted \$8.7 million with remaining funds of \$11.8 million available to spend. No work beyond what can be accommodated within the approved funding will be initiated, unless additional project approval funds are made available.

The Chief Financial Officer has reviewed this report and agrees with the financial impact information.

Equity/Accessibility Matters

This report has no equity or accessibility issues.

Decision History

The last budget Board report that authorized rail grinding in the amount of \$5.5M annually was approved by the Board on September 26, 2017.

[http://www.ttc.ca/About the TTC/Commission reports and information/Committee meetings/Budget/2017/September 26/Reports/2018-2027 TTC Capital Budget and Plan Blue Pages.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Committee%20meetings/Budget/2017/September%2026/Reports/2018-2027%20TTC%20Capital%20Budget%20and%20Plan%20Blue%20Pages.pdf)

Issue Background

Transit systems are required to perform rail grinding in order to eliminate rail surface damage (cracks, spalls, shells and corrugation), to improve low welds and joints, and ride quality. For the TTC, a very influential driver for the grinding program was also the need to control noise and vibration caused by all of the above issues to minimize the complaints from residents adjacent to subway lines. Rail surface irregularities caused by peaked or dipped welds and joints create an impact effect as the wheels from the subway trains roll over them, and these impacts propagate as vibrations throughout the subway structure to nearby homes.

The TTC has been using rail grinding service for the last 15 years. Grinding removes a damaged surface layer and cracks, and re-profiles the rail head. To maintain these benefits, grinding should be repeated on a one to five year cycle depending on track geometry and train speed.

Rail milling is a newer process that greatly reduces the need for grinding, while achieving the same or better results. Milling has been used extensively in Europe and Asia for the last 20 years with favourable results. Some damaged rail cannot be renewed by grinding due to the excessive depth of damaged steel that must be removed. The time window available for maintenance is not sufficient to repair deeper damage in the rail. Such rail can be repaired by milling, as the material removal process is much more efficient and can remove a thicker layer.

The safety concerns associated with rail grinding include fires at track level due to excessive grinding sparks that can ignite trackside flammable material, smoke, and excessive noise emissions inconveniencing our neighbours on open sections of the subway during the overnight hours. These issues can lead to late opening of the subway service. Based on the advice of various track experts, including the National Research Council, grinding technology will continue to be used on a limited basis in conjunction with milling.

In 2016, TTC staff prepared a business case for the procurement of a rail milling vehicle justifying the acquisition of the vehicle in the five year capital budget. Further review indicated that there was no rail milling service available in North America. Consequently, this milling vehicle was added to the non-revenue rail vehicle fleet plan and budgeted funds were allocated in the 2018-2027 Capital Budget 4.23 Purchase of Rail Non-Revenue Vehicles WO6375.

In 2017, Rhomberg (our current provider of rail grinding services) advised the TTC about the new rail hi-rail milling vehicle available in Europe and indicated that they would be prepared to transport it to North America to provide the complete milling service. In addition to offering milling services to the TTC, Rhomberg also offered to construct a new, rail bound milling work vehicle that would be compatible with the TTC subway and surface rail network, with an option for the TTC to purchase the equipment.

At this time, it is recommended that the TTC purchase a rail milling service utilizing skilled operators and equipment instead of buying its own rail milling vehicle. After the initial service contract, a decision will be made whether the procurement of the rail milling vehicle is a viable option for the TTC.

Comments

On August 17, 2017, a Request for Bids (RFB) was publicly advertised on the TTC and MERX websites. Nine companies downloaded copies of the bid documents, out of which only Rhomberg submitted a bid by the closing date. Rhomberg's initial offer was considered technically unacceptable as their proposed delivery for the milling train was 24 months from notice of award, which did not meet the requirement to perform the service once per year over the next three years. Subsequently, Rhomberg offered an interim solution in the form of a road/rail milling truck that could provide milling services within six months from the notification of award.

As the competitive RFB process failed to identify a compliant bidder and a new request was not likely to change the results, the RFB was cancelled and Restricted Sourcing Procurement approval was obtained in accordance with the TTC's procurement policy to proceed with a negotiated procurement with companies that expressed interest during the RFB period. As such a negotiated procurement with Rhomberg began in January, 2018.

Rhomberg confirmed that the milling train could meet 100% of the TTC's requirements with delivery expected to be approximately October, 2019 and that the interim road/rail milling truck could be modified to meet 100% of the TTC's requirements.

Rhomberg was requested to submit a bid, which was received on April 23, 2018. The bid's validity expires on July 22, 2018. The RFB allows for Rhomberg's proposed interim road/rail milling truck in the contract's first year and the specified milling train in the contract's second and third years.

Upon reviewing Rhomberg's pricing, the TTC requested additional information to substantiate their mobilization, demobilization costs and standby rates. Rhomberg provided proper assurances to the TTC in regards to their estimates in transporting the equipment, specific track gauge adjustments and transport of tools and equipment.

Upon completion of the negotiations, Rhomberg's best and final offer and overall submission is considered commercially acceptable.

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Signature

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Attachments

None