



The City of Hamilton

Additional Access to Brantford-bound Highway 403

Class Environmental Assessment (Class EA)

Public Information Centre No. 2

June 9, 2014



Purpose, Goals and Objectives

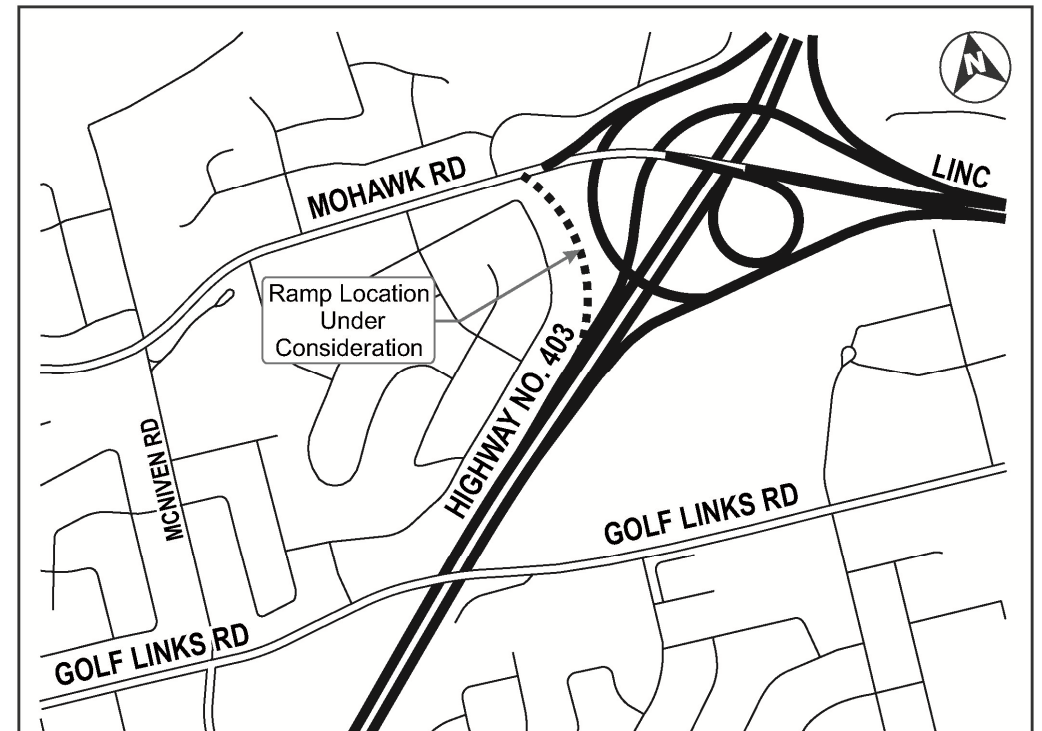
Purpose

- Complete feasibility study and Class EA process for proposed ramp

Goals and Objectives

- Confirm need and justification for improvements
- Determine operational and geometric feasibility of proposed ramp
- Assess impact of proposed ramp on Highway 403 operations
- Assess impact of proposed ramp on natural and socio-economic environment, and provide for mitigation of impacts
- Complete Phases 1 to 4 of Municipal Class EA process

Study Area

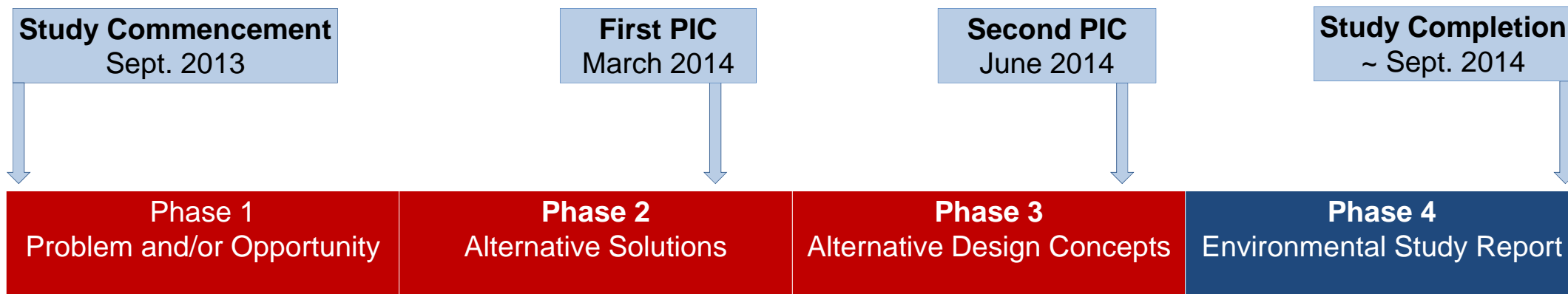


Class EA Process

Planning and Design:

The Study follows Phases 1 to 4 of the **Municipal Engineers Association Municipal Class EA** process for a **Schedule C project** (October 2000, as amended in 2007 and 2011)

- At present, the Study is in Phase 3



Public Consultation

- Notice of Study Commencement in September 2013
- Meetings with Ancaster Community Council in December 2013, in April 2014, and following PIC No. 2
- Meetings with Ministry of Transportation (MTO), Ministry of Natural Resources (MNR), and the Hamilton Conservation Authority (HCA) prior to PICs
- PICs in March and June 2014
- Updates to project website at www.hamilton.ca/Mohawkroadramp
- Report and presentation for Public Works Committee of City Council on September 15, 2014
- Environmental Study Report for public review toward the end of the Study

Summary of Public Comments to Date

Technical

- Traffic volume on Wilson Street, Mohawk Road/Rousseau Street, Local Roads, and Highway 403

Natural

- Natural Environment
- Trail Protection
- Collisions with Deer
- Mitigation for Species at Risk
- Air Quality

Cultural

- Cultural Heritage Impacts at Golf Links Road
- Need for archaeological assessment

Socio-economic

- Safety and Convenience
- Pedestrian Safety along Mohawk Road
- Mail Delivery on Mohawk Road affected by Traffic and No Sidewalks
- Noise, Property and Lighting Impacts
- Decreased Quality of Life on Rousseau Street and Mohawk Road
- Cost-Benefit Analysis
- Increase Wilson Street Traffic to Increase Merchants' Business

Summary of Public Comments to Date

Comments on Alternatives:

- Ramp to Highway 403 Westbound off Mohawk Road is needed; Should not have been removed
- Inadequate room for ramp at Mohawk Road
- Brantford-bound access at Golf Links Road should be the solution carried forward
- Garner Road needs to be widened and could be used to access Highway 403 Westbound
- North Ancaster has easy access via McNiven to Golf Links and the Linc westbound
- Southcote to Garner West would allow access to Highway 403 westbound

Problem/Opportunity and Preferred Solution

Problem and/or Opportunity

- A Brantford-bound ramp from Mohawk Road to Highway 403 was removed when the Highway 403/Lincoln Alexander Parkway (Linc) interchange was constructed
- Removal of the Brantford-bound ramp has left a missing link in access from Ancaster
- Residents have requested that the Brantford-bound ramp be constructed due to increasing traffic demands on Wilson Street in the Ancaster core
- Therefore, there is a need to provide an additional Brantford-bound ramp to improve access to Highway 403 and relieve traffic on Wilson Street

Preferred Solution:

- *Improve access to Highway 403 by adding a Brantford-bound ramp from Mohawk Road to Highway 403*
- *Introduce or enhance programs and facilities that promote use of other modes of transportation, such as transit and active transportation (as part of future projects)*

Evaluation Criteria

Technical:

- Improved access to Highway 403 without impacting Highway operations
- Improved traffic flow within local road network
- Opportunities for other modes of transportation (e.g., transit)
- Supports local, regional, provincial planning policies
- Meets provincial design standards and criteria
- Drainage impacts
- Utility impacts

Natural:

- Impact on watercourses
- Impact on aquatic species/habitat
- Impact on vegetation
- Impact on wildlife species/habitat
- Impact on significant natural areas
- Impact on Species at Risk
- Impact on air quality

Cultural:

- Impact on archaeological resources
- Impact on cultural heritage resources

Social:

- Impact on existing and/or future land uses
- Noise impacts
- Lighting impacts

Economic:

- Property acquisition
- Construction costs



Evaluation of Alternatives for Exit Ramp from Mohawk Road

Factors	Criteria	Alternative 1: Direct Taper (55m ramp radius)	Alternative 2: Parallel Lane (55m ramp radius)	Alternative 3a: Direct Spiral (55m ramp radius)	Alternative 3b: Direct Spiral (90m ramp radius)	Alternative 4a: Modified Spiral (55m ramp radius)	Alternative 4b: Modified Spiral (90m ramp radius)
Technical	Improved access to Highway	Green	Green	Green	Green	Green	Green
	Improved traffic flow	Light Green	Green	Light Green	Light Green	Light Green	Light Green
	Opportunities for other modes	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	Supports planning policies	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	Meets design standards/criteria	Yellow	Yellow	Yellow	Green	Yellow	Green
	Drainage impacts	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	Utility impacts	Orange	Red	Yellow	Yellow	Orange	Orange
Natural	Impact on watercourses	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	Impact on aquatic species/habitat	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	Impact on vegetation	Orange	Orange	Orange	Orange	Orange	Orange
	Impact on wildlife species/habitat	Orange	Orange	Orange	Orange	Orange	Orange
	Impact on natural areas	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	Impact on Species at Risk	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	Impact on Air Quality	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Cultural, Social, Economic	Impact on archeological	Orange	Orange	Orange	Orange	Orange	Orange
	Impact on cultural heritage	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	Impact on land uses	Orange	Red	Yellow	Orange	Orange	Orange
	Noise impacts	Orange	Orange	Orange	Orange	Orange	Orange
	Lighting impacts	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	Property acquisition	Orange	Red	Yellow	Yellow	Orange	Orange
	Construction costs	Orange	Red	Yellow	Yellow	Orange	Orange
Summary		Orange	Red	Orange	Green	Orange	Light Green
		Least Preferred		Neutral	Most Preferred		



Evaluation of Alternatives for Mohawk Entrance Ramp to Linc-Highway 403 Brantford-bound Ramp

Factors	Criteria	Alternative 1: Direct Taper Design	Alternative 2: Parallel Lane Design
Technical	Improved access to Highway 403	Green	Green
	Improved traffic flow	Light Green	Green
	Opportunities for other modes	Yellow	Yellow
	Supports planning policies	Yellow	Yellow
	Meets design standards & criteria	Yellow	Green
	Drainage impacts	Yellow	Yellow
	Utility impacts	Yellow	Yellow
Natural	Impact on watercourses	Yellow	Yellow
	Impact on aquatic species/habitat	Yellow	Yellow
	Impact on vegetation	Orange	Orange
	Impact on wildlife species/habitat	Orange	Orange
	Impact on significant natural areas	Yellow	Yellow
	Impact on Species at Risk	Yellow	Yellow
	Impact on Air Quality	Yellow	Yellow
Cultural, Social, Economic	Impact on archeological	Orange	Orange
	Impact on cultural heritage	Yellow	Yellow
	Impact on land uses	Yellow	Yellow
	Noise impacts	Orange	Orange
	Lighting impacts	Yellow	Yellow
	Property acquisition	Yellow	Yellow
	Construction costs	Yellow	Orange
Summary		Light Green	Green
Least Preferred		Neutral	Preferred
			Most Preferred



Preliminary Preferred Design Concept

Description:

- Direct spiral design for Mohawk Road deceleration lane
- 400 m realignment of existing Linc-Hwy 403 Brantford-bound ramp
- New 400 m single lane exit ramp from Mohawk Road connecting to the realigned Linc-Hwy 403 Brantford-bound ramp
- 500 m acceleration lane for the Linc-Hwy 403 Brantford-bound ramp on Hwy 403
- 150 m extension of existing Hwy 403 Brantford-bound climbing lane to accommodate realigned Linc-Hwy 403 Brantford-bound ramp and associated Hwy 403 speed change lane
- 75 m noise barrier along Mohawk Road
- New and modified illumination
- Stormwater quality treatment
- Preliminary cost estimate for construction is \$3.6 Million

See drawings displayed at the PIC



Traffic Impacts and Mitigation

- **Old Dundas / Wilson / Rousseaux**

- Little net impact on traffic demands (essentially a redistribution of existing demand)
- Interim improvements recommended in Ancaster Transportation Master Plan (TMP) still valid (more improvement required to address long term issue)

- **Mohawk / McNiven**

- Little net impact on traffic demand
- As confirmed in the Ancaster TMP, no improvements required



Air Quality Impacts and Mitigation

- Most vehicles run on gasoline or diesel fuel and emit essentially the same Pollutants: Nitrogen oxides (NOx), Particles, size under 2.5 microns (PM2.5), Particles, size under 10 microns (PM10), Carbon Monoxide (CO), and Sulphur Dioxide (SO2).
- The cumulative ground level concentrations (impact created by the project plus the background air quality) of these emissions were predicted to be below the respective ambient air quality criteria under each traffic scenario: current (year 2008) and future (years 2021 and 2031)
- The predicted levels of concentration of all contaminants under consideration are decreasing from current scenario to future due to use of much cleaner engines

Air Quality Impacts	Mitigation
Air quality during construction	Apply dust control measures (e.g., water spraying, street sweeping)
Air quality following construction	The addition of the proposed Mohawk Road ramp and the future traffic volumes (scenarios 2021 and 2031) on Highway 403 in the area of the Mohawk Road/Linc interchange are not expected to create a significant negative cumulative effect on the local air quality.



Drainage Impacts and Mitigation

- Open area drains via grassed swales and Highway 403 roadside swale into tributary of Tiffany Creek, a subwatershed of Spencer Creek
- Local drainage adjacent to Mohawk Road Culvert consists of swales/culverts/ditch inlet that drains to interchange and ultimately to Tiffany Creek
- Former ramp culvert near Linc-403 on-ramp was removed, and is currently an open ditch



Drainage Impacts	Mitigation
Crossing of roadside swale at East-South ramp	New culvert at crossing (just north of former culvert location)
Impact to local swales adjacent to Mohawk Road	Minor modifications (swales and/or culvert extensions) adjacent to Mohawk Road
Additional impervious surface to watershed	New enhanced grassed swales to mitigate pollutant loading from additional impervious surface



Noise Impacts and Mitigation

- Five noise receptors (NR01 through NR05) representing approximately 26 noise sensitive areas
- Noise modelling of two scenarios: (1) Sound levels without project in 2031 and (2) Sound levels with project in 2031



Noise Impacts and Mitigation

- Mitigation required if increase in sound levels is >5 dB
- Expected increase in traffic noise levels (With Project – Without Project) is 0-1 dBA, a negligible increase
- Mitigation required if absolute sound level predicted at the receptors is >65 dBA
- Traffic noise levels expected to range from 56 dBA to 67 dBA at the modelled receptors

Noise Impacts	Mitigation
Operational noise	<ul style="list-style-type: none"> • 3 m high noise wall for three houses with backyard facing Mohawk Road
Construction noise	<ul style="list-style-type: none"> • Equipment maintained and operated with effective muffling devices in good working order • Contractors to comply with applicable requirements of construction contract and local noise by-laws • Initial noise complaint will trigger verification that general noise control measures are in effect • For persistent noise complaints, equipment verified to comply with MOE NPC-115 guidelines • For persistent complaints and subject to field investigation, alternative noise control measures may be required with consideration for technical, administrative and economic feasibility



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LEGEND

- 120 m Study Area
 - Buried Watercourse
 - Intermittent Watercourse
 - Permanent Watercourse
 - Waterbody
 - ANSI (Area of Natural and Scientific Interest)
 - Niagara Escarpment
 - Conservation Area
- Wetland**
- Non-Significant
 - Locally Significant
 - Provincially Significant

- Existing Terrestrial and Fisheries Environment:**
- 1 provincially rare forested community adjacent to study area:
 - Fresh-Moist Black Walnut Lowland Deciduous Forest
 - 2 Species at Risk under *Endangered Species Act* were observed:
 - Butternut Tree (endangered)
 - Barn Swallow (threatened)
 - No direct or indirect fish habitat within 30 m of project site

NOTES:
-Topographic data extracted from Land Information Ontario (LIO)



Mohawk Ramp

Significant Natural Areas

Datum & Projection:
NAD 1983 UTM Zone 17N



PROJECT N^o: TP113070

FIGURE: 5-1

SCALE: 1:25,000

Date: December 2013



FILE: P:\PROJECTS\113070\Mohawk_Ramp\GIS\SWC\GIS\Output\Natural_Areas_2.mxd

Terrestrial Impacts and Mitigation

Terrestrial Impacts	Mitigation
Incidental impacts to nesting migratory birds	<p>Vegetation clearing in migratory bird habitat outside active breeding season (May 1 to August 31)</p> <p>If clearing or other work in migratory bird habitat is required during nesting season, a nest survey will be conducted by a qualified avian specialist within two days prior to commencement of works to identify and locate active nests of species covered by the <i>Migratory Birds Convention Act</i></p>
Encountering wildlife	<p>Efforts made to avoid injury or harassment to wildlife within project site</p>
Possible disturbance to Species at Risk	<p>Appropriate Ministry of Natural Resources protocol following new MAPS self regulated process for Species at Risk (Butternut and Barn Swallow) will be followed during detailed design</p> <p>Butternut trees tagged and surveyed to confirm location relative to proposed grading</p>



Issues and Mitigation

Factor	Interested Party	Commitment
Archaeology	Ministry of Tourism, Culture and Sport	Stage 1 Archaeological Assessment on lands identified as having archaeological potential within the project area
Drainage	Hamilton Conservation Authority	Conformance to Stormwater Management Plan
Property	Property Owners	No public property acquisition Slight impact on City property
Terrestrial	Ministry of Natural Resources	Consultation to ascertain Species at Risk permitting or authorizations in association with Barn Swallow (bird) and Butternut (tree) species and proposed works
Traffic	Road Users and Property Owners	Advanced notice of construction through signage and flyers Develop Traffic Management Plan Reduce construction time, when possible



Next Steps

Following this PIC, we will:

- ❑ Review your comments
- ❑ Update Ancaster Community Council regarding PIC results
- ❑ Select preferred design concept based on evaluation of alternatives and consideration of public and agency input
- ❑ Prepare report and presentation for Public Works Committee of City Council on September 15, 2014
- ❑ Prepare Environmental Study Report for public review in Fall, 2014



Questions and Comments



Submit your comments by June 26, 2014:



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Thank you!