

Ontario Ministry of Transportation

## Design and Construction Report

*Replacement of the Puslinch Concession Road 7 Bridge over  
Highway 401 in Puslinch Township*

***G.W.P. 3224-15-00***

**Prepared by:**

AECOM Canada Ltd.  
30 Leek Crescent, Floor 4  
Richmond Hill, ON L4B 4N4  
Canada

T: 905 882 4401  
F: 905 882 4399  
[www.aecom.com](http://www.aecom.com)

**Prepared for:**

Ontario Ministry of Transportation  
West Region  
659 Exeter Road, London, ON N6E 1L3

**Date:** August 2018

**AECOM**

**Project Number:** 60541071

Distribution List

# Hard Copies	PDF Required	Association / Company Name
	✓	Ontario Ministry of Transportation
	✓	AECOM Canada Ltd.

Revision History

Rev #	Date	Revised By:	Revision Description

# Statement of Qualifications and Limitations

The attached Report (the "Report") has been prepared by AECOM Canada Ltd. ("AECOM") for the benefit of the Client ("Client") in accordance with the agreement between AECOM and Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations and conclusions contained in the Report (collectively, the "Information"):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations");
- represents AECOM's professional judgement in light of the Limitations and industry standards for the preparation of similar reports;
- may be based on information provided to AECOM which has not been independently verified;
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued;
- must be read as a whole and sections thereof should not be read out of such context;
- was prepared for the specific purposes described in the Report and the Agreement; and
- in the case of subsurface, environmental or geotechnical conditions, may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time.

AECOM shall be entitled to rely upon the accuracy and completeness of information that was provided to it and has no obligation to update such information. AECOM accepts no responsibility for any events or circumstances that may have occurred since the date on which the Report was prepared and, in the case of subsurface, environmental or geotechnical conditions, is not responsible for any variability in such conditions, geographically or over time.

AECOM agrees that the Report represents its professional judgement as described above and that the Information has been prepared for the specific purpose and use described in the Report and the Agreement, but AECOM makes no other representations, or any guarantees or warranties whatsoever, whether express or implied, with respect to the Report, the Information or any part thereof.

Without in any way limiting the generality of the foregoing, any estimates or opinions regarding probable construction costs or construction schedule provided by AECOM represent AECOM's professional judgement in light of its experience and the knowledge and information available to it at the time of preparation. Since AECOM has no control over market or economic conditions, prices for construction labour, equipment or materials or bidding procedures, AECOM, its directors, officers and employees are not able to, nor do they, make any representations, warranties or guarantees whatsoever, whether express or implied, with respect to such estimates or opinions, or their variance from actual construction costs or schedules, and accept no responsibility for any loss or damage arising therefrom or in any way related thereto. Persons relying on such estimates or opinions do so at their own risk.


Except (1) as agreed to in writing by AECOM and Client; (2) as required by-law; or (3) to the extent used by governmental reviewing agencies for the purpose of obtaining permits or approvals, the Report and the Information may be used and relied upon only by Client.

AECOM accepts no responsibility, and denies any liability whatsoever, to parties other than Client who may obtain access to the Report or the Information for any injury, loss or damage suffered by such parties arising from their use of, reliance upon, or decisions or actions based on the Report or any of the Information ("improper use of the Report"), except to the extent those parties have obtained the prior written consent of AECOM to use and rely upon the Report and the Information. Any injury, loss or damages arising from improper use of the Report shall be borne by the party making such use.

This Statement of Qualifications and Limitations is attached to and forms part of the Report and any use of the Report is subject to the terms hereof.


## Authors

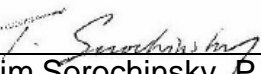
**Report Prepared  
By:**

  
\_\_\_\_\_  
Sarah Schmied, B.Sc, B.Ed  
Environmental Planner

  
\_\_\_\_\_  
Sarah Hanson  
Highway Designer, EIT

**Report Reviewed  
By:**

  
\_\_\_\_\_  
Fred Leech  
Senior Environmental Planner

  
\_\_\_\_\_  
Tim Sorochnisky, P.Eng.  
Senior Project Manager



*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

## Executive Summary

AECOM has been retained by the Ontario Ministry of Transportation (MTO) to undertake a Detailed Design and Class Environmental Assessment (EA) Study for the replacement of the Concession Road 7 Bridge over Highway 401, located in the Township of Puslinch and Wellington County (G.W.P. 3224-15-00).

This project is classified as a Group 'A' project under the Ontario Ministry of Transportation (MTO) *Class Environmental Assessment (EA) for Provincial Transportation Facilities (2000)*.

### **Design and Construction Report (DCR)**

This DCR documents the EA process associated with the design and construction of this project. It includes:

- A description of the project and its purpose;
- An overview of the consultation undertaken (**Section 2.0**);
- A description of the Recommended Plan and associated construction staging (**Section 4.0**);
- Anticipated environmental effects and mitigation measures (**Section 5.0**); and,
- Commitments to monitoring associated with the implementation of the project (**Section 6.0**).

To obtain additional information, to provide comments on this DCR or to request accommodation for any accessibility requirements in order to participate in this project, please contact one of the Project Team members listed below.

**Sarah Jewell, M. Eng, P.Eng.**  
Project Engineer  
Ministry of Transportation – West Region  
Planning & Design  
659 Exeter Road,  
London, Ontario N6E 1L3  
Telephone: 519-873-4812  
Email: sarah.jewell@ontario.ca

**Tim Sorochinsky, P. Eng**  
Consultant Senior Project Manager  
AECOM Canada Ltd.  
4th Floor, 30 Leek Crescent,  
Richmond Hill, Ontario L4B 4N4  
Telephone: 905-882-4401  
Email: tim.sorochinsky@aecom.com

The contract drawings and documentation will be finalized after this DCR is filed. This may include minor refinements to the design plans provided in **Appendix A** that may occur as part of the standard progression of detailed design development. These potential refinements will not adversely affect the general intent of the EA commitments made herein.

### **Recommended Plan**

The new Concession 7 Bridge over Highway 401 (Site #35-351) will be built on a new skewed alignment to the west of the existing bridge, with a longer span to accommodate the future widening of Highway 401.

Based on a review of the existing structures along the highway corridor in this area, the following recommendations for aesthetical considerations for the Concession Road 7 Bridge over Highway 401 are being considered:

- Pier caps with curved concrete surfaces on the leading edge;

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

- Grooves at exterior face of the barrier walls; and,
- Concrete slope paving treatments and landscaping.

The new Concession Road 7 Bridge approaches and embankments will be constructed to tie into the new westerly bridge alignment at Highway 401. The new Concession Road 7 Bridge will require a higher profile and structure depth to accommodate the larger span for the future Highway 401 widening. This will also require a corresponding grade raise at the McLean Road intersection located just to the north of the new bridge and a grade raise on McLean Road to tie into the new grade of the intersection. Concession Road 7 lane widths on the bridge of 3.50 m and shoulder widths of 2.00 m will address future rehabilitation staging concerns for this new structure.

Additional improvements will be made to the intersection at the north end of the bridge to better accommodate truck turning movements as follows:

- Larger turning radii at the intersection to accommodate truck turning movements;
- Fully paved shoulders to provide additional space for truck turning movements; and
- Addition of a 4.5 m westbound left turn lane on McLean Road.

Concession Road 7, McLean Road and Highway 401 drainage will be provided by roadside ditching as part of this contract. On Concession Road 7, in vicinity of the structure, drainage will be addressed by the installation of catch basins beyond the limits of the new structure.

Partially paved shoulders will be incorporated throughout the study area, with the exception of the shoulders at the McLean Road / Concession Road 7 intersection which will be fully paved to accommodate any excess truck trailer tracking through the turning movements.

Permanent traffic signals at the two intersections in the study area (Concession Road 7 / McLean Road and Concession Road 7 / Mason Road) are not warranted. Based on a review of existing traffic volumes, projected traffic volumes and collisions, permanent illumination is also not warranted.

Temporary illumination and traffic signals will not be required during construction.

Property for this work has been acquired by MTO based on the previous approved Environmental Assessment for Highway 6 from Freelon Northerly to Guelph, WP 65-76-05. No additional property requirements have been identified.

Construction is currently anticipated to commence in 2019 and continue for one construction season pending receipt of all permits, approvals and funding.

The Contractor may revise the proposed construction staging plan and therefore the staging described below is subject to change.

Key construction staging and detour details for this bridge replacement are as follows:

- During construction of the new Concession Road 7 Bridge, the existing bridge over Highway 401 will remain open to traffic.
- During construction of the approaches and intersection improvements, a short section of McLean Road, to the west of the existing T-intersection, will be closed. The duration is likely to be approximately 2-3 weeks. Traffic over Highway 401 will be maintained on the existing bridge and will be detoured onto McLean Road. Traffic to or from Concession

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

Road 7 north of Highway 401 will be detoured via McLean Road, Brock Road and Wellington Road 34.

- During construction of the approaches and intersection improvements a short section of McLean Road, east of the new T-intersection, will be closed. The duration is likely to be approximately 1-2 weeks. Traffic over Highway 401 will be accommodated on the new bridge and will be detoured onto Concession Road 7 North. Traffic to and from McLean Road will be detoured via Concession Road 7, Wellington Road 34 and Brock Road.
- Single lane closures with flagging or full short term closures will be required for minor additional pavement tie in work at the south limits of the new Concession Road 7 alignment and for final surface course paving and pavement marking on both McLean Road and Concession Road 7.
- During removal of the existing Concession Road 7 Bridge, Highway 401 traffic will be redirected to the emergency detour route (EDR) north of Highway 401 along Brock Road South, Wellington Road 34 and Hanlon Expressway. The anticipated duration of this detour will be a weekend single night. During this time the new and existing Concession Road 7 Bridges will be closed to traffic.

# Table of Contents

page

<b>1.</b>	<b>Overview of the Project.....</b>	<b>1</b>
1.1	Study Overview and Location.....	1
1.2	Concession Road 7 Bridge Replacement Detail Design Overview .....	2
1.3	Study Background and Environmental Assessment Process .....	2
1.4	Purpose of this Design and Construction Report (DCR) .....	3
<b>2.</b>	<b>Consultation .....</b>	<b>5</b>
2.1	Consultation Shared with Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits, GWP 3042-14-00 .....	5
2.1.1	Notice of Study Commencement .....	5
2.1.2	External Agency and Municipal Consultation .....	5
2.1.3	Indigenous Community Engagement.....	7
2.1.4	Utilities .....	7
2.1.5	Public and Businesses .....	7
2.1.6	Website .....	8
2.2	Consultation Specific to Replacement of the Concession Road 7 Puslinch Township Bridge, GWP 3224-15-00.....	8
2.2.1	Meetings with Municipalities and Emergency Service Providers.....	8
2.2.2	Notice of Design and Construction Report Submission.....	9
<b>3.</b>	<b>Existing Environmental and Transportation Conditions .....</b>	<b>10</b>
3.1	Natural Environment.....	10
3.1.1	Terrestrial Ecosystems .....	10
3.1.1.1	Vegetation Communities and Plant Inventory .....	10
3.1.1.2	Wildlife and Significant Wildlife Habitat (SWH) .....	12
3.1.1.3	Tree Inventory and Assessment .....	12
3.1.2	Fish and Fish Habitat .....	13
3.1.3	Species at Risk .....	13
3.1.4	Drainage and Hydrology.....	14
3.1.5	Groundwater .....	14
3.1.5.1	Site Physiographic, Geologic and Hydrogeological Settings .....	16
3.2	Socio-Economic Environment .....	17
3.2.1	Land Use.....	17
3.2.2	Noise.....	17
3.2.3	Waste and Contamination .....	17
3.2.4	Landscape Composition .....	19
3.3	Cultural Environment.....	19
3.3.1	Archaeology .....	19
3.3.2	Cultural and Built Heritage.....	19

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

3.4	Transportation and Other Infrastructure .....	20
3.4.1	Highways .....	20
3.4.2	Municipal Roads.....	20
3.4.3	Structures.....	20
3.4.4	Utilities .....	20
<b>4.</b>	<b>Details of the Recommended Plan.....</b>	<b>22</b>
4.1	Design Details .....	22
4.1.1	Structural.....	22
4.1.2	Roadway Grading.....	22
4.1.3	Drainage .....	23
4.1.4	Pavement.....	23
4.1.5	Electrical .....	23
4.1.6	Property .....	24
4.2	Timing and Duration of Construction .....	24
4.3	Construction Staging .....	24
<b>5.</b>	<b>Environmental Issues and Commitments .....</b>	<b>26</b>
5.1	Natural Environment.....	26
5.1.1	Erosion and Sediment Control.....	26
5.1.2	Terrestrial Ecosystems.....	27
5.1.3	Fish and Fish Habitat .....	28
5.1.4	Species at Risk .....	28
5.1.5	Drainage and Hydrology.....	29
5.1.6	Groundwater .....	29
5.2	Socio-Economic Environment .....	30
5.2.1	Property .....	30
5.2.2	Operational Noise.....	31
5.2.3	Construction Noise .....	31
5.2.4	Air Quality.....	32
5.2.5	Waste and Contamination .....	32
5.2.6	Climate Change .....	33
5.3	Cultural Environment.....	33
5.3.1	Archaeology .....	33
5.3.2	Cultural and Built Heritage.....	34
5.4	Transportation and Other Infrastructure .....	35
5.4.1	Community Access and Out of Way Travel .....	35
5.4.2	Utilities .....	35
5.5	Summary of Environmental Effects, Mitigation and Commitments to Future Work.....	36
<b>6.</b>	<b>Monitoring.....</b>	<b>44</b>
6.1	Compliance Monitoring Program and Reporting .....	44

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

6.2	Project Specific Technical Monitoring.....	44
6.3	Project Specific Class EA Monitoring .....	44
6.4	Contract Administration .....	44
6.5	Project Monitoring .....	45

## List of Figures

Figure 1: Study Area.....	1
Figure 2: Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits .....	2
Figure 3: Overview of Previous Studies.....	3
Figure 4: Conceptual Rendering of the New Concession Road 7 Bridge .....	22
Figure 5: New Concession Road 7 Alignment over Highway 401 .....	23
Figure 6: Short Duration Detour along McLean Road, Brock Road and Wellington Road 34 .....	24
Figure 7: Short Duration Detour along Concession Road 7, Wellington Road 34 and Brock Road.....	25

## List of Tables

Table 1: Ecological Land Classifications (ELC) within the Study Area.....	11
Table 2: Notice of Approval to Proceed with the Undertaking – Condition of Approval 5: Henslow’s Sparrow .....	13
Table 3: Notice of Approval to Proceed with the Undertaking - Condition 7.3 .....	14
Table 4: Anticipated Areas of Vegetation Removal within the Limit of Disturbance .....	27
Table 5: Summary of Environmental Concerns, Mitigation Measures and Commitments .....	37

## Appendices

Appendix A. Recommended Plan
Appendix B. Consultation Materials
Appendix C. Environmental Assessment Act, Notice of Approval to Proceed with the Undertaking
Appendix D. References

# 1. Overview of the Project

## 1.1 Study Overview and Location

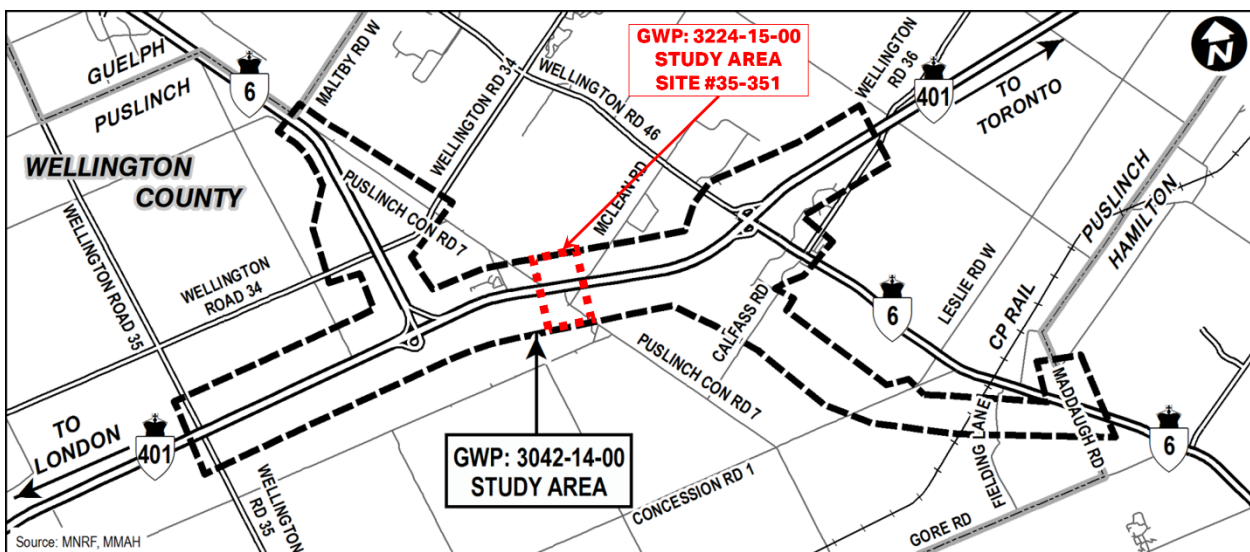
AECOM has been retained by the Ontario Ministry of Transportation (MTO) to undertake a Detailed Design and Class Environmental Assessment (EA) Study for the replacement of the Concession Road 7 Bridge over Highway 401, located in the Township of Puslinch and Wellington County (G.W.P. 3224-15-00).

This project is classified as a Group 'A' project under the Ontario Ministry of Transportation (MTO) *Class Environmental Assessment (EA) for Provincial Transportation Facilities (2000)*.

The replacement of the Concession Road 7 Bridge over Highway 401 was included with the Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits, Class Environmental Assessment and Detailed Design Study (G.W.P. 3042-14-00) Notice of Study Commencement.

This Design and Construction Report (DCR) is for the replacement of the Concession Road 7 Bridge over Highway 401. Further consultation and DCRs related to the Highways 6 and 401 improvements will be issued separately as that project progresses. The purpose of this DCR is provided in **Section 1.4**. It is be available for public and agency review for a period of 30-days from **August 20, 2018** to **September 18, 2018**.

Figure 1: Study Area



*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

## 1.2 Concession Road 7 Bridge Replacement Detail Design Overview

At an overview level, the detailed design for the replacement of the Concession Road 7 Bridge over Highway 401 consists of the following:

- Replacement of the Concession Road 7 Bridge;
- Realignment of Concession Road 7 to the south of Highway 401; and
- Realignment of the McLean Road West and Concession Road 7 intersection to the west of the existing intersection.

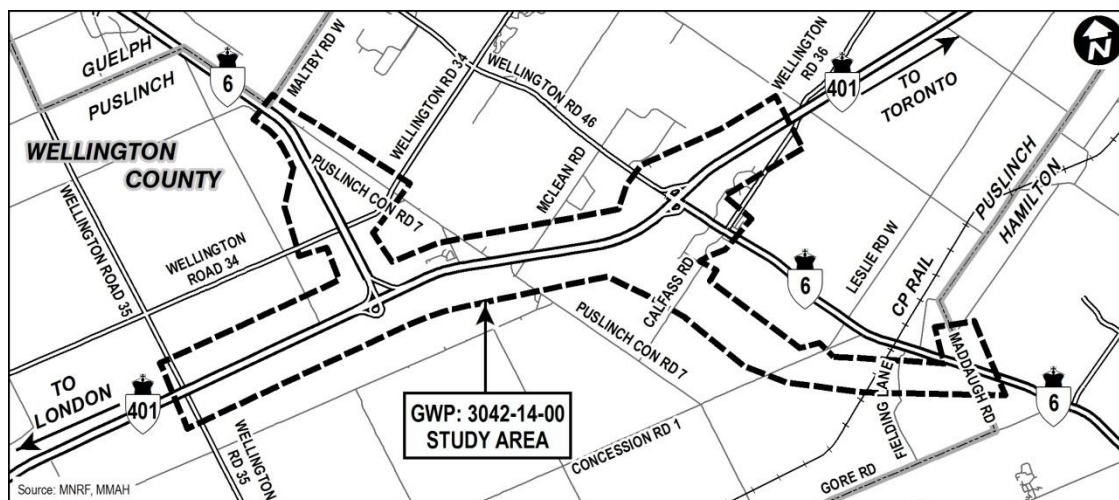
The new Concession Road 7 Bridge over Highway 401 will be built on a new skewed alignment immediately to the west of the existing bridge, with a longer span to accommodate the future widening of Highway 401. It is a two-span five-girder bridge with a reinforced concrete deck and asphalt wearing surface, with 3.50 m lane widths and 2.00 m shoulder widths. It has a higher profile and structure depth due to the larger span required for the future widening of Highway 401 to twelve lanes including High Occupancy Vehicle (HOV) Lanes. Minor changes will be made to the roadway approaches to the new bridge on Concession Road 7 and McLean Road. Improvements will be made to the intersection at the north end of the bridge to better accommodate truck turning movements.

The approaches to the new Concession Road 7 Bridge will be realigned to tie into the new bridge alignment. The McLean Road intersection is located just north of the new bridge, and the higher profile on Concession Road 7 will result in a grade raises.

## 1.3 Study Background and Environmental Assessment Process

As mentioned above, the replacement of the Concession Road 7 Bridge over Highway 401 was included with the Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits (G.W.P. 3042-14-00) Notice of Study Commencement. The study area for the Highways 6 and 401 Improvements study is provided in **Figure 2**.

**Figure 2: Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits**





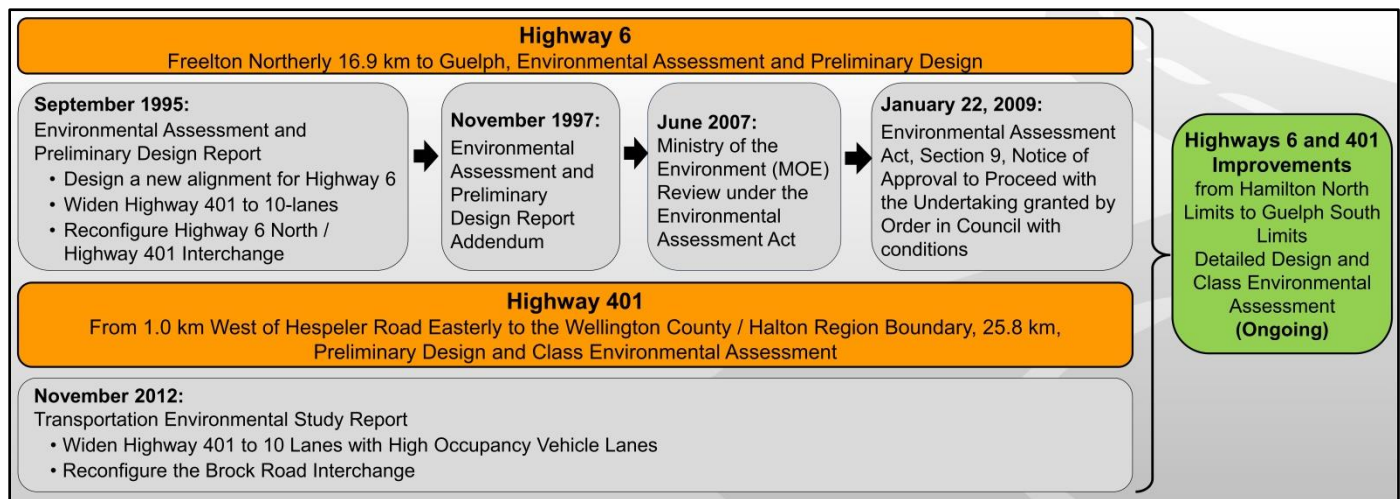
*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

The design elements of this study evolved through several previous environmental assessment and preliminary design studies, including:

- EA and Preliminary Design One Stage Submission, Highway 6 from Freelon Northerly 16.9 km to Guelph, WP 65-76-05;
- Addendum – EA and Preliminary Design One Stage Submission, Highway 6 from Freelon Northerly 16.9 km to Guelph, WP 65-76-05
- Review and Approval of Preliminary Design, Highway 6 from Freelon Northerly 16.9 km to Guelph, WP 65-76-05
  - A Notice of Approval to Proceed with the Undertaking, granted by Order in Council (EA File No. TC-CE-06) (refer to **Appendix C**);
- Preliminary Design and Class EA Study, Highway 401 from 1.0km west of Hespeler Road easterly to the Wellington County / Halton Region Boundary, GWP 8-00-00

**Figure 3** provides a summary of these previous studies and the associated timeline.

**Figure 3: Overview of Previous Studies**



These environmental assessment studies can be accessed through the study website at <http://Highways6and401HamiltontoGuelph.ca>.

Since no significant changes have been made to the preliminary design approved by Order in Council in 2009, the study process under the *Class EA for Provincial Transportation Facilities* (2000) requires the detailed design for this project to be documented in a DCR. For DCRs, the Class EA process does not provide members of the public, interested groups, or technical agencies with the option of requesting the Minister of the Environment, Conservation and Parks (MECP) to make a Part II Order (bump-up) that would require a higher level of assessment through an Individual EA.

## 1.4 Purpose of this Design and Construction Report (DCR)

This DCR documents the environmental assessment process associated with the design and construction of this project. It includes:

- A description of the project and its purpose;

*Ministry of Transportation  
Design and Construction Report*

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

- An overview of the consultation undertaken;
- A description of the Recommended Plan and associated construction staging;
- Anticipated environmental effects and mitigation measures; and,
- Commitments to monitoring associated with the implementation of the project.

To obtain additional information, to provide comments on this DCR or to request accommodation for any accessibility requirements in order to participate in this project, please contact one of the Project Team members listed below.

**Sarah Jewell, M. Eng, P.Eng.**

Project Engineer  
Ministry of Transportation – West Region  
Planning & Design  
659 Exeter Road  
London, Ontario N6E 1L3  
Telephone: 519-873-4812  
Email: sarah.jewell@ontario.ca

**Tim Sorochinsky, P.Eng.**

Consultant Senior Project Manager  
AECOM Canada Ltd.  
4th Floor, 30 Leek Crescent  
Richmond Hill, Ontario L4B 4N4  
Telephone: 905-882-3522  
Email: tim.sorochinsky@aecom.com

The contract drawings and documentation will be finalized after this DCR is filed. This may include minor refinements to the design plans provided in **Appendix A** that may occur as part of the standard progression of detailed design development. These potential refinements will not adversely affect the general intent of the EA commitments made herein.

## 2. Consultation

---

### 2.1 Consultation Shared with Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits, GWP 3042-14-00

Consultation is an integral part of the study process. As discussed in **Section 1.3**, the replacement of the Concession Road 7 Bridge over Highway 401 was initiated as part of the overall Highways 6 and 401 Improvements study (G.W.P. 3042-14-00), therefore most of the initial consultation was undertaken as part of the overall study.

#### 2.1.1 Notice of Study Commencement

A Notice of Study Commencement for the *Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits, Including a New Alignment of a Segment of Highway 6* (G.W.P. 3042-14-00) was issued to provide an overview of the study, the study background, the study process, details on consultation and a method for submitting comments and getting in touch with the Project Team for more information and to be placed on the project mailing list. The description of the approved Preliminary Design included the replacement of the Concession Road 7 Bridge over Highway 401. The Notice was published in local newspapers as follows:

- Turtle Island News on Wednesday, May 17, 2017;
- Two Row Times on Wednesday, May 17, 2017;
- Guelph Tribune on Thursday, May 18, 2017; and,
- Fergus Wellington Advertiser on Friday, May 19, 2017.

The Notice of Study Commencement was also distributed to approximately 3,400 houses, apartments, farms and businesses in the study area through Canada Post's Neighbourhood Mailing during the week of May 15, 2018.

In addition to the Notice of Commencement, notification letters were distributed to Indigenous communities, Members of Provincial Parliament, external agencies and municipalities on Friday, May 12, 2017. Additionally, notification letters were sent to members of the public and interest groups on Monday, May 15, 2017. The letters to government agencies and municipalities included a stakeholder form asking them if they would like to participate in the study and if the project will affect the delivery of their organization's programs or services and any other relevant information they wished to provide the Project Team.

Throughout the duration of the study, interested stakeholders who contacted the Project Team were provided with information they requested and were added to the project contact list. Refer to **Appendix B** for copies of the notification materials.

#### 2.1.2 External Agency and Municipal Consultation

In combination with the larger Highways 6 and 401 assignment, the following external agencies and municipalities were consulted during the study process:

- Ministry of Natural Resources and Forestry (MNRF);

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

- Ministry of the Environment, Conservation and Parks (MECP);
- Ministry of Tourism, Culture and Sport (MTCS);
- Ministry of the Attorney General;
- Ministry of Citizenship and Immigration;
- Ministry of Agriculture, Food and Rural Affairs;
- Ministry of Labour;
- Ministry of Health and Long-term Care;
- Ministry of Municipal Affairs;
- Ministry of Housing;
- Infrastructure Ontario;
- Fisheries and Oceans Canada;
- Transport Canada;
- Canadian Environmental Assessment Agency;
- Environment Canada;
- Grand River Conservation Authority (GRCA);
- Conservation Halton;
- Hamilton Conservation Authority;
- Upper Grand District School Board;
- Wellington Catholic District School Board;
- University of Guelph;
- Ontario Heritage Trust;
- Ontario Federation of Agriculture; and,
- Ontario Stone, Sand and Gravel Association.

The following municipalities were consulted during the study process:

- Township of Puslinch;
- County of Wellington;
- City of Guelph; and,
- City of Hamilton.

The following transit service providers were consulted:

- Guelph Transit;
- GO Transit / Metrolinx;
- Via Rail; and,
- Greyhound.

The following emergency service providers were consulted:

- Ontario Provincial Police (OPP);
- County of Wellington Emergency Management;
- Guelph-Wellington Emergency Medical Services;
- Guelph Police Service;
- Guelph Fire Services;
- Township of Puslinch Fire and Rescue Services; and,
- Hamilton Fire Department and Paramedic Services.

On June 15, 2017, a joint introductory meeting was held with the municipalities and emergency service providers in the study area to provide an overview of the project and study process, the anticipated study schedule, a review of the previously approved preliminary design, anticipated refinements to the previously approved preliminary design, and next steps. Staff from the Township of Puslinch, the City of Hamilton, the County of Wellington, the City of Guelph,

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

Hamilton Fire Department, Puslinch Fire and Rescue, Guelph Police, and City of Guelph Fire Department attended the meeting.

On June 30, 2017, a joint introductory meeting was also held with external government agencies with responsibilities in the study area. Emergency service providers who were unable to attend the joint meeting held earlier in June were also invited to attend this meeting. Staff from GRCA, Conservation Halton, MECP, MNRF, Ministry of Municipal Affairs, Ministry of Housing, MTCS, Guelph Wellington Paramedics, Wellington Emergency Management were in attendance.

### **2.1.3 Indigenous Community Engagement**

The following Indigenous communities have been engaged as part of this study and project discussions are ongoing:

- Six Nations of the Grand River;
- Mississaugas of the New Credit First Nation; and,
- Haudenosaunee Confederacy Chiefs Council (HCCC) / Haudenosaunee Development Institute (HDI).

Expressed interests of the communities pertain primarily to archaeological values. The Project Team is engaging communities in archaeological assessments as outlined in the Ministry of Tourism, Culture and Sport's Standards and Guidelines for Consultant Archaeologists (MTCS, 2011).

In addition to the above, Indigenous and Northern Affairs Canada and the Ministry of Indigenous Relations and Reconciliation were sent the Notice of Study Commencement.

A meeting was held with Six Nations of the Grand River Territory on June 15, 2017 and with Mississaugas of the New Credit First Nation on March 29, 2018 to present an overview of the project and study process, the previously approved preliminary design, anticipated refinements to the previously approved preliminary design, an overview of environmental investigations being undertaken and next steps in the study process.

### **2.1.4 Utilities**

The following Utility companies were engaged as part of this study:

- Bell Canada
- Hydro One
- Union Gas
- Rogers

### **2.1.5 Public and Businesses**

A project contact list was developed at the beginning of the study with interest groups that were identified in the previous studies and businesses that are located in the study area. Members of the public were encouraged to contact the Project Team through the Notice of Study Commencement and the project website if they wanted to learn more about the study and be kept apprised of study updates. The project contact list was continuously updated throughout the study process with anyone who contacted the Project Team.

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

The Morriston Bypass Coalition was an interest group that was independently formed during the previous EA study. The Coalition included various businesses, community groups and municipal representatives in the study area. A teleconference was held with the Morriston Bypass Coalition members on July 25, 2017 to continue consultation from the previous EA study and provide Coalition members the opportunity to participate and make the Project Team aware of their previously identified and current project interests and concerns. Discussion topics included the need for the project to proceed, potential traffic impacts during construction, utility relocations, upcoming Public Information Centres, engagement of government agencies and Conservation Authorities, and impacts to trucks traveling in the study area.

The Project Team contacted businesses in the area with potential direct impacts and also held individual meetings and discussions with property owners upon their request at various times throughout the study process.

### **2.1.6 Website**

A project website was developed for the overall Highways 6 and 401 study and was made live upon study commencement (<http://highways6and401hamiltontoguelph.ca/>). The project website included the following information for public access:

- A project overview;
- Maps and aerial photographs of the study area;
- Details on the EA process;
- Public notices and materials;
- Previous study reports for download;
- Copies of new study reports for public review;
- A project schedule;
- Frequently asked questions;
- Project team contact information;
- A contact information form to be added to the project contact list; and,
- Links to relevant sites.

Images of the project website material are available in **Appendix B**.

## **2.2 Consultation Specific to Replacement of the Concession Road 7 Puslinch Township Bridge, GWP 3224-15-00**

In addition to the consultation undertaken for the overall Highways 6 and 401 improvements, consultation specific to the Concession Road 7 Bridge replacement was undertaken with property and business owners in the area. These property and business owners were contacted by the Project Team and meetings were arranged as requested. To protect the privacy of the public and in accordance with the *Freedom of Information and Protection of Privacy Act*, correspondence with members of the public and businesses has not been included in this DCR as it is a public document.

### **2.2.1 Meetings with Municipalities and Emergency Service Providers**

A joint meeting was held with municipal staff from the Township of Puslinch and Wellington County on Thursday August 9, 2018 to provide an update on the Concession Road 7 Bridge replacement project. The Project Team presented information on the detailed design,

construction staging and short-term detour routes required during weekend full closures of Highway 401 and Concession Road 7 to accommodate removal of the existing bridge.

### **2.2.2 Notice of Design and Construction Report Submission**

A Notice of DCR Submission was published in the following newspapers on the dates listed below:

- Turtle Island News on Wednesday August 15, 2018;
- Two Row Times on Wednesday August 15, 2018;
- Guelph Tribune on Thursday August 16, 2018; and,
- Fergus Wellington Advertiser on Thursday August 16, 2018.

In addition to the newspaper publications, notification letters were distributed to everyone on the project contact list including Indigenous communities, Members of Provincial Parliament, external agencies, municipalities, members of the public and interest groups.

The Notice of DCR Submission provided the dates of the 30-day DCR review period and locations where a copy of the DCR was made available for review, which included the project website (<http://highways6and401hamiltontoguelph.ca/>).

## 3. Existing Environmental and Transportation Conditions

---

All significant features within the study area were identified to determine their sensitivity and potential for impacts associated with the replacement of the Concession Road 7 Bridge over Highway 401. Identifying significant features involved the collection of information from primary and secondary sources and consultation with agencies and the public. The data collected was grouped in the following categories:

- Natural Environment;
- Socio-economic Environment;
- Cultural Environment; and,
- Transportation Conditions.

### 3.1 Natural Environment

The following sections outline the natural environment existing conditions within the study area of the Puslinch Concession Road 7 Bridge over Highway 401.

#### 3.1.1 Terrestrial Ecosystems

AECOM ecologists conducted ecological investigations throughout the study area for the Concession Road 7 Bridge over Highway 401 as part of the larger Highways 6 and 401 study, where access was permitted. Ecological investigations included Ecological Land Classification (ELC) System community classifications and delineations, plant inventory, breeding bird surveys, vernal pool surveys, wildlife observations, tree inventories, and a Species at Risk (SAR) and significant wildlife habitat assessment.

##### 3.1.1.1 Vegetation Communities and Plant Inventory

Each vegetation community observed within the limits of the area to be disturbed was delineated, assessed and classified as ELC units according to the Ministry of Natural Resources and Forestry guidelines (Lee et al, 1998). This system provides a standard for comparing similar situations across Ontario. This protocol provides for the classification of vegetation communities through the completion of a multilayer (canopy, sub-canopy, ground cover) vegetation inventory. **Table 1** below presents the description of each ELC community observed in the study area.

All plant species observed were common and widespread throughout Ontario. There were no plant SAR or species of conservation concern observed within the vicinity of the bridge. In addition, there were no significant vegetation communities identified within the limits of the area to be disturbed.



Ministry of Transportation  
Design and Construction Report

Replacement of the Puslinch Concession Road 7 Bridge over Highway 401

**Table 1: Ecological Land Classifications (ELC) within the Study Area**

Location	Community Type	ELC Code	Inclusion	Description
South of Highway 401, west of Concession Road 7	Open	CUM (Cultural Meadow)	CUW (Cultural Woodlot) /MAM2-2 (Meadow Marsh) /CUP (Cultural Plantation)	The cultural meadow community was dominated by orchard grass ( <i>Dactylis glomerata</i> ), smooth brome ( <i>Bromus enermis</i> ), Kentucky blue grass ( <i>Poa pratensis</i> ). Other common groundcover species included Virginia strawberry ( <i>Fragaria virginiana</i> ), crown vetch ( <i>Vicia cracca</i> ), common dandelion ( <i>Taraxacum officinale</i> ) and common milkweed ( <i>Asclepias syriaca</i> ). The cultural woodland was dominated by Manitoba maple and black locust ( <i>Robinia pseudo-acacia</i> ). The cultural plantation was dominated by white spruce ( <i>Picea glauca</i> ).
North of McLean Road	Treed	FOD8 (Deciduous Forest)	CUW/ CUM1-1	This deciduous forest was located on the southern portion of the property. The forest community was complexed with dry-moist old field meadow. The canopy consisted of trembling aspen ( <i>Populus tremuloides</i> ), willow species ( <i>Salix</i> sp.) and balsam poplar ( <i>Populus balsamea</i> ). The sub canopy layer consisted of trembling aspen and Manitoba maple ( <i>Acer negundo</i> ), common buckthorn ( <i>Rhamnus cathartica</i> ), tatarian honeysuckle ( <i>Lonicera tartarica</i> ), and Norway maple ( <i>Acer platanoides</i> ). Ground cover within the CUM community found along the Highway 401 right-of-way (ROW) included, common goatsbeard ( <i>Tragopogon pratensis</i> ), common yarrow ( <i>Achillea millefolium</i> ), crown vetch, awnless brome, orchard grass, common milkweed and riverbank grape ( <i>Vitis riparia</i> ). A cultural woodland inclusion was present directly next to McLean road.
South of Highway 401, east of Concession Road 7	Open	CUM1-1 (Cultural Meadow)	n/a	The dry moist cultural meadow was located on the northern portion of the property. Dominant species included Kentucky blue grass, crown vetch, and common milkweed. The shrub layer

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

Location	Community Type	ELC Code	Inclusion	Description
				consisted of scattered clumps of shrubs of staghorn sumac ( <i>Rhus hirta</i> ) and Russian olive ( <i>Elaeagnus angustifolia</i> ).

**3.1.1.2 Wildlife and Significant Wildlife Habitat (SWH)**

The Concession Road 7 Bridge over Highway 401 was inspected for nesting birds on the structure on June 1, 2018. There was no evidence of bird nests under or on the bridge structure. A breeding bird survey was completed on June 13, 2018. No bird SAR or species of conservation concern were observed during the breeding bird surveys.

There were no SWH as defined in the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E* (MNR, 2015) identified within the disturbance limits. The majority of the vegetation communities within the disturbance limits are disturbed and consist of a high proportion of non-native and weedy species.

**3.1.1.3 Tree Inventory and Assessment**

AECOM's International Society of Arboriculture (ISA) Certified Arborists conducted a tree inventory and assessment on the trees as part of the assessment for the GWP 3042-15-00 study area in May, June and July 2017, as well as June 2018. The tree inventory and assessment was completed within these three properties in accordance with the MTO's *Guide to Roadside Tree Inventory and Assessment*.

**Assessment of Groups of Trees**

The diameter at breast height (dbh) of each tree was estimated and recorded within 10 cm increments. A health rating for each tree assessed was assigned as follows:

- Excellent (E) ..... no apparent problems with health and/or structural form
- Good (G) ..... minor problems with health and/or structural form
- Fair (F) ..... more serious problems with health and/or structural form
- Poor (P) ..... major problems with health and structural form
- Very Poor (VP) ... major problems with health and structural form with minimal live growth
- Dead (D) ..... no live growth

**Tree Inventory Results**

A total of 353 trees were examined within the three separate tallies. The most common tree species found, with 76 (22 %) of the combined tally, was black locust (*Robinia pseudoacacia*). The second most common species recorded in this study area was eastern white cedar (*Thuja occidentalis*), which had 72 trees (20 %) that were located primarily along the roadside adjacent to a forested area in the form of patchy areas of natural regeneration. Other tree species recorded in this study area included balsam poplar (*Populus balsamifera*), Scots pine (*Pinus sylvestris*), white ash (*Fraxinus americana*), green ash (*Fraxinus pennsylvanica*), black cherry (*Prunus serotina*), cherry sp. (*Prunus* sp.), eastern redcedar (*Juniperus virginiana*), eastern cottonwood (*Populus deltoides*), apple sp. (*Malus* sp.) and Manitoba maple (*Acer negundo*). One (1) white elm (*Ulmus americana*) was also recorded, which was a significant tree at over 50 cm (62 cm) in dbh. The most significant size class of trees within the study area was < 10 cm dbh, with 162 (46 % of the total count) specimens tallied.

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401***Tree Health Ratings**

There was a wide range of tree health conditions found for the 353 trees assessed, ranging from trees in good health to very poor health. Of these, 202 were found to be in good health, 128 were in fair condition, 21 were in poor health and 2 were recorded as being in very poor health. Predominantly the vast majority of trees (202) were in good health and < 10 cm dbh (106), which shows that there are a high number of juvenile trees from naturally-occurring tree regeneration.

**3.1.2 Fish and Fish Habitat**

There are no watercourses within the study area for the Concession Road 7 Bridge over Highway 401.

**3.1.3 Species at Risk**

A Species at Risk (SAR) screening request was submitted on April 25, 2017 as part of the Highways 6 and 401 Study, which captures the Concession Road 7 Bridge replacement. MNRF responded on June 30, 2017 indicating that there are several SAR records for the area. Of those SAR records identified by MNRF, only Barn Swallow and bat SAR have the potential to occur within the Concession Road 7 Bridge replacement study area; however, there were no Barn Swallow nests identified under the bridge structure. In addition, although the deciduous forest and cultural woodlot vegetation communities are suitable habitat for bat SAR within the study area, MNRF has indicated that it has no concerns related to impacts to bat SAR for the Concession Road 7 Bridge replacement study area.

This work is anticipated to be able to proceed under a Letter of Advice from MNRF.

The *Notice of Approval to Proceed with the Undertaking*, mentioned in **Section 1.3**, that was granted on January 22, 2009, included various conditions to be addressed during further stages of design, one of which relates to the potential presence of Henslow's Sparrow in the Study area. During the field investigations, Henslow's Sparrow (*Ammodramus henslowii*) was not encountered and no appropriate habitat areas of sufficient size were found. The MNRF was informed that the species and habitat are not present. **Table 2** below includes the specific conditions of approval and how this study addresses them.

**Table 2: Notice of Approval to Proceed with the Undertaking – Condition of Approval 5: Henslow's Sparrow**

Condition	Status
5.1 The proponent shall update and verify the Henslow's Sparrow habitat investigations documented in the Addendum issued November 1997 to confirm that the proposed highway right-of-way continues to have no potential impacts on the habitat for Henslow's Sparrow.	Completed. No habitat areas of sufficient size were found during field investigations.
5.2 The proponent shall update the investigations described in Condition 5.1 by conducting additional investigations within appropriate time periods (i.e., during nesting and breeding season) during the detailed design phase. If the above investigation is undertaken	Completed. No habitat areas of sufficient size were found during field investigations. No additional investigations immediately prior to

*Ministry of Transportation  
Design and Construction Report*

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

Condition	Status
within one year of construction, an additional investigation would not be required immediately prior to construction.	construction for Henslow's Sparrow are required given that no habitat was found for this species and therefore Henslow's Sparrow is highly unlikely to occur.
5.3 In the event that the investigations do demonstrate potential impacts, the proponent shall notify the Ministry of Natural Resources and Environment Canada and consider all direction provided by the Ministry of Natural Resources and Environment Canada.	Completed. MNRF was informed of the condition and that the species and habitat are not present.

### 3.1.4 Drainage and Hydrology

The study area is located in the Mill Creek watershed. There is no major watercourse located directly within the Concession Road 7 bridge replacement study area. The Concession Road 7 Bridge crosses over Highway 401 with a profile high point near the centerline of Highway 401. Runoff from the bridge structure is captured by a pair of catch basins at the north and south ends of the bridge approach, and then drains to the Highway 401 drainage system. Concession Road 7 in the study area is serviced by the roadside ditches.

Within the study limits, Highway 401 currently consists of six lanes (three eastbound lanes and three westbound lanes). The eastbound and westbound lanes are separated by paved median shoulders and separated by a concrete median barrier. Runoff from inner lanes and the paved median of Highway 401 is conveyed by the median sewer system, while runoff from outside lanes and shoulders is conveyed by the outside ditches. The storm sewer flows and ditch flows generally follow the highway vertical alignment from the east to the west. No median sewer traverses the Concession Road 7 underpass structure. A median sewer system east of the bridge discharges to the eastbound ditch by a 900 mm diameter lateral pipe. Highway 401 ditches traverse Concession Road 7 underpass structure by 900 mm corrugated steel pipes.

### 3.1.5 Groundwater

A hydrogeological investigation was conducted in accordance with the *Notice of Approval to Proceed with the Undertaking*. A summary of the report's compliance with Condition 7.3 is included in **Table 3**.

**Table 3: Notice of Approval to Proceed with the Undertaking - Condition 7.3**

Condition	Status
a) One hydrogeological cross-section along the entire length of the recommended route, and shorter cross-sections placed perpendicular to the recommended route at sensitive areas (e.g. recharge/discharge zones). The cross-sections should show depth to bedrock, stratification within the overburden, water table and/or potentiometric surface, and referenced wells;	A hydrogeological cross-section was developed as part of the Hydrogeological Investigation Report.
b) On the basis of a pre-construction well owner field survey, a map identifying the location of the wells within	A well record review is provided in the Hydrogeological Investigation

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

Condition	Status
300 metres (m) of the highway right of way will be prepared. Based on the owner survey and a review of the MOE Water Well Record database information wells should be categorized as overburden or bedrock wells, and the owners and status of the wells should be identified;	Report. A private well survey is being undertaken by AECOM.
c) After having completed the studies described in Conditions 7.3 (a) and (b), the proponent shall assess the potential impact of road salt and other contaminants on the identified wells and identify possible mitigation measure that could be implemented in the event that those impacts occur;	The assessment of salt and contaminant impacts is being undertaken.
d) A pre-construction survey of all potable water wells with 300 m of the highway right of way, to serve as a baseline for comparison to future monitoring data;	A pre-construction well survey is being undertaken
e) An assessment of seasonal variation of water level. Boreholes should be drilled at proposed stormwater management facilities to determine the site-specific stratigraphy to the bedrock. Alternative best management practices should be considered if a direct hydraulic connection to bedrock aquifer is identified upon drilling;	These conditions are not applicable to the replacement of the Concession Road 7 Bridge.
f) An explanation of the expected temporary and long-term implications of deep road cuts defined in this project as from 75 m north of Crieff Road northerly for 350 m and from 350 m south of Calfass Road, northerly for 1 kilometre, to 250 m north of the Connection Road at Morriston on surface water and groundwater interaction;	
g) A map identifying the location of the deep road cuts described in Condition 7.3(f);	
h) An identification of mitigation options for the impacts of the deep road cuts described in Condition 7.3(f);	
i) An assessment of the dewatering impacts of the preferred alternative;	An assessment of dewatering impacts is provided in <b>Section 5.1.5</b> of this DCR.
j) Achieve the treatment levels for soluble pollutants required as per current Ministry of Natural Resources and MOE policy and practice, using methods advocated by the MOE and Ministry of Transportation in their respective manuals on hydrogeology;	Potential treatment of dewatering discharge is discussed in <b>Section 5.1.5</b> of this DCR.
k) An assessment of the potential groundwater impacts on lands having existing development rights, and which are located adjacent to the highway project.	An assessment of potential groundwater impacts on lands having existing development rights is in progress.

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

The hydrogeological investigation work was carried out by Peto MacCallum Ltd. (PML) which included drilling eight boreholes. These boreholes were drilled to depths ranging from 9.8 m to 29.4 m below ground surface (bgs).

Upon completion of drilling, the boreholes were backfilled in accordance with the MTO guidelines and MECP Regulation 903 for borehole abandonment procedures.

The recovered soil samples were returned to the laboratory for detailed visual examination and index tests.

The ground water conditions at the borehole locations were observed during the drilling process by visual examination of the soil samples, sampler and drill rods as the samples were retrieved. In addition, water level measurements were taken in the open boreholes upon completion of drilling.

To supplement the ground water information, monitoring wells were installed in two of the boreholes to facilitate monitoring of the ground water level at these locations and allow for in-situ hydraulic conductivity testing and ground water sampling.

#### *3.1.5.1 Site Physiographic, Geologic and Hydrogeological Settings*

The ground surface elevation in the study area varies from 310 to 315 m above mean sea level (amsl).

According to Chapman and Putnam (1984), the Site is the physiographic region known as the Horseshoe Moraines and the physiographic landform in the area is defined as Spillways. The area where the site is located is marked by the old spillways containing flat sand and gravel terraces and some linear, undrained swampy area. The dominant soil deposit of the area is a coarse, open, stony till composed largely of dolomite with traces of red shale.

The OGSEarth (Ontario Geological Survey) map of Surficial Geology of Southern Ontario (2010), indicates that the Site lies in a region of glaciofluvial outwash deposits of gravel and sand.

The OGSEarth map of Paleozoic Geology of Southern Ontario (2007), indicates that the bedrock geology at the Site comprises of dolostone of the Guelph Formation.

The bedrock underlying the site was encountered in the boreholes at elevations of 285.7 and 288.5 (depths of 26.1 and 22.6 m below ground surface).

The ground water strike level elevation was 306.7 m above mean sea level (amsl),

The Site is located within the Grand River watershed, and Mill Creek, a tributary of the Grand River, is located about 800 m to the west of the Site.

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

## **3.2 Socio-Economic Environment**

### **3.2.1 Land Use**

As indicated above, the Study Area is located within the Township of Puslinch. The MTO and Concession Road 7 right-of-way (ROW) is primarily cultural meadow, as evidenced by the presence of non-native and invasive species north of Highway 401 is a combination of Extractive, Industrial and Agricultural land as per Schedule A of the Township of Puslinch's Zoning By-law 19/85-2018 Consolidation. South of Highway 401 is a combination of Extractive and Agricultural Commercial land use.

### **3.2.2 Noise**

A Construction Noise Assessment was completed as part of this study to provide an overview of existing sensitive features and potential noise concerns that may arise during construction.

The Construction Noise Assessment looked at Noise Sensitive Areas (NSAs) in the study area as per the MTO Environmental Guide for Noise (MTO Guide, 2006). NSAs typically include the following land uses, provided that an outdoor living area is associated with them:

- Private homes such as single family residences (owned or rental);
- Townhouses (owned or rental);
- Multiple unit buildings, such as apartments; and,
- Hospitals, nursing / retirement homes, etc.

The area surrounding the proposed project is rural in nature with several quarries to the north and southwest of the proposed construction area, and with limited potential for construction noise disturbance. The nearest potential noise sensitive properties to the construction area are a trailer campground / trailer park located approximately 500 metres to the west, rural housing located approximately 650 metres to the northwest, and 700 metres to the southeast and southwest. There is a trucking facility to the south of the construction area, this land use is not considered to be noise sensitive.

An exemption from the Puslinch Township Noise Control Bylaw No. 5001-05 is being requested to allow the operation of motorized conveyances and electronic devices between the hours of 2100 one day to 0700 the next day.

### **3.2.3 Waste and Contamination**

A Contamination Overview Study (COS) was undertaken for the overall Highways 6 and 401 Improvements study (G.W.P. 3042-14-00). The objective of the COS was to identify and review properties / areas within the study area with actual or potential site contamination that may impact future highway design and to identify appropriate future environmental work and mitigation measures to be implemented during the Preliminary Design, Detailed Design and construction phases of the project.

A Designated Substance Survey (DSS) was completed for the Concession Road 7 Bridge over Highway 401 on July 31, 2017 by AECOM site assessors. The purpose of the DSS was to identify and confirm the presence of hazardous materials or designated substances that may be

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

present at the site and to provide recommendations for the safe removal of any substances found / observed. Based on the results of the DSS, the following conclusions were made:

**Asbestos Containing Materials (ACMs):**

- The results of the laboratory analysis indicated that asbestos was not found in any samples submitted for analysis as part of the project.
- A non-friable waterproofing membrane typically installed between the surface road asphalt and the reinforced concrete deck is assumed to be present and has potential to contain asbestos. These materials will be sampled immediately by the construction Contractor to confirm whether or not they contain asbestos.
- Compliance with Section 8 of the Ontario Regulation (O. Reg.) 278/05, the Owner of a Site require the construction contractor to manage any materials they suspect to contain asbestos to be treated as ACM and handled as such in accordance with applicable regulations.

**Lead:**

- AECOM collected three bulk green paint samples from the bridge metal hand railing as potentially containing lead. The laboratory results indicated that all three of these paint samples contained lead and therefore are considered to be lead containing materials. The levels ranged between 13,000 – 34,000 ppm of lead. The paints at the DSS Site were all observed to be in generally poor condition with significant peeling and chipping due to overall age and deterioration.

**Silica:**

- Free crystalline silica, in the form of common construction sand, is present in all concrete and masonry products, materials, and finishes within the bridge site. Potential sources of silica observed included poured concrete decking, retaining walls, foundations, framing, abutments, footings, and temporary guardrails. The silica product typically used in concrete is silica fume which is added to the concrete at a rate generally between five and ten percent of the weight of portland cement.

**Other Designated Substances:**

- During the DSS work, other designated substances, including benzene, ethylene oxide, vinyl chloride, arsenic, coke oven emissions, acrylonitrile, and isocyanates were not observed.

**Ozone Depleting Substances (ODS):**

- During the DSS, there were no ODSs observed or reported at the DSS Site inspected by AECOM. Based on the results of the inspections completed by AECOM, ODSs are not expected to be present at the DSS Site.

**Mould:**

- During the DSS, there was no mould observed at the DSS Site inspected by AECOM. Based on the DSS inspection work completed to date, AECOM does not expect that mould is present at the DSS Site.



*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

Further details can be found in the *Designated Substance Survey – Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*, G.W.P. 3224-15-00 (2018), available under separate cover.

### **3.2.4 Landscape Composition**

The existing landscape composition in the study area consists of seed and cover along the ROW with a mix of coniferous and deciduous trees north and south of Highway 401.

## **3.3 Cultural Environment**

### **3.3.1 Archaeology**

A Stage 1-2 Archaeological Assessment was completed as part of this study for the lands to be impacted by the replacement of the Concession Road 7 Bridge over Highway 401. Stage 1 background research into the archaeological land use history of the study area using documentary sources, historic maps, and satellite imagery indicated that there are areas that retain moderate to high potential for containing archaeological remains, despite disturbance from highway and commercial construction and associated infrastructure. AECOM conducted the Stage 1 field review and Stage 2 test pitting survey between June 4 and 5, 2018. The portions of the study area that were not visibly disturbed, part of a constructed road embankment, or low-lying wet were subject to test pitting at 5 m intervals. One multi-component archaeological site was found which consisted of a mid-19<sup>th</sup> century Euro-Canadian assemblage comprised of 51 historic artifacts and 9 pre-contact Indigenous chipped stone artifacts.

A site-specific Stage 3 archaeological assessment is being undertaken in the southwest quadrant of Highway 401 and Concession Road 7.

### **3.3.2 Cultural and Built Heritage**

The Concession Road 7 Bridge over Highway 401 is a continuous deck slab structure that was constructed in 1959. It was one of six bridges included in a cultural heritage evaluation completed in 2010 under the Highway 401 Preliminary Design and Class EA Study for 1.0 km west of Hespeler Road to the Wellington County / Halton Region Boundary.

The following assessment was made regarding the Concession Road 7 Bridge:

- As one of the first group of continuous deck slab structures in the west Region, the underpass is deemed to “display a high degree of technical merit”;
- The structure displays a high degree of craftsmanship and stylistic merit. Modifications include the installation of solid concrete barriers to the deck side of the original handrail system;
- The materials are “common materials or combinations”;
- As one of a family of continuous deck slab (rectangular void) structures in the corridor, Puslinch Township No. 11 Underpass is considered to be “a contributory element in understanding a family of bridges within a corridor”;
- The Puslinch Township No. 11 Underpass “maintains or contributes to the overall character of the area”;

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

- Foundation of Canada Engineering Corporation Limited (Fenco) is considered to be a “known, prolific designer-builder”; and,
- As a regular road crossing, the Puslinch Township No. 11 Underpass is considered to have a little association with a historical theme, i.e. the development of Highway 401 from Windsor to the Quebec border and its influence on land use development in Southern Ontario.

In order for a bridge to be eligible to be added to the Ontario Heritage Bridge List it must meet the *Ontario Heritage Bridge Guidelines for Provincially Designated Bridges* evaluation criteria and receive a score of 60 or higher (out of 100 possible points). Based on the design / physical value, contextual value and historical / associated value the Concession Road 7 Bridge received a score of 46 and was therefore not considered eligible to be added to the Ontario Heritage Bridge List.

### **3.4 Transportation and Other Infrastructure**

#### **3.4.1 Highways**

The Concession Road 7 Bridge crosses over 6-lanes of Highway 401, between Highway 6 north (Hanlon Expressway) and Highway 6 south. As part of the larger Highway 6 and 401 Improvements assignment, Highway 401 will be widened in the future to a 12-lane section, including HOV Lanes. The Concession Road 7 Bridge will be replaced with a new longer span structure west of the existing bridge to address the existing conditions of the structure and to accommodate the future widening of Highway 401,.

#### **3.4.2 Municipal Roads**

Concession Road 7 and McLean Road are both Township of Puslinch local roads which are located within the study area for this bridge replacement. Concession Road 7 is a north-south road crossing Highway 401 and ties into a T-intersection at Concession Road 7 / McLean Road just north of Highway 401. Concession Road 7 / McLean Road, Brock Road and Wellington Road 34 form a ring connection to the T-intersection, which provides dual access to the Concession Road 7 Bridge for local trucking and commercial businesses. Mason Road is located at the study south limit.

#### **3.4.3 Structures**

The existing Concession Road 7 Bridge over Highway 401 is a four span structure, constructed in 1959. The structure is in a north-south orientation and is perpendicular to the centreline of Highway 401. The bridge provides for two lanes of traffic over Concession Road 7 over six lanes of Highway 401. The Concession Road 7 bridge must be replaced as it has reached the end of its lifespan. The new bridge will accommodate the future widening of Highway 401.

#### **3.4.4 Utilities**

There is aerial hydro (distribution) and Bell Telephone (aerial and buried) along the south side of McLean Road and the west side of the Concession Road 7 Right-of-Way. There is also an Underground Union Gas line present in the area along the north side of the Concession Road 7

*Ministry of Transportation  
Design and Construction Report  
Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

and Maclean Road alignments. Utility impacts and potential relocation requirements are discussed further in **Section 5.4.2**.

## 4. Details of the Recommended Plan

### 4.1 Design Details

#### 4.1.1 Structural

The new Concession Road 7 Bridge over Highway 401 (Site #35-351) will be built on a new skewed alignment immediately to the west of the existing bridge, with a longer span to accommodate the future widening of Highway 401. Sleeper slabs and expansion joints are being proposed given the movement at the bridge ends exceeds 10 mm. The superstructure is comprised of two spans of five (5) rows of NU girders with a reinforced concrete deck and asphalt wearing surface. A conceptual rendering of the structure is illustrated in **Figure 4**.

**Figure 4: Conceptual Rendering of the New Concession Road 7 Bridge**



Based on a review of the existing structures along the highway corridor in this area, the following recommendations for aesthetical considerations for the Concession Road 7 Bridge over Highway 401 are being considered:

- Pier caps with curved concrete surfaces on the leading edge;
- Grooves at exterior face of the barrier walls; and,
- Concrete slope paving treatments and landscaping.

#### 4.1.2 Roadway Grading

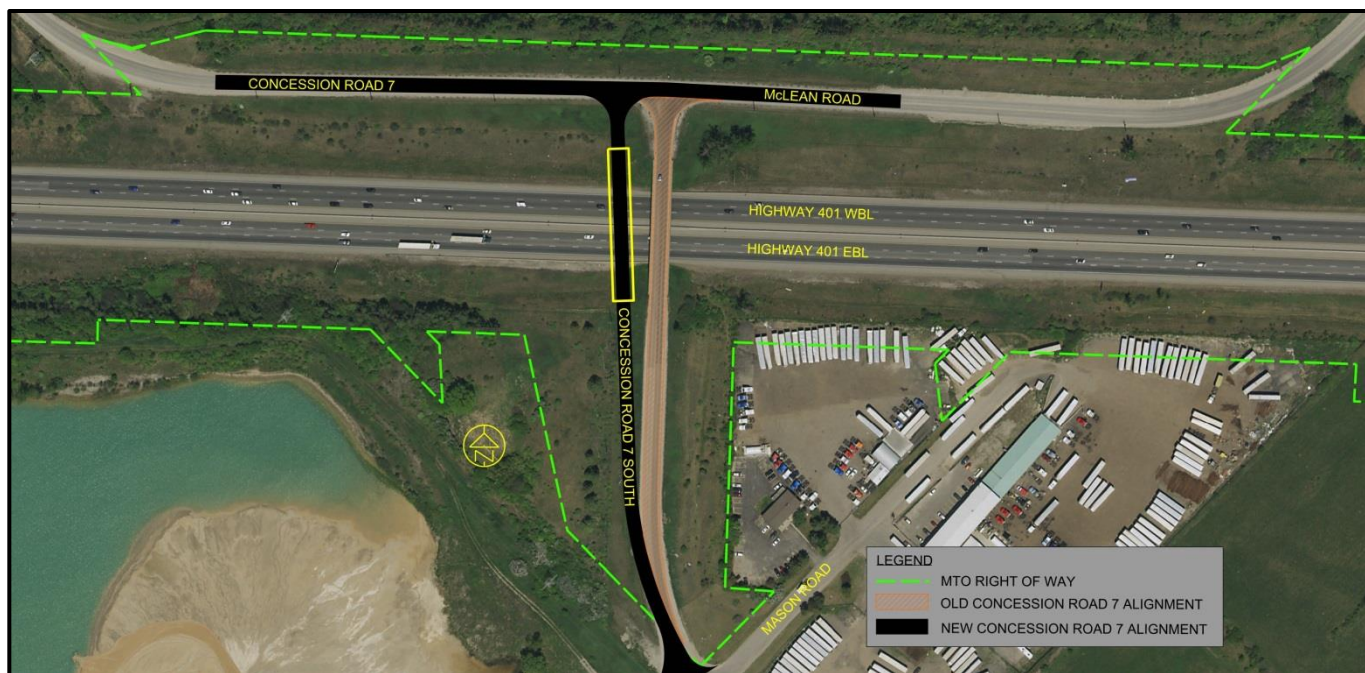
The new Concession Road 7 Bridge approaches and embankments will be constructed to tie into the new westerly bridge alignment at Highway 401, as illustrated in **Figure 5**. The new Concession Road 7 Bridge will require a higher profile and structure depth to accommodate the larger span for Highway 401 widening. This will also require a corresponding grade raise on McLean Road. Concession Road 7 lane widths on the bridge of 3.50 m and shoulder widths of 2.00 m will address future rehabilitation staging concerns for this new structure.

The design vehicle is WB-20 and a pavement widening of 1.25 m is being applied to the 200 m radius curve, distributed on both sides, on the south side of Concession Road 7 South approaching the Mason Road intersection.

Additional improvements will be made to the intersection at the north end of the bridge to better accommodate truck turning movements as follows:

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

- Larger turning radii at the intersection to accommodate truck turning movements;
- Fully paved shoulders to provide additional space for truck turning movements; and
- Addition of a 4.5 m westbound left turn lane on McLean Road.

**Figure 5: New Concession Road 7 Alignment over Highway 401****4.1.3 Drainage**

Concession Road 7, McLean Road and Highway 401 drainage will be provided by roadside ditching as part of this contract. On Concession Road 7, in vicinity of the structure, drainage will be addressed by the installation of catch basins beyond the limits of the new structure.

**4.1.4 Pavement**

Partially paved shoulders will be incorporated throughout the study, with the exception of the shoulders at the McLean Road / Concession Road 7 intersection which will be fully paved to accommodate any excess truck trailer tracking through the turning movements.

**4.1.5 Electrical**

Permanent traffic signals at the two intersections in the study area (Concession Road 7 / McLean Road and Concession Road 7 / Mason Road) are not warranted. Based on a review of existing traffic volumes, projected traffic volumes and collisions, permanent illumination is also not warranted.

Temporary illumination and traffic signals will not be required during construction.



*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

#### 4.1.6 Property

Property for this work has been acquired by MTO based on the previous approved Environmental Assessment for Highway 6 from Freelon Northerly to Guelph, WP 65-76-05, as outlined in **Section 1.3**. No additional property requirements have been identified.

## 4.2 Timing and Duration of Construction

Construction is currently anticipated to commence in 2019 and continue for one construction season pending receipt of all permits, approvals and funding.

## 4.3 Construction Staging

The Contractor may revise the proposed construction staging plan and therefore the staging described below is subject to change.

Key construction staging and detour details for this bridge replacement are as follows:

- During construction of the new Concession Road 7 Bridge, the existing bridge over Highway 401 will remain open to traffic.
- During construction of the approaches and intersection improvements, a short section of McLean Road, to the west of the existing T-intersection, will be closed. The duration is likely to be approximately 2-3 weeks. Traffic over Highway 401 will be maintained on the existing bridge and will be detoured onto McLean Road. Traffic to or from Concession Road 7 north of Highway 401 will be detoured via McLean Road, Brock Road and Wellington Road 34 (**Figure 6**).

**Figure 6: Short Duration Detour along McLean Road, Brock Road and Wellington Road 34**



*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

- During construction of the approaches and intersection improvements a short section of McLean Road, east of the new T-intersection, will be closed. The duration is likely to be approximately 1-2 weeks. Traffic over Highway 401 will be accommodated on the new bridge and will be detoured onto Concession Road 7 North. Traffic to and from McLean Road will be detoured via Concession Road 7, Wellington Road 34 and Brock Road (Figure 7).

**Figure 7: Short Duration Detour along Concession Road 7, Wellington Road 34 and Brock Road**



- Single lane closures with flagging or full short term closures will be required for minor additional pavement tie in work at the south limits of the new Concession Road 7 alignment and for final surface course paving and pavement marking on both McLean Road and Concession Road 7.
- During removal of the existing Concession Road 7 Bridge, Highway 401 traffic will be redirected to the emergency detour route (EDR) north of Highway 401 along Brock Road South, Wellington Road 34 and Hanlon Expressway. The anticipated duration of this detour will be a weekend single night. During this time the new and existing Concession Road 7 Bridges will be closed to traffic.

## 5. Environmental Issues and Commitments

---

This section presents an overview of the potential temporary and permanent impacts to the natural, socio-economic and cultural environments, as well as transportation effects associated with the design and construction of the recommended plan. This section also presents a summary of the environmental protection / mitigation measures proposed prior to, during and post construction to avoid or minimize the impacts associated with the Recommended Plan. Commitments to future work are also presented herein. A summary of mitigation, protection, and future commitments is presented in **Table 5**.

### 5.1 Natural Environment

#### 5.1.1 Erosion and Sediment Control

Soil disturbance associated with construction activities may result in erosion. Erosion and sediment control practices will focus on minimizing site erosion and keeping any eroded material on site. Effective erosion and sedimentation control will be achieved throughout the project with stringent construction supervision, monitoring of the site, and maintenance of control works throughout their operational life. Erosion and sedimentation control measures will include, as applicable:

- Once areas of exposed soils are stabilized with topsoil, they will be seeded immediately following construction;
- All erosion and sediment control measures shall remain in place until vegetation is established or the site is stabilized to ensure no sedimentation of the surrounding natural environment;
- Erosion and sediment control structures shall be designed, installed, maintained, and removed according to the latest Ontario Provincial Standard Specifications (OPSS) Guidelines;
- The extent and duration that disturbed soils are exposed to the elements will be minimized;
- Storage, stockpiling and staging areas will be delineated prior to construction and inspected in accordance with the Ontario Ministry of Transportation Construction Administration and Inspection Task Manual;
- The material generated during maintenance of sediment control measures (i.e. filter socks, straw bales, silt fence, etc.) will be taken off-site for disposal;
- Following construction, once disturbed areas have stabilized, all temporary erosion and sedimentation controls will be removed; and
- Erosion and sediment control structures will be routinely inspected as well as checked after storms and repaired as required. These structures will be cleaned out when accumulated sediment reaches half the design height.



## Replacement of the Puslinch Concession Road 7 Bridge over Highway 401

**5.1.2 Terrestrial Ecosystems***Potential Impacts*

As described in **Section 3.1.1**, a Terrestrial Ecosystem Existing Conditions and Impact Assessment was undertaken for the Concession Road 7 Bridge over Highway 401. The impact assessment was based on the limits of disturbance which were defined as the outermost extent of construction disturbance. The following are potential effects on the terrestrial environment:

- **Loss and/or Damage to Vegetation, including Trees, within the Limit of Disturbance**  
Minimal vegetation removal will be required as a result of the proposed project works. **Table 4** below provides a summary of vegetation removal required within each vegetation community. It is anticipated that 248 trees will need to be removed to accommodate grading of the new bridge and along the adjacent roadways. In addition, the possibility of incidental intrusion into the adjacent vegetation communities surrounding the vegetation removal areas is also a potential effect. The majority of the vegetation removal will be limited to the cultural meadows within the Highway 401 right-of-way (ROW), which are already disturbed as evidenced by the presence of non-native and invasive species.

**Table 4: Anticipated Areas of Vegetation Removal within the Limit of Disturbance**

Affected Vegetation Community	Area of Vegetation Removal (ha)
Cultural Meadow	4.15
Cultural Woodland	0.09
Deciduous Forest	0.25
Hedgerow	0.06
Total:	4.55

- **Fill and Sediment Deposition within Vegetation Communities**  
During grading of the site, fill and sediment runoff from the active construction area may enter vegetation communities and adjacent watercourses, if not properly controlled.
- **Soil or Water Contamination (including groundwater)**  
Oil, gasoline, grease and other materials from construction equipment, materials, storage and handling may enter vegetation communities and adjacent watercourses if not appropriately managed.
- **Introduction or Spread of Invasive Species**  
Clearing and grading, and movement of equipment may result in the spread of invasive species not currently present within the study area.
- **Disturbance/Displacement of Breeding Birds and/or Destruction of Their Active Nests**  
Vegetation removal during the regional overall nest period (April 1<sup>st</sup> to August 31<sup>st</sup>) can cause displacement of breeding migratory birds and/or destruction of their active nests, which is prohibited under the *Migratory Bird Convention Act, 1994* (MBCA). However, potential impacts to migratory birds are anticipated to be low provided that mitigation measures such as construction timing constraints and avoidance measures as described below are implemented.

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401**Recommended Mitigation Measures*

To assist in mitigating potential impacts, the following construction contract provisions will be utilized which include various operational constraints and standards for the Contractor to adhere to during construction:

- OPSS 805: Temporary Erosion and Sediment Control Measures;
- OPSS 180: General Specification for the Management of Excess Materials;
- Non-Standard Special Provision (NSSP): Operational Constraint- Migratory Bird Protection;
- Vegetation removal must be scheduled to occur outside of the breeding bird season of April 1st to August 31st to avoid disturbance to breeding birds and destroying active nests. If vegetation removal must occur within this time period, active nest searches may be conducted prior to vegetation removal by a qualified biologist to ensure that no active nests of breeding birds or bird SAR are destroyed, in order to prevent any contravention of the MBCA (1994) and / or the Endangered Species Act (ESA, 2007);
- Bat SAR Mitigation – Will be consistent with a Letter of Advice that may be required from MNRF;
- OC\_EN\_06: Operation Constraint – Control Measures during Removal of Concrete, Concrete, Repair / Construction, and Concrete Sawcutting;
- OPSS.PROV 801 – Construction Specification For the Protection of Trees;
- Vegetation removal, grading and soil compaction should be kept to a minimum;
- Construction material should be stored within an authorized location and any soil stockpiles should be located within a suitable sediment fenced and protected location only;
- Soils should not be moved from the construction area;
- The restoration of the disturbed areas will be in accordance with OPSS-804: Construction Specification for the Seed and Cover;
- Temporarily disturbed areas, if any, should be rehabilitated in accordance with OPSS-804: Construction Specification for the Seed and Cover as discussed in **Section 5.1.1**; and,
- All machinery, construction equipment and vehicles should be washed prior to leaving the construction site in order to prevent the spread of invasive species to other locations.

**5.1.3 Fish and Fish Habitat**

As discussed in **Section 3.1.2**, there are no watercourses within the Study Area and therefore there is no potential for impact to Fish and Fish Habitat.

**5.1.4 Species at Risk***Potential Impacts*

As described in **Section 3.1.1**, a Terrestrial Ecosystem Existing Conditions and Impact Assessment was undertaken for the Concession Road 7 Bridge over Highway 401. The impact assessment was based on the limits of disturbance which were defined as the outermost extent of construction disturbance. The following are potential effects on Species at Risk (SAR):

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

- **Disturbance/Displacement/Possible Mortality of SAR or Species of Conservation Concern and their Habitats**

Vegetation, including tree removal, within the FOD8 and CUW community as described in Tables 3 and 4 above, may have a potentially negative effect on Bat SAR. However, in consultation with the MNRF, it was determined that permitting under the ESA for affected bat features is not required. If MNRF decides that a Letter of Advice (LOA) is required, mitigation measures will be as stipulated documented in the LOA.

Potential effects on or permitting under the ESA for other SAR (i.e., Barn Swallow or Henslow's Sparrow) or species of conservation concern is not required for the Concession 7 Bridge replacement as none were found in this study area.

*Recommended Mitigation Measures*

In addition to those mitigation measures outlined in **Section 5.1.2**, the Contractor shall comply with the requirements of any potential LOA issued by MNRF.

**5.1.5 Drainage and Hydrology**

The new Concession Road 7 Bridge will be built entirely to the west of the existing structure. For all the construction stages, the drainage will be maintained. The existing culverts will remain for the temporary drainage until the sewers along the future Highway 401 shoulders are constructed as part of a separate contract.

The replacement of Concession Road 7 Bridge and associated ditch grading activities have the potential to result in sediment transport to the receiving drainage system. MTO approved erosion and sediment control measures which are documented in the *Environmental Guide for Erosion and Sediment Control during Construction of Highway Projects* (MTO, September 2015) will be implemented to reduce the migration of sediment from the construction zone into the receiving drainage system. Specific erosion sediment control measures will be included in the Contract Package.

**5.1.6 Groundwater***Construction Dewatering Requirements*

The recommendation for the foundation of the new bridge consists of using driven steel H-piles at both abutments and a shallow foundation (strip footing) to support the centre pier. Alternatively, caissons socketed into the bedrock may be used for the centre pier foundation.

Based on the hydrogeological conceptual site model (HCSM) of the site, developed based on field and laboratory data, the requirements for construction dewatering are as follows:

- Steel H-Piles Driven to Bedrock – No ground water dewatering is required for the installation of piles.
- Shallow Foundation, Strip Footings – Since the footings are expected to be constructed at or just below elevation 310.0 m, and this is above the expected ground water strike level (elevation 306.7 m), no significant dewatering is anticipated.
- Caissons Into Bedrock – Dewatering is not anticipated for the caisson installation

Thus, it is not expected that significant dewatering will be required for the construction of the bridge, besides potential minor sump pumping of intruding surface waters, if any.

### *Water Taking Permit*

In-construction and post-construction dewatering, like other water takings in Ontario, is governed by the Ontario Water Resources Act (OWRA) and the Water Taking and Transfer Regulation 387/04, a regulation under the OWRA.

In accordance with the above-noted regulatory requirements, an application for a Permit-to-Take-Water (PTTW) should be filed with the MECP for any construction dewatering if the construction dewatering discharge will be greater than 400,000 L/day or about 4.6 L/s. If the dewatering discharge will be greater than 50,000 L/day and less than 400,000 L/day then the water taking will not require the MECP PTTW approval process and can instead be registered with the Environmental Activity and Sector Registry (EASR). Water taking at a rate less than 50,000 L/day does not require MECP approval.

Since the discharge rate for the construction dewatering at the subject Site is expected to be less than 50,000 L/day, neither a PTTW nor an EASR is required for this Site.

### *Construction Dewatering Impact Assessment*

As described above, based on the currently proposed foundation options and ground water levels, no significant construction dewatering is anticipated. Since there is to be no dewatering, no impacts (such as settlement, movement of contaminant plumes, and reduction in ground water flow to streams and water supply wells) are expected in the vicinity of the Site due to dewatering.

## **5.2 Socio-Economic Environment**

### **5.2.1 Property**

#### *Potential Impacts*

Property for this work has been acquired by MTO based on the previous approved Environmental Assessment for Highway 6 from Freelon Northerly to Guelph, WP 65-76-05, as outlined in **Section 1.3**. No additional property requirements have been identified.

Access to all private properties will be maintained during construction, with driveway regrading to be undertaken where required in consultation with adjacent property owners at that time.

#### *Recommended Mitigation Measures*

Property negotiations have been undertaken independently with impacted property owners where private property was required.

The Contractor will be required to consult directly with property owners where potential impacts to driveways or edge impacts on private property may be required for driveway regrading or storage of construction materials.

All potential impacts to private property (i.e. fences, grading) will be returned to existing conditions by the Contractor.

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401***5.2.2 Operational Noise**

The replacement of the Concession Road 7 Bridge over Highway 401 will result in a realignment of Concession Road 7 to the west of the existing alignment but will not result in a change in capacity to local roads or the highways. As discussed in **Section 3.2.2**, there are no Noise Sensitive Areas within 500 m of the structure and therefore there are no anticipated impacts to operational noise as part of the bridge replacement and mitigation is required.

**5.2.3 Construction Noise***Potential Impacts*

As noted in **Section 3.2.2** a Construction Noise Assessment was completed for the replacement of the Concession Road 7 Bridge over Highway 401.

Construction activities expected on this project include bridge foundation deck construction, paving and grading. Typical construction equipment associated with the construction activities could include:

- Air compressor;
- Concrete grinder;
- Concrete mixer truck;
- Concrete pump trucks;
- Concrete saw;
- Dump trucks and flatbed trucks;
- Generator;
- Jack hammer;
- Man lift;
- Hoe ramp;
- Pavement scarifier;
- Paver;
- Roller;
- Auger drill rig;
- Welder;
- Excavator;
- Dozer; and,
- Front end loader.

The above listings are preliminary and will be required to be reviewed and/or updated once construction methods are determined by the Contractor to determine if changes to potential impacts are made. The above also assumes that drill caissons will be used instead of impact installed sheet piles.

*Recommended Mitigation Measures*

The following mitigation measures are recommended to minimize potential impacts associated with noise during construction:

- Adhere to applicable local By-laws;

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

- Contract documents provided to the contractor contain general noise control measures to mitigate the noise impact at noise sensitive areas including two standard clauses regarding equipment noise:
  - Equipment shall be maintained in an operating condition that prevents unnecessary noise, including but not limited to non-defective muffler systems, properly secured components, and the lubrication of moving parts;
  - Duration of construction equipment idling is to be restricted to the minimum time necessary to complete the specified task; and,
- MTO will investigate any noise concerns, advise the contractor of any problems, and enforce its contract.

**5.2.4 Air Quality***Potential Impacts*

Air quality during construction may be affected with dust impacts from heavy construction equipment. These impacts will be limited to the construction period and are not considered a recurring activity. Contract provisions will minimize impacts to adjacent properties during construction (e.g., dust control measures). Therefore, the impacts from construction on air quality are not considered significant.

*Recommended Mitigation Measures*

Provisions to minimize potential air quality impacts during construction include the following best management practices:

- No unnecessary idling of vehicles;
- Covering stockpiles of soil, sand and aggregate;
- Regular cleaning of construction sites and access roads to remove debris and dust caused by construction; and
- Application of dust suppressants to control dust generated by construction activities (as required).

**5.2.5 Waste and Contamination***Potential Impacts*

**Section 3.2.3** describes the designated substances that were found to be present or that have potential to be present within the study area.

*Recommended Mitigation Measures*

The findings of the DSS make the following recommendations to be considered during construction:

- All potential ACM waterproofing membrane encountered during any scheduled work performed at the Site shall be sampled immediately by the Contractor prior to any maintenance work in order to confirm whether or not they contain asbestos or otherwise assumed to contain asbestos and treated as such;
- All potential lead-containing materials that may be disturbed during any scheduled work performed at the Site should be removed following O. Reg. 490/09, O. Reg. 213/91, and Ontario Ministry of Labour (MOL) Lead guidelines. As much as possible, paint removal

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

should be completed using hand-powered scraping tools or by disassembling painted components (i.e., disassemble steel beams, etc.); and,

- A qualified Contractor must control all DSS Sites repair/or maintenance activities on site to minimize worker exposure to silica and/or lead dust in accordance with O. Reg. 490/09. As required by O. Reg. 490/09, airborne silica concentrations must not exceed a TWA of 0.10 milligrams of silica per cubic metre for quartz/tripoli and a TWA of 0.05 milligrams of lead per cubic metre for elemental lead, inorganic and organic compounds of lead, respectively. Recycling of silica-based materials removed from any work areas should be conducted in accordance with O. Reg. 102/94 and O. Reg. 103/94 under the *Ontario Environmental Protection Act*. Demolition or any disturbance of any silica-containing DSS Site or bridge materials should be conducted following recommendations detailed within the MOL Silica guidelines, where specific legislation is not included under the OHSA.

The following measure will be implemented to address waste and contamination:

- Fill and excess material will require proper management (removal, storage and disposal);
- Should any contaminated materials be encountered during the undertaking, caution will be exercised while handling and disposing of contaminated materials; and
- Ontario regulations regarding waste classification and disposal site selection will be followed.

### **5.2.6 Climate Change**

Impacts to climate change associated with the replacement of the Concession Road 7 Bridge over Highway 401 are not anticipated. The bridge replacement is maintaining existing capacity on Concession Road 7 and mitigation measures outlined in **Section 5.1** and **5.2** are intended to minimize the impact to the environment during construction.

## **5.3 Cultural Environment**

### **5.3.1 Archaeology**

#### *Potential Impacts*

As noted in **Section 3.3.1**, a Stage 1-2 Archaeological Assessment was completed for the lands to be impacted by the replacement of the Concession Road 7 Bridge over Highway 401. The study area consisted primarily of deep and extensive ground disturbance, areas of road embankment slope and low-lying wet areas. The remaining portions of the study area that were not visibly disturbed, sloped or wet were subject to test pitting at 5m intervals. One multi-component archaeological site was found. The H1 site (AiHa-58) consists of a mid-19<sup>th</sup> century Euro-Canadian assemblage comprised of 51 historic artifacts and 9 pre-contact Indigenous chipped stone artifacts. The H1 site has potential to be impacted by the grading associated with the bridge replacement and therefore is subject to a site specific Stage 3 archaeological assessment.

#### *Recommended Mitigation Measures*

Given the results of the Stage 1-2 Archaeological Assessment, the following mitigation measures are recommended:

*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

- A site specific Stage 3 archaeological assessment is being undertaken for the H1 site (AiHa-58), as described in **Section 3.3.1**. The Stage 3 assessment consists of the hand excavated test unit methodology as outlined in *Sections 3.2* and *Table 3.1*, of the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011). The test unit excavation will consist of one metre by one metre square test units laid out in a five metre grid and will be excavated by hand to a depth of five centimetres within the subsoil. Additional test units (representing 20% of the initial grid) will be excavated in areas of interest within the site extent. Site specific land registry research to supplement the previous background study concerning the land use and occupation history specific to the site should also be conducted as part of the Stage 3 assessment.
  - The Contractor will be required to comply with all recommendations outlined in the Stage 3 Archaeological Assessment (once complete) for the H1 site and any requirements outlined by MTCS upon concurrence of the Stage 3 Archaeological Assessment Report.
- The remaining portions of the study area described in this report can be considered clear of further archaeological concern as it has been determined that there are no significant archaeological resources present on these lands.

The following general mitigation measures are also recommended in order to comply with applicable legislation during construction:

- It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such a time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
- The *Cemeteries Act*, R.S.O. 1990, c.C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

### **5.3.2 Cultural and Built Heritage**

As outlined in **Section 3.3.2**, there are no cultural or built heritage features within the study area and therefore impacts to cultural or built heritage features are not anticipated.



*Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*

## 5.4 Transportation and Other Infrastructure

### 5.4.1 Community Access and Out of Way Travel

#### *Potential Impacts*

As described in **Section 4**, the existing Concession Road 7 Bridge over Highway 401 will remain open to traffic during construction of the new bridge to the west. During the construction of the approaches to the new structure and intersection improvements, there is a requirement for a short term closure of a section of McLean Road to the west of the existing Concession Road 7 T-intersection for approximately 2-3 weeks. A detour route is proposed and outlined in **Section 4.3** and **Figure 6**. A short-term closure will also be required for a section of McLean Road to the east of the existing Concession Road 7 T-intersection for approximately 1-2 weeks once the west side is complete. The detour route is also described in **Section 4.3** and **Figure 7**.

Single lane closures or full short term closures with flagging will be required for minor additional pavement tie in work at the south limits of the new Concession Road 7 alignment, for final surface course paving, and for pavement markings on both McLean Road and Concession Road 7.

During the removal of the existing Concession Road 7 Bridge, Highway 401 traffic will be redirected to the emergency detour route (EDR) north of Highway 401 along Brock Road South, Wellington Road 34 and the Hanlon Expressway. During this time the new and existing Concession Road 7 Bridges will be closed to traffic.

#### *Recommended Mitigation Measures*

In order to minimize potential impacts to adjacent businesses, the Contractor shall notify the businesses outlined in the Tender Documents for this contract one week prior to the start of the short-term, temporary closures.

Additionally, the Contractor shall notify the following emergency services and school boards a minimum of 30 days prior to the start of the short-term, temporary closures north and south of Highway 401, and a minimum of two-weeks prior to the full closure of Highway 401 during the removal of the existing Concession Road 7 Bridge:

- Ontario Provincial Police – Wellington District;
- County of Wellington Emergency Management;
- Guelph-Wellington Emergency medical Services;
- Guelph Police Service;
- Township of Puslinch Fire and Rescue Services;
- Hamilton Fire Department and Paramedic Services;
- Upper Grand District School Board; and,
- Wellington Catholic District School Board.

### 5.4.2 Utilities

Based on a review of existing utilities, as outlined in **Section 3.4.4**, impacts to the existing aerial Hydro One and Bell Telephone aerial and buried facilities to the west side of the Concession Road 7 are anticipated. Some relocation will be required prior to construction of the new structure and approaches. No impacts to the Union Gas line are anticipated.

All utilities that have the potential to be impacted are to be relocated and/or protected prior to construction.

## **5.5 Summary of Environmental Effects, Mitigation and Commitments to Future Work**

The proposed mitigation measures and commitments to future work to address specific concerns associated with the detailed design are listed in **Table 5**.

### **Legend**

MTO – Ministry of Transportation

MNRF – Ministry of Natural Resources and Forestry

MECP – Ministry of the Environment, Conservation and Parks

MTCS – Ministry of Tourism, Culture and Sport

GRCA – Grand River Conservation Authority

MUN – Township of Puslinch, County of Wellington

**Table 5: Summary of Environmental Concerns, Mitigation Measures and Commitments**

ID#	Environmental Element / Concern and Potential Impact	Concerned Agencies	ID#	Mitigation Measures and Commitments in Detail Design
<b>Natural Environment</b>				
1.0	Erosion and Sediment Control	MTO, MECP, MUN, GRCA	1.01	• Once areas of exposed soils are stabilized with topsoil, they will be seeded immediately following construction;
			1.02	• All erosion and sediment control measures will remain in place until vegetation is established or the site is stabilized to ensure no sedimentation of the surrounding natural environment;
			1.03	• Erosion and sediment control structures will be designed, installed, maintained, and removed according to the latest OPSS Guidelines;
			1.04	• The extent and duration that disturbed soils are exposed to the elements will be minimized;
			1.05	• Storage, stockpiling and staging areas will be delineated prior to construction and inspected in accordance with the Ontario Ministry of Transportation Construction Administration and Inspection Task Manual;
			1.06	• The material generated during maintenance of sediment control measures (i.e. filter socks, straw bales, silt fence, etc.) will be taken off-site for disposal;
			1.07	• Following construction, once disturbed areas have stabilized, all temporary erosion and sedimentation controls will be removed;
			1.08	• Erosion and sediment control structures will be routinely inspected as well as checked after storms and repaired as required. These structures will be cleaned out when accumulated sediment reaches half the design height;
2.0	Terrestrial Ecosystems	MTO, MECP, MNR, GRCA	2.01	• Ontario Provincial Standard Specification (OPSS) 805: Temporary Erosion and Sediment Control Measures;
			2.02	• OPSS-180: General Specification for the Management of Excess Materials;
			2.03	• Non-Standard Special Provision (NSSP): Operational Constraint- Migratory Bird Protection;
			2.04	• If any vegetation removal is required, it must be scheduled to occur outside of the breeding bird season of April 1st to August 31st to avoid disturbance to breeding birds and destroying active nests. If vegetation removal must occur within this time

ID#	Environmental Element / Concern and Potential Impact	Concerned Agencies	ID#	Mitigation Measures and Commitments in Detail Design
				period, active nest searches may be conducted prior to vegetation removal by a qualified biologist within 'simple habitats' to ensure that no active nests of breeding birds or bird SAR are destroyed, in order to prevent any contravention of the MBCA (1994) and / or the ESA (2007);
			2.05	• Bat SAR Mitigation – Will be consistent with a Letter of Advice that may be required from MNRF;
			2.06	• OC_EN_06: Operation Constraint – Control Measures during Removal of Concrete, Concrete, Repair / Construction, and Concrete Sawcutting;
			2.07	• OPSS.PROV 801 – Construction Specification For the Protection of Trees;
			2.08	• Vegetation removal, grading and soil compaction should be kept to a minimum;
			2.09	• Construction material should be stored within an authorized location and any soil stockpiles should be located within a suitable sediment fenced and protected location only;
			2.10	• Soils should not be moved from the construction area wherever possible;
			2.11	• The restoration of the disturbed areas will be in accordance with OPSS-804: Construction Specification for the Seed and Cover;
			2.12	• Temporarily disturbed areas, if any, should be rehabilitated in accordance with OPSS-804: Construction Specification for the Seed and Cover as discussed under ID #1.0;
			2.13	• All machinery, construction equipment and vehicles should be washed prior to leaving the construction site in order to prevent the spread of invasive species to other locations;
3.0	Fish and Fish Habitat	MTO, MECP, MNRF, GRCA, DFO	3.01	• There are no watercourses within the Study Area and therefore there is no potential for impact to Fish and Fish Habitat;
4.0	Species at Risk	MTO, MECP, MNRF,	4.01	• In addition to those mitigation measures outlined in ID #2, the Contractor shall comply with the requirements of the Letter of Advice if MNRF decides that one is required;

ID#	Environmental Element / Concern and Potential Impact	Concerned Agencies	ID#	Mitigation Measures and Commitments in Detail Design
		GRCA		
5.0	Drainage and Hydrology	MTO, MUN, MECP, GRCA	5.01	<ul style="list-style-type: none"> <li>• MTO approved erosion and sediment control measures which are documented in the Environmental Guide for Erosion and Sediment Control during Construction of Highway Projects will be implemented to reduce the migration of sediment from the construction zone into the receiving drainage system;</li> </ul>
6.0	Groundwater	MTO, MECP, GRCA	6.01	<ul style="list-style-type: none"> <li>• In accordance with the above-noted regulatory requirements, an application for a Permit-to-Take-Water (PTTW) should be filed with the MECP for any construction dewatering if the construction dewatering discharge will be greater than 400,000 L/day or about 4.6 L/s. If the dewatering discharge will be greater than 50,000 L/day and less than 400,000 L/day then the water taking will not require the MECP PTTW approval process and can instead be registered with the Environmental Activity and Sector Registry (EASR). Water taking at a rate less than 50,000 L/day does not require MECP approval;</li> </ul>
<b>Socio-Economic Environment</b>				
7.0	Property	MTO, MUN	7.01	<ul style="list-style-type: none"> <li>• Property negotiations have been undertaken independently with potentially impacted property owners where private property was required;</li> </ul>
			7.02	<ul style="list-style-type: none"> <li>• The Contractor will be required to consult directly with property owners where potential impacts to driveways or edge impacts on private property may be required for driveway regrading or storage of construction materials;</li> </ul>
			7.03	<ul style="list-style-type: none"> <li>• All potential impacts to private property (i.e. fences, grading) will be returned to existing conditions by the Contractor;</li> </ul>
8.0	Operational Noise	MTO, MUN, MECP	8.01	<ul style="list-style-type: none"> <li>• The replacement of the Concession Road 7 Bridge over Highway 401 will result in a realignment of Concession Road 7 to the west of the existing alignment but will not result in a change in capacity to local roads or the highways. There are no Noise Sensitive Areas within 500 m of the structure and therefore there are no anticipated impacts to operational noise as part of the bridge replacement;</li> </ul>
9.0	Construction Noise	MTO, MUN, MECP	9.01	<ul style="list-style-type: none"> <li>• Adhere to applicable local By-laws</li> </ul>
			9.02	<ul style="list-style-type: none"> <li>• Contract documents provided to the contractor contain general noise control measures to mitigate the noise impact at noise sensitive areas including two standard clauses regarding equipment noise:</li> </ul>

ID#	Environmental Element / Concern and Potential Impact	Concerned Agencies	ID#	Mitigation Measures and Commitments in Detail Design
				<ul style="list-style-type: none"> <li>Equipment shall be maintained in an operating condition that prevents unnecessary noise, including but not limited to non-defective muffler systems, properly secured components, and the lubrication of moving parts;</li> <li>Duration of construction equipment idling is to be restricted to the minimum time necessary to complete the specified task;</li> </ul>
			9.03	<ul style="list-style-type: none"> <li>MTO will investigate any noise concerns, advise the contractor of any problems, and enforce its contract;</li> </ul>
10.0	Air Quality	MTO, MUN, MECP	10.01	<ul style="list-style-type: none"> <li>No unnecessary idling of vehicles;</li> </ul>
			10.02	<ul style="list-style-type: none"> <li>Covering stockpiles of soil, sand and aggregate;</li> </ul>
			10.03	<ul style="list-style-type: none"> <li>Regular cleaning of construction sites and access roads to remove debris and dust caused by construction;</li> </ul>
			10.04	<ul style="list-style-type: none"> <li>Application of dust suppressants to control dust generated by construction activities (as required);</li> </ul>
11.0	Waste and Contamination	MTO, MECP	11.01	<ul style="list-style-type: none"> <li>All potential ACM waterproofing membrane encountered during any scheduled work performed at the Site shall be sampled immediately by the Contractor prior to any maintenance work in order to confirm whether or not they contain asbestos or otherwise assumed to contain asbestos and treated as such;</li> </ul>
			11.02	<ul style="list-style-type: none"> <li>All potential lead-containing materials that may be disturbed during any scheduled work performed at the Site should be removed following O. Reg. 490/09, O. Reg. 213/91, and Ministry of Labour Lead guidelines. As much as possible, paint removal should be completed using hand-powered scraping tools or by disassembling painted components (i.e., disassemble steel beams, etc.);</li> </ul>
			11.03	<ul style="list-style-type: none"> <li>A qualified Contractor must control all DSS Sites repair/or maintenance activities on site to minimize worker exposure to silica and/or lead dust in accordance with O. Reg. 490/09. As required by O. Reg. 490/09, airborne silica concentrations must not exceed a TWA of 0.10 milligrams of silica per cubic metre for quartz/tripoli and a TWA of 0.05 milligrams of lead per cubic metre for elemental lead, inorganic and organic compounds of lead, respectively. Recycling of silica-based materials removed from any work areas should be conducted in accordance with O. Reg. 102/94 and O. Reg. 103/94 under the Ontario Environmental</li> </ul>

ID#	Environmental Element / Concern and Potential Impact	Concerned Agencies	ID#	Mitigation Measures and Commitments in Detail Design
				Protection Act. Demolition or any disturbance of any silica-containing DSS Site or bridge materials should be conducted following recommendations detailed within the MOL Silica guidelines, where specific legislation is not included under the OHSA;
			11.04	• Fill and excess material will require proper management (removal, storage and disposal);
			11.05	• Should any contaminated materials be encountered during the undertaking, caution will be exercised while handling and disposing of contaminated materials;
			11.06	• Ontario regulations regarding waste classification and disposal site selection will be followed;
12.0	Climate Change	MTO, MECP	12.01	• Impacts to climate change associated with the replacement of the Concession Road 7 Bridge over Highway 401 are not anticipated. The bridge replacement is maintaining existing capacity on Concession Road 7 and mitigation measures outlined in <b>IDs #1.0</b> and <b>2.0</b> are intended to minimize the impact to the environment during construction;
<b>Cultural Environment</b>				
13.0	Archaeology	MTO, MTCS	13.01	• The Contractor will be required to comply with all recommendations outlined in the Stage 3 Archaeological Assessment (once complete) for the H1 site and any requirements outlined by MTCS upon concurrence of the Stage 3 Archaeological Assessment Report;
			13.02	• The remaining portions of the study area (outside of the H1 site) can be considered clear of further archaeological concern as it has been determined that there are no significant archaeological resources present on these lands;
			13.03	• It is an offence under Sections 48 and 69 of the <i>Ontario Heritage Act</i> for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such a time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports

ID#	Environmental Element / Concern and Potential Impact	Concerned Agencies	ID#	Mitigation Measures and Commitments in Detail Design
				referred to in Section 65.1 of the <i>Ontario Heritage Act</i> ;
			13.04	<ul style="list-style-type: none"> <li>Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the <i>Ontario Heritage Act</i>. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the <i>Ontario Heritage Act</i>;</li> </ul>
			13.05	<ul style="list-style-type: none"> <li>The <i>Cemeteries Act</i>, R.S.O. 1990, c.C.4 and the <i>Funeral, Burial and Cremation Services Act</i>, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services;</li> </ul>
14.0	Cultural and Built Heritage	MTO, MTCS	14.01	<ul style="list-style-type: none"> <li>There are no cultural or built heritage features within the study area and therefore impacts to cultural or built heritage features are not anticipated;</li> </ul>
<b>Transportation and Other Infrastructure</b>				
15.0	Community Access and Out of Way Travel	MTO, MUN	15.01	<ul style="list-style-type: none"> <li>In order to minimize potential impacts to adjacent businesses, the Contractor shall notify the businesses outlined in the Tender Documents for this contract one week prior to the start of the short-term, temporary closures;</li> </ul>
			15.02	<ul style="list-style-type: none"> <li>Additionally, the Contractor shall notify the following emergency services and school boards a minimum of 30 days prior to the start of the short-term, temporary closures north and south of Highway 401, and a minimum of two-weeks prior to the full closure of Highway 401 during the removal of the existing Concession Road 7 Bridge:               <ul style="list-style-type: none"> <li>Ontario Provincial Police – Wellington District;</li> <li>County of Wellington Emergency Management;</li> <li>Guelph-Wellington Emergency medical Services;</li> <li>Guelph Police Service;</li> <li>Township of Puslinch Fire and Rescue Services;</li> <li>Hamilton Fire Department and Paramedic Services;</li> <li>Upper Grand District School Board; and,</li> </ul> </li> </ul>



ID#	Environmental Element / Concern and Potential Impact	Concerned Agencies	ID#	Mitigation Measures and Commitments in Detail Design
				<ul style="list-style-type: none"><li>Wellington Catholic District School Board.</li></ul>
16.0	Utilities	MTO, MUN	16.01	<ul style="list-style-type: none"><li>All utilities that have the potential to be impacted are to be relocated and/or protected prior to construction;</li></ul>

## **6. Monitoring**

---

### **6.1 Compliance Monitoring Program and Reporting**

As discussed in **Section 1.3**, the Notice of Approval to Proceed with the Undertaking included conditions for a Compliance Monitoring Program and Compliance Reporting (Conditions 10 and 11).

The purpose of the EA Compliance Monitoring Program is to monitor the proponent's fulfilment of the provisions of the EA for mitigation measures, public consultation, and additional studies and work to be carried out, and of all other commitments made during the preparation of the EA and the subsequent review of the EA for mitigation measures, public consultation, and additional studies and work to be carried out.

The Compliance Monitoring Program is in progress and will be submitted to the Director of the MECP a minimum of 60 days prior to the start of construction for placement on the MECP Public Record.

The Contractor will receive a copy of the Compliance Monitoring Program and will be required to provide an annual Compliance Report related to construction until compliance has been met and construction is complete.

### **6.2 Project Specific Technical Monitoring**

During construction, Ontario Ministry of Transportation or its agent will confirm that the implementation of the mitigation measures and key design features are consistent with the contract, external commitments and permit requirements confirmed during detail design. An Environmental Inspector will ensure that the environmental protection measures outlined in this report and in the subsequent contract documents / specifications are carried out. In the event that problems develop, appropriate Ontario Ministry of Transportation and external ministry and / or agency representatives will be contacted to provide additional input and to address specific notification requirements as may be required under specific legislation. The Environmental Inspector will be operating under the direction of the Contract Administrator, in compliance with Ontario Ministry of Transportation's Construction Administration and Inspection Task Manual.

### **6.3 Project Specific Class EA Monitoring**

During construction, it will be ensured that external notification and consultations are consistent with any commitments that may have been made earlier. Following construction, monitoring will be carried out to check that follow-up information is provided to external agencies as per any outstanding environmental commitments. Written verification of all notification shall be provided to the Contract Administrator.

### **6.4 Contract Administration**

Contract Administration for this assignment will ensure effective translation of measures to protect environmental sensitivities. Ontario Provincial Standard Specifications, Ministry of

Transportation Standard Special Provisions and Ministry of Transportation Non-Standard Special Provisions will be incorporated into the contract documents for this project.

## **6.5 Project Monitoring**

### *Inspection by Construction Administration Staff*

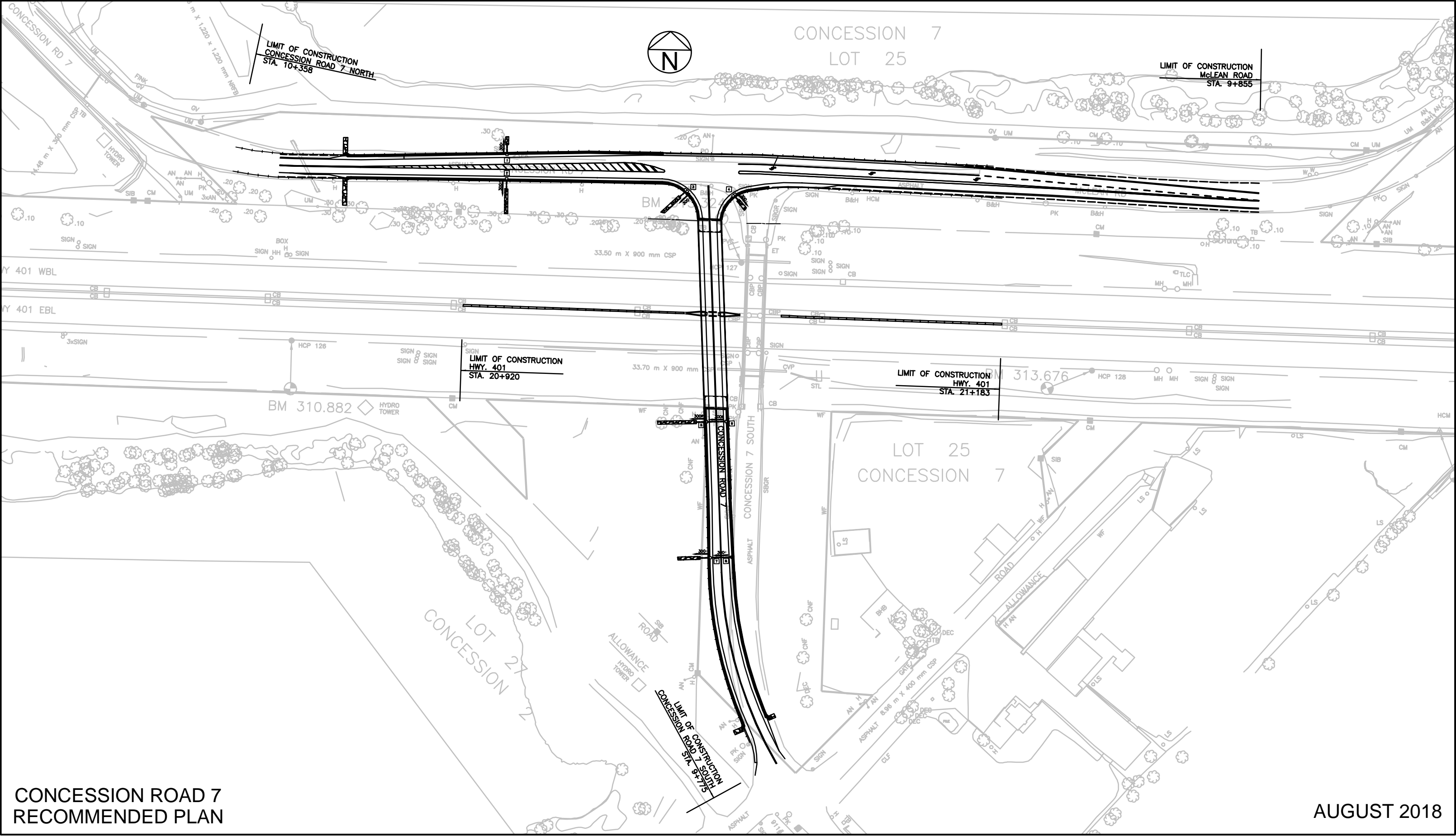
Construction is subject to daily general on-site inspection to confirm the execution of the environmental component of the work to deal with environmental problems that may develop during construction. This is the primary method for compliance monitoring. Staff will use the inspection tasks outlined in the *Construction Administration and Inspection Task Manual*, Contract Special Provisions and Ontario Provincial Standard Specifications as a guide for the monitoring of all aspects of the work.

### *Site Visits by Environmental Staff*

Construction projects with significant mitigating measures /concerns are subject to periodic site visits by Construction Administration environmental staff. The timing and frequency of such visits are determined by the schedule of construction operations, the sensitivity of environmental concerns and the development of any unforeseen environmental problems during construction. Staff will use the inspection tasks outlined in the *Construction Administration and Inspection Task Manual*, Contract Special Provisions and Ontario Provincial Standard Specifications as a guide for the monitoring of all aspects of the work. Ontario Ministry of Transportation staff will be available should difficulties arise.

# **Appendix A**

## **Recommended Plan**



CONCESSION ROAD 7  
RECOMMENDED PLAN

AUGUST 2018

# **Appendix B**

## **Consultation Materials**

---

**Highways 6 and 401 Improvements  
Notice of Study Commencement  
May 2017**

---

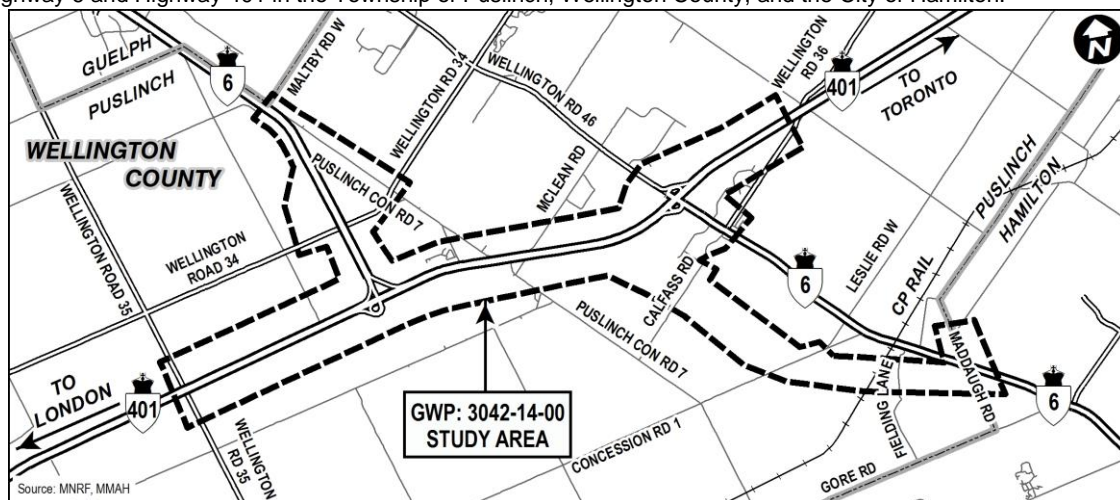
**NOTICE OF STUDY COMMENCEMENT**  
**HIGHWAYS 6 & 401 IMPROVEMENTS FROM HAMILTON NORTH LIMITS TO GUELPH SOUTH LIMITS**  
**INCLUDING THE NEW ALIGNMENT OF A SEGMENT OF HIGHWAY 6 (G.W.P. 3042-14-00)**  
**DETAILED DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT**

### **THE PROJECT**

The Ontario Ministry of Transportation (MTO) is moving forward with a Preliminary Design Review and Detailed Design under the Class Environmental Assessment (EA) for improvements to Highway 6 and Highway 401 in the Township of Puslinch, Wellington County, and the City of Hamilton.

### **BACKGROUND**

The Preliminary Design phase of this study was documented in the EA report for Highway 6 Freelon Northerly 16.9 km to Guelph (W.P. 65-76-05), September 1995, and in the 1997 Addendum. A Review under the EA Act was completed by the Ministry of Environment in June 2007. A *Notice of Approval to Proceed with the Undertaking* was subsequently granted by Order in Council on January 22, 2009. A portion of the Preliminary Design along Highway 401 was amended by a Transportation Environmental Study Report (TESR) in 2012 for the Preliminary Design and Class EA for Highway 401 from west of Hespeler Road to the Wellington/Halton Boundary (G.W.P. 8-00-00).



The approved Preliminary Design includes:

- A new controlled access four-lane alignment of Highway 6 west of the existing highway, from Highway 6 at Maddaugh Road northerly to Highway 401;
- Improvements to the Highway 6 / Maddaugh Road intersection;
- Structures to carry CP Rail, Calfass Road, Concession Road 1 and Fielding Lane across the new Highway 6 alignment;
- A new two-lane connection road north of the community of Morriston, linking the existing and new alignments of Highway 6;
- Reconfiguration of the Highway 401 interchanges at Highway 6 / Wellington Road 46 (Brock Road), and at Highway 6 (Hanlon Expressway);
- Widening of approximately 3 km of Highway 401 to 10 lanes including High Occupancy Vehicle (HOV) lanes between the two Highway 6 interchanges;
- Replacement of the Hanlon Expressway intersection at Wellington Road 34 with a bridge (no connection to the highway);
- Closure of the Hanlon Expressway intersection at Maltby Road / Concession Road 4;
- A new Hanlon Expressway interchange approximately mid-way between Wellington Road 34 and Maltby Road / Concession Road 4 linking Wellington Road 34 on the west side of the Hanlon Expressway to Concession Road 7 on the east side of the Hanlon Expressway;
- Reconstruction of the section of Concession Road 7 between the new interchange and Wellington Road 34;
- Replacement of the Puslinch Concession Road 7 Bridge over Highway 401; and
- Reconfiguration and expansion of the Wellington Road 46 (Brock Road) commuter parking lot.

### **THE PROCESS**

This study is subject to the *Ontario EA Act* and will be completed in accordance with the *MTO Class EA for Provincial Transportation Facilities* (2000) process for a Group A project with the opportunity for public input. A review will be undertaken to determine if significant changes have occurred since submission of the 1995 EA, 1997 Addendum and 2012 TESR. In the event that significant changes are identified, a TESR Addendum will be made available for a 30-day public and agency review period. The Detailed Design phase will be documented in Design and Construction Report(s) (DCRs) that will be made available for public and agency review. The DCR(s) will document the study process, Detailed Design and associated environmental impacts, mitigation measures, and a summary of consultation undertaken.

### **CONSULTATION AND COMMENTS**

Consultation and engagement will take place throughout the study with the public, Indigenous peoples, regulatory agencies and municipalities. A Public Information Centre (PIC) is planned for 2017 to provide an opportunity to discuss the study with members of the Project Team. Notifications advising of the time and location of the PIC, and of the availability of the TESR Addendum (if required) and DCR's will be published in local newspapers, posted on the project website, and mailed to those on the project mailing list.

Interested persons are encouraged to contact the project team members below or visit the project website to obtain additional information, provide comments or to be placed on the project mailing list.

#### **Charles Organ, CET**

Senior Project Manager  
Ministry of Transportation - West Region  
Planning & Design  
659 Exeter Road, London, ON N6E 1L3  
Tel: 519-873-4591  
Toll-free: 1-800-265-6072 extension: 519-873-4591  
Fax: 519-873-4600  
Email: chuck.organ@ontario.ca

Project website: <http://Highways6and401HamiltontoGuelph.ca>

#### **Patrick Puccini, P. Eng**

Consultant Senior Project Manager  
AECOM Canada Ltd.  
4<sup>th</sup> Floor, 30 Leek Crescent  
Richmond Hill, ON L4B 4N4  
Tel: 905-882-4401  
Fax: 905-882-4399  
Email: patrick.puccini@aecom.com

We are committed to ensuring that government information and services are accessible for all Ontarians. For communication support or to request project material in an alternate format, please contact one of the project team members listed above.

Comments and information will be collected to assist MTO in meeting the requirements of the *Ontario EA Act*. With the exception of personal information, all comments will become part of the public record in accordance with the *Freedom of Information and Protection of Privacy Act*.



**Ministry of Transportation**

Engineering Office  
Planning and Design Section  
West Region

659 Exeter Road  
London, Ontario N6E 1L3  
Telephone: (519) 873-4550  
Facsimile: (519) 873-4600

**Ministère des Transports**

Bureau du génie  
Section de planification et de conception  
Région de l'Ouest

659, chemin Exeter  
London (Ontario) N6E 1L3  
Téléphone: (519) 873-4550  
Télécopieur: (519) 873-4600



May 12, 2017

**Notice of Study Commencement - Indigenous Community Letter**

«Name»

«Organization»

«Address»

«Address»

«Address»

Dear «Greeting»:

**RE: Notice of Study Commencement**

**Highways 6 & 401 Improvements from Hamilton North Limits to Guelph South Limits including a New Alignment of a Segment of Highway 6  
Detailed Design and Class Environmental Assessment (G.W.P. 3042-14-00)**

The Ontario Ministry of Transportation (MTO) is moving forward with a Preliminary Design Review and Detailed Design under the Class Environmental Assessment for improvements to Highway 6 and Highway 401 in the Township of Puslinch, Wellington County, and the City of Hamilton (refer to the enclosed *Notice of Study Commencement* for a key map of the study area).

As noted on the enclosed *Notice*, the approved Preliminary Design includes:

- A new controlled access four-lane alignment of Highway 6 west of the existing highway, from Highway 6 at Maddaugh Road northerly to Highway 401;
- Improvements to the Highway 6 / Maddaugh Road intersection;
- Structures to carry CP Rail, Calfass Road, Concession Road 1 and Fielding Lane across the new Highway 6 alignment;
- A new two-lane connection road north of the community of Morriston, linking the existing and new alignments of Highway 6;
- Reconfiguration of the Highway 401 interchanges at Highway 6 / Wellington Road 46 (Brock Road), and at Highway 6 (Hanlon Expressway);
- Widening of approximately 3 km of Highway 401 to 10 lanes including High Occupancy Vehicle (HOV) lanes between the two Highway 6 interchanges;
- Replacement of the Hanlon Expressway intersection at Wellington Road 34 with a bridge (no connection to the highway);
- Closure of the Hanlon Expressway intersection at Maltby Road / Concession Road 4;
- A new Hanlon Expressway interchange approximately mid-way between Wellington Road 34 and Maltby Road / Concession Road 4 linking Wellington Road 34 on the west side of the Hanlon Expressway to Concession Road 7 on the east side of the Hanlon Expressway;
- Reconstruction of the section Concession Road 7 between the new interchange and Wellington Road 34;

- Replacement of the Puslinch Concession Road 7 Bridge over Highway 401; and
- Reconfiguration and expansion of the Wellington Road 46 (Brock Road) commuter parking lot.

The study is subject to the *Ontario Environmental Assessment Act* and will be completed in accordance with the *MTO Class Environmental Assessment for Provincial Transportation Facilities (2000)* process for a Group A project with the opportunity for public input. We encourage you to visit the project website at

<http://Highways6and401HamiltontoGuelph.ca> for further information.

**The purpose of this letter is to notify you of the commencement of this study. MTO would like to invite your community to identify any environmental, social, and cultural values your community may have within the study area and would like to inquire if your community has an interest in this study. We welcome the opportunity to meet with you to discuss the project.**

As part of this study, Stage 1 and 2 Archaeological Assessments, terrestrial ecosystems investigations and fish and fish habitat investigations will be undertaken. A Stage 1 Archaeological Assessment Report, a Stage 2 Archaeological Assessment Report, a Terrestrial Ecosystems Existing Conditions and Impact Assessment Report and a Fish and Fish Habitat Existing Conditions and Impact Assessment Report will be prepared to support the Detail Design and to document potential impacts and proposed mitigation measures.

We are committed to ensuring that government information and services are accessible for all Ontarians. For communication supports or to request project material in an alternate format, please contact one of the Project Team members listed on the enclosed *Notice*.

Comments and information will be collected to assist MTO in meeting the requirements of the *Ontario Environmental Assessment Act*. With the exception of personal information, all comments will become part of the public record in accordance with the *Freedom of Information and Protection of Privacy Act*.

If you would like to provide comments, or if you require further information, please feel free to contact me by phone at 1-800-265-6072 ext. 4591 or by email at [chuck.organ@ontario.ca](mailto:chuck.organ@ontario.ca). In addition, if you are interested in meeting as a result of receiving this letter, please contact me to arrange a meeting at your earliest convenience.

**Sincerely,  
The Ministry of Transportation**

Charles Organ, CET  
Senior Project Manager

Cc: J. Corcoran - MTO Senior Environmental Planner  
P. Puccini - AECOM Senior Project Manager  
G. Coy - AECOM Deputy Project Manager  
F. Leech - AECOM Senior Environmental Planner  
C. Carscallen - AECOM Indigenous Community Liaison  
S. Schmied - AECOM Environmental Planner

Enclosed: Notice of Study Commencement

May 12, 2017

Notice of Study Commencement – Agency Letter

«Name»  
«Organization»  
«Address»

Dear «Greeting»:

**RE: Notice of Study Commencement  
Highways 6 & 401 Improvements from Hamilton North Limits to Guelph South  
Limits including a New Alignment of a Segment of Highway 6  
Detailed Design and Class Environmental Assessment (G.W.P. 3042-14-00)**

The Ontario Ministry of Transportation (MTO) is moving forward with a Preliminary Design Review and Detailed Design under the Class Environmental Assessment for improvements to Highway 6 and Highway 401 in the Township of Puslinch, Wellington County, and the City of Hamilton (refer to the enclosed *Notice of Study Commencement* for a key map of the study area).

As noted on the enclosed *Notice*, the approved Preliminary Design includes:

- A new controlled access four-lane alignment of Highway 6 west of the existing highway, from Highway 6 at Maddaugh Road northerly to Highway 401;
- Improvements to the Highway 6 / Maddaugh Road intersection;
- Structures to carry CP Rail, Calfass Road, Concession Road 1 and Fielding Lane across the new Highway 6 alignment;
- A new two-lane connection road north of the community of Morriston, linking the existing and new alignments of Highway 6;
- Reconfiguration of the Highway 401 interchanges at Highway 6 / Wellington Road 46 (Brock Road), and at Highway 6 (Hanlon Expressway);
- Widening of approximately 3 km of Highway 401 to 10 lanes including High Occupancy Vehicle (HOV) lanes between the two Highway 6 interchanges;
- Replacement of the Hanlon Expressway intersection at Wellington Road 34 with a bridge (no connection to the highway);
- Closure of the Hanlon Expressway intersection at Maltby Road / Concession Road 4;
- A new Hanlon Expressway interchange approximately mid-way between Wellington Road 34 and Maltby Road / Concession Road 4 linking Wellington Road 34 on the west side of the Hanlon Expressway to Concession Road 7 on the east side of the Hanlon Expressway;
- Reconstruction of the section of Concession Road 7 between the new interchange and Wellington Road 34;
- Replacement of the Puslinch Concession Road 7 Bridge over Highway 401; and
- Reconfiguration and expansion of the Wellington Road 46 (Brock Road) commuter parking lot.

The study is subject to the *Ontario Environmental Assessment Act* and will be completed in accordance with the *MTO Class Environmental Assessment for Provincial Transportation*

*Facilities (2000)* process for a Group A project with the opportunity for public input. We encourage you to visit the project website at <http://Highways6and401HamiltontoGuelph.ca> for further information.

**The purpose of this letter is to notify you of the commencement of this study. On the enclosed Contact Information Form, please indicate whether your organization has an interest in this study and who will act as our main contact. In order to assist us with our planning process, please also indicate if the above noted study will affect the delivery of your organization's programs or services. A reply by June 12, 2017 would be appreciated.**

We are committed to ensuring that government information and services are accessible for all Ontarians. For communication supports or to request project material in an alternate format, please contact one of the Project Team members listed on the enclosed *Notice*.

Comments and information will be collected to assist MTO in meeting the requirements of the *Ontario Environmental Assessment Act*. With the exception of personal information, all comments will become part of the public record in accordance with the *Freedom of Information and Protection of Privacy Act*.

If you would like to provide comments, or if you require further information, please feel free to contact me by phone at 905-882-4401 or by email at [patrick.puccini@aecom.com](mailto:patrick.puccini@aecom.com). You may also contact the MTO Project Manager, Charles Organ, by phone at 1-800-265-6072 ext. 4591 or by email at [chuck.organ@ontario.ca](mailto:chuck.organ@ontario.ca).

Sincerely,

**AECOM Canada Ltd.**



**Patrick Puccini, P. Eng**

Consultant Senior Project Manager

Cc: C. Organ - MTO Senior Project Manager  
J. Corcoran - MTO Senior Environmental Planner  
G. Coy - AECOM Deputy Project Manager  
F. Leech - AECOM Senior Environmental Planner  
S. Schmied - AECOM Environmental Planner

Enclosed: Notice of Study Commencement, Contact Information Form

**Highways 6 & 401 Improvements from Hamilton North Limits to Guelph South  
Limits including the New Alignment of a Segment of Highway 6  
(G.W.P. 3042-14-00)**

**Detailed Design and Class Environmental Assessment**

**Contact Information Form**

1.) Does your organization wish to participate in this study and continue to receive notices of project activities and information as this study progresses?      **Yes** ☐      **No** ☐

2.) If your organization wishes to participate in this study, please specify who will act as the Project Team's contact:

**Name:**

\_\_\_\_\_

**Title:**

\_\_\_\_\_

**Department:**

\_\_\_\_\_

**Organization:**

\_\_\_\_\_

**Address:**

\_\_\_\_\_

\_\_\_\_\_

**Phone**

**Number:**

\_\_\_\_\_

**Fax:**

\_\_\_\_\_

**E-Mail**

**Address:**

\_\_\_\_\_

How would you prefer to receive project notices?      **Regular Mail** ☐      **Email** ☐

3.) Please indicate if the above noted study will affect the delivery of your organization's programs or services, and/or any other relevant information in this regard.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Submitted By:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Your information and comments will be kept on file for use during the study. Please submit this form by  
**Monday June 12, 2017 to:**

**Fred Leech, BScAg**

Consultant Senior Environmental Planner  
AECOM Canada Ltd.

201-45 Goderich Road, Hamilton, ON L8E 4W8

Tel: 905-390-2030

Fax: 905-578-4129

Email: fred.leech@aecom.com



AECOM  
30 Leek Cres., 4<sup>th</sup> Floor  
Richmond Hill, ON  
L4B 4N4  
Canada  
www.aecom.com

905-882-4401 tel  
905-882-4399 fax

May 12, 2017

Notice of Study Commencement – MPP Letter

«Name»  
«Organization»  
«Address»

Dear «Greeting»:

**RE: Notice of Study Commencement**

**Highways 6 & 401 Improvements from Hamilton North Limits to Guelph South Limits including a New Alignment of a Segment of Highway 6  
Detailed Design and Class Environmental Assessment (G.W.P. 3042-14-00)**

The Ontario Ministry of Transportation (MTO) is moving forward with a Preliminary Design Review and Detailed Design under the Class Environmental Assessment for improvements to Highway 6 and Highway 401 in the Township of Puslinch, Wellington County, and the City of Hamilton (refer to the enclosed *Notice of Study Commencement* for a key map of the study area).

As noted on the enclosed *Notice*, the approved Preliminary Design includes:

- A new controlled access four-lane alignment of Highway 6 west of the existing highway, from Highway 6 at Maddaugh Road northerly to Highway 401;
- Improvements to the Highway 6 / Maddaugh Road intersection;
- Structures to carry CP Rail, Calfass Road, Concession Road 1 and Fielding Lane across the new Highway 6 alignment;
- A new two-lane connection road north of the community of Morriston, linking the existing and new alignments of Highway 6;
- Reconfiguration of the Highway 401 interchanges at Highway 6 / Wellington Road 46 (Brock Road), and at Highway 6 (Hanlon Expressway);
- Widening of approximately 3 km of Highway 401 to 10 lanes including High Occupancy Vehicle (HOV) lanes between the two Highway 6 interchanges;
- Replacement of the Hanlon Expressway intersection at Wellington Road 34 with a bridge (no connection to the highway);
- Closure of the Hanlon Expressway intersection at Maltby Road / Concession Road 4;
- A new Hanlon Expressway interchange approximately mid-way between Wellington Road 34 and Maltby Road / Concession Road 4 linking Wellington Road 34 on the west side of the Hanlon Expressway to Concession Road 7 on the east side of the Hanlon Expressway;
- Reconstruction of the section of Concession Road 7 between the new interchange and Wellington Road 34;
- Replacement of the Puslinch Concession Road 7 Bridge over Highway 401; and
- Reconfiguration and expansion of the Wellington Road 46 (Brock Road) commuter parking lot.

The study is subject to the *Ontario Environmental Assessment Act* and will be completed in accordance with the *MTO Class Environmental Assessment for Provincial Transportation Facilities (2000)* process for a Group A project with the opportunity for public input. We encourage you to visit the project website at <http://Highways6and401HamiltontoGuelph.ca> for further information.

The enclosed *Notice* will be placed in area newspapers as follows:

- *The Turtle Island News* on Wednesday May 17, 2017;
- *The Two Row Times* on Wednesday May 17, 2017;
- *The Guelph Tribune* on Thursday May 18, 2017; and
- *The Wellington Advertiser* on Friday May 19, 2017.

We are committed to ensuring that government information and services are accessible for all Ontarians. For communication supports or to request project material in an alternate format, please contact one of the Project Team members listed on the enclosed *Notice*.

Comments and information will be collected to assist MTO in meeting the requirements of the *Ontario Environmental Assessment Act*. With the exception of personal information, all comments will become part of the public record in accordance with the *Freedom of Information and Protection of Privacy Act*.

If you would like to provide comments, or if you require further information, please feel free to contact me by phone at 905-882-4401 or by email at [patrick.puccini@aecom.com](mailto:patrick.puccini@aecom.com). You may also contact the MTO Project Manager, Charles Organ, by phone at 1-800-265-6072 ext. 4591 or by email at [chuck.organ@ontario.ca](mailto:chuck.organ@ontario.ca).

Sincerely,

**AECOM Canada Ltd.**



**Patrick Puccini, P. Eng**

Consultant Senior Project Manager

Cc:	C. Organ	- MTO Senior Project Manager
	J. Corcoran	- MTO Senior Environmental Planner
	G. Coy	- AECOM Deputy Project Manager
	F. Leech	- AECOM Senior Environmental Planner
	S. Schmied	- AECOM Environmental Planner

Enclosed: Notice of Study Commencement

May 15, 2017

Notice of Study Commencement – Public Letter

«Name»  
«Organization»  
«Address»

Dear «Greeting»:

**RE: Notice of Study Commencement  
Highways 6 & 401 Improvements from Hamilton North Limits to Guelph South  
Limits including a New Alignment of a Segment of Highway 6  
Detailed Design and Class Environmental Assessment (G.W.P. 3042-14-00)**

The Ontario Ministry of Transportation (MTO) is moving forward with a Preliminary Design Review and Detailed Design under the Class Environmental Assessment for improvements to Highway 6 and Highway 401 in the Township of Puslinch, Wellington County, and the City of Hamilton (refer to the enclosed *Notice of Study Commencement* for a key map of the study area).

As noted on the enclosed *Notice*, the approved Preliminary Design includes:

- A new controlled access four-lane alignment of Highway 6 west of the existing highway, from Highway 6 at Maddaugh Road northerly to Highway 401;
- Improvements to the Highway 6 / Maddaugh Road intersection;
- Structures to carry CP Rail, Calfass Road, Concession Road 1 and Fielding Lane across the new Highway 6 alignment;
- A new two-lane connection road north of the community of Morriston, linking the existing and new alignments of Highway 6;
- Reconfiguration of the Highway 401 interchanges at Highway 6 / Wellington Road 46 (Brock Road), and at Highway 6 (Hanlon Expressway);
- Widening of approximately 3 km of Highway 401 to 10 lanes including High Occupancy Vehicle (HOV) lanes between the two Highway 6 interchanges;
- Replacement of the Hanlon Expressway intersection at Wellington Road 34 with a bridge (no connection to the highway);
- Closure of the Hanlon Expressway intersection at Maltby Road / Concession Road 4;
- A new Hanlon Expressway interchange approximately mid-way between Wellington Road 34 and Maltby Road / Concession Road 4 linking Wellington Road 34 on the west side of the Hanlon Expressway to Concession Road 7 on the east side of the Hanlon Expressway;
- Reconstruction of the section of Concession Road 7 between the new interchange and Wellington Road 34;
- Replacement of the Puslinch Concession Road 7 Bridge over Highway 401; and
- Reconfiguration and expansion of the Wellington Road 46 (Brock Road) commuter parking lot.

**The purpose of this letter is to notify you of the commencement of this study.** The study is subject to the *Ontario Environmental Assessment Act* and will be completed in accordance with the *MTO Class Environmental Assessment for Provincial Transportation*



*Facilities (2000)* process for a Group A project with the opportunity for public input. We encourage you to visit the project website at

**<http://Highways6and401HamiltontoGuelph.ca>** for further information.

We are committed to ensuring that government information and services are accessible for all Ontarians. For communication supports or to request project material in an alternate format, please contact one of the Project Team members listed on the enclosed *Notice*.

Comments and information will be collected to assist MTO in meeting the requirements of the *Ontario Environmental Assessment Act*. With the exception of personal information, all comments will become part of the public record in accordance with the *Freedom of Information and Protection of Privacy Act*.

If you would like to provide comments, or if you require further information, please feel free to contact me by phone at 905-882-4401 or by email at [patrick.puccini@aecom.com](mailto:patrick.puccini@aecom.com). You may also contact the MTO Project Manager, Charles Organ, by phone at 1-800-265-6072 ext. 4591 or by email at [chuck.organ@ontario.ca](mailto:chuck.organ@ontario.ca).

Sincerely,

**AECOM Canada Ltd.**



**Patrick Puccini, P. Eng**

Consultant Senior Project Manager

Cc:	C. Organ	- MTO Senior Project Manager
	J. Corcoran	- MTO Senior Environmental Planner
	G. Coy	- AECOM Deputy Project Manager
	F. Leech	- AECOM Senior Environmental Planner
	S. Schmied	- AECOM Environmental Planner

Enclosed: Notice of Study Commencement

---

**Highways 6 and 401 Improvements  
Request for Permission to Enter (PTE)  
May 2017**

---

[Date]

**AECOM Reference Number: 60541071**

PROPERTY OWNER  
ADDRESS

**REFERENCE PROPERTY ROLL NUMBER:**

Dear Property Owner,

**RE: Request for Permission to Enter Your Property  
Highway 6 & 401 Improvements from Hamilton North Limits to Guelph South  
Limits including a New Alignment of Highway 6 South  
Detail Design and Class Environmental Assessment Study (G.W.P. 3042-14-00)  
Ontario Ministry of Transportation**

On March 29, 2016, the Minister of Transportation, Steven Del Duca announced plans to move forward with improvements to Highways 6 and 401 between the Hamilton North Limits and Guelph South limits. As a result of the Minister's announcement, the Ontario Ministry of Transportation (MTO) has retained AECOM Canada Ltd. to undertake a Preliminary Design Review, Detail Design and Class Environmental Assessment (EA) Study for improvements to Highway 6 and Highway 401 in the Township of Puslinch, Wellington County, and the City of Hamilton (refer to the enclosed **Key Plan** for a map of the study area).

A major component of this study is the assessment of natural and social impacts within the study area. Impact assessments involve the collection of field data and observations within the study limits on lands that are both publically and privately owned to assess the existing conditions and minimize design and construction related conflicts.

**In order to proceed with this study, we respectfully request permission to enter your property referenced by the above roll number. The Ministry requests that a "Permission to Enter" form be signed by the property owner representative which will allow us to enter your property through the stages of the study for one or more occasions to complete the accepted following work:**

- **Category A – Visual Observations** which may include the collection of field data via topographic and environmental surveys and photographs, or similar activities.
- **Category B – Investigations which may require small test holes dug by hand** to uncover archaeologically significant objects or similar activities.
- **Category C – Subsurface investigations which may require large equipment** (i.e. drill rig, backhoe or other similar equipment) for soil data collection, test pits to document and map underground utilities, or similar activities.

The "Permission to Enter" form for your property is included with this letter. Please review the form, sign one copy and retain a copy for your files, and return a scan or photocopy back to the undersigned as soon as possible via email or mail with the attached postage paid envelope.

**If you are tenants of the property noted on the attached "Permission to Enter" form, or are not the property owner, please kindly contact the undersigned, and we will arrange to forward this letter and form to the appropriate contact.**

This study is subject to the *Ontario EA Act* and will be completed in accordance with the *MTO Class EA for Provincial Transportation Facilities (2000)* process for a Group A project. As the study progresses, public notices will be published outlining opportunities for public input.

If you have any questions or require further information about the proposed fieldwork, if you require assistance in completing the form, or would like to submit your form electronically please contact Nico Valenton, Permission to Enter Liaison, by phone at 905-747-1830 or by email at [nico.valenton@aecom.com](mailto:nico.valenton@aecom.com). Please also feel free to contact me by phone at 905-882-4401 or email at [patrick.puccini@aecom.com](mailto:patrick.puccini@aecom.com), or the MTO Project Manager, Charles Organ, by phone at 519-873-4591 or by email at [chuck.organ@ontario.ca](mailto:chuck.organ@ontario.ca). We are committed to ensuring that government information and services are accessible for all Ontarians. For communication supports or to request material in an alternate format, please contact one of the Project Team members listed above.

Sincerely,  
**AECOM Canada Ltd.**

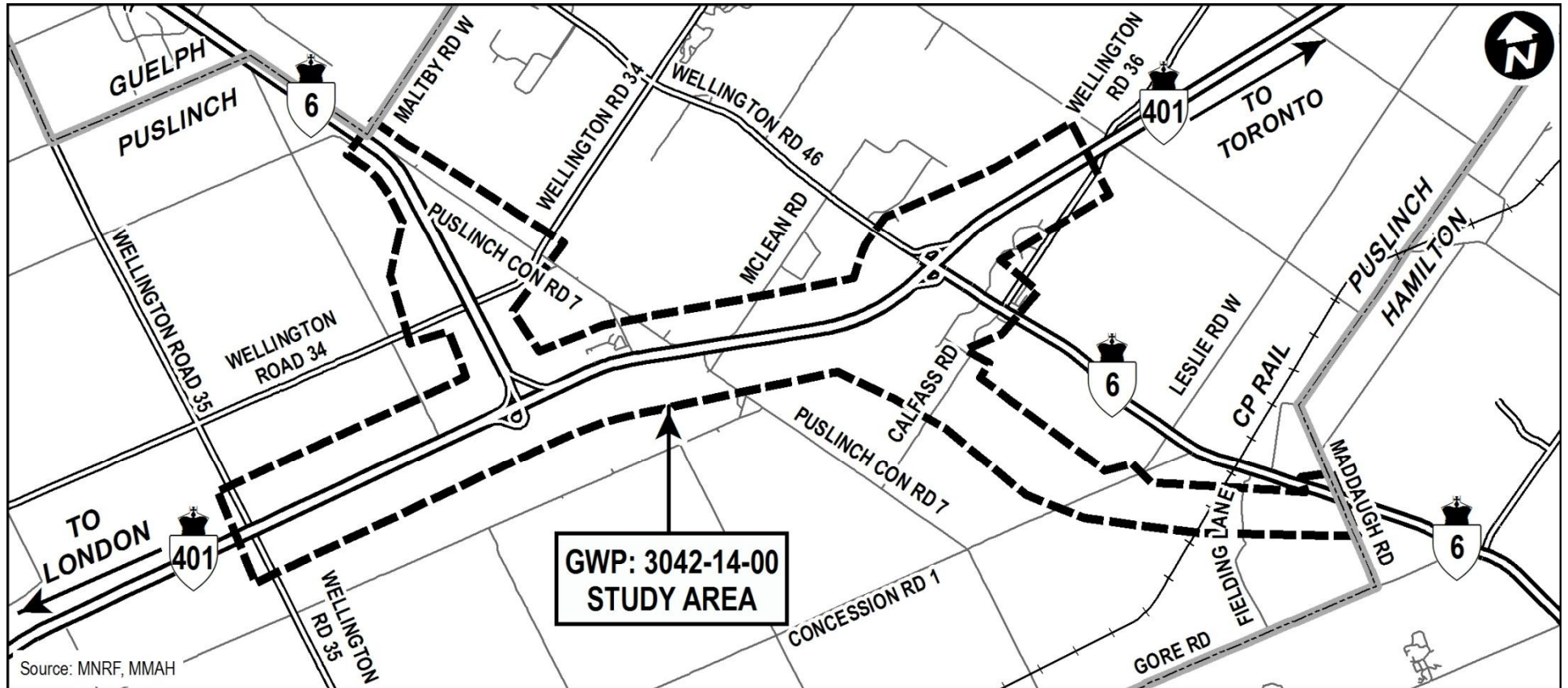
**Patrick Puccini P.Eng.**

Consultant Senior Project Manager

Cc: C. Organ - MTO Senior Project Manager  
J. Corcoran - MTO Senior Environmental Planner  
G. Coy - AECOM Deputy Project Manager  
F. Leech - AECOM Senior Environmental Planner  
S. Schmied - AECOM Environmental Planner  
N. Valenton - AECOM Permission to Enter Liaison

Enclosed: Key Plan, Permission to Enter Form (2 copies)

**Key Plan (G.W.P 3042-14-00)**





1.1.1 For Internal Use Only	
W.P. No.:	
Highway No.:	
Dist. No.:	Region:
P-Plan:	

PERMISSION TO ENTER

Owner(s) Name and Address:

<u>OWNER ADDRESS</u>	<u>PROPERTY LOCATION(S)</u> PROPERTY ROLL NUMBER(S):  LOCATION(S):
----------------------	---

As owners of:

Lot/Block:	Concession/RP:
Town/Township:	Municipality:
Geographic Township:	Ministry Plan:
Part(s)/Sketched:	Registration #:
PIN:	Registration Division:
Registry Office:	

I/we grant permission to Her Majesty The Queen in Right of Ontario as represented by the Minister of Transportation for the province of Ontario, Her employees, agents, contractors, consultants, etc., to enter my/our property(s) on one or more occasions between the present date and December 31<sup>st</sup> 2018 (unless otherwise indicated by me in the comments section) for the purpose of carrying out the following work checked below:

- ☐ **Category A – Visual Observations** which may include the collection of field data via topographic and environmental surveys and photographs, or similar activities.
- ☐ **Category B – Investigations which may require small test holes dug by hand** to uncover archaeologically significant objects or similar activities.
- ☐ **Category C – Subsurface investigations which may require large equipment** (i.e. drill rig, backhoe or other similar equipment) for soil data collection, test pits to document and map underground utilities, or similar activities.

The granting of this permission in no way constitutes a release for damages that may be caused by the work, and I/We reserve the right to file a claim for any injury, loss or damage within two years from the day on which the damage becomes evident.

The Minister assumes the risk of injury or damages, and related reasonable legal fees of the Owner(s) to defend against third party claims, arising out of the Minister's use of the land except to the extent that the injury or damages are caused by the Owner(s)' negligence.

Please include the following:

Telephone Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Comments: \_\_\_\_\_

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ , \_\_\_\_\_

\_\_\_\_\_  
Print Name(s) (and position held if corporation)

\_\_\_\_\_  
Print Name(s) (and position held if corporation)

\_\_\_\_\_  
Signature(s)

\_\_\_\_\_  
Signature(s)

\_\_\_\_\_  
Witness (where executing party is not a corporation)

\_\_\_\_\_  
Seal or Authority To Bind (if corporation)

---

## **Project Website - Key Extracts**

**Please visit:**

**<http://highways6and401hamiltontoguelph.ca>  
for Concession Road 7 details**

---

# HIGHWAYS 6 & 401 IMPROVEMENTS FROM HAMILTON NORTH LIMITS TO GUELPH SOUTH LIMITS

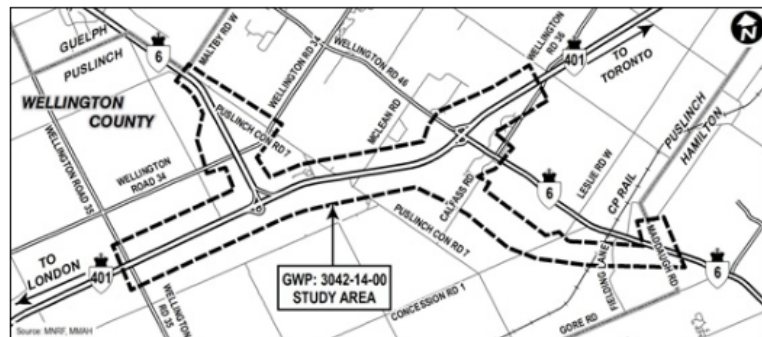


## Navigation

- [Home](#)
- [Project Overview](#)
- [Maps and Aerial Photographs](#)
- [EA Process](#)
- [Consultation](#)
  - [Notices](#)
  - [Public Information Centres](#)
  - [Public Workshops](#)
- [Reports](#)
- [Project Schedule](#)
- [Frequently Asked Questions](#)
- [Contact Us](#)
  - [Project Team Contacts](#)
- [Links](#)

## The Project

The Ontario Ministry of Transportation (MTO) is moving forward with a Preliminary Design Review and Detailed Design under the Class Environmental Assessment (EA) for improvements to Highway 6 and Highway 401 in the Township of Puslinch, Wellington County, and the City of Hamilton. A study area key map is provided below.



## What's New

- **Maps and Aerial Photographs:** Study Area and EA Approved Plan
- **Reports:** Previous Study Reports
- **Project Schedule**
- **Frequently Asked Questions**

If you are interested in details on the Class Environmental Assessment Study for the *Highway 6 (Hanon Expressway) Interchanges from Maltby Road northerly to the Speed River* please [click here](#) to be directed to that project website.



## Project Overview

---

Following the EA and Preliminary Design Phase in 1995 (W.P. 65-76-05), which documented transportation system improvements to the Highway 6 corridor between Freelon and Guelph, and an Addendum in 1997, a Review under the EA Act was completed by the Ministry Of Environment in 2007. A Notice of Approval to Proceed with the Undertaking was subsequently granted by Order in Council on, January 22, 2009. A portion of the Preliminary Design along Highway 401 was amended by a Transportation Environmental Study Report (TESR) in 2012 for the Preliminary Design and Class EA for Highway 401 from West of Hespeler Road to the Wellington/Halton Boundary (G.W.P 8-00-00).

This approved preliminary design includes:

- A new controlled access four-lane alignment of Highway 6 west of the existing highway, from Highway 6 at Maddaugh Road northerly to Highway 401;
- Improvements to the Highway 6 / Maddaugh Road intersection;
- Structures to carry CP Rail, Calfass Road, Concession Road 1 and Fielding Lane across the new Highway 6 alignment;
- A new two-lane connection road north of the community of Morriston, linking the existing and new alignments of Highway 6;
- Reconfiguration of the Highway 401 interchanges at Highway 6 / Wellington Road 46 (Brock Road), and at Highway 6 (Hanlon Expressway);
- Widening of approximately 3 km of Highway 401 to 10 lanes including High Occupancy Vehicle (HOV) lanes between the two Highway 6 interchanges;
- Replacement of the Hanlon Expressway intersection at Wellington Road 34 with a bridge (no connection to the highway);
- Closure of the Hanlon Expressway intersection at Maltby Road / Concession Road 4;
- A new Hanlon Expressway interchange approximately mid-way between Wellington Road 34 and Maltby Road / Concession Road 4 linking Wellington Road 34 on the west side of the Hanlon Expressway to Concession Road 7 on the east side of the Hanlon Expressway;
- Reconstruction of the section of Concession Road 7 between the new interchange and Wellington Road 34;
- Replacement of the Puslinch Concession Road 7 Bridge over Highway 401; and
- Reconfiguration and expansion of the Wellington Road 46 (Brock Road) commuter parking lot.

## EA Process

---

This study is subject to the *Ontario Environmental Assessment Act (EA Act)* and will be completed in accordance with the *MTO Class EA for Provincial Transportation Facilities (2000)* process for a Group A project with the opportunity for public input.

Following the EA and Preliminary Design Phase in 1995 (W.P. 65-76-05), which documented transportation system improvements to the Highway 6 corridor between Freelon and Guelph, and an Addendum in 1997, a Review under the EA Act was completed by the Ministry Of Environment in 2007. A Notice of Approval to Proceed with the Undertaking was subsequently granted by Order in Council on, January 22, 2009. A portion of the Preliminary Design along Highway 401 was amended by a Transportation Environmental Study Report (TESR) in 2012 for the Preliminary Design and Class EA for Highway 401 from West of Hespeler Road to the Wellington/Halton Boundary (G.W.P 8-00-00).

A “five-year review” will be undertaken to determine if significant changes have occurred since submission of the 1995 EA and the 2012 TESR. In the event that significant changes are identified from the 1995 and 2012 Preliminary Design Studies, a Transportation Environmental Study Report (TESR) Addendum will be made available for a 30-day public and agency review period. The Detailed Design phase will be documented in Design and Construction Report(s) (DCRs) that will be made available for a 30-day public and agency review period. The DCR(s) will document the study process, Detailed Design and associated environmental impacts, mitigation measures, and a summary of consultation undertaken.

# Consultation

---

**If you have any accessibility requirements in order to review the material on this web site, please contact one of the project team members listed on the [Project Team Contacts](#) page of the website.**

Consultation / engagement will take place throughout the study with the public, Indigenous peoples, regulatory agencies and municipalities. The project team will strive to provide consultation opportunities that are meaningful, and provide all stakeholders with the ability to influence and shape the outcome of the study.

Two Public Information Centres (PICs) are planned to provide an opportunity to discuss the study with members of the Project Team. In addition, two public workshops are planned for this study.

Notification advising of the time and location of the PICs, and the availability of project reports for review will be published in local newspapers, posted on the project website, and mailed to those on the project mailing list.

# Reports

---

## Previous Study Reports

Please use the links below to download previous study reports for your reference:

- [W.P. 65-76-05 – Highway 6 Freelton to Guelph – EA Report \(1995\) – Volume 1](#)
- [W.P. 65-76-05 – Highway 6 Freelton to Guelph – EA Report \(1995\) – Volume 2](#)
- [W.P. 65-76-05 – Highway 6 Freelton to Guelph – EA Report \(1995\) – Volume 3](#)
- [W.P. 65-76-05 – Highway 6 Freelton to Guelph – EA Addendum \(1997\)](#)
- [Review under the EA Act – Ministry of Environment \(2007\) – EA File Number TC-CE-06](#)
- [W.P. 65-76-05 – Highway 6 Freelton to Guelph – Notice of Approval to Proceed \(2009\) – EA File Number TC-CE-06](#)
- [G.W.P. 8-00-00 – Highway 401 from Hespeler Road to the Wellington County – Halton Region Boundary – Transportation Environmental Study Report \(2012\)](#)

**Additional study reports will be provided here as they are completed during the current study.**

# Contact Us

---

If you have any accessibility requirements in order to review the material on this web site, please contact one of the project team members listed on the Project Team Contacts page of the website.

Your input is important to us. If you would like to send your comments to the Project Team or to be added to the project contact list, please complete the online form below and click "submit".

Name:

Address:

City:

Province:

Postal Code:

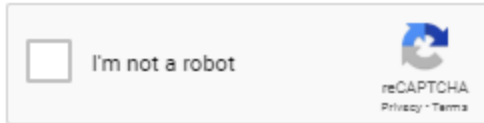
Email:

Comments:

How would you like to receive study notices?

☒ Email ☐ Regular Mail

Please click the "I'm not a robot" box below:



Send

Comments are being collected to assist MTO in meeting the requirements of the Environmental Assessment Act. This material will be maintained on file for use during the study and may be included in project documentation. Information collected will be used in accordance with the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

---

## **Municipal Meetings**

---





# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

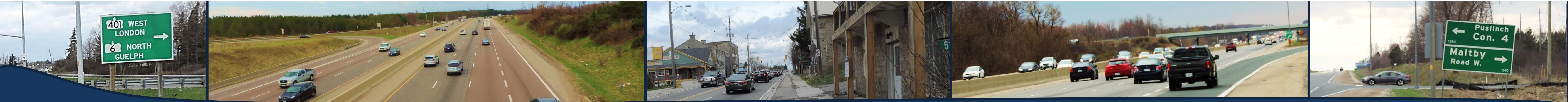
## Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits Including the New Alignment of Highway 6 Detailed Design and Class Environmental Assessment

G.W.P. 3042-14-00

June 15<sup>th</sup>, 2017

## Municipal Meeting



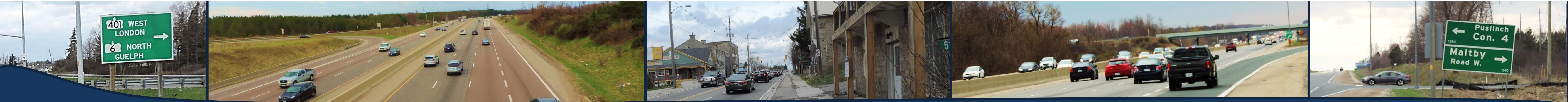


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## AGENDA

- Ø Project overview and process
- Ø Study schedule
- Ø Review of the previously approved plan
- Ø Refinements to the previously approved plan
- Ø Next steps
- Ø Items for discussion

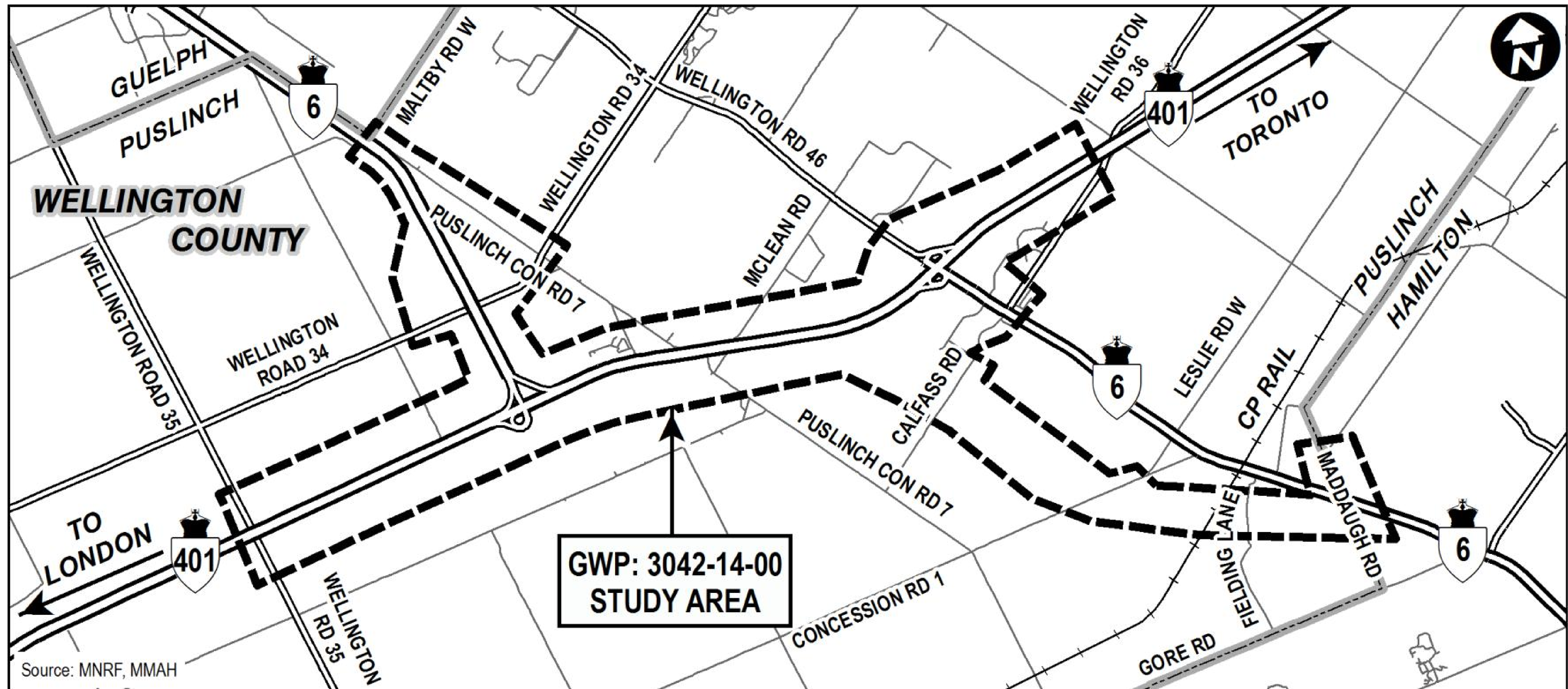




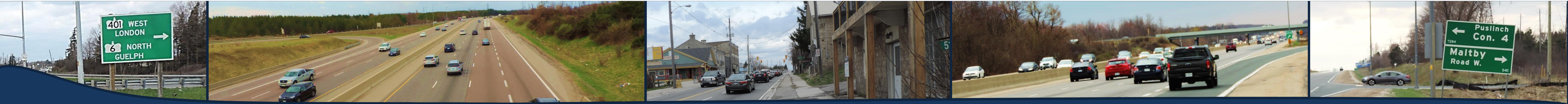
# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## STUDY AREA

This study is located in the Township of Puslinch, Wellington County and the City of Hamilton



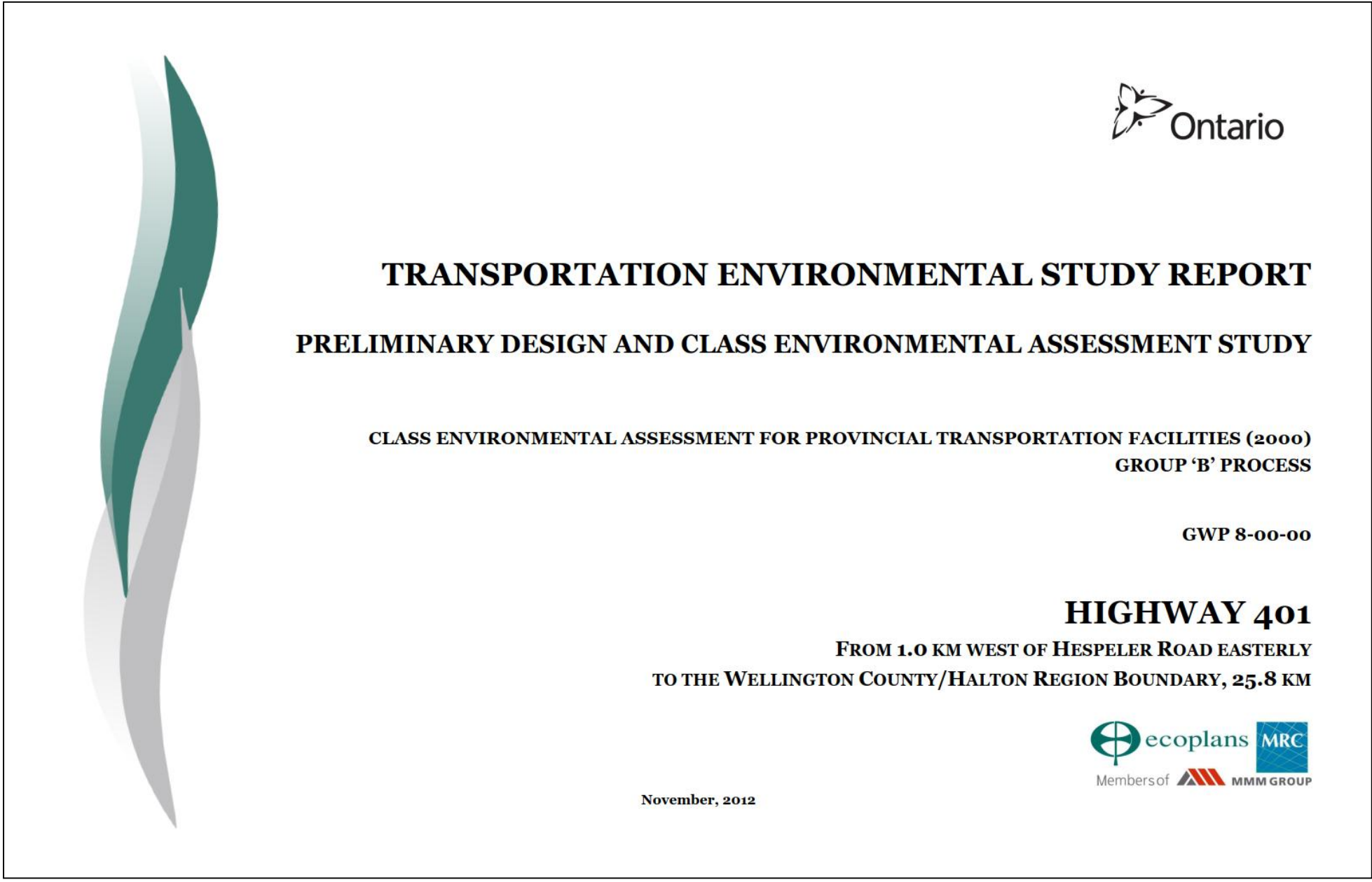
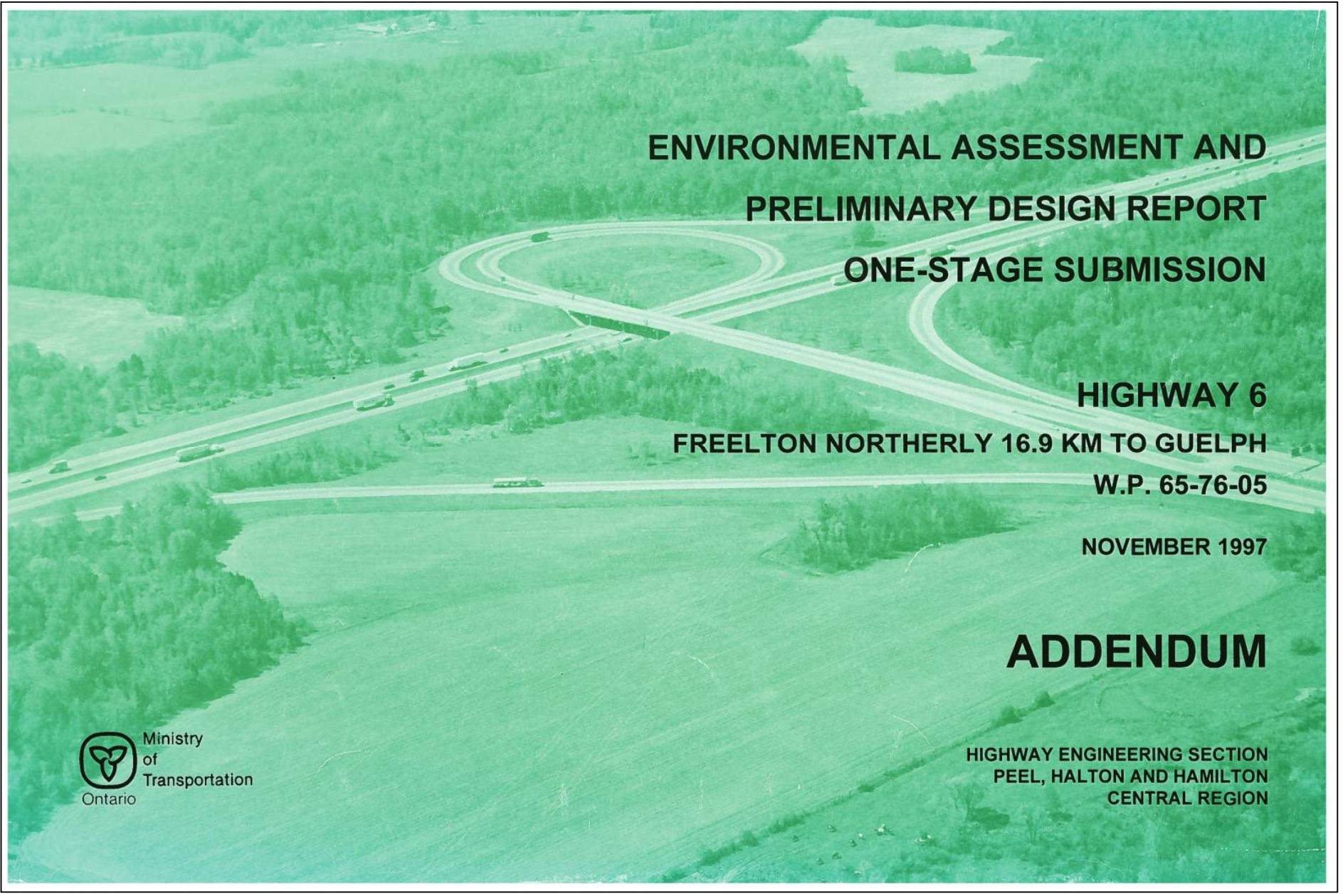
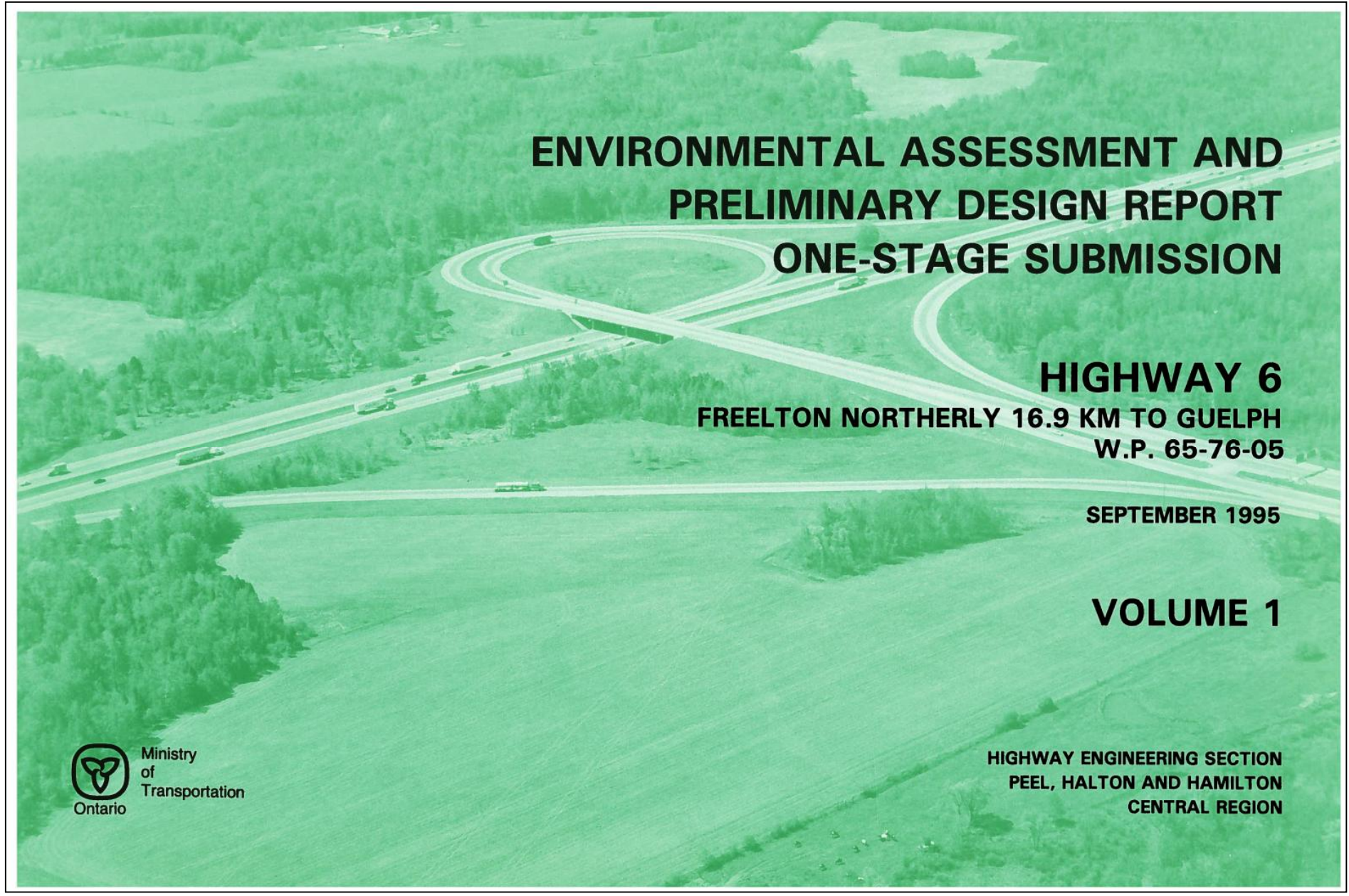
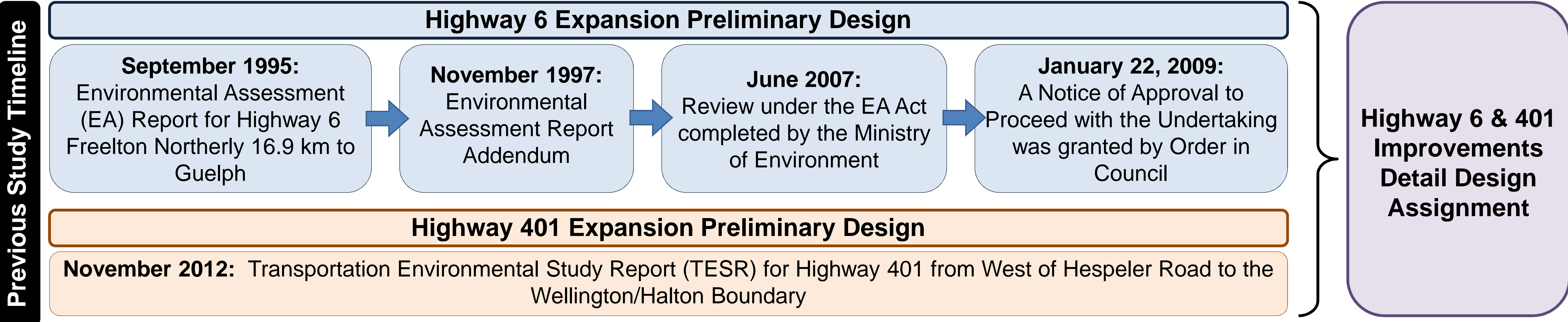




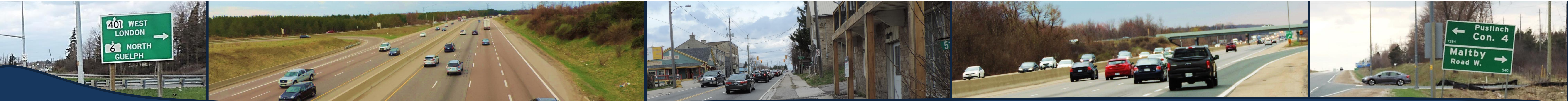
# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## OVERVIEW OF PREVIOUS STUDIES

This project combines the Highway 6 Expansion Preliminary Design study and the Highway 401 Expansion Preliminary Design study.



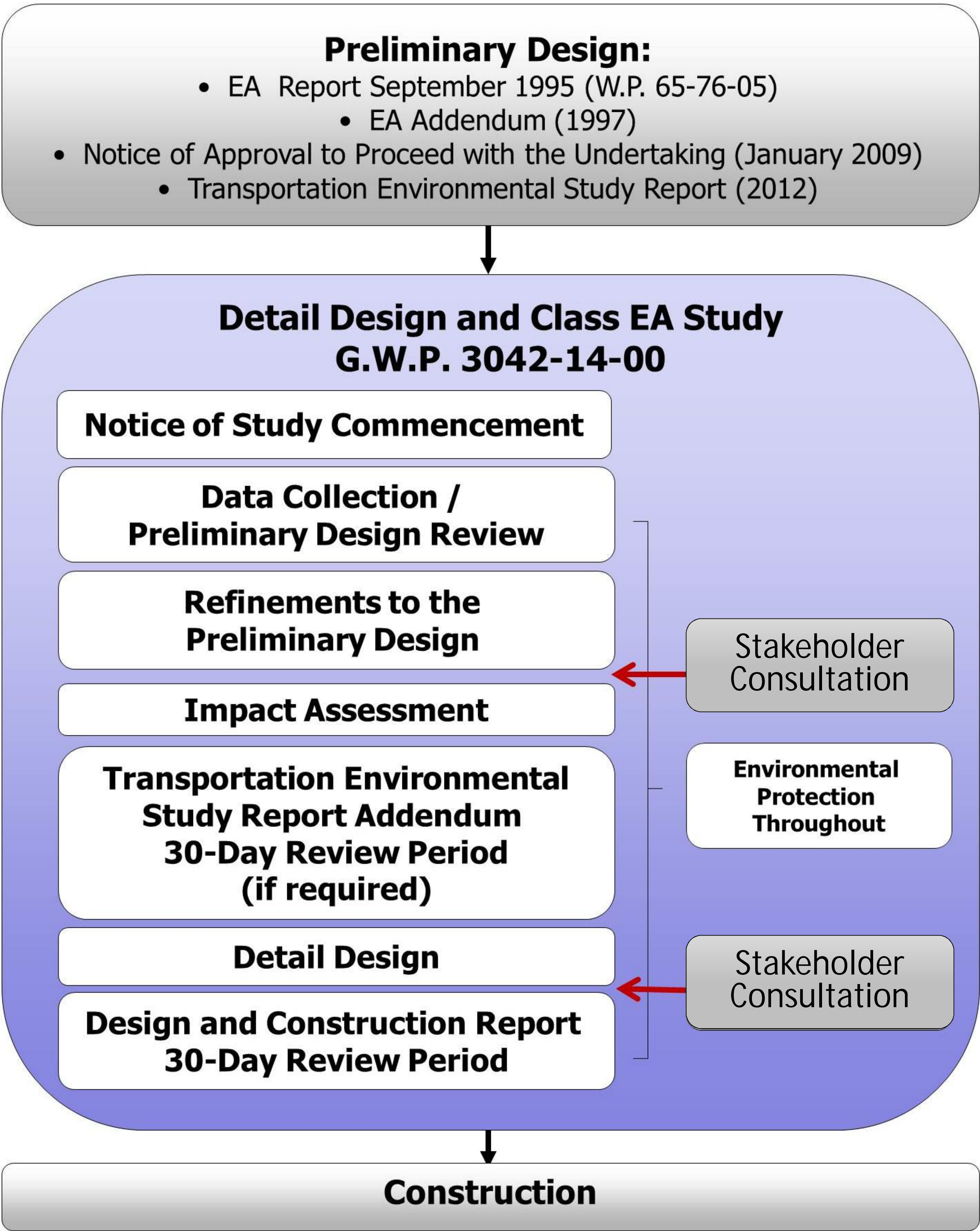




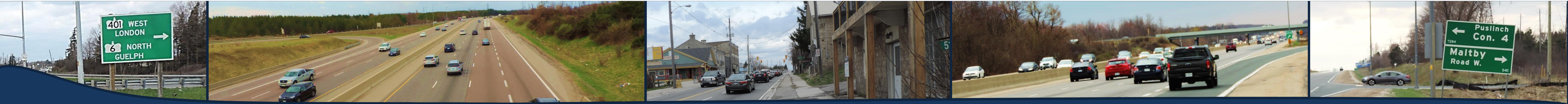
# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## STUDY PROCESS AND SCOPE

- Ø A review is being carried out that considers changes which have taken place since submission of the original TESR and will determine if significant design changes are required
- Ø In the event that significant design changes are identified, a TESR Addendum will be made available for a 30-day public and agency review period
- Ø The Detailed Design phase will be documented in a Design and Construction Report (s) (DCRs) that will be made available for a public and agency review period
- Ø The DCR (s) will document the study process, Detailed Design and associated environmental impacts, mitigation measures, and a summary of consultation undertaken



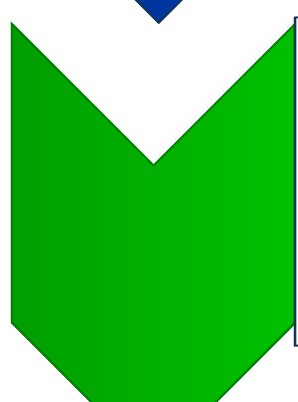









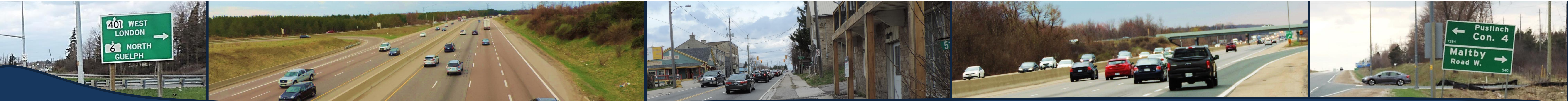


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## STUDY SCHEDULE

	•April / May 2017	Notice of Study Commencement
	•Spring / Summer 2017	Field investigations, Data Collection, Preliminary Design Review
	•June 2017	First Nations / Municipal / Agency Consultation
	•Fall 2017	Stakeholder Consultation
	•Winter 2017 / 2018	Impact Assessment
	•Winter / Spring 2018	Detail Design
	•Spring 2018	Stakeholder Consultation
	•Summer 2018	Design and Construction Reports (DCRs) for associated construction



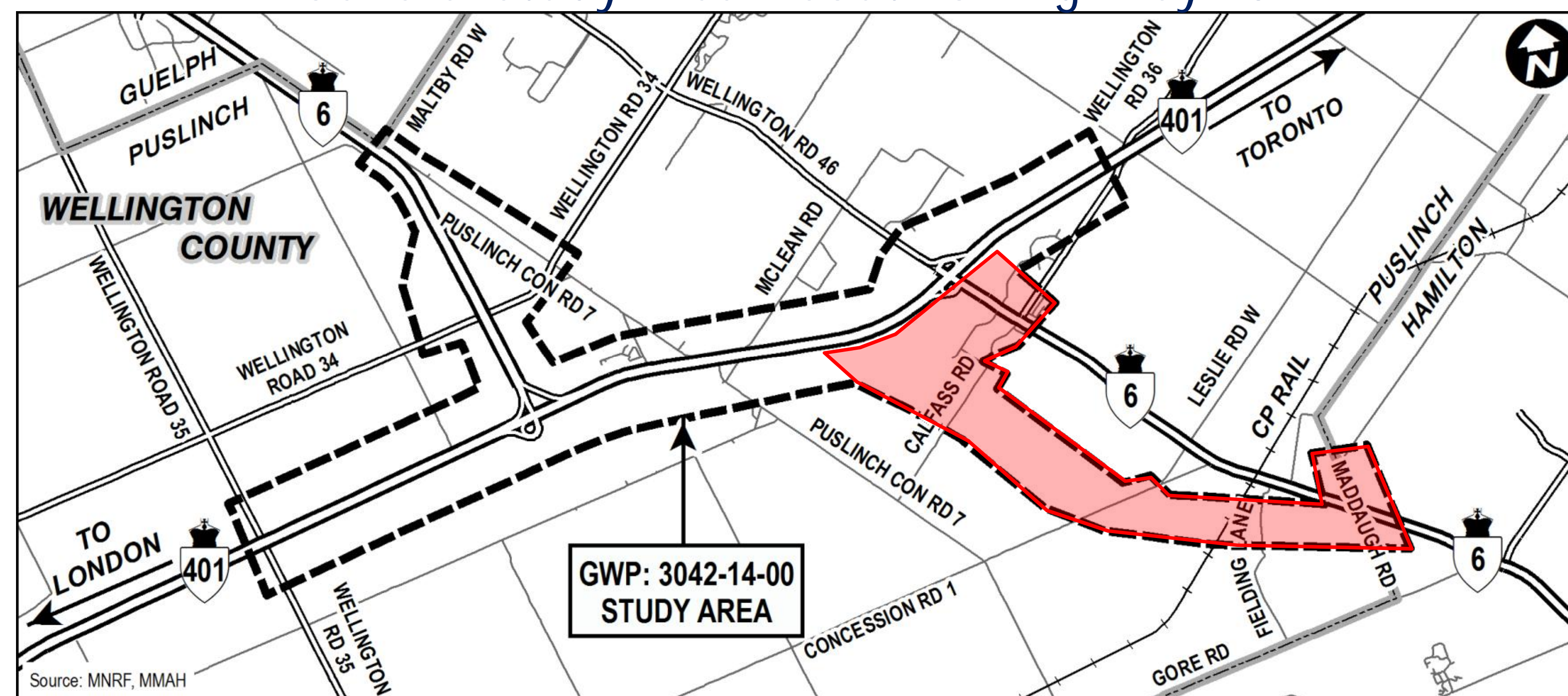


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

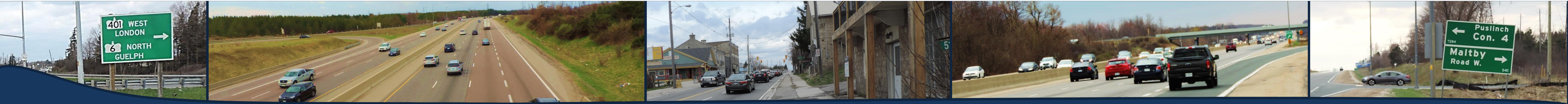
## PREVIOUSLY APPROVED PLAN – SOUTH OF HIGHWAY 401

- Ø The previously approved Preliminary Design Improvements south of Highway 401 (within the Township of Puslinch / Wellington County and the City of Hamilton) include:
- A new controlled access four-lane Highway 6 alignment west of existing Highway 6, from Highway 401 to Maddaugh Road
  - Improvements to the Highway 6 / Maddaugh Road intersection
  - New bridges at the proposed Highway 6 crossings at CP Rail, Calfass Road, Concession Road 1 and Fielding Lane
  - A new two-lane connection road north of the Morriston community
  - Reconfiguration and expansion of the Wellington Road 46 (Brock Road) commuter parking lot

### General Study Area – South of Highway 401





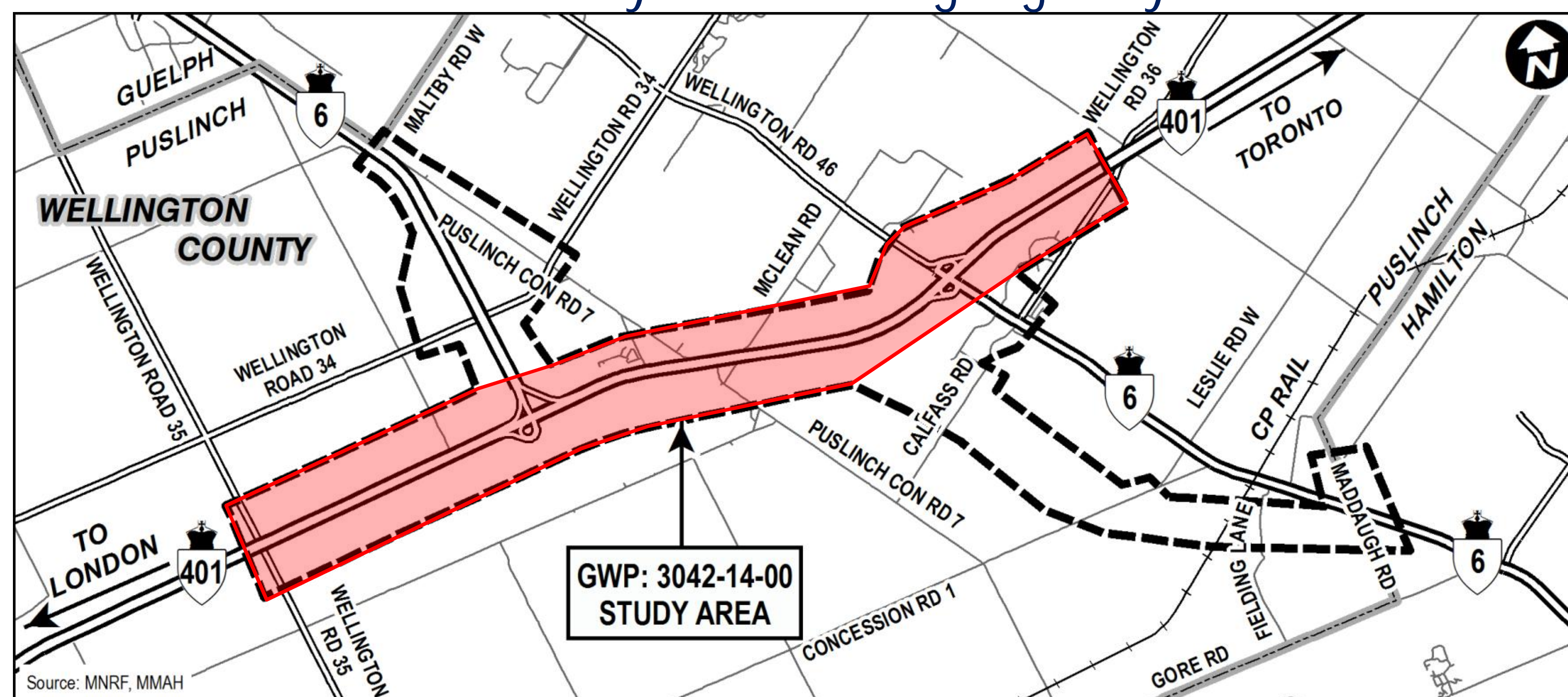


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

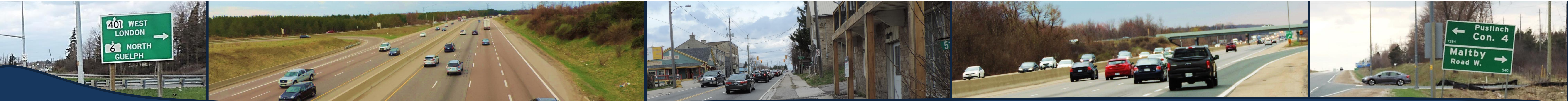
## PREVIOUSLY APPROVED PLAN – ALONG HIGHWAY 401

- Ø The previously approved Preliminary Design Improvements along Highway 401 (within the Township of Puslinch / Wellington County) include:
- Reconfiguration of the Highway 401 interchange at Highway 6 / Wellington Road 46 (Brock Road)
  - Reconfiguration of the Highway 401 interchange at Highway 6 (Hanlon Expressway)
  - Widening of 3 km of Highway 401 to 10 lanes including High Occupancy Vehicle lanes between the two Highway 6 interchanges
  - Replacement of the Puslinch Concession Road 7 Bridge over Highway 401

General Study Area – Along Highway 401







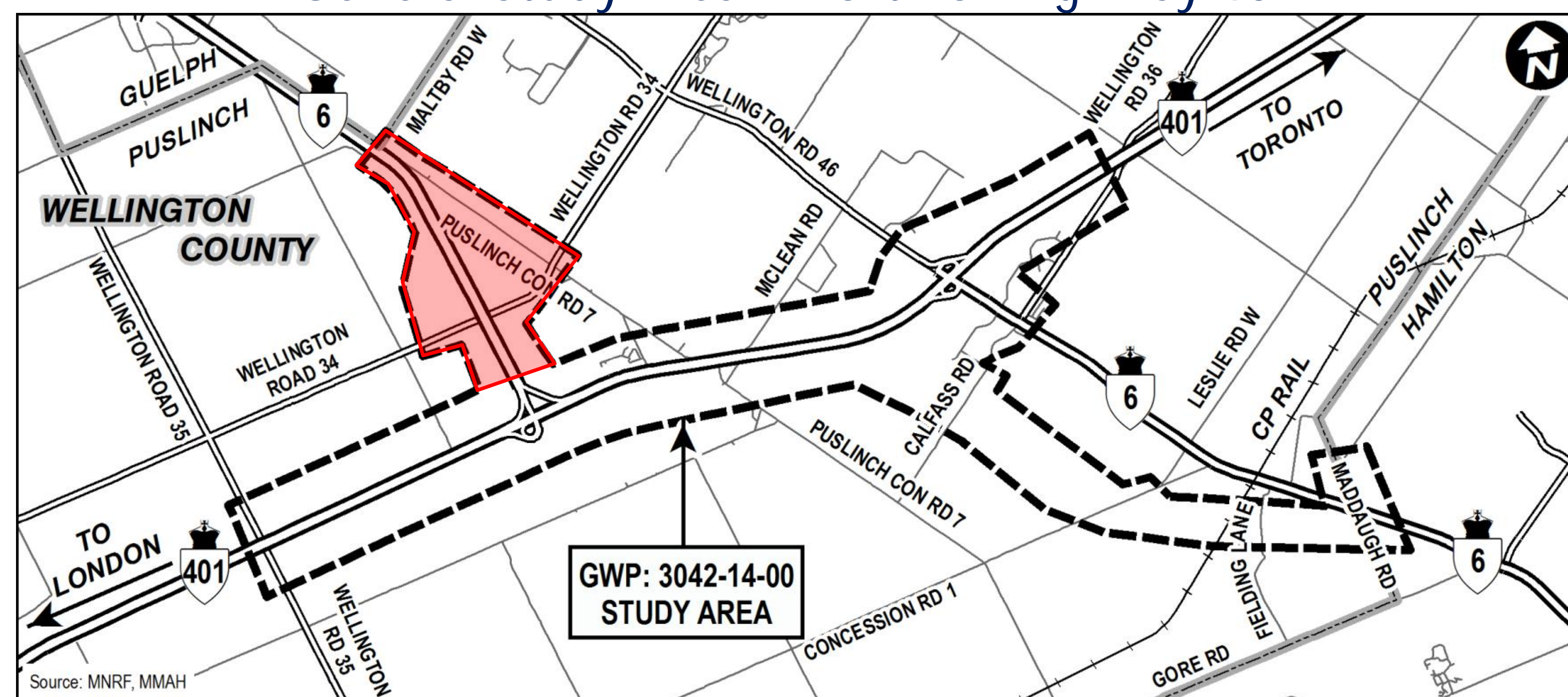
# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## PREVIOUSLY APPROVED PLAN – NORTH OF HIGHWAY 401

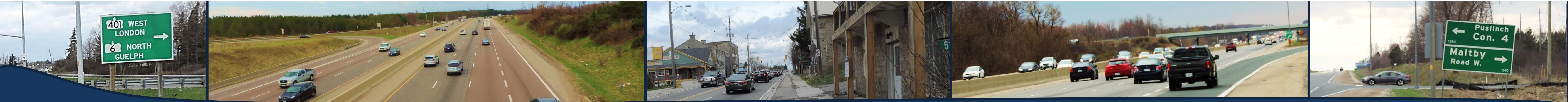
Ø The previously approved Preliminary Design Improvements north of Highway 401 (within the Township of Puslinch / Wellington County and the City of Guelph) includes:

- Replacement of the Wellington Road 34 / Hanlon Expressway Intersection with a bridge and no access
- Closure of the Hanlon Expressway / Maltby Road / Concession Road 4 intersection
- A new Hanlon Expressway interchange mid-way between Wellington Road 34 and Maltby Road / Concession Road 4
- Reconstruction of the section of Concession Road 7 between the new interchange and Wellington Road 34

General Study Area – North of Highway 401





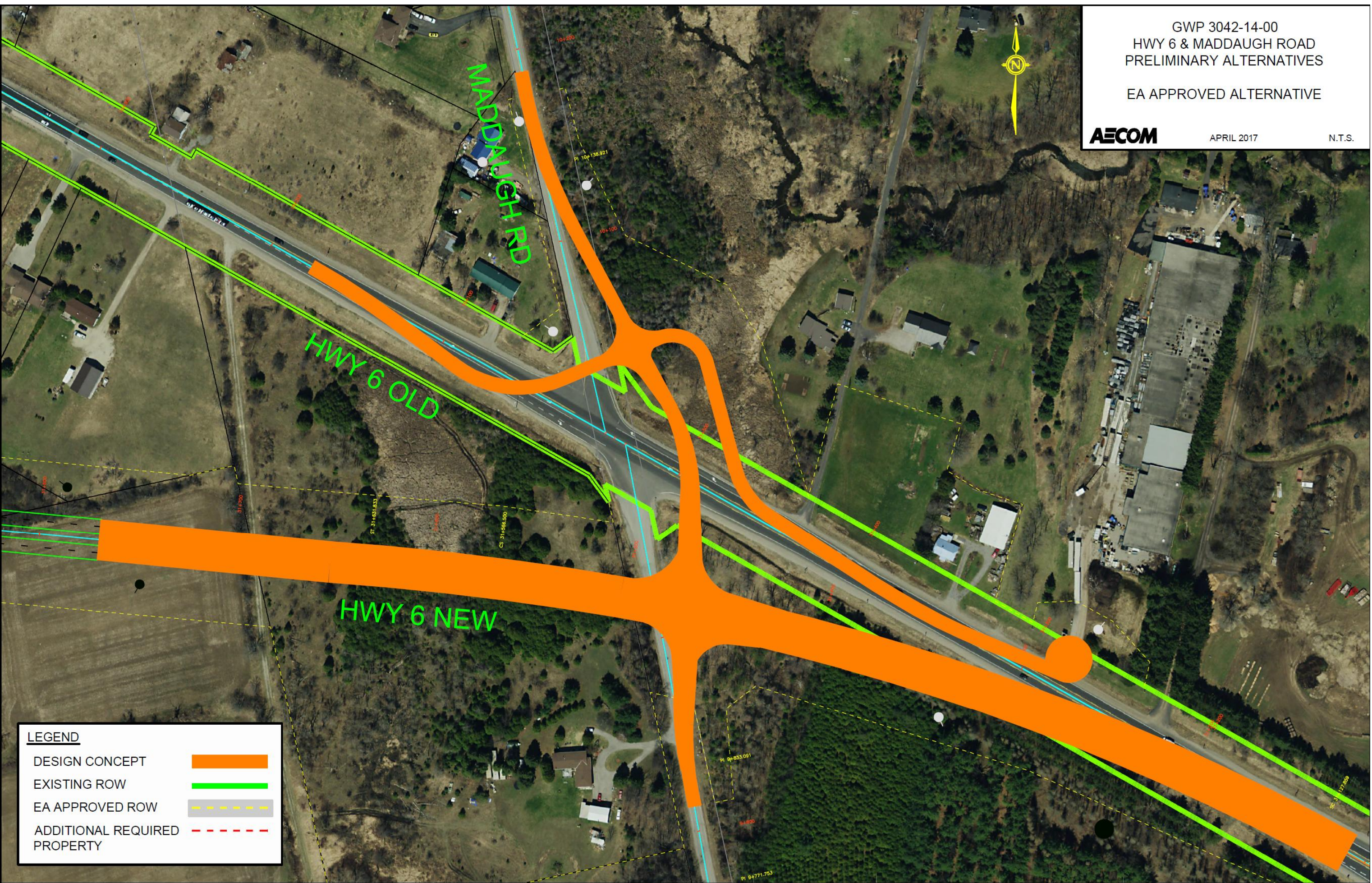


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

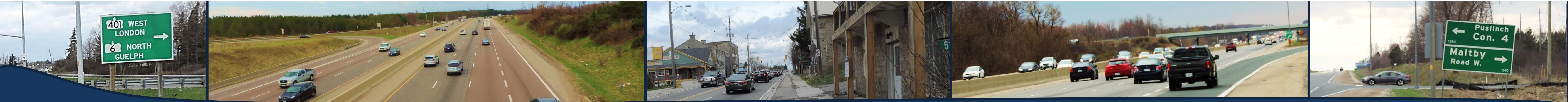
## POTENTIAL REFINEMENTS TO THE APPROVED PRELIMINARY DESIGN

- Ø The EA approved intersection design at Highway 6 and Maddaugh Road is being reviewed to identify potential geometric and/or access improvement alternatives with the potential for reduced environmental impacts
- Ø Closure of the Hanlon Expressway / Maltby Road / Concession Road 4 intersection (approved under G.W.P. 3002-05-00)
- Ø Concession Road 7 alignment refinements to minimize Hydro corridor impacts and associated property impacts
- Ø Various minor horizontal geometric alignment refinements to minimize impacts and/or to provide more desirable geometrics

EA Approved Maddaugh Rd / Highway 6 Intersection



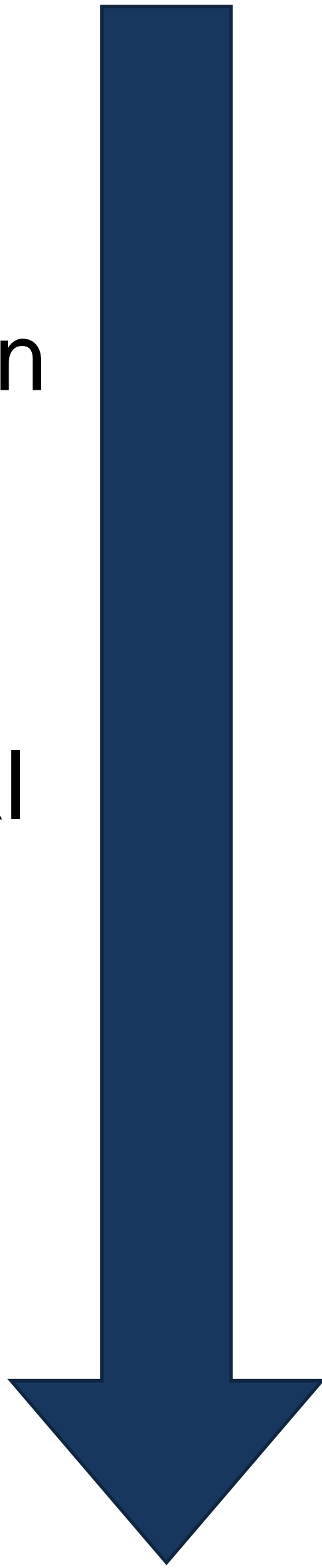




# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

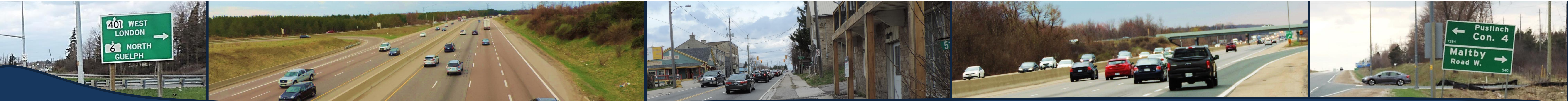
## NEXT STEPS

- Ø Review feedback from Municipalities, and other stakeholders
- Ø Continue field investigations, data collection, and Preliminary Design review
- Ø Hold Public Information Centre
- Ø Assess potential impacts to the natural, socio-economic and cultural environments and develop protection and mitigation measures
- Ø Detailed design of recommended plan
- Ø Additional stakeholder consultation
- Ø Prepare Design and Construction Report(s) (DCRs)
  - *30-day review period of the DCRs*



Consultation throughout with all stakeholder (members of the public, Indigenous peoples, regulatory agencies, and municipalities)



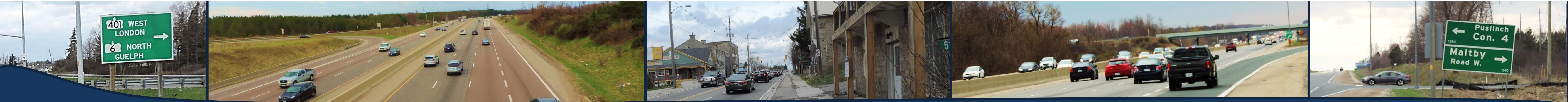


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## ITEMS FOR DISCUSSION

- Ø Identification of future municipal projects / plans
- Ø Lane and shoulder width standards applicable to Concession Road 7, Wellington Road 34, Calfass Road and Crieff Road
- Ø A review of municipal active transportation plans was completed and the following plans have been identified:
  - Paved Shoulders along Wellington Road 36
  - Signed Active Transportation Route along Concession 1
  - Maltby Road proposed bike lanes
  - Proposed/Existing trail adjacent to Hanlon Expressway from Speed River to Maltby Road
- Ø Key issues from residents and local business owners
  - Potential future municipal access to Wellington Road 34 Connector Road
- Ø Other important information for the project team to consider?





# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

THANK YOU FOR YOUR PARTICIPATION





# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

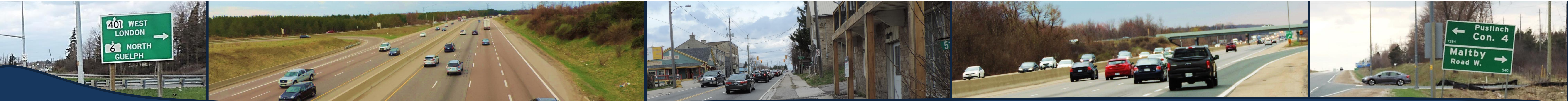
## Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits Including the New Alignment of Highway 6 Detailed Design and Class Environmental Assessment

G.W.P. 3042-14-00

October 4th, 2017

## Township of Puslinch Council Meeting



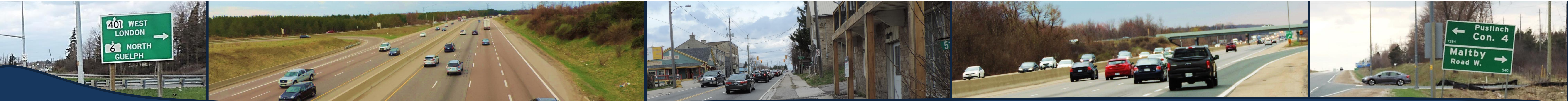


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## AGENDA

- Project purpose
- Current project Environmental Assessment (EA) status
- Study EA process and reports for this project
- Key elements of the previously approved preliminary design
- Potential refinements to the previously approved preliminary design
- Study schedule
- Environmental investigations
- Next steps
- Open discussion

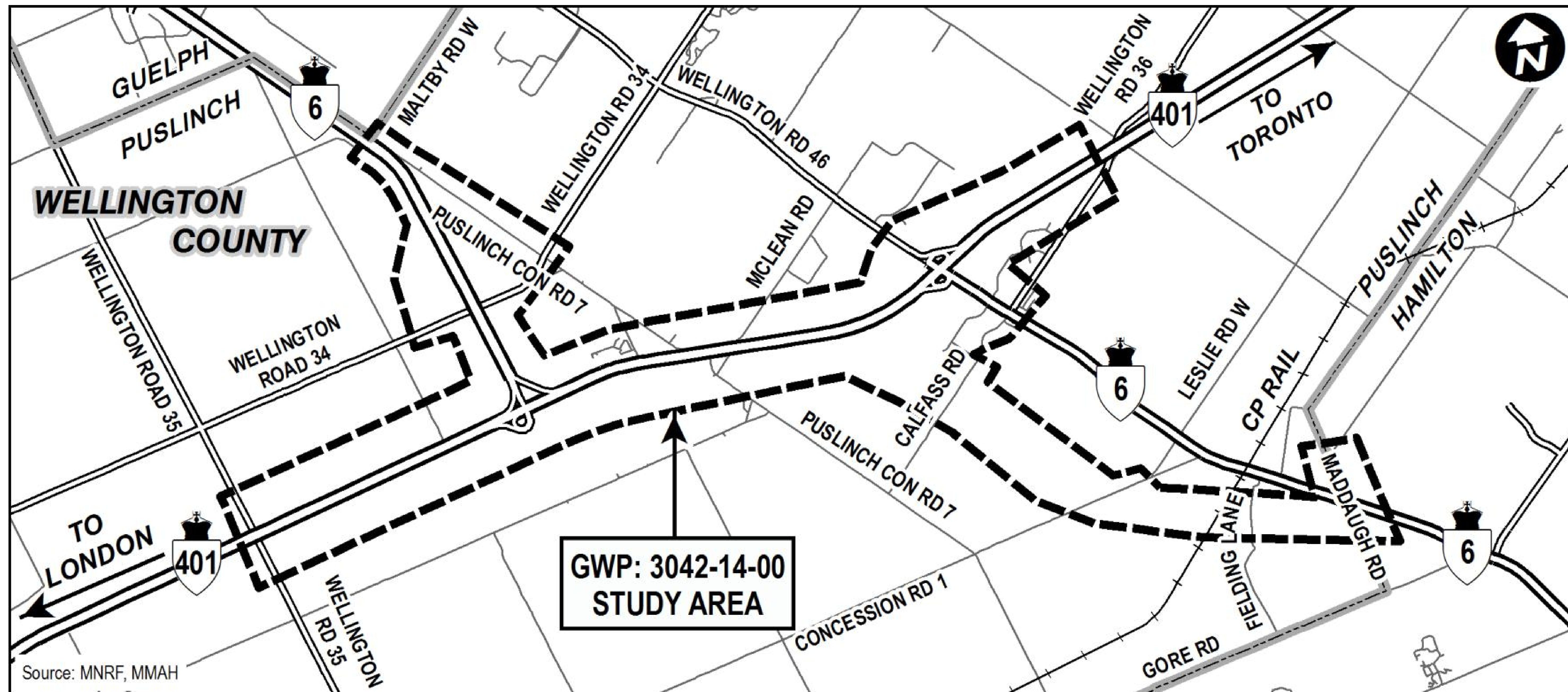




# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

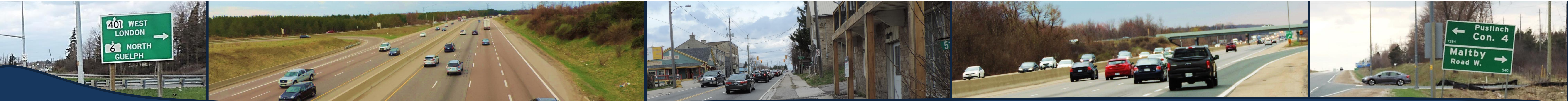
## STUDY AREA

This study is located in the Township of Puslinch, Wellington County and the City of Hamilton



A more detailed map can be viewed on the project web site at:  
<http://highways6and401hamiltontoguelph.ca/maps-and-aerial-photographs/>





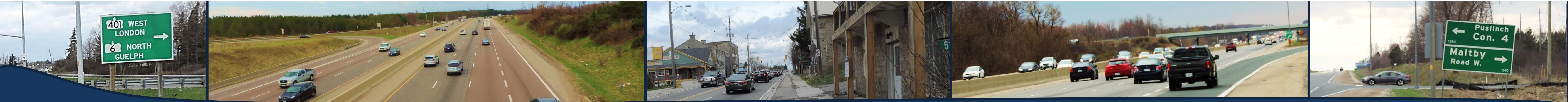
# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## PROJECT PURPOSE

The purpose of this current study is to move forward with plans to improve traffic flow on Highways 6 and 401, which will create jobs and reduce congestion. The study will include a review of the approved Preliminary Design, make appropriate refinements, and move forward into Detailed Design to develop the design for construction. This project will address:

- Capacity deficiencies and low levels of traffic service on existing Highway 6 south of Highway 401 and on Wellington County Road 46 (Brock Road), north of Highway 401. The high proportion of turning movements in the absence of turning lanes on these two-lane roadways is a concern;
- Under-utilization of Highway 6 (Hanlon Expressway) on the west side of the City of Guelph;
- Capacity shortage and increased congestion on these major roadways are affecting the ability of municipalities to move forward with their development initiatives;
- Conflicts between high speed regional traffic and slower moving local traffic and pedestrians on existing Highway 6 south of Highway 401 suggest that a separation of predominantly through/commercial and local passenger traffic is desirable; and,
- The traffic composition characteristics and capacity deficiency contribute to higher collision potential.

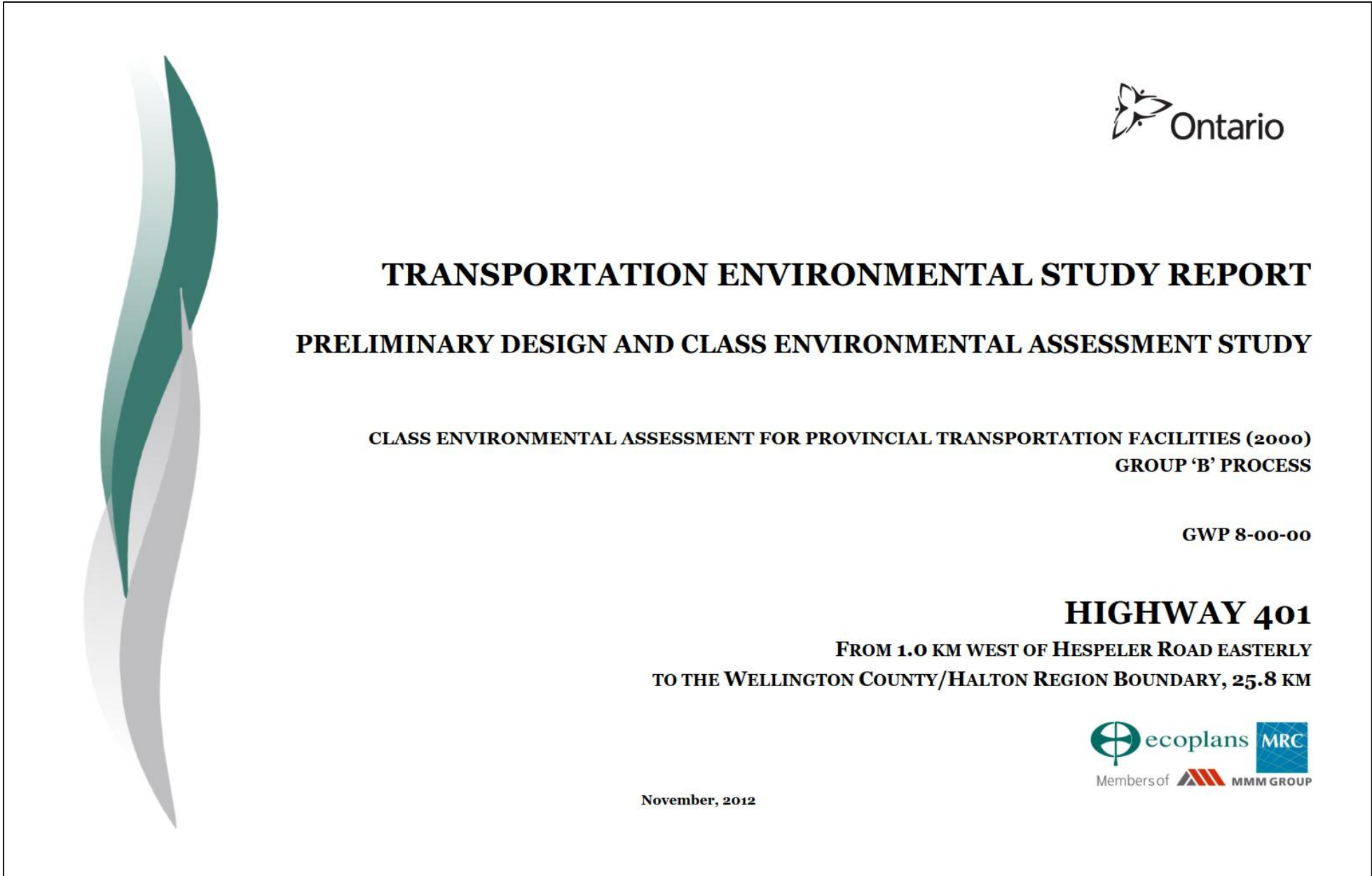
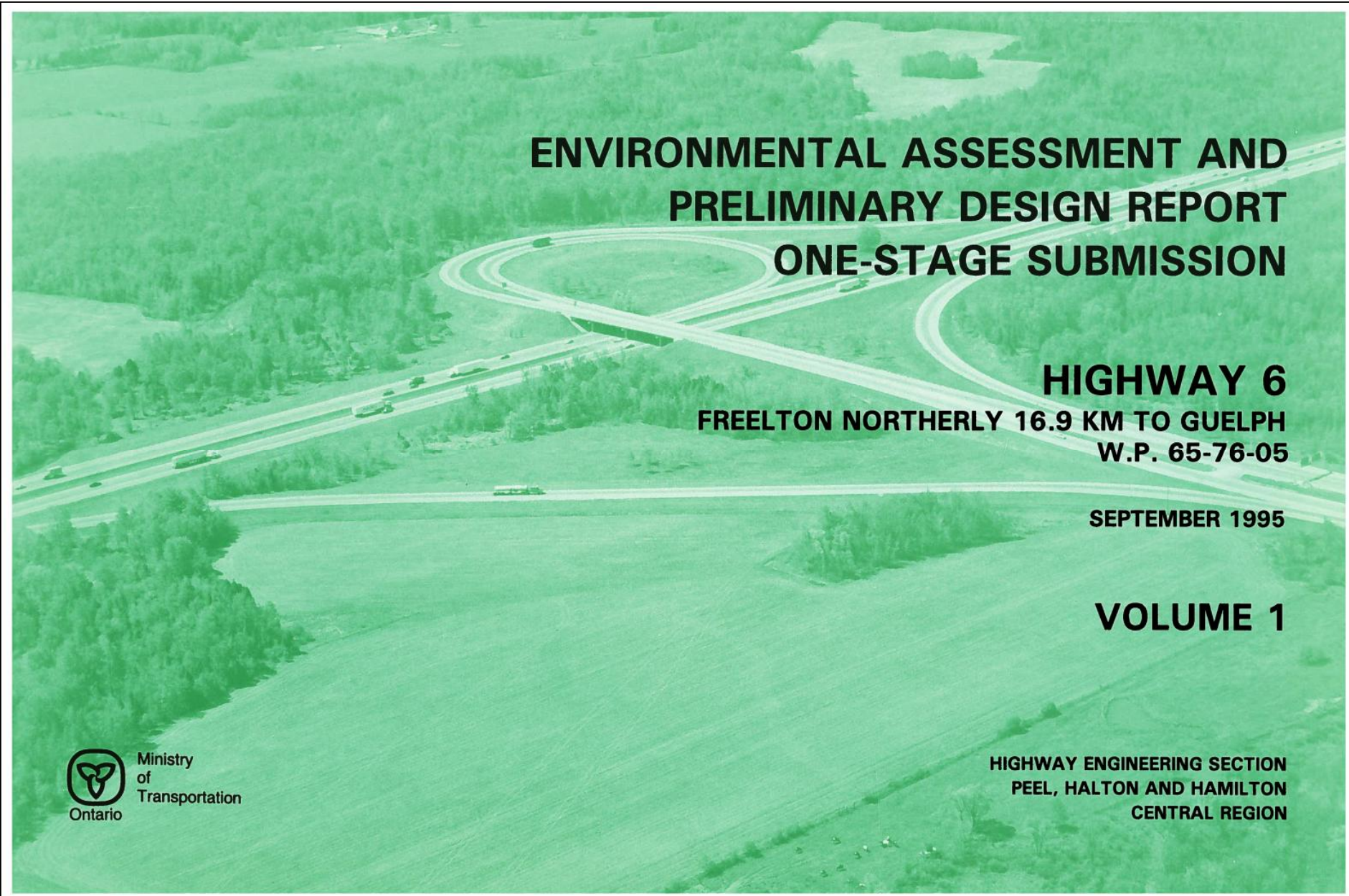
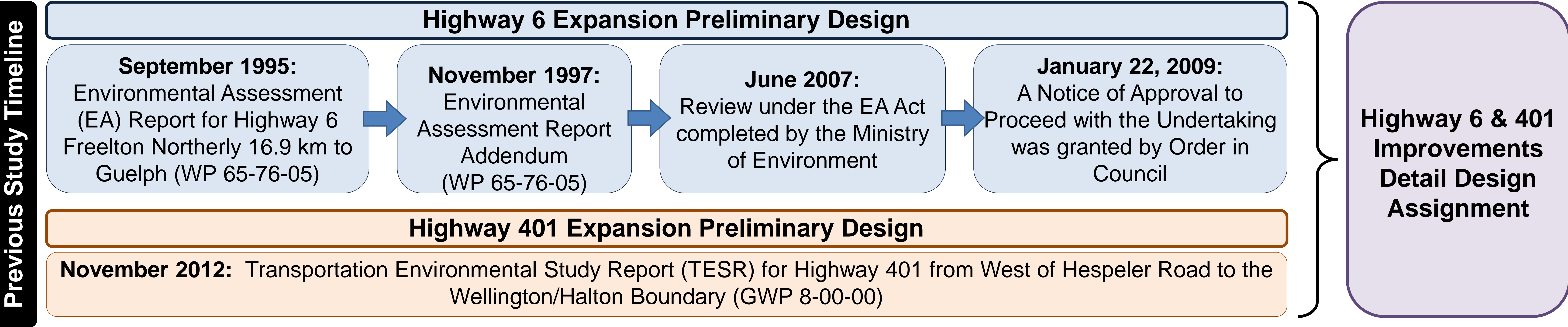




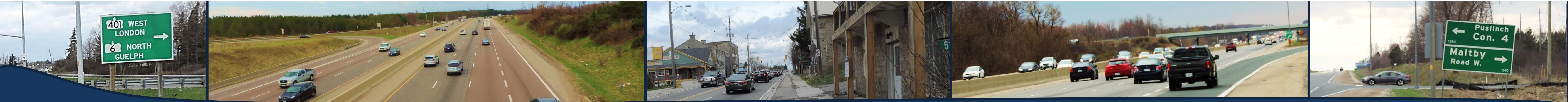
# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## CURRENT PROJECT EA STATUS

This project combines the Highway 6 Expansion Preliminary Design study and the Highway 401 Expansion Preliminary Design study.



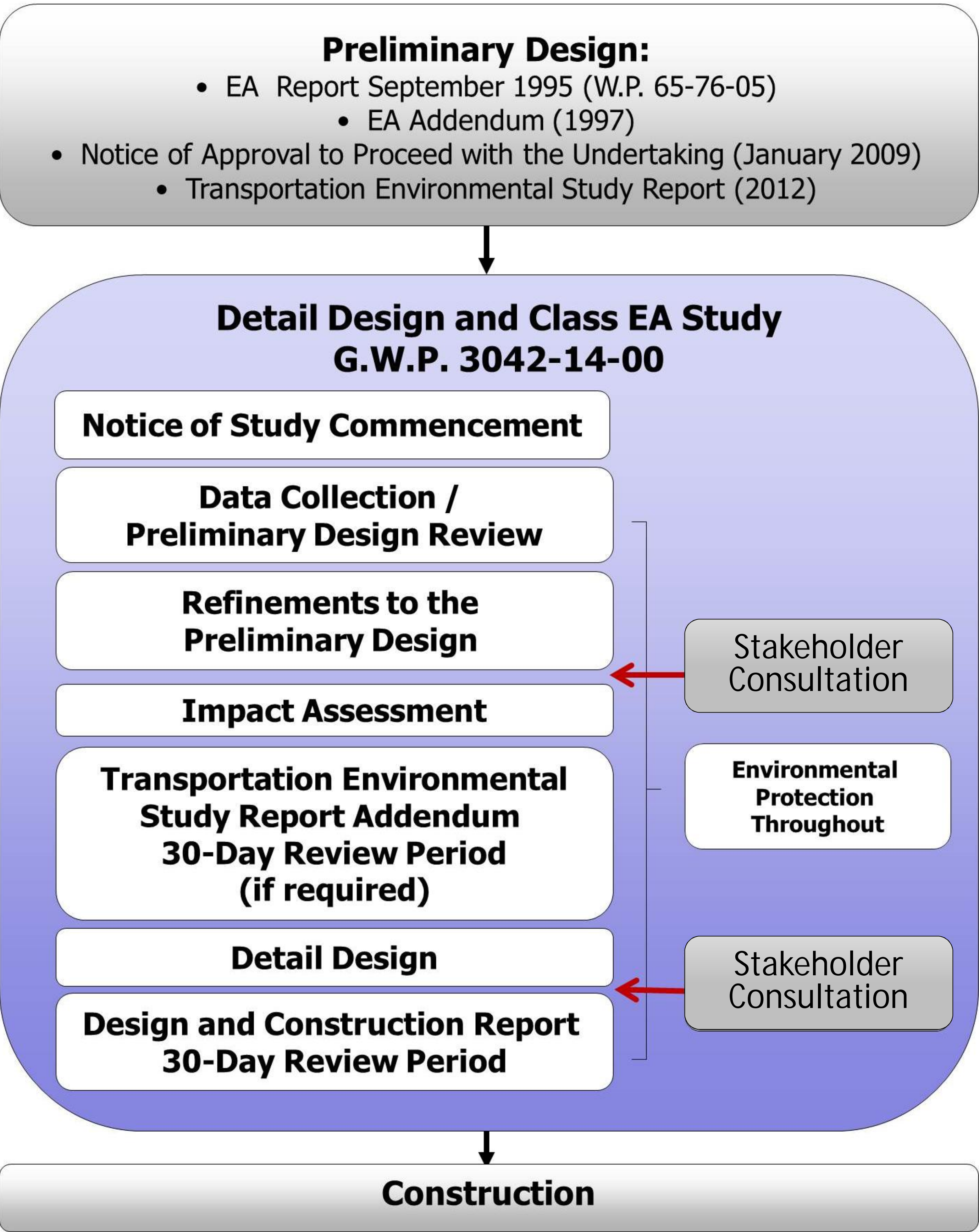




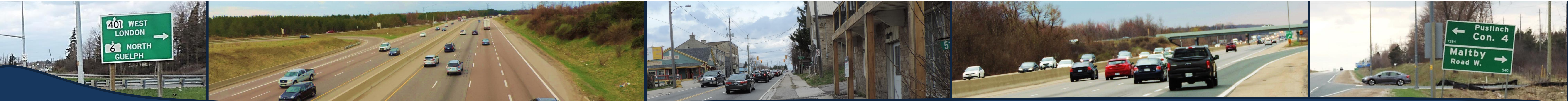
# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## STUDY PROCESS AND REPORTING

- This project will be completed in accordance with the *MTO Class EA for Provincial Transportation Facilities (2000)* process for a Group ‘A’ project;
- A review of the Preliminary Design is being undertaken to identify:
  - Any significant changes that have occurred since release of the reports shown on the previous slide; and,
  - The need for refinements to the approved Preliminary Design.
- In the event that significant design changes are identified, a TESR Addendum will be made available for public and agency review period
- The Detailed Design phase will be documented in a Design and Construction Report (s) (DCRs) that will be made available for a public and agency review





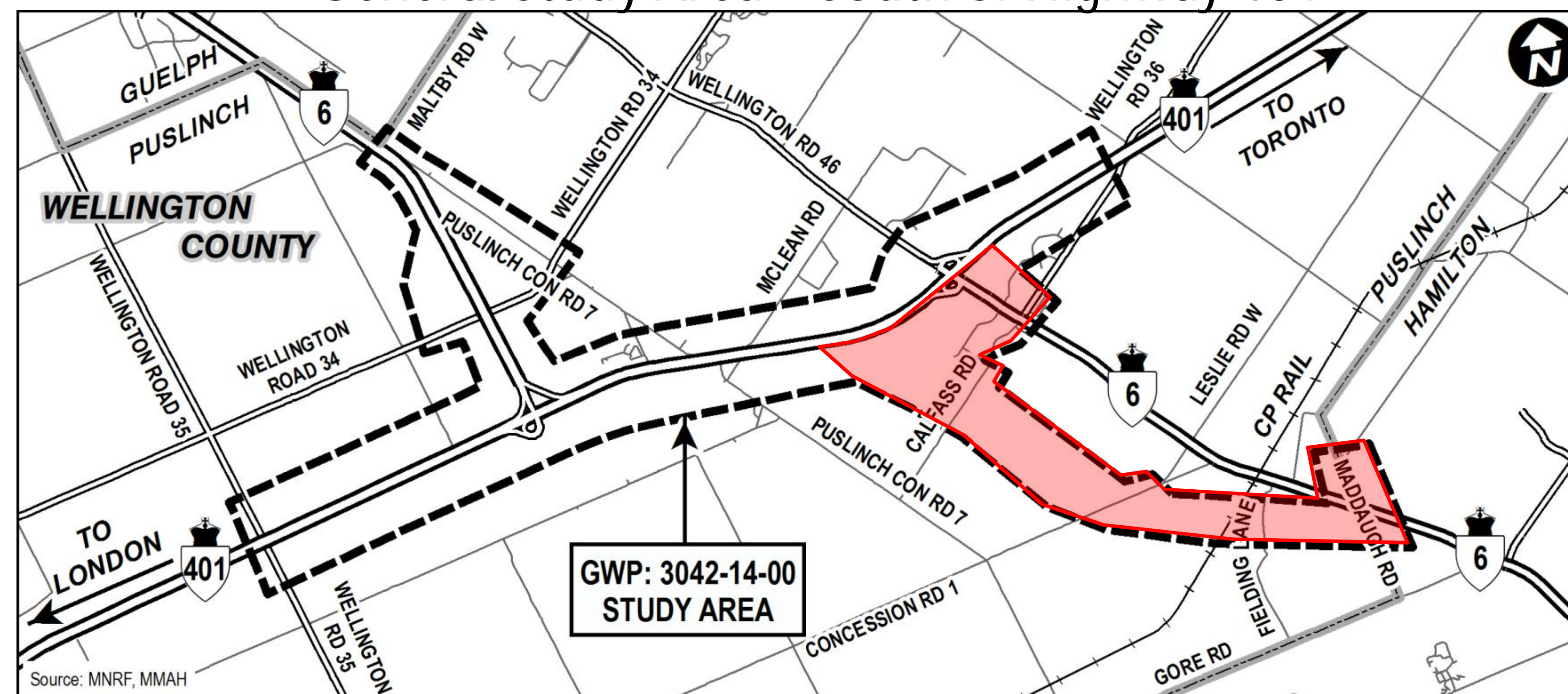


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

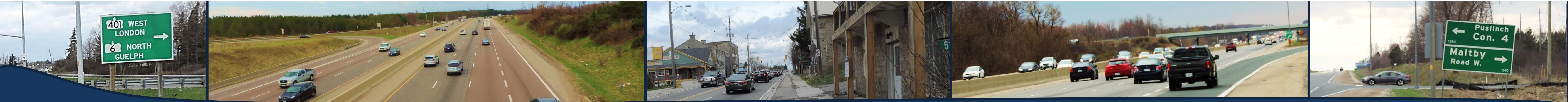
## APPROVED PRELIMINARY DESIGN – SOUTH OF HIGHWAY 401

- The previously approved Preliminary Design Improvements south of Highway 401 (within the Township of Puslinch / Wellington County and the City of Hamilton) include:
  - A new controlled access four-lane Highway 6 alignment west of existing Highway 6, from Highway 401 to Maddaugh Road (approximately 6km of new highway)
  - Improvements to the Highway 6 / Maddaugh Road intersection
  - Structures to carry Calfass Road and Concession Road 1 over the new alignment of Highway 6, and to carry the new alignment of Highway 6 over CP rail and Fielding Lane
  - A new two-lane connection road north of the Morriston community (approximately 1km)
  - Reconfiguration and expansion of the Wellington Road 46 (Brock Road) commuter parking lot

General Study Area – South of Highway 401





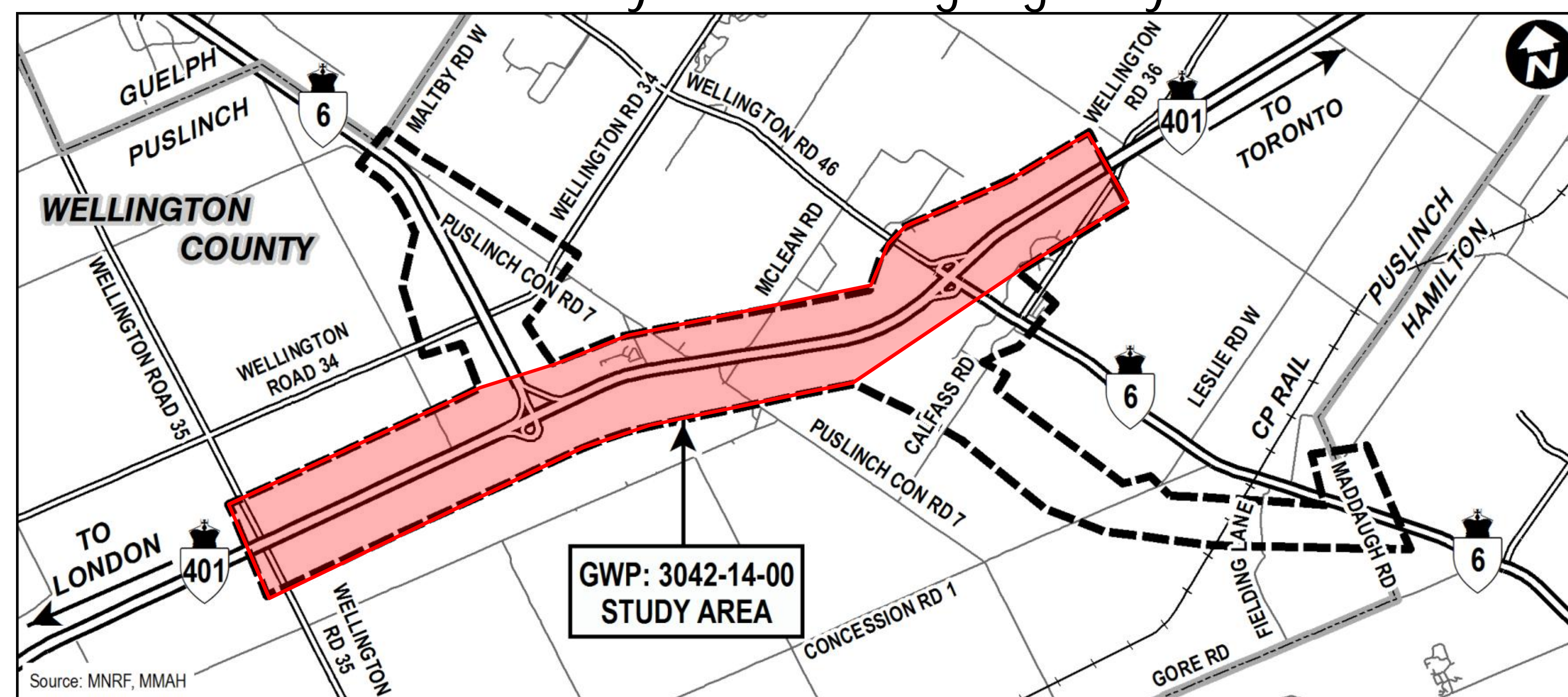


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

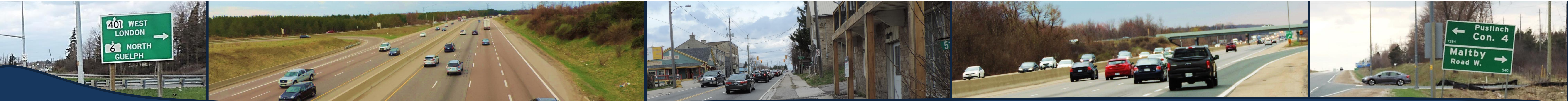
## APPROVED PRELIMINARY DESIGN – ALONG HIGHWAY 401

- The previously approved Preliminary Design Improvements along Highway 401 (within the Township of Puslinch / Wellington County) include:
  - Reconfiguration of the Highway 401 interchange at Highway 6 / Wellington Road 46 (Brock Road)
  - Reconfiguration of the Highway 401 interchange at Highway 6 (Hanlon Expressway)
  - Widening of approximately 3 km of Highway 401 to 10 lanes including provision for future High Occupancy Vehicle lanes between the two Highway 6 interchanges
  - Replacement of the Puslinch Concession Road 7 Bridge over Highway 401

General Study Area – Along Highway 401





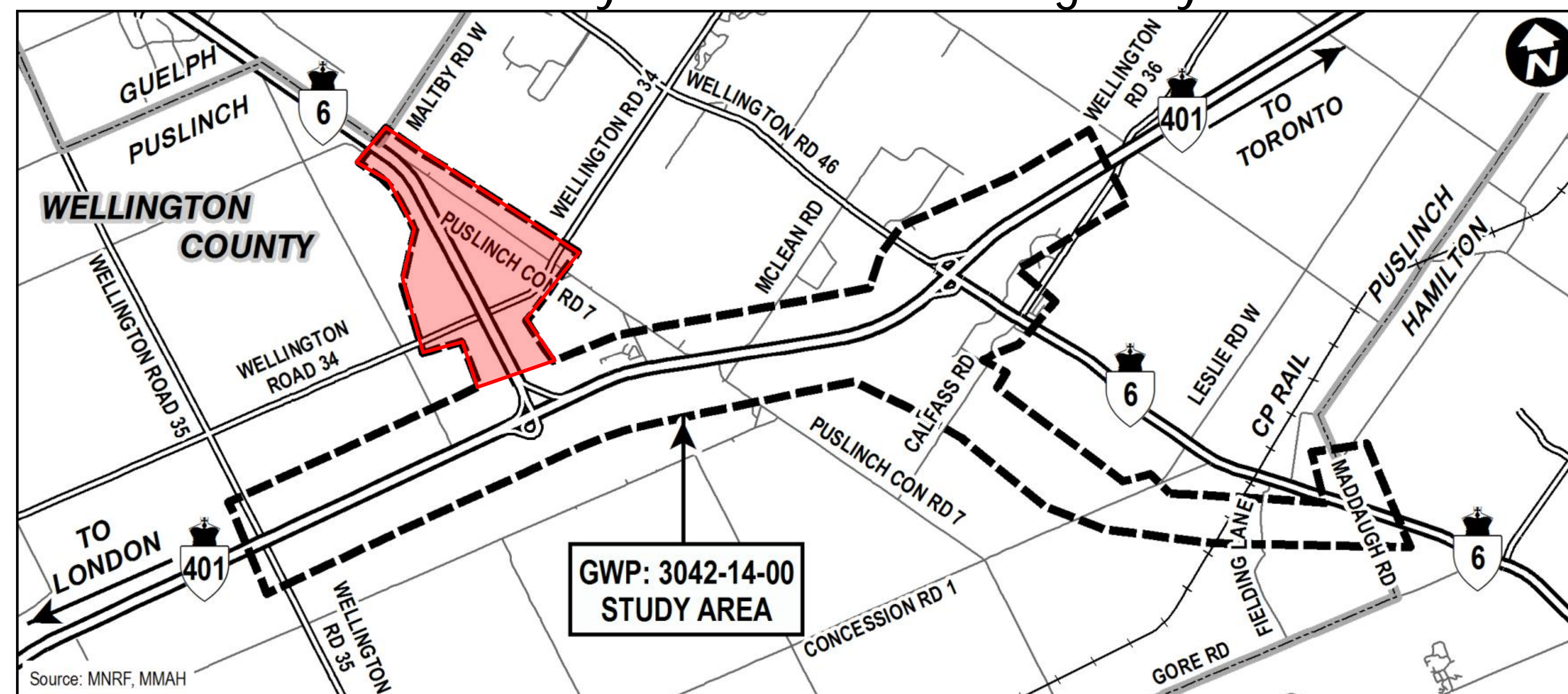


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

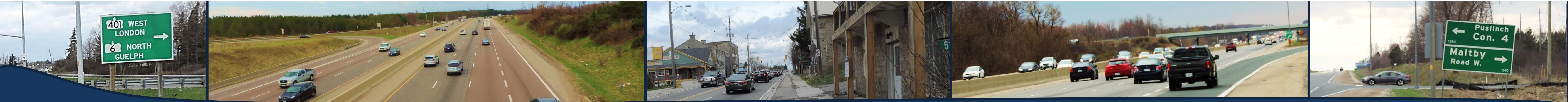
## APPROVED PRELIMINARY DESIGN – NORTH OF HIGHWAY 401

- The previously approved Preliminary Design Improvements north of Highway 401 (within the Township of Puslinch / Wellington County and the City of Guelph) includes:
  - Replacement of the Wellington Road 34 / Hanlon Expressway Intersection with a bridge and no access
  - Closure of the Hanlon Expressway / Maltby Road / Concession Road 4 intersection
  - A new Hanlon Expressway interchange mid-way between Wellington Road 34 and Maltby Road / Concession Road 4
  - Reconstruction of the section of Concession Road 7 between the new interchange and Wellington Road 34

General Study Area – North of Highway 401





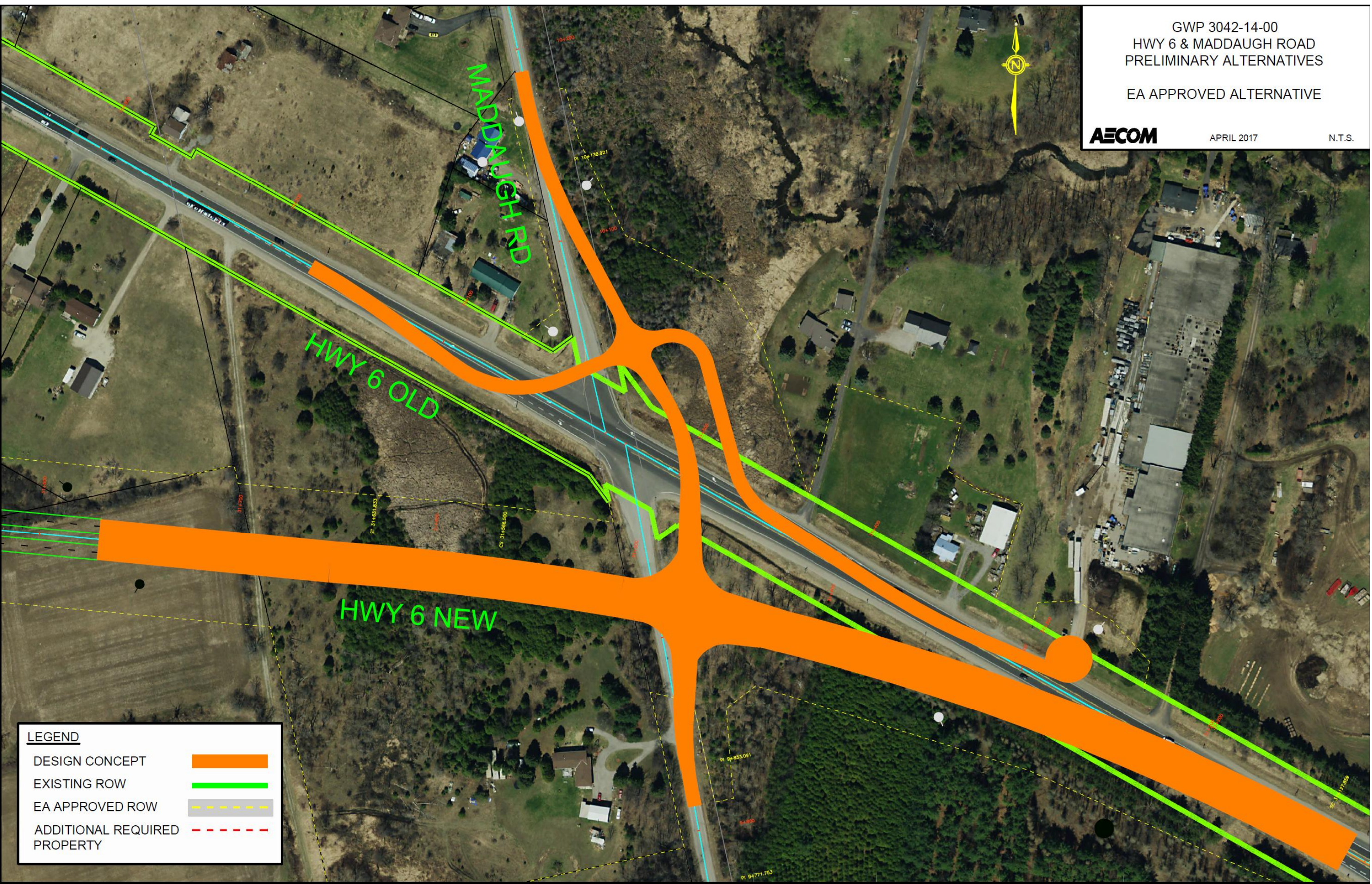


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

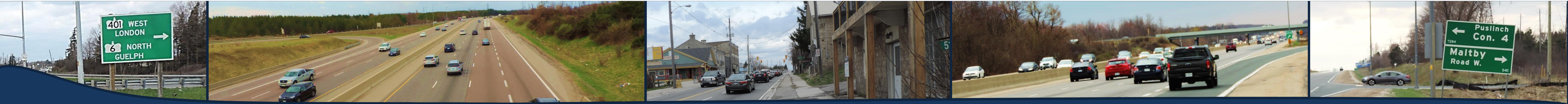
## POTENTIAL REFINEMENTS TO THE APPROVED PRELIMINARY DESIGN

- The EA approved intersection design at Highway 6 and Maddaugh Road is being reviewed to identify potential geometric and/or access improvement alternatives with the potential for reduced environmental impacts
- Concession Road 7 alignment refinements to minimize Hydro corridor impacts and associated property impacts
- Various minor horizontal geometric alignment refinements to minimize impacts and/or to provide more desirable geometrics
- Major refinements to the alignment are not currently being considered

EA Approved Maddaugh Rd / Highway 6 Intersection



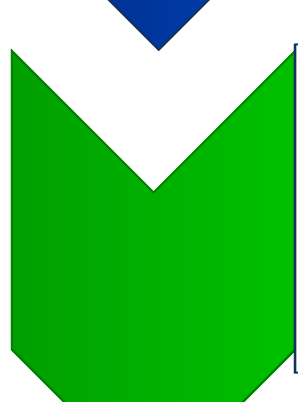
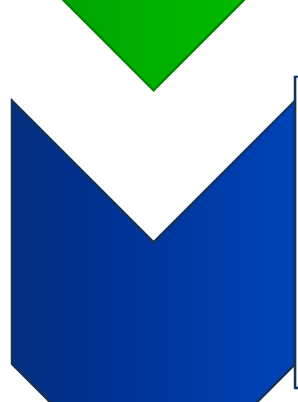


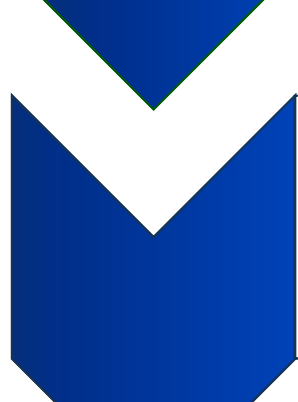





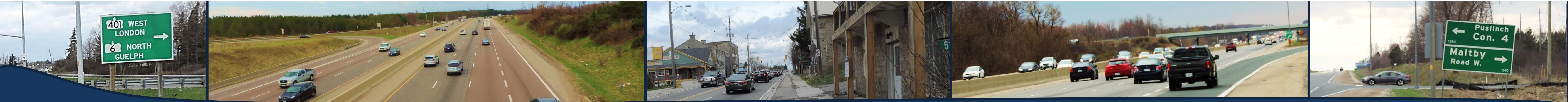


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## STUDY SCHEDULE

	•April / May 2017	Notice of Study Commencement
	•Spring / Summer 2017	Field investigations, Data Collection, Preliminary Design Review
	•June /July 2017	Consultation with Agencies, Municipalities, Stakeholder Groups
	•Fall 2017	Stakeholder Consultation
	•Winter 2017 / 2018	Impact Assessment
	•Winter / Spring 2018	Design
	•Spring 2018	Stakeholder Consultation
	•Summer 2018	Design and Construction Reports (DCRs) for associated construction





# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## NEXT STEPS

- Review feedback from agencies and other stakeholders
- Continue field investigations, data collection, and Preliminary Design review
- Hold Public Information Centre
- Assess potential impacts to the natural, socio-economic and cultural environments and develop protection and mitigation measures
- Design of recommended plan
- Additional stakeholder consultation
- Prepare Design and Construction Report(s) (DCRs)
  - *30-day review period of the DCRs*



Consultation throughout with all stakeholder (members of the public, Indigenous peoples, regulatory agencies, and municipalities)



**Replacement of the Puslinch Concession Road 7  
Bridge over Highway 401 in Puslinch Township  
G.W.P. 3224-15-00**

Joint Municipal and Emergency Services Meeting

August 9, 2018

## Meeting Agenda

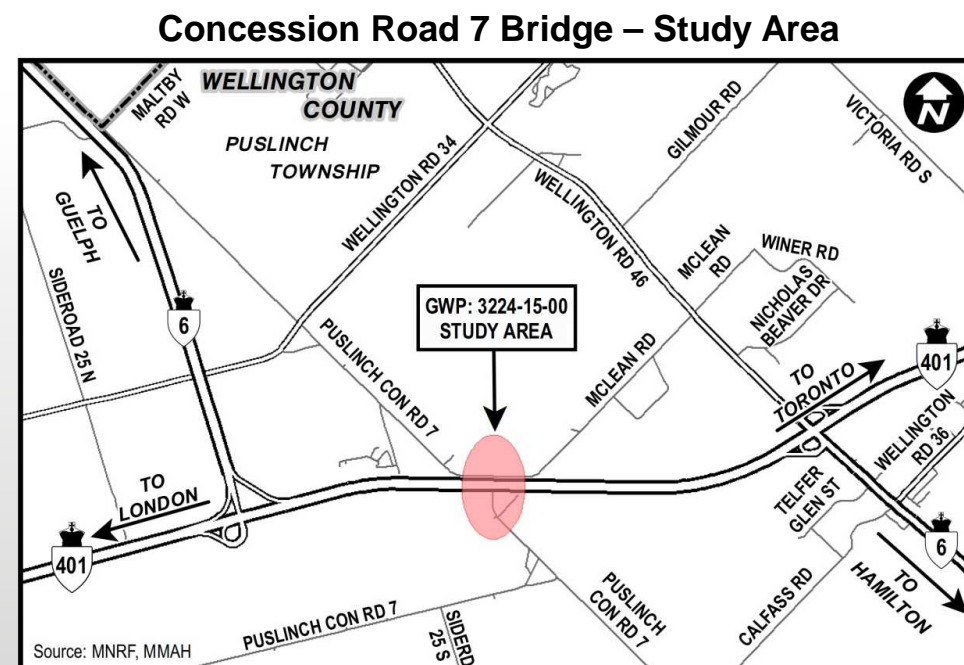
- Project Overview
- Replacement of the Concession Road 7 Bridge over Highway 401
- Construction Staging Overview
- Environmental Issues and Commitments
- Next Steps / Schedule
- Open Discussion



# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## Replacement of the Concession Road 7 Bridge over Highway 401

- Further to the Introductory Meeting (held June 15<sup>th</sup>, 2017), we are moving forward with the Highway 6 and 401 Improvements Study (GWP 3042-14-00) in the Township of Puslinch, Wellington County and the City of Hamilton
- This study is subject to the Ontario Environmental Assessment (EA) Act and is being completed in accordance with the MTO Class EA for Provincial Transportation Facilities (2000) process for a Group A project
- Replacement of the Concession Road 7 Bridge over Highway 401 is the first stage of implementation for the approved Individual Environmental Assessment of Highway 6 & 401 Improvements from Hamilton North Limits to Guelph South Limits
- Anticipated for construction in 2019



## Replacement of the Concession Road 7 Bridge over Highway 401

- Built on a new skewed alignment immediately to the west of the existing bridge
- Longer span to accommodate future widening of Highway 401
- The Concession Road 7 / McLean Road intersection at the north end of the bridge will be improved to better accommodate truck turning movements
- Bridge approaches and embankments will be constructed to tie into the new westerly bridge alignment
- The lanes on the bridge will be 3.50 m wide and the shoulders fully paved at 2.0 m wide
- No additional property requirements have been identified

**New Concession Road 7 Alignment over Highway 401**



### Replacement of the Concession Road 7 Bridge over Highway 401

- Fully paved shoulders will be constructed on Concession Road 7 over Highway 401 and at the McLean Road / Concession Road 7 intersection
- Partially paved shoulders will be incorporated along the Concession Road 7 / McLean Road alignment
- A new left turn lane will be constructed on the westbound Concession Road 7 / McLean Road intersection approach to better accommodate truck turning movements
- Drainage on Concession Road 7 will be addressed by the installation of catch basins beyond the limits of the new structure
- Based on a review of traffic volumes and collisions illumination is not recommended

#### Conceptual Rendering of the New Concession Road 7 Bridge



## Construction Staging Overview

- Construction is anticipated to start in 2019 and continue for one construction season
- During construction of the new bridge, the existing bridge over Highway 401 will remain open
- Single lane closures with flagging or short term closures will be required for minor additional pavement tie in work to the south at Mason Road
- Short-term detours will be required during construction of the approaches and intersection improvements at McLean Road / Concession Road 7



## Construction Staging Overview

### Short-Term Detour

- Concession Road 7 North, to the west of the existing T-intersection with McLean Road, to be closed
- The duration is likely to be approximately 2-3 weeks
- Traffic over Highway 401 will be maintained on the existing bridge and will be detoured onto McLean Road
- Traffic to or from Concession Road 7 north of Highway 401 will be detoured via McLean Road, Brock Road and Wellington Road 34

### Short Duration Detour along McLean Road, Brock Road and Wellington Road 34



## Construction Staging Overview

### Short-Term Detour

- McLean Road east of the new T-intersection to be closed
- The duration is likely to be approximately 1-2 weeks
- Traffic over Highway 401 will be accommodated on the new bridge and will be detoured onto Concession Road 7 North
- Traffic to and from McLean Road will be detoured via Concession Road 7, Wellington Road 34 and Brock Road

### Short Duration Detour along Concession Road 7, Wellington Road 34 and Brock Road



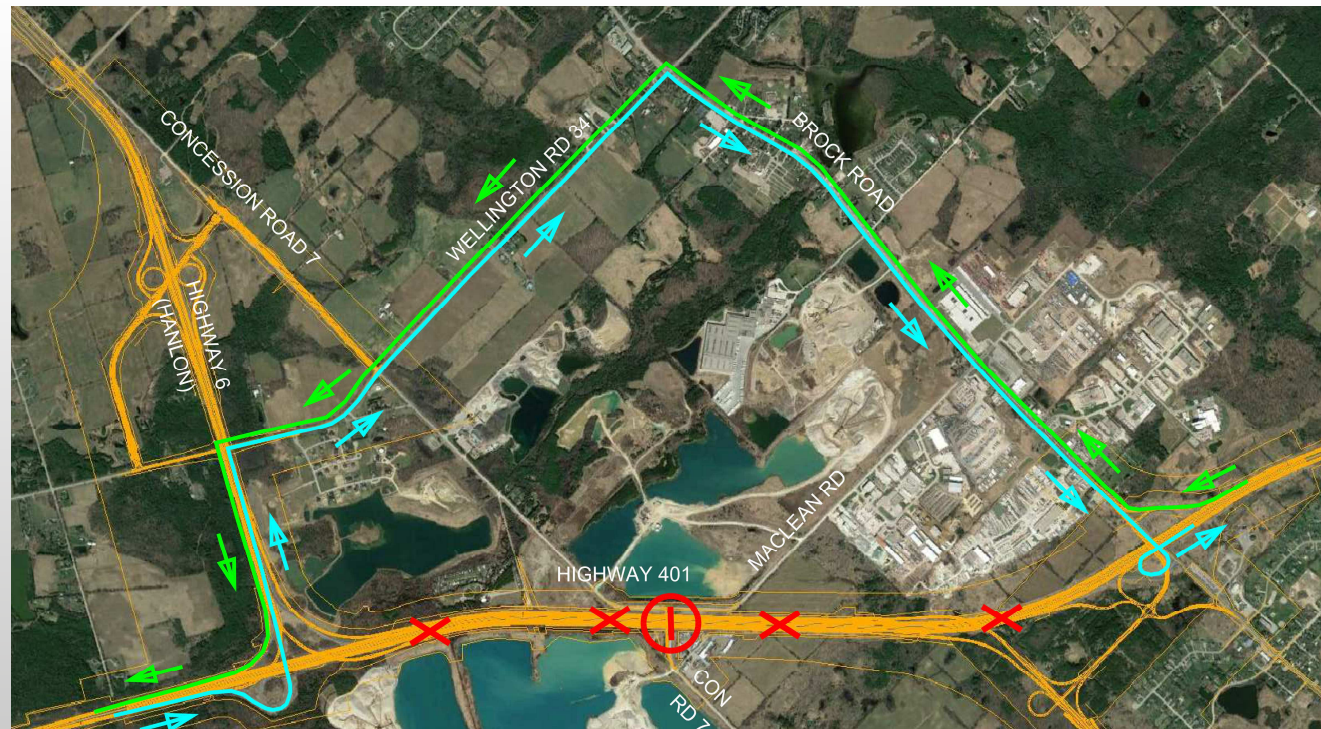


# Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits

## Construction Staging Overview

### Highway 401

- Short duration rolling closures along Highway 401 during placement of bridge girders on weekends
- During removal of the existing bridge, a short-term closure of Highway 401 will be required (single weekend night closure)
- The new bridge will be closed during the demolition of the existing structure



## Transportation and Other Infrastructure - Utilities

### Utilities

- Impacts to the existing aerial Hydro One and Bell Telephone aerial and buried facilities to the west side of the Concession Rd 7 are anticipated
- Some relocation will be required prior to construction of the new structure and approaches.
- No impacts to the Union Gas line are anticipated
- All utilities that have the potential to be impacted are to be relocated and/or protected prior to construction

## Environmental Issues and Commitments

### Natural Environment - Species at Risk (SAR)

- A Terrestrial Ecosystem Existing Condition and Impact Assessment was undertaken
  - Vegetation and tree removal may have a potentially negative effect on Bat SAR
  - No evidence of bird nests under or on the bridge structure was found during field investigations and no bird SAR or species of conservation concern were observed during the breeding bird surveys

### Cultural Environment - Archaeology

- A Stage 1-2 Archaeological Assessment was completed for the lands to be impacted by the bridge replacement
- A site specific Stage 3 archaeological assessment is being undertaken in the SW quadrant of Highway 401/Con 7

## Environmental Issues and Commitments

### Socio-Economic Environment - Construction Noise

- During construction, the following mitigation measures are recommended to minimize potential impacts associated with construction noise:
  - Adhere to municipal noise by-laws for night, weekend and demolition work
  - Equipment shall be maintained in an operating condition that prevents unnecessary noise
  - Duration of construction equipment idling is to be restricted to the minimum time necessary

## Next Steps / Schedule

### Concession Road 7 Bridge Replacement

- Publish Design and Construction Report (Late August) – 30 day public review period
- Finalize Contract Package (September/October)
- Tender to Contractor (October/November)
- Construction (2019)

### Highway 6 and 401 Improvements

- Public Information Centre

## Open Discussion

- Comments and Questions

---

**Notice of Design and Construction Report  
Submission  
August 2018**

---



# Notice of Design and Construction Report Submission

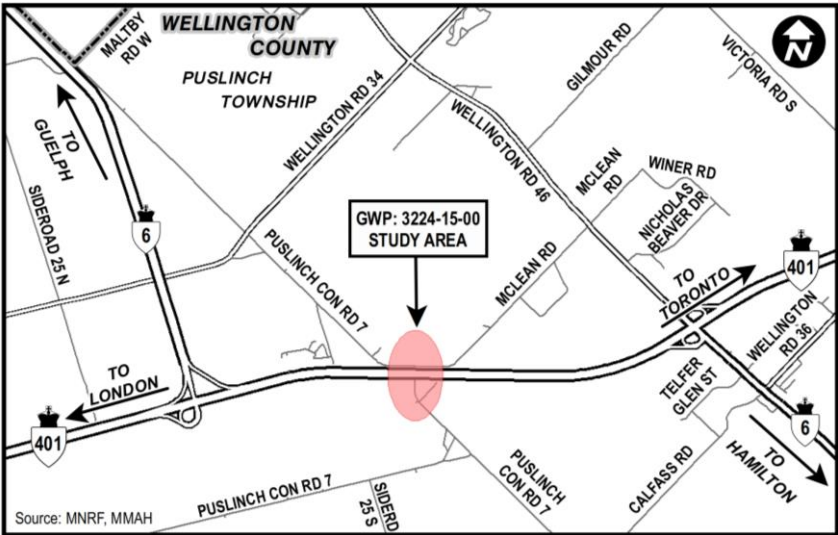
## Replacement of the Puslinch Concession Road 7 Bridge over Highway 401

Detailed Design and Class Environmental Assessment (G.W.P. 3224-15-00)

**The Project**

The Ontario Ministry of Transportation (MTO) is moving forward with replacement of the Concession Road 7 Bridge over Highway 401 in the Township of Puslinch. This bridge replacement was included with the Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits Notice of Study Commencement.

Construction of this bridge replacement is expected to start in 2019. The new bridge over Highway 401 will be built to the west of the existing bridge, and will accommodate the future widening of Highway 401. The Concession Road 7 / McLean Road intersection north of the bridge will be improved to better accommodate truck turning movements. Traffic on Concession Road 7 and McLean Road will be maintained for the majority of the construction with some short-term closures required. During removal of the existing bridge, Highway 401 traffic will be redirected to the Emergency Detour Route, which is anticipated to take place on a single weekend night.



**The Process**

This study has been undertaken in accordance with the *MTO Class Environmental Assessment for Provincial Transportation Facilities (2000)* for a Group ‘A’ project. The Detailed Design phase has been documented in a Design and Construction Report that will be available for a 30-day public and agency review period commencing **August 20, 2018, at the following locations:**

<b>Wellington County Library – Puslinch Branch</b> 29 Brock Road South, Puslinch, ON N0B 2J0 Telephone: 519-763-8026 Tuesday, Wednesday, Thursday: 10:00 am to 8:00 pm Friday: 10:00 am to 6:00 pm Saturday: 10:00 am to 5:00 pm Monday and Sunday: Closed	<b>Hamilton Public Library – Freelon Branch</b> 1803 Brock Road, Freelon, ON L0R 1K0 Telephone: 905-659-7639 Monday and Wednesday: 3:30 pm to 8:00 pm Tuesday and Thursday: 1:30 pm to 5:00 pm Friday: 10:00 am to 2:00 pm Saturday: 1:00 pm to 5:00 pm, Sunday: Closed
<b>County of Wellington Municipal Office</b> 74 Woolwich Street, Guelph, ON N1H 3T9 Telephone: 519-837-2600 Monday to Friday: 8:30 am to 4:00 pm	<b>Township of Puslinch Municipal Office</b> 7404 Wellington Road 34, Puslinch, ON N0B 2J0 Telephone: 519-763-1226 Monday to Friday: 8:30 am to 4:00 pm
<b>Ministry of the Environment, Conservation and Parks, West Central Region Office</b> Ellen Fairclough Building, 12 <sup>th</sup> Floor 119 King Street West, Hamilton, ON L8P 4Y7 Telephone: 1-800-668-4557; Contact Name: Barbara Slattery	

**Comments**

Interested persons are encouraged to review the report and provide comments by **September 18, 2018** to the Project Team on the website or by using the contact information listed below. Additional information can be found at <http://highways6and401hamiltontoguelph.ca>.

<b>Sarah Jewell, M.Eng, P.Eng.</b> Project Engineer Ministry of Transportation West Region, Planning & Design 659 Exeter Road, London, ON N6E 1L3 Telephone: 519-873-4812 Toll-free: 1-800-265-6072 extension: 519-873-4812 Fax: 519-873-4600 Email: <a href="mailto:sarah.jewell@ontario.ca">sarah.jewell@ontario.ca</a>	<b>Tim Sorochinsky, P.Eng.</b> Consultant Senior Project Manager, AECOM Canada Ltd. 4 <sup>th</sup> Floor, 30 Leek Crescent Richmond Hill, ON L4B 4N4 Telephone: 905-882-3522 Fax: 905-882-4399 Email: <a href="mailto:tim.sorochinsky@aecom.com">tim.sorochinsky@aecom.com</a>
--	--

All stakeholders and members of the public who are on the project contact list will receive notification of future consultation opportunities as part of the Highways 6 and 401 Improvements study. If you are interested in being added to the project contact list please register on the website or contact one of the Project Team members listed above at any time. Your comments are always welcome.

We are committed to providing accessible government information and services for all Ontarians. For communication support or to request project material in an alternate format, please contact one of the project team members listed above. Comments and information will be collected to assist MTO in meeting the requirements of the *Ontario Environmental Assessment Act*. With the exception of personal information, all comments will become part of the public record in accordance with the *Freedom of Information and Protection of Privacy Act*.





AECOM  
30 Leek Cres., 4<sup>th</sup> Floor  
Richmond Hill, ON  
L4B 4N4  
Canada  
www.aecom.com

905-882-4401 tel  
905-882-4399 fax

August 13, 2018

Honorary Ted Arnott  
MPP- Wellington Halton Hills Provincial Riding Office  
181 St. Andrew Street East, 2<sup>nd</sup> Floor  
Fergus, ON N1M 1P9  
Ted.arnottco@pc.ola.org

Dear Honorary Ted Arnott,

**RE: Notice of Design and Construction Report Submission  
Replacement of the Puslinch Concession Road 7 Bridge over Highway 401  
Detailed Design and Class Environmental Assessment (G.W.P. 3224-15-00)**

The Ontario Ministry of Transportation (MTO) is moving forward with replacement of the Concession Road 7 Bridge over Highway 401 in the Township of Puslinch. This bridge replacement was included with the Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits Notice of Study Commencement (refer to the enclosed *Notice of Design and Construction Report Submission* for a key map of the study area).

As noted on the enclosed *Notice*, construction of this bridge replacement is currently expected to start in 2019. The new bridge over Highway 401 will be built to the west of the existing bridge, and will accommodate the future widening of Highway 401. The Concession Road 7 / McLean Road intersection north of the bridge will be improved to better accommodate truck turning movements. Traffic on Concession Road 7 and McLean Road will be maintained for the majority of the construction with some short-term closures required. During removal of the existing bridge, Highway 401 traffic will be redirected to the Emergency Detour Route, which is anticipated to take place on a single weekend night.

This study has been undertaken in accordance with the *MTO Class Environmental Assessment for Provincial Transportation Facilities (2000)* for a Group 'A' project.

The enclosed *Notice* will be placed in area newspapers as follows:

- *The Turtle Island News* on Wednesday August 15, 2018;
- *The Two Row Times* on Wednesday August 15, 2018;
- *The Guelph Tribune* on Thursday August 16, 2018; and
- *The Wellington Advertiser* on Friday August 17, 2018.

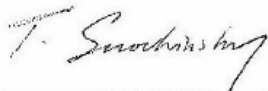
All stakeholders and members of the public who are on the project contact list will receive notification of future consultation opportunities as part of the Highways 6 and 401 Improvements study.

We are committed to providing accessible government information and services for all Ontarians. For communication support or to request project material in an alternate format, please contact one of the project team members listed above. Comments and information will be collected to assist MTO in meeting the requirements of the *Ontario Environmental Assessment Act*. With the exception of personal information, all comments will become part of the public record in accordance with the *Freedom of Information and Protection of Privacy Act*.

If you would like to provide comments, or if you require further information, please feel free to contact me by phone at 905-882-3522 or by email at [tim.sorochinsky@aecom.com](mailto:tim.sorochinsky@aecom.com). You may also contact the MTO Project Engineer, Sarah Jewell, by phone at 1-800-265-6072 ext. 519-873-4812 or by email at [sarah.jewell@ontario.ca](mailto:sarah.jewell@ontario.ca).

Sincerely,

**AECOM Canada Ltd.**



**Tim Sorochinsky, P. Eng**

Consultant Senior Project Manager

Cc: S. Jewell - MTO Project Engineer  
K. Houston - MTO Senior Environmental Planner

Enclosed: Notice of Design and Construction Report Submission

August 13, 2018

## Public and Agency Letter

«Name»  
«Organization»  
«Address»  
«Address»  
«Address»

Dear «Greeting»:

**RE: Notice of Design and Construction Report Submission  
Replacement of the Puslinch Concession Road 7 Bridge over Highway 401  
Detailed Design and Class Environmental Assessment (G.W.P. 3224-15-00)**

The Ontario Ministry of Transportation (MTO) is moving forward with replacement of the Concession Road 7 Bridge over Highway 401 in the Township of Puslinch. This bridge replacement was included with the Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits Notice of Study Commencement (refer to the enclosed *Notice of Design and Construction Report Submission* for a key map of the study area).

As noted on the enclosed *Notice*, construction of this bridge replacement is currently expected to start in 2019. The new bridge over Highway 401 will be built to the west of the existing bridge, and will accommodate the future widening of Highway 401. The Concession Road 7 / McLean Road intersection north of the bridge will be improved to better accommodate truck turning movements. Traffic on Concession Road 7 and McLean Road will be maintained for the majority of the construction with some short-term closures required. During removal of the existing bridge, Highway 401 traffic will be redirected to the Emergency Detour Route, which is anticipated to take place on a single weekend night.

This study has been undertaken in accordance with the *MTO Class Environmental Assessment for Provincial Transportation Facilities (2000)* for a Group 'A' project.

**The purpose of this letter is to notify you that the Detailed Design phase has now been documented in a Design and Construction Report that will be available for a 30-day public and agency review period commencing August 20, 2018 at the review locations listed on the enclosed *Notice*.** You are encouraged to review the Design and Construction Report and provide comments by **September 18, 2018** to the Project Team. Additional information can be found at <http://highways6and401hamiltontoguelph.ca>.

We are committed to ensuring that government information and services are accessible for all Ontarians. For communication supports or to request project material in an alternate format, please contact one of the Project Team members listed on the enclosed *Notice*.

Comments and information will be collected to assist MTO in meeting the requirements of the *Ontario Environmental Assessment Act*. With the exception of personal information, all comments will become part of the public record in accordance with the *Freedom of Information and Protection of Privacy Act*.



If you would like to provide comments, or if you require further information, please feel free to contact me by phone at 905-882-3522 or by email at [tim.sorochinsky@aecom.com](mailto:tim.sorochinsky@aecom.com). You may also contact the MTO Project Engineer, Sarah Jewell, by phone at 1-800-265-6072 ext. 519-873-4812 or by email at [sarah.jewell@ontario.ca](mailto:sarah.jewell@ontario.ca).

Sincerely,

**AECOM Canada Ltd.**

A handwritten signature in black ink, reading "T. Sorochinsky", is written over a horizontal line.

**Tim Sorochinsky, P. Eng**

Consultant Senior Project Manager

Cc: S. Jewell - MTO Project Engineer  
K. Houston - MTO Senior Environmental Planner

Enclosed: Notice of Design and Construction Report Submission

**Ministry of Transportation**

Engineering Office  
Environmental Section  
West Region

659 Exeter Road  
London, Ontario N6E 1L3  
Telephone: (519) 873-4560  
Facsimile: (519) 873-4600  
Email: Susan.Wagter@ontario.ca

**Ministère des Transports**

Bureau du génie  
Section de l'environnement  
Région de l'Ouest

659, rue Exeter  
London (Ontario) N6E 1L3  
Téléphone: (519) 873-4560  
Télécopieur: (519) 873-4600



August 13, 2018

Hohahes Leroy Hill  
Secretary of Haudenosaunee Confederacy Chiefs Council  
16 Sunrise Court, Suite 407  
P.O. Box 714  
Ohsweken, ON  
N0A 1M0

Dear Hohahes Leroy Hill:

**RE: Notice of Design and Construction Report Submission  
Replacement of the Puslinch Concession Road 7 Bridge over Highway 401  
Detailed Design and Class Environmental Assessment (G.W.P. 3224-15-00)**

---

The Ontario Ministry of Transportation (MTO) is moving forward with replacement of the Concession Road 7 Bridge over Highway 401 in the Township of Puslinch. This bridge replacement was included with the Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits Notice of Study Commencement (refer to the enclosed *Notice of Design and Construction Report Submission* for a key map of the study area).

As noted in the enclosed *Notice*, construction of this bridge replacement is expected to start in 2019. The new bridge over Highway 401 will be built to the west of the existing bridge, and will accommodate the future widening of Highway 401. The Concession Road 7 / McLean Road intersection north of the bridge will be improved to better accommodate truck turning movements. Traffic on Concession Road 7 and McLean Road will be maintained for the majority of the construction with some short-term closures required. During removal of the existing bridge, Highway 401 traffic will be redirected to the Emergency Detour Route, which is anticipated to take place on a single weekend night.

This study has been undertaken in accordance with the *MTO Class Environmental Assessment for Provincial Transportation Facilities (2000)* for a Group 'A' project.

**The purpose of this letter is to notify you that the Detailed Design phase has now been documented in a Design and Construction Report that will be available for a 30-day public and agency review period commencing August 20, 2018 at the review locations**

**listed in the enclosed Notice.** You are encouraged to review the Design and Construction Report and provide comments by **September 18, 2018** to the Project Team. Additional information can be found at <http://highways6and401hamiltontoguelph.ca>.

As part of this study, Stage 1 and 2 Archaeological Assessments and terrestrial ecosystems investigations have been undertaken. A Stage 1 and 2 Archaeological Assessment Report, and Terrestrial Ecosystems Existing Conditions and Impact Assessment Memorandum have been prepared to support the Detail Design and to document potential impacts and proposed mitigation measures. The results of these investigations have been summarized in the Design and Construction Report. Additionally, a Stage 3 Archaeological Assessment is being undertaken on a site located west of Concession Road 7, south of Highway 401. The results of this assessment will be documented in a separate Stage 3 Archaeological Assessment Report. Archaeological reports are available upon request after they have been accepted by the Ministry of Tourism, Culture and Sport (MTCS).

We are committed to providing accessible government information and services for all Ontarians. For communication support or to request project material in an alternate format, please contact one of the project team members listed above. Comments and information will be collected to assist MTO in meeting the requirements of the *Ontario Environmental Assessment Act*. With the exception of personal information, all comments will become part of the public record in accordance with the *Freedom of Information and Protection of Privacy Act*.

If you would like to provide comments, or if you require further information, please feel free to contact me by phone at 519-873-4560 or by email at [Susan.Wagter@ontario.ca](mailto:Susan.Wagter@ontario.ca). In addition, if you are interested in meeting as a result of receiving this letter, please contact me to arrange a meeting at your earliest convenience.

Sincerely,



for

Susan Wagter  
Head, Environmental Section (A)

Cc:           K. Houston       - MTO Senior Environmental Planner  
              S. Jewell       - MTO Project Engineer  
              F. Leech       - AECOM Senior Environmental Planner  
              H. Hill        - Haudenosaunee Development Institute

Encl: Notice of Design and Construction Report Submission

Ministry of Transportation

Engineering Office  
Environmental Section  
West Region

659 Exeter Road  
London, Ontario N6E 1L3  
Telephone: (519) 873-4560  
Facsimile: (519) 873-4600  
Email: Susan.Wagter@ontario.ca

Ministère des Transports

Bureau du génie  
Section de l'environnement  
Région de l'Ouest

659, rue Exeter  
London (Ontario) N6E 1L3  
Téléphone: (519) 873-4560  
Télécopieur: (519) 873-4600



August 13, 2018

Chief Stacey LaForme  
Mississaugas of the New Credit First Nation  
2789 Mississauga Road RR 6  
Hagersville ON,  
N0A 1H0

Dear Chief Stacey LaForme:

**RE: Notice of Design and Construction Report Submission  
Replacement of the Puslinch Concession Road 7 Bridge over Highway 401  
Detailed Design and Class Environmental Assessment (G.W.P. 3224-15-00)**

---

The Ontario Ministry of Transportation (MTO) is moving forward with replacement of the Concession Road 7 Bridge over Highway 401 in the Township of Puslinch. This bridge replacement was included with the Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits Notice of Study Commencement (refer to the enclosed *Notice of Design and Construction Report Submission* for a key map of the study area).

As noted in the enclosed *Notice*, construction of this bridge replacement is expected to start in 2019. The new bridge over Highway 401 will be built to the west of the existing bridge, and will accommodate the future widening of Highway 401. The Concession Road 7 / McLean Road intersection north of the bridge will be improved to better accommodate truck turning movements. Traffic on Concession Road 7 and McLean Road will be maintained for the majority of the construction with some short-term closures required. During removal of the existing bridge, Highway 401 traffic will be redirected to the Emergency Detour Route, which is anticipated to take place on a single weekend night.

This study has been undertaken in accordance with the *MTO Class Environmental Assessment for Provincial Transportation Facilities (2000)* for a Group 'A' project.

**The purpose of this letter is to notify you that the Detailed Design phase has now been documented in a Design and Construction Report that will be available for a 30-day public and agency review period commencing August 20, 2018 at the review locations listed in the enclosed *Notice*. You are encouraged to review the Design and Construction**

Report and provide comments by **September 18, 2018** to the Project Team. Additional information can be found at <http://highways6and401hamiltontoguelph.ca>.

As part of this study, Stage 1 and 2 Archaeological Assessments and terrestrial ecosystems investigations have been undertaken. A Stage 1 and 2 Archaeological Assessment Report, and Terrestrial Ecosystems Existing Conditions and Impact Assessment Memorandum have been prepared to support the Detail Design and to document potential impacts and proposed mitigation measures. The results of these investigations have been summarized in the Design and Construction Report. Additionally, a Stage 3 Archaeological Assessment is being undertaken on a site located west of Concession Road 7, south of Highway 401. The results of this assessment will be documented in a separate Stage 3 Archaeological Assessment Report. Archaeological reports are available upon request after they have been accepted by the Ministry of Tourism, Culture and Sport (MTCS).

We are committed to providing accessible government information and services for all Ontarians. For communication support or to request project material in an alternate format, please contact one of the project team members listed above. Comments and information will be collected to assist MTO in meeting the requirements of the *Ontario Environmental Assessment Act*. With the exception of personal information, all comments will become part of the public record in accordance with the *Freedom of Information and Protection of Privacy Act*.

If you would like to provide comments, or if you require further information, please feel free to contact me by phone at 519-873-4560 or by email at [Susan.Wagter@ontario.ca](mailto:Susan.Wagter@ontario.ca). In addition, if you are interested in meeting as a result of receiving this letter, please contact me to arrange a meeting at your earliest convenience.

Sincerely,



 Susan Wagter  
Head, Environmental Section (A)

Cc:	K. Houston	- MTO Senior Environmental Planner
	S. Jewell	- MTO Project Engineer
	F. Leech	- AECOM Senior Environmental Planner
	F. D. Sault	- Consultation Manager

Encl: Notice of Design and Construction Report Submission



Ministry of Transportation

Engineering Office  
Environmental Section  
West Region

659 Exeter Road  
London, Ontario N6E 1L3  
Telephone: (519) 873-4560  
Facsimile: (519) 873-4600  
Email: Susan.Wagter@ontario.ca

Ministère des Transports

Bureau du génie  
Section de l'environnement  
Région de l'Ouest

659, rue Exeter  
London (Ontario) N6E 1L3  
Téléphone: (519) 873-4560  
Télécopieur: (519) 873-4600



August 13, 2018

Chief Ava Hill  
Six Nations Chief and Council  
1695 Chiefswood Rd.  
P.O. Box 5000  
Ohsweken, ON  
N0A 1M0

Dear Chief Ava Hill:

**RE: Notice of Design and Construction Report Submission  
Replacement of the Puslinch Concession Road 7 Bridge over Highway 401  
Detailed Design and Class Environmental Assessment (G.W.P. 3224-15-00)**

---

The Ontario Ministry of Transportation (MTO) is moving forward with replacement of the Concession Road 7 Bridge over Highway 401 in the Township of Puslinch. This bridge replacement was included with the Highways 6 and 401 Improvements from Hamilton North Limits to Guelph South Limits Notice of Study Commencement (refer to the enclosed *Notice of Design and Construction Report Submission* for a key map of the study area).

As noted in the enclosed *Notice*, construction of this bridge replacement is expected to start in 2019. The new bridge over Highway 401 will be built to the west of the existing bridge, and will accommodate the future widening of Highway 401. The Concession Road 7 / McLean Road intersection north of the bridge will be improved to better accommodate truck turning movements. Traffic on Concession Road 7 and McLean Road will be maintained for the majority of the construction with some short-term closures required. During removal of the existing bridge, Highway 401 traffic will be redirected to the Emergency Detour Route, which is anticipated to take place on a single weekend night.

This study has been undertaken in accordance with the *MTO Class Environmental Assessment for Provincial Transportation Facilities (2000)* for a Group 'A' project.

**The purpose of this letter is to notify you that the Detailed Design phase has now been documented in a Design and Construction Report that will be available for a 30-day public and agency review period commencing August 20, 2018 at the review locations**

**listed in the enclosed Notice.** You are encouraged to review the Design and Construction Report and provide comments by **September 18, 2018** to the Project Team. Additional information can be found at <http://highways6and401hamiltontoguelph.ca>.

As part of this study, Stage 1 and 2 Archaeological Assessments and terrestrial ecosystems investigations have been undertaken. A Stage 1 and 2 Archaeological Assessment Report, and Terrestrial Ecosystems Existing Conditions and Impact Assessment Memorandum have been prepared to support the Detail Design and to document potential impacts and proposed mitigation measures. The results of these investigations have been summarized in the Design and Construction Report. Additionally, a Stage 3 Archaeological Assessment is being undertaken on a site located west of Concession Road 7, south of Highway 401. The results of this assessment will be documented in a separate Stage 3 Archaeological Assessment Report. Archaeological reports are available upon request after they have been accepted by the Ministry of Tourism, Culture and Sport (MTCS).

We are committed to providing accessible government information and services for all Ontarians. For communication support or to request project material in an alternate format, please contact one of the project team members listed above. Comments and information will be collected to assist MTO in meeting the requirements of the *Ontario Environmental Assessment Act*. With the exception of personal information, all comments will become part of the public record in accordance with the *Freedom of Information and Protection of Privacy Act*.

If you would like to provide comments, or if you require further information, please feel free to contact me by phone at 519-873-4560 or by email at [Susan.Wagter@ontario.ca](mailto:Susan.Wagter@ontario.ca). In addition, if you are interested in meeting as a result of receiving this letter, please contact me to arrange a meeting at your earliest convenience.

Sincerely,



for Susan Wagter  
Head, Environmental Section (A)

Cc:	K. Houston	- MTO Senior Environmental Planner
	S. Jewell	- MTO Project Engineer
	F. Leech	- AECOM Senior Environmental Planner
	P. General	- Six Nations Wildlife Management
	D. Laforme	- Six Nations of the Grand River
	J. Thomas	- Consultation Supervisor

Encl: Notice of Design and Construction Report Submission

# **Appendix C**

## **Environmental Assessment Act, Notice of Approval to Proceed with the Undertaking**

**ENVIRONMENTAL ASSESSMENT ACT**

**SECTION 9**

**NOTICE OF APPROVAL TO PROCEED WITH THE UNDERTAKING**

**(AND ORDER UNDER SUBSECTION 12.4(3))**

RE: An Environmental Assessment for Highway 6: Freelon Northerly 16.9 kilometres to Guelph

Proponent: Ministry of Transportation

EA File No.: TC-CE-02

TAKE NOTICE that the period for requiring a hearing, provided for in the Notice of Completion of the Review for the above-noted undertaking, expired on July 30, 2007. I received one request for a hearing before the expiration date. The public had been advised that the Minister was considering applying section 9 of the *Environmental Assessment Act* with respect to the Environmental Assessment (which has the effect of eliminating the acceptance decision which was necessary prior to January 1, 1997) and were invited to make submissions on that proposal. None did.

Pursuant to subsection 12.4(3) of the amended *Environmental Assessment Act*, I order that the provisions of section 9 (other than paragraph 9(2)2 and other than the reference to subsection 6.4(2) in paragraph 9(2)(5) and 9.3 apply with respect to the Environmental Assessment.

I do not consider it advisable or necessary to hold a hearing. Having considered the purpose of the Act, the Environmental Assessment, the Review and submissions received, I hereby give approval to proceed with the undertaking, subject to conditions set out below.

**REASONS**

My reasons for giving approval are:

- (1) On the basis of the proponent's Environmental Assessment and the ministry Review, the proponent's conclusion that, on balance, the advantages of this undertaking outweigh its disadvantages appears to be valid.
- (2) No other beneficial alternative method of implementing the undertaking was identified.
- (3) Issues raised during the review of the Environmental Assessment have been resolved or are best addressed by conditions of approval.
- (4) On the basis of the proponent's Environmental Assessment, the ministry Review and the conditions of approval, the construction, operation and maintenance of the undertaking will be consistent with the purpose of the *Environmental Assessment Act* (section 2).

- (5) The Government Review Team has indicated no outstanding concerns that cannot be addressed through conditions of approval. The public review of the EA did not identify any outstanding concerns which cannot be addressed through conditions of approval.
- (6) The submissions received after the Notice of Completion of the Review was published are being dealt with through conditions where appropriate. I am not aware of any outstanding issues with respect to this undertaking which suggest that a hearing should be required.

## CONDITIONS

The approval is subject to the following conditions:

### **1. Definitions**

For the purposes of these conditions:

"Director" means the Director of the Environmental Assessment and Approvals Branch.

"EAAB" means the Environmental Assessment and Approvals Branch of the Ministry of the Environment.

"Environmental Assessment (EA)" means the document entitled "Environmental Assessment for Highway 6, Freelon Northerly 16.9 km to Guelph", dated September 1995, the Addendum issued November 1997, and the document entitled Highway 6 North – Freelon to Guelph (W.P. 65-76-05): *Connection Road at Morriston, - Stakeholder Consultation Process (Technical Paper, May 2004)*.

"MOE" means the Ministry of the Environment.

"Natural Heritage System" has the same meaning as in the Greenbelt Plan, 2005.

"program" means compliance monitoring program.

"proponent" means the Ontario Ministry of Transportation.

"Regional Director" means the Director of the MOE's West Central Regional Office.

### **2. General Requirements**

2.1 The proponent shall comply with the provisions in the Environmental Assessment which are hereby incorporated in this approval by reference except as provided in these conditions and as provided in any other approval or permit that may be issued.

2.2 These conditions do not prevent more restrictive conditions being imposed under other statutes.

### 3. Public Record

- 3.1 Where a document is required for the public record, the proponent shall provide two copies of the document to the Director: a copy for filing within the specific public record file maintained for the undertaking and a copy for staff use.
- 3.2 The proponent shall provide additional copies of the documents described in Condition 3.1 to the:
  - a) Regional Director (as required); and
  - b) Clerk's offices of the City of Guelph, City of Hamilton, County of Wellington, and the Township of Puslinch.
- 3.3 The EAAB file number TC-CE-02 shall be quoted on the documents.
- 3.4 These documents may also be provided through other means as considered appropriate by the proponent.

### 4. Consultation During Detailed Design Phase

- 4.1 The proponent shall consult with Six Nations of the Grand River Territory during the detailed design phase, as outlined in its December 14, 2006 letter to Six Nations of the Grand River Territory Elected Council. The proponent shall also make reasonable efforts to develop a work plan in consultation with Six Nations of the Grand River Territory during the detailed design phase of the undertaking..
- 4.2 The proponent shall make reasonable efforts to consult with other Aboriginal communities that express an interest in participating in the detailed design phase.
- 4.3 In addition to other interested stakeholders the proponent considers appropriate, the proponent shall ensure the following ministries/agencies are consulted during the detailed design phase:
  - The MOE's West Central Regional Office;
  - Ministry of Natural Resources;
  - Ministry of Agriculture and Rural Affairs;
  - Ministry of Municipal Affairs and Housing;
  - All affected utilities, including Hydro One;
  - Grand River Conservation Authority;
  - Morriston Tract Conservation Association;
  - Fisheries and Oceans Canada;
  - Environment Canada; and,
  - Transport Canada.

**5. Henslow's Sparrow**

- 5.1 The proponent shall update and verify the Henslow's Sparrow habitat investigations documented in the Addendum issued November 1997 to confirm that the proposed highway right-of-way continues to have no potential impacts on the habitat for Henslow's Sparrow.
- 5.2 The proponent shall update the investigations described in Condition 5.1 by conducting additional investigations within appropriate time periods (i.e., during nesting and breeding season) during the detailed design phase. If the above investigation is undertaken within one year of construction, an additional investigation would not be required immediately prior to construction.
- 5.3 In the event that the investigations do demonstrate potential impacts, the proponent shall notify the Ministry of Natural Resources and Environment Canada and consider all direction provided by the Ministry of Natural Resources and Environment Canada.

**6. Stormwater Management**

Preparation of Conceptual Stormwater Management Plan:

- 6.1 During the detailed design phase of the undertaking, the proponent shall prepare a Conceptual Stormwater Management Plan.

Submission of Conceptual Stormwater Management Plan:

- 6.2 The proponent shall submit the Conceptual Stormwater Management Plan to the Regional Director for review at least nine months prior to tendering. The proponent shall consider all comments resulting from the MOE's review.

Requirements of Conceptual Stormwater Management Plan

- 6.3 The Conceptual Stormwater Management Plan shall, at a minimum, include the following:
- a) Achieve the treatment levels for soluble pollutants required as per Ministry of Natural Resources and MOE policy and practice, using methods advocated by the MOE and Ministry of Transportation in their respective manuals on stormwater management;
  - b) An assessment of water quality controls where possible (i.e. sequenced and/or combined linear facilities) for the protection of sensitive receivers, in addition to grassed ditches for quality control purposes;
  - c) An assessment of the long term life, efficiency and effectiveness of any proposed infiltration basins;
  - d) An evaluation of the depth between the bottom of the stormwater facilities and the seasonally high water table;
  - e) A general assessment of the need for an overflow weir/channel for the stormwater management facilities. The proponent shall submit the details of



this assessment to EAAB technical staff for their review prior to submitting the Conceptual Stormwater Management Plan;

- f) An assessment of the feasibility of wetland vegetative plantings within the roadside ditches/ponds;
- g) A maintenance program for the stormwater management facilities;
- h) An assessment of the potential measures to respond to accidental/spill releases; and,
- i) An erosion and sedimentation control plan to protect sensitive receivers during construction.

6.4 In preparing the Conceptual Stormwater Management Plan the proponent shall consider the policies in section 4.2.3 of the Greenbelt Plan (2005), where applicable, to avoid, minimize and/or mitigate stormwater volume, contaminant loads and impacts to receiving water courses in order to:

- Maintain groundwater quality and flow and stream baseflow;
- Protect water quality;
- Minimize the disruption of pre-existing natural drainage patterns wherever possible;
- Prevent increases in stream channel erosion;
- Prevent any increase in flood risk; and
- Protect aquatic species and their habitat.

## 7. Hydrogeological Studies

### Preparation of Hydrogeological Studies:

- 7.1 During the detailed design phase of the undertaking, the proponent shall conduct additional hydrogeological studies.

### Submission of Hydrogeological Studies:

- 7.2 The proponent shall submit the hydrogeological studies described in Condition 7.3 to the Regional Director for review at least 150 days prior to tendering. The proponent shall consider all comments resulting from the MOE's review.

### Hydrogeological Studies Required:

- 7.3 The proponent shall, at a minimum, prepare the following hydrogeological studies:
- a) One hydrogeological cross-section along the entire length of the recommended route, and shorter cross-sections placed perpendicular to the recommended route at sensitive areas (e.g. recharge/discharge zones). The



cross-sections should show depth to bedrock, stratification within the overburden, water table and/or potentiometric surface, and referenced wells;

- b) On the basis of a pre-construction well owner field survey, a map identifying the location of the wells within 300 metres (m) of the highway right of way will be prepared. Based on the owner survey and a review of the MOE Water Well Record database information wells should be categorized as overburden or bedrock wells, and the owners and status of the wells should be identified;
- c) After having completed the studies described in Conditions 7.3 (a) and (b), the proponent shall assess the potential impact of road salt and other contaminants on the identified wells and identify possible mitigation measures that could be implemented in the event that those impacts occur;
- d) A pre-construction survey of all potable water wells with 300 m of the highway right of way, to serve as a baseline for comparison to future monitoring data;
- e) An assessment of seasonal variation of water level. Boreholes should be drilled at proposed stormwater management facilities to determine the site-specific stratigraphy to the bedrock. Alternative best management practices should be considered if a direct hydraulic connection to bedrock aquifer is identified upon drilling;
- f) An explanation of the expected temporary and long-term implications of deep road cuts defined in this project as from 75 m north of Crieff Road northerly for 350 m and from 350 m south of Calfass Rd., northerly for 1 kilometre, to 250 m north of the Connection Road at Morriston on surface water and groundwater interaction;
- g) A map identifying the location of the deep road cuts described in Condition 7.3(f);
- h) An identification of mitigation options for the impacts of the deep road cuts described in Condition 7.3(f);
- i) An assessment of the dewatering impacts of the preferred alternative;
- j) Achieve the treatment levels for soluble pollutants required as per current Ministry of Natural Resources and MOE policy and practice, using methods advocated by the MOE and the Ministry of Transportation in their respective manuals on hydrogeology;
- k) An assessment of the potential groundwater impacts on lands having existing development rights, and which are located adjacent to the highway project.

Water Quality Monitoring Program:

- 7.4 The proponent shall conduct a Water Quality Monitoring Program using wells established in or immediately adjacent to the highway construction zone. The Water Quality Monitoring Program shall use as baseline data the data obtained pursuant to Condition 7.3(d).

Provision of Missing Pages in the EA

- 7.5 The proponent shall provide Figures 5.2 and 5.3 in Appendix M of the EA to the West Central Regional Office along with the submission of the hydrogeological studies described in Condition 7.2.

**8. Noise Assessment**

Preparation of Noise Assessment

- 8.1 During the detailed design phase of the undertaking, the proponent shall reassess the noise impacts and the potential for mitigation at all noise sensitive locations along the recommended route which may be subject to increases in noise levels of greater than 5 decibels. The new report will follow the study methods and policy described in the new Environmental Guide for Noise, Ministry of Transportation, October 2006.

Submission of Noise Assessment

- 8.2 The proponent shall submit a report containing the results of the Noise Assessment to the Director for review and shall consider all comments resulting from the Director's review. The report shall be submitted at least 90 days prior to construction.

**9. Conservation Halton**

- 9.1 The proponent shall ensure that the limits of Conservation Halton's fill regulated areas are identified on all relevant design drawings.
- 9.2 During the detailed design phase of the undertaking, the proponent shall provide any additional details regarding runoff calculations and supporting documentation to Conservation Halton for review.

**10. Compliance Monitoring Program**

Purpose of Program:

- 10.1 The proponent shall prepare an EA compliance monitoring program. The program shall be prepared for the monitoring of the proponent's fulfilment of the provisions of the EA for mitigation measures, public consultation, and additional studies and work to be carried out, and of all other commitments made during the preparation of the EA and the subsequent review of the EA for mitigation measures, public consultation, and additional studies and work to be carried out.

Submission of Program:

- 10.2 The proponent shall submit the program to the Director for placement on the public record at least 60 days before the commencement of construction.

Requirements of Program:

- 10.3 The program must contain an implementation schedule.
- 10.4 A statement must accompany the program when submitted to the Director, indicating that the program is intended to fulfil this condition.
- 10.5 The proponent shall carry out the program, as reasonably amended by the Director.
- 10.6 The proponent shall make the program documentation available to the MOE or its designate upon request in a timely manner when so requested by the MOE during an on-site inspection, audit, or response to a pollution incident report or when information concerning compliance is requested by the MOE.

**11. Compliance Reporting**

- 11.1 The proponent shall prepare an annual compliance report which describes compliance with the conditions of approval set out in this notice and which describes the results of the proponent's program.
- 11.2 The proponent shall issue the first compliance report no later than one year following the commencement of the detailed design phase, and on the date that is the anniversary of this commencement thereafter, for which the compliance report shall cover the previous year to that date.
- 11.3 The proponent shall submit the annual compliance report to the Director for placement on the public record.
- 11.4 The proponent shall submit annual compliance reports until all conditions are satisfied.
- 11.5 When all conditions have been satisfied, the proponent shall indicate in the annual compliance report that this is its final submission.
- 11.6 The proponent shall retain either on site or in another location approved by the Director, copies of the annual compliance reports for each reporting year and any associated documentation of compliance monitoring activities.
- 11.7 The proponent shall make the documentation available to the MOE or its designate upon request in a timely manner when so requested by the MOE during an on-site inspection, audit, or in response to a pollution incident report or when information concerning compliance is requested by the MOE.

**12. Greenbelt Lands**

- 12.1 The proponent shall consider the policies in section 4.2.1 of the Greenbelt Plan (2005), where applicable, with respect to detailed design and construction activities, including:

- Construction practices shall minimize, wherever possible, the amount of Greenbelt lands, and particularly Natural Heritage Systems, traversed and/or occupied by infrastructure;
- Construction practices shall minimize, wherever possible, the negative impacts and disturbance of the existing landscape, including, but not limited to, impacts caused by light intrusion, noise and road salt; and
- Where the undertaking does cross a Natural Heritage System or intrude into or result in the loss of a key natural heritage feature or key hydrologic feature, including related landform features, construction practices shall minimize negative impacts and disturbance on the features or their related functions, and where reasonable, maintain or improve connectivity.

### 13. Agricultural Lands

- 13.1 For prime agricultural lands which are not permanently required for the undertaking, the proponent shall ensure that any work required for the undertaking is conducted according to appropriate construction standards so that the lands can be returned to productive agricultural uses.
- 13.2 The proponent shall construct the undertaking in such a way as to avoid disruptions to agricultural infrastructure such as field tiles, drainage ditches, culverts, and field entrances. Should such disruptions be unavoidable, the proponent shall minimize and repair the disruptions to the greatest extent possible.

Dated the 19<sup>th</sup> day of December 2008 at TORONTO.

  
 Minister of the Environment  
 135 St. Clair Avenue West, 12th Floor  
 Toronto, Ontario  
 M4V 1P5

Approved by O.C. No. 13/2007

Date O.C. Approved Jan 22 2007

# Appendix D

## References

## **References**

- AECOM, 2018. *Designated Substance Survey – Replacement of the Puslinch Concession Road 7 Bridge over Highway 401*, G.W.P. 3224-15-00
- Armstrong and Dodge, 2007. *OGSEarth map of Paleozoic Geology of Southern Ontario*.
- Chapman and Putnam, 1984. *Physiography of Southern Ontario*, Ministry of Natural Resources.
- Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray, 1998: Ecological Land Classification for Southern Ontario: First Approximation and its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.
- Ontario Geological Survey, 2010. *OGSEarth Map of Surficial Geology of Southern Ontario*.
- Ontario Ministry of Natural Resources (MNRF), 2015: Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E.

