

GTA West Transportation Corridor Route Planning and EA Study – Stage 2

Greenbelt Transportation Advisory Group
Meeting #3
November 14, 2019



TODAY'S AGENDA

- Introductions
- Purpose, roles and responsibilities of the GTAG
- Study overview and update on project activities
- Debrief on Public Information Centre #2
- Breakout sessions:
 - **Session 1:** Overview of the evaluation of the short listed route and interchange location alternatives, Technically Preferred Route and 2019 Focused Analysis Area
 - **Session 2:** Application of the Guideline for Planning and Design of the GTA West Corridor Through the Greenbelt (2013)
- Next steps/schedule
- Open forum



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GETTING AND GIVING THE MOST

- It's OUR meeting...participate enthusiastically
- Focus on the future
- Terminology expertise is secondary
- There is such a thing as a bad idea!
- Build, don't duplicate
- Respect (for each other and the process)
- Voices without titles
- Consensus on no consensus
- Informal style, structured approach
- No dissertations (rather, 'rap and roll')



ABOUT THE GTAG

- The Greenbelt Transportation Advisory Group (GTAG) comprises members from environmental agencies, interest groups and individuals with a specific interest in the Greenbelt
- The GTAG is a volunteer group that provides advice to the GTA West Project Team
- The GTAG will:
 - Share information regarding key environmental and agricultural features
 - Discuss potential impacts to sensitive features within the Greenbelt
 - Discuss and generate mitigation strategies to be used in the Greenbelt
 - Provide input into the potential update of the Greenbelt Guideline



PURPOSE, ROLES AND RESPONSIBILITIES

- The Membership in the GTAG is for the duration of the Stage 2 Study
- Members should try to attend all meetings to ensure consistency in discussions
- Members must be prepared to accept differences of opinions within the GTAG
- Help the GTAG operate effectively by offering suggestions and alternatives to issues
- Members should prepare for meetings in advance and consult with members' organizations if possible
- Declare a conflict of interest in a matter under consideration



MINUTES OF GTAG MEETING #2

- GTAG Meeting #2 held on May 7, 2015
- The group discussed:
 - Project activities that occurred since Public Information Centre #1
 - The two methodologies being used by the Project Team to evaluate the short list of route alternatives, including the evaluation factors being used
 - Attendees provided comments on the factors, sub-factors, criteria and measures that the Project Team were to use to evaluate the short list of route alternatives
 - For the arithmetic evaluation method, attendees were asked to identify the importance of the natural, land use/socio-economic, and cultural environments as well as transportation by assigning weights out of 100 to each factor (for both urbanized and rural/natural/agricultural areas)
 - Key issues and trade-offs in the west, central and east sections of the study area
- Minutes were finalized and available on the project website



PLANNING WITH VISION, PLANNING FOR PEOPLE

- The need for the GTA West Study remains and is strengthened by the GGH population and employment growth forecasts, reflecting more people and jobs by 2041 - it is good practice to do long-range planning for areas under development pressure
- Committed to an open and transparent process that provides opportunities for all stakeholders to help shape the outcome of the project
- Strive to arrive at a recommended solution that provides the best balance of benefits and impacts for the local communities and the users of the transportation system

To accomplish this, we are committed to engaging our stakeholders in open two-way communication that leads to meaningful discussions, proactive information exchange and a constructive working relationship



GTA WEST – A SHORT HISTORY

- 2008:** Terms of Reference was approved March 2008
-
- 2008 to 2012:** Stage 1 of the GTA West Study (Systems Planning) recommended a Transportation Development Strategy (TDS)
-
- 2014 to 2015:** Stage 2 of the GTA West Study (Route Planning and Preliminary Design of the multimodal transportation corridor component of the TDS)
-
- December 2015:** The GTA West Study was suspended
- Prior to suspension, the Project Team had identified a Technically Preferred Route, but had not yet presented the route to the public
-
- Spring 2016:** Independent Advisory Panel asked to assess the GTA West Study in light of transportation technologies/changes in government policies
-
- February 2018:** Advisory Panel report was released. The former government announced that the province would not proceed with the GTA West Study
-
- February 2018:** MTO and the Independent Electricity System Operator (IESO), with support from the Ministry of Energy, initiated a study called the Northwest GTA Corridor Identification Study to identify and protect lands for a multipurpose linear infrastructure corridor
-
- November 2018:** 2018 Fall Economic Statement noted that Ontario is doing the work necessary to resume the Environmental Assessment (EA) for the GTA West multimodal transportation corridor
-
- June 2019:** On June 19, 2019, the government announced that the GTA West Study will resume from its point of suspension in 2015
- The GTA West Study will protect lands for a future multimodal transportation corridor
 - The Northwest GTA Corridor Identification Study will not be proceeding
 - The Ministry of Energy, Northern Development and Mines and IESO have initiated a new separate study to identify an adjacent electricity transmission corridor

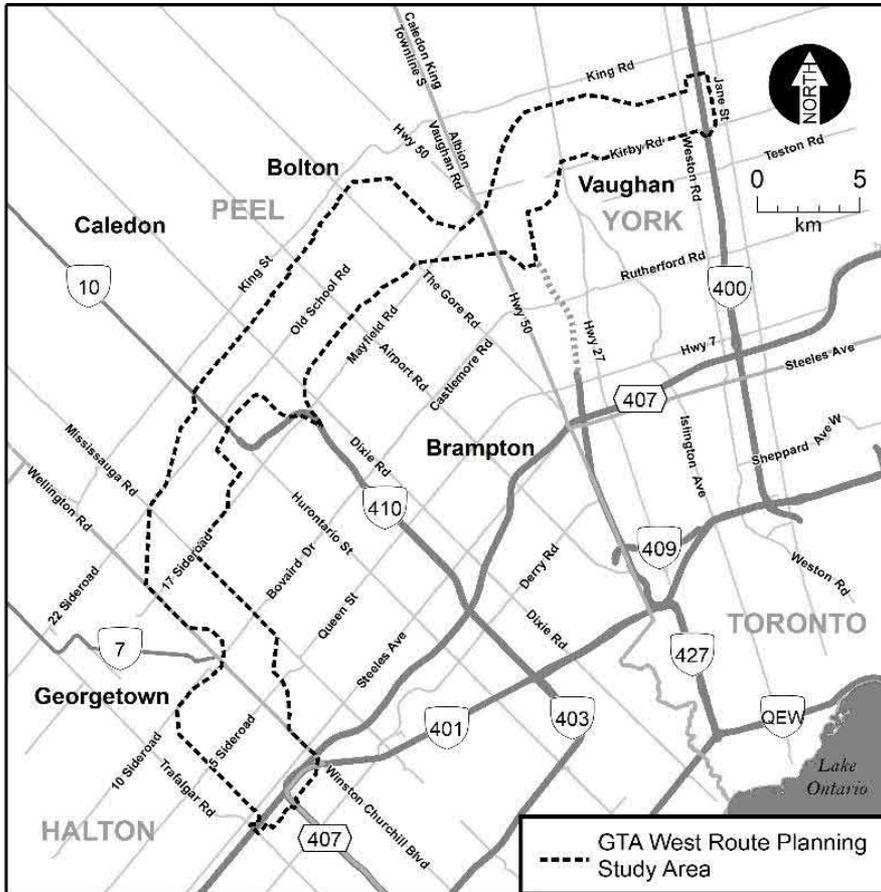


STUDY OVERVIEW

Stage 2:

GTA West Study focuses on a new multimodal transportation corridor:

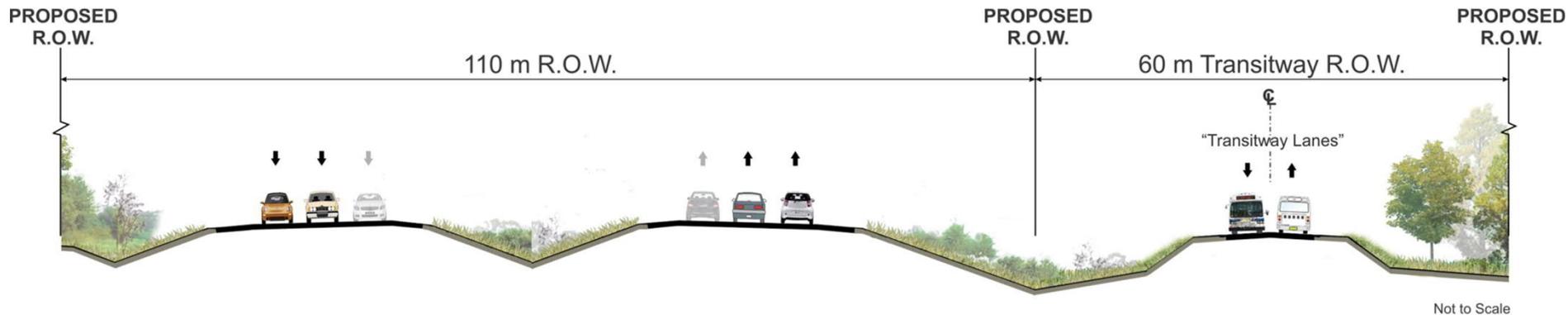
- Extending from Highway 400 in the east to the Highway 401/407 ETR interchange area in the west
- Includes a 400-series highway, transitway, and potential goods movement priority features





THE NEW MULTIMODAL CORRIDOR

- The multimodal transportation corridor will initially be designed as a 4- to 6-lane highway with a separate adjacent transitway
- The total proposed right-of-way (ROW) will be 170m





WHAT HAS BEEN DONE TO RESUME THE STUDY?

- To select the Technically Preferred Route in 2015, lead environmental and transportation specialists had completed a comprehensive evaluation of each short list route alternative
- Following the recent resumption of the GTA West Study, the evaluation was updated including a review of more recent policies and plans, including, but not limited to:
 - The Growth Plan for the Greater Golden Horseshoe (2019)
 - Greenbelt Plan (2017)
 - Source Protection Plans for Credit Valley, Halton and Toronto and Region Conservation Authority Areas (2017)
 - Municipal Official Plans and Transportation Master Plan updates
 - Municipal Secondary Plans including existing and proposed developments
 - General changes in land use and existing conditions since 2015
 - Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads (2017) and MTO Supplement for the TAC Geometric Design Guide for Canadian Roads (2017)
 - Updates to secondary source natural environment data, as applicable and publicly available
- The Preferred Route is being reviewed and confirmed based on feedback provided from Public Information Centre #2 and the continued collection of relevant data



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STAGE 2 STUDY SCHEDULE

Activity	2014	2015	2019	2020	2021	2022
Study Commencement	●					
Data Collection / Constraints Mapping	■					
Introductory Meetings and Workshops		■				
Generate Route Planning Alternatives	■					
Meetings with Advisory Groups and Councils		■				
Public Information Centre #1		●				
Assess and Evaluate Alternatives		■				
Advisory Group Meetings		■				
Community Workshop #2		■				
Meetings with Indigenous Communities		■				
Public Information Centre #2			●			
Meetings with Advisory Groups and Councils			■			
Meetings with Indigenous Communities			■			
Confirmation of Preferred Route			■			
Notification of Confirmed Preferred Route				■		
Preliminary Design of Preferred Route			■		■	
Specialist Fieldwork				■		
Community Workshop #3					●	
Community Workshop #4					●	
Meetings with Advisory Groups and Councils					■	
Meetings with Indigenous Communities					■	
Public Information Centre #3					●	
Technical Reports / EA Documentation					■	
Stakeholder and Indigenous Community Review of Draft EA Report						■
Incorporate Comments from Stakeholder and Indigenous Community Review						■
Submission to MECP						■

- WE ARE HERE -

→ Study suspension: late 2015 to mid 2019

*Schedule is subject to change



WHAT WE HEARD AT PIC #2

- Approx. 1000 stakeholders attended
- Mixture of support and opposition for the Technically Preferred Route but majority of input was supportive:
 - The transportation corridor is needed, expedite the EA process, start construction as soon as possible
 - Protect for extra land now so that future widening of the right-of-way is not required
 - Concern about congestion on connecting roads (e.g. Mayfield Rd, Hwy 400, Hwy 401, Coleraine Dr, Weston Rd, etc.)
 - The transportation corridor should go west to Guelph, east past Highway 400 and be closer to Highway 9 in the north
 - Concern about impacts to nearby property owners (noise, air quality, etc.) and inquiries about mitigation measures
 - Mixed feelings about impacts to agricultural and Greenbelt lands. Some felt these features were given priority in the evaluation and appropriately influenced route selection (i.e. crossing of Credit and Humber Rivers) while others expressed concern about ability to support food production and ecosystem services



WHAT WE HEARD AT PIC #2

- Mixture of support and opposition for the Technically Preferred Route but majority of input was supportive:
 - Mixed feelings on Preferred Route S1-2. Some say it provides good access to the designated future employment lands while others are concerned about congestion on Trafalgar Road
 - Mixed feelings on whether Preferred Route S2-2 provides convenient access to Brampton and Georgetown. Some say it is further east from Norval and avoids segregating the broader community while others say it doesn't address the congestion issues in Norval (Bovaird Drive interchange with Preferred Route S3-4 may exacerbate the problems)
 - Preferred Routed S4-1 minimizes impacts to the natural environment (including agriculture) and residential properties but impacts the Mayfield West Phase 2 development



WHAT WE HEARD AT PIC #2

- Mixture of support and opposition for the Technically Preferred Route but majority of input was supportive:
 - Support for new extension of Highway 410 rather than using existing Highway 410 (minimizes impacts to Valleywood) in Section 5
 - Mixed feelings about proximity to Brampton-Caledon Airport. Concern regarding potential impacts to operations while others want the route moved closer to condense land uses
 - The interchange at Coleraine Drive in Section 6 conflicts with an approved development to the north
 - Extend Highway 427 to Highway 9 in Section 7
 - The emphasis on protecting Greenbelt lands and the Humber River in Sections 8 and 9 appropriately influenced route selection



WHAT WE HEARD AT PIC #2

- Support for the transitway
 - The transitway only makes sense if it connects to other mass transit systems
 - Incorporate active transportation along the transitway
 - Support for transition from BRT to LRT
 - Consider both buses and trucks using the transitway
- Support for goods movement priority features
 - Support for truck only lanes
- Support for the 2019 Focused Analysis Area
 - Appreciate that over 60% of the Route Planning Study Area is in the green area (area of reduced interest)
 - Inquiries about when development restrictions will be lifted
- Other
 - Inquiries about land acquisition, permission to enter process, possibility of tolling, scope of separate electricity transmission study
 - Requests for digital mapping of Technically Preferred Route to understand impacts and coordinate works
 - The Project Team did a good job evaluating the route alternatives and explaining the rationale for their decisions



CONSULTATION & ENGAGEMENT

- Public Information Centres (3 rounds)
- Community workshops (4 rounds)
 - 2 rounds focused on Community Value Plans
- Ongoing consultation with Indigenous Communities
- Stakeholder advisory groups, municipal working groups, meetings with landowners, and Council presentations
- Website, email, toll-free telephone, Twitter, Ontario Government Notices and brochures



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TWITTER		@GTAWestStudy

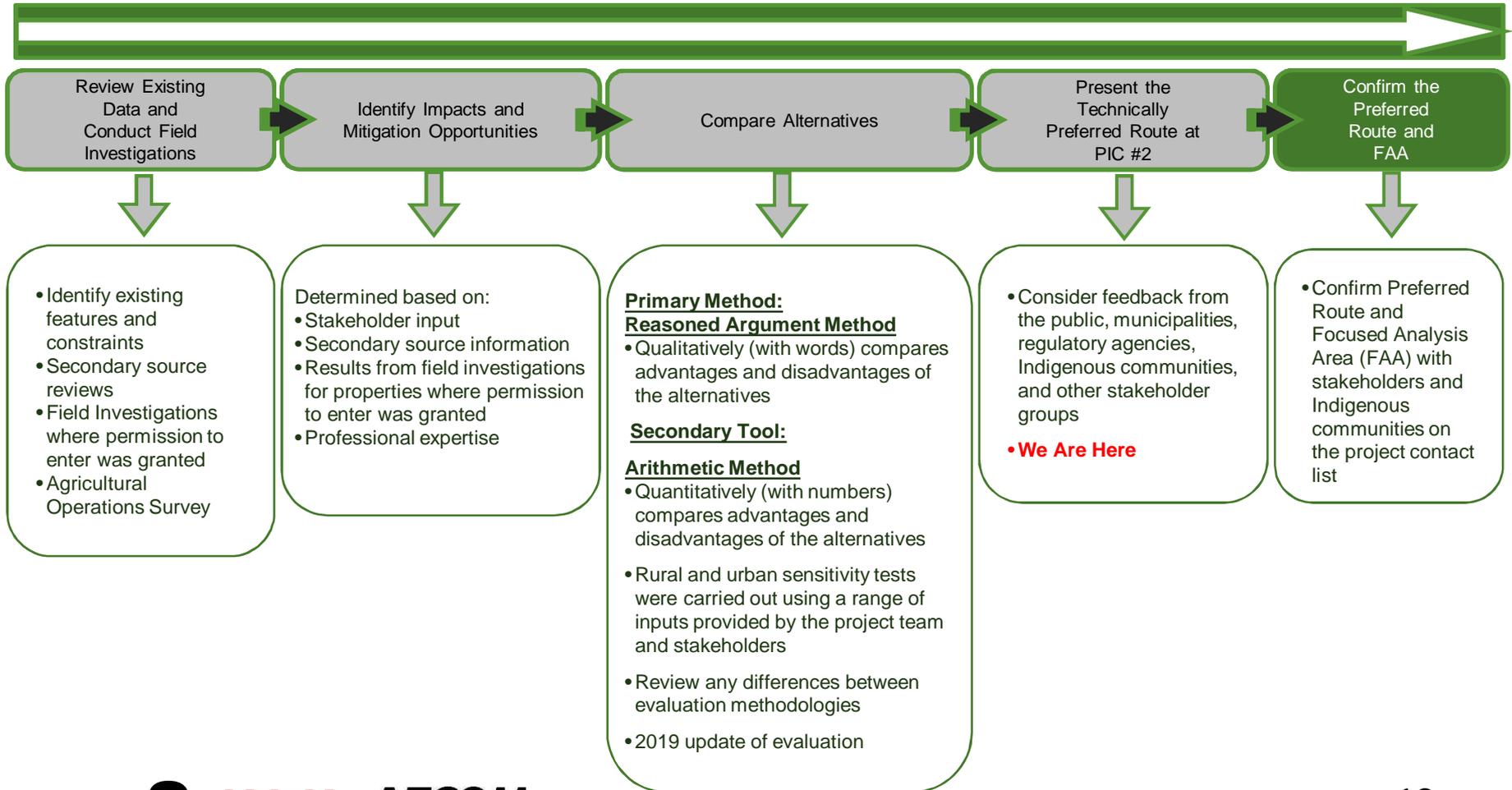


Session 1:

Overview of the evaluation of the short listed route and interchange location alternatives, Technically Preferred Route and 2019 Focused Analysis Area

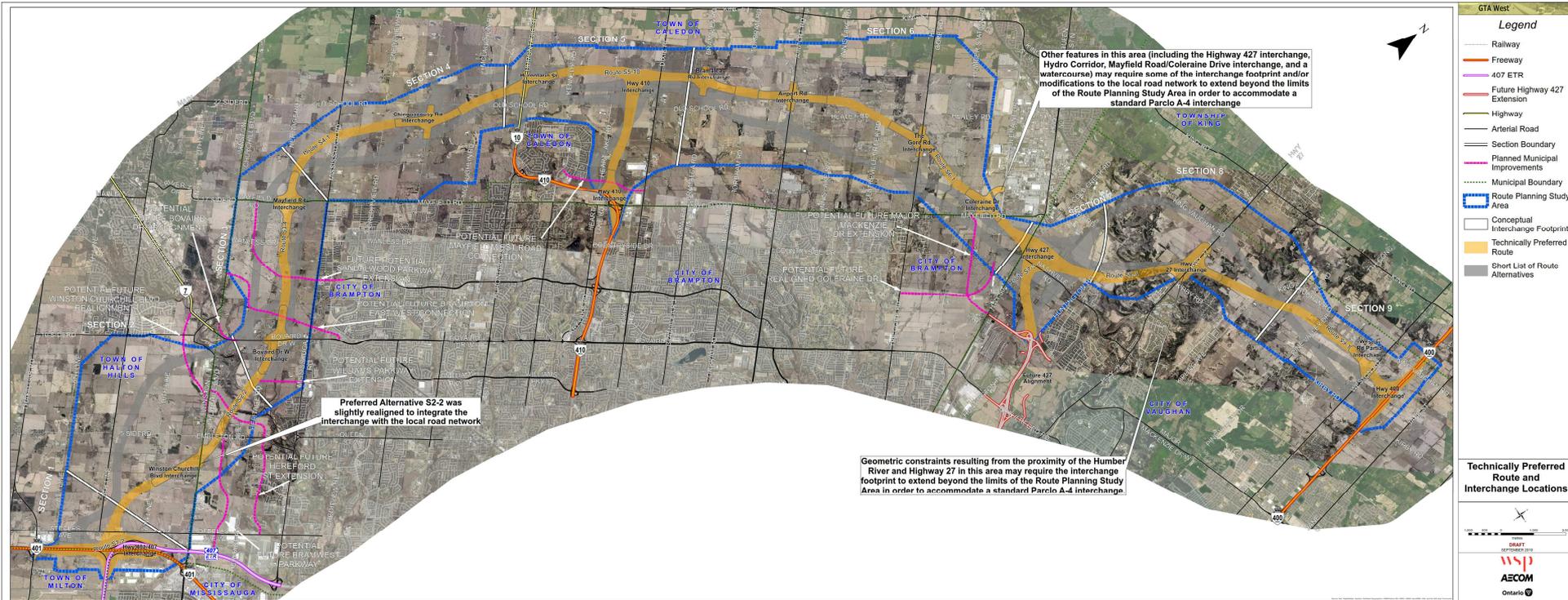


ROUTE EVALUATION PROCESS





TECHNICALLY PREFERRED ROUTE



GTA West

Legend

- Railway
- Freeway
- 407 ETR
- Future Highway 427 Extension
- Highway
- Aerial Road
- Section Boundary
- Planned Municipal Improvements
- Municipal Boundary
- Route Planning Study Area
- Conceptual Interchange Footprint
- Technically Preferred Route
- Short List of Route Alternatives

Technically Preferred Route and Interchange Locations

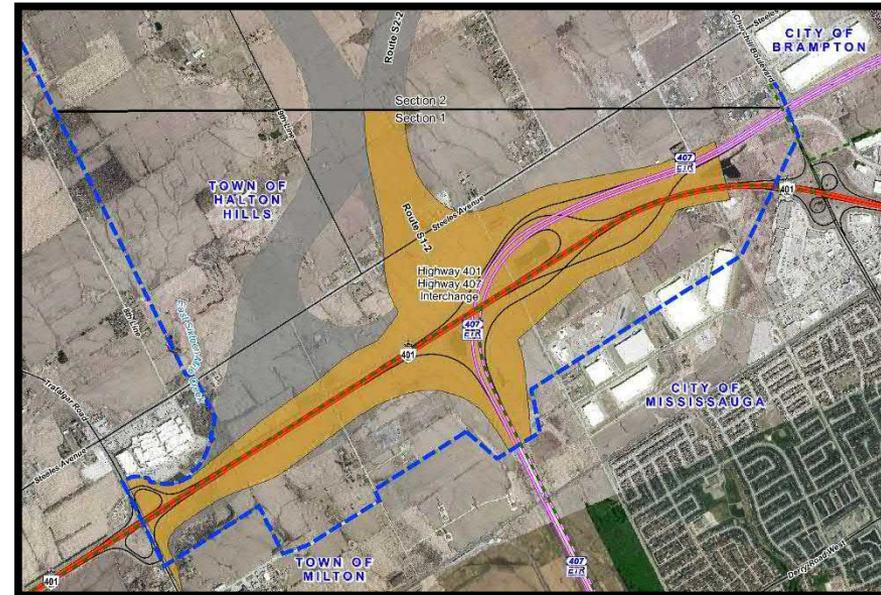
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SECTION 1 PREFERRED ALTERNATIVE: S1-2

Preferred from Natural, Land Use / Socio-Economic and Transportation perspectives:

- Significantly smaller footprint resulting in less impacts to the natural environment and other surrounding land uses
- Further from East Sixteen Mile Creek and the existing rural residences on 9th Line
- Shorter and more direct transportation link, resulting in smaller secondary effects
- Provides access between GTA West and Trafalgar Road, providing good access to the designated future employment lands, which is precluded with Alternative S1-1
- Supports the efficient movement of people and goods, and network connectivity
- Higher construction cost of Alternative S1-2 is offset by the anticipated increase in property cost associated with acquiring designated future employment area lands in Alternative S1-1

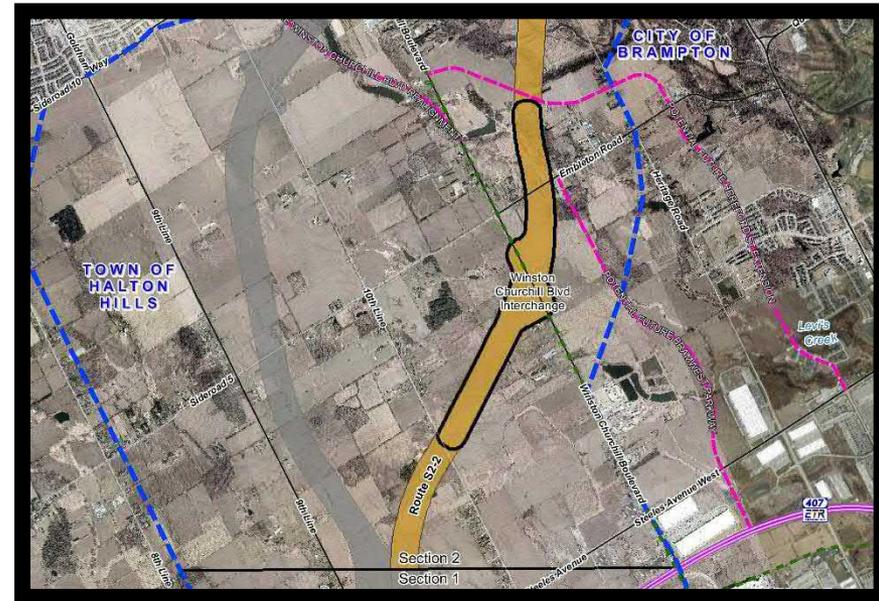




SECTION 2 PREFERRED ALTERNATIVE: S2-2

Preferred from Natural, Land Use / Socio-Economic, Cultural and Transportation perspectives:

- Provides the best crossing of the Credit River
- Lower impacts to fish and fish habitat
- Shorter and more direct transportation link, resulting in smaller secondary effects
- Impacts less agricultural lands and livestock / high investment operations
- Further east from the Village of Norval and avoids segregating that broader community
- Provides convenient and improved access to Brampton and Georgetown, does not preclude a future Norval Bypass or connection to the proposed BramWest Parkway, aligns more closely with municipal transportation strategies for Halton Hills and Brampton, and better supports proposed employment lands
- Most constructible and has the lowest construction cost and best traffic operations

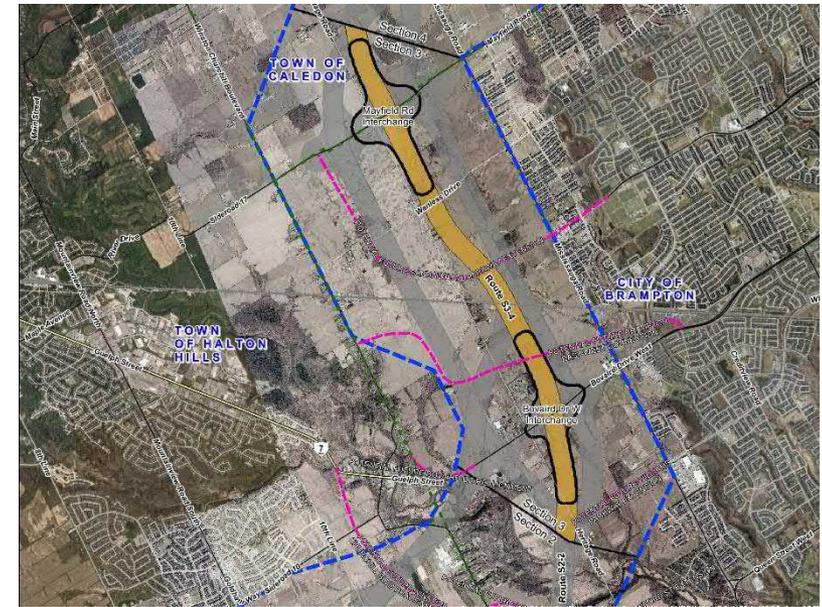




SECTION 3 PREFERRED ALTERNATIVE: S3-4

Preferred from a Transportation perspective:

- Minimizes wildlife habitat, wetland, and woodland community removal
- Avoids impacts to designated natural areas, including Greenbelt lands
- Connects well to the preferred crossing of the Credit River in Section 2
- Minimizes significant impacts to existing institutional facilities.
- Opportunities to avoid/minimize impacts to proposed Catholic Cemetery may be possible through design refinements
- Generally aligns with future land uses
- Considered the most constructible
- Provides the best opportunity for an interchange at Bovard Drive
- Supports traffic safety and operations





SECTION 4 PREFERRED ALTERNATIVE: S4-1

Preferred from Natural, Land Use / Socio-Economic, Cultural and Transportation perspectives:

- Minimizes impacts to watersheds and sub-watersheds, wetlands, woodlands and designated areas (e.g. Greenbelt)
- Has the fewest residential impacts (direct impacts and secondary noise impacts)
- Most preferred from an agricultural perspective as it has the lowest overall impacts
- Connects well with the preferred Section 3 alternative
- Has similar cost, traffic operations and level of constructability as the other well ranked alternatives

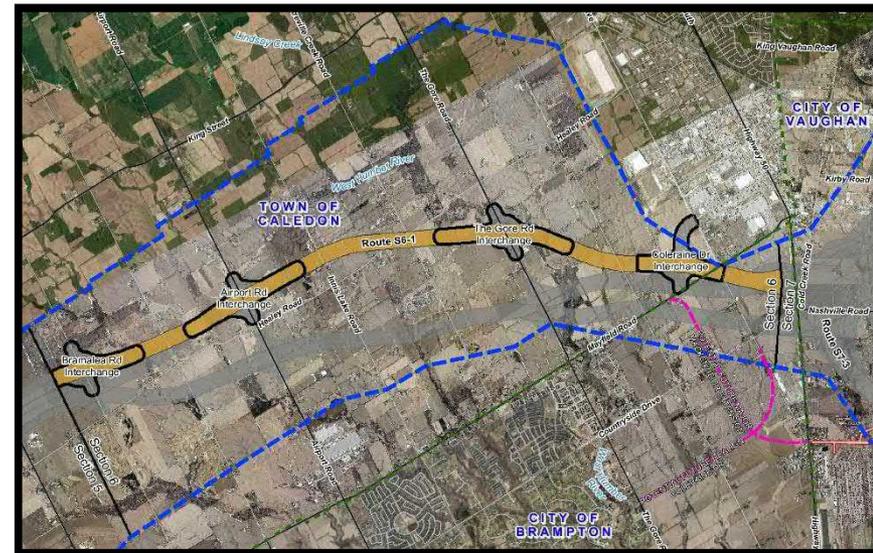




SECTION 6 PREFERRED ALTERNATIVE: S6-1

Preferred from Natural, Land Use / Socio-Economic and Transportation perspectives:

- Least impact to fish and fish habitat, minimizes impacts to wildlife and wildlife habitat, wetlands
- Impacts the fewest residential properties and private wells
- Low impacts to commercial/industrial properties and future development
- Avoids impacts to high-investment farming operations
- Accommodates a full moves interchange in the area of Coleraine Drive (realignment likely required to achieve an acceptable separation distance to the Highway 427 extension)
- Has a moderate relative cost to the other well ranked transportation alternative (S6-4)
- Connects well to the preferred Section 5 alternative



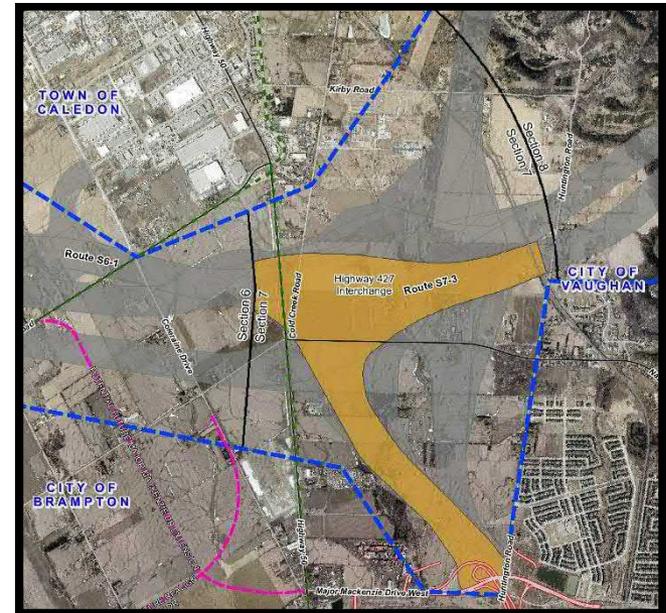


SECTION 7 PREFERRED ALTERNATIVE: S7-3

The Project Team identified the best route east and west of the hydro corridor and then compared them to select the overall preferred route for Section 7.

The preferred route west of the hydro corridor was Alternative S7-3. The preferred route east of the hydro corridor was Alternative S7-9. Alternative S7-3 is preferred overall versus S7-9:

- Less impacts to groundwater sensitive ecosystems and wellhead protection areas
- Less noise impacts to existing and proposed residences to the east
- Moderate impacts to built heritage resources and cultural heritage landscapes
- Minor impacts to the hydro corridor, railway and TransCanada pipeline
- Accommodates a full moves interchange in the area of Coleraine Drive (realignment likely required to achieve an acceptable separation distance to the Highway 427 extension and optimize traffic operations to/from Coleraine Drive interchange)
- Constructability and connectivity were principle considerations in Section 7. S7-3 is considered the most constructible and it connects well to the Section 8 Humber River crossing, reducing overall environmental impacts





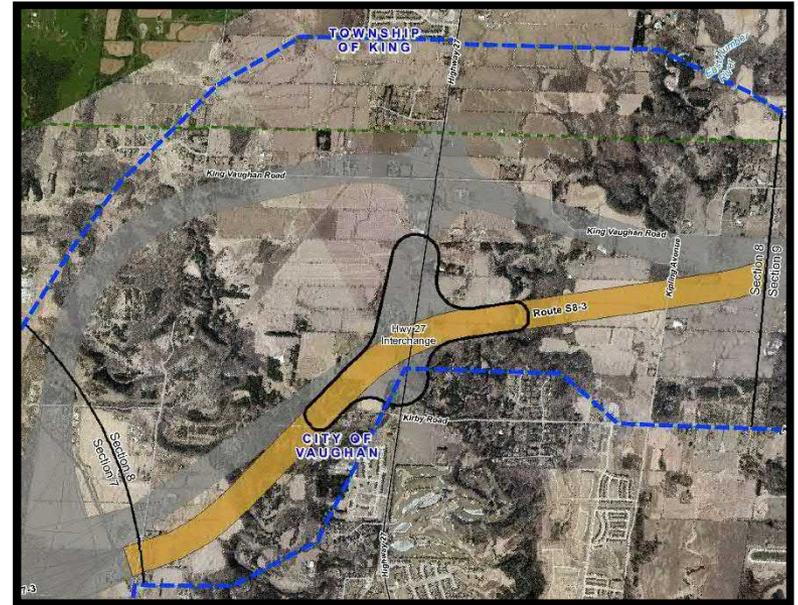
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SECTION 8 PREFERRED ALTERNATIVE: S8-3

Preferred from Natural, Land Use / Socio-Economic and Transportation perspectives:

- Lowest overall impacts to fish and fish habitat, wildlife and wildlife habitat, woodlands and vegetation, watersheds, and surface water
- Best location with most flexibility for the Humber River crossing due to its distance from the large meander
- Impacts the least amount of Greenbelt and agricultural lands and is preferred from a provincial land use policy perspective
- Impacts more residential properties but minimizes impacts to commercial properties, avoids impacts to high-investment farming operations, and has a higher probability of avoiding a waste disposal site
- Low construction cost and is considered the most constructible





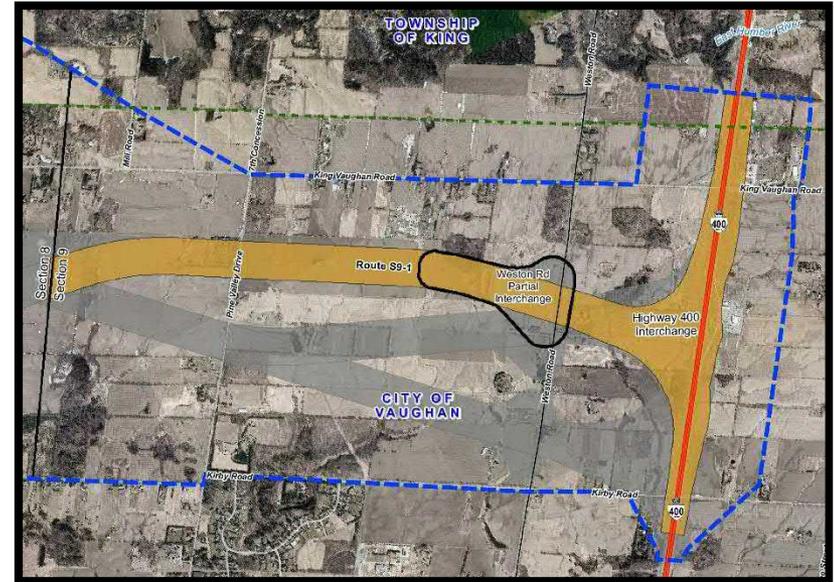
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SECTION 9 PREFERRED ALTERNATIVE: S9-1

Preferred from Natural, Cultural and Transportation perspectives:

- Minimizes impacts to fish and fish habitat, designated areas and ecosystem services, with relatively simple and perpendicular watercourse crossings
- Least impact on Greenbelt lands
- Minimizes impacts to employment and future urban area lands
- Low residential property impacts
- Low potential for constructability issues
- Better angle of approach for the Highway 400 interchange





EVALUATION CRITERIA FOR SELECTING PREFERRED INTERCHANGE LOCATIONS

- Potential interchange locations along each route alternative were selected based on:
 - **Level of connectivity to the highway network**
 - **Level of connectivity to the municipal road network and initiatives**
 - **Level of connectivity to transit**
 - **Traffic demand**
 - **Spacing between interchanges**
- Potential interchange locations on the short list of route alternatives were discussed with municipal staff prior to the 2015 evaluation of route alternatives
- Key trade-offs between potential interchange location alternatives were considered in the evaluation of route alternatives
- After selection of the Technically Preferred Route, the potential interchange locations along that route were reviewed again using the above criteria and the preferred interchange locations were selected



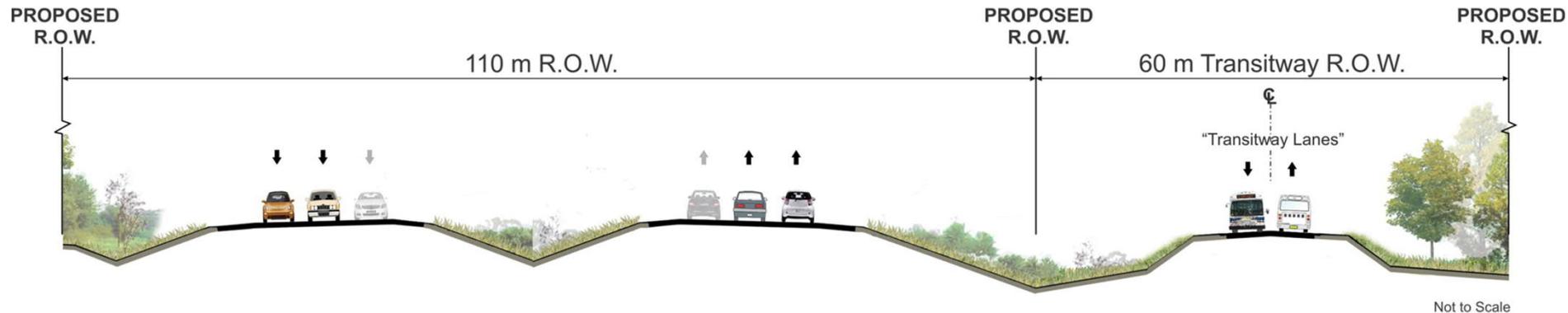
1	Highway 401/407 ETR freeway-to-freeway interchange – Aligns with Technically Preferred Route for Section 1
2	Winston Churchill Boulevard, Tenth Line or Embleton Road Interchange: Winston Churchill Boulevard preferred <ul style="list-style-type: none"> Winston Churchill Boulevard provides better connections to urban growth centres and appropriate interchange spacing to provide desirable connections to the municipal road network Opportunity to integrate with future municipal road improvements such as realigned Winston Churchill Boulevard and/or Bram West Parkway (planned municipal initiative)
3	Heritage Road, Bovaird Drive or Future Sandalwood Parkway Extension: Bovaird Drive preferred <ul style="list-style-type: none"> Provides appropriate connections with the municipal road network and provides desirable interchange spacing Bovaird Drive is the major east/west arterial connecting urban centres in Halton Hills and Brampton Bovaird Drive provides better interchange spacing to the Winston Churchill Boulevard interchange than at Heritage Road Better road geometry for an interchange at Bovaird Drive than at Heritage Road An interchange at the future Sandalwood Parkway Extension is not precluded from future consideration by municipalities
4	Mayfield Road or Mississauga Road Interchange: Mayfield Road preferred <ul style="list-style-type: none"> Based on continuity and proximity to the GTA West Corridor, Mayfield Road is envisioned to be a key east-west route There is better road geometry at Mayfield Road than at Mississauga Road
5	Chinguacousy Road Interchange – Aligns with Technically Preferred Route for Section 4
6	Highway 410, Hurontario Street, Dixie Road and Bramalea Road Interchanges: Freeway-to-freeway interchange at New Highway 410 Connection (along the extension of Highway 410 to the north) plus Interchanges at Hurontario Street and Bramalea Road preferred <ul style="list-style-type: none"> Since a new Highway 410 connection is preferred, a freeway-to-freeway interchange is recommended at Highway 410 in the area of Dixie Rd Interchanges at Hurontario Street and Bramalea Road are spaced at a desirable distance from the freeway-to-freeway interchange and will provide good access to the municipal road network An interchange at Dixie Road would result in undesirable grades and interchange spacing which would result in weaving concerns with the freeway-to-freeway interchange
7	Modifications to Existing Highway 410/Mayfield Road and Highway 427/Major Mackenzie Drive Interchanges – Aligns with Technically Preferred Routes for Sections 5 and 11

8	Airport Road Interchange – Aligns with Technically Preferred Route for Section 6
9	The Gore Road Interchange – Aligns with Technically Preferred Route for Section 6
10	Coleraine Drive/Mayfield Road Area Interchange <ul style="list-style-type: none"> A full moves interchange is desirable to connect to existing and future urban growth centres Local municipalities support a full interchange with a road that runs north-south (like Coleraine Drive) Proximity to the GTA West/Highway 427 freeway-to-freeway interchange creates a constraint to locating the interchange on Coleraine Drive (not enough spacing between interchanges) Proposed strategy is to realign Coleraine Drive and then provide a full interchange
11	Highway 427 freeway-to-freeway interchange and Highway 50 Interchange: Freeway-to-freeway Interchange at Highway 427 Preferred <ul style="list-style-type: none"> Based on the Technically Preferred Route, an interchange at both Highway 427 and Highway 50 is not possible
12	Highway 27 interchange – Aligns with Technically Preferred Route for Section 8
13	Pine Valley Drive Interchange or Partial Interchange at Weston Road: Partial interchange at Weston Road preferred <ul style="list-style-type: none"> An interchange to the west of Highway 400 provides a desirable connection with the municipal road network Pine Valley Drive is not continuous north or south of the study area and there are no planned urban growth centres along Pine Valley Drive Weston Road provides a connection to a planned urban growth centre
14	Highway 400 freeway-to-freeway interchange – Aligns with Technically Preferred Route for Section 9



THE GTA WEST TRANSITWAY

- The GTA West transitway will run parallel to the GTA West highway and will:
 - Allow buses (and potentially in the future, light rail vehicles) to operate on express schedules
 - Include stations at strategic locations and provide transit connections with buses onto major arterial roadways, Highway 401, 407ETR, Highway 427, Highway 410, and Highway 400
- The transitway will be further developed to confirm:
 - Alignment, roadway crossing details, terminus configurations
 - Opportunities to integrate with existing and future transit services
 - Station locations and layouts
 - Opportunities to integrate with existing and future development





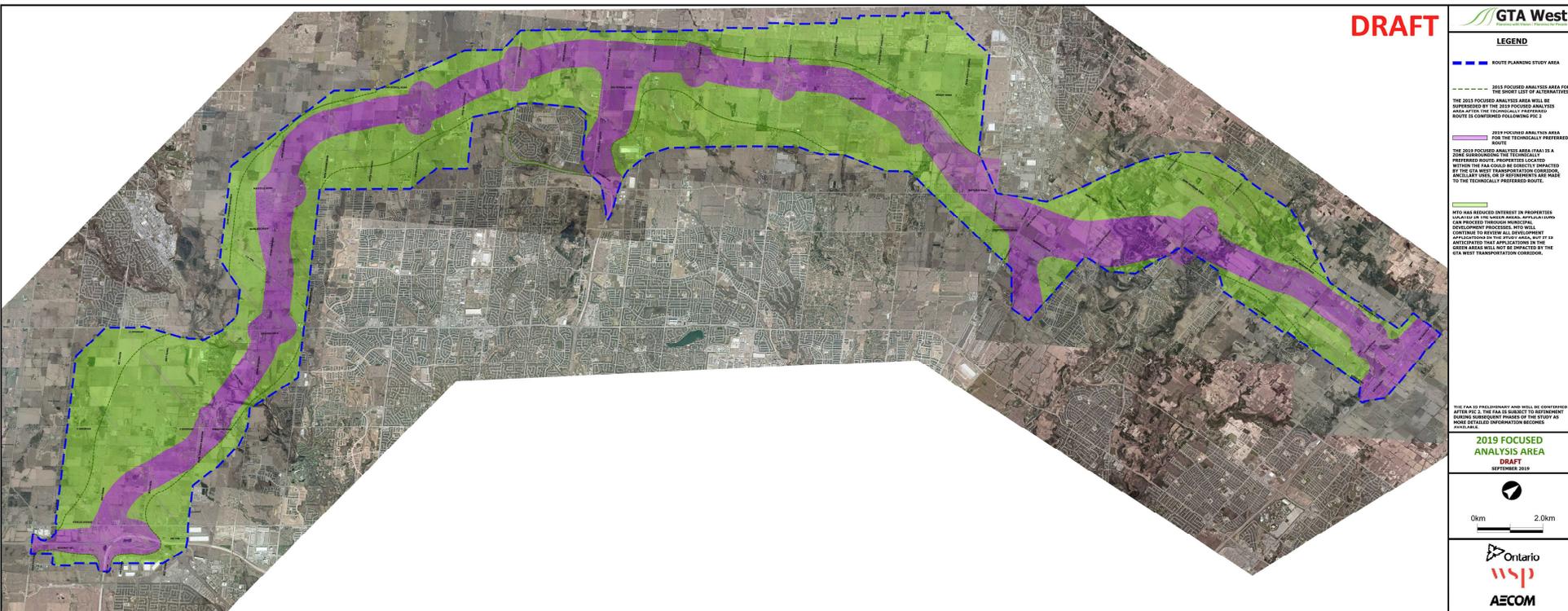
GOODS MOVEMENT PRIORITY FEATURES

- Potential goods movement features have been screened:

Feature	Screening
Truck only lanes	✓ Carry forward for further consideration
Combined truck/transit lanes	✗ Do not carry forward <ul style="list-style-type: none"> Reduces level of service of the transitway by introducing additional traffic The transitway requires restricted access which prohibits use by other traffic
Truck use of potential HOV lanes during off-peak hours	✗ Do not carry forward <ul style="list-style-type: none"> No operational benefits in off-peak hours Introduces additional lane changes for trucks to access HOV Lanes
Intelligent Transportation Systems (ITS) features, such as variable message signs and real time traveler information	✓ Carry forward for further consideration
Longer speed change lanes	✓ Carry forward for further consideration
Enhanced design to accommodate Long Combination Vehicles	✓ Carry forward for further consideration
Truck only interchange ramps, where warranted by truck volumes	✗ Do not carry forward <ul style="list-style-type: none"> Creates additional enforcement requirements Interchanges are provided for key freight trip generators, and there is insufficient space for additional ramps in these areas without compromising highway design guidelines
Truck parking facilities	✓ Carry forward for further consideration
Enforcement features (weigh and inspection stations), including automated weigh stations	✓ Carry forward for further consideration



2019 FOCUSED ANALYSIS AREA



DRAFT

LEGEND

- ROUTE PLANNING STUDY AREA
- 2019 FOCUSED ANALYSIS AREA FOR THE SHORT LIST OF ALTERNATIVES
- THE 2019 FOCUSED ANALYSIS AREA WILL BE SUPERSEDED BY THE 2023 FOCUSED ANALYSIS AREA AFTER THE TECHNICALLY PREFERRED ROUTE IS CONFIRMED FOLLOWING PIC 2
- 2019 FOCUSED ANALYSIS AREA FOR THE TECHNICALLY PREFERRED ROUTE
- THE 2019 FOCUSED ANALYSIS AREA (FAA) IS A ZONE SURROUNDING THE TECHNICALLY PREFERRED ROUTE. PROPERTIES LOCATED WITHIN THE FAA COULD BE DIRECTLY IMPACTED BY THE GTA WEST TRANSPORTATION CORRIDOR. ADDITIONAL STUDY OF IMPACTS ARE MADE TO THE TECHNICALLY PREFERRED ROUTE.
- MTQ HAS REQUESTED INTEREST IN PROPERTIES IDENTIFIED AS THE GREEN AREAS. CAN PROCEED THROUGH MUNICIPAL DEVELOPMENT PROCESSES. MTO WILL CONTINUE TO REVIEW ALL DEVELOPMENT APPLICATIONS IN THE STUDY AREA, NOT AT ALL AFFECTED THAT APPLICATIONS IN THE GREEN AREAS WILL NOT BE IMPACTED BY THE GTA WEST TRANSPORTATION CORRIDOR.

THE FAA IS PRELIMINARY AND WILL BE CONFIRMED AFTER PIC 2. THE FAA IS SUBJECT TO REFINEMENT DURING SUBSEQUENT PHASES OF THE STUDY AS MORE DETAILED INFORMATION BECOMES AVAILABLE.

2019 FOCUSED ANALYSIS AREA
DRAFT
SEPTEMBER 2019

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Session 2:

Application of the Guideline for Planning and Design of the GTA West Corridor Through the Greenbelt (2013)

- A)** Key changes to the Greenbelt Act, in relation to the 2013 Guideline
- B)** Summary of Greenbelt Guideline Recommendations
- C)** Group Activity - Do the principles and approach identified in the 2013 Guideline remain appropriate based on the current Greenbelt Plan?



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Key Changes to the Greenbelt Act, in Relation to the 2013 Guideline



KEY CHANGES TO THE GREENBELT ACT, IN RELATION TO THE 2013 GUIDELINE

Policy 4.2.1.2 of the *Greenbelt Plan (2017)* notes that permitted infrastructure is subject to **five eight** key location, design and construction criteria which are as follows:

Five Eight Key Greenbelt Infrastructure Criteria and Topic Area Linkage

#	Greenbelt Plan Infrastructure Criteria	Topic Area
1	<i>Policy 4.2.1.2(a)</i> Planning, design and construction practices shall minimize, wherever possible, the amount of the Greenbelt, and particularly the Natural Heritage System and Water Resource System , traversed and/or occupied by such <i>infrastructure</i> ;	<ul style="list-style-type: none"> • Road Ecology / Wildlife • Agriculture • Geometric Design • Bridges
2	<i>Policy 4.2.1.2(b)</i> Planning, design and construction practices shall minimize, wherever possible, the <i>negative impacts</i> and disturbance of the existing landscape, including, but not limited to, impacts caused by light intrusion, noise and road salt;	<ul style="list-style-type: none"> • Community Sensitive Design • Road Ecology / Wildlife • Stormwater Management • Geometric Design • Bridges



KEY CHANGES TO THE GREENBELT ACT, IN RELATION TO THE 2013 GUIDELINE (CONT.)

#	Greenbelt Plan Infrastructure Criteria	Topic Area
3	<p><i>Policy 4.2.1.2(c)</i> Where practicable, existing capacity and coordination with different <i>infrastructure</i> services is optimized so that the rural and existing character of the Protected Countryside and the overall <i>hierarchy of areas where growth will be accommodated in the GGH established by the Greenbelt Plan and the Growth Plan</i> urban structure for southern Ontario established by the Greenbelt and any provincial growth management initiatives are supported and reinforced;</p>	<ul style="list-style-type: none"> • Agriculture • Bridges
4	<p><i>Policy 4.2.1.2(d)</i> New or expanding <i>infrastructure</i> shall avoid <i>key natural heritage features</i>, or <i>key hydrologic features</i> <i>or key hydrologic areas</i> unless need has been demonstrated and it has been established that there is no reasonable alternative;</p>	<ul style="list-style-type: none"> • Road Ecology / Wildlife • Agriculture • Geometric Design • Bridges
5	<p><i>Policy 4.2.1.2(e)</i> Where <i>infrastructure</i> does cross the Natural Heritage System or intrude into or result in the loss of a <i>key natural heritage feature</i>, or <i>key hydrologic feature</i> <i>or key hydrologic areas</i>, including related <i>land-form features</i>, planning, design and construction practices shall minimize <i>negative impacts on</i> and disturbance <i>of or</i> the features or their related functions and, where reasonable, maintain or improve <i>connectivity</i>.</p>	<ul style="list-style-type: none"> • Road Ecology and Wildlife • Community Sensitive Design • Agriculture • Stormwater Management • Geometric Design • Bridges



KEY CHANGES TO THE GREENBELT ACT, IN RELATION TO THE 2013 GUIDELINE (CONT.)

#	Greenbelt Plan Infrastructure Criteria	Topic Area
6	<i>Policy 4.2.1.2(f)</i> New or expanding <i>infrastructure</i> shall avoid <i>specialty crop areas</i> and other <i>prime agricultural areas</i> in that order of priority, unless need has been demonstrated and it has been established that there is no reasonable alternative	<ul style="list-style-type: none"> • Agriculture
7	<i>Policy 4.2.1.2(g)</i> Where <i>infrastructure</i> crosses <i>prime agricultural areas</i> , including <i>specialty crop areas</i> , an agricultural impact assessment or equivalent analysis as part of an environmental assessment shall be undertaken; and	<ul style="list-style-type: none"> • Agriculture
8	<i>Policy 4.2.1.2 (h)</i> New waste disposal sites and facilities, and organic soil conditioning sites are prohibited in <i>key natural heritage features</i> , <i>key hydrologic features</i> and their associated <i>vegetation protection zones</i> .	<ul style="list-style-type: none"> • Not applicable



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Summary of Greenbelt Guideline Recommendations



SUMMARY OF GREENBELT GUIDELINE RECOMMENDATIONS

#	Recommendation	Status
General		
1	Impacts to Greenbelt Areas should be avoided, wherever possible.	Considered as part of the generation of short list alternatives and selection of the technically preferred alternative. To be continued into Preliminary Design.
Community Sensitive Design		
2	Develop a Greenbelt Community Value Plan focussed on the geographic areas in the study area delineated by the Greenbelt Plan.	To be considered during Preliminary Design.

Considered:	
Ongoing:	

For Preliminary Design:	
New Greenbelt Act Requirements:	Blue text



SUMMARY OF GREENBELT GUIDELINE RECOMMENDATIONS

#	Recommendation	Status
Road Ecology & Wildlife		
3	Avoidance of sensitive natural features/areas should be a priority when planning a new roadway facility location.	Considered as part of the generation of short list alternatives and selection of the technically preferred alternative. To be continued into Preliminary Design.
4	Minimize habitat fragmentation.	Considered as part of the generation of short list alternatives and selection of the technically preferred alternative. To be continued into Preliminary Design.
5	Consider the road effect zone, or secondary effects.	To be considered during Preliminary Design.
6	Employ innovative design and mitigation measures to reduce the impacts of the selected route.	To be considered during Preliminary Design.
7	Implementation of a highway vegetation plan.	To be considered during Preliminary Design.

Considered:	
Ongoing:	

For Preliminary Design:	
New Greenbelt Act Requirements:	Blue text



SUMMARY OF GREENBELT GUIDELINE RECOMMENDATIONS

#	Recommendation	Status
Agriculture		
8	Class 1 to 3 lands should be given high recognition. Input from agricultural groups and individual farmers will be sought out and incorporated into the decision-making process. Mitigation to property fragmentation and field access will be important considerations.	Considered as part of the generation of short list alternatives and selection of the technically preferred alternative. To be continued into Preliminary Design.
9	Any new proposed infrastructure should be kept close to potential development to avoid undisturbed areas.	Considered as part of the generation of short list alternatives.
10	Use lands that are already impacted by infrastructure, such as hydro and pipeline corridors, and combine as much infrastructure (pipelines, hydro, highways, rail) as possible into one corridor to minimize impacts by reducing land required and reducing fragmentation/severances.	Considered as part of the generation of short list alternatives.

Considered:	
Ongoing:	

For Preliminary Design:	
New Greenbelt Act Requirements:	Blue text



SUMMARY OF GREENBELT GUIDELINE RECOMMENDATIONS

#	Recommendation	Status
Agriculture (continued)		
11	Highways are created with specific design standards. In some areas these standards could be reduced to allow for the tightening of road curves to avoid specific features.	To be considered during Preliminary Design.
12	Have a new corridor traverse along mid-concession roads and along back lot lines to reduce property fragmentation and severance.	Considered as part of the generation of short list alternatives.
13	Cross the Greenbelt at the narrowest point.	Considered as part of the generation of short list alternatives.
14	Avoid speciality crop areas and other prime agricultural areas, in that order of priority unless need has been demonstrated and it has been established that there is no reasonable alternative.	Considered as part of the generation of short list alternatives.
15	Where the route crosses prime agricultural areas, including specialty crop areas, an agricultural impact assessment or equivalent analysis will be completed.	To be considered during Preliminary Design.

Considered:	
Ongoing:	

For Preliminary Design:	
New Greenbelt Act Requirements:	Blue text



SUMMARY OF GREENBELT GUIDELINE RECOMMENDATIONS

#	Recommendation	Status
Stormwater Management		
16	The project's construction phase warrants emphasis, especially with respect to siltation control. New approaches may be warranted, especially to control sediment.	To be considered during Preliminary Design.
17	Valleys should be spanned completely when possible to avoid interactions in sensitive flood plain areas. Cross at ninety degrees if possible.	Considered as part of the generation of short list alternatives.
18	Different areas should have different levels of control keyed to sensitivities of receivers.	To be considered during Preliminary Design.
19	Development of salt management strategies for maintenance operations within the Greenbelt is important.	To be considered during Preliminary Design.
20	Novel and technologically advanced approaches may be appropriate, and design flexibility should be integrated to allow for future and more advanced methods of SWM control.	To be considered during Preliminary Design.

Considered:	
Ongoing:	

For Preliminary Design:	
New Greenbelt Act Requirements:	Blue text



SUMMARY OF GREENBELT GUIDELINE RECOMMENDATIONS

#	Recommendation	Status
Geometric Design		
21	Consider the use of a reduced cross-section for application in the Greenbelt areas of the study area.	To be considered during Preliminary Design.
22	Consider reducing the minimum curve radius of 1700 m, allowing designers to better avoid sensitive features by providing greater horizontal alignment flexibility.	To be considered during Preliminary Design.
23	Where significant environmental features are encountered, consideration should be given to causeways or long bridges in order to mitigate impacts.	To be considered during Preliminary Design.
24	Consider construction techniques that reduce environmental impacts.	To be considered during Preliminary Design.
25	Minimize the number of interchanges constructed in the Greenbelt, as well as minimizing the requirements for new ancillary facilities such as inspection stations and patrol yards.	Interchanges: Considered as part of the evaluation of the short list alternatives and selection of the technically preferred alternative. Documented in the <i>Interchange Locations Process and Evaluation Memo</i> .
		Ancillary features: To be considered during Preliminary Design.



SUMMARY OF GREENBELT GUIDELINE RECOMMENDATIONS

#	Recommendation	Status
Bridges		
26	Employ sustainable bridge construction methods.	To be considered during Preliminary Design.
27	Open and long span structures are preferred. Consideration should be given to spanning entire valleys. If this is not possible, it would be acceptable to place piers in a valley as long as placing piers in water is avoided.	Considered as part of the evaluation of the short list alternatives and selection of the technically preferred alternative. To be continued into Preliminary Design.
28	Consider crossing rivers in mature sections where future meandering is unlikely. Consider locating river crossings perpendicular to the river and its bank, and locate it at a narrow section.	Considered as part of the generation of short list alternatives.
29	Span wetlands or use innovative mitigation near wetlands.	Considered as part of the evaluation of the short list alternatives and selection of the technically preferred alternative. To be continued into Preliminary Design.



SUMMARY OF GREENBELT GUIDELINE RECOMMENDATIONS

#	Recommendation	Status
Bridges (continued)		
30	Avoid placement of fill in valleys.	To be considered during Preliminary Design.
31	Utilize topographic contours to aid in the assessment of potential routes for valley crossings.	Considered as part of the generation and evaluation of short list alternatives.
32	Investigate the potential to utilize existing utility corridors in order to reduce impacts to undisturbed core habitat areas.	Considered as part of the generation of short list alternatives.
33	Consider combining new crossings with existing utility corridors/other infrastructure. Create one "infrastructure ROW".	Considered as part of the generation of short list alternatives.

Considered:	
Ongoing:	

For Preliminary Design:	
New Greenbelt Act Requirements:	Blue text



ECOSYSTEM SERVICES

- The concept of Ecological Goods and Services, or “Ecosystem Services” was discussed as part of the GTAG meetings during Stage 1 of the GTA West Study
- For the GTA West Study:
 - An Ecosystem Services criterion was added to the Natural Environment factor in the evaluation criteria
 - The integration of an ecosystem services sub-factor offered additional information from a novel perspective, added depth to the analysis of route alternatives and contributed to a more robust decision-making process



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Group Activity



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How, if at all, might the principles and approaches already identified in the 2013 Guideline be tweaked or refined to reflect changes to the Greenbelt Plan?



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On which principles would you place greatest emphasis as the study moves forward?



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What has changed or is changing that should inform the design of the Preferred Route?



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What are the hot button topics the Project Team will need to address? What are you hearing from stakeholders?



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NEXT STEPS

<p>Fall 2019</p>	<ul style="list-style-type: none"> • Project Team to review and respond to comments received at PIC #2 • Meetings with Indigenous communities, Advisory Groups and Regional Municipal Councils
<p>Spring 2020</p>	<ul style="list-style-type: none"> • Confirm the Preferred Route and Focused Analysis Area • Commence preliminary design of the Preferred Route, which includes: <ul style="list-style-type: none"> • Additional field investigations where permission to enter is granted • Consultation with property owners directly impacted by the Preferred Route
<p>Fall 2020 / Spring 2021</p>	<ul style="list-style-type: none"> • Develop Community Value Plans (the focus of Community Workshops #3 and #4)
<p>Spring / Summer 2021</p>	<ul style="list-style-type: none"> • Meetings with Indigenous communities, Advisory Groups and Regional Municipal Councils
<p>Fall / Winter 2021</p>	<ul style="list-style-type: none"> • Present the preliminary design of the Preferred Route at PIC #3
<p>Late 2022</p>	<ul style="list-style-type: none"> • Anticipated submission of Final Environmental Assessment Report to MECP

* Schedule is subject to change



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Open Forum / Questions?