



COUNCIL REPORT

To: Mayor and Council

Date: January 23, 2024

From: Paul Gipps, CAO

Subject: **Shannon Lake Road Active Transportation Corridor – Roundabout Design Update**

Report Prepared by: Evan Sun, Engineering Technologist II

RECOMMENDATION to Consider and Resolve:

THAT Council direct staff to proceed with Option 3 Roundabout not included in the Shannon Lake Road Active Transportation Corridor tender package.

STRATEGIC AREA(S) OF FOCUS

Invest in Infrastructure – We will invest in building, improving and maintaining infrastructure to meet the needs of, and to provide a high quality of life for, current and future generations.

BACKGROUND

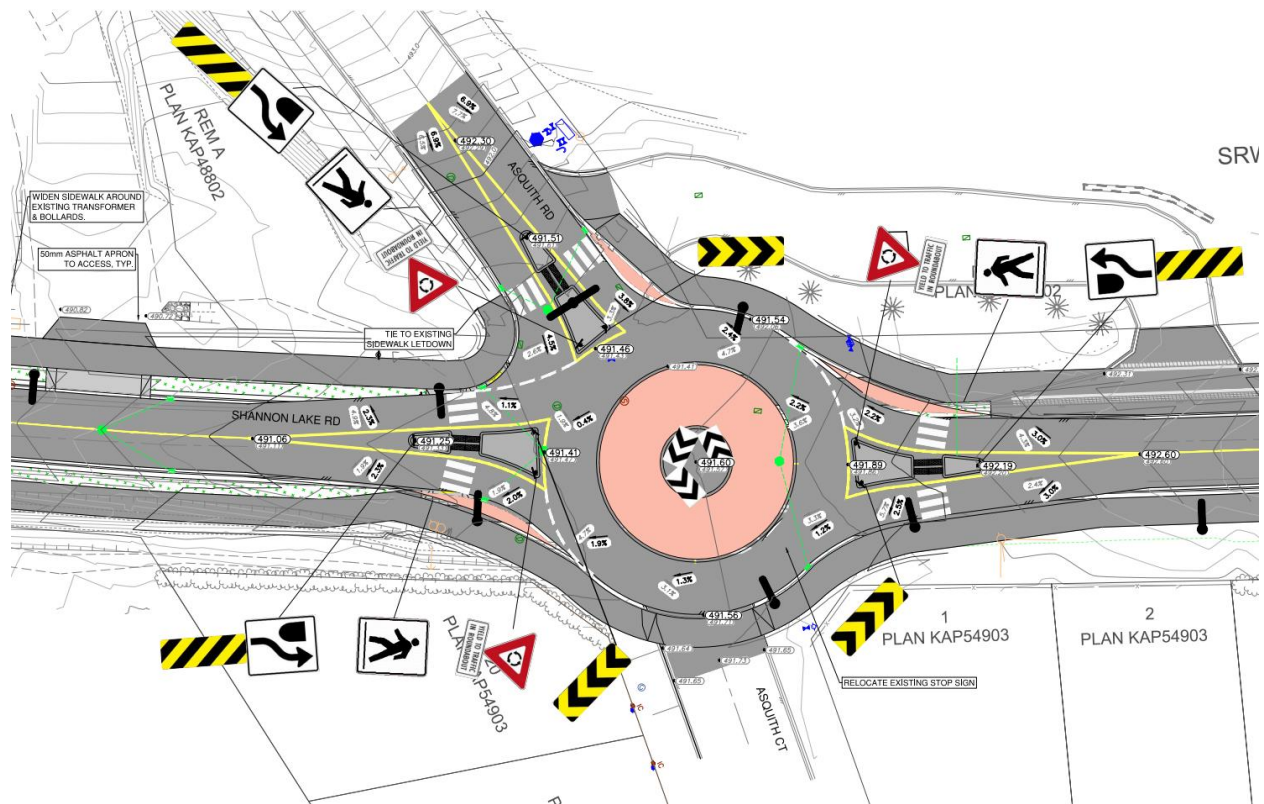
A conceptual design for the Roundabout at the Shannon Lake Road, Asquith Road, and Asquith Court intersection was developed and presented by Stantec Consulting at the November 28, 2023 Council meeting. The roundabout design has since progressed to 75% detailed design drawings with an updated Class B cost estimate.

Updated Design

The roundabout design previously presented to council has advanced, including the consideration of relocating the roundabout further south to allow a perpendicular connection to Asquith Road. When looking at the alternative roundabout location there were several risks and implications that led staff to elect to proceed with the initially presented option. The other design consideration was relocating the bulk water station at the corner of Asquith Road and Shannon Lake Road for potential improved alignment of the roundabout but there was no benefit with utilizing this area in the roundabout design. The roundabout conceptual design that was previously presented at the November 28, 2023 Council meeting does not have any additional utility conflicts, poses no impacts to

surrounding property and requires less fill compared to other options that were evaluated. The progressions of the originally presented design saw no major changes to the location or geometry, only the advancement of details which is still in progress and in the detailed design stage. Prioritizing the completion of the detailed design of the roundabout will be dependent on council's direction on inclusion of the roundabout with the tender package.

Figure 1 – Updated Roundabout Design



Cost Estimate

Stantec Consulting has progressed the design for a roundabout at the Shannon Lake Road, Asquith Road, and Asquith Court intersection since the Council presentation on November 28th, 2023. The advancement in design has provided an updated cost estimate of \$1,500,000. The roundabout design alignment remains unchanged from the previous location that was presented on the November 28, 2023 Council meeting, eliminating the need for property acquisition or utility relocations.

Schedule Impacts

Stantec Consulting has explored various construction scenarios for proceeding with the inclusion of Roundabout at the Shannon Lake Road, Asquith Road, and Asquith Court intersection with the Shannon Lake Road Active Transportation Corridor tender package. Detailed design for the roundabout is still in progress and is anticipated to be completed by February 27th, 2024, pending council direction to proceed on including the roundabout with the Active Transportation Corridor tender package. If the roundabout is not to be

included with the tender package, then the detailed design for the roundabout would be completed at a later date as the Active Transportation Corridor tender package would need to be tendered in February 2024. The road construction period with the roundabout included is expected to take 8 to 10 months with the roundabout construction also requiring intermittent full road closures at the intersection of Shannon Lake Road, Asquith Road, and Asquith Court. The road construction period with the roundabout not included is expected to take 6 to 8 months.

Option 1 (Roundabout included):

Tender (Spring/Summer 2024) / Construction (Fall 2024 - Fall 2025)

If the roundabout is to be included in the tender package, Option 1 would tender the works in Spring/Summer 2024, complete the storm detention work in Fall 2024, and resume construction in Spring 2025 to complete the roundabout, active transportation upgrades and remaining storm work. Option 1 of tendering in early summer of 2024 will not significantly reduce the overall construction timeline due to the storm detention work taking place off the roadway and not impacting traffic. Tendering in early summer of 2024 would yield unfavourable pricing due to construction season timing. This multiyear approach would allow the contractor to resume construction again as soon as weather permits in Spring 2025.

Option 2 (Roundabout included):

Tender (January 2025) / Construction (Spring 2025 - Fall 2025*)

Option 2 includes the roundabout in a tender in the winter of 2025 to avoid tendering during the construction season and potentially garner more interest from contractors. This would impact only one construction season allowing for a minimum 8-month total construction timeline. Timing for the storm detention work would be completed in the Fall 2025 to minimize impacts to Kinsmen Park field users.

Option #3 (Roundabout not included)

Tender (February 2024) / Construction (Spring 2024 - Fall 2024)

Option 3 does not include the roundabout to be in the Active Transportation Corridor tender package which would allow for this project to be tendered in February 2024. Construction would only impact one construction season, as construction would begin this year in Spring and be completed in the Fall. Option 3 provides both favourable construction timelines and pricing.

FINANCIAL IMPLICATIONS

The Shannon Lake Road Active Transportation Corridor project without a roundabout is estimated to cost \$5,175,000 including construction, contingency, contract administration, inspections, utilities, and consulting. \$5,175,000 is included in the 2024 Budget as an Early Approval item. The roundabout at the Shannon Lake Road, Asquith Road, and Asquith Court intersection is estimated to cost an additional \$1,500,000, which would increase the total project cost to \$6,675,000. The project is eligible for Grant Funding from both BC Active Transportation program (up to \$500,000) and ICBC Road Safety funding. The grant application for the BC Active Transportation Program has been submitted based on the council approved design for Multi-use Pathway on both sides of Shannon Lake Road between the Westbank First Nation boundary and Swite Road.

	DCC Funding	Capital Reserves Funding	Total Costs
Approved Funding			
Shannon Lake Road ATC Improvements	\$ 3,736,350	\$ 1,438,650	\$ 5,175,000
Funding Required for Roundabout			
Shannon Lake Roundabout	\$ 1,200,000	\$ 300,000	\$ 1,500,000

CONCLUSION

Stantec Consultants has examined various construction scenarios with inclusion of the roundabout and has provided an updated roundabout cost estimate. The recommendation to exclude the roundabout in the current tender package is due to the consideration of other the Development Cost Charge (DCC) project priorities within the City's Road network. Inclusion of the roundabout would further delay the other Development Cost Charge (DCC) projects from being constructed. This would also reduce the potential schedule impacts and construction challenges associated with including the roundabout in the tender. Exclusion of the roundabout in the current tender package would allow the Active Transportation Upgrades to be constructed and completed this year.

Alternate Recommendation to Consider and Resolve:

THAT Council direct staff to proceed with Option 2 to include the Roundabout at the Shannon Lake Road, Asquith Road, and Asquith Court intersection with the Shannon Lake Road Active Transportation Corridor tender package;

AND THAT Council direct staff to amend the 2024 Budget to include \$1,200,000 from Road DCCs and \$300,000 from Capital Reserves for the construction of the Shannon Lake and Asquith roundabout.

OR

THAT Council direct staff to proceed with Option 1 to include the Roundabout at the Shannon Lake Road, Asquith Road, and Asquith Court intersection with the Shannon Lake Road Active Transportation Corridor tender package;

AND THAT Council direct staff to amend the 2024 Budget to include \$1,200,000 from Road DCCs and \$300,000 from Capital Reserves for the construction of the Shannon Lake and Asquith roundabout.

REVIEWED BY

Rob Hillis, Engineering Manager

Allen Fillion, Director of Engineering & Operations

Corinne Boback, Legislative Services Manager / Corporate Officer

Warren Everton, Director of Finance/CFO

Trevor Seibel, Deputy CAO

APPROVED FOR THE AGENDA BY

Paul Gipps, CAO

Powerpoint: Yes No