

Attachment 3
PLANNING AND REGULATORY SERVICES/ DEVELOPMENT
ENGINEERING & TRANSPORTATION
DAN TERZIEVSKI

Business Case – Growth and New Capital
Transportation and Engineering Design Review Assignment
for Yonge Subway Extension Preliminary Design and
Engineering Phase

Background

The Yonge Subway Extension is a 7.4 km project, which will extend the Yonge Street subway from its current terminus at Finch Avenue to Highway 7 in York Region, and will protect for a further extension in the future.

The Environmental Assessment Phase for the Yonge Street Subway has been completed. The Province of Ontario has now approved funding in the order of \$55 million while the Government of Canada has committed \$36 million for this Phase of the Yonge Subway extension, which includes the Preliminary Design and Engineering. The timeline for this project is very aggressive, with expected completion by the end of Q1 2020.

This work is being led jointly by the Toronto Transit Commission and the York Region Rapid Transit Corporation. However, as a portion of the subway alignment traverses through the Town of Richmond Hill, the Town is a key stakeholder in this Preliminary Design and Engineering phase, with representation on the Working Groups.

As part of the Working Groups, the Town is expected to review the design and engineering work and provide input, comments, guidance, and direction from the Town of Richmond Hill's perspective.

Project Description

As the Town's key technical team members on the Yonge Street Preliminary Design and Engineering Phase, the EIS Design and Construction Division and PRS Development Engineering and Transportation Division will be required to provide timely review, input, guidance, and direction to the Yonge Subway Extension Project Team on a number of Transportation and Engineering matters, while at the same time maintaining service levels with respect to their own existing projects, commitments, and day-to-day workloads.

In order to maintain these existing workload commitments and service levels and still be able to deliver rapid and timely transportation and engineering input and feedback to the Yonge Subway Extension Preliminary Design and Engineering Phase, the EIS Design and Construction Division and the PRS Development Engineering and Transportation Division are jointly seeking to have the services of a multi-disciplinary Engineering Consulting firm on retainer for the duration of the Yonge Street Subway Extension

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Preliminary Design and Engineering project to supplement existing Town technical staffing resources and assist with:

1. Providing timely and focused technical engineering design and transportation review, guidance, and comments to the project team with regards to preliminary design and engineering phase of the Yonge Street Subway; and
2. Identifying any environmental, engineering design, engineering construction, or transportation related risks, concerns, or impacts to the Town of Richmond Hill associated with the Yonge Street Subway design and construction.

The scope of the consultant assignment would include, but not limited to, providing services in the the following areas:

Transportation

- Station Access design;
- Station Drop-Off and Pick Up Operations;
- Operational and safety impacts to the Town's Transportation network;
- Transportation Management Plans;
- Parking Impacts; and
- Active transportation linkage and connection opportunities to the Subway.

Engineering

- Impacts of Station and Tunnel Design on Town lands and municipal infrastructure, including: roads, boulevards, water, wastewater, storm systems, and utilities;
- Integration of Subway facilities with Town Infrastructure;
- Construction Management and Staging;
- Development review of private side servicing and servicing connection for station and tunnel; and
- Technical Expertise and Study Review (i.e. Geotechnical, Noise, Traffic, SWM, etc.).

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Stakeholders & Impacts

The success of the Yonge Street Subway Extension Preliminary Design and Engineering project will depend on the ability to receive input and feedback from the Working Group in a timely manner. As such, there are a number of external stakeholders relying on the Town of Richmond Hill to provide timely review, guidance, and direction on this project. These include:

- Toronto Transit Commission
- York Region Transit Corporation
- The City of Toronto
- The City of Markham
- The City of Vaughan
- Metrolinx/GO
- Ontario Ministry of Transportation/407 ETR

At the same time, the Development Engineering and Transportation Division and the Design and Construction Division, as key Town stakeholders, are relying on their ability to be able to provide timely review, comment, guidance, and direction to the Project Team to ensure that the needs and the interests of the Town are being addressed as part of the Yonge Street Subway Extension project.

Strategic Alignment

This consulting assignment aligns with the Town's Strategic Plan objective of Wise Management of Resources, as it will ensure that the Town's transportation and engineering interests are being addressed with respect to the Yonge Subway Extension Preliminary Design and Engineering, while being able to support the timely delivery of this project and at the the same time, maintaining service levels with respect to other Town projects, initiatives, and workload.

From a longer term perspective, this work also supports the other three objectives of the Town's Strategic Plan. Supporting the delivery of the Yonge Subway Extension would ultimately provide better transportation choices and stronger connections for the Town of Richmond Hill and it's residents, and would support the intensification objectives of the Town, which would result in a more vibrant Richmond Hill.

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Ten Year Capital Forecast

This consultant assignment is not in the Town's 10 Year Capital Plan. The need for this work is triggered by the need to support the Yonge Subway Extension Preliminary Design and Engineering work that is being undertaken by the Toronto Transit Commission and York Region Rapid Transit Corporation over the next year.

Comparative Analysis

Since the Yonge Subway Extension will also impact on the City of Markham and the City of Vaughan, a comparative analysis was conducted to understand the level of resource and effort being considered by the adjacent municipalities. Both the City of Markham and Vaughan are contemplating adding at least one full time equivalent staff to assist in the coordination or technical review role. Further needs are currently under consideration and a decision on the resourcing requirements will not occur until the Fall.

The City of Vaughan's experience with the Spadina Subway Extension and the subway terminus at the Vaughan Metropolitan Centre offer some insight on the support needed. At the time, a project coordinator was retained for a two year period, and significant technical staff resources from various departments were dedicated, as needed, to the review and comment on the submissions. Based on discussions with City of Vaughan staff, it is anticipated that the level of coordination and effort for the Yonge Subway Extension will be much greater than the Spadina Subway Extension because it involves not a single local municipality in York Region but three (Richmond Hill, Markham, and Vaughan). In addition, the alignment of the Yonge Subway Extension will be through urbanized and established communities, whereas, the Spadina Subway Extension was through green and brown field areas. Furthermore, there will be some different pressures in the Richmond Hill Centre area including completion of a Secondary Plan, while the City of Vaughan had completed their Vaughan Metropolitan Centre Secondary Plan prior to the subway preliminary design.

By retaining the services of a multi-disciplinary consultant, it will provide the Town of Richmond Hill with greater flexibility to address the resource challenges expected with pressures of the Yonge Subway Extension.

Alternatives

Several alternatives were considered in lieu of this consulting assignment.

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The “do-nothing” scenario, which would rely on the existing Town staffing complement to provide, review, input, guidance, and direction to the Yonge Subway Extension project, is not considered a feasible option as it would result in either a service level reduction with respect to the delivery of Town projects, initiatives, and day-to-day work assignments, or staff would not be able to provide the timely input and support required to successfully move the the Yonge Subway Extension Preliminary Design and Engineering phase. Furthermore, in some instances staff may not have the specialized knowledge necessary to review or provide input to a Subway design project.

Consideration was also given to hiring an engineering/transportation project manager on a contract basis. However, this option was also considered undesirable as the recruiting time for such a position would result in delayed access to this resource, and could impact the timing and delivery of the Yonge Subway Extension Preliminary Design and Engineering Phase or other Town projects and initiatives. More importantly, it would be difficult to find a single qualified individual for a one and a half year contract that would have the experience and breadth of knowledge required to provide the technical support needed for the Yonge Subway Extension Preliminary Design and Engineering Phase.

A multi-disciplinary engineering consulting firm would be in the best position to provide this level of expertise and support in a timely manner, and on a short term and intermittent basis. The cost of such services are estimated to be the same as having one full time project manager on staff for the year.

Project Costs

Based on the anticipated timeframe and level of effort required for this project, the cost of this consulting assignment is estimated to be approximately \$225,000, which is comparable to having one full time Engineering Project Manager on staff for one and a half years. However, this consulting assignment will be able to provide the timely and multi-disciplinary support necessary for the Yonge Subway Extension Preliminary Design and Engineering phase that a single Project Manager cannot provide.

The funding source for this project will be the Strategic Rapid Transit Reserve Fund.

Other Funding Sources

There are no other funding sources identified for this Yonge Subway Extension Preliminary Design and Engineering phase.

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Conclusion

The Toronto Transit Commission and the York Region Rapid Transit Corporation are undertaking the next phase of the Yonge Subway Extension which includes a Preliminary Design and Engineering phase. As a key stakeholder in this project, Town of Richmond Hill's EIS Design and Construction Division staff and PRS's Development Engineering and Transportation Division staff are being asked to review the design and engineering work and provide transportation and engineering input, comments, guidance, and direction in support of the Town's perspective and interests.

In order to provide project support in a manner which will meet the aggressive timelines of the Yonge Subway Extension project and still maintain Departmental and Divisions service levels with respect to existing projects, commitments, and day-to-day workloads, it is recommended that existing Town staff resources in these Divisions be supplemented for the duration of the Yonge Subway Extension Preliminary Design and Engineering phase (estimated to be about one year) by retaining the services of a multi-disciplinary consulting firm at an estimated cost of \$225,000.