

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

Municipal Executive Advisory Group Meeting #2 October 9, 2019



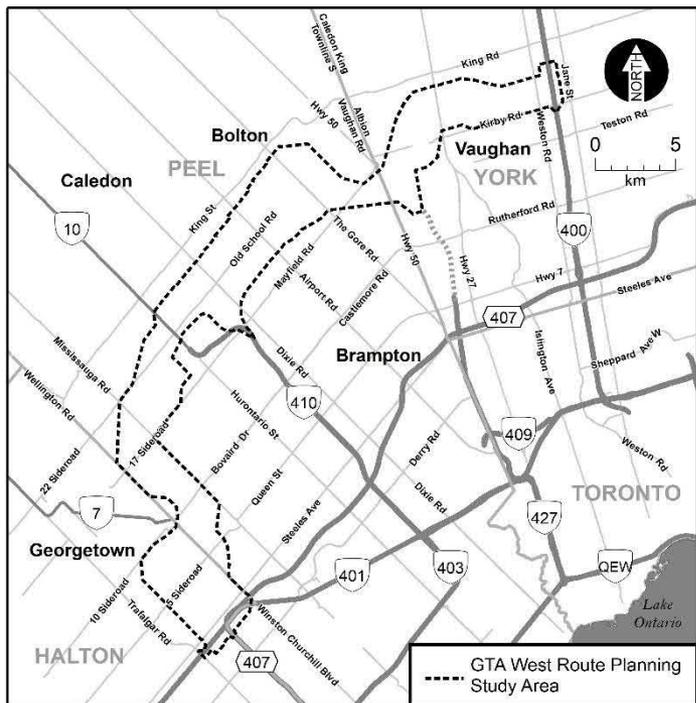
STUDY OVERVIEW

June 2019: GTA West Study resumed

- GTA West Study will protect lands for a future multimodal transportation corridor
- Northwest GTA Corridor Identification Study discontinued
- Ministry of Energy, Northern Development and Mines and Independent Electricity System Operator initiated a separate study to identify an adjacent electricity transmission corridor

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





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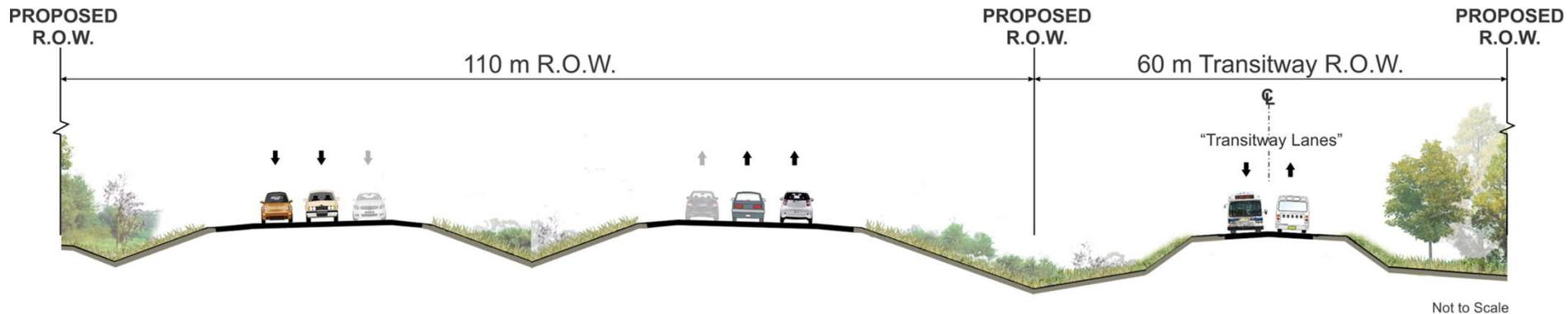
- The need for the GTA West Study remains and is strengthened by the GGH population and employment growth forecasts, reflecting more people and jobs by 2041. It is good practice to do long-range planning for areas under development pressure
- Committed to an open and transparent process that provides 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 municipal and agency partners in open two-way communication that leads to meaningful discussions, proactive information exchange and a constructive working relationship



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

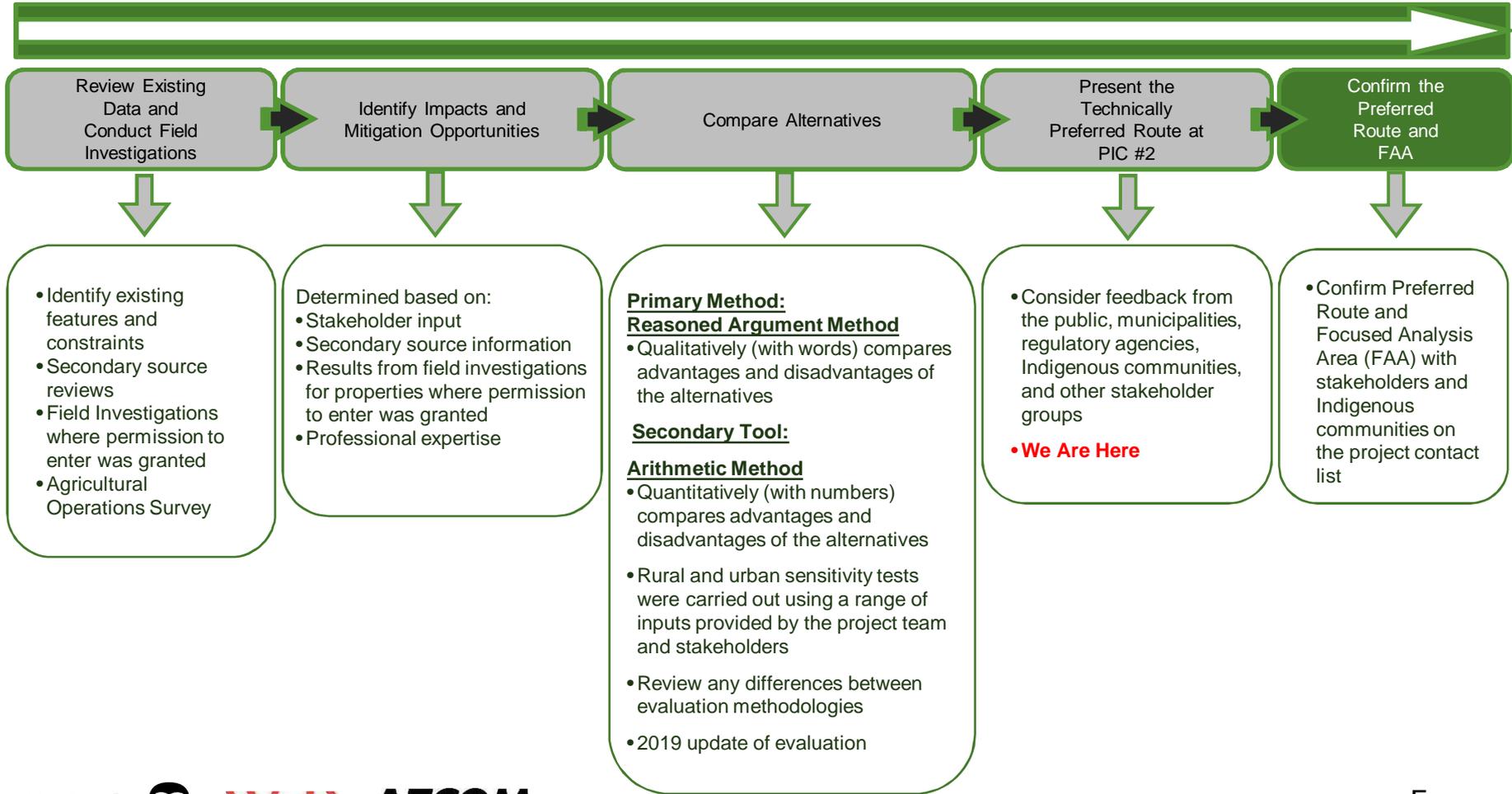




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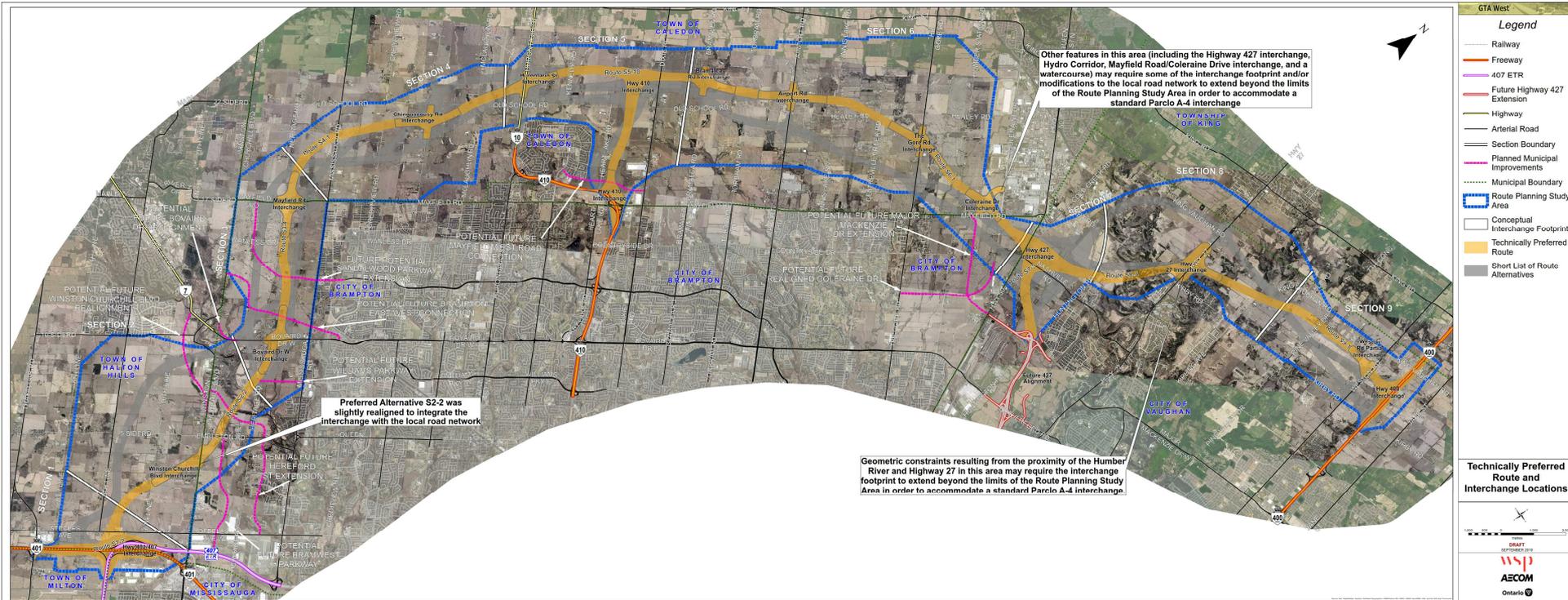
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ROUTE EVALUATION PROCESS





TECHNICALLY PREFERRED ROUTE

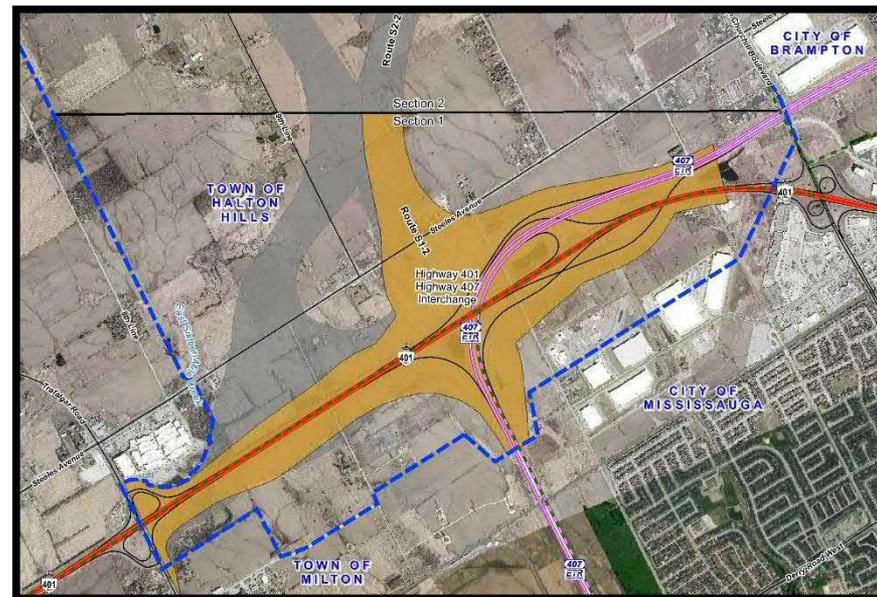




SECTION 1 PREFERRED ALTERNATIVE: S1-2

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





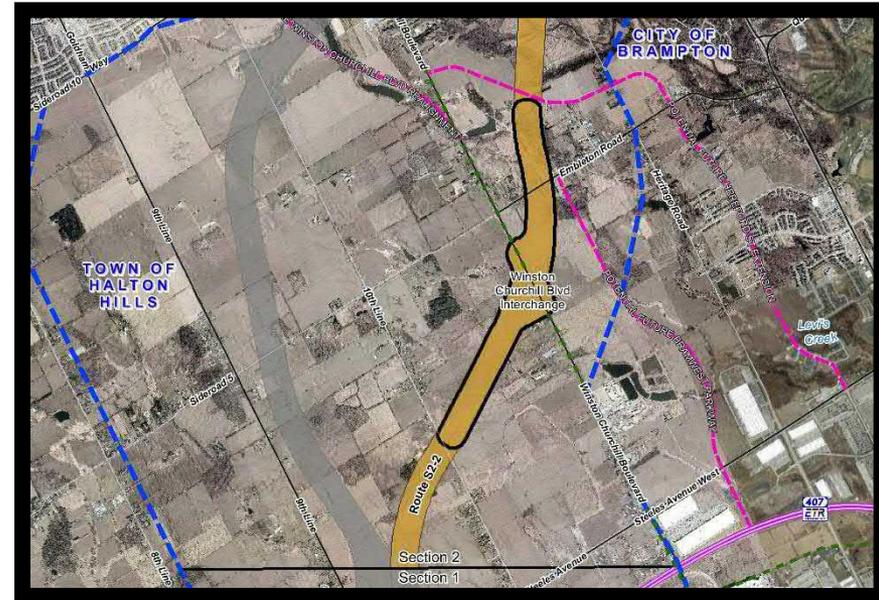
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SECTION 2 PREFERRED ALTERNATIVE: S2-2

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

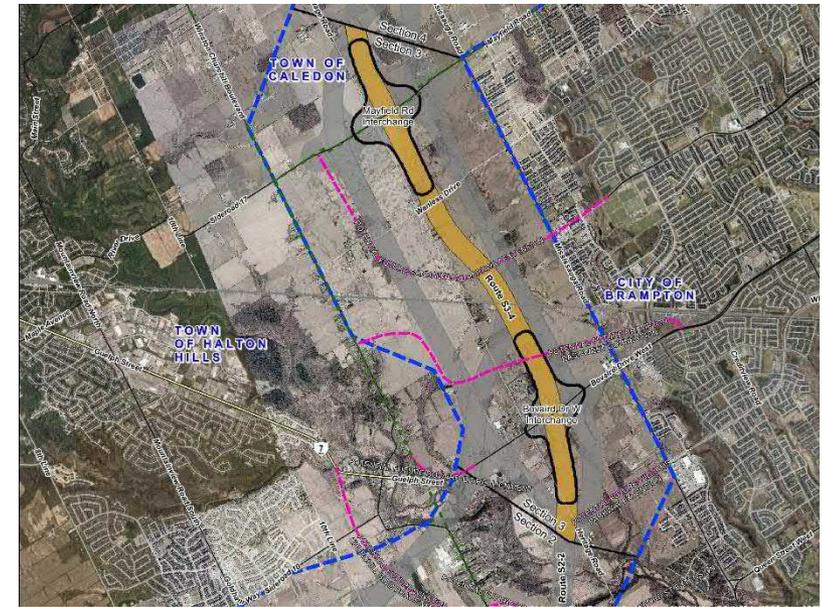




SECTION 3 PREFERRED ALTERNATIVE: S3-4

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





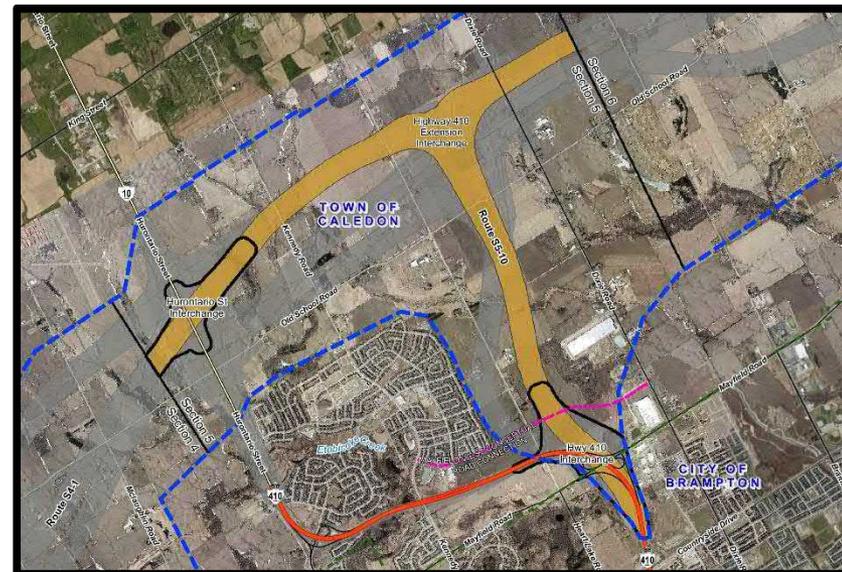
SECTION 5 PREFERRED ALTERNATIVE: S5-10

A new Highway 410 alignment was preferred over the existing Highway 10/410,

A new alignment to the east was preferred over a new alignment to the west of Heart Lake Road,

Alternative S5-10 is preferred from Land Use / Socio-Economic and Transportation perspectives:

- Minimizes impacts to fish and fish habitat, and wetlands
- Avoids impacts to large volume wells
- Avoids existing residential subdivisions in Valleywood and minimizes direct residential impacts elsewhere
- Minimizes impacts to agricultural lands and operations
- Minimizes impacts to built heritage resources
- Avoids impacts to commercial and industrial properties
- Minimizes impacts to future urban development including the Mayfield West planned community and Mayfield West employment lands
- Less complex Highway 410/GTA West freeway-to-freeway interchange design (connections to Hurontario Street are provided by a separate interchange)
- Better ability to implement a transitway in the new Highway 410 corridor
- Supports network compatibility, lower relative cost

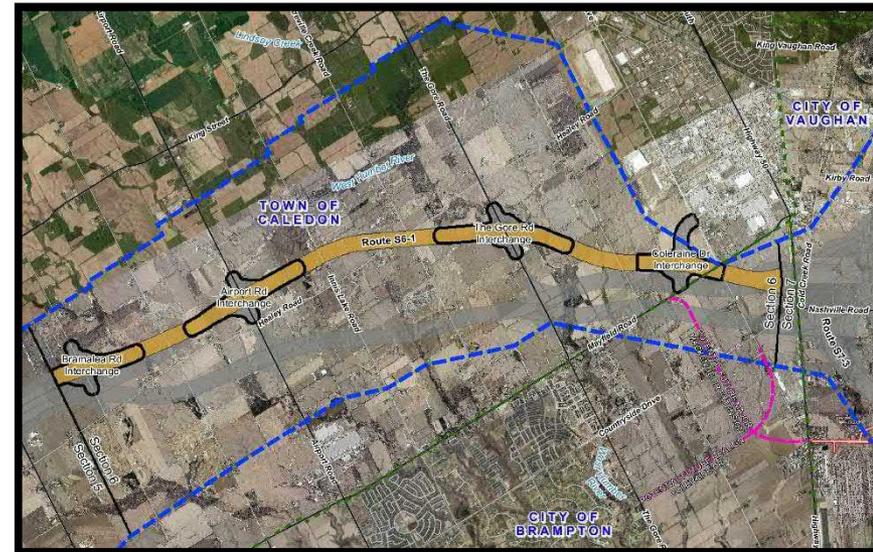




SECTION 6 PREFERRED ALTERNATIVE: S6-1

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



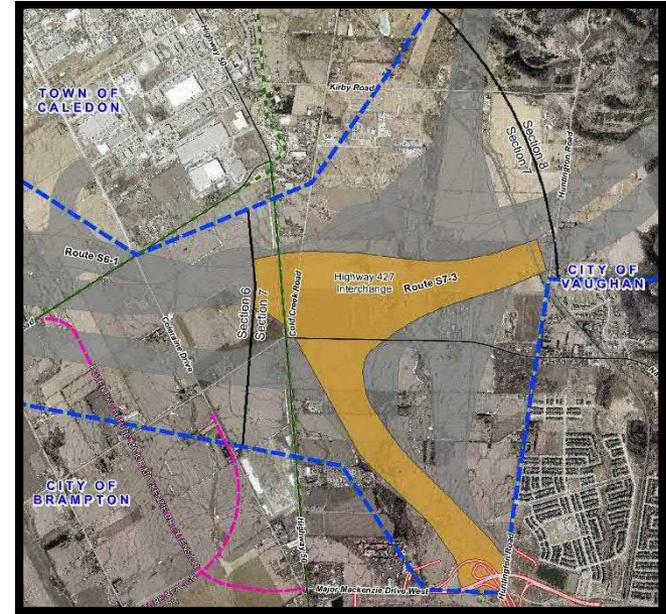


SECTION 7 PREFERRED ALTERNATIVE: S7-3

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





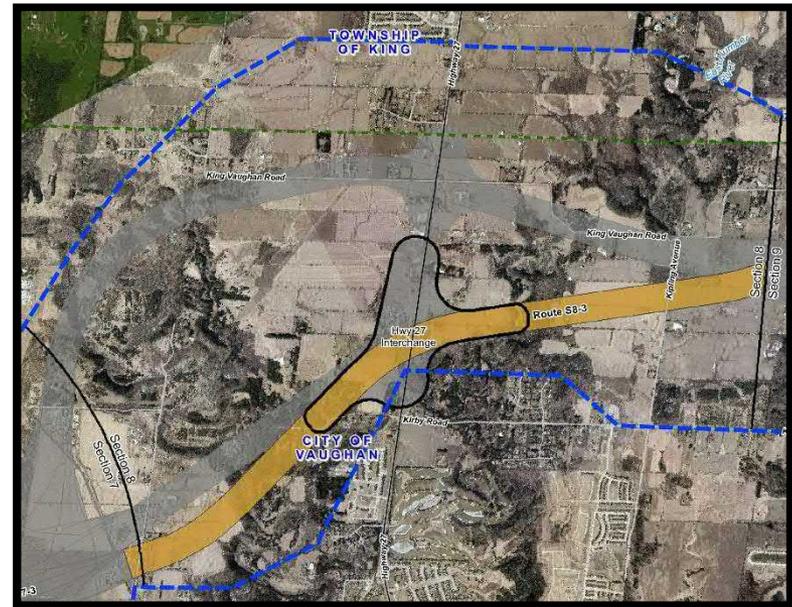
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SECTION 8 PREFERRED ALTERNATIVE: S8-3

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





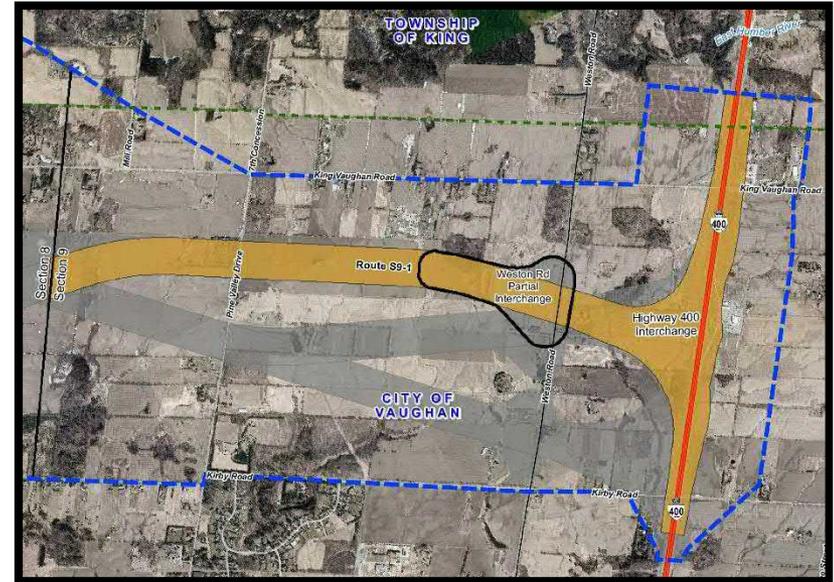
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SECTION 9 PREFERRED ALTERNATIVE: S9-1

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



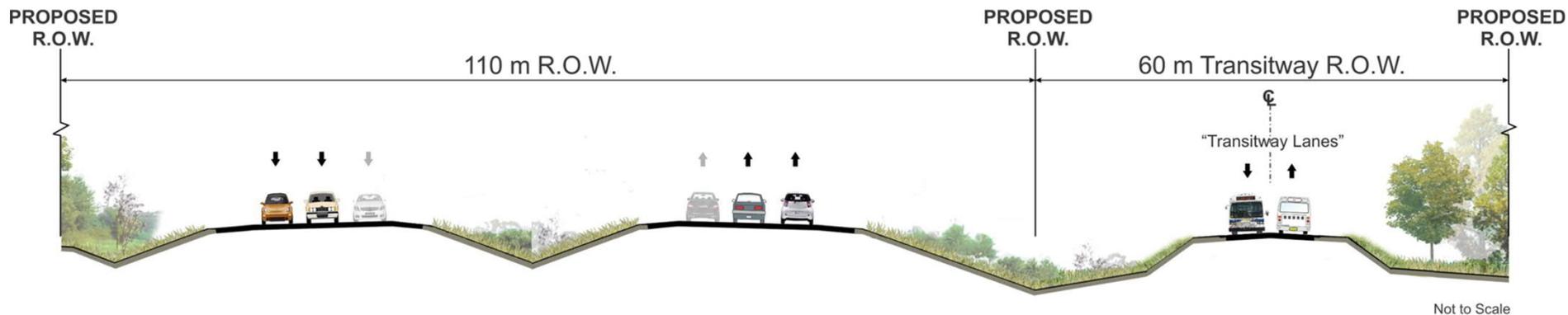
1	Highway 401/407 ETR freeway-to-freeway interchange – Aligns with Technically Preferred Route for Section 1
2	Winston Churchill Boulevard, Tenth Line or Embleton Road Interchange: Winston Churchill Boulevard preferred <ul style="list-style-type: none"> Winston Churchill Boulevard provides better connections 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 SHOULD BE DIRECTLY IMPACTED BY THE GTA WEST TRANSPORTATION CORRIDOR. ADDITIONAL ZONES OF INTEREST 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 APPLICATED IN THE STUDY AREA, NOT AT ALL AFFECTED THAT APPLICATION 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

0km 2.0km



WHAT WE HEARD AT PIC #2

- Approx. 979 stakeholders attended, 79 written comments received
- Mixture of support and opposition for the Technically Preferred Route. 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. 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. 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 timing of expropriation, 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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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: • 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