



CITY OF HAMILTON
PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT
Transportation Planning and Parking Division
and
PUBLIC WORKS DEPARTMENT
Transportation Operations & Maintenance

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	October 5, 2020
SUBJECT/REPORT NO:	Mohawk Road to Brantford-bound King's Highway 403 Ramp Update (PED20128/PW12051(c)) (Wards 12 and 14)
WARD(S) AFFECTED:	Wards 12 and 14
PREPARED BY:	Mohan Phillip (905) 546-2424 Ext. 3438
SUBMITTED BY: SIGNATURE:	Brian Hollingworth Director, Transportation Planning and Parking Planning and Economic Development Department
SUBMITTED BY: SIGNATURE:	Edward Soldo Director, Transportation Operations & Maintenance Public Works Department

RECOMMENDATION

- (a) That staff be directed to finalize and file a Notice of Study Completion for the Highway 403 Additional Access to Brantford-bound Highway 403 Class Environmental Assessment Environmental Study Report;
- (b) That the financing strategy be approved for Project ID 4662555215 Highway 403 Ramp Improvements at a gross cost of approximately \$6.4 M with a net cost to the City of \$4.65 M to be funded equally by the 2025 roads capital levy allocation and development charges;
- (c) That staff be authorized and directed to negotiate one or more agreements, and all ancillary documents, with the Ministry of Transportation (MTO) for the

construction of a new ramp from Mohawk Road to Highway 403 westbound and associated Highway 403 truck climbing lane approved by the General Manager of Public Works and in a form satisfactory to the City Solicitor;

- (d) That the Mayor and Clerk be authorized and directed to execute one or more agreements, and all ancillary documents, with the Ministry of Transportation (MTO) for the construction of a new ramp from Mohawk Road to Highway 403 westbound and associated Highway 403 truck climbing lane, provided such have been approved by the General Manager of Public Works and in a form satisfactory to the City Solicitor.

EXECUTIVE SUMMARY

The City of Hamilton (City) has been working with the Ministry of Transportation (MTO) regarding the proposed construction by the City of a new ramp connecting Mohawk Road and Brantford-bound King's Highway 403 (the New Ramp). An Environmental Study Report (ESR) was completed by the City in 2017.

The Brantford-bound ramp from Mohawk Road to Highway 403 was removed when the Highway 403/Lincoln M. Alexander Parkway (LINC) interchange was constructed. Removal of the Brantford-bound ramp has left a missing link in access from Ancaster. In addition, residents have requested that the Brantford-bound ramp be replaced due to increasing traffic demands on Wilson Street in the Ancaster core.

The MTO, in principle, agreed with the City proceeding with the necessary steps for design and construction of this New Ramp, subject to the City entering into an agreement with MTO on behalf of the Province of Ontario (Province) outlining conditions of the approval.

An initial draft agreement received from the MTO in 2016 was reviewed by the City and was found to be unacceptable. There were several terms and conditions in the initial MTO draft agreement relating to the City's liability and potential modification to the existing Highway 403-Linc Ramp which were all not acceptable to the City.

Further negotiation with the MTO, resulted in, the MTO undertaking additional technical analysis and modelling works through an independent consultant (CIMA+). Following this, and based on the analysis, it has become necessary to slightly modify the earlier functional design. The main revision is to extend the existing Truck Climbing Lane (TCL) westwards such that the effective length of the merging area and extended TCL is approximately 1,500 m, as opposed to the current length of 900 m. Without this extension, the effective weaving area for the new Mohawk Ramp would only be 600 m, and detailed modelling indicated that this would have a negative effect on interchange

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operations. As such, the MTO does not support the construction of a new ramp without the extension of the TCL.

In response to the continued negotiations, the MTO has provided a proposal as outlined in Appendix "A" attached to this Report, where the City would bear all cost for the construction of the New Ramp estimated to be \$2.9 M, and 50% of cost for the extension of the TCL, which is estimated to be \$1.75 M (50% of \$3.5 M). Accordingly, the total project cost will be approximately \$6.4 M and the City share would be \$4.65 M.

If the proposal is accepted by the City, the MTO and City staff will negotiate a legal agreement that reflects those terms. It is anticipated that the MTO would provide a draft agreement for the City's review in 2021 or 2022, with sufficient time for negotiations before construction. Acceptance of the proposal is contingent upon MTO Approval of the ESR.

The City's ten-year capital plan is based on an assumed construction of The Ramp and the TCL in 2025.

Alternatives for Consideration – See Page 6

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Council direction on Staff Report PW12051(a), dated September 15, 2014, includes to report back to Council recommending a financing strategy. As per the proposed draft agreement outlined in Appendix "A" attached to this Report, the City would bear all cost for the design and construction of the New Ramp estimated to be \$2.9 M, and 50% of the cost for the extension of the TCL, which is estimated to be \$1.75 M (50% of \$3.5 M). Accordingly, the total project cost will be approximately \$6.4 M and the City share would be \$4.65 M.

Project ID 4662555215 Highway 403 Ramp Improvements was planned as part of the 2020 Capital Budget process with a project start in year 2025 at an estimated gross cost of \$6.4 M with a net cost to the City of \$4.65 M. By directing staff to finalize the cost sharing agreement with the MTO, the City is committing to moving forward with the project and will be obligated to pay the total City's contribution. The City's share of this project is identified to have a 50% benefit to existing residents per the latest Development Charges Background Study and therefore is to be funded equally by the 2025 roads capital levy allocation and development charges.

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The draft cost-sharing proposal as outlined in Appendix “A” attached to this Report provides further details of the breakdown of costs that would be incurred by the City for The Ramp and TCL extension.

Staffing: Detailed design and project management will be assumed by MTO given that works are primarily within the MTO right-of-way. Engineering Services and Transportation Operations will be required to review designs and liaise with MTO during the construction period. No new staff are required as this is part of normal duties.

Legal: Legal Services will be engaged in the negotiation of the agreement with the MTO.

HISTORICAL BACKGROUND

In June 2012, Council directed staff to undertake the necessary studies for the proposed New Ramp in Ancaster (Report PW12051). Following this, a Request for Proposal (RFP) was prepared in collaboration with the MTO and WOOD (former AMEC) Consultant (Consultant) was hired to undertake the studies. The Consultant initiated their study and review in September 2013. Studies have determined that the New Ramp is feasible from a geometric perspective, however, analysis of traffic simulations identified negative operational impacts for the future horizon years.

In December 2015, the MTO indicated that concerns with the design and implementation of the proposed New Ramp were largely satisfied but identified several terms that would have needed to be part of a legal agreement to mitigate the identified traffic operational concerns.

In September 2016, the MTO provided the City with such a draft agreement stipulating terms and conditions for addressing the design, construction, maintenance and safety measures of the proposed New Ramp. Several of these concerns were unacceptable to the City, including a “Trigger Clause” which would require the City to undertake mitigation measures should The Ramp degrade traffic operations.

In 2019, MTO retained CIMA+ to explore alternatives which could both allow for the incorporation of the New Ramp while mitigating negative traffic impacts. This traffic analysis was used to inform the development of a cost-sharing proposal. A cost-sharing proposal was provided by MTO in July 2019.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The 2017 Additional Access to Brantford-bound Highway 403 Class EA Environmental Study Report must be finalized and posted for public review.

RELEVANT CONSULTATION

This project is under the jurisdiction of the MTO as it is within the Highway 403 corridor. The City initiated this study in 2013 on behalf of the MTO. The MTO agreed to follow the Municipal Class Environmental Assessment (EA) process for the study. As such, all requirements under the EA process was followed throughout the study process including public and stakeholder consultations, Public Information Centre (PIC) etc.

The major stakeholder consultations throughout the study was with the MTO. As part of this EA process, stakeholders/public were invited to PIC meetings in March and June 2014 to review The Ramp proposals. Comments received from the stakeholders and public were considered in developing solutions.

The initial draft MTO agreement regarding the design, construction and maintenance of a westbound on-ramp from Mohawk Road to Brantford bound Highway 403 was reviewed by the Public Works Department, Legal and Risk Management staff.

Further discussions will be required before proceeding with detailed design and implementation and negotiating an agreement with the MTO that reflects the MTO's latest proposal, as outlined in Appendix "A" attached to this Report.

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

The Ancaster Transportation Master Plan study identified the need for a westbound on-ramp to Highway 403, from the Ancaster neighbourhood area. Several options were considered in the past in discussion with MTO and the decision was to undertake additional studies for the Mohawk Road Ramp, per the content of Report PW11027(a), dated January 16, 2012.

An EA study was initiated in 2013. Traffic modelling and simulation studies were undertaken in order to determine the geometric feasibility and traffic operational impacts to Highway 403. The MTO required this analysis because once a ramp is constructed it becomes the responsibility and liability of the province. The MTO also wishes to protect for future highway improvements and do not wish to be faced with limitations as a result of any works undertaken at this time. Our past review concluded that the proposed westbound Mohawk Road Ramp wouldn't preclude the ability to add one general purpose lane to Highway 403, without impacting the Golf Links Road and Southcote Road Bridges. The studies concluded that a ramp from Mohawk Road to westbound Highway 403, as per the functional design including extension of TCL, is feasible and has the minimal environmental impact. This solution has been accepted by the MTO.

As part of the additional work undertaken by the MTO, four alternatives were considered:

- Do Nothing (maintain existing geometry);
- Ramp only;
- Truck Climbing Lane Extension Only; and,
- Ramp plus Truck Climbing Lane Extension.

Each of these four alternatives are illustrated in Appendix “B” attached to this Report.

The analysis indicated that with the addition of a ramp only, and no extension to the TCL, travel times, along within the study area, Highway 403 would increase by 15% and travel times along the LINC would increase by 38%. This is a result of introducing a new ramp without improving weaving distances.

Conversely, the addition of a new TCL would decrease travel times along Highway 403 and the LINC within the study area by 30% and 45% respectively. This improvement to operations is a result of the extension of the weaving area that is available for traffic entering Highway 403 westbound from the LINC such that it is not affected by the addition of traffic from the new Mohawk Ramp. With the extension of the TCL, Highway 403 would comprise of three westbound lanes to beyond Southcote Road.

The MTO does not support the introduction of the Mohawk Ramp without the TCL extension.

ALTERNATIVES FOR CONSIDERATION

The City could finalize the EA and defer a decision on cost sharing until such time as the MTO completes an EA for additional lanes on Highway 403 between Main Street and Jerseyville Road, as recommended in the MTO's Niagara to Greater Toronto Area Corridor Study. The most recent update on the timing of this EA is that it has not commenced and is subject to prioritization against other expansion projects across the province.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Community Engagement and Participation

Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community.

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Clean and Green

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

Culture and Diversity

Hamilton is a thriving, vibrant place for arts, culture, and heritage where diversity and inclusivity are embraced and celebrated.

Our People and Performance

Hamiltonians have a high level of trust and confidence in their City government.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" – Cost Sharing Proposal by the MTO

Appendix "B" – Study Area Context

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