Welcome to Public Information Centre #1

October 10, 2017

QEW and Highway 403 Freeman Interchange
Preliminary Design Study and Class Environmental Assessment

Please sign in at the front desk
INTRODUCTION

The Ontario Ministry of Transportation (MTO) is undertaking a Preliminary Design and Class Environmental Assessment (EA) Study for the Queen Elizabeth Way (QEW) from the north end of the Burlington Skyway to Guelph Line and Highway 403 from QEW to Grindstone Creek, in the City of Burlington.

This project is being conducted in accordance with the requirements of the MTO Class Environmental Assessment for Provincial Transportation Facilities (amended 2000) as a Group ‘B’ undertaking. Throughout the study process, input will be sought from the public and external agencies.

The objectives of the study include:

- Bridge rehabilitations / widening / replacement;
- Drainage and illumination improvements;
- Operational and safety improvements to the QEW and Highway 403, including managed lanes (HOV / HOT);
- Concept design of a new transitway connection from the future 407 Transitway to Aldershot GO Station; and,
- A potential carpool lot near the Plains Road / Fairview Street Interchange.
QEW and Highway 403 Freeman Interchange
Preliminary Design Study and Class Environmental Assessment
PIC No. 1

STUDY AREA

Study limits:

→ QEW from the north end of Burlington Bay Skyway to east of Guelph Line; and
→ Highway 403 from the QEW / Freeman Interchange to Grindstone Creek

Study area includes:

→ Five arterial road interchanges: Guelph Line, Brant Street, Plains Road/Fairview Street, North Shore Boulevard East and Waterdown Road.
→ One freeway-to-freeway interchange: QEW / Highway 403 Freeman Interchange
PROJECT HISTORY

‘The Middle Road’ was a four-lane highway constructed between 1931 and 1937 to accommodate inter-city traffic volumes that were beginning to overwhelm Highway 2 and Highway 5. The highway was opened between Toronto and Hamilton in 1937, and included the first two interchanges in Canada, one of which was in the hamlet of Freeman in the township of Nelson (now part of the City of Burlington). The Burlington interchange connected The Middle Road with what was then called the Hamilton-Niagara Falls Highway at the location of the present-day QEW/Plains Rd./Fairview St. Interchange.

In the late 1950s, the QEW was realigned in Burlington to connect to the newly built Burlington Bay Skyway (then called the Burlington Beaches Skyway).

From the 1950s to the 1970s, the QEW was upgraded to a fully controlled access facility, thus becoming a true freeway.

As part of the 407 ETR construction, new ramp connections were constructed between 1999 and 2001. The final phase in the reconstruction of the QEW between the Burlington Skyway and Guelph Line was completed between 1998 and 2003. Full replacement of the Guelph Line Interchange was completed in 2006.

In 1939, the Middle Road was re-dedicated as the Queen Elizabeth Way, in honour of Queen Elizabeth (The Queen Mother).

In 1958, the original ‘Freeman Interchange’ was constructed to facilitate construction of Highway 403 to the west.

In the early 1980s, the QEW was reconstructed and widened between the Burlington Skyway and Guelph Line. The QEW north of the Burlington Skyway was completed between 1982 and 1985, while the Freeman Interchange and its approaches were reconstructed between 1989 and 1995.

The Waterdown Road interchange was expanded to a full interchange by the City of Burlington in 2009-2010.
**ADJACENT STUDIES**

MTO and local municipalities are pursuing additional transportation initiatives across the study area, which include:

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<tr>
<th>Proponent</th>
<th>Type of Improvement &amp; Location</th>
<th>Status</th>
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<tbody>
<tr>
<td>City of Burlington</td>
<td>As Burlington grows new, complete, compact neighbourhoods (Mobility Hubs) will be built around the city's GO stations and the downtown. The Mobility Hubs will be planned and developed near the Aldershot, Burlington and Appleby GO stations as well as in the downtown. <a href="#">Website link</a></td>
<td>Ongoing study. Implementation to begin post June 2018.</td>
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<td>The <a href="#">Burlington Cycling Master Plan</a> is intended to guide the City in creating a network of on-road bikeways and multi-use pathways throughout Burlington, along with supportive policies, practices and programs to encourage more people to cycle. <a href="#">Website link</a></td>
<td>The Burlington City Council approved the Cycling Master Plan in July 2009.</td>
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<td>Halton Region</td>
<td>The Halton Region <a href="#">Active Transportation Master Plan Study</a>, planning to the year 2031 to develop the strategy, infrastructure, initiatives and programs to promote non-motorized travel throughout the Region. <a href="#">Website link</a></td>
<td>The Active Transportation Master Plan Study was completed in May 2015.</td>
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<td>Ministry of Transportation (MTO)</td>
<td><a href="#">Ontario’s Cycling Strategy</a> is designed to encourage the growth of cycling and improve the safety of people who cycle across the province. <a href="#">Website link</a></td>
<td>The first Action Plan of 10 was released in 2014.</td>
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<td><a href="#">407 Transitway Studies</a> MTO is undertaking the Planning, Preliminary Design and EA Studies for numerous segments of a future 407 Transitway. The spine of the GGH’s inter-regional transit system will be the 407 Transitway, a 110 km long corridor extending from Burlington to Pickering, with multiple stations and connections with a multitude of other inter-regional and municipal transit routes. Studies for the 407 Transitway between Hurontario Street and Highway 400, Highway 400 and Kennedy Road, and Kennedy Road to Brock Road have already been completed. <a href="#">Website link</a></td>
<td>Ongoing Studies.</td>
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<td><a href="#">QEW North Shore Bridge Replacement</a> MTO is undertaking a detail design assignment for the replacement of the QEW overpass structures at the Northshore Boulevard Interchange.</td>
<td>Ongoing Study.</td>
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<td><a href="#">Greater Golden Horseshoe Transportation Plan</a> MTO is developing a long-term, comprehensive and multimodal transportation plan for the Greater Golden Horseshoe (GGH). The plan will inform policy and investment decisions that support the government’s commitments to climate change, economic development and innovative technology and provide direction to transportation agencies and service providers for all modes, including highways, railways, regional transit systems, cycling and walking. <a href="#">Website link</a></td>
<td>Ongoing study. This work is anticipated to be completed in 2018.</td>
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The Project Team is coordinating with these agencies towards an efficient and convenient transportation network.
CLASS ENVIRONMENTAL PROCESS

This study is following the approved environmental planning process for Group 'B' projects under the MTO Class Environmental Assessment for Provincial Transportation Facilities 1999, as amended in 2000. The process is approved by the Ministry of Environment and Climate Change (MOECC) and for the planning and design of provincial highway projects.

Public consultation is key to the study, and the public is encouraged to provide input at any point during this project. To facilitate public involvement, Public Information Centres (PICs) are being held at key study stages.

The overall Class EA planning process approach and key tasks are illustrated in the diagram below. This process consists of two major phases: Planning and Preliminary Design.
SCHEDULE

- Study Commencement – April 2017
- Pop-Up Event Booth – August 16, 2017
- Public Information Centre #1 – October 10, 2017
- Evaluation and Selection of Preferred Alternative – Winter 2017
- Public Information Centre #2 – Spring 2018
- Refine Preferred Alternative based on comments received – Spring 2018
- Prepare Transportation Environmental Study Report (TESR) – Summer 2018
- Study Completion: File TESR for 30 day public review period – Fall 2018

We are here
Historical records of fish in ROW from background information (not confirmed by WSP during field investigations)

- Minimal flow at time of assessment
- No fish captured (WSP 2017)
- Migratory and species-at-risk bird nesting were observed on the bridges within the study area
- Species of Conservation Concern were observed within the study area

SNAKE ROAD

Old York Road

Piped through ROW

- Historical records of diverse warmwater community within ROW
- Creek Chub captured within the ROW immediately upstream and downstream of the crossing (WSP 2017)
- Fish potential to be confirmed by WSP 2017
- No fish captured upstream or within the ROW (WSP, 2017)

- Permanent flow
- Direct fish habitat
- Multiple connecting piping west downstream ROW permanent barrier to migration upstream
- Fish species include Black Bullhead, Green Sunfish, Longnose Dace, Bluntnose Dace, Creek Chub, Bluntnose Minnow, Fathead Minnow, White Sucker
- Historical records of simple killfish community within ROW
- Channelized south of ROW
- Dense Phragmites downstream of ROW

- Historical records of fish within Highway ROW (to be confirmed by WSP)
- No fish captured within the ROW or upstream (WSP, 2017)

- Hardened (armored) bank and channel through reach adjacent ROW, from hydro corridor to confluence with Indian Creek west of QEW (approximately 2.4 km)
- No fish captured upstream or within the ROW (WSP, 2017)

- Small (~7m) open channel in ROW
- Minimal flow at time of assessment
- No fish captured (WSP, 2017)
- Barrier to migration upstream
- Working channel upstream of N. Service Rd through woodland
- Three Zn concrete pipes convey flow under QEW, potential barrier to migration upstream
- Bedrock, cobble, broad gravel substrate with riffle, run, pool morphology downstream of the QEW
- Fish species include Black Bullhead, Green Sunfish, Longnose Dace, Bluntnose Dace, Creek Chub, Bluntnose Minnow, Fathead Minnow, White Sucker

- Permanent flow, direct fish habitat
- Historical records indicate no fish use within Hwy ROW (to be confirmed by WSP 2017)

- Historical records indicate no fish use within Hwy ROW (to be confirmed by WSP 2017)
- No fish captured within the ROW or upstream (WSP, 2017)
- No historic records of fish within Hwy ROW
- No fish captured within the ROW or upstream (WSP, 2017)
- Piped downstream

- Small (= 0.5m) open channel in ROW
- Minimal flow at time of assessment
- No fish captured (WSP, 2017)
- Ground swale / mammal pond upstream of N. Service Rd.

- Permanent, direct fish habitat through the ROW- Blacknose Dace and Creek Chub captured within the ROW, upstream and downstream of the crossing (WSP 2017)

- Historical records of fish in ROW from background information (not confirmed by WSP during field investigations)
EXISTING TRANSPORTATION CONDITIONS

- North Service Road is in close proximity to Highway 403.
- Congestion during morning peak period.
- Congestion during afternoon peak period.
- 407ETR ramps enter and exit from the median.
- "Lane balance" not met at QEW / Hwy 403 diverge.
- Significant congestion in afternoon peak period.
- Significant congestion in morning peak period.
- Eastbound HOV lane begins.
- Westbound HOV lane ends.
- Narrow shoulder from North Shore Boulevard to Burlington Skyway.
- Core-Collector System

LEGEND:
- AM Congestion
- PM Congestion
- Hydro Corridor
- Study Area Limits
EXISTING STRUCTURAL CONDITIONS

All Ministry of Transportation structures in the study area are currently in good condition; however, all structures require rehabilitation throughout their service lifetime, which is typically 75 years. Rehabilitations are usually completed at intervals of approximately 30 years. All structures within the study area will require rehabilitation and/or replacement over the course of the study planning horizon (2041).

Minimizing impacts to traffic is an important consideration when developing construction staging strategies for structural rehabilitations. In some cases, to avoid lane reductions, bridges may be widened prior to rehabilitation and/or full replacement of the structure on a new alignment may be considered. This study will identify the rehabilitation / widening / replacement needs and strategy for each structure within the study area.
PROBLEMS AND OPPORTUNITIES

Problems:

- All bridges and culverts in the study area will require rehabilitation and/or replacement over the course of the study planning horizon (2041).

- Given current population and employment forecasts, the traffic volumes will continue to grow, and congestion will worsen in the study area.

- The QEW and Highway 403 and Freeman Interchange connections currently experience significant congestion and operational issues. The following locations are particularly problematic:

  - QEW/Highway 403 westbound approach to the Niagara/Hamilton split in the PM peak.

  - Highway 403 westbound through the Freeman Interchange and continuing to Hamilton in the PM peak.

  - QEW Niagara-bound through the Freeman Interchange and continuing onto the Burlington Bay Skyway in the PM peak and on weekends.

  - Highway 403 eastbound leading up to the Freeman Interchange in the AM peak.

  - QEW Toronto-bound from the Burlington Bay Skyway through the Freeman Interchange in the AM peak and on weekends.
PROBLEMS AND OPPORTUNITIES

Opportunities:

- The Province has a vision for building strong, prosperous communities by managing growth in this region to the year 2031 and beyond. To this end, several documents, including the Growth Plan for the Greater Golden Horseshoe (GGH), The Greenbelt Plan and The Big Move (Metrolinx), have been established.

- Recognizing the need to provide for the efficient movement of people and goods, MTO’s Southern Highways Program has established the potential for expanding the existing high-occupancy vehicle (HOV) network plan for 400-series highways within the GGH to optimize network capacity by encouraging carpooling and transit use. This program includes considering HOV lanes for the Highway 403 and QEW corridors within the study area.

- MTO is developing a bold new long-range multimodal transportation plan for the Greater Golden Horseshoe (GGH). The GGH Transportation Plan aims at providing a strategic network that reduces congestion and supports economic growth and job creation, a system that is resilient and can adapt to climate change and other major shifts in the global context.

- HOV lanes are currently operating on the QEW east of the Freeman Interchange.

- MTO-owned land in the northeast quadrant of the Plains Road East/Fairview Street intersection provides a potential location for a carpool lot.

- MTO is planning for a future 407 transitway that would eventually stretch from Highway 35/115 in the east to Burlington in the west.
ALTERNATIVES TO THE UNDERTAKING

The Class EA process requires that alternatives to the proposed undertaking be considered to ensure reasonable and sufficient justification to proceed with the project.

The alternatives developed were based on the ability to resolve transportation concerns identified in the study area. The transportation issues include the need to accommodate increasing traffic volumes and to improve traffic operations based on:

- The ability to provide safe, reliable, efficient, long-term, and inter-regional transportation service for local residents and businesses;
- The ability to minimize or mitigate negative impacts;
- The degree of compatibility with existing infrastructure; and

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<tr>
<th>Alternative</th>
<th>Description</th>
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<tr>
<td>Do Nothing</td>
<td>Highway 403 and QEW Freeman Interchange would remain “as is”. This alternative does not address the identified transportation problems.</td>
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<tr>
<td>Transportation Demand Management (TDM)</td>
<td>TDM strategies reduce overall demands on the highway network by shifting demands to time periods outside of the critical congestion periods, and shift demands to alternative modes of transportation (e.g., public transit, cycling and walking). Measures have been included in the transportation modelling used in this project, based on policy directions within the Provincial Growth Plan. On their own, TDM strategies do not address the identified transportation problems.</td>
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<td>Improve Adjacent Road Systems</td>
<td>Widening of adjacent regional and municipal roads would increase overall transportation network capacity. However, these roadways do not support inter-regional trips. This alternative does not address the identified transportation problems.</td>
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<tr>
<td>New or Improved Transit/Rail</td>
<td>Measures have been included in the transportation modelling used in this project, based on policy directions within the Provincial Growth Plan and The Big Move. This study will consider a dedicated provincial high speed transit facility connection between the planned 407 Transitway to the east and the existing Aldershot GO Station to the west, which is fully grade separated with a new transit service. This alternative, a new transitway connection, will be carried forward for further consideration.</td>
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<tr>
<td>Improved Provincial Transportation Facility</td>
<td>Expansion, operational and safety improvements to optimize the people and goods moving capacity of the QEW and Highway 403. This alternate also includes a range of Transportation Systems Management (TSM) policies and strategies which may include Managed Lanes, Carpool Parking, ITS strategies, etc. This alternative, including consideration of HOV/HOT lanes, will be carried forward for further consideration.</td>
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QEW - ALTERNATIVE 1

- Widen QEW by one HOV lane in both directions through Freeman Interchange to North Shore Boulevard Interchange.
- Widen into existing median to provide HOV lane and median shoulder to minimum widths.
- HOV lanes use existing median, with varying median shoulders.

Advantages:
- Increases QEW capacity from Guelph Line to Burlington Skyway
- No property impacts
- Minimal impacts to existing interchanges

Disadvantages:
- Narrow shoulders at bridges within Freeman Interchange

Recommendation: Carry Forward
QE W - ALTERNATIVE 2

- Widen QE W by one HOV lane in both directions through Freeman Interchange to North Shore Boulevard Interchange.
- Widen into existing median and to outside to provide HOV lane and median shoulder to desirable widths.
- Requires widening of QE W northbound lanes to the east at Fairview St./Plains Rd. Interchange.

**Advantages:**
- Increases QE W capacity from Guelph Line to Burlington Skyway
- Continuous HOV desirable width shoulders provided south of Freeman Interchange

**Disadvantages:**
- Fairview St./Plains Rd. Interchange easterly ramps must be reconstructed
- Narrow shoulders at structures within Freeman Interchange
- Minor property impacts

**Recommendation:** Carry Forward