

Document 3 - Response to Motion Regarding High-Volume Intersections

Background:

The Cycling Safety Review of High-Volume Intersections information report ([ACS2020-TSD-TRF-0001](#)) was brought forward in October 2020 in response to Mayor Watson and Councillor Blais' Cycling Safety inquiry (OCC 07-19), which was presented at the [May 22, 2019, Council meeting](#). As part of the inquiry, staff were asked to:

“Prepare a report for Transportation Committee, no later than Q1 2020, that will include a review of high-volume intersections with heavy traffic and cycling interaction, potential options for safety improvements, and a roadmap for changes to existing and future cycling facilities”.

Traffic Services initiated the Cycling Safety Review of High-Volume Intersections in June 2019. The first step of the review was a preliminary exercise to identify high-volume intersections with heavy traffic and cycling interactions along existing cycling routes in Ottawa. A total of 74 intersections were identified as part of the screening exercise.

Of the 74 locations, 30 locations were screened in for further review. The other 44 locations were either part of other projects being built through existing City programs or fell outside of the City's jurisdiction.

In April 2022, as part of [Motion No 74/12](#) moved by Councillor Menard and seconded by Councillor McKenney, staff were directed to investigate funding options to advance the implementation of the 29 priority high-volume cycling/vehicle interaction locations.

As part of the Annual RSAP Report's Document 3, a status update is provided on progress made to date on enhancements implemented at high-volume intersection locations identified in the October 2020 report, in addition to staff recommendations to advance and prioritize cycling safety related projects.

Status Update:

Many of the locations identified in the Cycling Safety Review of High-Volume Intersections have progressed to stages of design and construction. Since the time of the report, funding allocated through various existing City programs has supported the advancement of cycling safety improvements at certain locations.

CATEGORY 1: High-Volume Intersections Incorporated into City Projects

The comprehensive list of all 44 High-Volume Intersections Part of Other City Projects Outside of the City's Jurisdiction can be found in [Document 1](#) of the Cycling Safety Review of High-Volume Intersections information report.

Locations in this category, identified in the 2020 report, had been recently redesigned, included in ongoing safety reviews, in the planning, design or construction phase of a project or confirmed to be outside of the City's jurisdiction. Since the 2020 report, progress has been made to support cycling safety improvements at certain locations which were identified as part of future-planned project.

Status updates are provided below:

1. Albert St. @ Booth St. – functional design completed
2. Albert St. @ Preston St. – functional design completed
3. Bank St. @ Chamberlain Ave. / Isabella St. – functional design complete; detailed design and construction delayed due to MTO Bridge replacement (5-8 years anticipated timeline)
4. Bank St. @ Riverside Dr. S – detailed design underway
5. Bank St. @ Wilton Cres. – preliminary design underway
6. Elgin St. @ Catherine St. - functional design complete; detailed design and construction delayed due to MTO Bridge replacement (5-8 years anticipated timeline)
7. Elgin St. @ Somerset St. W – construction on Elgin complete
8. Hawthorne Ave. @ Colonel By Dr. – detailed design underway
9. Hawthorne Ave. / Elgin St. @ Queen Elizabeth Dr. (QED) - detailed design for pavement marking changes on the Pretoria Bridge as part of Greenfield/Main/Hawthorne project. (No changes at Hawthorne/Elgin/QED)
10. Montreal Rd. @ North River Rd. – construction underway
11. Hunt Club Rd. @ Riverside Dr. – detailed design underway
12. Laurier Ave. W @ Elgin St. (Laurier Ave. from Queen Elizabeth Dr. Ramps to Elgin St.) – detailed design underway
13. O'Connor St. (Nepean St., Cooper St. & Waverly St.) – detailed design underway

14. Scott St. @ Holland Ave. – construction underway
15. Scott St. @ Parkdale Ave. – detailed design complete
16. Scott St. @ Island Park Dr. – interim design construction complete as part of Stage 2 LRT project
17. Mackenzie Ave. @ Rideau St. - construction imminent
18. Laurier Ave. E @ Nicholas St. – construction complete

The status for the other remaining 26 locations in Document 1 remains unchanged.

CATEGORY 2: High-Volume Intersections Categorized by Opportunity Available for Implementation

A total of 30 intersections were included for further review under this category as part of the Cycling Safety Review of High-Volume Intersections. Through the study, it was deemed that one of the locations was outside of the consultant's project scope, and as such, ultimate long-term conceptual designs with high level cost estimates to provide separated cycling facilities and/or protected intersections were developed for 29 of the 30 locations. The comprehensive list of all 30 High-Volume Intersections Categorized by Opportunity Available for Implementation are included in [Document 3](#) of the Cycling Safety Review of High-Volume Intersections information report.

The intersections within this category were further grouped into 2 groups:

Group A - Potential Inclusion in Future Projects through Existing City Programs

The locations identified could be considered for further planning, design, consultation, and implementation as part of infrastructure renewal or growth projects, coordination with future developments, cycling network expansion or stand-alone projects, should funding become available. Conceptual designs developed for intersections in this category have progressed through to preliminary and detailed design at the following locations:

1. Bayview Station Rd. @ Scott Street – detailed design completed
2. Smyth Rd. @ Riverside Hospital – detailed design completed
3. Donald St. @ Vanier Parkway – preliminary/detail design in 2023

In addition, Cumming Ave. @ Ogilvie Rd. and Prince of Wales Dr. @ Meadowlands Dr. are included in the 2024 Transportation Master Plan (TMP) cycling project list and St-Laurent Blvd. @ Ogilvie Rd. is within the study area for the St-Laurent Blvd. Transit

Priority Corridor study, which will address cycling safety at those intersections.

Group B - Require Cycling Network Review for Further Design Work

The locations identified have geometric constraints. Implementing separated cycling facilities would result in significant impacts to transit operations, parking and/or general traffic operations. These locations do not generally have connecting cycling facilities and would require cycling network review prior to further consideration. Conceptual designs developed for intersections in this category have progressed through to preliminary and detailed design at the following locations:

1. King Edward Ave. @ St. Patrick St. – detailed design complete
2. Preston St. @ Prince of Wales Dr. / Queen Elizabeth Dr. – detailed design underway through Ottawa Hospital Development
3. Bank St. @ Riverside Dr. N - detailed design underway

In addition, Gladstone Ave. at Booth St. and Gladstone Ave. at Preston St. are included as cycling feasibility studies identified in the 2024 TMP.

Cost Implications:

The conceptual level Class D estimates developed for the selected intersections in the High-Volume Intersection study were rough order-of-magnitude estimates based on historical costs for similar work. The estimates, which did not include potential property acquisition costs, hydro burial, utility and/or traffic signal costs are considered to be preliminary, and more work is required during subsequent design stages to improve on the level of accuracy of the cost estimate. In total, the rough order-of magnitude cost to implement all 29 of the conceptual designs was estimated to be \$32 million, not including the above-mentioned costs. In addition, as the total cost estimates are based on 2019 costs, it is expected that the cost of implementation is much higher today.

For the locations that have progressed to detailed design, final construction costs have varied significantly from the conceptual estimates presented in the report. Labour strikes in the construction industry, supply chain delays and global transportation related material shortages have resulted in significant construction cost escalations in 2022 (10%-30% over 2021 values).

Funding Options to Advance Implementation:

The high-volume cycling safety intersections were identified based on data available at the time of the study including traffic and cycling volumes, collision, and speed data. Prioritization of locations identified in the study will change over time due to overall

network connectivity requirements, changing travel patterns, and/or newly identified safety or operational concerns.

The Transportation Master Plan (TMP) update will include a list of proposed prioritized active transportation projects for the 2024-2046 period, pending review and approval by Council (anticipated in spring 2023). In addition to safety, the cycling projects were developed and prioritized based on several factors: enabling community trips, facilitating connection to transit, improving network continuity, and public input. The draft list of cycling projects include four of the intersections in Category 2.

The TMP cycling projects address high-priority missing links in the cycling network. They may include intersection and mid-block modifications (where feasible) to connect to adjacent cycling facilities and improve cycling safety and comfort. Because high-risk intersections and network connectivity are addressed at the same time, these projects can yield very significant benefits. All TMP cycling projects will evaluate the feasibility of intersection improvements at the functional design phase; intersection improvements may differ from the conceptual designs in the Cycling Safety Review at High-Volume Intersections report.

Staff recommend continuing to advance the high-volume cycling safety intersections through existing programs and projects, as opportunities arise. Funding for any resulting intersection upgrades may come from a combination of funds including Road Safety Action Plan (RSAP) and TMP Cycling Facilities Funding (which is an on-going program with City funding of approximately \$5M/year subject to the annual budget process). As the RSAP budget continues to increase, more locations will be implemented in future years. Conceptual designs will also be carried forward to detailed design to ensure the City has shovel-ready projects should future Federal Stimulus funding for Active Transportation become available.

To further advance the implementation of these projects, additional sources of funding would be required. One potential source of funding could arise from the City's annual capital closures exercise – of which surplus funds (if any) can be reallocated to the priority intersections. Another potential source is from senior levels of government if they establish provincial or federal programs that offer funding intended to improve safer cycling/vehicle interactions. The ability of the City's reserves to provide funding is subject to the permitted uses of the reserve as indicated in each reserve's by-law.