



Subway Capacity Enhancement Program Consulting Services

Date: September 24, 2020
To: TTC Board
From: Chief Capital Officer

Summary

The purpose of this report is to obtain authorization for the award of Contract G85-399, Subway Capacity Enhancement Program Consulting Services in the upset limit amount of \$30 million per firm (for a total upset limit of \$60 million) in Canadian funds, inclusive of all taxes, with a duration of 11 years from the Notification of Award, on the basis of highest total weighted scores to the following companies:

• WSP Canada Inc.	Package 1: Line 1	\$30,000,000.00
• HDR Gannett Fleming Joint Venture	Package 1: Line 2 (including Western Yard)	\$30,000,000.00
• Total Overall Upset Limit Amount:		\$60,000,000.00

The work defined in this Request for Proposal (RFP) is to support the continued development and implementation of the Line 1 Capacity Enhancement Program and the development and investigation of key elements impacting Line 2 Capacity Enhancement Program strategy including, but not limited to condition assessment, multi-discipline design, studies, analysis, engineering and program consultant services for transit and industrial facilities, systems and infrastructure. This may include consideration of impacts to Line 4 and/or any other future subway extensions.

Primarily, work of the programs and projects included in this contract will flow through the following stage gates: Stage Gate 0 (Approved for Development), Stage Gate 1 (Approved for Planning) and Stage Gate 2 (Approved for Design).

Additionally, the Program Consultant, working on behalf of the TTC, shall provide strategic, unbiased and objective advisory and program consultant services to ensure overall performance and program objectives are met, and may be required to support design and construction of early works and/or elements of projects requiring advancement as needed.

The work will be carried out on an as-required basis on approved capital projects over a period of 11 years.

Recommendations

It is recommended that the Board:

1. Authorize the award of Contract G85-399, Subway Capacity Enhancement Program Consulting Services to the following two firms in the upset limit of \$60,000,000.00, inclusive of all taxes on the basis of highest total weighted scores to the following companies:

WSP Canada Inc.	Package 1: Line 1	\$30,000,000.00
HDR Gannett Fleming Joint Venture	Package 1: Line 2 (including Western Yard)	\$30,000,000.00
Total Overall Upset Limit Amount:		\$60,000,000.00

Financial Summary

Sufficient funds are included in the TTC's 2020-2029 approved Capital Budget and Plan for various capitals projects, including 3.9 Line 1 Capacity Enhancement, 3.9 Line 2 Capacity Enhancement and 3.9 New Subway Maintenance and Storage Facility Study. The contract work will be administered on a Work Assignment release basis. As each required task is identified, a work plan is prepared with an estimate. Work will be authorized only after confirmation that sufficient funds are included for the specific assignment in the TTC's 2020-2029 Capital Budget and Plan. Work will commence as authorized by TTC staff in the form of a Work Assignment Release (WAR) and payment for services will be based on the terms included in the Contract documents.

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

Equity/Accessibility Matters

A cornerstone of the TTC's Corporate Plan 2018-2022 is accessibility, and as a proud leader in providing accessible public transit in the city of Toronto, we are committed to ensuring reliable, safe and inclusive transit services that meets the needs of all our diverse customers. This is supported through the continued work of the Line 1 and Line 2 Capacity Enhancement Programs.

The TTC will consult with the Advisory Committee on Accessible Transit (ACAT) on the overall Capacity Enhancement strategy as well as any customer-facing projects that result from the strategy to ensure that they meet the needs of customers with disabilities and seniors. Design assignments will be in accordance with TTC design standards and AODA/Ontario Building Code requirements.

Decision History

This work aligns with the following previous reports to the Board:

At the City Council Meeting on February 19, 2020, City Council approved the TTC's 2020 – 2029 Capital Budget:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.EX13.2>

At its meeting on April 11, 2019, the TTC Board adopted the recommendations of the April 11, 2019 Line 1 Capacity Requirements – Status Update and Preliminary Implementation Strategy.

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2019/April 11/Reports/18 Line 1 Capacity Requirement and Preliminary Implementation Strategy.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2019/April%2011/Reports/18%20Line%201%20Capacity%20Requirement%20and%20Preliminary%20Implementation%20Strategy.pdf)

At its meeting on January 24, 2019, the TTC Board approved the TTC 15-Year Capital Investment Plan & 2019 – 2028 Capital Budget & Plan:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2019/January 24/Reports/10 TTC 15 Year CIP 2019 2028 Capital Budget and Plan.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2019/January%2024/Reports/10%20TTC%2015%20Year%20CIP%202019%202028%20Capital%20Budget%20and%20Plan.pdf)

At its meeting of May 8, 2018, the TTC Board approved the report titled “Capacity Improvements on Bus and Subway Services” which outlined capacity improvements including improvements to service reliability on Line 1:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2018/May 8/Reports/7 Capacity Improvements on Bus and Subway Services.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2018/May%208/Reports/7%20Capacity%20Improvements%20on%20Bus%20and%20Subway%20Services.pdf)

At its meeting on February 15, 2018, the TTC Board approved the report titled “Events of January 30, 2018 on Line 1”, outlining the need to add capacity across the network and reduce overcrowding in the system:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2018/February 15/Reports/19 Events of January 30 2018 on Line 1.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2018/February%2015/Reports/19%20Events%20of%20January%2030%202018%20on%20Line%201.pdf)

Issue Background

Line 1 Yonge-University is the busiest rapid transit line in Canada, serving more than 850,000 customers per day before the COVID-19 pandemic. Southbound trains departing Bloor-Yonge station were carrying a total of 28,000 to 30,000 passengers during the morning rush hour, at times exceeding Line 1's scheduled capacity.

The most recent demand forecasts for Line 1, completed before the COVID-19 pandemic, indicate that morning rush hour demand southbound from Bloor-Yonge Station will exceed 36,000 passengers per hour as a result of the completion of the Line 1 Yonge Subway Extension and population and employment increases in the Toronto region. These forecasts include the expected diversion of trips from Line 1 to the Ontario Line. The COVID-19 pandemic may result in long-term effects to transit demand, but they are unknown at this time. It is anticipated that the ridership projections

will still materialize within the upcoming 25-year planning, and that investment in subway capacity will still be required.

Before the COVID-19 pandemic, Line 2 Bloor-Danforth, from Kipling Station to Kennedy Station, served more than 550,000 customers per weekday. Morning rush hour ridership on Line 2 reached over 23,000 passengers per hour, both eastbound from Spadina Station and westbound from Sherbourne Station.

The most recent demand forecasts for Line 2 indicate that morning rush hour demand will exceed 31,000 passengers per hour by 2041, both eastbound from Spadina Station and westbound from Donlands Station. These figures include the expected ridership impacts of the Ontario Line and the Line 2 East Extension.

This increase in demand on Line 1 and Line 2, if not addressed, will create overcrowding conditions that will erode the customer experience and limit the TTC's ability to deliver a safe, reliable and efficient service for customers.

A failure to deliver the necessary capacity on Line 1 and Line 2 will have serious effects on the transit system throughout Toronto. If the line regularly exceeds capacity, the quality of the transit service will decline. Delays will become longer and more common. Crowding in stations and on trains will increase. Safety can be maintained with increasingly proactive operational measures, such as temporarily closing stations to passenger entry and bypassing trains at crowded stations. However, this will significantly undermine customer experience and satisfaction. Ridership will decline, trust in the transit system will be damaged, and the wider economic and social benefits of a well-functioning transit service will not be fully achieved.

In order to address the Line 1 needs, the TTC completed a 2019 Line 1 Capacity Requirements Study and a Stage Gate 1 – 2020 Line 1 Capacity Enhancement Program report, in collaboration with regional and municipal partners.

In order to address the Line 2 needs, the TTC has commenced a shortfall analysis and needs assessment of the changes required to subway trains, stations and facilities, signals, electrical power, maintenance procedures and operating strategies, including state-of-good-repair initiatives that will be required to meet and sustain the ridership demands.

Support from Consultants is required to advance these capacity enhancement programs through the stage-gating process and provide integration and continuous co-ordination of the interrelated elements.

Comments

An RFP was publicly advertised on the Merx website as well as the TTC's website as of May 6, 2020. Forty-three companies downloaded copies of the proposal documents, out of which six submitted a proposal by the closing date of June 24, 2020. During the proposal period, one addendum was issued. The proposal validity expires on November 21, 2020.

Evaluation of the Proposal Submissions

All proposals received were reviewed for commercial compliancy and all proposals that appeared to be compliant were rated by the evaluation team.

An evaluation team consisting of one member from the Rail Cars and Shops Department, one member from the Major Projects Department and one member from the Research and Analytics Department conducted the formal review and rating in accordance with the requirements outlined in the RFP (attached as Appendix A). Staff from the Procurement and Category Management Department (PCM) acted as the facilitator during the evaluation process.

The recommendation for award is based on the two highest total weighted scores. The RFP further stated that the proposal with the highest number of points out of 100.00 for Phase II and Phase III will be awarded Package 1: Line 1, and the proposal with the second highest number of points out of 100.00 will be awarded Package 2: Line 2. The evaluation of the proposals was based on a two-envelope process consisting of a qualitative component (Phase I and II) and a pricing component (Phase III). Proposals were evaluated in three phases as follows:

- Phase I (Corporate Experience);
- Phase II (Project Team Qualifications and Experience); and
- Phase III (Pricing).

The proposals achieving a total minimum of 80.00 points out of a 100.00 points in Phase I would receive a “PASS” and move onto Phase II. Any proposal that received less than 80.00 points out of 100.00 points would receive a “FAIL” and would not be evaluated any further. Five companies passed Phase I and moved on to Phase II.

Proposals were then scored based on the qualitative criteria at the associated weightings as set out in the proposal documents. It was pre-determined that 80.00 points would be allocated to the qualitative merit (Phase II) and 20.00 points allocated to the pricing (Phase III). The proposals achieving a total minimum of 64.00 points out of the maximum 80.00 points available for Phase II would be considered qualified. The pricing component (Phase III) of all qualified proponents was then evaluated. The total weighted score was calculated as a sum of the weighted qualitative score and the weighted pricing score. Four companies passed Phase II qualitative evaluation bar and had their pricing component evaluated.

WSP Canada Inc. and HDR Gannett Fleming Joint Venture, had the highest total weighted scores and are recommended for award of contracts. WSP Canada Inc. and HDR Gannett Fleming Joint Venture have all previously satisfactorily performed work of a similar size and nature in the past for the TTC (refer to Appendix B for the Proposal Evaluation Summary).

Contact

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Signature

Gary Downie
Chief Capital Officer

Attachments

Attachment 1 – Appendix A - Evaluation Criteria
Attachment 2 – Appendix B - Proposal Evaluation Summary

Appendix A

Subway Capacity Enhancement Program - Consultant Services

EVALUATION CRITERIA

- A. PHASE I: Corporate Qualifications (PASS/FAIL)
 - Depth of available relevant resources at Proponents office, by Discipline
 - CADD facilities, experience and degree of compliance to TTC CADD standards
 - Relevant corporate experience by project

- B. PHASE II: Project Team Qualifications/Experience
 - Number of years of direct and/or related working experience
 - Technical qualifications (Academic and Professional Associations)
 - Capsule CV description/relevant experience by project

- C. PHASE III: Pricing

Appendix B

Subway Capacity Enhancement Program - Consultant Services
 Proposal No.: P11PF20708
 Contract G85-399

COMPANY NAME	GRAND TOTAL WEIGHTED SCORE	RANKING
QUALIFIED PROPONENTS ACHIEVING A PASS IN PHASE I AND A TOTAL SCORE OF 80% (64 POINTS) OR MORE IN PHASE II BASED ON QUALITATIVE EVALUATION		
WSP Canada Inc.(*)	87.29	1
HDR Gannett Fleming Joint Venture(*)	84.99	2
Mott MacDonald Canada Limited	83.59	3
Hatch-Parsons Joint Venture	81.95	4
NON-QUALIFIED PROPONENTS ACHIEVING A SCORE OF LESS THAN 80% (64 POINTS) IN PHASE II BASED ON QUALITATIVE EVALUATION OR ACHIEVING A FAIL IN PHASE I BASED ON QUALITATIVE EVALUATION		
360 Transit Alliance	N/A	N/A
AECOM Canada Ltd.	N/A	N/A