

NGTA

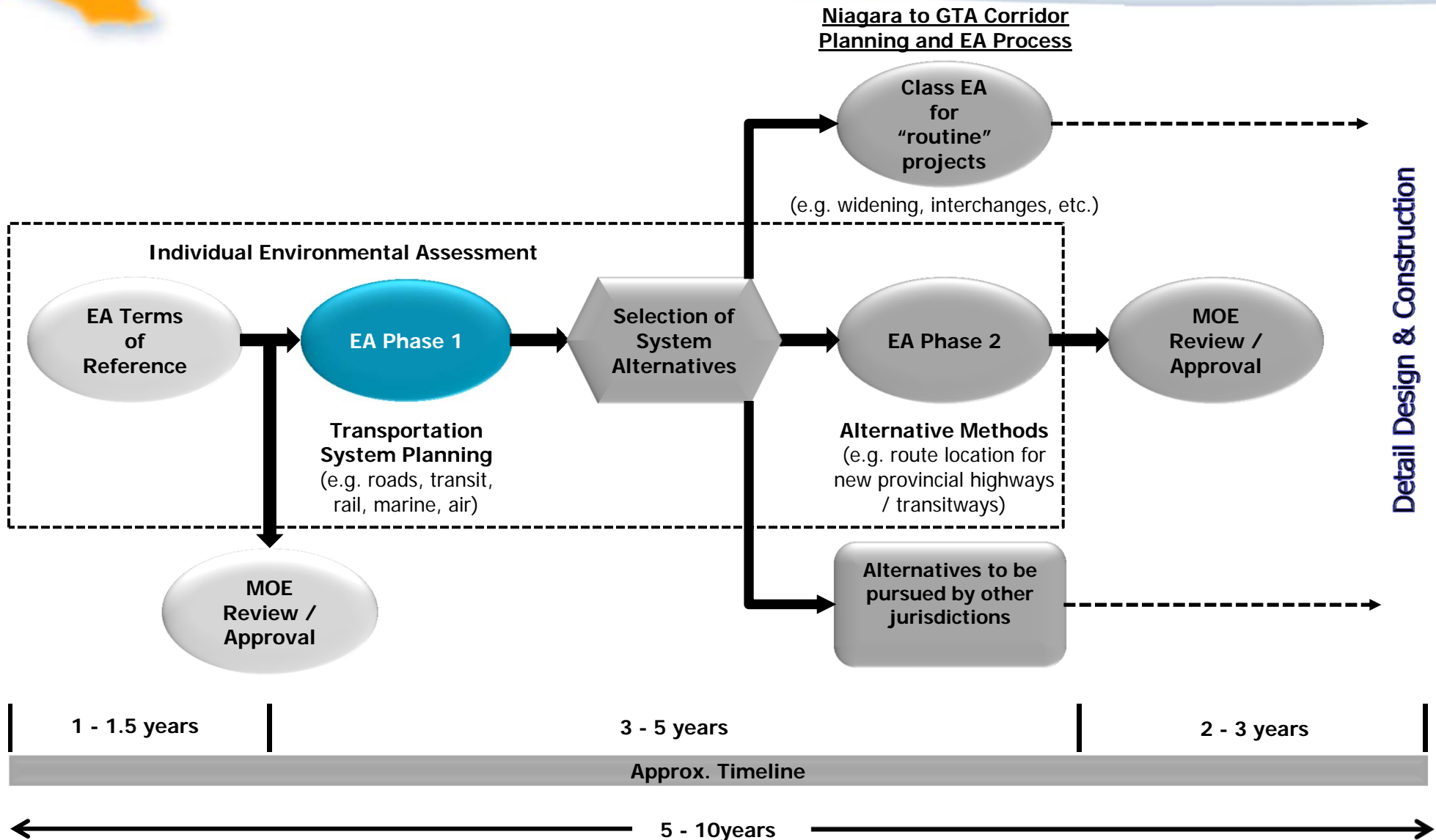
*Niagara to GTA Corridor
Planning and EA Study – Phase 1*

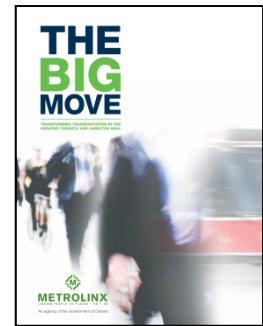
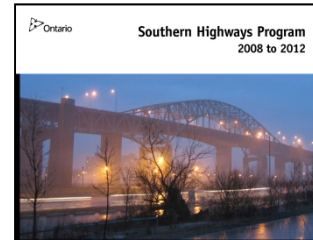
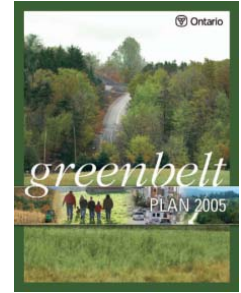
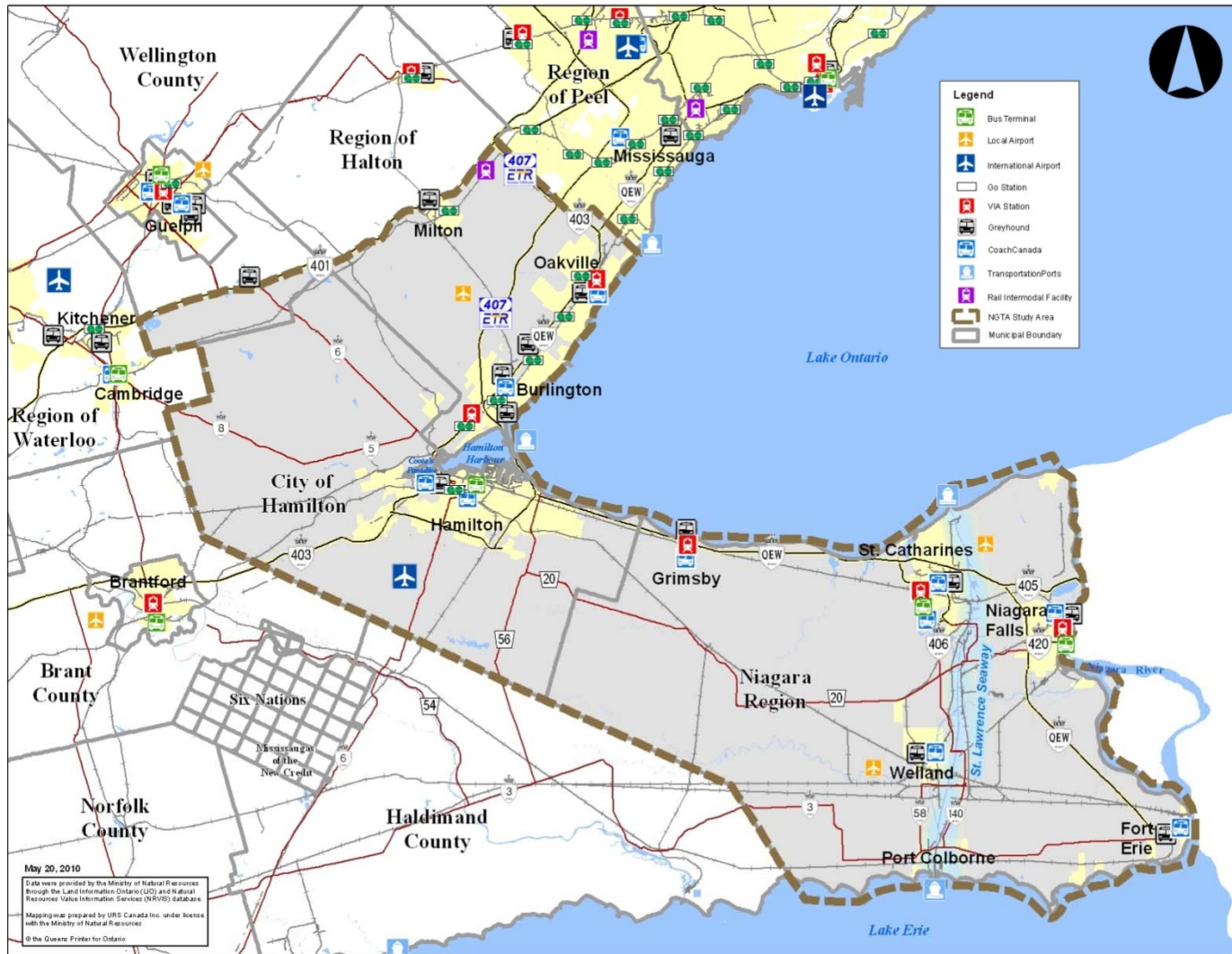
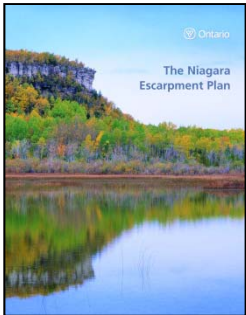
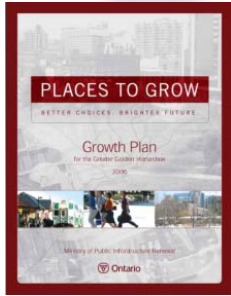
Highway Expansion Recommendations

City of Hamilton – General Issues Committee

March 20, 2013

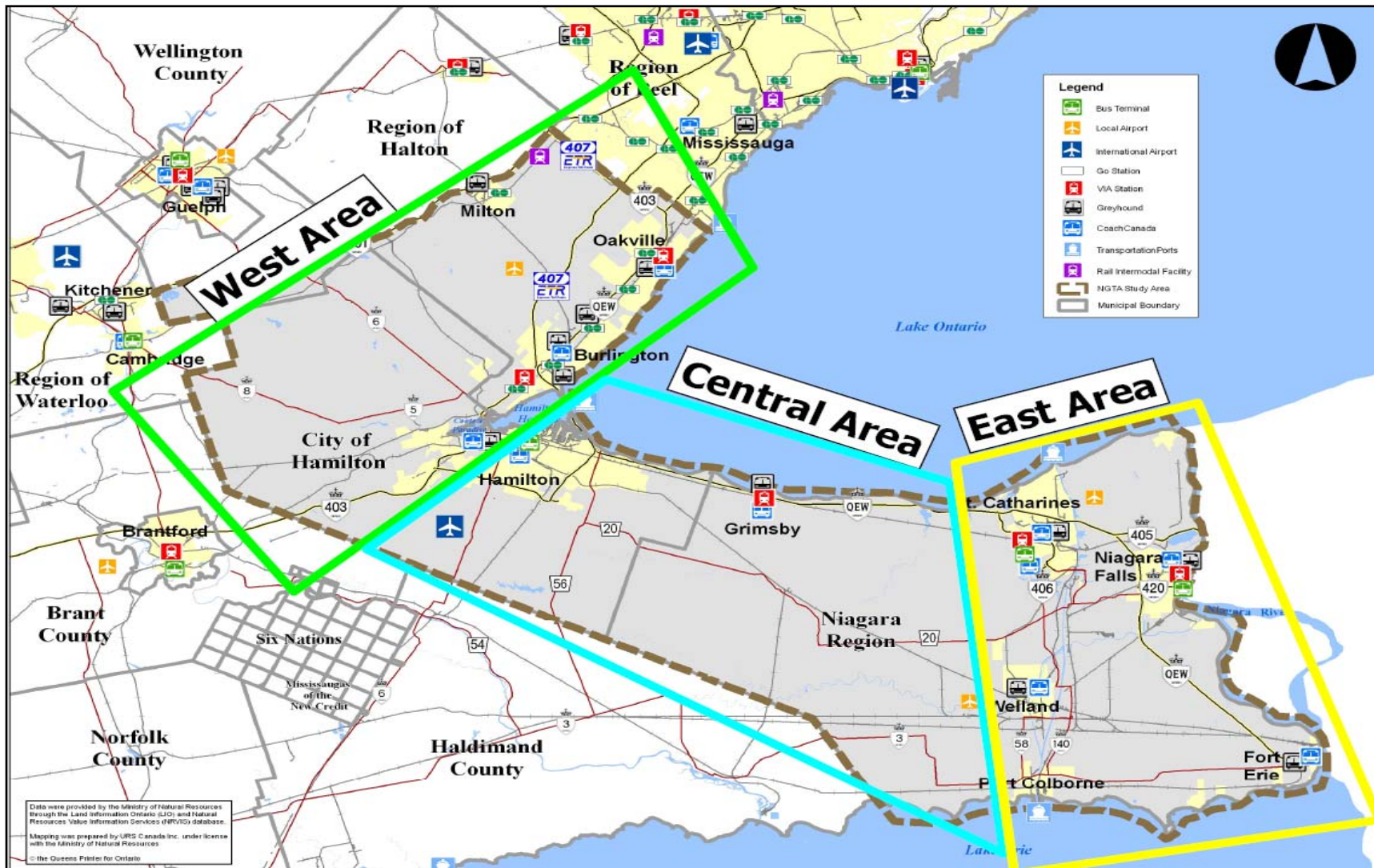
- Multimodal planning study to develop recommendations for expanding the capacity of the transportation network that connects Niagara Region and the U.S. border to the GTA
 - Prepared as an individual environmental assessment (EA)
- Supports the population and employment forecast in the Growth Plan for the Greater Golden Horseshoe
 - Identified as a future transportation corridor that will facilitate goods movement
 - Builds on Ontario's growth and prosperity objectives
- Results of the completed technical assessment combined with the feedback from consultation will be used to develop the final highway expansion recommendations
- Key report that will be produced is a Transportation Development Strategy
 - Comprehensive plan that features support for enhanced transit, optimization of current highways and new highway capacity





- The proposed solution builds on the building block philosophy:
 - Optimize the existing highway network (*analysis and recommendations are complete*)
 - Adjustable speed limits (based on congestion)
 - Initiatives that support rail (grade separations at highway crossings)
 - Expansion of real time traffic information
 - Reversible (contra-flow) lanes and moveable barriers
 - Transit improvements (*analysis and recommendations are complete*)
 - Supports and assumes full implementation of the RTP by Metrolinx
 - Transit use of highway shoulders to bypass congestion
 - Future study on the potential for a Hamilton-focused inter-regional transit service (to be co-ordinated with Metrolinx)
 - New highway capacity (*analysis is complete, consulting on results*)
 - Required in addition to the optimization and transit recommendations
 - Located in three sub-areas
 - East (Niagara Region)
 - Central (Welland to Hamilton)
 - West (Hamilton and Halton)
 - Achieved through widening existing highways (West and Central Areas) and a new highway (East Area)



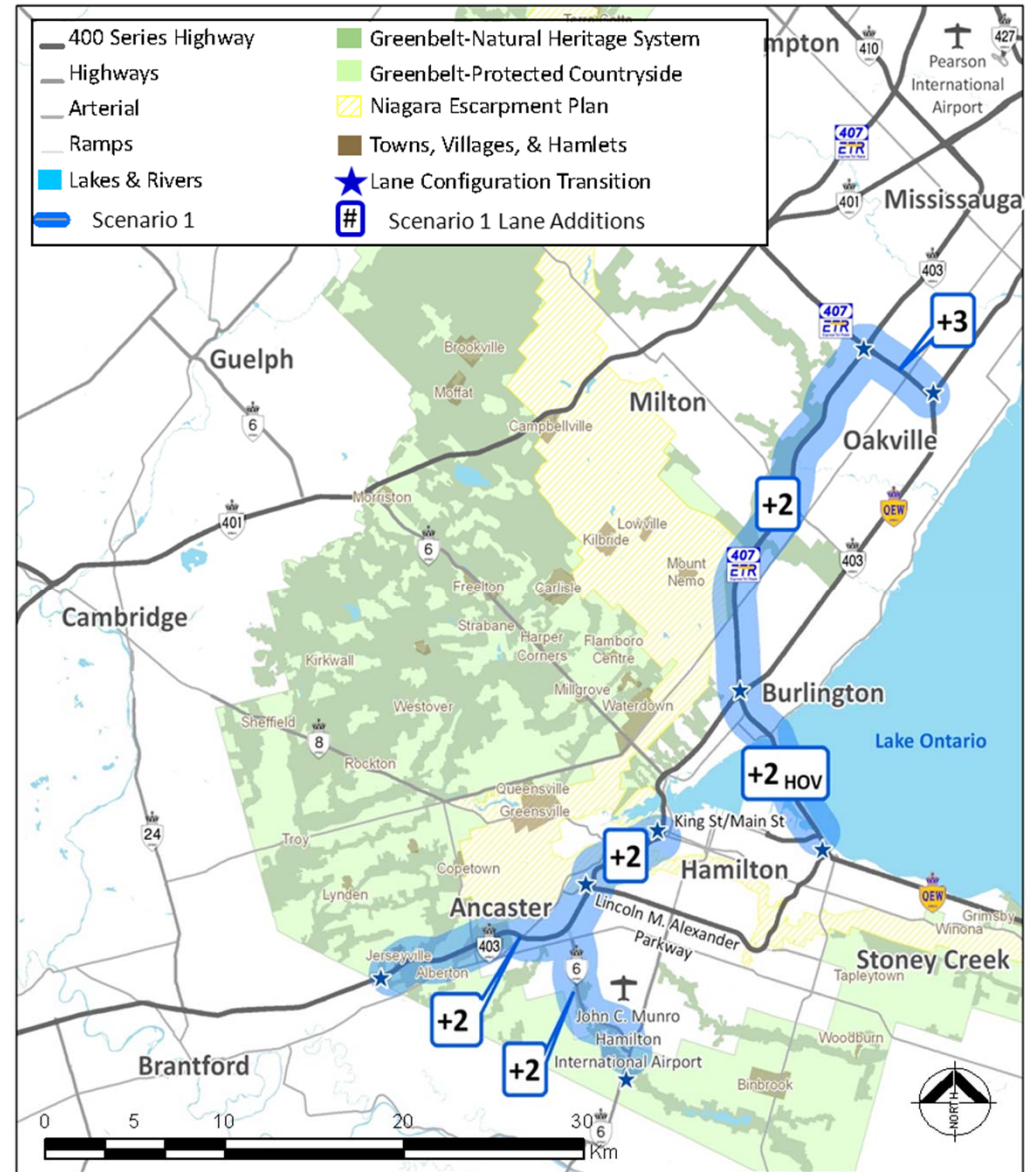


- Key elements of each highway expansion scenario include:
 - **Scenario 1** – Medium-term improvements (widen existing highways)
 - Hwy 403 from King Street/Main Street to Jerseyville – 2 additional lanes
 - Hwy 6 between Hamilton Airport and Hwy 403 – 2 additional lanes
 - QEW from Freeman Interchange to Red Hill Valley Parkway Interchange – 2 additional lanes (HOV)
 - 407 ETR through Halton – 2 additional lanes
 - Hwy 403 from Hwy 403/407 ETR interchange southerly to the Ford Plant – 3 additional lanes
 - **Scenario 2** – *Scenario 1* + Long-term improvements (new highway corridors or a major highway widening)
 - Addresses capacity issues to 2031
 - Builds on medium-term improvements
 - 6 technically viable options have been considered

The Study Team developed the current recommendation using a combination of technical assessment and feedback from consultation:

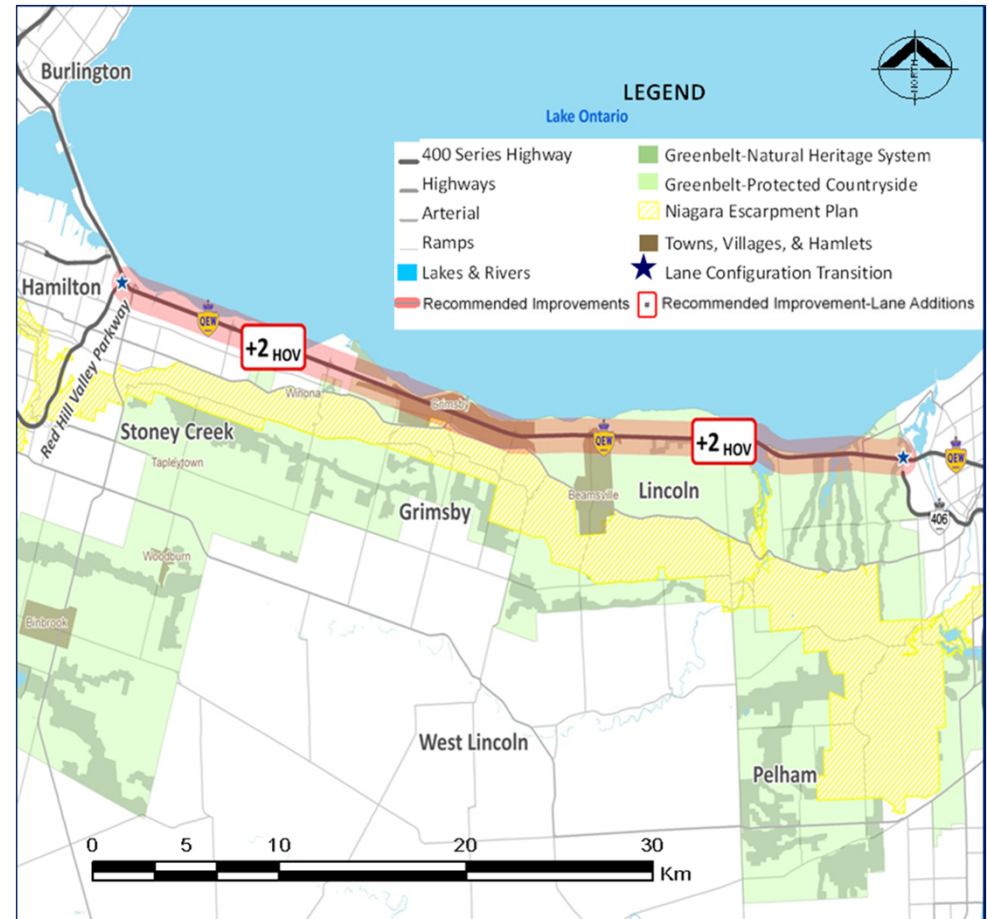
- **Widen existing highways:**
 - **2 additional lanes:** Hwy 403 through Hamilton, Hwy 6 between Hamilton Airport and Hwy 403, QEW over the Burlington Skyway, 407 ETR through Halton
 - **3 additional lanes:** Hwy 403 from Ford Plant to 407 ETR

- **Scope a future study to address longer term needs**
 - Developed in consultation with municipalities and stakeholder groups



- Widen QEW to 8 lanes from Red Hill Valley Parkway to the Burlington Skyway
- Monitor longer-term traffic growth to determine when a further widening of the QEW (to 10 lanes) or a new highway corridor should be examined

- Provides sufficient capacity until 2031 and beyond
- Generally reaches capacity between the late 2030's and mid-2040's
 - **Early 2030's** – Fruitland Road to Fifty Road (Hamilton)
 - **Early to mid-2050's** – Christie Street to Ontario Street (St. Catharines)
- Can be accommodated within the existing Right of Way
 - No impacts to tender fruit lands



- New Highway South of Welland Connecting Highway 406 to the QEW near Fort Erie
 - Provides strong connections to Gateway Economic Centre and Gateway Economic Zone
 - Aligns with Niagara's "Grow South" Strategy
 - Completes "loop" between key urban centres
 - St. Catharines, Welland, Niagara Falls, Fort Erie
 - Avoids significant environmental challenges west of Hwy 406 if/when Central Area corridor is constructed
 - Doesn't impact any Class 1 or 2 agricultural soils

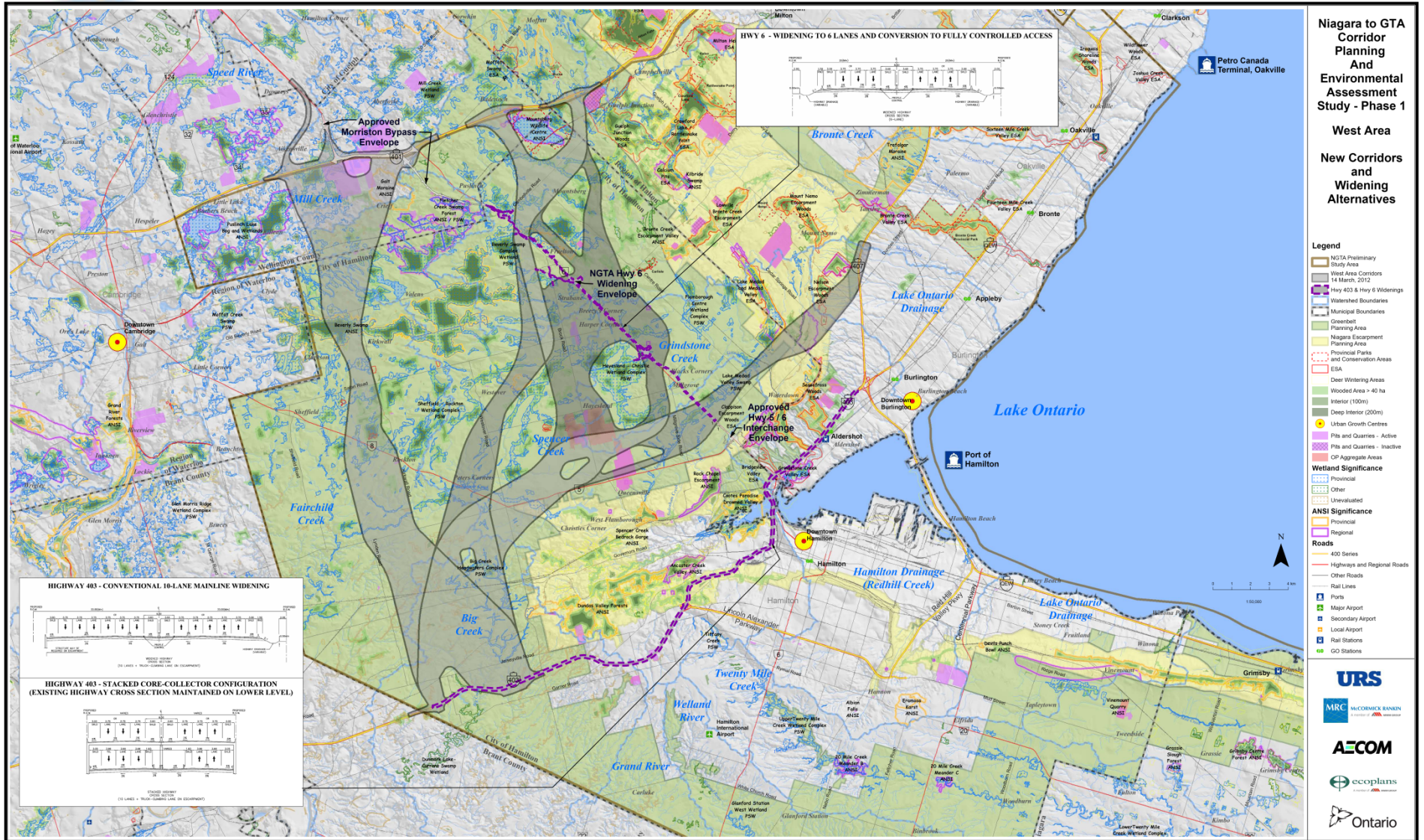




January – April 2013	<p>Consult stakeholders on results of assessment and recommended highway expansion alternatives</p> <ul style="list-style-type: none"> – Municipalities – NGTA Advisory Groups <ul style="list-style-type: none"> • Municipal Executive Advisory Group • Municipal Technical Advisory Group and Regulatory Agency Advisory Group • Community Advisory Group – Other stakeholders (as requested)
February 2013	<p>Public Information Centre #5 in 3 locations across study area to share results of assessment and preferred highway expansion alternatives</p>
March and April 2013	<p>Confirm final highway expansion recommendations</p>
April through June 2013	<p>Prepare and release final Transportation Development Strategy</p>

Highway Expansion Alternatives

Summary of Assessment and Evaluation

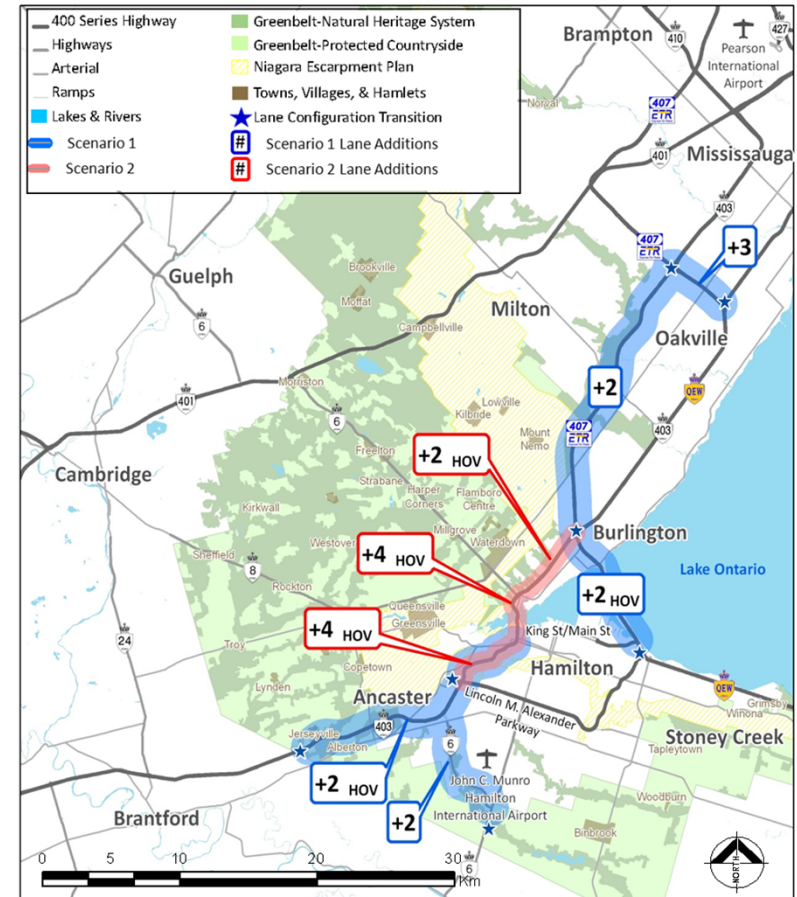


Niagara to GTA Corridor Planning And Environmental Assessment Study - Phase 1

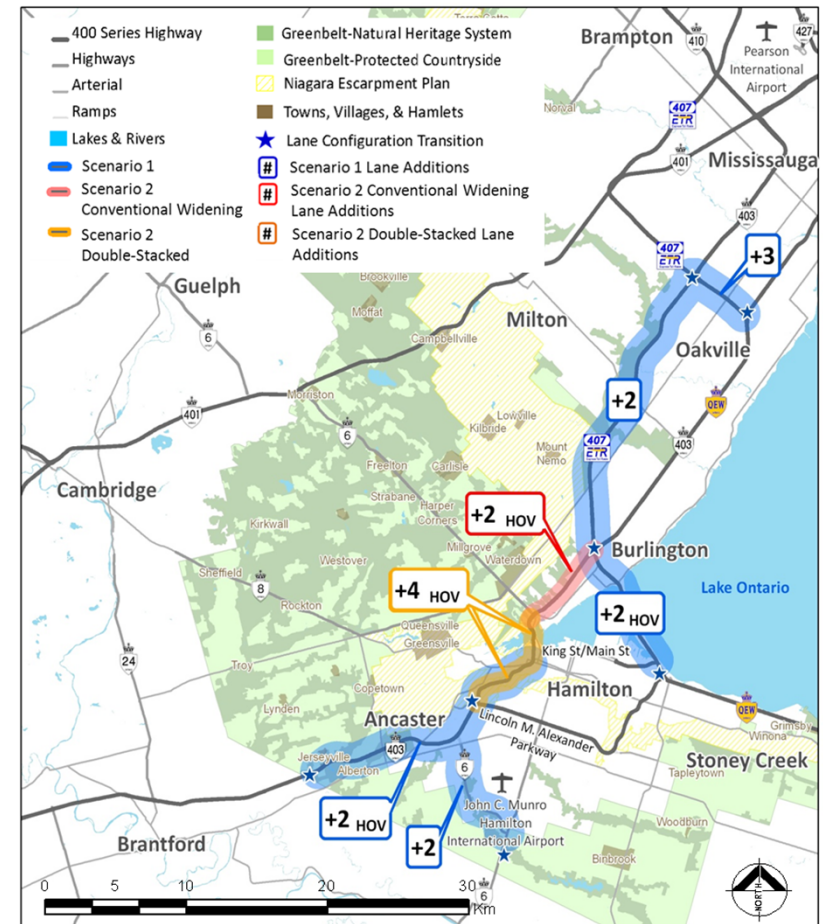
West Area

New Corridors and Widening Alternatives

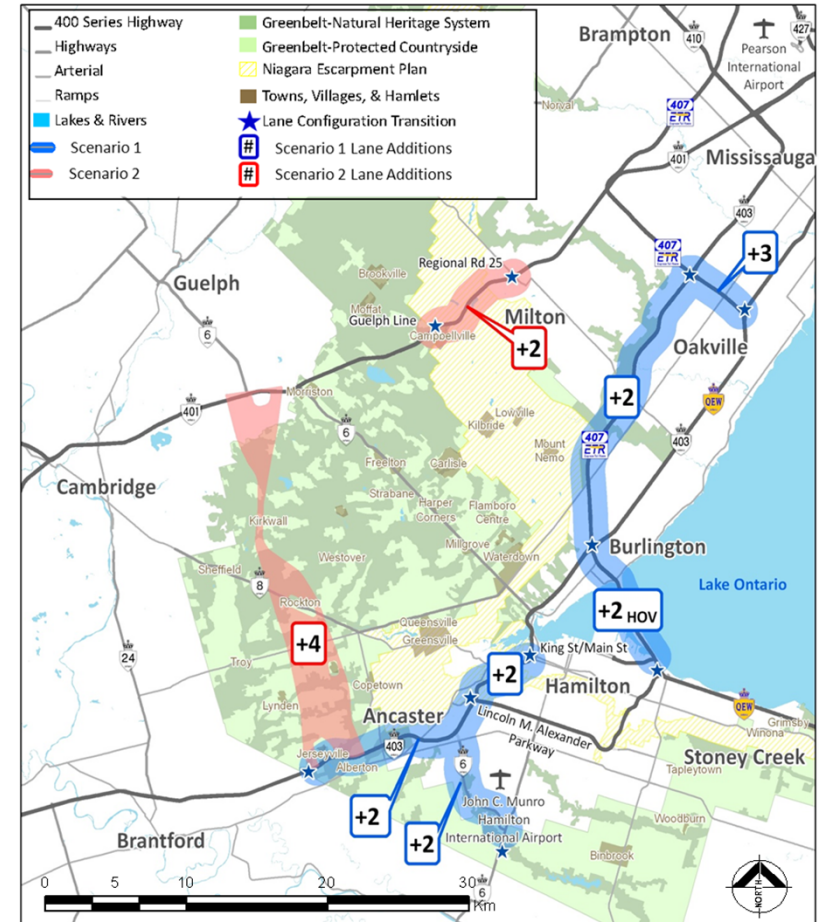
- **West Option #1** (Conventional Widening of Hwy 403 from the Freeman Interchange to Lincoln Alexander Parkway)
 - Addresses some of transportation problems to 2031:
 - Highway 403 through Hamilton
 - Only incremental environmental impacts
 - Builds upon existing infrastructure
 - No impacts to rural community character and prime agricultural lands
 - No new corridor in Greenbelt
- BUT...**
- Not a long-term vision
- Major constructability issues
- Major social impacts
- Impacts to Hamilton Economy during construction



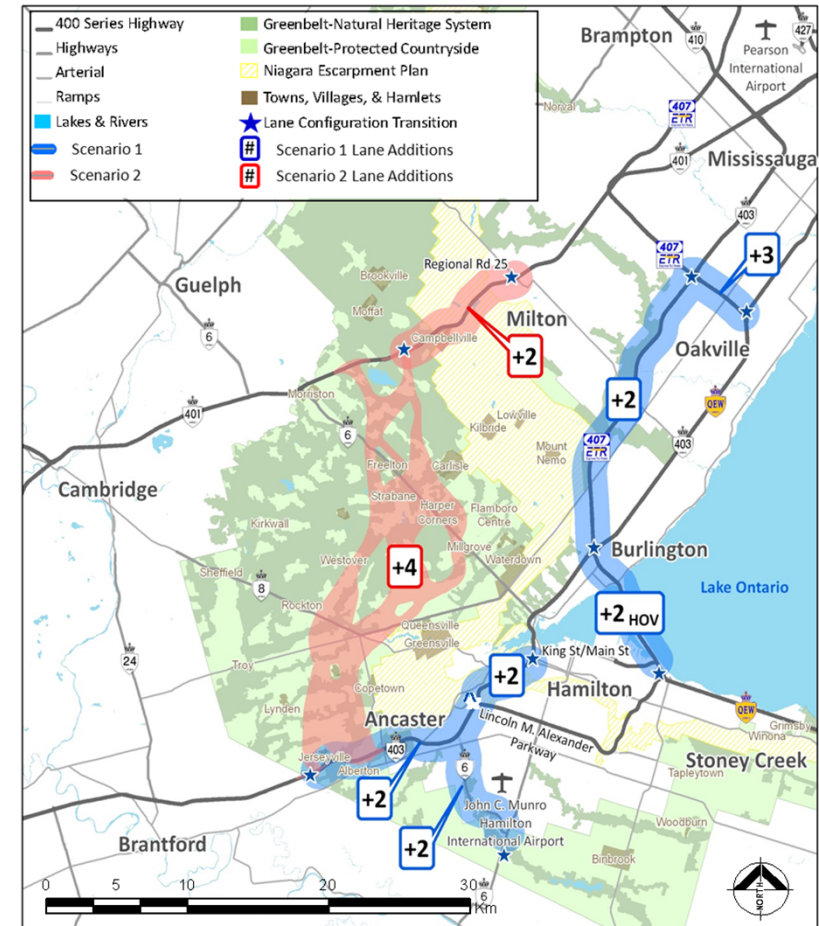
- **West Option #2** (Conventional / Double Stacked Widening of Hwy 403 from the Freeman Interchange to Lincoln Alexander Parkway)
 - Significant constructability concerns
 - Very high costs
 - Significant social impacts
 - Environmental impacts and property requirements are marginally reduced compared to conventional widening



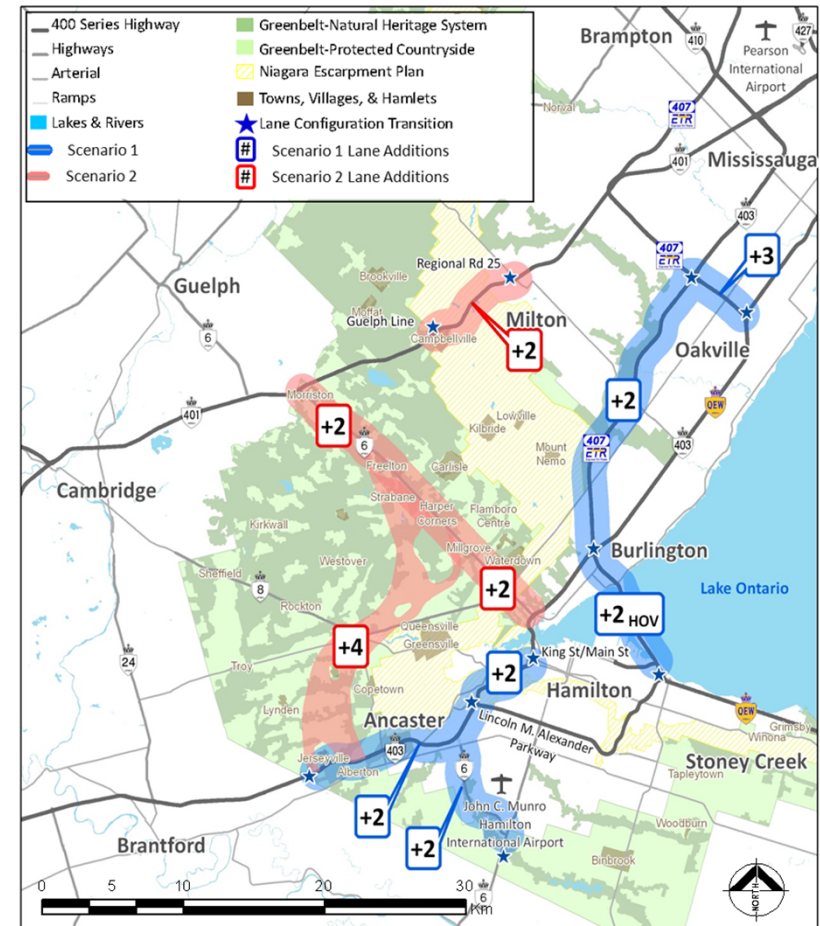
- **West Option #3** (New Highway from Hwy 403 to Hwy 401 Near Hanlon Expressway)
 - Does not sufficiently address NGTA transportation problems:
 - High levels of congestion remain on Hwy 403 through Hamilton, QEW/Halton and QEW/Burlington Skyway
 - Attracts significant demand to/from the west of the study area and could be considered as part of a separate study



- **West Option #4** (New Highway Connecting Hwy 403 to Hwy 401 Near Wellington County/Halton Boundary)
 - Provides greatest relief to key transportation problem areas:
 - Relieves congestion on Hwy 403/Hamilton, QEW/Halton, QEW/Burlington Skyway
 - Provides strong support to GTA economy
 - Does not require a new crossing of the Niagara Escarpment in Burlington
- BUT...**
- High risk of non-mitigatable impacts to large and significant natural features with strong inter-connectivity and important ecological functions
 - New corridor entirely in the Greenbelt
 - Significant impacts to prime agricultural lands and rural community character



- **West Option #5** (New Highway from Hwy 403 to Hwy 6 plus Widening Hwy 6)
 - Does not sufficiently address NGTA transportation problems:
 - High levels of congestion remain on Hwy 403 through Hamilton, QEW/Halton and QEW/Burlington Skyway
 - Significant social impacts associated with widening of Hwy 6 and removal of direct access
 - New corridor components require roadway expansion into a substantial number of Provincially Significant Wetlands and forests that border the roadway as well as valuable agricultural lands



- **West Option # 6** (New Highway Connecting Hwy 403 to 407 ETR Near Regional Road 5/Dundas Street)

- Adequately addresses major transportation problem areas:
 - Some congestion relief to Hwy 403/Hamilton, QEW/Burlington Skyway, QEW/Halton
- Greater opportunities for reducing impacts to natural features as compared to Option # 4 (Hwy 403 to Hwy 401)
- Much lower community impacts than Option #1 (widening Hwy 403)
- Provides strong support to GTA economy

BUT...

- New crossing of Niagara Escarpment
- New corridor entirely within the Greenbelt
- Highest impact to prime agricultural lands
- Not possible to avoid all potential impacts to significant natural features
- Significant impacts to rural community character



- The following three alternatives were not carried forward for detailed assessment:

West Option #2 (Double Stacked Hwy 403)

- Major constructability issues and high costs, and does not address NGTA transportation problems any better than West Option #1

West Option #3 (Hwy 403 to Hwy 401 near Hanlon)

























- Utilized primarily by traffic travelling to/from the west, and does not address NGTA transportation problems on Highway 403 through Hamilton, or on the QEW through Halton and at the Burlington Skyway

West Option #5 (Hwy 403 to Hwy 6 plus widening)

- Results in major social and environmental impacts of similar magnitude to West Options #4 and #6 (due to Highway 6 widening and new corridor component), and doesn't perform as well from a transportation perspective.
- Results in a higher overall level of transportation network delay for passenger vehicles and trucks, and does not address congestion issues on Highway 403 through Hamilton or QEW through Halton and over the Burlington Skyway as well as other alternatives

- These three alternatives may be reconsidered as part of a future study to consider a long-term transportation strategy in the West Area

- The remaining long-term alternatives in the West Area were carried forward to a detailed assessment:

Alternatives	Factors							
	Transportation	Natural	Agriculture	Socio-Economic / Land Use	Cultural	Greenbelt / NEP	Economy	Cost / Constructability
West Option #1 (Hwy 403 Widening)								
West Option #4 (Hwy 403 to Hwy 401 near Halton)								
West Option #6 (Hwy 403 to 407 ETR)								

Very Good

Good

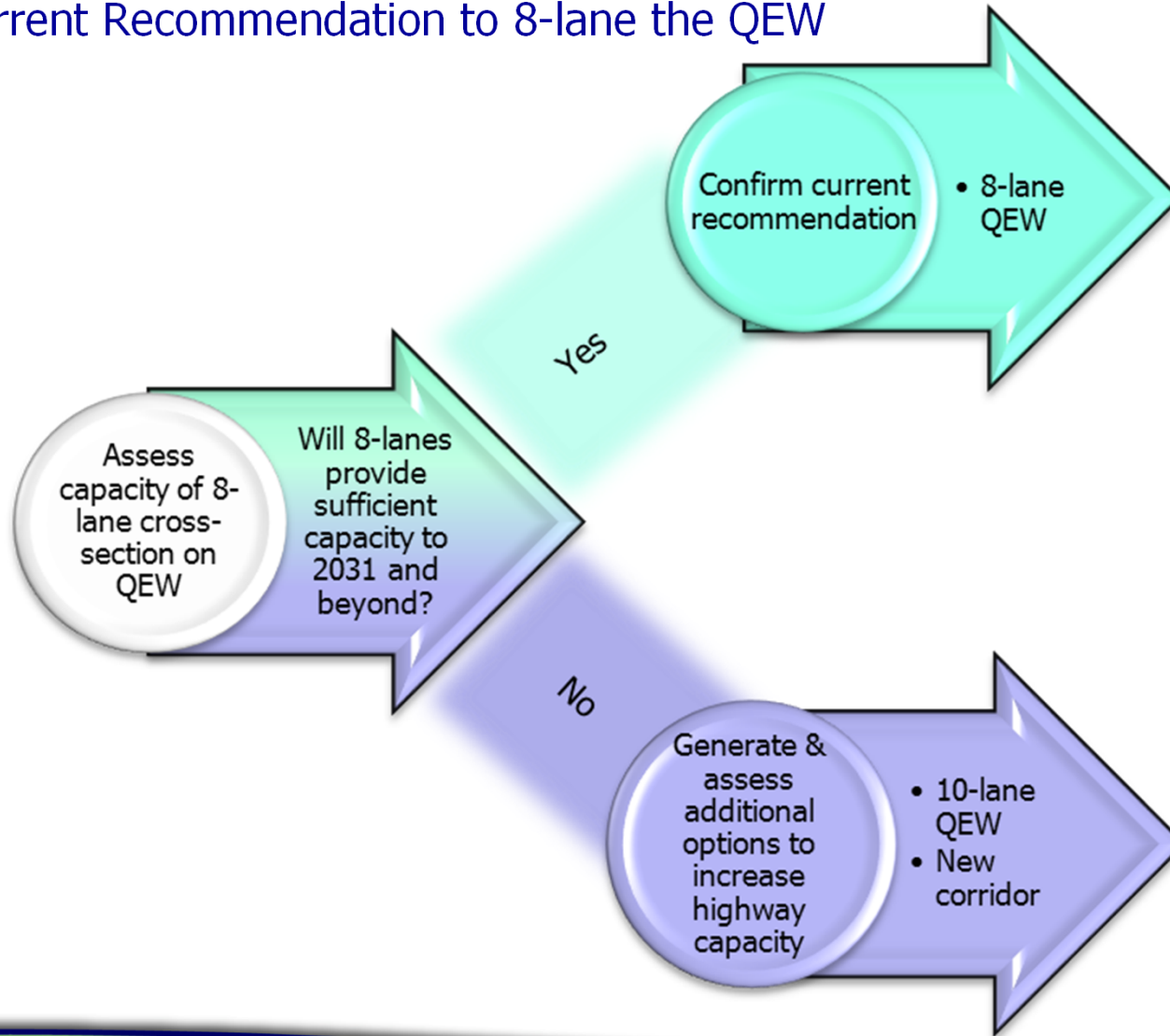
Fair

Poor

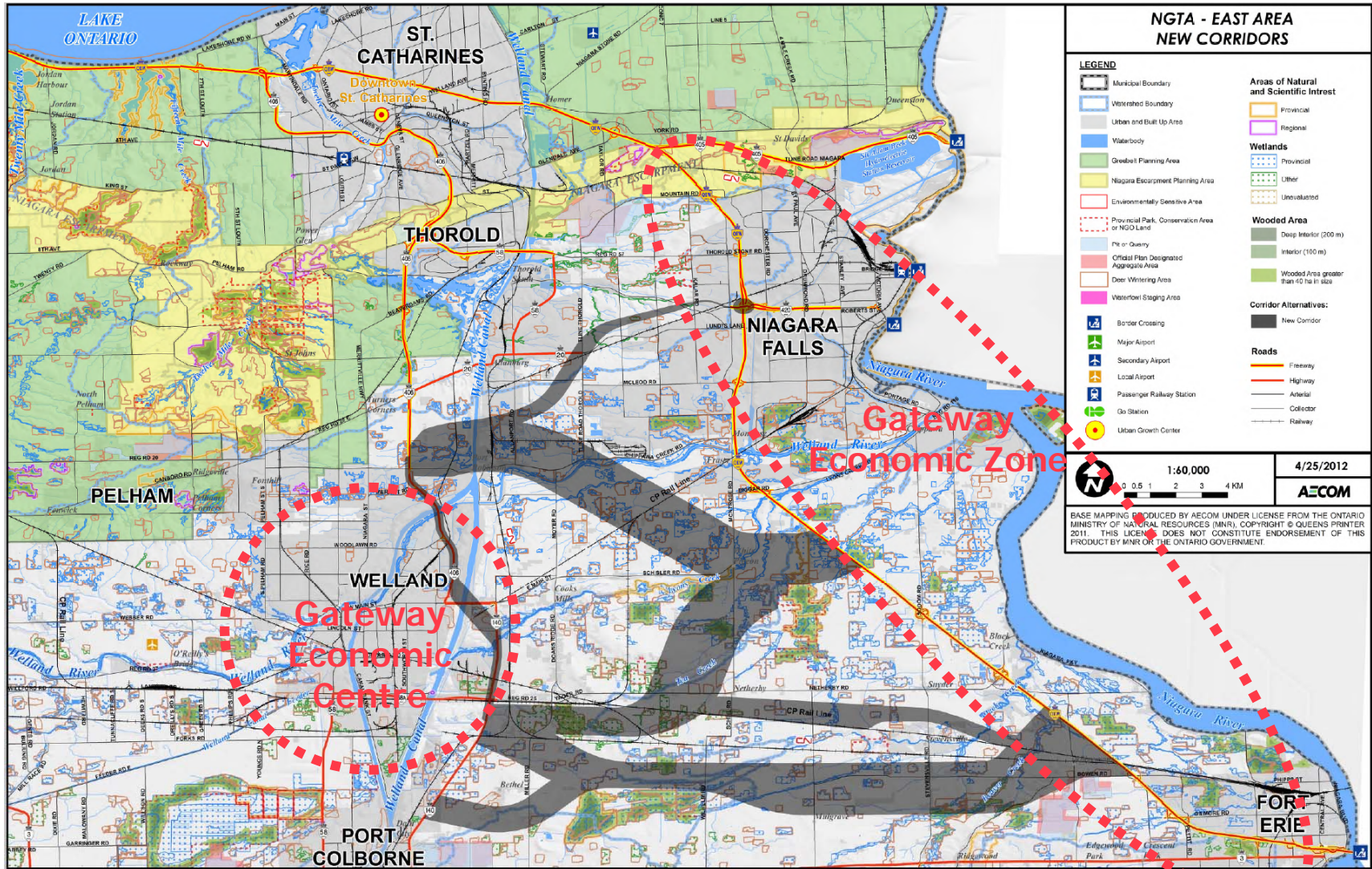
Very Poor

Extremely Poor

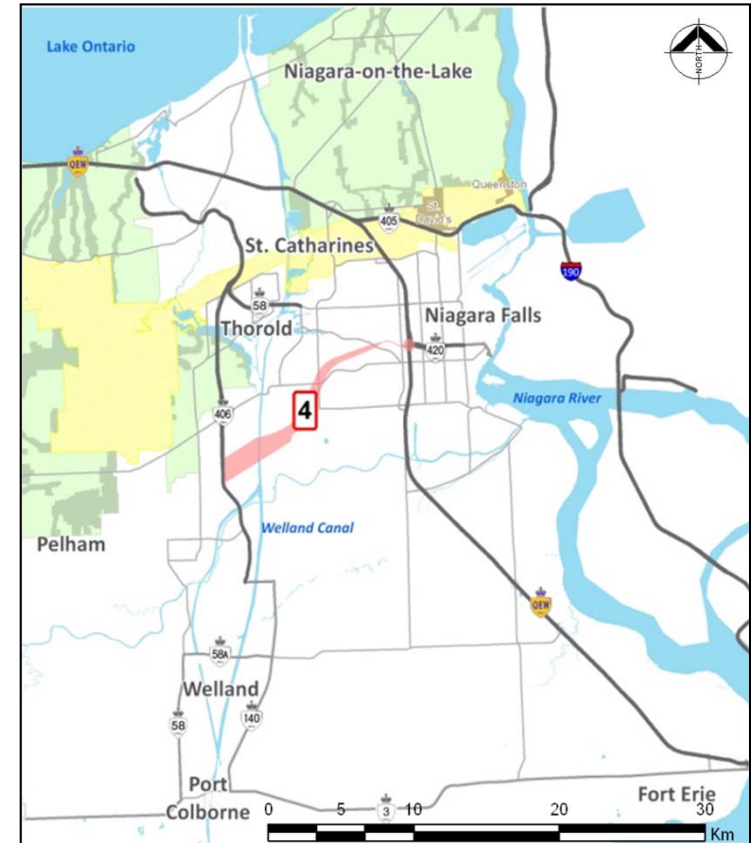
- Test Current Recommendation to 8-lane the QEW



- Identify a more refined study area for a new provincial transportation corridor in the East Area
- The work included:
 - Reviewing Niagara Region's study for an east-west arterial road to determine relevance to the NGTA study
 - Assessing and evaluating the new corridor alternatives to identify a more refined study area for Phase 2
 - Identifying required improvements to QEW and Highway 406 for each of the corridor alternatives to include within the overall assessment
- Ongoing coordination with Niagara Region was undertaken so that NGTA solutions are consistent with the transportation and land use planning objectives of Niagara Region



- **East Option #1** (New Highway Corridor from north of Welland to Hwy 420 Extension)
 - Major social impacts
 - Significant constructability challenges with connecting to Hwy 420 interchange
 - High Cost
 - Not consistent with Niagara’s “Grow South” strategy
 - Does not support Growth Plan objectives associated with the Gateway Economic Centre and Zone

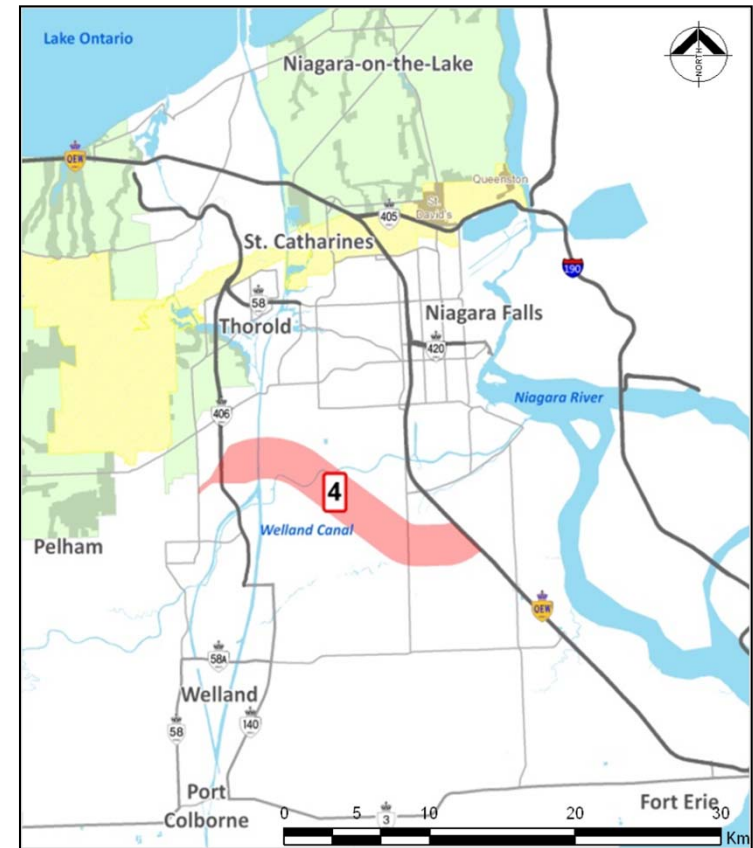


- **East Option #2** (New Highway North of Welland to QEW between Niagara Falls and Fort Erie)

- Provides better access to all Niagara border crossings if a new Central Area corridor* is not constructed in the future
- Requires minimal improvements to Hwy 406
- Shortest route overall

BUT...

- Not consistent with Niagara's "Grow South" strategy
- Does not support Growth Plan objectives associated with the Gateway Economic Centre and Zone
- Requires significant amendments to Thorold's secondary plan
- Significant environmental challenges west of Hwy 406 if/when Central Area corridor is constructed

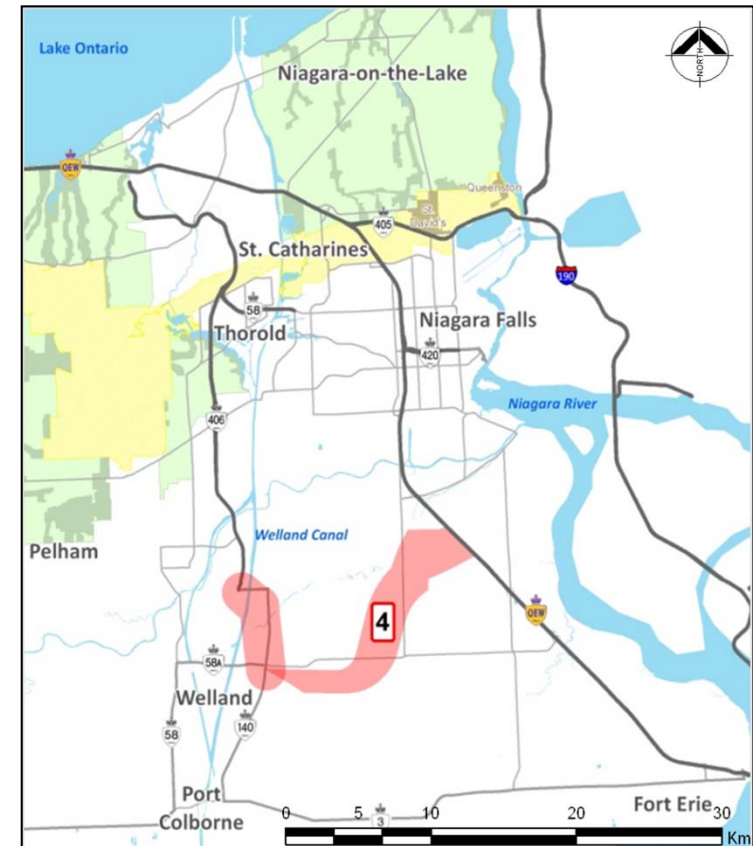


* From Niagara Region to Hamilton

- **East Option #3** (New Highway South of Welland to QEW between Niagara Falls and Fort Erie)
 - Provides better access to all Niagara border crossings if a new Central Area corridor* is constructed in the future
 - Avoids significant environmental challenges west of Hwy 406 if/when Central Area corridor is constructed
 - Somewhat supportive of Growth Plan objectives for the Gateway Economic Centre and Zone

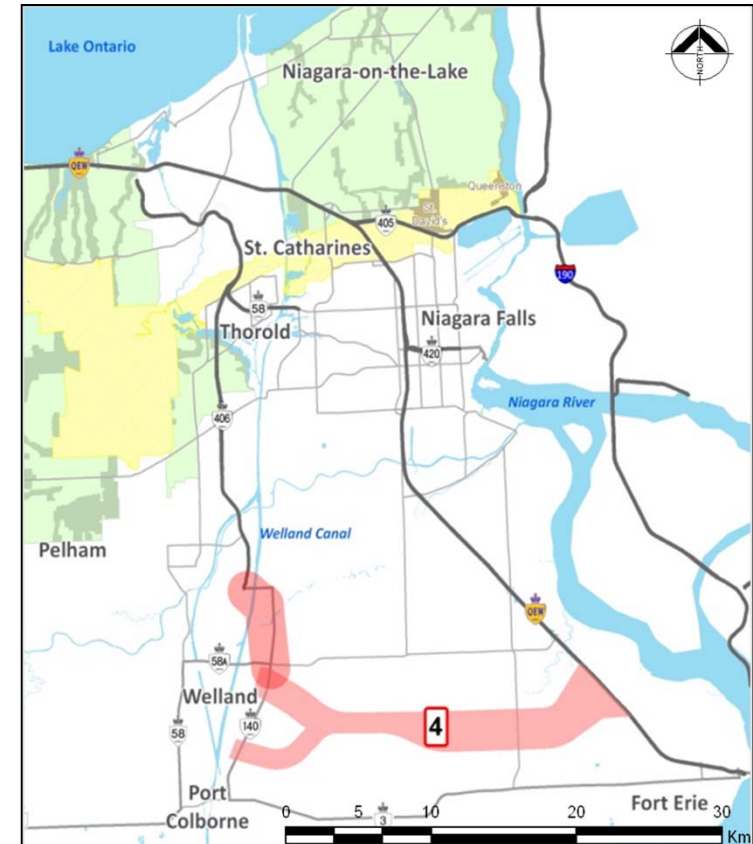
BUT...

























- Attracts lower traffic volumes without new Central Area corridor
- Requires widening/improvements to Hwy 406
- Not consistent with Niagara's "Grow South" strategy



* From Niagara Region to Hamilton

- **East Option #5** (New Highway Corridor from south of Welland to QEW at Fort Erie)
 - No substantial benefits over Option #4 (New Highway South of Welland to QEW near Fort Erie) in any factor area
 - Longer route – much higher cost and more potential constructability challenges
 - Potentially significant impacts to groundwater recharge area and highly vulnerable aquifer



Alternatives	Factors							
	Transportation	Natural	Agriculture	Social / Land Use	Cultural	Economy	Cost / Constructability	*Connection to Central Area New Corridor
East Option #1 (N. of Welland to Hwy 420 Extension)	Removed from further consideration - Major social impacts, constructability challenges and high costs. Not consistent with Niagara's "Grow South" strategy, and does not support Growth Plan objectives of connecting Gateway Economic Centre and Zone.							
East Option #2 (N. of Welland to QEW between Niagara Falls and Fort Erie)								
East Option #3 (S. of Welland to QEW between Niagara Falls and Fort Erie)								
East Option #4 (S. of Welland to QEW near Fort Erie)								
East Option #5 (S. of Welland to QEW at Fort Erie)	Removed from further consideration - Longer route than East Option #4 with higher costs, potential for significant environmental impacts and no substantial benefits over East Option #4 in any factor area.							

Very Good	Good	Fair	Poor	Very Poor	Extremely Poor	*Potential
-----------	------	------	------	-----------	----------------	------------