



Report to: Development Services Committee

Meeting Date: January 25, 2021

SUBJECT: Victoria Square Boulevard – Detailed Design Update and Purchase Order Increase Request (Ward 2)

PREPARED BY: Alain Cachola, Senior Manager, Infrastructure and Capital Projects, Ext. 2711

RECOMMENDATION:

1. That the report entitled “Victoria Square Boulevard – Detailed Design Update and Purchase Order Increase Request (Ward 2)” be received;
2. That Purchase Order PD 19403 issued to Ainley & Associates for the detailed design of Victoria Square Boulevard reconstruction be increased by \$371,943.33, inclusive of HST, to cover the additional design work required for the project; and
3. That Purchase Order PD 19404 for the contingency of the detailed design of Victoria Square Boulevard reconstruction be increased by \$37,193.43, inclusive of HST, to cover any additional design work required for the project and that authorization be granted to approve expenditures of this contingency amount up to the specified limit in accordance with the Expenditure Control Policy; and
4. That the Engineering Department Capital Administration Fee in the amount of \$52,148.13, inclusive of HST, be transferred to revenue account 640-998-8871 (Capital Admin Fees); and
5. That the 2018 Engineering Capital Account 18059 (Victoria Square Boulevard Design) be increased to cover the additional project estimates in the amount of \$461,275.89, inclusive of HST, and funded from City Wide Hard Development Charges Reserve, and further,
6. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to obtain Council approval to:

- Increase the Ainley & Associates Purchase Order in the amount of \$371,943.33, to cover the additional detailed design work for Victoria Square Boulevard reconstruction;
- Increase the Contingency Purchase Order in the amount of \$37,193.43, to cover any additional detailed design work for Victoria Square Boulevard reconstruction;
- Transfer the Capital Administration Fee in the amount of \$52,148.13 to the Engineering Department’s revenue account 640-998-8871; and
- Increase the 2018 Engineering Capital Account 18059 (Victoria Square Boulevard Design) in the amount of \$461,275.89, and be funded from City Wide Hard Development Charge Reserve, to cover the cost for the additional design work;

BACKGROUND:

Victoria Square Boulevard is an existing north-south roadway, approximately 3 km in length, between Woodbine Avenue (south) and Woodbine Avenue (north), see Attachment 'A'. It is comprised of two lanes with varying cross sections. This road was formerly Woodbine Avenue, which was part of the York Region road network. Jurisdiction of the road was transferred from York Region to the City of Markham in January 2016 after the Region assumed jurisdiction of the (new) Woodbine Avenue.

The Municipal Class EA was filed for Victoria Square Boulevard in May 2018 and received final approval from the Minister of the Environment in May 2020 because of a Part II Order request. The detailed design contract was awarded in November 2019 and the detailed design commenced in December 2019. To date, the consultant has submitted the 60% of the design for the project.

The proposed road reconstruction of Victoria Square Boulevard is tied to the future development of the North Markham Future Urban Area (FUA). There are a number of future collector roads from the FUA that will eventually connect to Victoria Square Boulevard as identified in the FUA transportation studies. The original schedule was to commence construction in Victoria Square Boulevard in 2021 but was partly delayed due to the delayed approval of the Municipal Class EA. The updated schedule and phasing are discussed further in the report.

OPTIONS/ DISCUSSION:Utility Structure Design

As part of the detailed design scope, the consultant was required to investigate the site based on information provided from the Municipal Class EA Study. Design of utility relocation is part of the detailed design scope of work.

The design consultant commenced the utility coordination meetings in Spring 2020 to identify the existing utility infrastructure that may be in conflict with the proposed road reconstruction. Based on preliminary information provided by the utility companies and site investigation, most of the utility relocation design and coordination are included within the original scope of work. However, a major Bell Canada conflict was identified at a proposed culverts under Victoria Square Boulevard.

Based on review with Bell Canada, the City has 2 options to address the issue:

- Option 1 – Keep the culvert design and relocate Bell infrastructure
- Option 2 – Revise the culvert design and keep / protect Bell infrastructure

Below are the pros and cons to the 2 options:

Options	Pros	Cons
Option 1 – Relocate Bell Infrastructure	No additional consultant fees to redesign culvert	Relocating Bell structure is currently estimated at \$2.2M, of which, Markham's share will be 50% (\$1.1M)
Option 2 – Redesign culvert to keep / protect existing Bell Infrastructure	Reduce overall cost impact by changing the culvert design to keep / protect Bell Structure	Require to increase scope of work to redesign culvert (\$151K). Additional culvert construction costs (±\$300K) which will be included in the 2022 construction budget request.

Based on the above, staff recommends Option 2 – redesign culvert to keep / protect the existing Bell infrastructure, as this is the more cost effective option. This option requires an increase of **\$151,115.13**, inclusive of HST, for the redesign of the proposed culvert.

Excess Soil Management

In December 2019, the Ontario Ministry of Environment, Conservation and Parks (MECP) released a new regulation under the Environmental Protection Act, R.S.O. 1990, c. E.19, titled "On-Site and Excess Soil Management" (O. Reg. 406/19) to better manage excess soil.

The new regulation includes a number of additional requirements on construction projects which were not included in the original scope of work for the detailed design as this regulation was implemented after the project was awarded. As such, the consultant has submitted a proposal to fulfil the requirements of the regulation as part of the detailed design and site investigation, in the amount of **\$86,496.00**, inclusive of HST. Staff has reviewed this request and recommend this additional fee be approved.

Project Phasing

The original plan for Victoria Square Boulevard reconstruction was for the full length of the road to be completed under one contract.

For the past year, Engineering Staff has been in regular meetings with York Region staff and the Developer representatives for the FUA regarding the timing and coordination of various Markham and Regional infrastructure to service the FUA. Due to the ongoing Elgin Mills Road Municipal Class EA undertaken by Markham, and the extension of a trunk water main to service the new subdivisions south of Elgin Mills Road, the detailed design for the intersection of Elgin Mills Road and Victoria Square Boulevard is on hold while other design work is being finalized. As a result of this schedule, staff has to re-schedule the Victoria Square Boulevard reconstruction into 3 phases.

The new phasing for construction of Victoria Square Boulevard is as follows:

- Phase 1 – Woodbine Avenue (South) to Stoney Hill Avenue
- Phase 2 – Prince of Wales Drive to Woodbine Avenue (North)
- Phase 3 – Stoney Hill Avenue to Prince of Wales Drive

Staff will be requesting a pre-approval for the 2022 Capital Budget process for the construction of Phase 1 of Victoria Square Boulevard as well as reporting back on the timing of the construction of Phases 2 and 3 of the project. Refer to Attachment 'A' for the phasing plan of Victoria Square Boulevard.

As a result of separating the project into 3 separate phases, the design consultant has to prepare 3 separate sets of engineering plans and tender documents. Additional design work will also be required to prepare interim / temporary conditions on certain sections of the project. The consultant will also be required to coordinate the phasing of the projects with the utility companies as well as the environmental agencies.

With the proposed phasing of the project, the design consultant has submitted a proposal for the increase in scope. Staff negotiated with the consultant and recommends that the reduced amount of \$134,323.20, inclusive of HST, be approved as it is in line with the costs included in the original RFP.

Contingency

As per typical awards, staff recommend a 10% contingency for the proposed scope increase as identified above. Staff recommend a contingency amount of \$37,193.43, to cover any additional design revisions.

FINANCIAL CONSIDERATIONS

The table below provide a detailed summary of the financial requirements for this report:

Table 1 – Design and Utility Cost Increase

Description	Amount	Comments
Utility Structure Design	\$ 151,115.13	
Excess Soil Management	\$ 86,496.00	
Project Phasing	\$ 134,323.20	
Sub-total:	\$ 371,934.33	*PO PD 19403
10% Contingency	\$ 37,193.43	PO PD 19404
Sub-total:	\$ 409,127.76	
Engineering Capital Admin Fee	\$ 52,148.13	640-998-8871
Total:	\$ 461,275.89	

*Note: The proposed Purchase Order increase is calculated based on rates consistent with the original 2019 RFP rates.

The original Purchase Order issued to Ainley & Associates for the original scope of work was \$615,648, inclusive of HST. This proposed PO increase for the additional work, as noted above, represents an increase of 60% from the original scope of work.

In accordance to the City's Expenditure Control Policy, the proposed Purchase Order increase (greater than \$100,000 and no available funding) requires Council approval.

The following are the current financial summary for the Victoria Square Boulevard capital account:

Table 2 – Financial Summary

Description	Amounts
Budget (Projects 18059) (A)	\$ 786,665.00
Original Award (B)	(\$ 786,665.00)
Current Balance Available (C=A+B)	\$ 0.00
PO Increase for Design (D)	(\$ 409,127.76)
Capital Admin Fee (E)	(\$ 52,148.13)
Shortfall Requiring Additional Funding (F=C+D+E)	(\$ 461,275.89)

Based on the above, staff recommends that the 2018 Engineering Capital Account 18059 (Victoria Square Boulevard Design) be increased to cover the additional project costs in the amount of **\$461,275.89**, inclusive of HST, and to be funded from City Wide Hard Development Charge Reserve. There is sufficient funding in the Development Charges Background Study and City Wide Hard Development Charge Reserve for this proposed budget increase, based on the latest cost estimate and inclusive of requested budget increase.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The proposed work for the Victoria Square Boulevard are required to continue to accommodate development in the City of Markham and southern York Region, particularly within the North Markham Future Urban Area. As such, the recommendations align with the City's Strategic Plan goals of "Safe & Sustainable Community" and "Stewardship of Money & Resources".

BUSINESS UNITS CONSULTED AND AFFECTED:

The Finance Department was consulted and their comments have been addressed in this report.

RECOMMENDED BY:

Brian Lee, P. Eng.
Director of Engineering

Arvin Prasad, MCIP, RPP
Commissioner, Development Services

ATTACHMENTS:

Attachment 'A' – Victoria Square Boulevard Phasing Plan