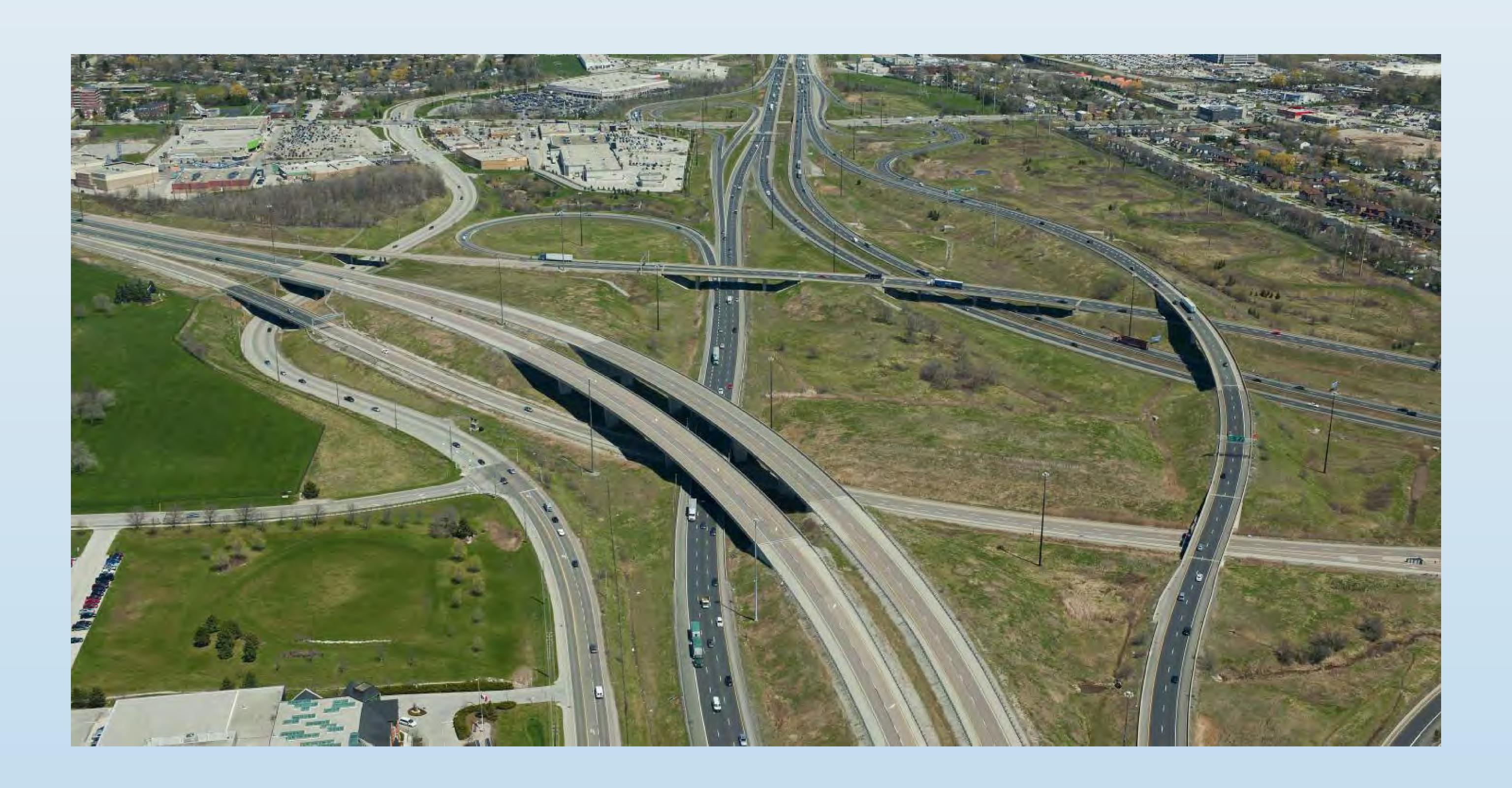




Welcome to Public Information Centre #1

October 10, 2017

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



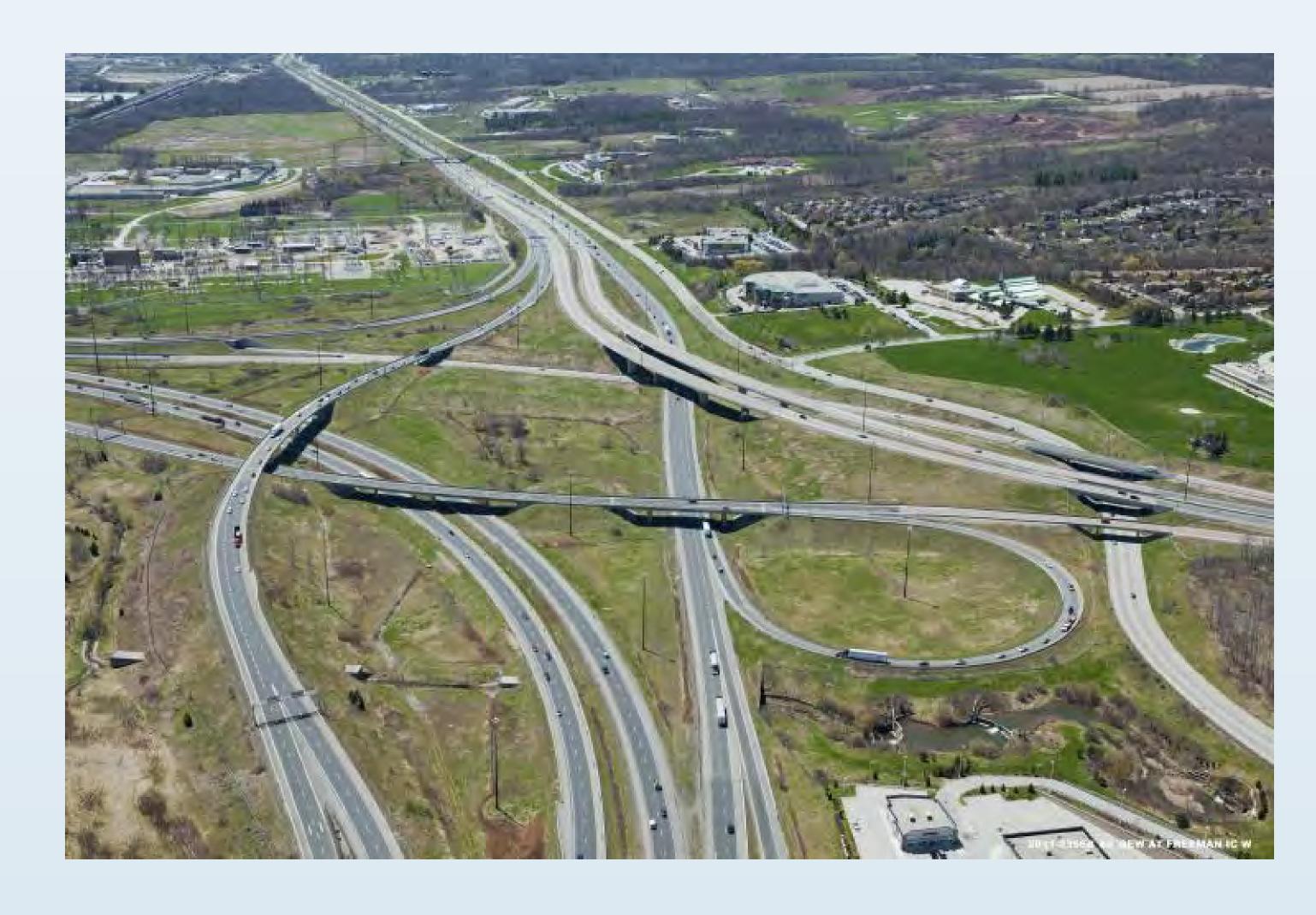
Please sign in at the front desk





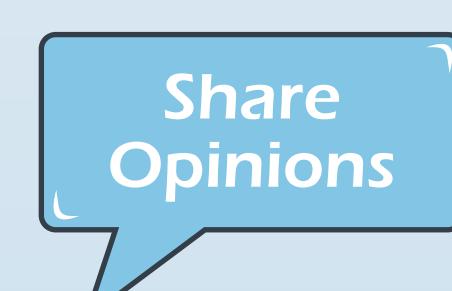
INTRODUCTION

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



This project is being conducted in

accordance with the requirements of the MTO *Class Environmental Assessment for Provincial Transportation Facilities* (amended 2000) as a Group 'B' undertaking. Throughout the study process, input will be sought from the public and external agencies.





The objectives of the study include:

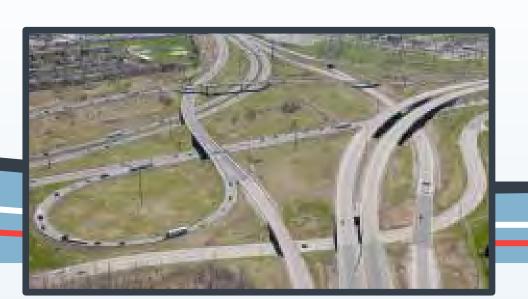
- Bridge rehabilitations / widening / replacement;
- Drainage and illumination improvements;
- Operational and safety improvements
 to the QEW and Highway 403, including managed
 lanes (HOV / HOT);



- Concept design of a new transitway connection from the future 407 Transitway to Aldershot GO Station; and,
- A potential carpool lot near the Plains Road / Fairview Street Interchange.







STUDY AREA

Study limits:

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

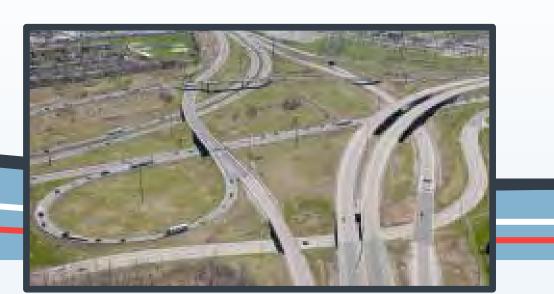
Study area includes:

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









PROJECT HISTORY

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

Highway at the location of the present-day QEW/Plains Rd./ Fairview St. Interchange.



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



Burlington Bay Skyway under construction in 1956

Realigned QEW in Burlington

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



QEW at Plains Road in 1980

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



Construction of 407 ETR Connection to the Freeman Interchange

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



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



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



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









ADJACENT STUDIES

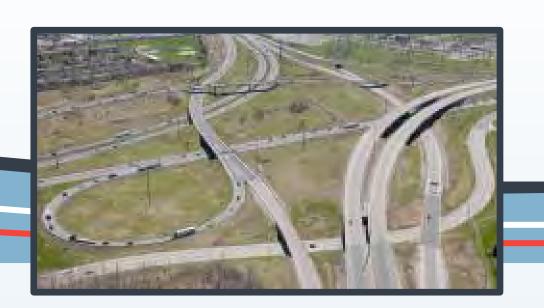
MTO and local municipalities are pursuing additional transportation initiatives across the study area, which include:

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

The Project Team is coordinating with these agencies towards an efficient and convenient transportation network.





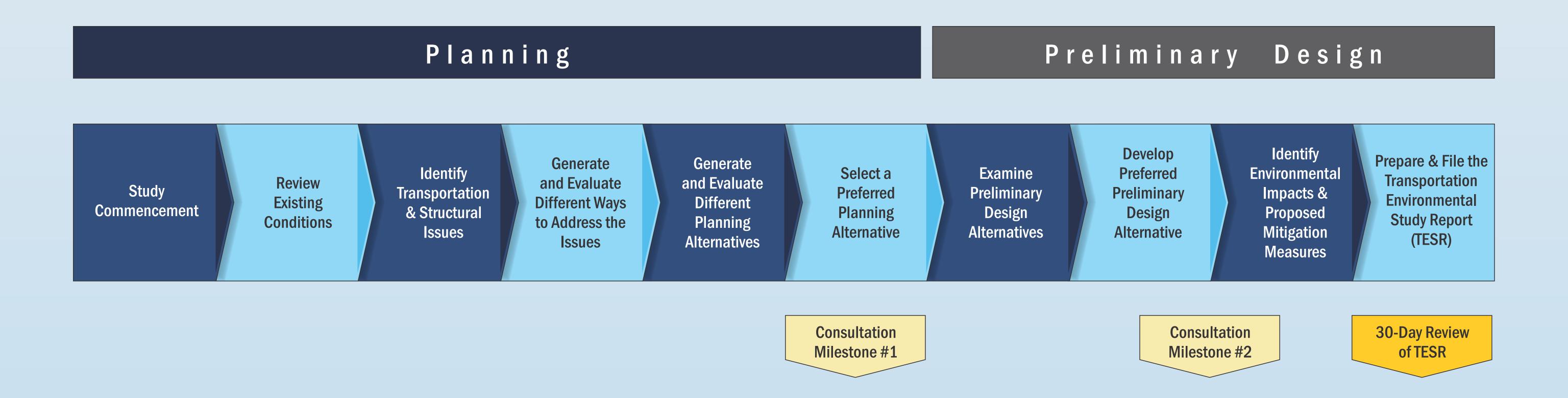


CLASS ENVIRONMENTAL PROCESS

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

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

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



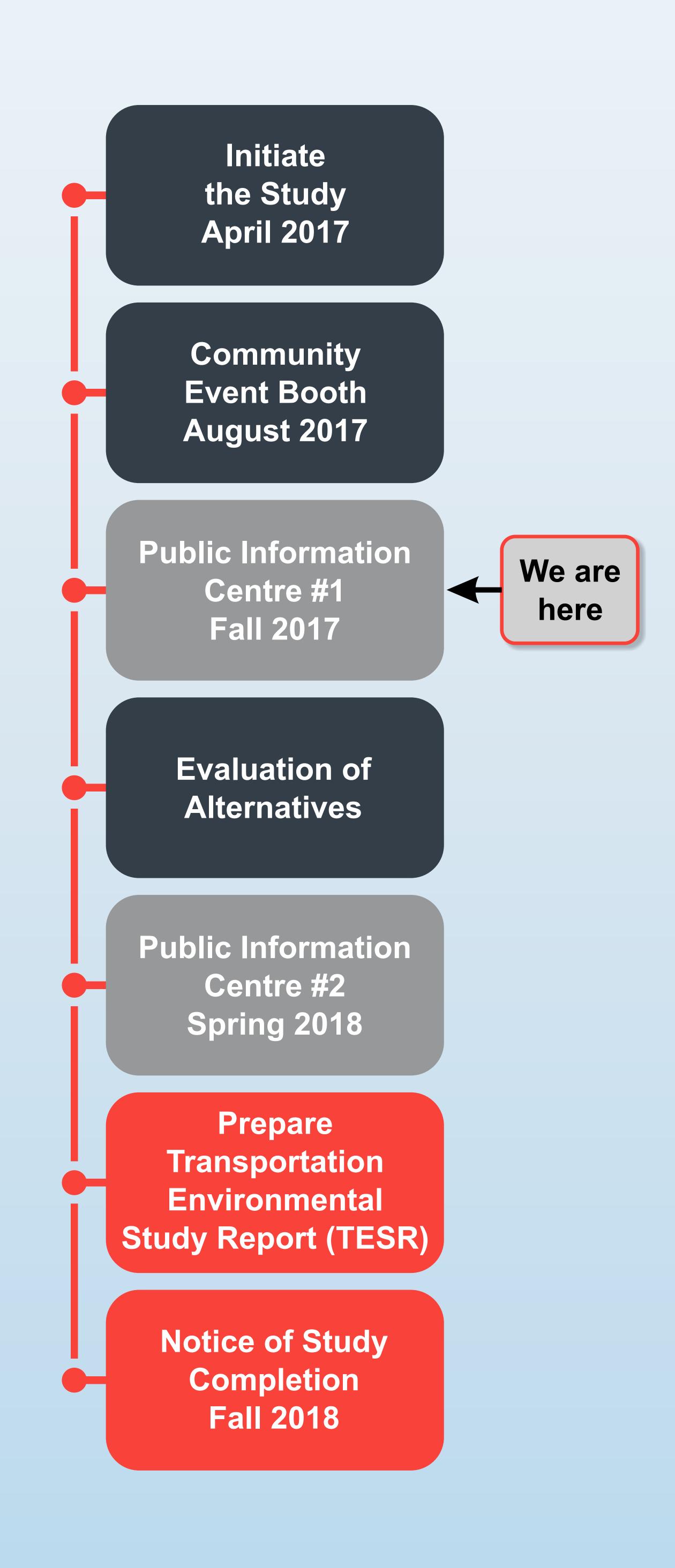






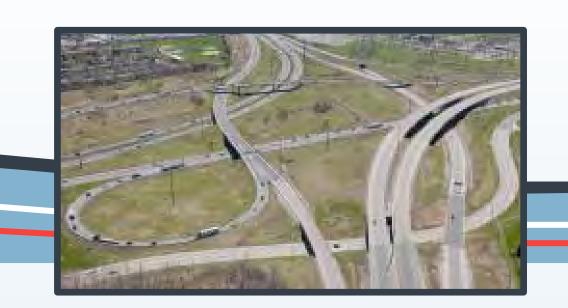
SCHEDULE

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

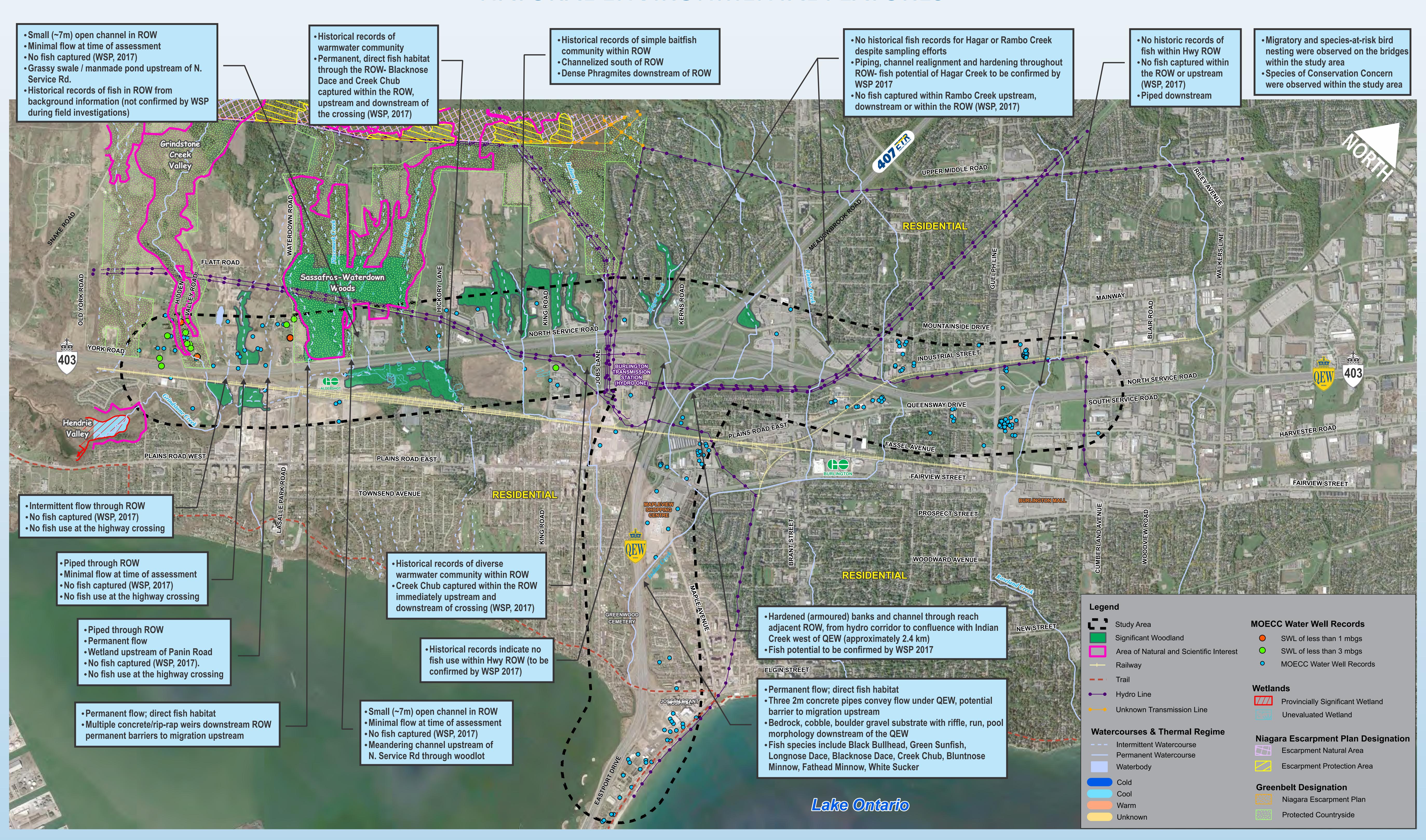








NATURAL ENVIRONMENTAL FEATURES









EXISTING TRANSPORTATION CONDITIONS

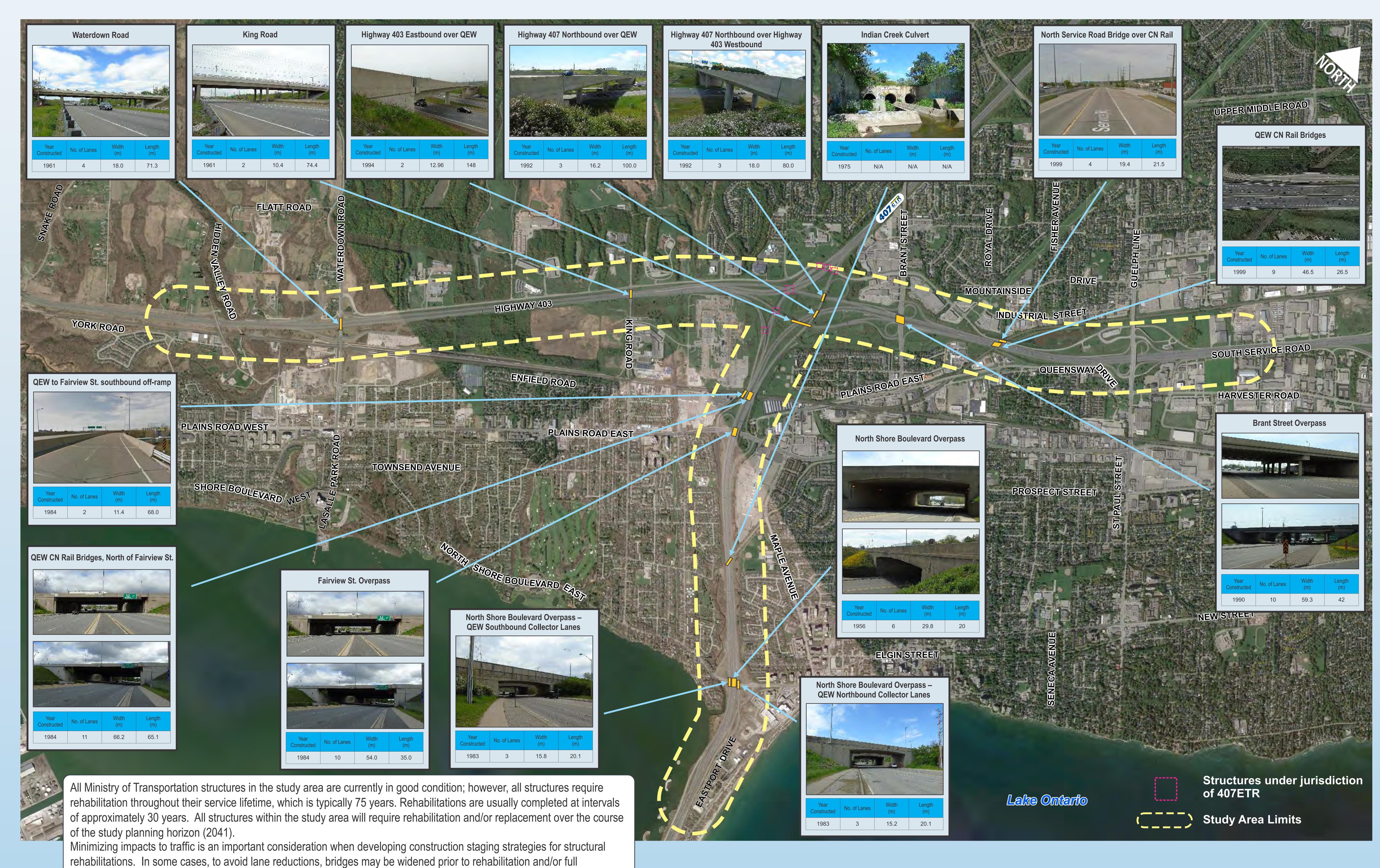








EXISTING STRUCTURAL CONDITIONS





replacement of the structure on a new alignment may be considered.

This study will identify the rehabilitation / widening / replacement needs and strategy for each structure within the study area.



PROBLEMS AND OPPORTUNITIES

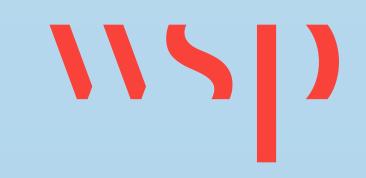
Problems:

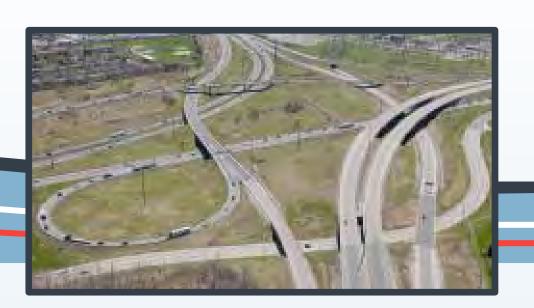
- All bridges and culverts in the study area will require rehabilitation and/or replacement over the course of the study planning horizon (2041).
- Given current population and employment forecasts, the traffic volumes will continue to grow, and congestion will worsen in the study area.
- The QEW and Highway 403 and Freeman Interchange connections currently experience significant congestion and operational issues. The following locations are particularly problematic:
 - QEW/Highway 403 westbound approach to the Niagara/Hamilton split in the PM peak.
 - Highway 403 westbound through the Freeman Interchange and continuing to Hamilton in the PM peak.
 - QEW Niagara-bound through the Freeman Interchange and continuing onto the Burlington Bay Skyway in the PM peak and on weekends.
 - Highway 403 eastbound leading up to the Freeman Interchange in the AM peak.
 - QEW Toronto-bound from the Burlington Bay Skyway through the Freeman Interchange in the AM peak and on weekends.



Afternoon Congestion on the Westbound QEW Approaching the Freeman Interchange







PROBLEMS AND OPPORTUNITIES

Opportunities:

- The Province has a vision for building strong, prosperous communities by managing growth in this region to the year 2031 and beyond. To this end, several documents, including the Growth Plan for the Greater Golden Horseshoe (GGH), The Greenbelt Plan and The Big Move (Metrolinx), have been established.
- Recognizing the need to provide for the efficient movement of people and goods, MTO's Southern Highways Program has established the potential for expanding the existing high-occupancy vehicle (HOV) network plan for 400-series highways within the GGH to optimize network capacity by encouraging carpooling and transit use. This program includes considering HOV lanes for the Highway 403 and QEW corridors within the study area.
- MTO is developing a bold new long-range multimodal transportation plan for the Greater Golden Horseshoe (GGH). The GGH Transportation Plan aims at providing a strategic network that reduces congestion and supports economic growth and job creation, a system that is resilient and can adapt to climate change and other major shifts in the global context.
- HOV lanes are currently operating on the QEW east of the Freeman Interchange.
- MTO-owned land in the northeast quadrant of the Plains Road East/Fairview Street intersection provides a potential location for a carpool lot.
- MTO is planning for a future 407 transitway that would eventually stretch from Highway 35/115 in the east to Burlington in the west.



Existing HOV / HOT Lanes east of Guelph Line on QEW







ALTERNATIVES TO THE UNDERTAKING

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

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

- The ability to provide safe, reliable, efficient, long-term, and inter-regional transportation service for local residents and businesses;
- The ability to minimize or mitigate negative impacts;
- The degree of compatibility with existing infrastructure; and
- Meeting the Province's Growth Plan for the Greater Golden Horseshoe (2006).

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



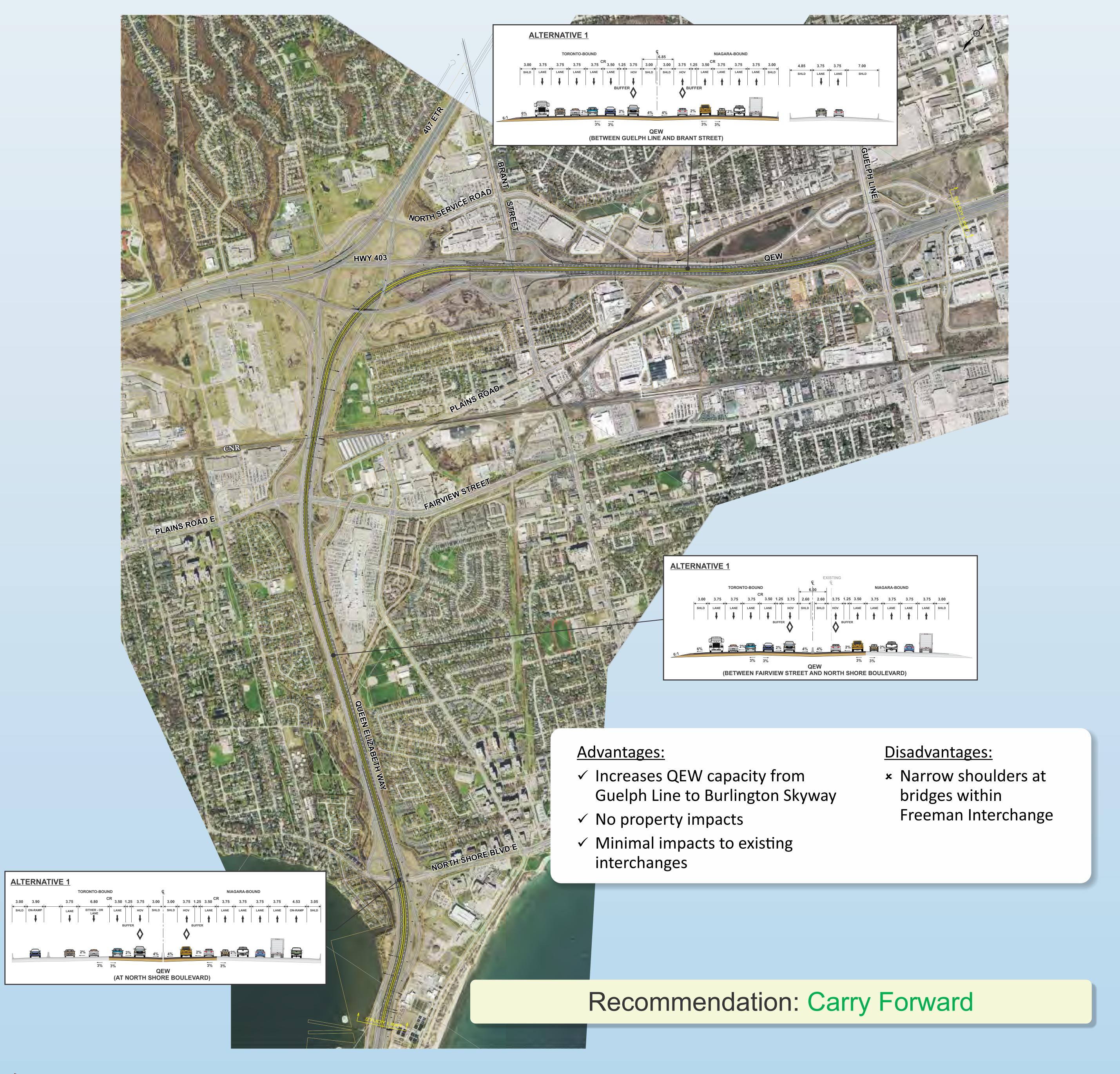




QEW - ALTERNATIVE 1

PIC No.1

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





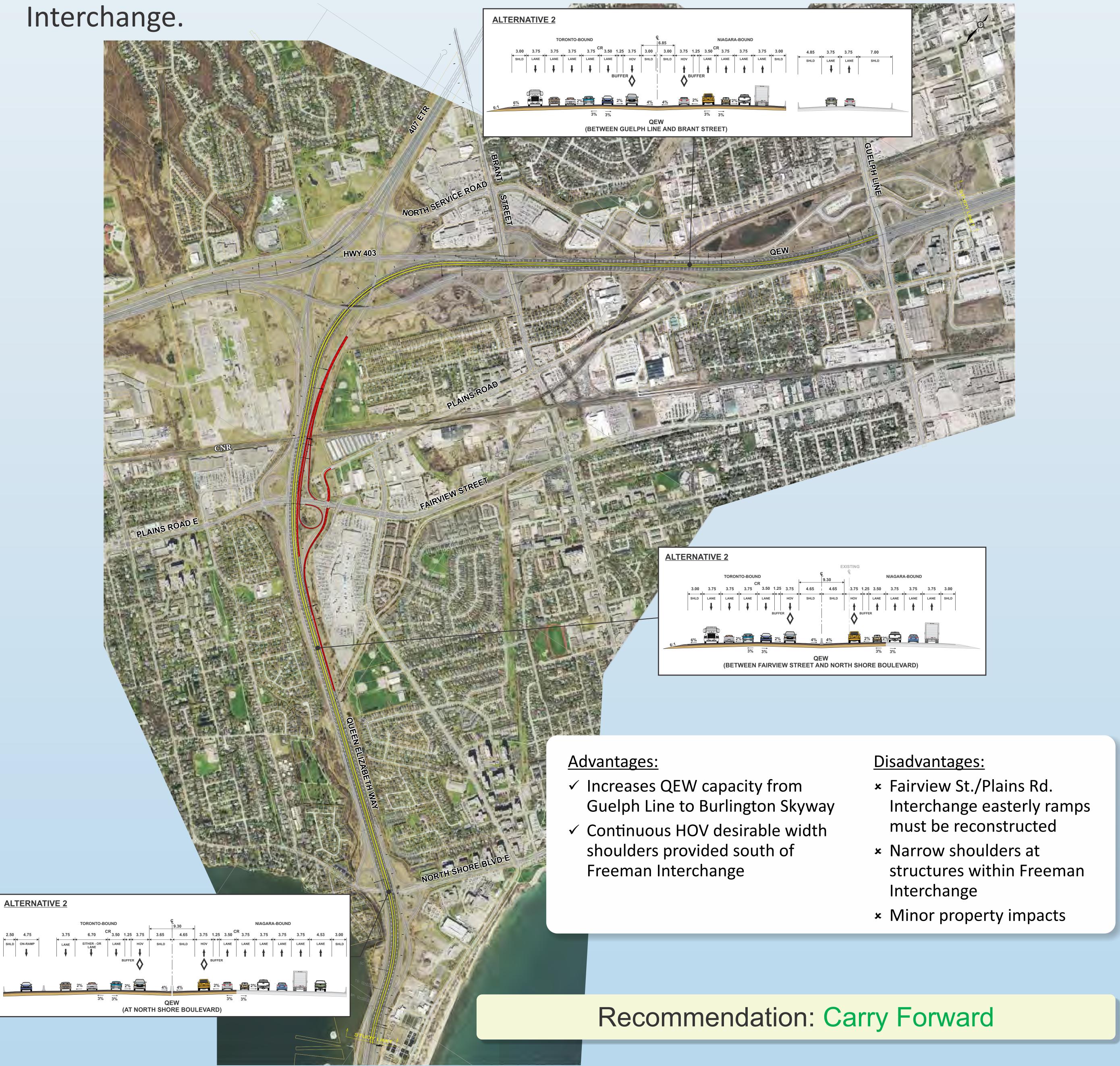




QEW - ALTERNATIVE 2

- Widen QEW by one HOV lane in both directions through Freeman Interchange to North Shore Boulevard Interchange.
- Widen into existing median and to outside to provide HOV lane and median shoulder to desirable widths.

• Requires widening of QEW northbound lanes to the east at Fairview St./Plains Rd.









QEW - ALTERNATIVE 3

- Widen QEW by one HOV lane in both directions through Freeman Interchange to North Shore Boulevard Interchange.
- Widen Highway 403 by one HOV lane in both directions and dedicated connection to QEW HOV lanes through Freeman Interchange.
- HOV lane connection through interchange requires numerous bridge replacements.



Advantages:

- ✓ Direct HOV connection between QEW and Highway 403
- ✓ Provides most opportunity for capacity expansion on QEW and Highway 403
- ✓ Can provide desirable shoulder widths throughout

Disadvantages:

- Property impacts in northwest and northeast quadrants
- Very high cost
- Challenging construction staging
- Requires replacement of several bridges

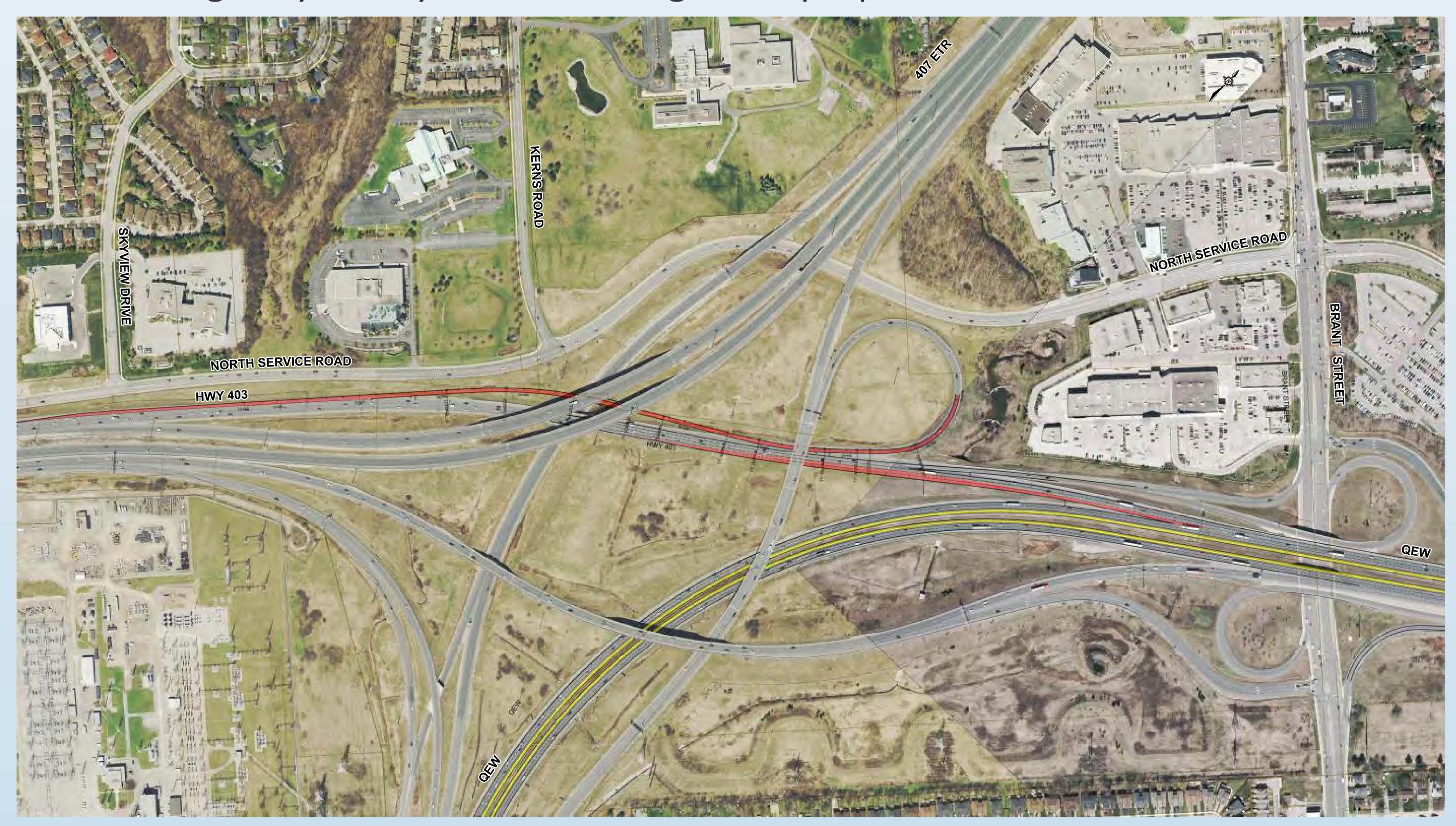






HIGHWAY 403 / FREEMAN WESTBOUND – ALTERNATIVE 1A

- Realign south-to-west inner loop-ramp to merge with Highway 403 at a more westerly point.
- Mitigate lane QEW / Highway 403 lane balance issue by adding an additional westbound lane.
- Widen Highway 403 by an additional general purpose lane or HOV lane.





Advantages:

- ✓ Additional capacity for east-to-west traffic
- ✓ Relatively low cost

Disadvantages:

- Challenging constructability at 407 ETR ramps
- Does not provide additional capacity for south-to-west ramp
- Minimal property required

Recommendation: Carry Forward as Possible Interim Solution







HIGHWAY 403 / FREEMAN WESTBOUND – ALTERNATIVE 1B

Provide two-lane loop ramp for the QEW to Highway 403 westbound ramp.

• Realign south-to-west inner loop-ramp to merge with Highway 403 at a more

westerly point.

 Provide separate two-lane ramp for QEW to Highway 407 northbound ramp.

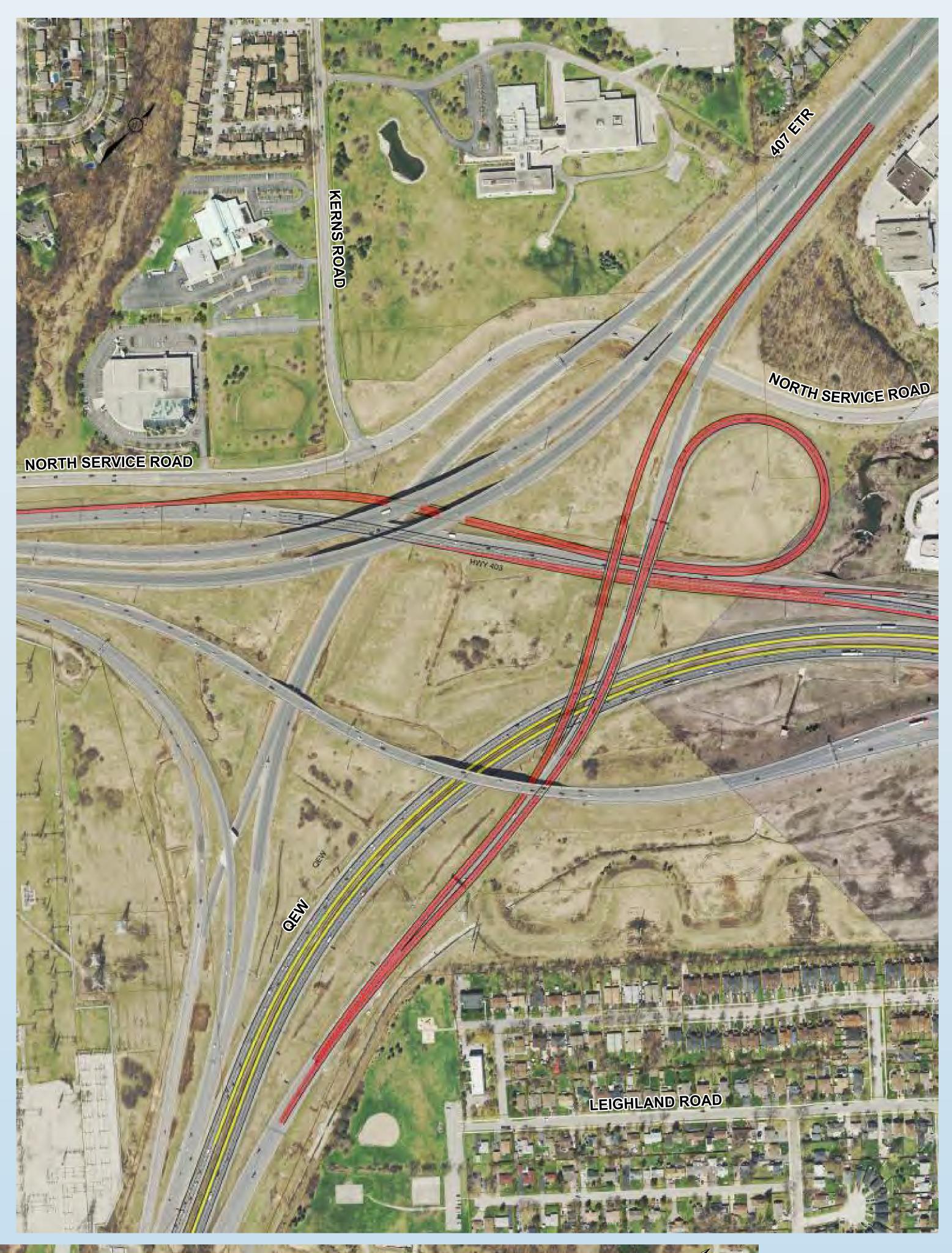
- Mitigate lane QEW / Highway 403 lane balance issue by adding an additional westbound lane.
- Widen Highway 403 by an additional general purpose lane or HOV lane.

Advantages:

- ✓ Additional capacity for east-to-west and south-to-west traffic
- ✓ Relatively low cost

Disadvantages:

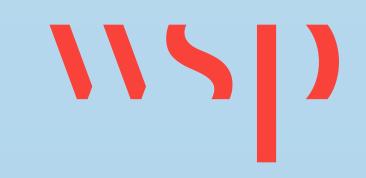
- Challenging constructability at 407 ETR ramps
- * Requires new QEW NB to 407 ETR ramp
- Minimal property required





Recommendation: Carry Forward







HIGHWAY 403 / FREEMAN WESTBOUND – ALTERNATIVE 2A

- Provide new semi-directional ramp for the QEW to Highway 403 westbound.
- Mitigate lane QEW / Highway 403 lane balance issue by adding an additional westbound lane.
- Widen Highway 403 by an additional general purpose lane or HOV lane.





Advantages:

- ✓ Additional capacity for east-towest and south-to-west traffic
- ✓ Improved geometry for south-towest ramp

Disadvantages:

- Relatively high cost due to long bridge
- Challenging constructability under EB 403 ramp
- Potential traffic weaving impacts between Plains
 Rd./Fairview St. Interchange and new WB ramp
- May require modification to Plains Rd./Fairview
 St. Interchange ramps to mitigate weaving issues
- Property impacts in northwest quadrant

Recommendation: Carry Forward

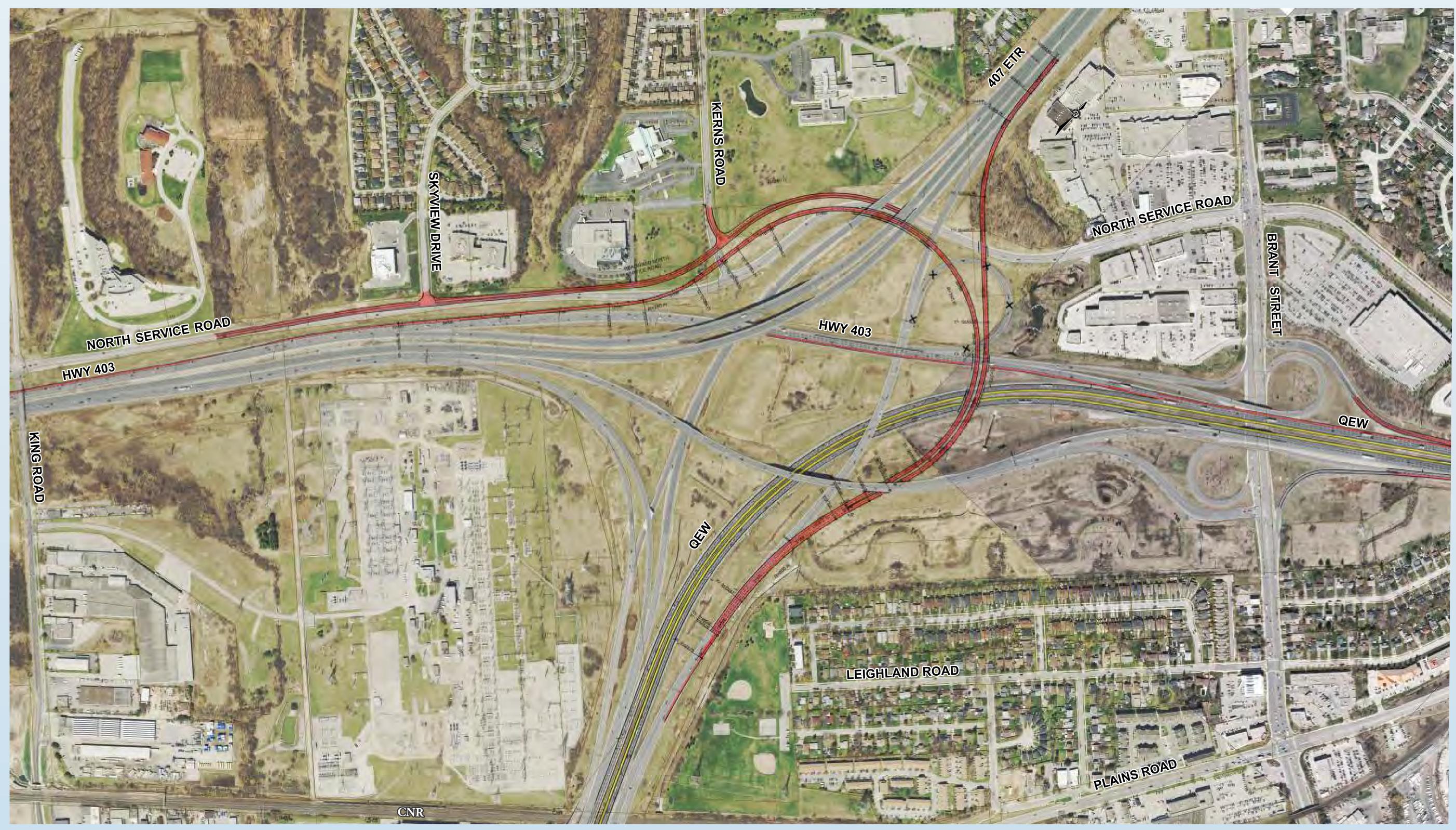






HIGHWAY 403 / FREEMAN WESTBOUND – ALTERNATIVE 2B

- Provide new semi-directional ramp for the QEW to Highway 403 westbound.
- Provide separate two-lane ramp for QEW to Highway 407 northbound.
- Mitigate lane QEW / Highway 403 lane balance issue by adding an additional westbound lane.
- Widen Highway 403 by an additional general purpose lane or HOV lane.





Advantages:

- ✓ Additional capacity for east-towest and south-to-west traffic
- ✓ Improved geometry for south-towest ramp

Disadvantages:

- * Relatively high cost due to long bridges
- Challenging constructability under EB 403 ramp
- Property impacts in northwest quadrant
- * Requires new ramp from QEW to 407 ETR to mitigate weaving issues
- Reduced design speed between NB QEW and 407 ETR







HIGHWAY 403 / FREEMAN WESTBOUND – ALTERNATIVE 3A

- Provide new directional ramp for the QEW to Highway 403 westbound.
- Mitigate lane QEW / Highway 403 lane balance issue by adding additional westbound lane.
- Widen Highway 403 by an additional general purpose lane or HOV lane.
- Directional ramp has a 'broken-back' (less desirable) to mitigate property impacts.







Advantages:

- ✓ Additional capacity for east-to-west and south-to-west traffic
- ✓ Improved geometry for south-towest ramp
- ✓ Avoids weaving issues

Disadvantages:

- * Relatively high cost
- Significant impacts to existing hydro transmission corridor and towers
- * 'Broken-back' curve on new south-to-west ramp less desirable than simple curve
- * Inner-loop ramp (Alternative 1A) must be used to avoid weaving issue.
- Relatively minor property impacts

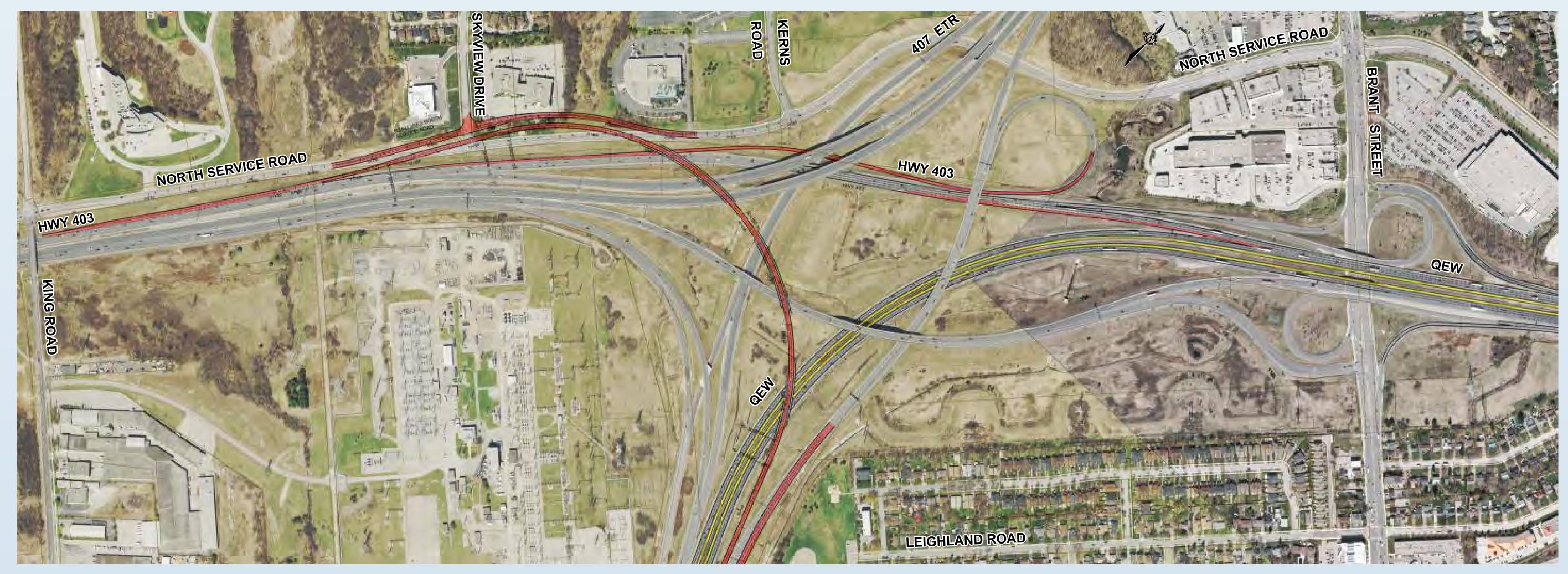






HIGHWAY 403 / FREEMAN WESTBOUND – ALTERNATIVE 3B

- Provide new directional ramp for the QEW to Highway 403 westbound.
- Mitigate lane QEW / Highway 403 lane balance issue by adding additional westbound lane.
- Widen Highway 403 by an additional general purpose lane or HOV lane.
- Use of single curve for directional ramp results in property impacts.







Advantages:

- ✓ Additional capacity for east-to-west and south-towest traffic
- ✓ Improved geometry for south-to-west ramp
- ✓ Avoids weaving issues

<u>Disadvantages:</u>

- × Relatively high cost
- Significant property impacts on North Service Road
- Significant impacts to existing hydro transmission corridor tower
- * Inner-loop ramp (Alternative 1A) must be used to avoid weaving issue.

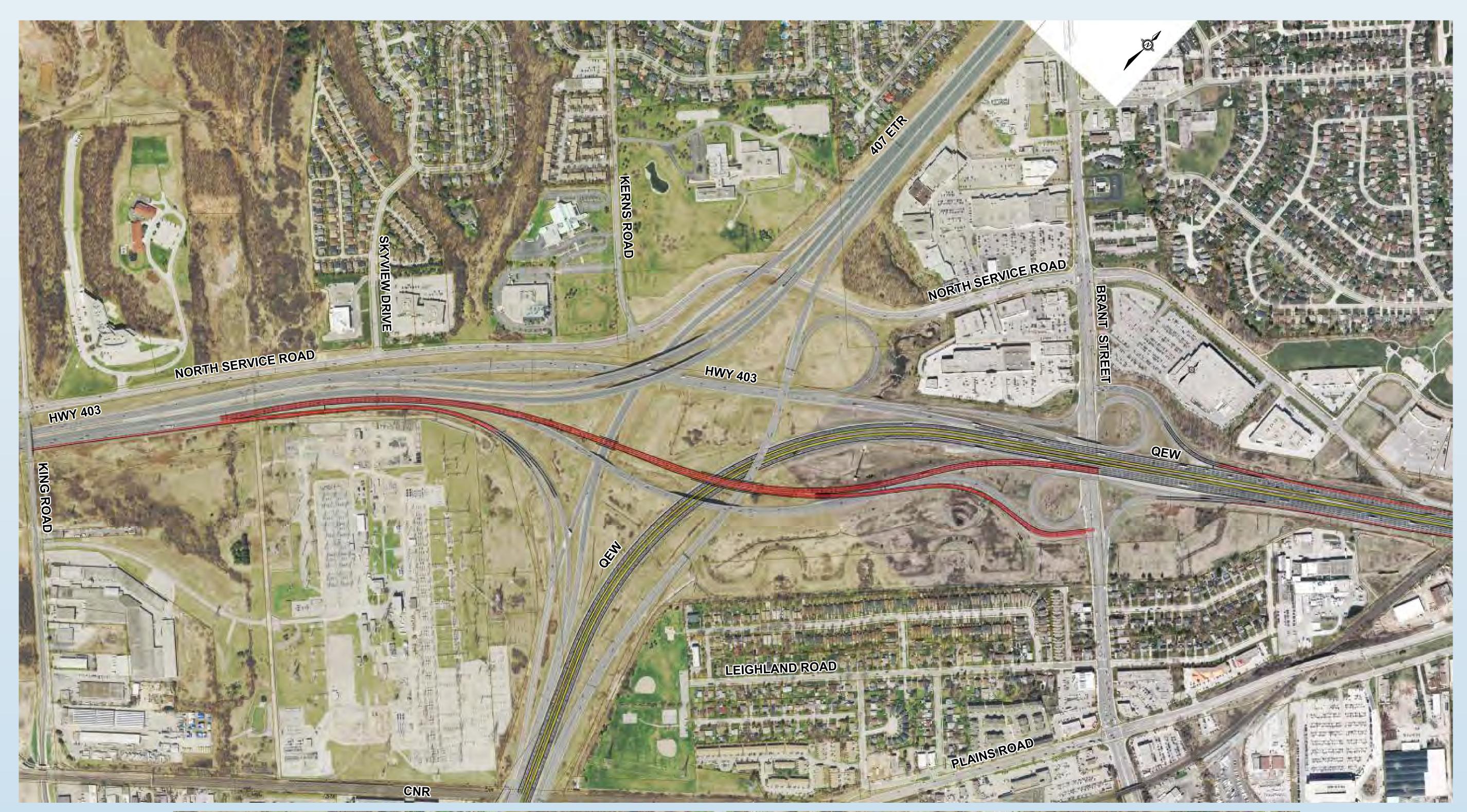






HIGHWAY 403 / FREEMAN EASTBOUND – ALTERNATIVE 1

- Provide new ramp for the Highway 403 to QEW eastbound.
- New ramp provides additional capacity for eastbound traffic as existing bridges cannot be widened.
- Provide additional capacity on Highway 403 to study limits.





Advantages:

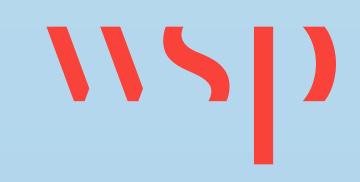
- ✓ Additional capacity for Hwy 403 EB to QEW EB ramp
- ✓ No property requirements
- ✓ Minimal staging impacts

<u>Disadvantages:</u>

Requires replacement of existing eastbound bridges

Recommendation: Carry Forward

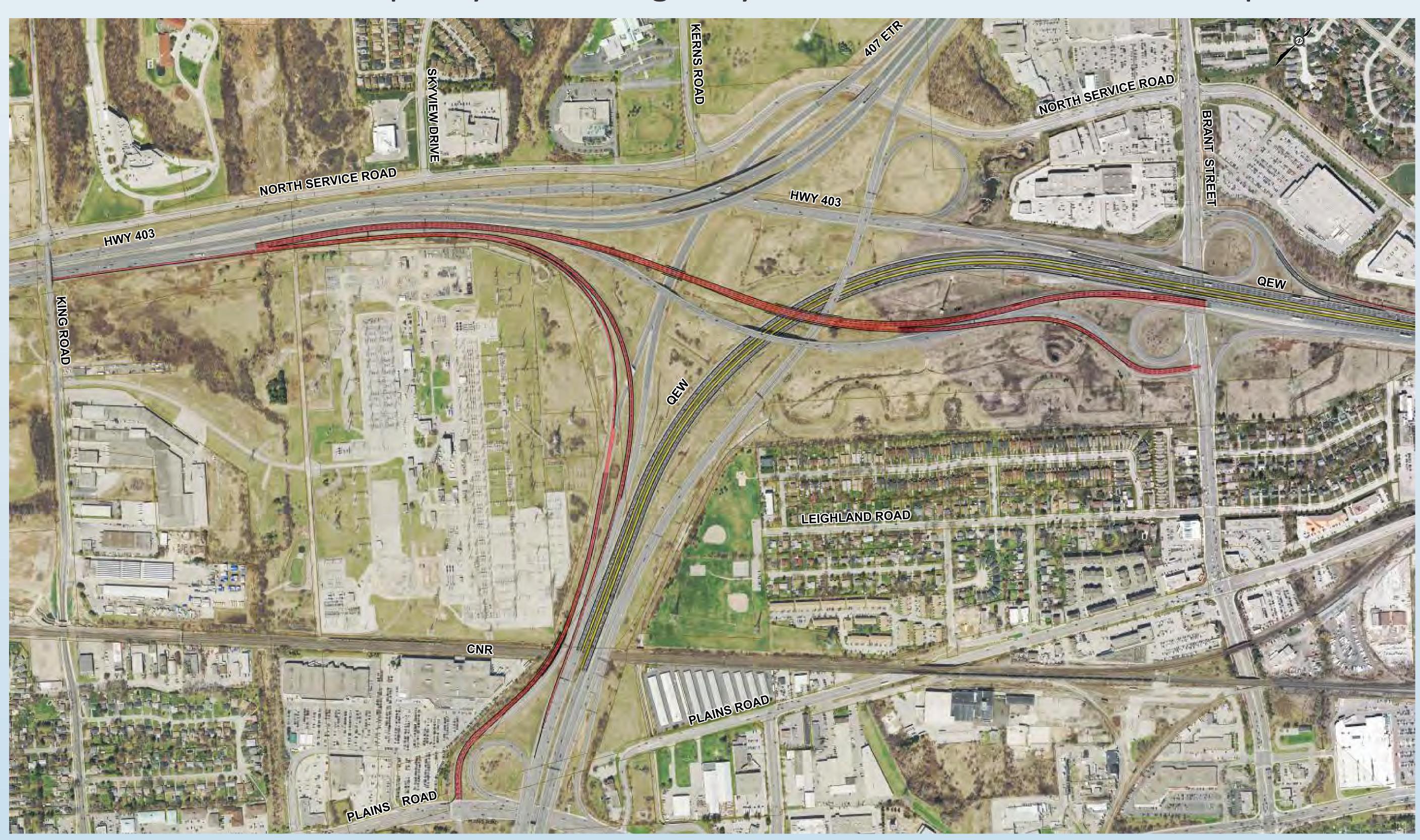






HIGHWAY 403 / FREEMAN EASTBOUND – ALTERNATIVE 2

- Provide new ramp for the Highway 403 to QEW eastbound.
- New ramp provides additional capacity for eastbound traffic as existing bridges cannot be widened.
- Provide additional capacity on Highway 403 to study limits.
- Provide additional capacity for the Highway 403 to QEW southbound ramp.





Advantages:

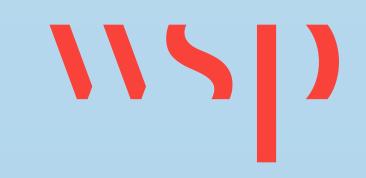
✓ Additional capacity for west-to-east and west-to-south traffic

<u>Disadvantages:</u>

- * Requires replacement of Fairview St. off-ramp bridge over CN Rail
- * Requires widening / replacement of bridge over 407 ETR ramp
- Minimal property requirements

Recommendation: Carry Forward







SHORT-LIST OF ALTERNATIVES

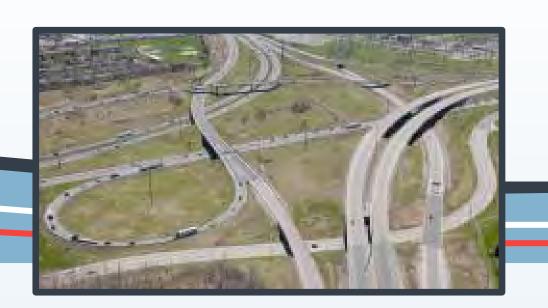
Alternative	Carried Forward?
QEW - Alternative 1	
QEW - Alternative 2	
QEW - Alternative 3	
Hwy 403 / Freeman Westbound - Alternative 1A	*
Hwy 403 / Freeman Westbound - Alternative 1B	
Hwy 403 / Freeman Westbound - Alternative 2A	
Hwy 403 / Freeman Westbound - Alternative 2B	
Hwy 403 / Freeman Westbound - Alternative 3A	
Hwy 403 / Freeman Westbound - Alternative 3B	
Hwy 403 / Freeman Eastbound - Alternative 1	
Hwy 403 / Freeman Eastbound - Alternative 2	

*Interim only

Note: the following options may be partially or wholly combined in the preferred alternative.







EVALUATION CRITERIA

The following evaluation criteria has been identified by the Project Team to review and evaluate the design alternative.



Natural Environment

- Fish and Fish Habitat
- Wildlife and Wildlife Habitat
- Species at Risk
- Surface Water / Groundwater



Transportation Infrastructure

- Transportation network capacity
- Interchange operation and transportation efficiency
- Promotes effective movement of people and goods
- Geometrics and Highway Safety
- Cost



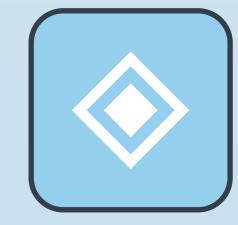
Socio-Economic Environment

- Community Impacts
- Existing and Planned Land Uses
- Waste/Contamination
- Noise and Air Quality
- Property Impacts
- Climate Change



Constructability & Utilities

- Complexity and Difficulty of Construction
- Impacts to Utilities



Cultural and Built Heritage Resources

- Archaeology
- Built Heritage
- Cultural Heritage



Let us know if additional evaluation criteria should be included.







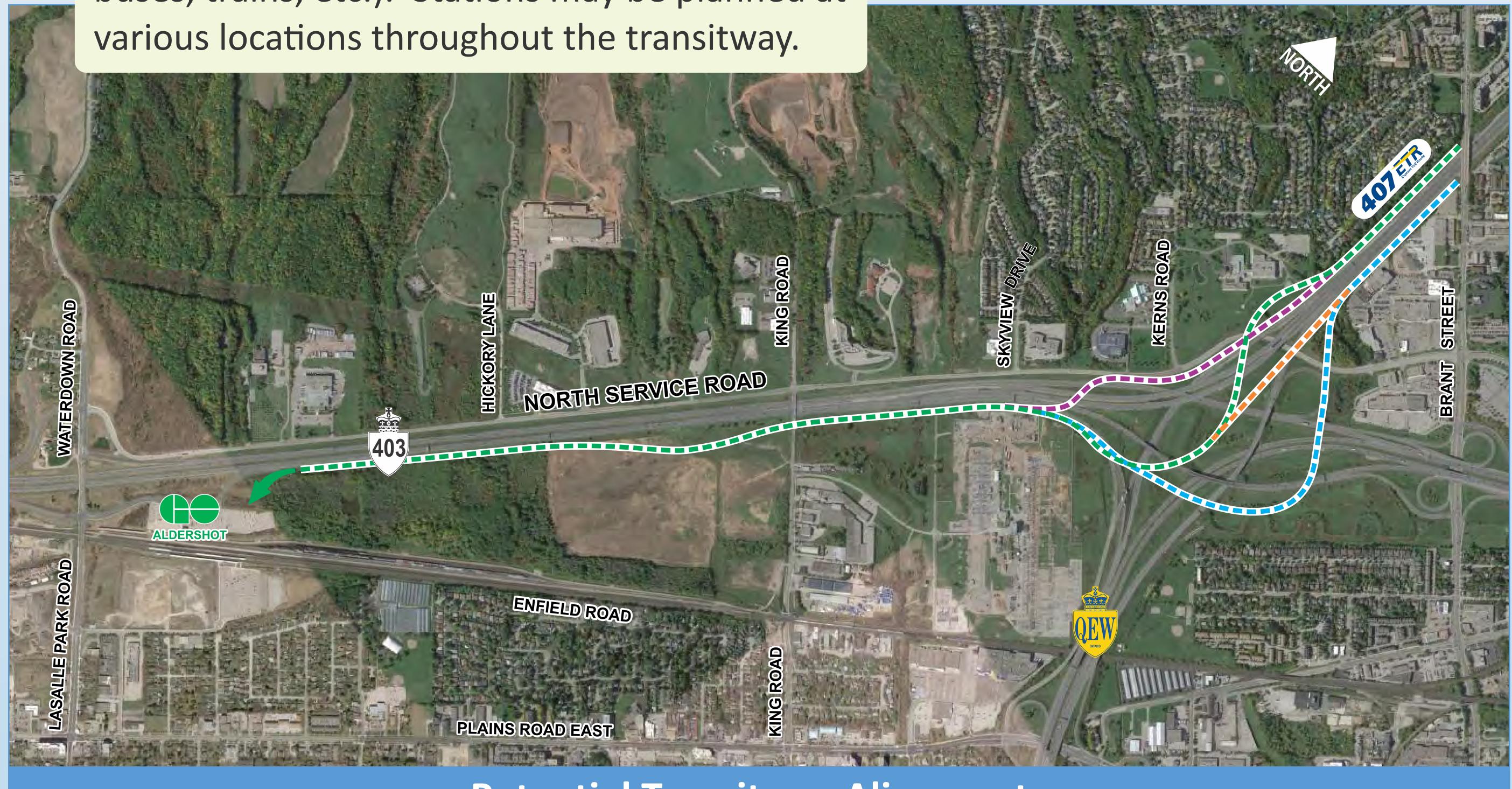
TRANSITWAY ALTERNATIVES

This study includes conceptual design of a transitway connecting Aldershot GO Station to the future 407 Transitway. A potential connection to local transit and Burlington GO Station will be considered.

The study will consider various routes for the Transitway along Highway 403. The Transitway alignment through Freeman Interchange will depend on the identified improvement alternative.

What is a transitway?

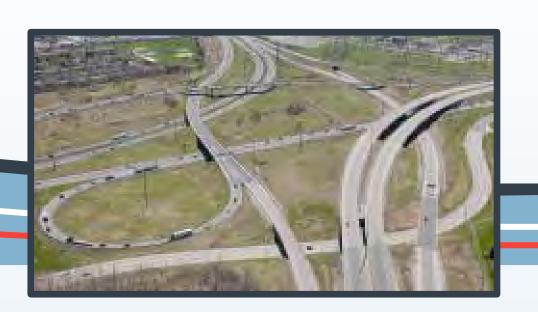
A transitway is a transportation corridor which is dedicated for public transit vehicles (e.g. buses, trains, etc.). Stations may be planned at







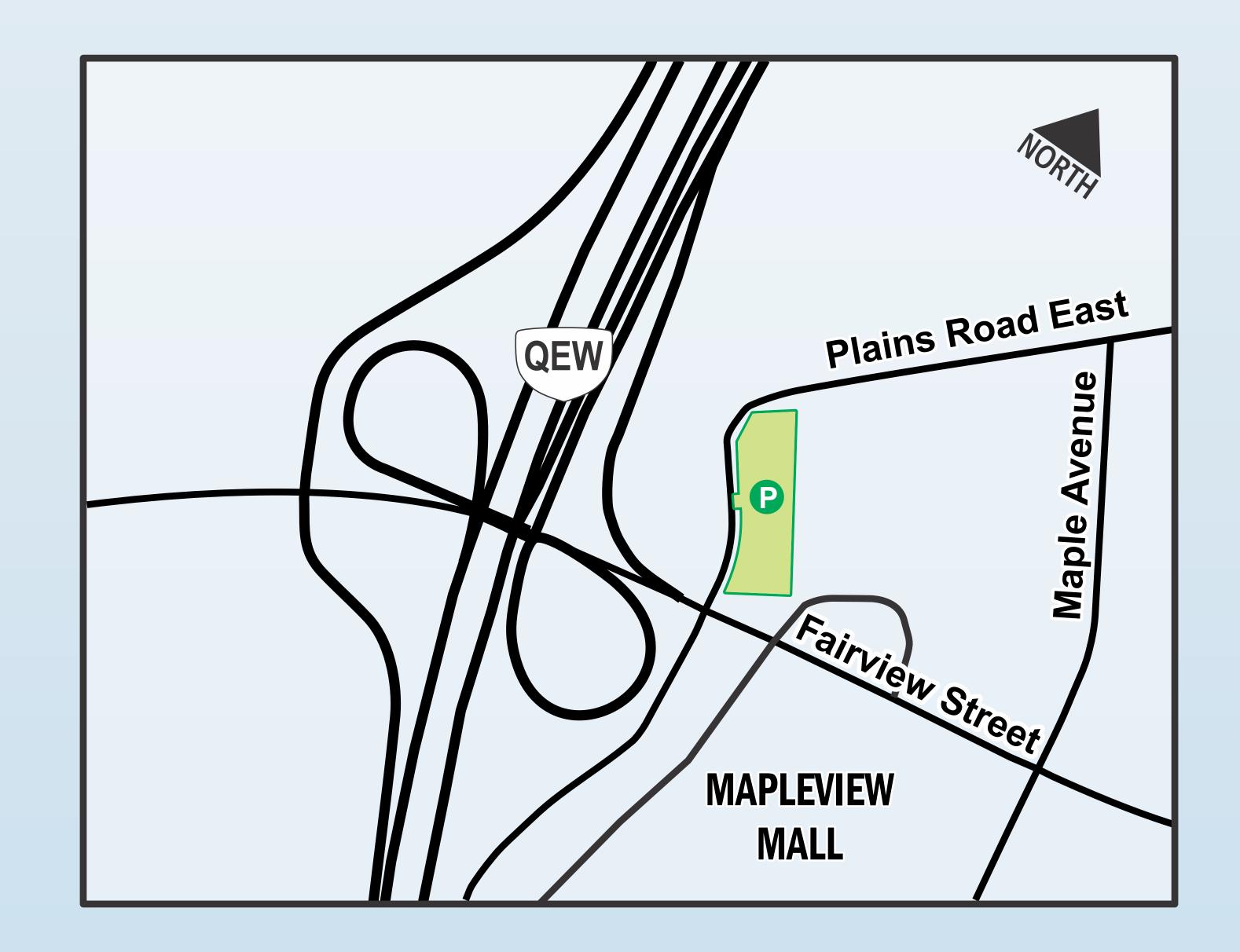




POTENTIAL CARPOOL LOT

Carpool lots promote efficient means of travel and encourage use of transit and High Occupancy Vehicle (HOV) / High Occupancy Toll (HOT) lanes.

MTO's Central Region Carpool Lots Opportunity Study (2007) recommended a carpool lot at the Fairview Street / Plains Road Interchange. This current study will confirm the recommendation in consideration to the proposed highway improvements, and undertake preliminary design of the carpool lot site.









NEXT STEPS AND CONTACT INFORMATION

After this Public Information Centre, the Project Team will:

- Review and respond to comments received.
- Meet with stakeholders and external agencies, as necessary.
- Complete the evaluation of the short-list of alternatives.
- Review the potential impacts on the natural, cultural, socio-economic and transportation environments.
- Select a preliminary preferred alternative.
- Prepare for Public Information Centre # 2.

Information presented today is available online at the study website: www.qew403freeman.ca.

Please feel free to ask questions and fill out a comment sheet before you leave.

Comments can be left in the box provided or forwarded to the Project Team by email, mail, or fax.

Freedom of Information and Protection of Privacy Policy

Information collected during this study will be used to assist the Ministry of Transportation in meeting the requirements of the Provincial Environmental Assessment Act. This material will be maintained on file for use during the study and may be included in the study 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.

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