GTA West
Planning *with* Vision | Planning *for* People

GTA West Transportation Corridor Route Planning and Environmental Assessment Study, Stage 2

Screening of the Long List of Route Alternatives
Sections 1 to 10

DRAFT - January 2015

Ontario MMM GROUP AECOM URS

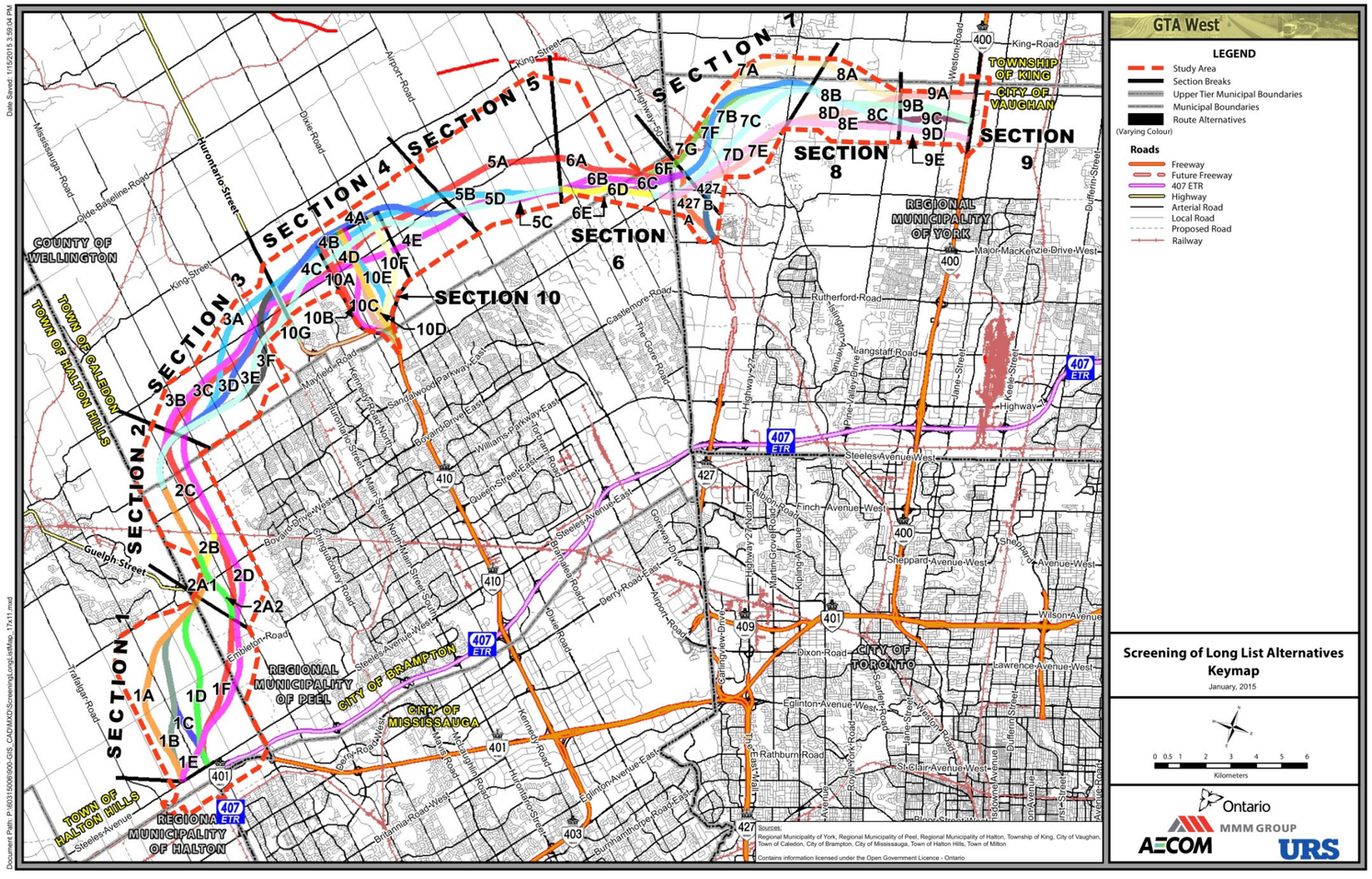
Screening of the Long List of Route Alternatives - Sections 1 to 10 and Highway 427 Options
DRAFT – January 2015

INTRODUCTION

The data contained in this document includes the information collected and considered in the evaluation of the long list of route alternatives developed for the GTA West Transportation Corridor Study Area, in the fall of 2014. It should be read in conjunction with the Public Information Centre (PIC) #1 materials that were presented in 2014, as found on the project website at www.gta-west.com. These data tables were available at the PICs on the Reference Table and are now being consolidated and made available more broadly, on the project website.

As described in the PIC #1 materials, the GTA West Study area was divided into 10 sections to evaluate the long list of route alternatives. A simplified map of the 10 sections is shown below.

The tables in this document provide the data that was collected for each section and in each evaluation criteria used in this phase of the study. The data was used to inform the project team for the screening of the long list of route alternatives, in order to determine a short list. Summaries of why a route was screened out are also provided on the PIC #1 display boards as shown at www.gta-west.com.



Below is a summary of the abbreviations used frequently in the tables.

- LSW – Locally Significant Wetland
- PSW – Provincially Significant Wetland
- ANSI- Areas of Natural and Scientific Interest
- ESA- Environmentally Sensitive Area
- RSD – Redside Dace
- SAR – Species at Risk
- OHA – Ontario Heritage Act
- RT – Rapid Transit
- CA – Conservation Area
- CLI – Canada Land Inventory
- DFO – Department of Fisheries and Oceans
- OP – Official Plan
- SWM Ponds – Stormwater Management Ponds
- ROW – Right of Way

There is also an Appendix at the end of this document that provides more detailed information on Built Heritage and Cultural Heritage Landscape Features in the study area.

List of Tables

Appendix

Table 1. Screening of Long List of Alternatives - SECTION 1

FACTORS	Evaluation Criteria and Measurement	1A – Screened Out	1B – Screened Out	1C – Carried Forward	1D – Screened Out	1E[1] – Carried Forward	1F[1] – Screened Out
NATURAL ENVIRONMENT							
Fisheries and Aquatic Ecosystems	Fish Habitat (number of sensitive watercourse crossings or waterbodies). General measures of sensitivity include: watercourses with Species at Risk (SAR), coldwater crossings, critical/specialized habitat, etc., as well as siting considerations, e.g., crossing at highly meandering reach/major bend, complex valley crossings etc.	**Potential Crossings**: 3 large crossings: 2 East 16-mile, Levi Creek Several minor crossings or swales (agricultural) associated with Levi Creek **Sensitivities**: Red Side Dace (RSD) at both East 16-mile Creek crossings Levi Creek is RSD at crossing East 16-mile creek highly meandering, broad floodplain Levi Creek crossing at reservoir associated with Sheridan nurseries **Siting Considerations**: Both reaches highly meandering Both reaches with broad floodplains Both skewed crossings	**Potential Crossings**: 3 large crossings: 2 East 16-mile, Levi Creek Several minor crossings or swales (agricultural) associated with Levi Creek **Sensitivities**: 2 crossings of East 16-mile creek: South crossing is RSD, north crossing not mapped as RSD, but with RSD upstream and downstream, there is a high potential for presence at this location Levi Creek is RSD at crossing E 16-mile creek highly meandering, broad floodplain Levi Creek crossing at reservoir associated with Sheridan nurseries **Siting Considerations**: South crossing is highly meandering with a large skew North crossing of East 16-mile creek is skewed and slightly less meandering Both reaches within broad floodplain	**Potential Crossings**: Minor crossing of East 16-mile creek tributary (East of 9th Line) Levi Creek Crossing Several minor crossings or swales (agricultural) associated with Levi Creek **Sensitivities**: East 16-mile creek tributary may be contributing habitat for RSD Levi Creek is RSD at crossing Levi Creek crossing at reservoir associated with Sheridan nurseries **Siting Considerations**: Perpendicular crossing opportunity of East 16-mile tributary	**Potential Crossings**: Levi Creek Large number of minor crossings or swales (agricultural) associated with Levi Creek **Sensitivities**: RSD at Levi Creek crossing **Siting Considerations**: None	**Potential Crossings**: Large number of swales crossed Levi Creek **Sensitivities:** RSD at Levi Creek Two inflowing tributaries at the crossing location of Levi Creek **Siting Considerations:** Skewed crossing at Levi Creek Broad floodplain at Levi Creek	**Potential Crossings**: Large number of swales crossed Levi Creek **Sensitivities**: Impacts to East 16-mile creek watercourse and associated floodplain without adjustment in alignment at southern end. RSD at Levi Creek **Siting Considerations:** Narrower crossing point of floodplain

[1] The Credit River Crossing is discussed in association with Section 2

Table 1. Screening of Long List of Alternatives - SECTION 1

FACTORS	Evaluation Criteria and Measurement	1A – Screened Out	1B – Screened Out	1C – Carried Forward	1D – Screened Out	1E[1] – Carried Forward	1F[1] – Screened Out
Terrestrial Ecosystems	Wetlands (area or number of wetlands crossed by each alternative – includes Provincially Significant Wetlands (PSWs), non-PSWs and PSW status to be determined).	**Features Affected:** Levi's Creek PSW Wetland Complex Churchville-Norval PSW Complex No Locally Significant Wetlands (LSW) or unevaluated wetlands impacted **Impacts**: Crossing of linear wetland features at Levi Creek crossings location Impacts to small PSW complex pockets east and west of Winston Churchill associated with the Churchville-Norval PSW	**Features Affected:** Unevaluated riparian wetland along East 16-mile Creek Levi's Creek PSW Wetland Complex Churchville-Norval PSW Complex **Impacts**: Edge impacts to unevaluated wetland on East 16-mile creek Crossing of linear wetland features at Levi Creek crossings location Impacts to small PSW complex pockets east and west of Winston Churchill associated with the Churchville-Norval PSW	**Features Affected:** Levi's Creek PSW Wetland Complex Churchville-Norval PSW Complex **Impacts**: Crossing of linear wetland features at Levi Creek crossings location. Impacts to small PSW complex pockets east and west of Winston Churchill associated with the Churchville-Norval PSW	**Features Affected:** Levi's Creek PSW Wetland Complex Churchville-Norval PSW Complex **Impacts:** 5 small PSW pockets impacted / removed (near intersection of 5 Side Road and 10th line) and crossing of linear wetland features at Levi Creek crossings location (all wetlands part of the Levi Creek PSW) Impacts to small PSW complex pockets east and west of Winston Churchill associated with the Churchville-Norval PSW	**Features Affected:** Unevaluated wetland west of 10th line Levi Creek PSW Complex Churchville-Norval PSW Complex **Impacts**: Partial loss of unevaluated wetland Partial loss of riparian wetland along tributary to Levi Creek west of Winston Churchill (Levi Creek PSW) Large removal of 1 PSW unit immediately north of Levi Creek Impacts to wetlands associated with the Credit River Valley (part of the Churchville-Norval PSW)	**Features Affected:** Unevaluated wetland west of 10th line Levi Creek PSW Complex Churchville-Norval PSW Complex **Impacts**: Edge impact to unevaluated wetland. Crossing / significant removal of three designated PSW's associated with Levi's Creek Wetland Complex *NOTE: Two riparian PSW's shown on mapping do not appear to be present on the landscape. Effectively complete removal of third PSW (forested)* Impacts to wetlands associated with the Credit River Valley (part of the Churchville-Norval PSW)
	Woodlands and other Vegetation (area of impact on significant woodlands, large intact habitat blocks, and associated wildlife habitat).	**Features Affected**: No significant woodlands impacted 1 non-significant woodland (<1ha) removed Impacts to riparian habitat at watercourse crossings	**Features Affected**: No significant woodlands impacted Edge impacts to isolated non-significant woodlands Impacts to riparian habitat at watercourse crossings	**Features Affected**: No significant woodlands impacted Edge impacts to isolated non-significant woodlands Impacts to riparian habitat at watercourse crossings	**Features Affected**: No significant woodlands impacted Edge impacts and removals of 4 non-significant woodlands	**Features Affected**: Non-significant woodlands 1 significant woodland associated with Credit River valley **Impacts**: Full removal of 1 isolated non-significant woodland Removal of woodland associated with PSW at Levi Creek Removal of significant woodland associated with Credit River valleyland	**Features Affected:** 3 non-significant woodlands 1 significant woodland associated with Credit River valley **Impacts**: Full removal of 3 woodlands Removal of significant woodland associated with Credit River valleyland

Table 1. Screening of Long List of Alternatives - SECTION 1

FACTORS	Evaluation Criteria and Measurement	1A – Screened Out	1B – Screened Out	1C – Carried Forward	1D – Screened Out	1E[1] – Carried Forward	1F[1] – Screened Out
	Designated/Special/Natural Areas (numbers or areas of ESAs, ANSIs, Greenbelt areas impacted by each route alternative).	No Designated Areas	No Designated Areas	No Designated Areas	No Designated Areas	No Designated Areas	No Designated Areas
LAND USE / SOCIO-ECONOMIC							
Land Use Planning Policies, Goals, Objectives	Municipal (local and regional) Land Use Planning Policies / Goals / Objectives (qualitative assessment of each route's compatibility with municipal land use policies, goals, objectives etc.)	Contrary to Agricultural lands objectives Does not provide exposure or access for Employment Lands	Contrary to Agricultural lands objectives Does not provide exposure or access for Employment Lands	Contrary to Agricultural lands objectives to a lesser extent than A or B Does not provide exposure or access for Employment Lands	Contrary to Agricultural objectives but to a lesser extent than A, B or C Provides minimal exposure or access for Employment Lands	Reduces impact on Agricultural Areas Provides good exposure for future Employment Lands	Minimizes impact on Agricultural Areas Provides best exposure for future Employment Lands
Land Use – Community	Urban and Rural Residential Uses (number of residential properties directly impacted by each route alternative)	1 Residential Parcel affected Southeast corner of Norval Hamlet affected (Greenbelt-Protected Countryside designation)	0 Residential Parcels affected Southeast corner of Norval Hamlet affected (Greenbelt-Protected Countryside designation)	0 Residential Parcels affected Southeast corner of Norval Hamlet affected (Greenbelt-Protected Countryside designation)	5 Residential Parcels affected Southeast corner of Norval Hamlet affected (Greenbelt-Protected Countryside designation)	10 Residential Parcels affected	21 Residential Parcels affected
	Commercial/Industrial Uses (number of commercial/industrial properties directly impacted by each route alternative)	1 property affected: Sheridan Nurseries and Arnolds Greenhouses (western portion of lot affected)	1 property affected: Sheridan Nurseries and Arnolds Greenhouse (western portion of lot affected)	2 properties affected: Sheridan Nurseries and Arnolds Greenhouse (western portion of lot affected) Fishburn Business Centre (eastern portion of lot developed)	4 properties affected: Sheridan Nurseries and Arnolds Greenhouse (western portion of lot affected) Fishburn Business Centre (eastern portion of lot developed) Walkems Cycle (south-eastern portion of lot developed) Embleton Meadows (northwestern portion of lot affected)	3 properties affected: Fishburn Business Centre (eastern portion of lot developed) Blue Sky Kitchen and Bath Repair (southwestern portion of lot developed)	5 properties affected: Fishburn Business Centre (eastern portion of lot developed) Lee's Garden Centre (northeastern portion of lot developed) Melody Acres Horse Boarding (northeastern portion of lot developed) Naka Greenhouses (on route) Green Acres Farm (development on route)
	Tourist Areas and Attractions (number of tourist areas, attractions and recreational facilities directly impacted)	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected
	Community Facilities / Institutions (number of community facilities/institutions directly impacted)	No properties affected	No properties affected	No properties affected	Potential interchange will affect St. Stephens Anglican Church	No properties affected	No properties affected
	Municipal Infrastructure and Public Service Facilities	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected

Table 1. Screening of Long List of Alternatives - SECTION 1

FACTORS	Evaluation Criteria and Measurement	1A – Screened Out	1B – Screened Out	1C – Carried Forward	1D – Screened Out	1E[1] – Carried Forward	1F[1] – Screened Out
Noise Sensitive Areas (NSA's)	Transportation Noise (number of residences within 600 m of each route alternative)	12 Existing Residential Parcels 3.5ha Designated Residential Area X 25u/Ha = 88 Units for Future Development in Norval	14 Existing Residential Parcels 3.5ha Designated Residential Area X 25u/Ha = 88 Units for Future Development	12 Existing Residential Parcels 3.5ha Designated Residential Area X 25u/Ha = 88 Units for Future Development	15 Existing Residential Parcels 3.5ha Designated Residential Area X 25u/Ha = 88 Units for Future Development	27 Existing Residential Parcels 42.1ha Designated Residential Area X 25u/Ha = 1,053 Units for Future Development	40 Existing Residential Parcels 38.3ha Designated Residential Area X 25u/Ha = 958 Units for Future Development
Land Use - Resources	Agriculture including Specialized Agriculture (area of Class 1-3 soils) expected to be consistent across all routes but will be confirmed. Impacts to Prime Agricultural Areas identified during Land Evaluation and Area Review (LEAR) for each Municipality where future land uses remain agricultural (i.e., **not** where lands are designated for development).	CLI Class 1 = 116.2 ha CLI Class 3 = 37.2 ha 1 medium farm complex 1 large farm complex Roughly half the route follows back lot lines, the remainder cuts diagonally	CLI Class 1 = 90.4 ha CLI Class 3 = 50.4 ha 1 medium farm complex 1 large farm complex Small portion follows lot lines, the remainder crosses properties at an angle	CLI Class 1 = 85.0 ha CLI Class 3 = 47.2 ha 1 medium farm complex Majority cuts across properties	CLI Class 1 = 60.0 ha CLI Class 3 = 6.7 ha 1 medium farm complex Majority cuts across properties	CLI Class 1 = 35.1 ha CLI Class 3 = 13.5 ha Majority cuts across properties	CLI Class 1 = 35.6 ha CLI Class 3 = 13.4 ha 1 small barn Majority cuts across properties
	Aggregate and Mineral Resources (number of existing or future aggregate resources areas directly impacted)	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 4km Length 104ha	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 3.8km Length 99ha	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 3.1km Length 83ha	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 4.3km Length 110ha	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 3.3km Length 82ha	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 3.2km Length 95ha
Major Utility Transmission Corridors and Pipelines (number of major impacts and qualitative assessment of challenges associated with direct impacts)		**0**	0	0	0	1 Pipeline Crossing	1 (Possibly 2) Pipeline Crossings
CULTURAL ENVIRONMENT							
Cultural Heritage – Built Heritage and Cultural Heritage Landscapes	The MTO Environmental Standards and Practices documents for Built Heritage and Cultural Heritage Landscapes (BHCHL Guide) outlines basic categories for the initial identification of cultural resources, including Designation under the Ontario Heritage Act (OHA) (D), Listing on municipal Heritage Registers (L), and identification as part of the MTO EA process (EA) which refers to properties pre-screened as having heritage significance potential. In the table properties are listed by site number and by heritage determination (D, L or EA). See Appendix for detailed information.	007 EA 008 EA 010 EA 030 EA 055 L	020 EA 021 L 025 L 026 EA 029 EA 043 L 055 L	018 L 023 L 026 EA 028 EA 029 EA 042 EA 043 L 055 L	018 L 038 L 040 EA 041 L 055 L	018 L 037 EA 048 EA 049 EA	019 EA 020 EA 037 EA 046 L 048 EA 049 EA
	Cemeteries by site number	None known	022 024	None known	None known	None known	None known
	First Nation Burials	None known	None known	None known	None known	None known	None known
Archaeology	Known Archaeological Sites	None known	None known	1	1	1	None known

Table 1. Screening of Long List of Alternatives - SECTION 1

FACTORS	Evaluation Criteria and Measurement	1A – Screened Out	1B – Screened Out	1C – Carried Forward	1D – Screened Out	1E[1] – Carried Forward	1F[1] – Screened Out
TRANSPORTATION							
Network Compatibility	Compatibility with Municipal/Regional existing/planned key transportation corridors and potential interchange locations. Compatibility and proximity to Municipal/Regional existing/planned transit initiatives, including rail and bus routes and transit stations.	This route provides 3 opportunities for interchange connections to the existing road network, including Ninth Line, which has been identified by Halton Region as a future 4 lane roadway West crossings of the Credit River provide more opportunities for future Regional/Municipal initiatives for network connectivity (such as Norval By-Pass)	This route provides 2 opportunities for interchange connections to the existing road network, including Ninth Line, which has been identified by Halton Region as a future 4 lane roadway West crossings of the Credit River provide more opportunities for future Regional/Municipal initiatives for network connectivity (such as Norval By-Pass)	This route provides 2 opportunities for interchange connections to the existing road network West crossings of the Credit River provide more opportunities for future Regional/Municipal initiatives for network connectivity (such as Norval By-Pass)	This route only provides 1 opportunity for an interchange connection to the existing road network West crossings of the Credit River provide more opportunities for future Regional/Municipal initiatives for network connectivity (such as Norval By-Pass)	This route provides 2 opportunities for interchange connections to the existing road network, including Winston Churchill Blvd., which has been identified by Brampton as a future 6 lane roadway Easterly alignments are closer to the future Rapid Transit line along Mississauga Rd.	This route provides 3 opportunities for interchange connections to the existing road network, including Winston Churchill Blvd., which has been identified by Brampton as a future 6 lane roadway Easterly alignments are closer to the future Rapid Transit line along Mississauga Rd.
Constructability	Significant features that may impact construction (including route length, number and lengths of bridges, crossing of/proximity to utilities (i.e., Hydro Corridors, TCPL)).	Route Length = 8.315 km Bridges (#/Size) = 4 Medium 2 Long	Route Length = 7.830 km Bridges (#/Size) = 6 Medium	Route Length = 7.425 km Bridges (#/Size) = 2 Medium	Route Length = 6.915 km Bridges (#/Size) = 2 Long	Route Length = 6.840 km Bridges (#/Size) = 2 Medium This route crosses the TransCanada Pipeline and then runs parallel to it for approx. 1.2 km	Route Length = 6.945 km Bridges (#/Size) = 1 Short 1 Medium This route crosses the TransCanada Pipeline
Compliance with Design Criteria	Ability of the route to meet the geometric design standards (“Proposed Draft Concepts For New Rural Freeways” manual, i.e., 1700 m radius)	This Route meets the proposed design criteria	This Route meets the proposed design criteria	This Route meets the proposed design criteria	This Route meets the proposed design criteria	This Route meets the proposed design criteria	This Route meets the proposed design criteria

Table 2. Screening of Long List of Alternatives - SECTION 2

FACTORS	Evaluation Criteria and Measurement	2A1 – Carried Forward	2A2 – Carried Forward	2B – Screened Out	2C – Carried Forward	2D – Carried Forward
NATURAL ENVIRONMENT						
Fisheries and Aquatic Ecosystems	Fish Habitat (number of sensitive watercourse crossings or waterbodies). General measures of sensitivity include: watercourses with SAR, coldwater crossings, critical/specialized habitat, etc., as well as siting considerations, e.g., crossing at highly meandering reach/major bend, complex valley crossings etc.	**Crossing:** 1 crossing, Credit River Multiple crossings of tributary to Credit, including paralleling feature (~1km) and crossing at confluence with Credit River **Sensitivities:** Multiple crossings of same tributary and loss of or realignment required Steep valley crossings associated with Credit River and tributary at confluence with Credit River **Siting Considerations:** Relatively narrow floodplain at Credit River crossing location Reasonable skew at Credit River crossing location Better crossing of Credit (similar to B) than C and D	**Crossing:** 1 Credit River crossing, 3 crossings of Credit River tributaries including crossing of confluence of 2 tributaries **Sensitivities:** Broad floodplain at Credit River Crossing Oblique crossing of one of the tributaries. Removal of large portion of tributary **Siting Considerations:** Oblique tributary crossing	**Crossing:** 1 crossing, Credit River Confluence of 2 tributaries with main Credit River at crossing location 1 crossing, possible realignment required for Huttonville Creek tributary **Sensitivities:** Steep valley crossings associated with Credit River and tributary at confluence with Credit River RSD in Huttonville Creek system. **Siting Considerations:** Relatively narrow floodplain at Credit River crossing location Reasonable skew at Credit River crossing location	**Crossing:** 1 crossing, Credit River Confluence of 2 tributaries with main Credit River at crossing location 1 crossing, tributary to the Credit Numerous crossings of Huttonville Creek tributaries, potential realignments required **Sensitivities:** Broad floodplain at Credit River crossing location on gently meandering reach Oblique crossing of the tributary to the Credit, possible realignment required Significant realignments and impacts to Huttonville Creek tributaries RSD in Huttonville Creek system **Siting Considerations:** Oblique tributary crossing	**Crossing:** 1 crossing, Credit River Confluence of 2 tributaries with main Credit River at crossing location 1 crossing, tributary to the Credit 1 crossing, possible realignment required for Huttonville Creek tributary **Sensitivities:** Broad floodplain at Credit River crossing location on gently meandering reach Oblique crossing of the tributary to the Credit, possible realignment required RSD in Huttonville Creek system **Siting Considerations:** Oblique tributary crossing
Terrestrial Ecosystems	Wetlands (area or number of wetlands crossed by each alternative – includes PSWs, non-PSWs and PSW status to be determined)	**Features Affected:** Norval LSW Huttonville Creek and Area Wetland Complex **Impacts**: Partial removal of Norval LSW Partial removal of 4 Huttonville Creek and Area Wetland Complex wetlands. Status of these wetlands is to be determined. No PSW or unevaluated wetlands affected	**Features Affected:** Churchill-Norval PSW Norval LSW Huttonville Creek and Area Wetland Complex (status to be determined) **Impacts**: Partial removal of 1 (<1ha) PSW Full removal of Norval wetland locally significant (<1ha) Full removal of <1ha Huttonville Creek and Area Wetland Complex wetland Partial removal of 2.1ha wetland within Huttonville Creek and area wetland complex Partial removal of 3 wetlands part of Huttonville Creek and area wetland complex	**Features Affected:** Norval LSW Huttonville Creek and Area Wetland Complex **Impacts**: Partial removal of Norval LSW 4 wetlands within Huttonville Creek and Area Wetland Complex partially removed No PSW or unevaluated wetlands affected	**Features Affected:** Churchville-Norval PSW Huttonville Creek and Area Wetland Complex **Impacts**: 1 provincially significant wetland partially removed (less than 1ha) 1 wetland removed (Huttonville Creek and Area Wetland Complex) 2 wetlands (<2ha) partially removed (Huttonville Creek and Area Wetland Complex) No unevaluated wetlands affected	**Features Affected:** Churchville-Norval PSW Huttonville Creek and Area Wetland Complex **Impacts**: 1 PSW partially removed (less than 1ha) 5 Huttonville Creek and area wetlands partially removed 1 Huttonville Creek and area wetland fully removed No unevaluated wetlands affected

Table 2. Screening of Long List of Alternatives - SECTION 2

FACTORS	Evaluation Criteria and Measurement	2A1 – Carried Forward	2A2 – Carried Forward	2B – Screened Out	2C – Carried Forward	2D – Carried Forward
	Woodlands and other Vegetation (area of impact on significant woodlands, large intact habitat blocks, and associated wildlife habitat).	1 non-significant woodland with abiotic forest damage partially removed (>10 ha) Impacts to riparian habitat at watercourse crossings	Partial removal of Urban Forest associated with Credit River Impacts to riparian habitat at watercourse crossings Partial removal of abiotic damaged non-significant woodlands associated with wetland communities	3 non-significant woodlands (2-10 ha in size) partially removed Impacts to riparian habitat at watercourse crossings	1 non-significant woodland (<2 ha) removed 1 non-significant woodland (<2 ha) partially removed Impacts to riparian habitat at watercourse crossings	3 non-significant woodlands (>4 ha) partially removed 1 non-significant woodland (>10 ha) partially removed Impacts to riparian habitat at watercourse crossings
	Designated/Special/Natural Areas (numbers or areas of ESAs, ANSIs, Greenbelt areas impacted by each route alternative).	No Designated Areas	No Designated Areas	No Designated Areas	No Designated Areas	No Designated Areas
LAND USE / SOCIO-ECONOMIC						
Land Use Planning Policies, Goals, Objectives	Municipal (local and regional) Land Use Planning Policies / Goals / Objectives (qualitative assessment of each route's compatibility with municipal land use policies, goals, objectives etc.)	Not in-keeping with Proposed Secondary Plan Could act as future Norval By-pass. Does not provide for optimal North Brampton Connection to 407/401	Not in-keeping with Proposed Heritage Heights Secondary Plan Consistent with Objectives for North West Brampton Urban Development	Not in-keeping with Proposed Secondary Plan Could act as future Norval By-pass. Does not provide for optimal North Brampton Connection to 407/401	Similar but not completely consistent with Proposed Secondary Plan Achieves transportation objectives of North Brampton Development	Consistent with Proposed Secondary Plan Consistent with Objectives for North Brampton Development
Land Use – Community	Urban and Rural Residential Uses (number of residential properties directly impacted by each route alternative)	6 Residential Parcels	6 Residential Properties	3 Residential Parcels	8 Residential Parcels	3 Residential Parcels
	Commercial/Industrial Uses (number of commercial/industrial properties directly impacted by each route alternative)	1 property affected: Crawford's Village Bakery (no road access if route chosen)	2 properties affected: Orchlaw Farms (development on route),no road access if route chosen Carl Laidlaw Orchards (development on route), no road access if route chosen	3 properties affected: Sun Opta Crawford's Village Bakery (no road access if route chosen) Gro Bark (development on southeast part of lot and on route)	3 properties affected: Orchlaw Farms (development on route), no road access if chosen Truck and Auto Repair (on route) Carl Laidlaw Orchards (development on route), no road access if route chosen.	2 properties affected: Carl Laidlaw Orchards (development on route), no road access if route chosen Gro Bark (development on southeast part of lot and on route) Osmington Regional Commercial Development (proposed)
	Tourist Areas and Attractions (number of tourist areas, attractions and recreational facilities directly impacted)	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected
	Community Facilities / Institutions (number of community facilities/institutions directly impacted)	1 property affected: Sant Nirankari & Satsang Bhawan (Health Services), no road access if route chosen	1 property affected: Brampton Wilderness Centre	1 property affected: Sant Nirankari & Satsang Bhawan (Health Services), no road access if route chosen	1 property affected: St. Elias Ukrainian Catholic Church (development on southwest portion of lot) and potential impact on proposed Catholic cemetery	Proposed Catholic cemetery
	Municipal Infrastructure and Public Service Facilities	Road proposed as a connection to Mount Pleasant GO Train	Road proposed as a connection to Mount Pleasant GO Train	Road proposed as a connection to Mount Pleasant GO Train	Road proposed as a connection to Mount Pleasant GO Train	Road proposed as a connection to Mount Pleasant GO Train
Noise Sensitive Areas (NSA's)	Transportation Noise (number of residences within 600 m of each route alternative)	13 Existing Residential Parcels Heritage Heights Residential Area - 157ha X 25u/Ha = 3,925 Units	20 Existing Residential Parcels Heritage Heights Residential Area – 176ha X 25u/Ha = 4,400 Units	7 Existing Residential Parcels Heritage Heights Residential Area - 129ha X 25u/Ha = 3,225 Units	21 Existing Residential Parcels Heritage Heights Residential Area - 144ha X 25u/Ha = 3,600 Units	5 Existing Residential Parcels Heritage Heights Residential Area - 139ha X 25u/Ha = 3,475 Units
Land Use - Resources	Agriculture including Specialized Agriculture (area of Class 1-3 soils)	CLI Class 1 = 8.9 ha CLI Class 3 = 40.9.8 ha	CLI Class 1 = 8.9 ha CLI Class 3 = 40.9 ha	CLI Class1 = 8.6 ha CLI Class 3 = 17.5 ha	CLI Class 1 = 7.5 ha CLI Class 3 = 33.4 ha	CLI Class 1 = 8.6 ha CLI Class 3 = 17.5 ha

Table 2. Screening of Long List of Alternatives - SECTION 2

FACTORS	Evaluation Criteria and Measurement	2A1 – Carried Forward	2A2 – Carried Forward	2B – Screened Out	2C – Carried Forward	2D – Carried Forward
	is expected to be consistent across all routes but will be measured to confirm. Impacts to Prime Agricultural Areas identified during Land Evaluation and Area Review (LEAR) studies for each Municipality where future land uses remain agricultural (i.e., **not** where lands are designated for future development).	CLI Class 5 = 3.1 ha 1 small farm complex Majority of route cuts diagonally across properties	CLI Class 5 = 3.1 ha 1 small farm complex Majority of route cuts across properties	CLI Class 5 = 2.1 ha Majority of route cuts diagonally across properties	CLI Class 5 = 2.6 ha Majority of route cuts diagonally across properties	CLI Class 5 = 2.1 ha Majority of route cuts diagonally across properties
	Aggregate and Mineral Resources (number of existing or future aggregate resources areas directly impacted)	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 2.3km Length 85 ha	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 4.5 km 114 ha	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 3.1km Length 61.8 ha	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 4km Length 99 ha	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 4.2km Length 106 ha
Major Utility Transmission Corridors and Pipelines (number of major impacts and qualitative assessment of challenges associated with direct impacts)		0	1 TransCanada Pipeline	1 TransCanada Pipeline	1 Pipeline Crossing	1 (Possibly 2) Pipeline Crossings
CULTURAL ENVIRONMENT						
Cultural Heritage – Built Heritage and Cultural Heritage Landscapes	The MTO Environmental Standards and Practices documents for Built Heritage and Cultural Heritage Landscapes (BHCHL Guide) outlines basic categories for the initial identification of cultural resources, including Designation under the Ontario Heritage Act (OHA) (D), Listing on municipal Heritage Registers (L), and identification as part of the MTO EA process (EA) which refers to properties pre-screened as having heritage significance potential. In the table properties are listed by site number and by heritage determination (D, L or EA). See Appendix for detailed information.	074 L 077 L 079 EA 081 EA 082 EA	073 D 077 L 079 EA 081 EA 082 EA	074 L 077 L	071 L 075 L 082 EA	071 L
	Cemeteries by site number (see appendix)	None known	None known	None known	076	None known
	First Nation Burials	None known	None known	None known	None known	None known
Archaeology	Known Archaeological Sites	1	None known	None known	3	1
TRANSPORTATION						
Network Compatibility	Compatibility with Municipal/Regional existing/planned key transportation corridors and potential interchange locations. Compatibility and proximity to	This route provides 3 opportunities for interchange connections to the existing road network as well as the future proposed extension of Sandalwood Parkway	This route provides 3 opportunities for interchange connections to the existing road network as well as the future proposed extension of Sandalwood Parkway	This route provides 3 opportunities for interchange connections to the existing road network, including Heritage Road, which has been identified by Brampton as a future 4 lane roadway as well as the future	This route provides 4 opportunities for interchange connections to the existing road network including Heritage Road, which has been identified by Brampton as a future 4 lane roadway as well as the future proposed extension of	This route provides 4 opportunities for interchange connections to the existing road network including Heritage Road, which has been identified by Brampton as a future 4 lane roadway as well as the future proposed extension of

Table 2. Screening of Long List of Alternatives - SECTION 2

FACTORS	Evaluation Criteria and Measurement	2A1 – Carried Forward	2A2 – Carried Forward	2B – Screened Out	2C – Carried Forward	2D – Carried Forward
	Municipal/Regional existing/planned transit initiatives, including rail and bus routes and transit stations.	This route is the farthest away from the Heritage Heights development plan. Due to the topography/land-use an interchange at Bovaird would be more difficult to layout/construct West crossings of the Credit River provide more opportunities for future Regional/Municipal initiatives for network connectivity (such as Norval By-Pass)	This route is the farthest away from the Heritage Heights development plan. The topography/land-use of this area provides a more desirable location for an interchange at Bovaird, compared to Route A1 This route provides comparable opportunities for future Regional/Municipal initiatives for network connectivity (such as Norval By-Pass) with West crossings of the Credit River	proposed extension of Sandalwood Parkway Due to the topography/land-use an interchange at Bovaird would be more difficult to layout/construct West crossings of the Credit River provide more opportunities for future Regional/Municipal initiatives for network connectivity (such as Norval By-Pass)	Sandalwood Parkway This route partially matches the alignment proposed by the Heritage Heights development plan Easterly alignments are closer to the future RT line along Mississauga Rd. and the proposed mobility hub (Bovaird/Mississauga Rd)	Sandalwood Parkway This route matches the alignment proposed by the Heritage Heights development plan Easterly alignments are closer to the future RT line along Mississauga Rd. and the proposed mobility hub (Bovaird/Mississauga Rd)
Constructability	Significant features that may impact construction (including route length, number and lengths of bridges, crossing of/proximity to utilities (i.e., Hydro Corridors, TCPL)).	Route Length = 7.02 km Bridges (#/Size) = 1 Medium 1 Long	Route Length = 8.25 km Bridges (#/Size) = 2 Long	Route Length = 6.66 km Bridges (#/Size) = 1 Medium 1 Long	Route Length = 8.0 km Bridges (#/Size) = 2 Long This route crosses the TransCanada Pipeline and then runs parallel to it for approx. 800 m	Route Length = 7.81 km Bridges (#/Size) = 2 Long This route runs on top of the TransCanada Pipeline for approx. 600 m, however, there are likely opportunities to shift the alignment to run parallel to the pipeline This route crosses the Credit River Floodplain zone at a wider location than the other crossings
Compliance with Design Criteria	Ability of the route to meet the geometric design standards ("Proposed Draft Concepts For New Rural Freeways" manual, i.e., 1700 m radius)	This Route meets the proposed design criteria	This Route meets the proposed design criteria, except the first curve north of the Credit River, which has a radius of 1500 m (1700 m required)	This Route meets the proposed design criteria	This Route meets the proposed design criteria	This Route meets the proposed design criteria

Table 3. Screening of Long List of Alternatives - SECTION 3

FACTORS	Evaluation Criteria and Measurement	3A – Carried Forward	3B – Carried Forward	3C – Screened Out	3D – Carried Forward	3E – Screened Out	3F – Screened Out
NATURAL ENVIRONMENT							
Fisheries and Aquatic Ecosystems	Fish Habitat (number of sensitive watercourse crossings or waterbodies). General measures of sensitivity include: watercourses with SAR, coldwater crossings, critical/specialized habitat, etc., as well as siting considerations, e.g., crossing at highly meandering reach/major bend, complex valley crossings etc.	**Potential Crossings**: ~3-4 crossings of tributaries to Etobicoke Creek West Branch >10 agricultural drainage/swales to Etobicoke Creek West Branch **Sensitivities**: Traverses headwaters area of Etobicoke Creek **Siting Considerations**: All crossings fairly perpendicular, no broad floodplains or meanders	**Potential Crossings**: ~5-7 crossings of tributaries to Etobicoke Creek West Branch >10 agricultural drainage/swales to Etobicoke Creek West Branch **Sensitivities**: Traverses headwaters area of Etobicoke Creek Crosses at confluence of two drainage features, but appears to cross wetland at no defined channel **Siting Considerations**: Follows parallel to section of drainage channel between Creditview and Chinguacousy Road	**Potential Crossings**: ~3 crossings of major tributaries to Etobicoke Creek West Branch just west of Hurontario Street 2 minor crossings of drainage/wetland tribs to Etobicoke Creek West Branch east of Chinguacousy Road >10 agricultural drainage/swales to Etobicoke Creek West Branch **Sensitivities**: Traverses headwaters area of Etobicoke Creek Route crossings just west of Hurontario crosses major tributaries at two areas of confluence **Siting Considerations**: Opportunities to reduce skew of crossings at drainage features (e.g. west of Creditview) Opportunity to avoid crossing at confluences	**Potential Crossings**: ~3-6 crossings of major tributaries to Etobicoke Creek West Branch. 2 minor crossings of drainage/wetland tributaries to Etobicoke Creek West Branch east of Chinguacousy Road ~8-9 agricultural drainage/swales to Etobicoke Creek West Branch **Sensitivities**: Traverses headwaters area of Etobicoke Creek Crossing through area of drainage confluence/wetland at Creditview Road **Siting Considerations**: All crossings fairly perpendicular, no broad floodplains or meanders	**Potential Crossings**: 1 crossing of Etobicoke Creek West Branch main stem 1 crossing of major tributary to Etobicoke Creek West Branch ~3-5 minor crossings of tribs to Etobicoke Creek West Branch ~5 agricultural drainage/swales to Etobicoke Creek West Branch **Sensitivities**: Both major crossings are on significant meanders Route parallels main stem of Etobicoke Creek West Branch between Creditview and Chinguacousy **Siting Considerations**: Opportunity to narrow ROW through major crossings to reduce length of meander crossed	**Potential Crossings**: 1 crossing of Etobicoke Creek West Branch main stem ~5-6 crossings of tributaries to Etobicoke Creek West Branch ~5 agricultural drainage/swales to Etobicoke Creek West Branch **Sensitivities**: Major crossing at slight skew to watercourse Corridor impacts meander bend of main stem of Etobicoke Creek west of crossing Route parallels main stem of Etobicoke Creek West Branch between Creditview and Chinguacousy **Siting Considerations**: Opportunity to reduce skew at main stem crossing

Table 3. Screening of Long List of Alternatives - SECTION 3

FACTORS	Evaluation Criteria and Measurement	3A – Carried Forward	3B – Carried Forward	3C – Screened Out	3D – Carried Forward	3E – Screened Out	3F – Screened Out
Terrestrial Ecosystems	Wetlands (area or number of wetlands crossed by each alternative – includes PSWs, non-PSWs and PSW status to be determined)	**Feature Affected:** Etobicoke Creek Headwaters Wetland Complex **Impacts:** Edge effects to PSW Removal of wetlands within the complex including: Three wetlands (marsh and swamp communities) will be fully removed: Two communities are <1 ha one community is <3 ha Four wetland communities will be partially removed (includes marsh and swamp communities) Wetlands generally <3 ha	**Feature Affected:** Etobicoke Creek Headwaters Wetland Complex **Impacts:** Edge effects to PSW Removal of wetlands within the complex including: Partial removal of 7.9 ha, 1.2 ha, 2 ha and <1 ha Swamp communities Partial removal of <1 ha swamp and marsh habitat	**Feature Affected:** Etobicoke Creek Headwaters Wetland Complex **Impacts:** Edge effects to PSW Removal of wetlands within complex including: Partial Removal of <1 ha swamp and marsh Partial removal of 1.7 ha swamp and marsh Full removal of <1 ha marsh. Partial removal of 7.9 ha of swamp Partial removal of 5 ha marsh and swamp Partial removal of 1.5 ha of marsh, swamp and open water Partial removal of 1.2ha swamp	**Feature Affected:** Etobicoke Creek Headwaters Wetland Complex **Impacts:** Edge effects to PSW Removal of wetlands within the complex including: Partial removal of 4.8 ha marsh habitat Partial removal of 2.9 ha swamp Partial removal of <1 ha marsh Partial removal of 7.9 ha swamp Partial removal of 5 ha marsh and swamp Partial removal of 1.2 ha swamp Partial removal of <1 ha marsh	**Feature Affected:** Etobicoke Creek Headwaters Wetland Complex **Impacts:** Edge effects to PSW. Removal of wetlands within the complex including: Partial removal of 9.8 ha swamp and marsh communities Partial removal of 5 ha swamp Partial removal of 1.5 ha swamp	**Feature Affected:** Etobicoke Creek Headwaters Wetland Complex **Impacts:** Edge effects to PSW. Removal of wetlands within the complex including: Partial removal of 9.8 ha swamp and marsh communities Partial removal of <1 ha wetland habitat Partial removal of 1.2 ha swamp community Partial removal of <1 ha marsh community

Table 3. Screening of Long List of Alternatives - SECTION 3

FACTORS	Evaluation Criteria and Measurement	3A – Carried Forward	3B – Carried Forward	3C – Screened Out	3D – Carried Forward	3E – Screened Out	3F – Screened Out
	Woodlands and other Vegetation (area of impact on significant woodlands, large intact habitat blocks, and associated wildlife habitat).	**Feature Affected:** Non-significant Woodlands Abiotic damage affected woodlands **Impacts:** Partial removal of 11 ha of woodland affected with Abiotic damage (hail) with interior habitat Partial Removal of 6.3 non-significant woodland with abiotic damage (hail) Partial removal of 5.3 ha non-significant woodland Partial removal of 12.5 ha non-significant woodlands with interior habitat Full removal of 2.8 ha non-significant woodland Partial removal of 3.9 ha non-significant woodland Removal of riparian vegetation	**Feature Affected:** Non-significant Woodlands Abiotic damage affected woodlands Interior Woodland **Impacts:** Partial removal of 11 ha woodland affected with Abiotic damage (hail) with interior habitat Partial removal of 3.8 ha non-significant woodland Partial removal of 13.8 ha non-significant woodland Partial removal of 5.3 ha non-significant woodlands Partial removal of 14.7 ha non-significant woodlands with interior habitat Partial removal of <1 ha interior woodland Partial removal of 0.9 ha non-significant woodlands Partial removal of 6.5 ha non-significant woodland Partial removal of 8.5 ha non-significant woodland Full removal of 0.35 ha non-significant woodland Removal of riparian vegetation	**Feature Affected:** Non-significant woodlands Abiotic damage affected woodlands Interior Woodland **Impacts:** Partial removal of 11 ha woodland affected with Abiotic damage (hail) with interior habitat Partial removal of 3.8 ha non-significant woodland Partial removal of 13.8 ha non-significant woodland Partial removal of 5.3 ha non-significant Woodland Partial removal of 14.7 ha non-significant woodlands with interior habitat Partial removal of <1 ha interior woodland Partial removal of 1.1ha non-significant woodlands Partial removal of 6.5 ha non-significant woodland Partial removal of 15.8 ha non-significant woodland Removal of riparian vegetation	**Feature Affected:** Non-Significant Woodlands Interior Woodland **Impacts:** Partial removal of 11 ha woodland affected with Abiotic damage (hail) with interior habitat Partial removal of 12.5 ha non-significant woodlands with interior habitat Partial removal of 14.7 ha non-significant woodlands with interior habitat Partial removal of <1 ha interior forest Partial removal of 1.1 ha non-significant woodlands Partial removal of 6.5 ha non-significant woodland Partial removal of 8.5 ha non-significant woodland Removal of riparian vegetation	**Feature Affected:** Non-significant Woodland Interior Woodland **Impacts:** Partial removal of 11 ha woodland affected with Abiotic damage (hail) with interior habitat Partial removal of 4.6 ha non-significant woodland Partial removal of 16.1 ha non-significant woodland with interior habitat Partial removal of 15.8 ha of non-significant woodland Removal of riparian vegetation	**Feature Affected:** Non-significant Woodland Interior Woodland **Impacts:** Partial removal of 11 ha woodland affected with Abiotic damage (hail) with interior habitat Partial removal of 4.6 ha non-significant woodland Partial removal of 16.1 ha non-significant woodland with interior habitat Partial removal of 1.1 ha non-significant woodlands Partial removal of 6.5 ha non-significant woodland Partial removal of 8.5 ha non-significant woodland Removal of riparian vegetation

Table 3. Screening of Long List of Alternatives - SECTION 3

FACTORS	Evaluation Criteria and Measurement	3A – Carried Forward	3B – Carried Forward	3C – Screened Out	3D – Carried Forward	3E – Screened Out	3F – Screened Out
	Designated/Special/Natural Areas (numbers or areas of ESAs, ANSIs, Greenbelt areas impacted by each route alternative).	Crosses greenbelt	Crosses greenbelt	Crosses greenbelt	Crosses greenbelt Crosses conservation authority (Etobicoke Headwaters CA)	Crosses greenbelt	Crosses greenbelt
LAND USE / SOCIO-ECONOMIC							
Land Use Planning Policies, Goals, Objectives	Municipal (local and regional) Land Use Planning Policies / Goals / Objectives (qualitative assessment of each route's compatibility with municipal land use policies, goals, objectives etc.)	Second most significant impact on Agricultural Area due to length but minimizes fragmenting Agricultural Area	Most significant impact on Agricultural Area due to length. Also major fragmentation of Agricultural Area	High impact on Agricultural Area. Also major fragmentation of Agricultural Area	Reduces impact on Agricultural lands. Does not impact future Mayfield West Development	Limited Impact on Agricultural Area Some impact on future Mayfield West development	Least impact on Agricultural Areas Most Impact on future Mayfield West Development
Land Use – Community	Urban and Rural Residential Uses (number of residential properties directly impacted by each route alternative)	6 Residential Parcels	10 Residential Parcels	2 Residential Parcels	12 Residential Parcels	14 Residential Parcels	15 Residential Parcels
	Commercial/Industrial Uses (number of commercial/industrial properties directly impacted by each route alternative)	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected	1 property affected: Hogg & Nevills Electric (on route) - access affected by route
	Tourist Areas and Attractions (number of tourist areas, attractions and recreational facilities directly impacted)	Brampton Airport	No properties affected	No properties affected	No properties affected	No properties affected	Brampton Airport
	Community Facilities / Institutions (number of community facilities/institutions directly impacted)	No properties affected	No properties affected	1 property affected: Brentwood Academy (on route) -access affected by route	No properties affected	No properties affected	No properties affected
	Municipal Infrastructure and Public Service Facilities	Possibly affected by the Brampton Airport. Do not know the flight paths and elevations of planes yet.	Possibly affected by the Brampton Airport. Do not know the flight paths and elevations of planes yet.	Possibly affected by the Brampton Airport. Do not know the flight paths and elevations of planes yet.	No properties affected	No properties affected	Possibly affected by the Brampton Airport. Do not know the flight paths and elevations of planes yet.
Noise Sensitive Areas (NSA's)	Transportation Noise (number of residences within 600 m of each route alternative)	28 Existing Residential Parcels	19 Existing Residential Parcels	15 Existing Residential Parcels	17 Existing Residential Parcels	17 Existing Residential Parcels Mayfield West Secondary Plan Residential Area – 9ha X 25u/Ha = 225 Units	21 Existing Residential Parcels Mayfield West Secondary Plan Residential Area - 39ha X 25u/Ha = 975 Units
Land Use - Resources	Agriculture including Specialized Agriculture (area of Class 1-3 soils) is expected to be consistent across all routes but will be measured to confirm. Impacts to Prime Agricultural Areas	CLI Class 1 = 130.3 ha CLI Class 3 = 28.5 ha CLI Class 5 = 25.0 ha 1 small farm complex	CLI Class 1 = 100.3 ha CLI Class 3 = 27.2 ha CLI Class 5 = 12.0 ha 2 medium farm complexes	CLI Class 1 = 69.6 ha CLI Class 3 = 26.6 ha CLI Class 5 = 3.7 ha 3 small farm complexes	CLI Class 1 = 93.9 ha CLI Class 3 =18.1 ha CLI Class 5 = 11.0 ha 1 small farm complex	CLI Class 1 = 75.0 ha CLI Class 3 = 3.5 ha CLI Class 5 = 3.0 ha 2 large farm complexes	CLI Class 1 = 99.2 ha CLI Class 3 = 10.2 ha CLI Class 5 = 8.3 ha 1 medium farm complex

Table 3. Screening of Long List of Alternatives - SECTION 3

FACTORS	Evaluation Criteria and Measurement	3A – Carried Forward	3B – Carried Forward	3C – Screened Out	3D – Carried Forward	3E – Screened Out	3F – Screened Out
	identified during Land Evaluation and Area Review (LEAR) studies for each Municipality where future land uses remain agricultural (i.e., **not** where lands are designated for future development).	2 medium farm complexes 1 large farm complex Route runs along property lines for one concession, then diagonally across properties	1 large farm complex Route runs diagonally for half of length, then runs along property lines	 Route runs diagonally for half of length, then runs along property lines	2 medium farm complexes Route runs with property lines, then diagonally	 Route runs with property lines, then diagonally	1 large farm complex Route runs with property lines, then diagonally
	Aggregate and Mineral Resources (number of existing or future aggregate resources areas directly impacted)	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources Queenston Shale Deposit 0km. 0.95ha	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources
Major Utility Transmission Corridors and Pipelines (number of major impacts and qualitative assessment of challenges associated with direct impacts)		0	0	0	0	0	0
CULTURAL ENVIRONMENT							
Cultural Heritage – Built Heritage and Cultural Heritage Landscapes	The MTO Environmental Standards and Practices documents for Built Heritage and Cultural Heritage Landscapes (BHCHL Guide) outlines basic categories for the initial identification of cultural resources, including Designation under the Ontario Heritage Act (OHA) (D), Listing on municipal Heritage Registers (L), and identification as part of the MTO EA process (EA) which refers to properties pre-screened as having heritage significance potential. In the table properties are listed by site number and by heritage determination (D, L or EA). See Appendix for detailed information.	093 EA 094 EA 100 EA 114 EA	095 EA 114 EA 121 L 122 EA	093 EA 094 EA 095 EA 117 L 118 L 124 L	093 EA 094 EA 100 EA 112 L 119 L 120 L 121 L	093 EA 094 EA 099 EA 117 L 118 L	093 EA 094 EA 099 EA 108 L 116 L 117 L 118 L 119 L 120 L
	Cemeteries by site number	None known	None known	None known	None known	None known	None known
	First Nation Burials	None known	None known	None known	None known	None known	None known
Archaeology	Known Archaeological Sites	None known	None known	None known	None known	None known	None known
TRANSPORTATION							
Network Compatibility	Compatibility with Municipal/Regional existing/planned key transportation corridors and potential interchange locations Compatibility and proximity to Municipal/Regional existing/planned transit initiatives, including rail and bus routes and transit stations	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations
Constructability	Significant features that may impact construction (including route length,	Challenging construction of potential interchange at	Potential interchange at Chinguacousy Rd should be	Potential interchange at Chinguacousy Rd should be	Potential interchange at Chinguacousy Rd should be	Potential interchange at Chinguacousy Rd should be	Potential interchange at Chinguacousy Rd should be

Table 3. Screening of Long List of Alternatives - SECTION 3

FACTORS	Evaluation Criteria and Measurement	3A – Carried Forward	3B – Carried Forward	3C – Screened Out	3D – Carried Forward	3E – Screened Out	3F – Screened Out
	number and lengths of bridges, crossing of/proximity to utilities (i.e., Hydro Corridors, TCPL)).	Chinguacousy Rd, due to proximity of existing intersection with Old School Rd and staging impacts of local road realignments Potential interchange at Hurontario St, should be straightforward Common to all alternatives: New grade-separated rail crossing required Route Length = 7.36 km	straightforward Challenging construction at McLaughlin Rd due to proximity of existing intersection with Old School Rd and staging impacts of local road realignments Potential interchange at Hurontario St, should be straightforward. Common to all alternatives: New grade-separated rail crossing required Route Length = 6.94 km	straightforward Challenging construction of potential interchange at Hurontario St, due to proximity of existing intersection with Old School Rd and staging impacts of local road realignments. Common to all alternatives: New grade-separated rail crossing required Route Length = 6.77 km	straightforward Challenging construction at McLaughlin Rd due to proximity of existing intersection with Old School Rd and staging impacts of local road realignments Potential interchange at Hurontario St, should be straightforward Common to all alternatives: New grade-separated rail crossing required Route Length = 6.86 km	straightforward Challenging construction of potential interchange at Hurontario St, due to proximity of existing intersection with Old School Rd and staging impacts of local road realignments Common to all alternatives: New grade-separated rail crossing required Route Length = 6.72 km	straightforward Potential interchange at Hurontario St should be straightforward Common to all alternatives: New grade-separated rail crossing required Route Length = 7.71 km
Compliance with Design Criteria	Ability of the route to meet the geometric design standards ("Proposed Draft Concepts For New Rural Freeways" manual, i.e., 1700 m radius)	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway

Table 4. Screening of Long List of Alternatives - SECTION 4

FACTORS	Evaluation Criteria and Measurement	4A – Screened Out	4B – Carried Forward	4C – Carried Forward	4D – Carried Forward	4E – Screened Out
NATURAL ENVIRONMENT						
Fisheries and Aquatic Ecosystems	Fish Habitat (number of sensitive watercourse crossings or waterbodies). General measures of sensitivity include: watercourses with SAR, coldwater crossings, critical/specialized habitat, etc., as well as siting considerations, e.g., crossing at highly meandering reach/major bend, complex valley crossings etc.	**Potential Crossings**: 5 tributary crossings: (2 tributaries to Etobicoke Creek, Campbells Cross Creek, Tributary to West Humber River, and Salt Creek) 2 small tributary crossings to Salt Creek Parallels agricultural drainage/swale for ~1 km **Sensitivities**: Aquatic SAR at Campbells Cross Creek and Tributary to West Humber River crossings (SAR) RSD at Salt Creek crossing **Siting Considerations**: Crossings of Salt Creek tributaries slightly skewed Possible realignment of agricultural drainage at north end of route needed	**Potential Crossings**: 4 tributary crossings: (2 tributaries to Etobicoke Creek, Campbells Cross Creek, Tributary to West Humber River) 1 small tributary crossing to Salt Creek 2 minor agricultural drainages/swales **Sensitivities**: Aquatic SAR at Campbells Cross Creek and Tributary to West Humber River crossings (SAR) **Siting Considerations**: None	**Potential Crossings**: 5 tributary crossings: (2 tributaries to Etobicoke Creek, Campbells Cross Creek, Tributary to West Humber River, and Salt Creek) 2 small tributary crossings to Salt Creek 3 minor agricultural drainages/swales or channels **Sensitivities**: Aquatic SAR at Campbells Cross Creek and Tributary to West Humber River crossings (SAR) RSD at Salt Creek crossing Parallels minor agricultural channel at north end of route, possible realignment Crosses Salt Creek at significant meander **Siting Considerations**: Opportunity to reduce skew at agricultural channel to avoid realignment Opportunity to narrow ROW to reduce length of meander crossed at Salt Creek	**Potential Crossings**: 4 tributary crossings: (2 tributaries to Etobicoke Creek, Campbells Cross Creek, Tributary to West Humber River) 1 small tributary crossings to Salt Creek 6 minor agricultural drainages/swales or channels **Sensitivities**: Aquatic SAR at Campbells Cross Creek and Tributary to West Humber River crossings (SAR) Parallels minor agricultural channel at north end of route, possible realignment Slight meander at crossing of Etobicoke Creek Tributary **Siting Considerations**: None	**Potential Crossings**: 8 tributary crossings: (2 tributaries to Etobicoke Creek, Campbells Cross Creek, 4 other Tributaries to West Humber River, and Salt Creek) ~2-3 minor agricultural drainages/swales or channels **Sensitivities**: Aquatic SAR at Campbells Cross Creek and Tributary to West Humber River crossings (SAR) RSD at Salt Creek crossing and complex crossing location of Salt Creek at confluence of 3 contributing channels to main stem Crossing of middle tributary to West Humber at reservoir on golf course **Siting Considerations**: None
Terrestrial Ecosystems	Wetlands (area or number of wetlands crossed by each alternative – includes PSWs, non-PSWs and PSW status to be determined).	**Features Affected:** Etobicoke Creek Headwaters Wetland Complex (PSW) Unevaluated Wetland **Impacts:** Partial removal of 1 ha swamp community (PSW) Partial removal of <1 ha unevaluated wetland	**Features Affected:** Etobicoke Creek Headwaters Wetland Complex (PSW) Unevaluated Wetland **Impacts:** Partial removal of 1 ha swamp community (PSW) Partial removal of <1 ha unevaluated wetland	**Features Affected:** Etobicoke Creek Headwaters Wetland Complex (PSW) Unevaluated Wetland **Impacts:** Partial removal of <1 ha swamp community (PSW) Partial removal of <1 ha unevaluated wetland.	**Features Affected:** Etobicoke Creek Headwaters Wetland Complex (PSW) Unevaluated Wetland **Impacts:** Partial removal of <1 ha swamp community (PSW) Partial removal of 2 ha unevaluated wetland Partial removal of 1 ha unevaluated wetland	**Features Affected:** Etobicoke Creek Headwaters Wetland Complex (PSW) Unevaluated Wetland **Impacts:** Partial removal of <1 ha swamp community (PSW) Partial removal of 2 ha unevaluated wetland Partial removal of 2.5 ha unevaluated wetland

Table 4. Screening of Long List of Alternatives - SECTION 4

FACTORS	Evaluation Criteria and Measurement	4A – Screened Out	4B – Carried Forward	4C – Carried Forward	4D – Carried Forward	4E – Screened Out
	Woodlands and other Vegetation (area of impact on significant woodlands, large intact habitat blocks, and associated wildlife habitat).	**Features Affected:** Non-significant woodland Interior Woodland **Impacts:** Partial removal of 16ha non-significant woodland with interior habitat Partial removal of 2.1ha non-significant woodland Partial removal of 2.3ha non-significant woodland Partial removal of 4ha non-significant woodland Partial removal of 3ha non-significant woodland Partial removal of 0.3ha non-significant woodland Removal of Riparian Vegetation	**Features Affected:** Non-significant woodland Interior Woodland **Impacts:** Partial removal of 16 ha non-significant woodland with interior habitat Partial removal of 2.1 ha non-significant woodland Partial removal of 2.3 ha non-significant woodland Partial removal of 4 ha non-significant woodland Partial removal of 4 ha non-significant woodland Partial removal of 0.13 ha non-significant woodland Partial removal of 3.1 ha non-significant woodlands Partial removal of 0.13 ha non-significant woodland Removal of Riparian Vegetation	**Features Affected:** Non-significant woodland Interior Woodland **Impacts:** Partial removal of 16 ha non-significant woodland with interior habitat Partial removal of 14.5 ha non-significant woodlands adjacent to interior forest habitat Full removal of 0.31 ha non-significant woodland Partial removal of 3.1 ha non-significant woodland Full removal of 1.1 ha non-significant woodland Partial removal of 6.9 ha non-significant woodland with interior habitat Partial removal of 2 ha non-significant woodlands Partial removal of 1.2 ha and 1.3 ha non-significant woodland Full removal of 0.1 ha non-significant woodlands Removal of Riparian Vegetation	**Features Affected:** Non-significant woodland Interior Woodland **Impacts:** Partial removal of 16 ha non-significant woodland with interior habitat Partial removal of 3.19h a non-significant woodland Partial removal of 0.4 ha non-significant woodland Full removal of 0.3 ha of non-significant woodland Partial removal of 6.9 ha non-significant woodland with interior habitat Partial removal of 2 ha non-significant woodland Partial removal of 3.1 ha non-significant woodlands Removal of Riparian Vegetation	**Features Affected:** Non-significant Woodland. Interior Woodland **Impacts:** Partial removal of 16 ha non-significant woodland with interior habitat. Full removal of 0.42 ha of non-significant woodland. Partial removal of 3.1 ha of non-significant woodland. Full removal of 0.3 ha of non-significant woodland. Full removal of 0.5 ha of non-significant woodland. Partial removal of 1.28 ha non-significant woodland. Partial removal of 1.29 ha non-significant woodland. Partial removal of 0.3 ha non-significant woodland. Partial removal of <10 ha non-significant woodland. Removal of Riparian Vegetation
	Designated/Special/Natural Areas (numbers or areas of ESAs, ANSIs, Greenbelt areas impacted by each route alternative).	Crosses greenbelt	Crosses greenbelt	Crosses greenbelt	Crosses greenbelt	Crosses greenbelt

Table 4. Screening of Long List of Alternatives - SECTION 4

FACTORS	Evaluation Criteria and Measurement	4A – Screened Out	4B – Carried Forward	4C – Carried Forward	4D – Carried Forward	4E – Screened Out
LAND USE / SOCIO-ECONOMIC						
Land Use Planning Policies, Goals, Objectives	Municipal (local and regional) Land Use Planning Policies / Goals / Objectives (qualitative assessment of each route's compatibility with municipal land use policies, goals, objectives etc.).	Significant impact on Agricultural area Will result in pressure to urbanize to corridor from the south	Significant impact on Agricultural area Will result in pressure to urbanize to corridor from the south	Impact on Agricultural area somewhat less than A and B Will result in pressure to urbanize to corridor from the south but less land potentially impacted	Impact on Agricultural area somewhat less than A, B and C Will result in pressure to urbanize to corridor from the south but less land potentially impacted Minimal Impact on Mayfield	Minimal Impact on Agricultural area Pressure to urbanize to corridor less than other options Minimal Impact on Mayfield
Land Use – Community	Urban and Rural Residential Uses (number of residential properties directly impacted by each route alternative).	11 Residential Parcels	7 Residential Parcels	20 Residential Parcels	8 Residential Parcels	16 Residential Parcels
	Commercial/Industrial Uses (number of commercial/industrial properties directly impacted by each route alternative).	No properties affected	1 property affected: House Sweet House Summer Camp (development on southern portion of lot) -access by road affected	2 properties affected: Argo Sales Trailer (on route) House Sweet House Summer Camp (south portion on route) - access by road affected	1 property affected: House Sweet House Summer Camp (south portion on route - access by road affected)	No properties affected
	Tourist Areas and Attractions (number of tourist areas, attractions and recreational facilities directly impacted).	No properties affected	No properties affected	No properties affected	No properties affected	1 property affected: Banty's Roost Golf and Country Club (development on lot located southeast and northwest of route)
	Community Facilities / Institutions (number of community facilities/institutions directly impacted).	No properties affected	No properties affected	No properties affected	No properties affected	1 property affected: Brampton Fairgrounds (on route) - access by road affected
	Municipal Infrastructure and Public Service Facilities.	Possibly affected by the Brampton Airport. Do not know the flight paths and elevations of planes yet.	Possibly affected by the Brampton Airport. Do not know the flight paths and elevations of planes yet.	No properties affected	No properties affected	No properties affected
Noise Sensitive Areas (NSA's)	Transportation Noise (number of residences within 600 m of each route alternative).	29 Existing Residential Parcels	26 Existing Residential Parcels	30 Existing Residential Parcels	30 Existing Residential Parcels	30 Existing Residential Parcels
Land Use - Resources	Agriculture including Specialized Agriculture (area of Class 1-3 soils) is expected to be consistent across all routes but will be measured to confirm. Impacts to Prime Agricultural Areas identified during Land Evaluation and Area Review (LEAR) studies for each Municipality where future land uses remain agricultural (i.e., **not** where lands are designated for future development).	CLI Class 1 = 156.7 ha CLI Class 3 = 31.2 ha CLI Class 5 = 24.3 ha 1 medium farm complex 1 large farm complex Route initially runs diagonally across properties, then along properties, and diagonally again.	CLI Class 1 = 164.6 ha CLI Class 2 = 1.0 ha CLI Class 3 = 9.7 ha CLI Class 5 = 17.6 ha 1 small farm complex 2 medium farm complexes Route initially runs diagonally across properties, then along properties, and diagonally again	CLI Class 1 = 126.4 ha CLI Class 2 = 35.9 ha CLI Class 3 = 14.8 ha CLI Class 5 = 19.5 ha Route initially runs diagonally across properties, then along properties, and diagonally again	CLI Class 1 = 114.6 ha CLI Class 2 = 37.6 ha CLI Class 3 = 21.2 ha CLI Class 5 = 18.2 ha 1 small farm complex 1 large farm complex Route runs along property lines, then runs diagonally	CLI Class 1 = 123.9 ha CLI Class 2 = 27.3 ha CLI Class 3 = 6.1 ha CLI Class 5 = 18.7 ha 1 small farm complex 2 large farm complexes Route runs along property lines and parallel to roads
	Aggregate and Mineral Resources (number of existing or future aggregate resources areas directly impacted).	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources

Table 4. Screening of Long List of Alternatives - SECTION 4

FACTORS	Evaluation Criteria and Measurement	4A – Screened Out	4B – Carried Forward	4C – Carried Forward	4D – Carried Forward	4E – Screened Out
Major Utility Transmission Corridors and Pipelines (number of major impacts and qualitative assessment of challenges associated with direct impacts)		0	0	0	0	0
CULTURAL ENVIRONMENT						
Cultural Heritage – Built Heritage and Cultural Heritage Landscapes	The MTO Environmental Standards and Practices documents for Built Heritage and Cultural Heritage Landscapes (BHCHL Guide) outlines basic categories for the initial identification of cultural resources, including Designation under the Ontario Heritage Act (OHA) (D), Listing on municipal Heritage Registers (L), and identification as part of the MTO EA process (EA) which refers to properties pre-screened as having heritage significance potential. In the table properties are listed by site number and by heritage determination (D, L or EA). See Appendix for detailed information.	132 EA 150 EA 155 EA	132 EA 155 EA 159 D	131 EA 153 EA 154 EA	131 EA 153 EA 159 D	131 EA 136 EA 145 EA 146 EA
	Cemeteries by site number	None known	None known	None known	None known	None known
	First Nation Burials	None known	None known	None known	None known	None known
Archaeology	Known Archaeological Sites	None known	None known	None known	None known	None known
TRANSPORTATION						
Network Compatibility	Compatibility with Municipal/Regional existing/planned key transportation corridors and potential interchange locations. Compatibility and proximity to Municipal/Regional existing/planned transit initiatives, including rail and bus routes and transit stations.	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations including Hwy 410 extension alternative	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations including Hwy 410 extension alternative	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations including Hwy 410 extension alternative	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations including Hwy 410 extension alternative	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations including Hwy 410 extension alternative
Constructability	Significant features that may impact construction (including route length, number and lengths of bridges, crossing of/proximity to utilities (i.e., Hydro Corridors, TCPL)).	Common to all alternatives: New Freeway to freeway construction at 410 extension will be dependent on selected Hwy 410 alternative Potential interchange at Dixie Rd should be straightforward Potential interchange at Bramalea Rd should be straightforward Challenging construction at at Torbram Rd due to proximity of existing intersection with Old School	Common to all alternatives: New Freeway to freeway construction at 410 extension will be dependent on selected Hwy 410 alternative Potential interchange at Dixie Rd should be straightforward Potential interchange at Bramalea Rd should be straightforward 1 Small Bridge (Rail) Route Length = 7.61 km	Common to all alternatives: New Freeway to freeway construction at 410 extension will be dependent on selected Hwy 410 alternative Potential interchange at Dixie Rd should be straightforward Challenging construction of potential interchange at Bramalea Rd, due to proximity of existing intersection with Old School Rd and staging impacts of local road realignments	Common to all alternatives: New Freeway to freeway construction at 410 extension will be dependent on selected Hwy 410 alternative. Challenging construction of potential interchange at Dixie Rd, due to proximity of existing intersection with Old School Rd and staging impacts of local road realignments Challenging construction of potential interchange at Bramalea Rd, due to proximity of existing	Common to all alternatives: New Freeway to freeway construction at 410 extension will be dependent on selected Hwy 410 alternative Challenging construction between Kennedy Rd and Dixie Rd requiring numerous local road realignments to maintain regional network connectivity Challenging construction of potential interchange at Dixie Rd, due to proximity of existing intersection with Old School Rd and staging impacts of

Table 4. Screening of Long List of Alternatives - SECTION 4						
FACTORS	**Evaluation Criteria and Measurement**	**4A – Screened Out**	**4B – Carried Forward**	**4C – Carried Forward**	**4D – Carried Forward**	**4E – Screened Out**
		Rd and staging impacts of local road realignments 1 Small Bridge (Rail) Route Length = 8.49 km		1 Small Bridge (Rail) Route Length = 8.39 km	intersection with Old School Rd and staging impacts of local road realignments 1 Medium Bridge (Tributary) 1 Small Bridge (Rail) Route Length = 7.67 km	local road realignments Challenging construction of potential interchange at Bramalea Rd, due to proximity of existing intersection with Old School Rd and staging impacts of local road realignments 1 Medium Bridge (Tributary) 2 Small Bridge (Rail/Tributary) Route Length = 7.93 km
Compliance with Design Criteria	Ability of the route to meet the geometric design standards (“Proposed Draft Concepts For New Rural Freeways” manual, i.e., 1700 m radius).	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway

Table 5. Screening of Long List of Alternatives - SECTION 5

FACTORS	Evaluation Criteria and Measurement	5A – Carried Forward	5B – Screened Out	5C – Screened Out	5D – Carried Forward
NATURAL ENVIRONMENT					
Fisheries and Aquatic Ecosystems	Fish Habitat (number of sensitive watercourse crossings or waterbodies). General measures of sensitivity include: watercourses with SAR, coldwater crossings, critical/specialized habitat, etc., as well as siting considerations, e.g., crossing at highly meandering reach/major bend, complex valley crossings etc.	**Potential Crossings:** 1-2 crossings of Salt Creek Several minor crossings of agricultural drainage/swales **Sensitivities:** RSD habitat at Salt Creek crossing or possibly just downstream Crosses Salt Creek at confluence of two branches Traverses headwater areas of 3 tributaries to West Humber River **Siting Considerations:** None (except double tributary crossing of Salt Creek)	**Potential Crossings:** 1 crossing of Salt Creek 2 tributary crossings of West Humber River 2-3 minor agricultural swales **Sensitivities:** RSD at Salt Creek crossing. Crossing easterly tributary of West Humber at slight meander Possible realignment of westerly tributary of West Humber River required **Siting Considerations:** Opportunity to narrow ROW at West Humber Tributary crossings to avoid meanders	**Potential Crossings:** 1 crossing of Salt Creek at significant bend in creek (a difficult crossing) immediately west of the section limit 4-5 minor crossings of agricultural drainage tributaries to West Humber river **Sensitivities:** RSD in Salt Creek (immediately west of section limit) Difficult meander crossing of Salt Creek required for this route alternative (immediately west of section limit) **Siting Considerations:** Potential opportunity to narrow ROW at Salt Creek crossing to reduce width of crossing – but the angle and length of meander leaves few opportunities for mitigating impacts	**Potential Crossings:** 1 crossing of Salt Creek but with a better crossing angle 4-5 minor crossings of agricultural drainage tributaries to West Humber river **Sensitivities:** RSD in Salt Creek **Siting Considerations:** Opportunity to narrow ROW at Salt Creek crossing to reduce width and length of crossing
Terrestrial Ecosystems	Wetlands (area or number of wetlands crossed by each alternative – includes PSWs, non-PSWs and PSW status to be determined)	**Feature affected:** Unevaluated Wetland **Impacts:** Four unevaluated wetland communities fully removed; all less than 1ha in size Partial removal of two unevaluated wetlands (<1ha in size)	**Feature affected:** No wetland features **Impacts:** None	**Feature affected:** No wetland features **Impacts:** None	**Feature affected:** No wetland features **Impacts:** None
	Woodlands and other Vegetation (area of impact on significant woodlands, large intact habitat blocks, and associated wildlife habitat).	**Feature affected:** Non-significant woodland Interior woodland **Impacts:** Partial removal of 4 ha of non-significant woodland with interior habitat Partial removal of interior habitat within 4 ha of non-significant woodland, as noted above Edge effects on1.8 ha non-significant woodland Removal of Riparian Vegetation	**Feature affected:** Non-significant woodlands Interior woodland **Impacts:** Partial removal of 4 ha of non-significant woodland with interior habitat Partial removal of interior habitat within 4 ha non-significant woodland, as noted above Full removal of 0.2 ha non-significant woodland Full removal of 0.2 ha non-significant woodland Removal of Riparian Vegetation	**Feature affected:** Non-significant woodlands **Impacts:** Partial removal of 0.2 ha non-significant woodland Removal of Riparian Vegetation	**Feature affected:** None **Impacts:** Removal of Riparian Vegetation

Table 5. Screening of Long List of Alternatives - SECTION 5					
FACTORS	**Evaluation Criteria and Measurement**	**5A – Carried Forward**	**5B – Screened Out**	**5C – Screened Out**	**5D – Carried Forward**
	Designated/Special/Natural Areas (numbers or areas of ESAs, ANSIs, Greenbelt areas impacted by each route alternative).	Greenbelt crossing	NONE	NONE	NONE
LAND USE / SOCIO-ECONOMIC					
Land Use Planning Policies, Goals, Objectives	Municipal (local and regional) Land Use Planning Policies / Goals / Objectives (qualitative assessment of each route's compatibility with municipal land use policies, goals, objectives etc.)	Most Impact on Agricultural Area	Somewhat less impact on Agricultural Area (than Alternative 5A)	Reduces Impact on Agricultural lands Reduces lands that will be pressured to develop in future due to boundary effect	Reduces Impact on Agricultural lands Reduces lands that will be pressured to develop in future due to boundary effect
Land Use – Community	Urban and Rural Residential Uses (number of residential properties directly impacted by each route alternative)	3 Residential Parcels	12 Residential Parcels	1 Residential Parcel Several 10 acre parcels impacted	0 Residential Parcels Several 10 acre parcels impacted
	Commercial/Industrial Uses (number of commercial/industrial properties directly impacted by each route alternative)	No properties affected	2 properties affected: Peri Concrete Forming (development on north west portion of lot) Balzan Truck Centre (development on south east portion of lot), road access affected by route	No properties affected	No properties affected
	Tourist Areas and Attractions (number of tourist areas, attractions and recreational facilities directly impacted)	No properties affected	No properties affected	No properties affected	No properties affected
	Community Facilities / Institutions (number of community facilities/institutions directly impacted)	No properties affected	No properties affected	No properties affected	No properties affected
	Municipal Infrastructure and Public Service	No properties affected	No properties affected	No properties affected	No properties affected
Noise Sensitive Areas (NSA's)	Transportation Noise (number of residences within 600 m of each route alternative)	22 Existing Residential Parcels	19 Existing Residential Parcels	11 Existing Residential Parcels	8 Existing Residential Parcels
Land Use - Resources	Agriculture including Specialized Agriculture (area of Class 1-3 soils) is expected to be consistent across all routes but will be measured to confirm. Impacts to Prime Agricultural Areas identified during Land Evaluation and Area Review (LEAR) studies for each Municipality where future land uses remain agricultural (i.e., **not** where lands are designated for future development).	CLI Class 1 = 112.2 ha CLI Class 3 = 2.5 ha CLI Class 4 = 4.7 ha CLI Class 5 = 5.3 ha 2 small farm complexes Route runs along property lines initially, then diagonally	CLI Class 1 = 97.9 ha CLI Class 3 = 7.5 ha CLI Class 5 = 13.9 ha 1 small farm complex 2 medium farm complexes Route runs diagonally	CLI Class 1 = 88.7 ha CLI Class 3 = 3.2 ha CLI Class 5 = 11.3 ha 1 medium farm complex Route runs diagonally	CLI Class 1 = 91.1 ha CLI Class 3 = 3.0 ha CLI Class 5 = 11.9 ha 2 medium farm complexes Route runs diagonally
	Aggregate and Mineral Resources (number of existing or future aggregate resources areas directly impacted)	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources
Major Utility Transmission Corridors and Pipelines (number of major impacts and qualitative assessment of challenges associated with direct impacts)		0	0	0	0

Table 5. Screening of Long List of Alternatives - SECTION 5

FACTORS	Evaluation Criteria and Measurement	5A – Carried Forward	5B – Screened Out	5C – Screened Out	5D – Carried Forward
CULTURAL ENVIRONMENT					
Cultural Heritage – Built Heritage and Cultural Heritage Landscapes	The MTO Environmental Standards and Practices documents for Built Heritage and Cultural Heritage Landscapes (BHCHL Guide) outlines basic categories for the initial identification of cultural resources, including Designation under the Ontario Heritage Act (OHA) (D), Listing on municipal Heritage Registers (L), and identification as part of the MTO EA process (EA) which refers to properties pre-screened as having heritage significance potential. In the table properties are listed by site number and by heritage determination (D, L or EA). See Appendix for detailed information.	180 EA 185 EA 186 EA 187 EA	168 D 177 EA 178 EA	176 EA 177 EA	177 EA
	Cemeteries (number of cemeteries directly impacted – if there are any)	None known	None known	None known	None known
	First Nation Burials	None known	None known	None known	None known
Archaeology	Known Archaeological Sites	None known	None known	None known	None known
TRANSPORTATION					
Network Compatibility	Compatibility with Municipal/Regional existing/planned key transportation corridors and potential interchange locations. Compatibility and proximity to Municipal/Regional existing/planned transit initiatives, including rail and bus routes and transit stations.	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations
Constructability	Significant features that may impact construction (including route length, number and lengths of bridges, crossing of/proximity to utilities (i.e., Hydro Corridors, TCPL)).	Challenging construction of potential interchange at Airport Rd, due to proximity of existing intersection with Old School Rd and staging impacts of local road realignments Would also require numerous structures due to adjacent watercourse(s) Route Length = 4.90 km	Challenging construction of potential interchange at Airport Rd, due to proximity of existing intersection with Old School Rd and staging impacts of local road realignments Route Length = 4.78 km	Potential interchange at Airport Rd should be straightforward Route Length = 4.13 km	Potential interchange at Airport Rd should be straightforward Route Length = 4.17 km
Compliance with Design Criteria	Ability of the route to meet the geometric design standards (“Proposed Draft Concepts For New Rural Freeways” manual, i.e., 1700 m radius)	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway

Table 6. Screening of Long List of Alternatives - SECTION 6

FACTORS	Evaluation Criteria and Measurement	6A – Carried Forward	6B – Carried Forward	6C – Screened Out	6D – Carried Forward	Connection to 7G – Screened Out
NATURAL ENVIRONMENT						
Fisheries and Aquatic Ecosystems	Fish Habitat (number of sensitive watercourse crossings or waterbodies). General measures of sensitivity include: watercourses with SAR, coldwater crossings, critical/specialized habitat, etc., as well as siting considerations, e.g., crossing at highly meandering reach/major bend, complex valley crossings etc.	**Crossings:** 1 crossing of West Humber River 2 major tributary crossings 2 other minor tributary crossings ~4-5 agricultural drainage/swales associated with Robinson Creek **Sensitivities:** RSD in West Humber River Relatively wide floodplain and greenbelt surrounding West Humber River West Humber crossing at skewed angle and along meandering reach Paralleling/realignment required for several drainage features in headwater area of Robinson Creek with SAR downstream of route **Siting Considerations:** Opportunity to reduce skew at West Humber River crossing	**Crossings:** 1 crossing of West Humber River 2 major tributary crossings 2 other minor tributary crossings ~7-8 agricultural drainage/swales associated with Gore Road and Clarkway Drive Tributaries and Robinson Creek **Sensitivities:** RSD in West Humber River. Relatively wide floodplain and greenbelt surrounding West Humber River. West Humber crossing at significant meander but longer straight reach, between meanders. Paralleling/realignment required for several drainage features in headwater area of Robinson Creek with SAR downstream of route. **Siting Considerations:** Opportunity to narrow ROW at West Humber River crossing to north of corridor to avoid crossing at meander	**Crossings:** 1 crossing of West Humber River 2 major tributary crossings 2 other minor tributary crossings ~5 agricultural drainage/swales associated with Gore Road and Clarkway Drive Tributaries and Robinson Creek **Sensitivities:** RSD in West Humber River. Relatively wide floodplain and greenbelt surrounding West Humber River. West Humber crossing at significant meander; unlikely to cross without realignment (same as Route D) Paralleling/realignment required for several drainage features in headwater area of Robinson Creek with SAR downstream of route **Siting Considerations:** Not possible to alter siting to improve crossing of West Humber meander	**Crossings:** 1 crossing of West Humber 2 major tributary crossings 3 crossings of other minor tributaries ~4 agricultural drainage/swales associated with Robinson Creek, Clarkway Drive Tributary, West Humber **Sensitivities:** RSD in West Humber River. Relatively wide floodplain and greenbelt surrounding West Humber River West Humber crossing at significant meander Route parallels tributary to west of West Humber, possible realignment required **Siting Considerations:** Meander at West Humber crossing not as large/complex as Route C Opportunity to reduce skew at Gore Road Tributary crossing	**Crossings:** *Assume route beyond dashed aligns with Route B* 1 crossing of West Humber River 2 major tributary crossings 2 other minor tributary crossings ~7-9 agricultural drainage/swales associated with Gore Road and Clarkway Drive Tributaries and Robinson Creek **Sensitivities:** *Same as Route B* **Siting Considerations:** *Same as Route B*
Terrestrial Ecosystems	Wetlands (area or number of wetlands crossed by each alternative – includes PSWs, non-PSWs and PSW status to be determined)	**Feature affected:** Unevaluated wetland **Nature of Impacts:** Partial removal of 1.2 ha unevaluated wetland Full removal of unevaluated wetlands <1 ha in size Partial removal of unevaluated wetland <1ha in size	**Feature affected:** None **Nature of Impacts:** None	**Feature affected:** None **Nature of Impacts:** None	**Feature affected:** None **Nature of Impacts:** None	**Feature affected:** None **Nature of Impacts:** None

Table 6. Screening of Long List of Alternatives - SECTION 6						
FACTORS	**Evaluation Criteria and Measurement**	**6A – Carried Forward**	**6B – Carried Forward**	**6C – Screened Out**	**6D – Carried Forward**	**Connection to 7G – Screened Out**
	Woodlands and other Vegetation (area of impact on significant woodlands, large intact habitat blocks, and associated wildlife habitat).	**Features affected:** Non-significant woodlands **Nature of Impacts:** Partial removal of 2.9 ha non-significant woodland Partial removal of 0.2 ha non-significant woodland Removal of riparian vegetation	**Features affected:** Non-significant woodlands Interior woodland **Nature of Impacts:** Partial removal of 30.9ha of non-significant woodland with interior habitat Full removal of 0.2 ha non-significant woodland Partial removal of 3.9 ha non-significant woodland Removal of riparian vegetation	**Features affected:** Non-significant woodlands Interior woodlands **Nature of Impacts:** Partial removal of 30.9 ha non-significant woodland with interior habitat Partial removal of 3.9 ha non-significant woodland Removal of riparian vegetation.	**Features affected:** Non-significant woodlands Interior woodlands **Nature of Impacts:** Partial removal of 30.9 ha non-significant woodland with interior habitat Partial removal of 3.9ha non-significant woodland Removal of riparian vegetation	**Features affected:** Non-significant woodlands **Nature of Impacts:** Partial removal of 30.9ha of non-significant woodland with interior habitat Partial removal of 3.9ha of non-significant woodland
	Designated/Special/Natural Areas (numbers or areas of ESAs, ANSIs, Greenbelt areas impacted by each route alternative).	Greenbelt crossing	Greenbelt crossing	Greenbelt crossing	Greenbelt Crossing	Greenbelt crossing
LAND USE / SOCIO-ECONOMIC						
Land Use Planning Policies, Goals, Objectives	Municipal (local and regional) Land Use Planning Policies / Goals / Objectives (qualitative assessment of each route's compatibility with municipal land use policies, goals, objectives etc.)	Most impact on Agricultural Area. Impact on proposed Bolton Expansion Area Least Impact on Brampton Future Employment Area	Somewhat less impact on Agricultural Area Limited impact on Bolton Expansion Area Least impact on Brampton Future Employment Area	Limited impact of Agricultural Area Least impact on Brampton Employment Lands Most Preferred	Limited impact of Agricultural Area Limited impact on Bolton Expansion Area Greater impact on Brampton Future Employment Area Limited impact on West Vaughan Employment Area	Least Impact on Brampton Future Employment Area
Land Use – Community	Urban and Rural Residential Uses (number of residential properties directly impacted by each route alternative)	0 Residential Parcels	9 Residential Parcels	10 Residential Parcels	17 Residential Parcels	4 Residential Parcels
	Commercial/Industrial Uses (number of commercial/industrial properties directly impacted by each route alternative)	2 properties affected: Mahli Farm and Garden Centre (development on route) Rossi Quality Services (development on route)	3 properties affected: Rossi Quality Services (development on route), road access affected by route Jhutty Transport (development on south portion of lot), road access affected by route Varcon (on route), road access affected by route	3 properties affected: Varcon (on route), road access affected by route Temp Use Commercial Nursery (on route), road access affected by route Rossi Quality Services (development on route), road access affected by route	4 properties affected: Temp Use Commercial Nursery (on route), road access affected by route Ray Nitti Horse Training Operation (development on eastern portion of lot) Esso Gas Station (on route), road access affected by route Varcon (on route), road access affected by route	3 properties affected: Shilow Primitive Methodist Cemetery (development on route), road access affected by route Sheriff Glass (development on route) Rossi Quality Services (development on route), road access affected by route

Table 6. Screening of Long List of Alternatives - SECTION 6						
FACTORS	**Evaluation Criteria and Measurement**	**6A – Carried Forward**	**6B – Carried Forward**	**6C – Screened Out**	**6D – Carried Forward**	**Connection to 7G – Screened Out**
	Tourist Areas and Attractions (number of tourist areas, attractions and recreational facilities directly impacted)	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected
	Community Facilities / Institutions (number of community facilities/institutions directly impacted)	No properties affected	No properties affected	No properties affected	Avoids temple	No properties affected
	Municipal Infrastructure and Public Service Facilities	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected
Noise Sensitive Areas (NSA's)	Transportation Noise (number of residences within 600 m of each route alternative)	15 Existing Residential Parcels	19 Existing Residential Parcels	23 Existing Residential Parcels 9.9ha Designated Residential Area X 25u/Ha = 248 Units for Future Development	35 Existing Residential Parcels 9ha Designated Residential Area X 25u/Ha = 225 Units for Future Development	12 Existing Residential Parcels
Land Use - Resources	Agriculture including Specialized Agriculture (area of Class 1-3 soils) is expected to be consistent across all routes but will be measured to confirm. Impacts to Prime Agricultural Areas identified during Land Evaluation and Area Review (LEAR) studies for each Municipality where future land uses remain agricultural (i.e., **not** where lands are designated for future development).	CLI Class 1 = 71.9 ha CLI Class 3 = 3.2 ha CLI Class 5 = 15.9 ha 2 small farm complexes Route runs diagonally	CLI Class 1 = 60.3 ha CLI Class 5 = 18.4 ha Route runs diagonally	CLI Class 1 = 53.7 ha CLI Class 5 = 14.6 ha 1 small farm complex Route runs diagonally	CLI Class 1 = 49.0 ha CLI Class 5 = 17.0 ha 1 small farm complex 1 medium complex Route runs diagonally	CLI Class 1 = 20.9 ha CLI Class 5 = 6.3 ha Route runs diagonally
	Aggregate and Mineral Resources (number of existing or future aggregate resources areas directly impacted)	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources
Major Utility Transmission Corridors and Pipelines (number of major impacts and qualitative assessment of challenges associated with direct impacts)		0	0	0	0	0
CULTURAL ENVIRONMENT						
Cultural Heritage – Built Heritage and Cultural Heritage Landscapes	The MTO Environmental Standards and Practices documents for Built Heritage and Cultural Heritage Landscapes (BHCHL Guide) outlines basic categories for the initial identification of cultural resources, including Designation under the Ontario Heritage Act (OHA) (D), Listing on municipal Heritage Registers (L), and identification as part of the MTO EA process (EA) which refers to properties pre-screened as having heritage significance potential. In the table	196 EA 223 EA	197 EA 223 EA	194 EA 195 L 221 L 223 EA	194 EA 195 L 212 L 220 L 226 EA	223 EA

Table 6. Screening of Long List of Alternatives - SECTION 6

FACTORS	Evaluation Criteria and Measurement	6A – Carried Forward	6B – Carried Forward	6C – Screened Out	6D – Carried Forward	Connection to 7G – Screened Out
	properties are listed by site number and by heritage determination (D, L or EA). See Appendix for detailed information.					
	Cemeteries by site number	Site 222 - lies 40m from the ROW	Site 222 - lies 45m from the ROW	Site 222 - lies 95m from the ROW	None known	Site 222 - lies 40m from the ROW
	First Nation Burials	None known	None known	None known	None known	None known
Archaeology	Known Archaeological Sites	2	None known	None known	None known	None known
TRANSPORTATION						
Network Compatibility	Compatibility with Municipal/Regional existing/planned key transportation corridors and potential interchange locations. Compatibility and proximity to Municipal/Regional existing/planned transit initiatives, including rail and bus routes and transit stations.	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations including Bolton Arterial Road (Bolton Bypass)	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations including Bolton Arterial Road (Bolton Bypass)	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations including Bolton Arterial Road (Bolton Bypass)	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations including Bolton Arterial Road (Bolton Bypass)	Common to all alternatives: Compatible with existing and planned transportation corridors and interchange locations including Bolton Arterial Road (Bolton Bypass)
Constructability	Significant features that may impact construction (including route length, number and lengths of bridges, crossing of/proximity to utilities (i.e., Hydro Corridors, TCPL)).	Potential interchange at The Gore Rd should be straightforward Challenging construction of potential interchange at Mayfield Rd, due to proximity of existing intersection with Coleraine Dr and staging impacts of local road realignments Challenging construction of potential interchange at Coleraine Dr, due to proximity of existing intersection with Mayfield Rd and staging impacts of local road realignments 1 Long Bridge (Humber River Tributary) Route Length = 4.81km	Potential interchange at The Gore Rd should be straightforward Challenging construction of potential interchange at Mayfield Rd, due to proximity of existing intersection with Coleraine Dr and staging impacts of local road realignments Challenging construction of potential interchange at Coleraine Dr, due to proximity of existing intersection with Mayfield Rd and staging impacts of local road realignments 1 Medium Bridge (Humber River Tributary) Route Length = 4.70km	Potential interchange at The Gore Rd should be straightforward Challenging construction of potential interchange at Mayfield Rd, due to proximity of existing intersection with Clarkway Dr and staging impacts of local road realignments Potential interchange at Coleraine Dr should be straightforward. 1 Medium Bridge (Humber River Tributary) Route Length = 4.85km	Potential interchange at The Gore Rd should be straightforward Challenging construction of potential interchange at Mayfield Rd, due to proximity of existing intersection with Clarkway Dr and staging impacts of local road realignments Potential interchange at Coleraine Dr should be straightforward 1 Medium Bridge (Humber River Tributary) Route Length = 4.85km	Potential interchange at The Gore Rd should be straightforward Challenging construction of potential interchange at Mayfield Rd, due to proximity of existing intersection with Coleraine Dr and staging impacts of local road realignments Challenging construction of potential interchange at Coleraine Dr, due to proximity of existing intersection with Mayfield Rd and staging impacts of local road realignments 1 Medium Bridge (Humber River Tributary) Route Length = 4.03km
Compliance with Design Criteria	Ability of the route to meet the geometric design standards ("Proposed Draft Concepts For New Rural Freeways" manual, i.e., 1700 m radius)	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometry requirements for a New Rural Freeway

Table 7. Screening of Long List of Alternatives - SECTION 7

FACTORS	Evaluation Criteria and Measurement	7A – Screened Out	7B – Screened Out	7C – Screened Out	7D – Carried Forward	7E – Carried Forward	7F – Carried Forward	7G – Screened Out
NATURAL ENVIRONMENT								
Fisheries and Aquatic Ecosystems	Fish Habitat (number of sensitive watercourse crossings or waterbodies). General measures of sensitivity include: watercourses with SAR, coldwater crossings, critical/specialized habitat, etc., as well as siting considerations, e.g., crossing at highly meandering reach/major bend, complex valley crossings etc.	**Crossings:** 1 crossing, Robinson Creek – Main Branch 2 crossings, Humber River Minor tributary and swale feature crossings **Sensitivities:** Humber River – large valley system, highly meandering Broad floodplain through westerly crossing, narrowed through easterly crossing RSD immediately downstream of westerly Humber River Crossing RSD at easterly crossing location Route crosses headwater area of Humber **Siting Considerations:** Opportunity to avoid realignment requirements Opportunities to narrow ROW through sensitive crossing locations Opportunity to reduce skew at westerly Humber crossing	**Crossings:** 2 crossings, Robinson Creek 2 crossings, Humber River 1 crossing, tributary to the East Humber Minor tributary and swale feature crossings **Sensitivities:** Humber River – large valley system, highly meandering Broadest floodplain crossing at westerly crossing location RSD at both Humber River crossing locations **Siting Considerations:** None	**Crossings:** 3 crossings, Robinson Creek 3+ crossings of Humber River (re-crossing at meanders) **Sensitivities:** Crosses at confluence of two branches of Robinson Creek Significant impacts to watercourse at this location Crosses 600m-800m of Humber River Floodplain Requires minimum 3 bridge crossings to span meanders that occur within the route Significant impacts to Humber River and Valley System Crosses the confluence of two substantial branches of the Humber RSD at Humber River crossing location **Siting Considerations:** Two consecutive bridges or very large bridge required at Robinson Creek There are significant issues with the Humber River crossing including skew, length, fill requirements, abutment placement	**Crossings:** 2 crossings, Robinson Creek 1 crossing, Humber River 1 crossing, tributary to the Main Humber 1 crossing, tributary to the East Humber **Sensitivities:** RSD at Humber River crossing Humber crossing at large meander Broad floodplain crossing **Siting Considerations:** Opportunity to maintain perpendicular crossing of Robinson Creek	**Crossings:** 3 crossings, Robinson Creek 1 crossing, Humber River 1 crossing, tributary to the Main Humber 1 crossing, tributary to the East Humber **Sensitivities:** RSD at Humber River crossing **Siting Considerations:** Narrower Humber River floodplain at crossing location Crosses at narrower meander	**Crossings:** 1 crossing, Robinson Creek – Main Branch 2 crossings, Humber River Minor tributary and swale feature crossings **Sensitivities:** Humber River – large valley system, highly meandering Broad floodplain through westerly crossing, narrowed through easterly crossing. RSD immediately downstream of westerly Humber River Crossing RSD at easterly crossing location. Route crosses headwater area of Humber. **Siting Considerations:** Opportunity to avoid realignment requirements Opportunities to narrow ROW through sensitive crossing locations Opportunity to reduce skew at westerly Humber crossing.	**Crossings:** 2 crossings, Robinson Creek 2 crossings, Humber River 1 crossing, tributary to the East Humber Minor tributary and swale feature crossings **Sensitivities:** Humber River – large valley system, highly meandering Broadest floodplain crossing at westerly crossing location RSD at both Humber River crossing locations **Siting Considerations:** Crosses at narrower floodplain area at Humber River westerly crossing Avoids crossing over significant meander at Humber River westerly crossing Opportunity to narrow ROW through sensitive Humber River crossings

Table 7. Screening of Long List of Alternatives - SECTION 7

FACTORS	Evaluation Criteria and Measurement	7A – Screened Out	7B – Screened Out	7C – Screened Out	7D – Carried Forward	7E – Carried Forward	7F – Carried Forward	7G – Screened Out
Terrestrial Ecosystems	Wetlands (area or number of wetlands crossed by each alternative – includes PSWs, non-PSWs and PSW status to be determined)	**Features Affected:** Unevaluated wetland **Impacts**: 2 unevaluated wetlands (1 ha) partially removed 1 unevaluated wetland (approx. 4 ha) partially removed No PSW or LSW wetlands affected	**Features Affected:** Unevaluated wetland Tormore Wetland Complex **Impacts**: 3 unevaluated wetlands (<2ha) removed 1 unevaluated wetland (approx. 2 ha pocket part of larger wetland) partially removed 1 large oxbow unevaluated wetland >10ha removed No PSW or LSW wetlands affected 1 locally significant wetland (approximately 1 ha) No PSW wetland affected.	**Features Affected:** Unevaluated wetland **Impacts**: 2 unevaluated wetlands (<2 ha) removed 2 unevaluated wetlands (>2 ha) partially removed No PSW or LSW wetlands affected	**Features Affected:** Unevaluated wetland **Impacts**: 2 unevaluated wetlands (<2 ha) partially removed No PSW or LSW wetlands affected	**Features Affected:** Unevaluated wetland **Impacts**: 3 unevaluated wetlands (<2 ha) removed No PSW or LSW wetlands affected	**Features Affected:** Unevaluated wetland **Impacts:** Partial removal of 7 small unevaluated wetlands Full removal of 4 small unevaluated wetlands No PSW or LSW wetlands affected	**Features Affected:** Unevaluated wetland **Impacts**: Affects unevaluated oxbow wetland No PSW or LSW wetlands affected
	Woodlands and other Vegetation (area of impact on significant woodlands, large intact habitat blocks, and associated wildlife habitat).	1 significant woodland bisected 2 non-significant woodlands removed (4ha and greater) 1 non-significant woodland partially removed (4 ha and greater) 5 non-significant woodlands removed (<1 ha) Impacts to riparian vegetation at watercourse crossings	Two crossings of 1 significant woodland complex affected 1 non-significant woodland (>10 ha) bisected 1 non-significant woodland (<2 ha) removed Impacts to riparian vegetation at watercourse crossings	Bisects 1 significant woodland complex 2 non-significant woodland (>2 ha) removed 1 non-significant woodland (>2 ha) partially removed Impacts to riparian vegetation at watercourse crossings	Bisects 1 significant woodland complex 2 non-significant woodland (>2-4 ha) partially removed 1 non-significant woodland (>2-4ha) bisected 1 non-significant woodland (~2ha) partially removed Impacts to riparian vegetation at watercourse crossings	Bisects 1 significant woodland complex 2 non-significant woodland (>4ha) partially removed 1 non-significant woodland (>4 ha) removed Impacts to riparian vegetation at watercourse crossings	Two crossings of 1 significant woodland complex affected 1 non-significant woodland (>10 ha) bisected 1 non-significant woodland (<2 ha) removed Impacts to riparian vegetation at watercourse crossings	Bisects 1 significant woodland complex Bisects 1 non-significant woodland complex Impacts to riparian vegetation at watercourse crossings
	Designated/Special/Natural Areas (numbers or areas of ESAs, ANSIs, Greenbelt areas impacted by each route alternative).	Crosses Greenbelt area Crosses Conservation Authority Property	Crosses Greenbelt area Crosses Conservation Authority Property	Crosses Greenbelt area Crosses Conservation Authority Property	Crosses Greenbelt area Crosses Conservation Authority Property	Crosses Greenbelt area Crosses Conservation Authority Property	Crosses Greenbelt area Crosses Conservation Authority Property	Crosses Greenbelt area Crosses Conservation Authority Property

Table 7. Screening of Long List of Alternatives - SECTION 7

FACTORS	Evaluation Criteria and Measurement	7A – Screened Out	7B – Screened Out	7C – Screened Out	7D – Carried Forward	7E – Carried Forward	7F – Carried Forward	7G – Screened Out
LAND USE / SOCIO-ECONOMIC								
Land Use Planning Policies, Goals, Objectives	Municipal (local and regional) Land Use Planning Policies / Goals / Objectives (qualitative assessment of each route's compatibility with municipal land use policies, goals, objectives etc.)	Most significant impact on existing developments in Vaughan and King Township Most impact on Agricultural Areas and Greenbelt lands	Lower impact on Agricultural Lands Moderate impact on Greenbelt due to length	Lower impact on Agricultural Lands Moderate impact on Greenbelt	Low Impact on Agricultural Lands Significant impact on Nashville/Kleinburg Less Impact on Greenbelt	Low Impact on Agricultural Lands Most significant impact on Nashville/Kleinburg Less Impact on Greenbelt	Moderate impact on Agricultural Lands Moderate impact on Greenbelt due to length	Most significant impact on existing developments in Vaughan and King Township Most impact on Agricultural Areas and Greenbelt lands
Land Use – Community	Urban and Rural Residential Uses (number of residential properties directly impacted by each route alternative)	16 Residential Parcels Direct Impact on Ranch Road Subdivision	1 Residential Parcel	4 Residential Parcels	3 Residential Parcels	5 Residential Parcels	1 Residential Parcel	0 Residential Parcels
	Commercial/Industrial Uses (number of commercial/industrial properties directly impacted by each route alternative)	1 property affected: Apra Truck Lines Transport (development on southern portion of lot)	2 properties affected: Marigold Horse Stables (development on route), road access affected by route Pets Get Physical (development on route)	4 properties affected: Downsview Group Outdoor Storage (development on route), road access affected by route Pets Get Physical (development on route), road access affected by route RGH Bloodstock Inc. (development on route), road access affected by route Marigold Horse Stables (development on route), road access affected by route	6 properties affected: Apra Truck Lines Transport (development on southern portion of lot) Temp Outdoor Storage (development on route), road access affected by route Huntington E Stud Farm (development on route), road access affected by route Downsview Outdoor Storage (on route), road access affected by route RGH Bloodstock Inc. (development on western portion of lot), road access affected by route Silver Spur Summer Horse Camp (development on route), road access affected by route	6 properties affected: Apra Truck Lines Transport (Development on southern portion of lot), road access affected by route Huntington E Stud Farm (development west of route), road access affected by route Nashville Sod Supply (development on route), road access affected by route SMS landscaping (on route), road access affected by route Empire Venus Group (Online) (development on route), road access affected by route Silver Spur Summer Horse Camp (development on route), road access affected by route	1 property affected: Marigold Horse Stables (development on route), road access affected by route	1 property affected: Marigold Horse Stables (development on route), road access affected by route
	Tourist Areas and Attractions (number of tourist areas, attractions and recreational facilities directly impacted)	TRCA Lands affected	TRCA Lands affected	TRCA Lands affected	TRCA Lands affected	TRCA Lands affected	TRCA Lands affected	TRCA Lands affected

Table 7. Screening of Long List of Alternatives - SECTION 7

FACTORS	Evaluation Criteria and Measurement	7A – Screened Out	7B – Screened Out	7C – Screened Out	7D – Carried Forward	7E – Carried Forward	7F – Carried Forward	7G – Screened Out
	Community Facilities / Institutions (number of community facilities/institutions directly impacted)	1 property affected: Burlington Outdoor Recreation Facility (development on route), road access affected by route	No properties affected	No properties affected	No properties affected	1 property affected: Nashville Community Church (Development on southern portion of lot), road access affected by route	1 property affected: Burlington Outdoor Recreation Facility (development on route), road access affected by route	No properties affected
	Municipal Infrastructure and Public Service Facilities	1 property affected: Direct impact to Kirby Waste Transfer Solutions	1 property affected: Direct impact to Kirby Waste Transfer Solutions	No properties affected	No properties affected	No properties affected	1 property affected: Direct impact to Kirby Waste Transfer Solutions	1 property affected: Hydro One Site directly Affected
Noise Sensitive Areas (NSA's)	Transportation Noise (number of residences within 600 m of each route alternative)	34 Existing Residential Parcels	7 Existing Residential Parcels	6 Existing Residential Parcels	7 Existing Residential Parcels	9 Existing Residential Parcels	15 Residential Parcels	0 Existing Residential Parcels
Land Use - Resources	Agriculture including Specialized Agriculture (area of Class 1-3 soils) is expected to be consistent across all routes but will be measured to confirm. Impacts to Prime Agricultural Areas identified during Land Evaluation and Area Review (LEAR) studies for each Municipality where future land uses remain agricultural (i.e., **not** where lands are designated for future development).	CLI Class 1 = 90.6 ha CLI Class 2 = 69.2 ha CLI Class 4 = 44.6 ha CLI Class 5 = 3.9 ha 2 medium farm complexes A long section of the route runs along property lines, the remainder cuts diagonally across the properties	CLI Class 1 = 83.8 ha CLI Class 2 = 41.5 ha CLI Class 4 = 30.5 ha CLI Class 5 = 9.7 ha 1 small farm complex 1 medium farm complex 1 large farm complex The majority of the route cuts diagonally across properties	CLI Class 1 = 75.4 ha CLI Class 2 = 49.0 ha CLI Class 4 = 21.5 ha CLI Class 5 = 8.9 ha 1 small farm complex The majority of the route cuts diagonally across properties	CLI Class 1 = 23.3 ha CLI Class 2 = 31.2 ha CLI Class 4 = 18.9 ha CLI Class 5 = 7.3 ha 1 large farm complex The majority of the route cuts diagonally across properties	CLI Class 1 = 19.2 ha CLI Class 2 = 26.1 ha CLI Class 4 = 14.3 ha CLI Class 5 = 6.7 ha 1 large farm complex The majority of the route cuts diagonally across properties	CLI Class 1 = 75.2 CLI Class 2 = 55.9 CLI Class 3 = 0 CLI Class 4 = 27.2 CLI Class 5 = 14.8 1 small farm complex 1 medium farm complex 1 large farm complex The route cuts across property lines along entire alternative	CLI Class 1 = 49.3 CLI Class 2 = 41.3 CLI Class 4 = 18.7 CLI Class 5 = 10.7 1 small farm complex 1 medium farm complex 1 large farm complex The majority of the route cuts diagonally across properties
	Aggregate and Mineral Resources (number of existing or future aggregate resources areas directly impacted)	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources
Major Utility Transmission Corridors and Pipelines (number of major impacts and qualitative assessment of challenges associated with direct impacts)		3 Hydro Lines (1 Corridor) Impacts major feeder lines from Hydro One to the south	4 Hydro Lines (1 Corridor) Impacts major feeder lines from Hydro One to the south	4 Hydro Lines (1 Corridor) Impacts major feeder lines from Hydro One to the south	4 Hydro Lines (1 Corridor) Impacts major feeder lines from Hydro One to the south	4 Hydro Lines (1 Corridor) Impacts major feeder lines from Hydro One to the south	4 Hydro Lines (1 Corridor) Impacts major feeder lines from Hydro One to the south	3 Hydro Lines (1 Corridor) Major Impact to Hydro One Site → Route overtop of Buildings/Structures
CULTURAL ENVIRONMENT								
Cultural Heritage – Built Heritage and Cultural Heritage Landscapes	The MTO Environmental Standards and Practices documents for Built Heritage and Cultural Heritage Landscapes (BHCHL Guide) outlines basic categories for the initial identification of cultural resources, including Designation under the Ontario Heritage Act (OHA) (D), Listing on municipal Heritage Registers (L), and identification as part of the MTO EA process (EA) which refers to properties pre-screened as having heritage significance	227 L 240 L 247 L 248 L 249 L	247 L 248 L 249 L	226 EA 237 D 238 L 239 L 246 L 248 L	226 EA 234 L 236 L	221 L 226 EA 234 L 235 L	227 L 247 L 248 L 249 L	247 L

Table 7. Screening of Long List of Alternatives - SECTION 7

FACTORS	Evaluation Criteria and Measurement	7A – Screened Out	7B – Screened Out	7C – Screened Out	7D – Carried Forward	7E – Carried Forward	7F – Carried Forward	7G – Screened Out
	potential. In the table properties are listed by site number and by heritage determination (D, L or EA). See Appendix for detailed information.							
	Cemeteries (number of cemeteries directly impacted – if there are any)	None known	None known	None known	None known	None known	None known	None known
	First Nation Burials	None known	None known	None known	None known	None known	None known	None known
Archaeology	Known Archaeological Sites	None known	None known	1	None known	None known	None known	None known
TRANSPORTATION								
Network Compatibility	Compatibility with Municipal/Regional existing/planned key transportation corridors and potential interchange locations. Compatibility and proximity to Municipal/Regional existing/planned transit initiatives, including rail and bus routes and transit stations.	All routes have similar connections to the existing/planned transportation corridors All routes have similar connections to the existing/planned transit initiatives						
Constructability	Significant features that may impact construction (including route length, number and lengths of bridges, crossing of/proximity to utilities (i.e., Hydro Corridors, TCPL)).	Route Length = 8.35 km Long bridge over Humber River All routes cross the Hydro One utility corridor	Route Length = 6.57 km Long bridge over Humber River (longest crossing – 1 km) All routes cross the Hydro One utility corridor	Route Length = 6.04 km Long bridge over Humber River All routes cross the Hydro One utility corridor	Route Length = 4.40 km Long bridge over Humber River All routes cross the Hydro One utility corridor	Route Length = 4.38 km Long bridge over Humber River (narrowest crossing – 180 m) All routes cross the Hydro One utility corridor	Route Length = 6.91 km Long bridge over Humber River All routes cross the Hydro One utility corridor	Route Length = 6.54 km Long bridge over Humber River All routes cross the Hydro One utility corridor Crosses through the Hydro One property with the transformer station
Compliance with Design Criteria	Ability of the route to meet the geometric design standards (“Proposed Draft Concepts For New Rural Freeways” manual, i.e., 1700 m radius)	All routes meet the geometric design standards						

Table 8. Screening of Long List of Alternatives - SECTION 8

FACTORS	Evaluation Criteria and Measurement	8A – Screened Out	8B – Carried Forward	8C – Carried Forward	8D – Carried Forward	8E – Screened Out
NATURAL ENVIRONMENT						
Fisheries and Aquatic Ecosystems	Fish Habitat (number of sensitive watercourse crossings or waterbodies). General measures of sensitivity include: watercourses with SAR, coldwater crossings, critical/specialized habitat, etc., as well as siting considerations, e.g., crossing at highly meandering reach/major bend, complex valley crossings etc.	**Potential Crossings:** 1 crossing of East Humber River 2-3 crossings of tributaries to East Humber River (route parallels tributaries) **Sensitivities:** RSD in East Humber at crossing. Other SAR in both tributaries to East Humber (DFO) East Humber crossing at major meander and significantly skewed angle The easterly tributary is crossed twice, paralleled by the route requiring realignment along ~1.1 km in total length **Siting Considerations:** Opportunity to narrow ROW to reduce length of East Humber paralleled by crossing Opportunity to reduce skew at crossing of westerly tributary to East Humber	**Potential Crossings:** 1 crossing of East Humber River 1 crossing of tributary to East Humber River 1-2 agricultural drainages/swales **Sensitivities:** RSD in East Humber at crossing. Other SAR in tributary to East Humber (DFO) Relatively narrow floodplain at crossing **Siting Considerations:** East Humber crossing at straighter section with narrower floodplain than A	**Potential Crossings:** 1 crossing of East Humber River 1 crossing of tributary to East Humber River 1-2 agricultural drainages/swales **Sensitivities:** RSD in East Humber at crossing. Other SAR in tributary to East Humber (DFO) Relatively narrow floodplain at crossing (same as B) **Siting Considerations:** East Humber crossing at straighter section with narrower floodplain than A	**Potential Crossings:** 1 crossing of East Humber River ~2 crossings of minor tributaries (parallel sections, possible realignments) 2-3 agricultural drainages/swales **Sensitivities:** RSD in East Humber at crossing. ~750 m of minor tributaries possibly require realignment Edge impacts to flood plain on meander bends on East Humber to west of crossing **Siting Considerations:** East Humber crossing at fairly straight section, slightly wider floodplain than B/C	**Potential Crossings:** 1 crossing of East Humber River ~3 crossings of minor tributaries (some parallel sections west of East Humber, possible realignments) 2-3 agricultural drainages/swales **Sensitivities:** RSD in East Humber at crossing. ~750 m of minor tributaries possibly require realignment East Humber crossing at large meander with impacts to river and floodplain on meander bends to the west (Main crossing impacts ~1 km of river) **Siting Considerations:** Opportunity to narrow ROW, keep to north side of corridor to reduce impacts to East Humber west of crossing
Terrestrial Ecosystems	Wetlands (area or number of wetlands crossed by each alternative – includes PSWs, non-PSWs and PSW status to be determined)	**Feature Affected:** East Humber River Wetland Complex **Impacts:** Partial removal of <1 ha Marsh community within the PSW complex Partial removal of 2.1 ha open water community within the PSW complex Partial removal of 3.9 ha marsh community within the PSW complex Full removal of <1 ha open water community within complex Full removal of <1 ha open water community within the complex Full removal of <1ha marsh community within complex	**Feature Affected:** East Humber River Wetland Complex **Impacts:** Partial removal of <1 ha swamp community within the complex	**Feature Affected:** East Humber River Wetland Complex **Impacts:** Full removal of <1 ha marsh habitat within the complex	**Feature Affected:** East Humber River Wetland Complex **Impacts:** Partial removal of <1 ha swamp community within the complex Partial removal of <1 ha marsh community within the complex Partial removal of <1 ha open water community within the complex Full removal of <1 ha marsh community within the complex	**Feature Affected:** East Humber River Wetland Complex **Impacts:** Partial removal of <1 ha swamp community within the complex Partial removal of <1 ha swamp community within the complex Partial removal of <1 ha marsh community within the complex Partial removal of 1.6 ha swamp community within the complex Partial removal of <1 ha swamp community within the complex Full removal of <1 ha marsh community within the complex

Table 8. Screening of Long List of Alternatives - SECTION 8

FACTORS	Evaluation Criteria and Measurement	8A – Screened Out	8B – Carried Forward	8C – Carried Forward	8D – Carried Forward	8E – Screened Out
	Woodlands and other Vegetation (area of impact on significant woodlands, large intact habitat blocks, and associated wildlife habitat).	**Features Affected:** Rural Woodlands Non-significant Woodlands Interior Woodlands **Impacts:** Partial removal of 130 hectares of rural woodlands with interior habitat. Partial removal of 3ha of non-significant woodland. Partial removal of 5ha of non-significant woodland. Removal of riparian vegetation	**Features Affected:** Rural Woodlands Non-significant Woodlands Interior Woodlands **Impacts:** Partial removal of 1.4 ha non-significant woodland Partial removal of 2.9 ha non-significant woodland Partial removal of 2.3 ha non-significant woodland Partial removal of 0.4 ha non-significant woodland Partial removal of 1.8 ha non-significant woodland Partial removal of 1.8 ha non-significant woodland Partial removal of 3.6 ha non-significant woodland Removal of riparian vegetation	**Features Affected:** Rural Woodlands Non-significant Woodlands Interior Woodlands **Impacts:** Partial removal of 130 ha of rural woodlands with interior habitat Partial removal of 1.4 ha non-significant woodland Partial removal of 2.9 ha non-significant woodland Partial removal of 2.3 ha non-significant woodland Partial removal of 3.6 ha non-significant woodland Partial removal of 6.6 ha non-significant woodland Removal of riparian vegetation	**Features Affected:** Rural Woodlands Non-significant Woodlands Interior Woodlands **Impacts:** Partial removal of 2.3 ha non-significant woodland Full removal 0.07 ha of non-significant woodland Partial removal of 96 ha of rural woodlands with interior habitat Partial removal of 4 ha non-significant woodland Full removal of 0.16 ha non-significant woodland Partial removal of 1.8 ha non-significant woodland Partial removal of 3.6 ha non-significant woodland Partial removal of 5 ha non-significant woodland Removal of riparian vegetation	**Features Affected:** Rural Woodlands Non-significant Woodlands Interior Woodlands **Impacts:** Partial removal of 2.3 ha non-significant woodland Partial removal of 96 ha of rural woodlands with interior habitat Partial removal of 26 ha non-significant woodland with interior habitat Partial removal of 6.6 ha non-significant woodland Removal of riparian vegetation
	Designated/Special/Natural Areas (numbers or areas of ESAs, ANSIs, Greenbelt areas impacted by each route alternative).	Crossing greenbelt and King Creek Forest ESA	Crossing greenbelt and King Creek Forest ESA	Crossing greenbelt and King Creek Forest ESA Crossing East Humber River ESA	Crossing East Humber River ESA Crossing Kirby Lands Conservation Area (CA)	Crossing Heronry (Great Blue Heron Nesting Site) Crossing East Humber River ESA Crossing Kirby Lands CA
LAND USE / SOCIO-ECONOMIC						
Land Use Planning Policies, Goals, Objectives	Municipal (local and regional) Land Use Planning Policies / Goals / Objectives (qualitative assessment of each route's compatibility with municipal land use policies, goals, objectives etc.)	Impacts Agricultural Lands in King Township	Moderate Impact on Greenbelt and Agricultural land	Route almost entirely within Greenbelt Minimizes impact on Agricultural Land	Greater Impact on Greenbelt and Agricultural lands due to length	Greater Impact on Greenbelt Minimizes impact on Agricultural Land
Land Use – Community	Urban and Rural Residential Uses (number of residential properties directly impacted by each route alternative)	0 Residential Parcels	0 Residential Parcels	0 Residential Parcels	0 Residential Parcels	0 Residential Parcels
	Commercial/Industrial Uses (number of commercial/industrial properties directly impacted by each route alternative)	No properties affected: Georgian Lea Stables (south of route)	1 property affected: Marigold Horse Stables (north portion of lot)	1 property affected: Marigold Horse Stables (north portion of lot)	No properties affected	No properties affected

Table 8. Screening of Long List of Alternatives - SECTION 8

FACTORS	Evaluation Criteria and Measurement	8A – Screened Out	8B – Carried Forward	8C – Carried Forward	8D – Carried Forward	8E – Screened Out
	Tourist Areas and Attractions (number of tourist areas, attractions and recreational facilities directly impacted)	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected
	Community Facilities / Institutions (number of community facilities/institutions directly impacted)	No properties affected	No properties affected	No properties affected	TRCA lands affected	TRCA lands affected
	Municipal Infrastructure and Public Service Facilities	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected
Noise Sensitive Areas (NSA's)	Transportation Noise (number of residences within 600 m of each route alternative)	1 Residential Parcel	0 Residential Parcels	0 Residential Parcels	0 Residential Parcels	6 Residential Parcels
Land Use - Resources	Agriculture including Specialized Agriculture (area of Class 1-3 soils) is expected to be consistent across all routes but will be measured to confirm. Impacts to Prime Agricultural Areas identified during Land Evaluation and Area Review (LEAR) studies for each Municipality where future land uses remain agricultural (i.e., **not** where lands are designated for future development).	CLI Class 1 = 37.0 CLI Class 4 = 26.1 CLI Class 5 = 7.6 1 small farm complex Route runs across properties on a diagonal, with small section paralleling a road	CLI Class 1 = 43.0 CLI Class 4 = 28.9 CLI Class 5 = 3.6 1 large farm complex Route crosses a few properties on a diagonal, and has a larger portion following along property lines	CLI Class 1 = 40.3 CLI Class 4 = 51.3 CLI Class 5 = 4.0 Route crosses properties on diagonal	CLI Class 1 = 52.7 CLI Class 4 = 37.6 CLI Class 5 = 4.1 1 small farm complex 1 medium farm complex 1 large farm complex Route crosses properties on diagonal	CLI Class 1 = 37.6 CLI Class 4 = 48.5 CLI Class 5 = 3.2 2 small farm complexes 1 medium farm complex Route runs along property lines for the most part
	Aggregate and Mineral Resources (number of existing or future aggregate resources areas directly impacted)	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources
Major Utility Transmission Corridors and Pipelines (number of major impacts and qualitative assessment of challenges associated with direct impacts)		1 Hydro Line (1 Corridor)	1 Hydro Line (1 Corridor)	1 Hydro Line (1 Corridor)	1 Hydro Line (1 Corridor)	1 Hydro Line (1 Corridor)
CULTURAL ENVIRONMENT						
Cultural Heritage – Built Heritage and Cultural Heritage Landscapes	The MTO Environmental Standards and Practices documents for Built Heritage and Cultural Heritage Landscapes (BHCHL Guide) outlines basic categories for the initial identification of cultural resources, including Designation under the Ontario Heritage Act (OHA) (D), Listing on municipal Heritage Registers (L), and identification as part of the MTO EA process (EA) which refers to properties pre-screened as having heritage significance potential. In the table properties are listed by site number and by heritage determination (D, L or EA). See Appendix for detailed information.	0	252 L	0	250 EA 252 L	0
	Cemeteries (number of cemeteries directly impacted – if there are any)	None known	None known	None known	None known	None known
	First Nation Burials	None known	None known	None known	None known	None known
Archaeology	Known Archaeological Sites	None known	None known	None known	None known	None known

Table 8. Screening of Long List of Alternatives - SECTION 8						
FACTORS	**Evaluation Criteria and Measurement**	**8A – Screened Out**	**8B – Carried Forward**	**8C – Carried Forward**	**8D – Carried Forward**	**8E – Screened Out**
TRANSPORTATION						
Network Compatibility	Compatibility with Municipal/Regional existing/planned key transportation corridors and potential interchange locations. Compatibility and proximity to Municipal/Regional existing/planned transit initiatives, including rail and bus routes and transit stations.	All routes have similar connections to the existing/planned transportation corridors. All routes have similar connections to the existing/planned transit initiatives.				
Constructability	Significant features that may impact construction (including route length, number and lengths of bridges, crossing of/proximity to utilities (i.e., Hydro Corridors, TCPL)).	Route length = 3.29 km Long bridge over East Humber River All routes cross the Hydro One utility corridor	Route length = 3.68 km Short bridge over East Humber River (narrowest crossing - 75 m) All routes cross the Hydro One utility corridor	Route length = 3.81 km Short bridge over East Humber River (narrowest crossing - 75 m) All routes cross the Hydro One utility corridor	Route length = 4.66 km Medium bridge over East Humber River All routes cross the Hydro One utility corridor	Route length = 4.46 km Long bridge over East Humber River All routes cross the Hydro One utility corridor
Compliance with Design Criteria	Ability of the route to meet the geometric design standards (“Proposed Draft Concepts For New Rural Freeways” manual, i.e., 1700 m radius)	All routes meet the geometric design standards.				

Table 9. Screening of Long List of Alternatives - SECTION 9

FACTORS	Evaluation Criteria and Measurement	9A – Screened Out	9B – Carried Forward	9C – Carried Forward	9D – Carried Forward	9E – Screened Out
NATURAL ENVIRONMENT						
Fisheries and Aquatic Ecosystems	Fish Habitat (number of sensitive watercourse crossings or waterbodies). General measures of sensitivity include: watercourses with SAR, coldwater crossings, critical/specialized habitat, etc., as well as siting considerations, e.g., crossing at highly meandering reach/major bend, complex valley crossings etc.	**Crossings:** 1 minor tributary crossing **Sensitivities:** No major issues **Siting Considerations:** None	**Crossings:** 3 minor tributary/wetland crossings 2-3 agricultural drainage/swales **Sensitivities:** Middle tributary crossing mapped for SAR (DFO). Tributary has RSD downstream (TRCA) **Siting Considerations:** None	**Crossings:** 5 minor tributary/wetland crossings 1-2 agricultural drainage/swales **Sensitivities:** 2 west end crossings are over on-line agricultural ponds and at confluence of two branches Middle tributary crossing (just west of Weston Road) mapped for SAR (DFO) **Siting Considerations:** None	**Crossings:** 4 minor tributary/wetland crossings **Sensitivities:** 2 west end crossings are over on-line agricultural ponds and at confluence of two branches Middle tributary crossing (just west of Weston Road) mapped for SAR (DFO) **Siting Considerations**: None	**Crossings:** 4 minor tributary/wetland crossings **Sensitivities:** Middle tributary crossing (just west of Weston Road) mapped for SAR (DFO) Crossing of tributary to the west on a bend, impacting ~350 m of channel **Siting Considerations:** Opportunity to narrow ROW and reduce skew on minor tributary crossing
Terrestrial Ecosystems	Wetlands (area or number of wetlands crossed by each alternative – includes PSWs, non-PSWs and PSW status to be determined)	**Features Affected:** East Humber River Wetland Complex **Impacts:** Partial removal of <1 ha open water and marsh communities within the complex Partial removal of <1 ha swamp community within the complex Partial removal of <1 ha swamp community within the complex Partial removal of <1 ha swamp community within the complex Partial removal of 3.3 ha marsh within complex	**Features Affected:** East Humber River Wetland Complex **Impacts:** Partial removal of 2.3 ha marsh within complex Partial removal of <1 ha marsh communities within the complex Partial removal of <1 ha marsh community within complex (in area of importance to TRCA) Partial removal of <1 ha swamp community within complex	**Features Affected:** East Humber River Wetland Complex **Impacts:** Partial removal of 2.3 ha marsh within complex Partial removal of <1 ha swamp community within complex Partial removal of <1 ha swamp community within complex	**Features Affected:** East Humber River Wetland Complex **Impacts:** Partial removal of <1 ha swamp community within complex	**Features Affected:** East Humber River Wetland Complex **Impacts:** Partial removal of <1 ha swamp community within complex

Table 9. Screening of Long List of Alternatives - SECTION 9

FACTORS	Evaluation Criteria and Measurement	9A – Screened Out	9B – Carried Forward	9C – Carried Forward	9D – Carried Forward	9E – Screened Out
	Woodlands and other Vegetation (area of impact on significant woodlands, large intact habitat blocks, and associated wildlife habitat).	**Features Affected:** Non-significant woodland **Impacts:** Full removal of 0.2 ha non-significant woodland Full removal of 0.46 ha non-significant woodland Partial removal of 5.7 ha non-significant woodland (part of TRCA importance area) Partial removal of 6.5 ha non-significant woodland (part of TRCA importance area)	**Features Affected:** Non-significant woodland **Impacts:** Partial removal of 4.2 ha non-significant woodlands Full Removal of 0.18 ha non-significant woodlands Partial removal of 4.2 ha non-significant woodland	**Features Affected:** Non-significant woodland **Impacts:** Partial removal of 6.6 ha non-significant woodland	**Features Affected:** Non-significant woodland Interior woodland **Impacts:** Partial removal of 6.6 ha non-significant woodland Partial removal of 17.9 ha non-significant woodland with interior habitat Full removal of non-significant woodlots 0.4 ha, 0.3 ha and 0.12 ha in size Partial removal of 0.18 ha non-significant woodlands Partial removal of 4.3 ha non-significant woodland	**Features Affected:** Non-significant woodland Interior Woodland **Impacts:** Partial removal of 17.9 ha non-significant woodland with interior habitat Full removal of 0.18 ha non-significant woodland Partial removal of 0.4 ha and 0.3 ha non-significant woodlands Partial removal of 4.3 ha non-significant woodland Full removal of 0.12 ha of non-significant woodland
	Designated/Special/Natural Areas (numbers or areas of ESAs, ANSIs, Greenbelt areas impacted by each route alternative).	Greenbelt crossing	Greenbelt crossings	Greenbelt Crossings	Greenbelt crossings	Greenbelt crossings
LAND USE / SOCIO-ECONOMIC						
Land Use Planning Policies, Goals, Objectives	Municipal (local and regional) Land Use Planning Policies / Goals / Objectives (qualitative assessment of each route's compatibility with municipal land use policies, goals, objectives etc.)	Location adjacent to King Vaughan Line would minimize fragmenting the Agricultural Area but result in considerable property impact Less desirable access for Vaughan Employment Lands Regional Official Plan (OP) shows planned interchange at this location	Significant impact on Agricultural Lands west of Weston Rd Significant consumption of Vaughan Employment Lands Good potential connection to planned Regional Transit hub at Keele Street	Significant impact on Agricultural Lands west of Weston Rd Significant consumption of Vaughan Employment Lands Good potential connection to planned Regional Transit hub at Keele Street	Less impact on Agriculture More impact on Greenbelt Good location to access Vaughan Employment Lands	Less impact on Agriculture More impact on Greenbelt Good location to access Vaughan Employment Lands Potential Impact on Vaughan future community area south of Kirby Road
Land Use – Community	Urban and Rural Residential Uses (number of residential properties directly impacted by each route alternative)	0 Residential Parcels	0 Residential Parcels	0 Residential Parcels	0 Residential Parcels	0 Residential Parcels

Table 9. Screening of Long List of Alternatives - SECTION 9

FACTORS	Evaluation Criteria and Measurement	9A – Screened Out	9B – Carried Forward	9C – Carried Forward	9D – Carried Forward	9E – Screened Out
	Commercial/Industrial Uses (number of commercial/industrial properties directly impacted by each route alternative)	4 properties affected: Sandy Farms Garden Nursery (on route), road access affected by route Ravine Mushroom Farm (on route), road access affected by route Maple Ready Mix Aggregates (on route) K.J. Beamish Construction Co. Ltd (affected at future interchange at Hwy 400)	1 property affected: King City On Route (could be affected by future interchange at Hwy 400)	1 property affected: King City On Route (could be affected by future interchange at Hwy 400)	No properties affected	No properties affected
	Tourist Areas and Attractions (number of tourist areas, attractions and recreational facilities directly impacted)	Identified Cycling Routes on Weston Road (Public Comment)	Identified Cycling Routes on Weston Road (Public Comment)	Identified Cycling Routes on Weston Road (Public Comment)	Identified Cycling Routes on Weston Road (Public Comment)	Identified Cycling Routes on Weston Road (Public Comment)
	Community Facilities / Institutions (number of community facilities/institutions directly impacted)	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected
	Municipal Infrastructure and Public Service Facilities	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected
Noise Sensitive Areas (NSA's)	Transportation Noise (number of residences within 600 m of each route alternative)	0 Residential Parcels	1 Residential Parcel	1 Residential Parcel	0 Residential Parcels	1 Residential Parcel
Land Use - Resources	Agriculture including Specialized Agriculture (area of Class 1-3 soils) is expected to be consistent across all routes but will be measured to confirm. Impacts to Prime Agricultural Areas identified during Land Evaluation and Area Review (LEAR) studies for each Municipality where future land uses remain agricultural (i.e., **not** where lands are designated for future development).	CLI Class 1 = 38.3 ha CLI Class 4 = 10.0 ha 2 small farm complexes Route runs along property lines	CLI Class 1 = 46.8 CLI Class 4 = 1.2 Route runs along property lines, with small section running on a diagonal	CLI Class 1 = 45.1 ha CLI Class 5 = 1.9 ha 1 large farm complex Route runs along property lines	CLI Class 1 = 44.3 ha CLI Class 5 = 1.4 ha Route runs on a diagonal across property lines	CLI Class 1 = 38.7 ha CLI Class 4 = 2.9 ha CLI Class 5 = 1.4 Route runs on a diagonal across property lines
	Aggregate and Mineral Resources (number of existing or future aggregate resources areas directly impacted)	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources
Major Utility Transmission Corridors and Pipelines (number of major impacts and qualitative assessment of challenges associated with direct impacts)		1 Pipeline Crossing	1 Pipeline Crossing	1 Pipeline Crossing	1 Pipeline Crossing	1 Pipeline Crossing
CULTURAL ENVIRONMENT						
Cultural Heritage – Built Heritage and Cultural Heritage Landscapes	The MTO Environmental Standards and Practices documents for Built Heritage and Cultural Heritage Landscapes (BHCHL Guide) outlines basic categories for the initial identification of cultural resources, including Designation under the Ontario Heritage Act (OHA) (D), Listing on municipal Heritage Registers (L), and	258 L	257 L	257 L	256 L 255 L	256 L 255 L

Table 9. Screening of Long List of Alternatives - SECTION 9						
FACTORS	**Evaluation Criteria and Measurement**	**9A – Screened Out**	**9B – Carried Forward**	**9C – Carried Forward**	**9D – Carried Forward**	**9E – Screened Out**
	identification as part of the MTO EA process (EA) which refers to properties pre-screened as having heritage significance potential. In the table properties are listed by site number and by heritage determination (D, L or EA). See Appendix for detailed information.					
	Cemeteries (number of cemeteries directly impacted – if there are any)	None known	None known	None known	None known	None known
	First Nation Burials	None known	None known	None known	None known	None known
Archaeology	Known Archaeological Sites	None known	2	1	None known	None known
TRANSPORTATION						
Network Compatibility	Compatibility with Municipal/Regional existing/planned key transportation corridors and potential interchange locations. Compatibility and proximity to Municipal/Regional existing/planned transit initiatives, including rail and bus routes and transit stations.	Does not provide for a connection to/from GTA West and King-Vaughan Road	Compatible with the City of Vaughan OP location of GTA West/Highway 400 interchange between Kirby Road and King-Vaughan Road Provides potential connection to/from GTA West and King-Vaughan Road	Compatible with the City of Vaughan OP location of GTA West/Highway 400 interchange between Kirby Road and King-Vaughan Road Provides potential connection to/from GTA West and King-Vaughan Road	Compatible with the City of Vaughan OP location of GTA West/Highway 400 interchange between Kirby Road and King-Vaughan Road Provides potential connection to/from GTA West and King-Vaughan Road	Compatible with the City of Vaughan OP location of GTA West/Highway 400 interchange between Kirby Road and King-Vaughan Road Provides potential connection to/from GTA West and King-Vaughan Road
Constructability	Significant features that may impact construction (including route length, number and lengths of bridges, crossing of/proximity to utilities (i.e., Hydro Corridors, TCPL)).	Route length = 2.93 km All routes have similar constructability issues. No major bridges in this section	Route length = 2.88 km All routes have similar constructability issues. No major bridges in this section	Route length = 2.83 km All routes have similar constructability issues. No major bridges in this section	Route length = 2.82 km All routes have similar constructability issues. No major bridges in this section	Route length = 2.77 km All routes have similar constructability issues. No major bridges in this section
Compliance with Design Criteria	Ability of the route to meet the geometric design standards ("Proposed Draft Concepts For New Rural Freeways" manual, i.e., 1700 m radius)	All routes meet the geometric design standards.				

Table 10. Screening of Long List of Alternatives - SECTION 10

FACTORS	Evaluation Criteria and Measurement	10A – Screened Out	10B – Carried Forward	10C – Carried Forward	10D – Screened Out	10E – Screened Out	10F – Screened Out	10G – Carried Forward
NATURAL ENVIRONMENT								
Fisheries and Aquatic Ecosystems	Fish Habitat (number of sensitive watercourse crossings or waterbodies). General measures of sensitivity include: watercourses with SAR, coldwater crossings, critical/specialized habitat, etc., as well as siting considerations, e.g., crossing at highly meandering reach/major bend, complex valley crossings etc.	**Crossings:** 1 crossing of Campbells Cross Creek **Sensitivities:** Campbells Cross Creek is mapped for aquatic SAR at crossing (DFO) **Siting Considerations:** Crossing is at slight skew, could be reduced	**Crossings:** 1 crossing of Campbells Cross Creek 2 crossings of same tributary to West Humber River **Sensitivities:** Campbells Cross Creek is mapped for aquatic SAR at crossing (DFO) Two crossings of same tributary **Siting Considerations:** Crossing of Campbells Cross Creek more perpendicular, narrower floodplain than Route A	**Crossings:** 1 crossing of Campbells Cross Creek Parallels and crosses tributary at confluence at north end Parallels tributary along west edge of Heart Lake Wetland Complex **Sensitivities:** Campbells Cross Creek is mapped for aquatic SAR at crossing (DFO) Impacts ~400 m of northern tributary at confluence Paralleling tributary through wetland complex may require realignment of 500-600 m **Siting Considerations:** Crossing at narrowest part of Campbells Cross Creek floodplain. Could be shifted to reduce skew	**Crossings:** 1 crossing of Campbells Cross Creek Parallels and crosses tributary at confluence at north end Parallels tributary along west edge of Heart Lake Wetland Complex **Sensitivities:** Campbells Cross Creek is mapped for aquatic SAR at crossing (DFO) Impacts ~400 m of northern tributary at confluence Paralleling tributary through wetland complex may require realignment of 500-600 m **Siting Considerations:** Crossing at narrowest part of Campbells Cross Creek floodplain	**Crossings:** 1 crossing of Campbells Cross Creek Parallels and crosses tributary at confluence at north end **Sensitivities:** Campbells Cross Creek is mapped for aquatic SAR at crossing (DFO) Impacts ~400 m of northern tributary at confluence **Siting Considerations:** Crossing at narrowest part of Campbells Cross Creek floodplain Crossing is skewed but constrained by features north and south – not likely avoidable	**Crossings:** 1 crossing of Campbells Cross Creek 1 crossing of tributary to West Humber River **Sensitivities:** RSD in Campbells Cross Creek at crossing and mapped for SAR (DFO) **Siting Considerations:** Both crossings relatively narrow and perpendicular	**Crossings:** 2 Crossings of Etobicoke Creek West Headwaters **Sensitivities:** Substantial portion of one tributary removed (approximately 1km) including stretch of meandering portion of tributary **Siting Considerations:** None
Terrestrial Ecosystems	Wetlands (area or number of wetlands crossed by each alternative – includes PSWs, non-PSWs and PSW status to be determined)	**Features Affected:** None **Nature of Impacts**: None	**Feature Affected:** Unevaluated Wetland **Nature of Impacts**: Partial removal of 3.9 ha unevaluated wetland	**Feature Affected:** Heart Lake Wetland Complex **Nature of Impacts**: Immediately adjacent to swamp community and may result in partial removal	**Feature Affected:** Heart Lake Wetland Complex **Nature of Impacts**: Partial and full removal of portions of the Heart Lake Wetland Complex (<10ha in total size)	**Feature Affected:** Heart Lake Wetland Complex **Nature of Impacts**: Partial and full removal of portions of the Heart Lake Wetland Complex (<10 ha in total size) Partial removal of unevaluated wetland (<1 ha in size) Partial removal of unevaluated wetland (<1 ha in size)	**Feature Affected:** Heart Lake Wetland Complex **Nature of Impacts**: Partial and full removal of portions of the Heart Lake Wetland Complex (<10ha in total size) Partial removal of unevaluated wetland (<1 ha in size)	**Feature Affected:** Unevaluated wetlands **Nature of Impacts**: Partial removal of portions of 2 unevaluated wetlands

Table 10. Screening of Long List of Alternatives - SECTION 10

FACTORS	Evaluation Criteria and Measurement	10A – Screened Out	10B – Carried Forward	10C – Carried Forward	10D – Screened Out	10E – Screened Out	10F – Screened Out	10G – Carried Forward
	Woodlands and other Vegetation (area of impact on significant woodlands, large intact habitat blocks, and associated wildlife habitat).	**Features Affected:** Non-significant woodland **Impacts**: Partial removal of 1.24 ha non-significant woodland Removal of riparian vegetation	**Features Affected:** Non-significant woodland **Nature of Impacts**: Partial removal of 1.7 ha non-significant woodland Partial removal of 7 ha of non-significant woodland with interior habitat Removal of riparian vegetation	**Features Affected:** Non-significant woodland **Nature of Impacts**: Full removal of 5.6 ha non-significant woodland with interior habitat Full removal of <1 ha non-significant woodland Partial removal of <1 ha non-significant woodland Partial removal of 7 ha of non-significant woodland with interior habitat Removal of riparian vegetation	**Features Affected:** Non-significant woodland **Nature of Impacts**: Partial removal of 3 ha non-significant woodland Partial removal of 17 ha non-significant woodland with interior habitat Partial removal of <1 ha non-significant woodland Partial removal of <1 ha non-significant woodland Partial removal of 7 ha of non-significant woodland with interior habitat Removal of riparian vegetation	**Features Affected:** Non-significant woodland **Nature of Impacts**: Partial removal of 3 ha non-significant woodland Partial removal of 17 ha non-significant woodland with interior habitat Partial removal of 0.6 ha non-significant woodland Partial removal of 9.4 ha non-significant woodland with interior habitat Partial removal of 7 ha of non-significant woodland with interior habitat Removal of riparian vegetation	**Features Affected:** Non-significant woodland **Nature of Impacts**: Partial removal of 3 ha non-significant woodland Partial removal of 17ha non-significant woodland with interior habitat Partial removal of <1ha non-significant habitat Partial removal of 15ha non-significant woodland with interior habitat Partial removal of 7ha of non-significant woodland with interior habitat Removal of riparian vegetation	**Features Affected:** Non-significant woodland **Nature of Impacts**: Partial removal of <1ha non-significant woodland Partial Removal of 15ha non-significant woodland Removal of riparian vegetation
	Designated/Special/Natural Areas (numbers or areas of ESAs, ANSIs, Greenbelt areas impacted by each route alternative).	Greenbelt crossing	Greenbelt crossing	Greenbelt crossing	Greenbelt crossing and Caledon South Lands Conservation Area (CA) crossing	Greenbelt crossing and Caledon South Lands Conservation Area (CA) crossing	Greenbelt crossing and Caledon South Lands Conservation Area (CA) crossing	No Designated Areas
LAND USE / SOCIO-ECONOMIC								
Land Use Planning Policies, Goals, Objectives	Municipal (local and regional) Land Use Planning Policies / Goals / Objectives (qualitative assessment of each route's compatibility with municipal land use policies, goals, objectives etc.)	Impacts planned Employment Area but no current applications. Impact on planned residential development.	Impacts planned and future Employment lands No impacts on current applications	Impacts planned and future Employment lands. Impacts current application for subdivision	Impacts planned and future Employment lands Impacts two current applications for subdivision. Impacts planned Open Space, Environmentally Protected area	Impacts planned and future Employment lands Significant impact on current application for subdivision. Impacts planned Open Space, Environmentally Protected area	Impacts planned Employment lands Significant impact on current application for subdivision. Avoids impact on Open Space, Environmentally Protected area	Significant impact on current applications for subdivision (at least 3). Impact on future planned commercial areas
Land Use – Community	Urban and Rural Residential Uses (number of residential properties directly impacted by each route alternative)	5 Residential Parcels	14 Residential Parcels	2 Residential Parcels	4 Residential Parcels	2 Residential Parcels	3 Residential Parcels	84 Residential properties (with 30 m buffer) – 20 for the 250m wide section. – 71 for the 90m wide section

Table 10. Screening of Long List of Alternatives - SECTION 10

FACTORS	Evaluation Criteria and Measurement	10A – Screened Out	10B – Carried Forward	10C – Carried Forward	10D – Screened Out	10E – Screened Out	10F – Screened Out	10G – Carried Forward
	Commercial/Industrial Uses (number of commercial/industrial properties directly impacted by each route alternative)	1 property affected: Broadway farmers market (on route)	2 properties affected: Mycogen Seeds (development on southwest portion), road access affected by route Broadway farmers market (on route)	1 property affected: Mycogen Seeds (development on southwest portion), road access affected by route	1 property affected: Mycogen Seeds (development on southwest portion), road access affected by route	1 property affected: Ken Speirs Orchard (on route), road access affected by route	2 properties affected: Composted Manure Sales (on route), road access affected by route Ken Speirs Orchard (on route), road access affected by route	1 property affected: Argo developments sales trailer
	Tourist Areas and Attractions (number of tourist areas, attractions and recreational facilities directly impacted)	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected	1 property affected: Banty's Roost Golf and Country Club (development along northeast portion of lot)	No properties affected
	Community Facilities / Institutions (number of community facilities/institutions directly impacted)	1 property affected: Brampton Fairgrounds (on route), road access affected by route	No properties affected	No properties affected	No properties affected	No properties affected	1 property affected: Mayfield United Church (on route)	2 properties affected: Brentwood Academy Brampton Christian School
	Municipal Infrastructure and Public Service Facilities	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected	No properties affected
Noise Sensitive Areas (NSA's)	Transportation Noise (number of residences within 600 m of each route alternative)	154 Existing Residential Parcels 28.7ha Designated Residential Area X 25u/Ha = 718 Units for Future Development	110 Existing Residential Parcels 21.5ha Designated Residential Area X 25u/Ha = 538 Units for Future Development	10 Existing Residential Parcels 10.3ha Designated Residential Area X 25u/Ha = 258 Units for Future Development	6 Existing Residential Parcels	10 Existing Residential Parcels	10 Existing Residential Parcels	745 Existing Residential Parcels 59.16ha Designated Residential Area X 25U/Ha = 1,479 Units for Future Development
Land Use - Resources	Agriculture including Specialized Agriculture (area of Class 1-3 soils) is expected to be consistent across all routes but will be measured to confirm. Impacts to Prime Agricultural Areas identified during Land Evaluation and Area Review (LEAR) studies for each Municipality where future land uses remain agricultural (i.e., **not** where lands are designated for future development).	CLI Class 1 = 11.1 CLI Class 2 = 20.8 CLI Class 3 = 2.0 Route runs parallel to road, middle of properties	CLI Class 1 = 2.1 CLI Class 2 = 0.1 CLI Class 3 = 26.7 CLI Class 5 = 4.7 Route runs adjacent to road, through properties	CLI Class 1 = 0.1 CLI Class 3 = 33.5 CLI Class 5 = 0.1 Route runs adjacent to road, through properties	CLI Class 1 = 0.1 CLI Class 3 = 33.5 CLI Class 5 = 0.1 Route runs adjacent to road, through properties	CLI Class 1 = 3.9 CLI Class 3 = 30.1 Route runs adjacent to road, through properties	CLI Class 1 = 75.0 CLI Class 3 = 1.0 CLI Class 5 = 4.8 CLI Class 6 = 0.1 1 large farm complex Route runs diagonally across a few properties, then along lot line	CLI Class 1 = 26.3 ha 1 large farm complex Route runs along existing Highway 10
	Aggregate and Mineral Resources (number of existing or future aggregate resources areas directly impacted)	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources
Major Utility Transmission Corridors and Pipelines (number of major impacts and qualitative assessment of challenges associated with direct impacts)		0	0	0	0	0	0	0
CULTURAL ENVIRONMENT								
Cultural Heritage – Built Heritage and Cultural Heritage Landscapes	The MTO Environmental Standards and Practices documents for Built Heritage and Cultural Heritage Landscapes (BHCHL Guide) outlines basic	133 EA 135 EA 136 EA	133 EA 136 EA	136 EA	0	146 EA	142 EA 143 EA 144 EA 145 EA 153 EA	124 L

Table 10. Screening of Long List of Alternatives - SECTION 10								
FACTORS	**Evaluation Criteria and Measurement**	**10A – Screened Out**	**10B – Carried Forward**	**10C – Carried Forward**	**10D – Screened Out**	**10E – Screened Out**	**10F – Screened Out**	**10G – Carried Forward**
	categories for the initial identification of cultural resources, including Designation under the Ontario Heritage Act (OHA) (D), Listing on municipal Heritage Registers (L), and identification as part of the MTO EA process (EA) which refers to properties pre-screened as having heritage significance potential. In the table properties are listed by site number and by heritage determination (D, L or EA). See Appendix for detailed information.							
	Cemeteries by site number	None known	None known	None known	None known	144 – passes 130m from cemetery property	144 – clips the corner of the cemetery property	None known
	First Nation Burials	None known	None known	None known	None known	None known	None known	None known
Archaeology	Known Archaeological Sites	None known	None known	None known	None known	1	2	None known
TRANSPORTATION								
Network Compatibility	Compatibility with Municipal/Regional existing/planned key transportation corridors and potential interchange locations. Compatibility and proximity to Municipal/Regional existing/planned transit initiatives, including rail and bus routes and transit stations.	Common to all new alternatives: Compatible with existing and planned transportation corridors and interchange locations including GTA West mainline alternatives Status of existing Hwy 410 corridor would need to be confirmed	Common to all new alternatives: Compatible with existing and planned transportation corridors and interchange locations including GTA West mainline alternatives Status of existing Hwy 410 corridor would need to be confirmed	Common to all new alternatives: Compatible with existing and planned transportation corridors and interchange locations including GTA West mainline alternatives Status of existing Hwy 410 corridor would need to be confirmed	Common to all new alternatives: Compatible with existing and planned transportation corridors and interchange locations including GTA West mainline alternatives Status of existing Hwy 410 corridor would need to be confirmed	Common to all new alternatives: Compatible with existing and planned transportation corridors and interchange locations including GTA West mainline alternatives Status of existing Hwy 410 corridor would need to be confirmed	Common to all new alternatives: Compatible with existing and planned transportation corridors and interchange locations including GTA West mainline alternatives Status of existing Hwy 410 corridor would need to be confirmed	Hwy 410 Widening: Maintains existing connectivity with existing corridors and interchange locations Common to all new alternatives: Compatible with existing and planned transportation corridors and interchange locations including GTA West mainline alternatives
Constructability	Significant features that may impact construction (including route length, number and lengths of bridges, crossing of/proximity to utilities (i.e., Hydro Corridors, TCPL)).	Common to all new alternatives: Some staging impacts due to realignment of Hwy 410 and reconstruction of interchange at Mayfield Rd. Common to all new alternatives: New Freeway to freeway construction at GTA-West mainline will be dependent on selected mainline alternative Challenging staging impacts due to realignment of numerous existing local roads Some property	Common to all new alternatives: Some staging impacts due to realignment of Hwy 410 and reconstruction of interchange at Mayfield Rd. Common to all new alternatives: New Freeway to freeway construction at GTA-West mainline will be dependent on selected mainline alternative Challenging staging impacts due to realignment of numerous existing local roads	Common to all new alternatives: Some staging impacts due to realignment of Hwy 410 and reconstruction of interchange at Mayfield Rd. Common to all new alternatives: New Freeway to freeway construction at GTA-West mainline will be dependent on selected mainline alternative Challenging staging impacts due to realignment of numerous existing local	Common to all new alternatives: Some staging impacts due to realignment of Hwy 410 and reconstruction of interchange at Mayfield Rd. Common to all new alternatives: New Freeway to freeway construction at GTA-West mainline will be dependent on selected mainline alternative Challenging staging impacts due to realignment of numerous existing local roads Challenging construction due	Common to all new alternatives: Some staging impacts due to realignment of Hwy 410 and reconstruction of interchange at Mayfield Rd. Common to all new alternatives: New Freeway to freeway construction at GTA-West mainline will be dependent on selected mainline alternative Challenging staging impacts due to realignment of numerous existing local	Common to all new alternatives: Some staging impacts due to realignment of Hwy 410 and reconstruction of interchange at Mayfield Rd. Common to all new alternatives: New Freeway to freeway construction at GTA-West mainline will be dependent on selected mainline alternative Challenging staging impacts due to realignment	Hwy 410 Widening: Challenging construction between Mayfield Rd and Hwy 10 due to restricted R.O.W. (90 m) and reduced Geometry (525 m rad) Extensive retaining walls required and possible replacement of existing underpasses at Heart Lake Rd / Kennedy Rd. Numerous ramp realignments required at Mayfield Rd / Hurontario St interchanges. Widening of (2) existing overpasses

Table 10. Screening of Long List of Alternatives - SECTION 10								
FACTORS	**Evaluation Criteria and Measurement**	**10A – Screened Out**	**10B – Carried Forward**	**10C – Carried Forward**	**10D – Screened Out**	**10E – Screened Out**	**10F – Screened Out**	**10G – Carried Forward**
		impacts/displacements required including Brampton Fair Grounds 1 Long Bridge (Humber River Tributary) Route Length = 6.16km	1 Long Bridge (Humber River Tributary) Route Length = 6.52km	roads 1 Small Bridge (Humber River Tributary) Route Length = 5.96km	to high proportion of PSW's and wetlands 1 Small Bridge (Humber River Tributary) Route Length = 5.89km	roads Challenging construction due to high proportion of PSW's, wetlands and unevaluated wetlands 1 Small Bridge (Humber River Tributary) Route Length = 5.99km	of numerous existing local roads Challenging construction due to high proportion of PSW's, wetlands and unevaluated wetlands 1 Small Bridge (Humber River Tributary) 1 Medium Bridge (Humber River Tributary) Route Length = 6.33km	at Etobicoke Creek, along with impacts to (2) existing Stormwater Management (SWM) Ponds. Possible major utility impacts. Existing Highway 10 currently operates as part of existing arterial network. May need to construct service road to maintain local access. Route Length = 7.71km
Compliance with Design Criteria	Ability of the route to meet the geometric design standards ("Proposed Draft Concepts For New Rural Freeways" manual, i.e., 1700 m radius)	Alignment does not meet minimum horizontal geometric requirements for a New Rural Freeway (utilizes minimum 800m radius)	Alignment does not meet minimum horizontal geometric requirements for a New Rural Freeway (utilizes minimum 800m radius)	Alignment meets or exceeds minimum horizontal geometric requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometric requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometric requirements for a New Rural Freeway	Alignment meets or exceeds minimum horizontal geometric requirements for a New Rural Freeway	Alignment does not meet minimum horizontal geometry requirements for a New Rural Freeway

Table 11. Screening of Long List of Alternatives – Highway 427 Options

FACTORS	Evaluation Criteria and Measurement	Highway 427 A – Carried Forward	Highway 427 B – Carried Forward
NATURAL ENVIRONMENT			
Fisheries and Aquatic Ecosystems	Fish Habitat (number of sensitive watercourse crossings or waterbodies). General measures of sensitivity include: watercourses with SAR, coldwater crossings, critical/specialized habitat, etc., as well as siting considerations, e.g., crossing at highly meandering reach/major bend, complex valley crossings etc.	**Features:** Aquatic SAR habitat within Robinson Creek and associated tributary **Impacts:** Option A proposes crossing of SAR habitat within tributary of Robinson Creek Requires 3 crossings of Robinson Creek and removal of large portion of a tributary Crossings at locations with wide floodplains	**Features:** Robinson Creek Tributaries **Impacts:** Two straight forward crossings of Robinson Creek Tributaries
Terrestrial Ecosystems	Wetlands (area or number of wetlands crossed by each alternative – includes PSWs, non-PSWs and PSW status to be determined)	**Features:** unevaluated wetland (<1ha) **Impacts:** Full removal of unevaluated wetland and removal of riparian vegetation associated with Robinson Creek	**Features:** unevaluated wetlands (<1ha) **Impacts:** Full removal of two small unevaluated wetlands and removal of riparian vegetation associated with Robinson Creek
	Woodlands and other Vegetation (area of impact on significant woodlands, large intact habitat blocks, and associated wildlife habitat).	**Features:** Non-significant woodland **Impacts:** Partial removal of non-significant woodlands associated with Robinson Creek floodplain Removal of riparian vegetation	**Features:** Non-significant woodland and interior habitat **Impacts:** Removal of half of 4.58ha woodland with interior habitat Partial removal of 3.6ha of non-significant woodland Removal of riparian vegetation associated with tributaries
	Designated/Special/Natural Areas (numbers or areas of ESAs, ANSIs, Greenbelt areas impacted by each route alternative).	No designated areas	No designated areas
LAND USE / SOCIO-ECONOMIC			
Land Use Planning Policies, Goals, Objectives	Municipal (local and regional) Land Use Planning Policies / Goals / Objectives (qualitative assessment of each route's compatibility with municipal land use policies, goals, objectives etc.)	Some impact on Block 61 Nashville Heights Greater impact on West Vaughan Secondary Plan	Some impact on Block 61 Nashville Heights Greater impact on agriculture
Land Use – Community	Urban and Rural Residential Uses (number of residential properties directly impacted by each route alternative)	0 Residential Parcels	0 Residential Parcels
	Commercial/Industrial Uses (number of commercial/industrial properties directly impacted by each route alternative)	No properties affected	2 properties affected: Apra Truck Lines Outdoor Storage
	Tourist Areas and Attractions (number of tourist areas, attractions and recreational facilities directly impacted)	No properties affected	No properties affected
	Community Facilities / Institutions (number of community facilities/institutions directly impacted)	No properties affected	No properties affected
	Municipal Infrastructure and Public Service Facilities	Potential Hydro	Potential Hydro
Noise Sensitive Areas (NSA's)	Transportation Noise (number of residences within 600 m of each route alternative)	0 Residential Parcels	0 Residential Parcels
Land Use - Resources	Agriculture including Specialized Agriculture (area of Class 1-3 soils) is expected to be consistent across all routes but will be measured to confirm. Impacts to Prime Agricultural Areas identified during Land Evaluation and Area Review (LEAR) studies for each Municipality where future land uses remain agricultural (i.e., **not** where lands are designated for future development).	CLI Class 1 = 38.4 ha CLI Class 2 = 3.7 ha 1 medium farm complex Route runs through properties	CLI Class 1 = 21.4 ha CLI Class 2 = 47.3 ha 1 medium farm complex Route runs through middle of properties
	Aggregate and Mineral Resources (number of existing or future aggregate resources areas directly impacted)	No Primary/Secondary Sand/Gravel Resources	No Primary/Secondary Sand/Gravel Resources
Major Utility Transmission Corridors and Pipelines (number of major impacts and qualitative assessment of challenges associated with direct impacts)		3 Hydro Lines (1 Corridor)	3 Hydro Lines (1 Corridor)

Table 11. Screening of Long List of Alternatives – Highway 427 Options			
FACTORS	**Evaluation Criteria and Measurement**	**Highway 427 A – Carried Forward**	**Highway 427 B – Carried Forward**
		Impacts major feeder lines from Hydro One to the south 1 TransCanada Pipeline	Impacts major feeder lines from Hydro One to the south 1 TransCanada Pipeline
CULTURAL ENVIRONMENT			
Cultural Heritage – Built Heritage and Cultural Heritage Landscapes	The MTO Environmental Standards and Practices documents for Built Heritage and Cultural Heritage Landscapes (BHCHL Guide) outlines basic categories for the initial identification of cultural resources, including Designation under the Ontario Heritage Act (OHA) (D), Listing on municipal Heritage Registers (L), and identification as part of the MTO EA process (EA) which refers to properties pre-screened as having heritage significance potential. In the table properties are listed by site number and by heritage determination (D, L or EA). See Appendix for detailed information.	0	229 L 232 L
	Cemeteries (number of cemeteries directly impacted – if there are any)	None known	None known
	First Nation Burials	None known	None known
Archaeology	Known Archaeological Sites	None known	None known
TRANSPORTATION			
Network Compatibility	Compatibility with Municipal/Regional existing/planned key transportation corridors and potential interchange locations. Compatibility and proximity to Municipal/Regional existing/planned transit initiatives, including rail and bus routes and transit stations.	Both routes have similar connections to the existing/planned transportation corridors Both routes have similar connections to the existing/planned transit initiatives	
Constructability	Significant features that may impact construction (including route length, number and lengths of bridges, crossing of/proximity to utilities (i.e., Hydro Corridors, TCPL)).	Route length is dependent on the preferred GTA West corridor Crosses major hydro utility corridor Medium length bridge over Robinson Creek	Route length is dependent on the preferred GTA West corridor
Compliance with Design Criteria	Ability of the route to meet the geometric design standards (“Proposed Draft Concepts For New Rural Freeways” manual, i.e., 1700 m radius)	Both routes meet the geometric design standards	Both routes meet the geometric design standards