



## **Procurement Authorization – Subway Track Rail Milling Services**

**Date:** April 11, 2024  
**To:** TTC Board  
**From:** Chief Operations and Infrastructure Officer

### **Summary**

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The purpose of this report is to seek the Board’s authorization to award a contract to Rhomberg Sersa Canada Inc. (Rhomberg Sersa) for the provision of rail milling services, with a total contract value of \$20,143,200 inclusive of HST, for a period of three years commencing on August 24, 2024, with up to two optional, one-year extension terms at the TTC’s sole discretion.

The work for the milling contract includes labour, equipment, tooling, and expertise for the milling of rails on the operating subway track during the overnight maintenance window. Rail milling is a rail maintenance operation that extends the rail life, reduces noise and vibration emissions to the adjacent communities, reduces impact on the service vehicles, and provides a better ride quality for subway customers.

The subway mainline consists of approximately 140 kilometres of single-direction track. Following industry best practices, the TTC’s rail milling and grinding program aims to re-profile mainline track rails and address top-of-rail defects once every three-to-four years. The State of Good Repair program involves the completion of 20 kilometres of rail milling and 20 kilometres of rail grinding each year. The priority locations for rail milling and grinding are determined through routine inspections and assessments of the areas where there are rail surface defects and locations of noise and vibration complaints.

### **Recommendations**

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It is recommended that the TTC Board:

1. Authorize the award of a contract for subway track rail milling services for a period of three years commencing on August 24, 2024, with extension options for up to two additional, one-year terms, to Rhomberg Sersa, in the total upset limit amount of \$11,990,000, including applicable taxes on the basis of the lowest bid price.

2. Delegate authority to the TTC’s Chief Executive Officer to execute the first one-year term extension option valued at \$4,076,600, inclusive of HST, and the second one-year term extension option valued at \$4,076,600, inclusive of HST, for a total contract value of \$20,143,200.

## Financial Summary

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Table 1 below summarizes the annual expenditure forecast over the total contract term, including the initial and optional extension years:

**Table 1: Contract Expenditure Forecast by Year and Total Term**

	2025 Forecast	2026 Forecast	2027 Forecast	3-Year Term Contract Total	Extension Year 1 Forecast	Extension Year 2 Forecast	Total Contract Amount
Contract Expenditure (without HST)	3,536,873.16	3,536,873.16	3,536,873.15	<b>10,610,619.47</b>	3,607,610.62	3,607,610.62	<b>17,825,840.71</b>
Non Rebatale HST 1.76%	62,248.97	62,248.97	62,248.97	<b>186,746.80</b>	63,493.95	63,493.95	<b>313,734.70</b>
<b>Total Contract Expense</b>	<b>3,599,122.13</b>	<b>3,599,122.13</b>	<b>3,599,122.12</b>	<b>10,797,366.27</b>	<b>3,671,104.57</b>	<b>3,671,104.57</b>	<b>18,139,575.40</b>
Rebatale HST	397,544.54	397,544.54	397,544.54	<b>1,192,633.63</b>	405,495.43	405,495.43	<b>2,003,624.50</b>
<b>Total Authority, including HST</b>	<b>3,996,666.67</b>	<b>3,996,666.67</b>	<b>3,996,666.66</b>	<b>11,990,000.00</b>	<b>4,076,600.00</b>	<b>4,076,600.00</b>	<b>20,143,200.00</b>

Sufficient funds for this contract are included in the TTC’s 2024-2033 Capital Budget and Plan under Program 1.1, Subway Rail Grinding Project, State of Good Repair category, which the TTC Board approved at its meeting on December 20, 2023 and by City Council on February 14, 2024.

The 10-Year Capital Plan includes a total of \$61.329 million for the Subway Rail Grinding Project comprising of the following cash flow funding by year as presented in Table 2:

**Table 2: 2024-2033 Capital Budget and Plan – Subway Rail Grinding Funding**

Project Name	2024 Budget	2025	2026	2027	2028	2029-2033	10-Year Total
Subway Rail Grinding	5,869.0	6,411.0	6,000.0	6,000.0	6,000.0	31,049.0	61,329.0

\* (in thousands)

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

## Equity/Accessibility Matters

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A cornerstone of the TTC’s current Corporate Plan is accessibility, and as a proud leader in providing accessible public transit in the city of Toronto, the TTC is committed to ensuring reliable, safe, and inclusive transit services for all TTC customers.

The TTC is making continuous progress toward making its vehicles, facilities, and services more inclusive and accessible.

While this subway track rail milling service contract may not directly pertain to equity or accessibility initiatives, its ultimate objective is to ensure a secure, dependable, and inclusive subway service is provided for all TTC customers.

## **Decision History**

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On June 12, 2018, the TTC Board approved the award of a contract for rail milling services to Rhomberg Sersa in the total amount of \$11,260,000, inclusive of all taxes:

### [Track Maintenance Contract](#)

The duration of the contract was three years with two additional, optional one-year extensions. Rhomberg Sersa conducted the rail milling operation using a hi-rail milling vehicle in the 2018/2019 session and a new rail-bound milling work vehicle in subsequent years. The TTC exercised the two additional extension years, and subsequently, under staff authority, the TTC issued another contract to Rhomberg Sersa in the total amount of \$1,769,424 for the term ending on August 23, 2024.

## **Issue Background**

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Rail grinding has been a contracted maintenance activity in the TTC subway system for the last 20 years. Grinding removes the damaged rail surface layer and the incipient cracks to achieve a more desirable profile on the head of the rail. The resulting rail surface has an improved rail-wheel interface, and the rail has a longer life due to cracks being removed in the early stages of formation. Noise and vibration issues as a result of rail waviness (corrugation) is also removed by grinding, thus providing the passenger with an overall smoother subway ride quality and mitigating noise and vibration issues for neighbouring communities. To maintain these benefits, grinding needs to be repeated regularly, depending on the location and rail condition.

Rail milling is a rail maintenance technology which provides results similar to the ones for the rail grinding practice, with some significant advantages centred on mitigation of noise, risk of fire, and smoke emissions. Rail milling is an environmentally cleaner and quieter process, producing less dust and particulate matter, and has a shorter timeframe to complete with its more efficient preparation time on track.

In 2016, TTC staff prepared a business case for procuring a rail milling vehicle and included the acquisition of the vehicle in the 10-Year Capital Budget and Plan. Investigations at the time proved that no rail milling service was available in North America whereas, in Europe and Asia, this process had been used extensively for more than 20 years with favourable results, technically equivalent to the grinding process.

In 2017, Rhomberg Sersa, the current provider of rail grinding services, offered to transport an available hi-rail milling vehicle to North America and to offer the complete milling service. Additionally, Rhomberg Sersa offered to construct a new, rail-bound

milling work vehicle that would fit the TTC's unique track gauge of four feet and 10-7/8 inches (1,495 millimetres) on the subway network, along with offering the milling service to the TTC.

In 2018, the TTC became the first transit company in North America to utilize rail milling to deliver a rail surface clear of defects, such as corrugations, rail surface imperfections, and joint irregularities. The TTC has successfully contracted the rail milling services since 2018.

## **Comments**

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A Request for Bids (RFB) was publicly advertised on the MERX website on October 6, 2023 for rail milling services for a three-year term, with up to two additional one-year extension options. Nine companies downloaded the bid documents, out of which two companies submitted a bid by the closing date of November 17, 2023; the bid validity date is July 31, 2024.

In order to be considered qualified, Bidders were required to submit a list of similar contracts completed within the last five years and a technical proposal detailing the equipment being proposed and how it would meet the TTC's requirements as stated in the RFB.

The two companies that submitted bids were Rhomberg Sersa and Loram Maintenance of Way Inc.

Rhomberg Sersa submitted the lower-priced bid in the total amount of \$9,642,179.00, before taxes (\$10,895,662.27 including taxes). Their bid included all required documents, and the technical portion of the submission was reviewed by staff and deemed to be compliant. Rhomberg Sersa's proposed year 1 pricing is 13% lower as compared to the current contract pricing. Rhomberg Sersa's pricing increases by 2% in year 2 over year 1, and increases by 2% in year 3 over year 2. The contract pricing for the two additional, one-year extension options is to be negotiated between the TTC and Rhomberg in the event the TTC decides to exercise those options.

Rhomberg Sersa is the incumbent and has been satisfactorily performing this work for the TTC since 2018. The offer from Rhomberg Sersa is considered commercially and technically compliant and is recommended for award.

Loram Maintenance of Way Inc. (Loram) submitted the higher bid in the total amount of \$11,571,984.13, before taxes (\$13,076,342.07 including taxes) and is not recommended for award.

## Contact

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## Signature

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Fortunato Monaco  
Chief Operations and Infrastructure Officer