

City of Kingston Report to Council Report Number 25-115

To: Mayor and Members of Council

From: Paige Agnew, Commissioner, Growth & Development

Services

Resource Staff: Garret Hoegi, Manager, Development Engineering

Date of Meeting: April 1, 2025

Subject: Options Report for the Highway15 Roundabout

Council Strategic Plan Alignment:

Theme: Corporate business

Goal: See above

Executive Summary:

Pursuant to direction of Council provided on May 21, 2024, staff have moved forward with a roundabout design for the intersection of Summer Valley Terrace and Highway 15.

Forefront Engineering was retained by the City to complete the design of the roundabout. Early cost estimates provided input for the 2025 capital budget that budgeted the project at \$3.8 million. During the completion of initial studies and development of conceptual drawings, Class D cost estimates have been provided that require additional budget and bring forward feasibility concerns with the project.

Staff have prepared a report with options for Council's consideration in order to receive direction on how to proceed. If Council wishes to proceed with a roundabout, staff is requesting approval for an increase to the budget of approximately \$1.4 million, for a total budget \$5.2M. Furthermore, it is anticipated that the roundabout would not be completed until 2029 as it would require an Environmental Assessment.

Staff have done some outreach on potential naming rights for the roundabout. The valuation of this naming right is recommended at \$500,000 over a 15- or 20-year term. Early discussions

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with two local companies indicated a potential interest. Naming rights for a roundabout is not exclusive to this location.

The other option would be to implement a signalized intersection which could be completed at this location within the next year for an estimated budget of \$1M. In this case, any remaining funds could be, subject to Council direction, earmarked to support future infrastructure improvements within the Pittsburgh District including potential roundabouts in other locations.

It is important to note that a temporary or permanent transportation solution needs to be initiated this year in order to support the development located along Highway 15, so it is critical to finalize the intersection option.

Recommendation:

Option 1:

That Council approve an additional \$1,426,440 for project code PLD – Riverview Shores Roundabout in order for a roundabout to be constructed as part of the subdivision for 998 Highway 15 that meets all City design standards and guidelines, with funding of \$659,443 from the Development Charges Reserve Fund and the remainder from the Municipal Capital Reserve Fund; and

That the Notice of Decision of Application for Approval of Draft Plan of Subdivision for 998 Highway 15 (D35-002-2021) be amended as follows:

1. By deleting condition 10(b)

Or

Option 2:

That Council approve the transportation infrastructure to be constructed at the intersection of Summer Valley Terrace and Highway 15 to be a signalized intersection; and

That Council authorize the Manager, Development Engineering, to approve any Off-Site Works Agreement related to the construction of transportation infrastructure at the intersection of Summer Valley Terrace and Highway 15, in a form satisfactory to the Director of Legal Services or their designate; and

That the Notice of Decision of Application for Approval of Draft Plan of Subdivision for 998 Highway 15 (D35-002-2021) be amended as follows:

1. By deleting condition 10(b) and replacing it with "(b) The Owner shall enter into an Off-Site Works Agreement for the construction of a signalized intersection at 998 Hwy 15 to the satisfaction of the City. Prior to the issuance of the Preliminary Certificate of Approval

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of the Works, the Owner shall complete all works as soon as reasonably possible and in accordance with the executed Off-Site Works Agreement"; and

That the Mayor and Clerk be authorized to execute an Off-Site Works Agreement with the developers of the Riverview Shores Subdivision (D35-002-2021) to capture the final design and construction of a signalized intersection, including adherence to the City of Kingston Access Management Guidelines, alignment with good access management practice for an arterial roadway and appropriate cost sharing elements; and

That staff review the existing signalized intersection design to provide maximum use of dedicated turning lanes for additional queuing; and

That any remaining funds in project code PLD – Riverview Shores Roundabout after final invoices are paid be returned to municipal reserve funds and earmarked for future infrastructure projects within the Pittsburgh District to include the implementation of roundabouts, where feasible.

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Authorizing Signatures:

ORIGINAL SIGNED BY COMMISSIONER

Paige Agnew, Commissioner, Growth & Development Services

ORIGINAL SIGNED BY CHIEF

ADMINISTRATIVE OFFICER

Lanie Hurdle, Chief Administrative Officer

Consultation with the following Members of the Corporate Management Team:

Jennifer Campbell, Commissioner, Community Services

Not required

Neil Carbone, Commissioner, Corporate & Emergency Services Not required

David Fell, President & CEO, Utilities Kingston Not required

Ian Semple, Acting Commissioner, Transportation & Infrastructure Services

Desirée Kennedy, Chief Financial Officer & City Treasurer

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Options/Discussion:

Background

As a part of the development at 998 Highway 15, a Traffic Impact Study was submitted indicating that the current intersection of the future Summer Valley Terrace and Highway 15 was not able to handle an increase in trips that would be created from the development. As part of the draft and final plan of subdivision for the development, a signalized intersection was designed by the developer's engineer and the design was approved by staff.

During the approval of Draft Plan of Subdivision, Council passed the following motion at Council meeting 11-2023 on March 21, 2023:

Whereas Council approved the draft plan of subdivision for 998 Highway 15 (D35-002-2021) on September 20, 2022, which contained a condition requiring the owner to design and construct a signaled intersection at Highway 15 and Street A as part of the first phase of the development;

Whereas the Highway 15 Municipal Class Environmental Assessment (Class EA) that was paused in March 2020 had not yet evaluated the appropriate intersection design for the 998 Highway 15 subdivision, including whether a roundabout would be feasible in lieu of a signaled intersection;

Whereas the City intends to restart and complete the Class EA now that the Waaban Crossing is complete;

Whereas the construction of the signaled intersection at the subdivision entrance is not required until build-out of the subdivision development, which is anticipated to occur after completion of the Class EA;

Whereas the City's Transportation Services Department and the Owner are agreeable to the City assuming responsibility for the design and construction of the intersection improvements at Highway 15 and Street A in accordance with the recommendations of the Class EA, subject to the Owner making a financial contribution equivalent to the cost of constructing the signaled intersection that was contemplated in the original conditions of draft plan approval;

Whereas subsection 51(44) of the Planning Act states that the approval authority may change the conditions of a draft plan of subdivision approval at any time before the approval of the final plan of subdivision;

Therefore Be It Resolved That the Notice of Decision of Application for Approval of Draft Plan of Subdivision for 998 Highway 15 (D35-002-2021) is hereby amended by deleting conditions 10(b) and (c) of the conditions of draft plan approval and replacing them with the following: "(b) Prior to Final Plan Approval, the Owner shall pay to the City, by certified cheque or bank draft, an amount equivalent to the cost of constructing a signaled

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intersection at Highway 15 and Street A, as determined by the City's third-party engineer (the "Owner's Contribution"), to be applied toward the City's cost of designing and installing intersection improvements at Highway 15 and Street A, it being acknowledged by the Owner that the intersection design will be determined by the City based on the recommendations of the Highway 15 Municipal Class Environmental Assessment, which may include a signaled intersection, a roundabout, or such other design determined by the City. The parties agree that the Owner's Contribution will not exceed the sum of \$375,000.00 plus HST. (c) The Owner may proceed to construction via a Pre-Servicing Agreement once on-site engineering drawings are approved, regardless of the status of the Highway 15 intersection design and/or Highway 15 Municipal Class Environmental Assessment. The City will not delay the issuance and approval of the Pre-Servicing Agreement or Final Approval of the Subdivision Agreement or issuance of preliminary certificate of underground services (PCAUS) while the final intersection and Highway 15 design are determined per clause 10(b). In the interim, while the City undertakes the Highway 15 and Street A intersection design, Street A will terminate at the existing Highway 15 edge of pavement and no modifications to Highway 15 will be required (excluding any required regulatory signage or line painting)."; and

That Planning Services staff be directed to provide notice of the change of conditions in the prescribed manner pursuant to subsection 51(45) of the Planning Act.

An options report was brought forward at the May 21, 2024, Council meeting to receive Council direction on whether the City should proceed with a signalized intersection or move forward with a design for a roundabout. Direction from Council was as follows:

That the transportation infrastructure to be constructed as part of the subdivision for 998 Highway 15 (D35-002-2021) be a roundabout, to be designed by the applicant, as the timing of the Municipal Class Environmental Assessment for this area that would have informed additional design options, including roundabouts, will shift forward while the City completes the Official Plan and Integrated Mobility Plan project; and

That the Notice of Decision of Application for Approval of Draft Plan of Subdivision for 998 Highway 15 (D35-002-2021) be amended as follows:

- 1. By deleting condition 10(b) and replacing it with "(b) The Owner shall enter into an Off-Site Works Agreement for the construction of a roundabout at 998 Hwy 15 to the satisfaction of the City. Prior to the issuance of the Preliminary Certificate of Approval of the Works, the Owner shall complete all works as soon as reasonably possible and in accordance with the executed Off-Site Works Agreement"; and
- 2. By deleting condition 10(c) in its entirety.

That Planning Services staff be directed to provide notice of the change of conditions in the prescribed manner pursuant to subsection 51(45) of the Planning Act; and

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That Council authorize the Manager, Development Engineering to approve any Off-Site Works Agreement related to the development of the property municipally known as 998 Hwy 15; and

That the Mayor and Clerk be authorized to execute an Off-Site Works Agreement with the applicant to capture the final design and construction of the roundabout, including adherence to the City of Kingston Access Management Guidelines, alignment with good access management practice for an arterial roadway, and appropriate cost sharing elements.

Based on this direction staff retained the services of Forefront Engineering for the design of the Highway 15 roundabout and preliminary cost estimates were provided to assist with budgeting for the project. Based off these preliminary cost estimates, including design costs and contingency, just over \$3.8 million was included as part of the approved 2025 budget.

Over the last several months staff have continued working with Forefront Engineering to further refine the conceptual design and provide a series of options with cost estimates. Staff have been presented with four design options with cost estimates. Two of these design options are not consistent with City standards and guidelines, and the other two options have exceeded the project budget. Staff does not recommend proceeding with a design that does not meet City standards and guidelines. The estimated budget for the two Transportation Association Canada compliant design options range between \$4.9 million and \$5.3 million inclusive of construction costs, final design fees, property acquisition and other project requirements.

Analysis

Option 1 – Continue With a Roundabout with Additional Funding

At the direction of Council, staff retained Forefront Engineering to complete the detailed design of the Summer Valley Terrace and Highway 15 Roundabout. While the construction of the roundabout can be completed for this location, some constraints have arisen through the design process that diminish the feasibility of a roundabout as the preferred transportation solution in this location. These include:

- 1. Substantial vertical re-alignment of Highway 15 with areas of Highway 15 needing to be lowered .5-1.5 metres depending on the design.
- 2. Horizontal re-alignment of Highway 15 up to 350 metres based on conceptual drawings.
- 3. Relocation of infrastructure within the Highway 15 Corridor.
- 4. Re-design and relocation of portions of the Greenwood Park storm pond. It should be noted that this stormwater management pond has not been assumed by the municipality and must be in a condition acceptable to the municipality prior to its partial reconstruction. This could bring potential delays to construction.
- 5. Significant impact to linear park infrastructure including the relocation of the Greenwood Park Trail and the removal of 10-15 trees within the park.
- 6. Impacts on private property.

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These factors are contributing to the request for budget increase and also bring risk to the outcome of the project. As studies (stormwater management report and geotechnical study) are incomplete there are unknowns that could lead to delays in the project or additional costs beyond the current budget request even with standard buffers.

With construction costs increasing and the requirement for property acquisition, this project is now a candidate for a Schedule C Municipal Class Environmental Assessment. (MCEA). Developer-led projects can be exempt from the MCEA process and the original estimates for this project would have labeled it a Schedule B, which are exempt. With the new cost estimates exceeding the \$3 million cap for a Schedule B project, this is no longer the case.

With the increases in cost and the addition of the time required for an MCEA, staff are no longer recommending the construction of the roundabout being procured through the use of an Offsite Works Agreement as there is no longer a reason that single source procurement would be beneficial. Should Council provide direction to proceed with Option 1, construction of the roundabout will instead be procured through public tender.

The addition of a Class C MCEA adds approximately a year to our design schedule delaying the start of construction to 2027 with an estimated 2-year construction period. In the interim, staff will need to explore alternative options for traffic control as the development builds out which may add additional costs. Based on this staff are recommending that the construction of the Roundabout no longer be linked to the assumption of the Riverview Shores Subdivision so that the development is not impeded.

Option 2 - Construction of AAA (All Ages and Abilities) Signalized Intersection

As part of Draft and Final Plan of Subdivision, the applicant provided 90% drawings for a signalized intersection that included all accessibility and active transportation requirements required by the City to meet the AAA design. The feasibility of this design has not changed.

This design includes dedicated left and right turn lanes into the subdivision that separate the turning movements out of through traffic and provides signalized pedestrian crossings. In addition, if staff are directed to proceed with the construction of a signalized intersection staff will review the turning lanes provided to ensure that maximum expected vehicle queues can be accommodated.

The construction of a signalized intersection provides cost savings in this location compared to a roundabout as it can be constructed in the existing alignment of Highway 15 with expansion of the existing footprint occurring only to provide dedicated turning lanes.

Original estimates for the construction of this intersection were \$450,000 with a \$375,000 contribution from the developer. Costs were reviewed again as part of this report preparation and due to inflation, the estimated construction costs are now placed at approximately \$650,000. Inclusive of the cost spent on the roundabout design, additional costs to review and finish the design, an increase in construction costs resulting from the extension of dedicated

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turning lanes, and potential contract administration and inspection costs, total project costs are estimated not to exceed \$1 million.

The cost savings from constructing a signalized intersection, estimated at \$2.8M, would be earmarked to be used in later budgets to support intersection upgrades in the east end including future roundabouts.

The signalized intersection would continue to be procured through the use of an Offsite Works Agreement as the developer will have the forces available on site to complete this work.

Climate Risk Considerations

Both the design of the signalized intersection and the design of the roundabout will provide elements to support active transportation and connectivity to the existing neighbourhood pathways and active transportation infrastructure that exists in Greenwood Park.

The constructed infrastructure would also include all infrastructure required to properly manage stormwater with the roundabout including a redesign and reconstruction of the existing Greenwood Park storm pond to meet all Municipal and Provincial standards and guidelines.

Indigenization, Inclusion, Diversity, Equity & Accessibility (IIDEA) Considerations

The existing design for a signalized intersection includes all appropriate elements to support accessible crossing and connectivity. The signalized intersection design meets or exceeds the standard that the City has been using as part of the AAA design guidelines.

Any final design for the roundabout will include all pedestrian infrastructure that is required for full Accessibility for Ontarians with Disabilities Act, 2005 compliance and will provide connectivity to the existing infrastructure along the Greenwood Park trail.

Existing Policy/By-Law

Staff generally support the implementation of roundabouts where technically feasible and appropriate. Section 5.1 of the City of Kingston Access Management Guidelines require the use of a roundabout to be evaluated at all locations where a signalized intersection is proposed, and a roundabout would be geometrically feasible.

The requirements of the Access Management Guidelines are being reinforced in the proposed updates to the Subdivision Development Guidelines requiring all subdivision developments to evaluate the use of roundabouts where signalized intersections have been proposed.

Financial Considerations

Option 1

The existing budget for project code PLD – Riverview Shores Roundabout is \$3,873,580, split between municipal reserves and a contribution from the developer of Riverview Shores. The

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developer contribution for this project is a fixed cost of \$375,000 so the \$1,426,440 increase would be funded from the Municipal Capital Reserve Fund and the Development Charges Reserve Fund.

The City's Marketing & Revenue Development team met with potential investors on selling naming rights for the Roundabout in order to acquire additional funds for construction. While there seemed to be interest it was contingent on being awarded the construction contract. Partnerships for naming rights will continue to be explored but cannot be factored into the budget at this time.

Option 2

The existing project code PLD – Riverview Shores Roundabout would be repurposed for the signalized intersection, the funds remaining after the completion of the project would be returned to the municipal reserve funds.

Contacts:

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Other City of Kingston Staff Consulted:

Mark Dickson, Transportation Systems, Transportation & Transit

Lana Foulds, Director, Financial Services

Jenna Morley, Counsel for the City of Kingston

Exhibits Attached:

None