

Detailed Evaluation of Alternative Alignments for Clarkway Drive

Category	Criteria	Criteria Indicator	Alternative 1 Widen About Existing Centerline	Alternative 2 Widen to the West	Alternative 3 Widen to the East	Alternative 4 Composite Alignment
Transportation Network Safety (includes natural hazards)	Provide access to proposed development;	<ul style="list-style-type: none"> Increased roadway capacity at north and south limits will improved access to proposed development. 				
		<ul style="list-style-type: none"> Offset alignment at Clarkway Drive/Mayfield Road intersection corrected. 				
	Improve roadway geometrics to meet or exceed City and Regional standards;	<ul style="list-style-type: none"> Improved pedestrian and cyclist safety through provision of dedicated facilities. Improvements to vehicular safety through profile corrections to address issues with flooding and sight distance. 				
		<ul style="list-style-type: none"> Offset alignment at Clarkway Drive/Mayfield Road intersection corrected. Curve introduced on approach to Castlemore Road intersection. 				
	Provide pedestrian and cycling facilities;	<ul style="list-style-type: none"> Pedestrian and cycling facilities will be provided. No difference between alternatives. 				
		<ul style="list-style-type: none"> Pedestrian and cycling facilities will be provided. No difference between alternatives. 				
	Improve traffic, pedestrian and cyclist safety;	<ul style="list-style-type: none"> Improved pedestrian and cyclist safety through provision of dedicated facilities. Improvements to vehicular safety through profile corrections to address issues with flooding and sight distance. 				
		<ul style="list-style-type: none"> Improved pedestrian and cyclist safety through provision of dedicated facilities. Improvements to vehicular safety through profile corrections to address issues with flooding and sight distance. 				
	Address structural deficiency;	<ul style="list-style-type: none"> Existing crossing of Clarkway Drive over Clarkway Creek can be maintained with this alignment alternative. Structure is in good condition. 				
		<ul style="list-style-type: none"> Change in alignment of Clarkway Drive at Clarkway Creek will necessitate changes to the existing structural crossing. 				
Improve pavement conditions.	Roadway will be fully reconstructed, resulting in improved pavement conditions.					
Transportation Network Safety (includes natural hazards)	Safety related factors include roadway geometrics, roadside hazards, intersection design, and control, accommodating pedestrians and cyclists.	<ul style="list-style-type: none"> Roadway moved closer to Clarkway Creek and will therefore require additional guiderail. Two back-to-back curves will be required to correct issue with intersection offset at Mayfield Road. Intersection at Castlemore Road is properly aligned. 				
		<ul style="list-style-type: none"> Roadway moved closer to Clarkway Creek and will therefore require additional guiderail. Two back-to-back curves will be required to correct issue with intersection offset at Mayfield Road. Existing curve on approach to Castlemore Road can be removed. 				
		<ul style="list-style-type: none"> Two back-to-back curves will be required to correct issue with intersection offset at Mayfield Road. Two back-to-back curves will be required to correct issue with intersection offset at Castlemore Road 				
		<ul style="list-style-type: none"> Two back-to-back curves will be required to correct issue with intersection offset at Mayfield Road. Intersection at Castlemore Road is properly aligned. 				



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Transportation Network Connectivity	Transportation Network Capacity	Impacts on traffic on local roads and outside the study area. Transportation network improvement and accommodation of goods movement.	<ul style="list-style-type: none"> Existing intersections will be maintained and/or improved. No significant change from existing. 	<ul style="list-style-type: none"> Existing intersections will be maintained and/or improved. No significant change from existing. 	<ul style="list-style-type: none"> Existing intersections will be maintained and/or improved. No significant change from existing. 	<ul style="list-style-type: none"> Existing intersections will be maintained and/or improved. No significant change from existing. 	
			<ul style="list-style-type: none"> Increased roadway capacity to be provided south of 'Main Street', allowing for improved access to planned residential development. Anticipated congestion through 'Main Street' segment will increase overall travel times along Clarkway Drive. No significant difference between alternatives. 	<ul style="list-style-type: none"> Increased roadway capacity to be provided south of 'Main Street', allowing for improved access to planned residential development. Anticipated congestion through 'Main Street' segment will increase overall travel times along Clarkway Drive. No significant difference between alternatives. 	<ul style="list-style-type: none"> Increased roadway capacity to be provided south of 'Main Street', allowing for improved access to planned residential development. Anticipated congestion through 'Main Street' segment will increase overall travel times along Clarkway Drive. No significant difference between alternatives. 	<ul style="list-style-type: none"> Increased roadway capacity to be provided south of 'Main Street', allowing for improved access to planned residential development. Anticipated congestion through 'Main Street' segment will increase overall travel times along Clarkway Drive. No significant difference between alternatives. 	
		Promotion of Active Transportation	Impact on the safety and usability of planned AT infrastructure, as well as adherence to City AT policy.	<ul style="list-style-type: none"> Provision of dedicated pedestrian and cyclist facilities will promote use of active transportation along the corridor. Sidewalk will need to be moved in close to the roadway to minimize impacts to Clarkway Creek between Countryside Drive and East-West Arterial. 	<ul style="list-style-type: none"> Provision of dedicated pedestrian and cyclist facilities will promote use of active transportation along the corridor. Sidewalk will need to be moved in close to the roadway to minimize impacts to Clarkway Creek between Countryside Drive and East-West Arterial. 	<ul style="list-style-type: none"> Provision of dedicated pedestrian and cyclist facilities will promote use of active transportation along the corridor. Roadway moved away from Clarkway Creek to the extent feasible, permitting greater separation of vehicular and sidewalk between Countryside Drive and the East-West Arterial. 	<ul style="list-style-type: none"> Provision of dedicated pedestrian and cyclist facilities will promote use of active transportation along the corridor. Roadway moved away from Clarkway Creek to the extent feasible, permitting greater separation of vehicular and sidewalk between Countryside Drive and the East-West Arterial.
				<ul style="list-style-type: none"> Increased roadway capacity (in sections), provision of bus bays, and transit service along the corridor will encourage use of transit services. Potential impacts to Clarkway Creek at Clarkway Drive may limit ability to provide transit platforms at this intersection. No difference between alternatives. 	<ul style="list-style-type: none"> Increased roadway capacity (in sections), provision of bus bays, and transit service along the corridor will encourage use of transit services. Potential impacts to Clarkway Creek at Clarkway Drive may limit ability to provide transit platforms at this intersection. No difference between alternatives. 	<ul style="list-style-type: none"> Increased roadway capacity (in sections), provision of bus bays, and transit service along the corridor will encourage use of transit services. Potential impacts to Clarkway Creek at Clarkway Drive may limit ability to provide transit platforms at this intersection. No difference between alternatives. 	<ul style="list-style-type: none"> Increased roadway capacity (in sections), provision of bus bays, and transit service along the corridor will encourage use of transit services. Potential impacts to Clarkway Creek at Clarkway Drive may limit ability to provide transit platforms at this intersection. No difference between alternatives.
		Transit Supportive Development	Potential adverse impact on transit service. Assessment of impact on planned transit service improvements.	<ul style="list-style-type: none"> Clarkway Creek crossing structure south of Countryside Drive will require widening/replacement to accommodate additional roadway width due to addition of active transportation facilities. No difference between alternatives. Realignment of the structure may also be required. 	<ul style="list-style-type: none"> Clarkway Creek crossing structure south of Countryside Drive will require widening/replacement to accommodate additional roadway width due to addition of active transportation facilities. No difference between alternatives. Realignment of the structure may also be required. 	<ul style="list-style-type: none"> Clarkway Creek crossing structure south of Countryside Drive will require widening/replacement to accommodate additional roadway width due to addition of active transportation facilities. No difference between alternatives. Realignment of the structure may also be required. 	<ul style="list-style-type: none"> Clarkway Creek crossing structure south of Countryside Drive will require widening/replacement to accommodate additional roadway width due to addition of active transportation facilities. No difference between alternatives. Realignment of the structure may also be required.
				<ul style="list-style-type: none"> Clarkway Creek crossing structure south of Countryside Drive will require widening/replacement to accommodate additional roadway width due to addition of active transportation facilities. No difference between alternatives. Realignment of the structure may also be required. 	<ul style="list-style-type: none"> Clarkway Creek crossing structure south of Countryside Drive will require widening/replacement to accommodate additional roadway width due to addition of active transportation facilities. No difference between alternatives. Realignment of the structure may also be required. 	<ul style="list-style-type: none"> Clarkway Creek crossing structure south of Countryside Drive will require widening/replacement to accommodate additional roadway width due to addition of active transportation facilities. No difference between alternatives. Realignment of the structure may also be required. 	<ul style="list-style-type: none"> Clarkway Creek crossing structure south of Countryside Drive will require widening/replacement to accommodate additional roadway width due to addition of active transportation facilities. No difference between alternatives. Realignment of the structure may also be required.



Category	Criteria	Criteria Indicator	Alternative 1 Widen About Existing Centerline	Alternative 2 Widen to the West	Alternative 3 Widen to the East	Alternative 4 Composite Alignment															
		Potential adverse impact on proposed structures.	<ul style="list-style-type: none"> If compensation for loss of floodplain storage on the east side of Clarkway Drive cannot be provided on the west side, two new crossing structures may be required between Countryside Drive and the East-West Arterial. No significant difference in required structures between alternatives. 	<ul style="list-style-type: none"> If compensation for loss of floodplain storage on the east side of Clarkway Drive cannot be provided on the west side, two new crossing structures may be required between Countryside Drive and the East-West Arterial. No significant difference in required structures between alternatives. 	<ul style="list-style-type: none"> If compensation for loss of floodplain storage on the east side of Clarkway Drive cannot be provided on the west side, two new crossing structures may be required between Countryside Drive and the East-West Arterial. No significant difference in required structures between alternatives. 	<ul style="list-style-type: none"> If compensation for loss of floodplain storage on the east side of Clarkway Drive cannot be provided on the west side, two new crossing structures may be required between Countryside Drive and the East-West Arterial. No significant difference in required structures between alternatives. 															
	Stormwater Management and Low Impact Development		No differences between alternatives.																		
	Hydraulics and Hydrology Impacts (Creeks)	Impact on floodplain, existing flood depths at proposed crossing locations, and existing flood return period.	<ul style="list-style-type: none"> Approximately 4,200 m² of new linear infrastructure to be constructed within the floodplain of Clarkway Creek. Significant impact to hydraulics and hydrology. 	<ul style="list-style-type: none"> Approximately 4,200 m² of new linear infrastructure to be constructed within the floodplain of Clarkway Creek. Significant impact to hydraulics and hydrology. 	<ul style="list-style-type: none"> Approximately 4,200 m² of new linear infrastructure to be constructed within the floodplain of Clarkway Creek. Significant impact to hydraulics and hydrology. 	<ul style="list-style-type: none"> Approximately 4,200 m² of new linear infrastructure to be constructed within the floodplain of Clarkway Creek. Significant impact to hydraulics and hydrology. 															
Financial	Utility Relocation	Ability to minimize effects on existing and proposed utilities.	<ul style="list-style-type: none"> Hydro and bell infrastructure will require relocation from approximately 280 m south of Mayfield Road to Castlemore Road. Sanitary sewer between Countryside Drive and Castlemore Road will be located under the median. Watermain will be located under the road surface from the East-West Arterial to Castlemore Road. Significant utility impacts. 	<ul style="list-style-type: none"> Hydro will require relocation across the proposed curves between Mayfield Road and Countryside Drive, as well as from south of Countryside Drive to Castlemore Road. Bell infrastructure which is currently located on the west side of the road will require relocation. Watermain will be located under the roadway surface from 600 m south of Mayfield Road south to Castlemore Road. Sanitary sewer may be located under the boulevard on the east side. Moderate utility impacts. 	<ul style="list-style-type: none"> Hydro would require relocation from 900 m north, to 700 m south, of Countryside Drive, as well as through the 'Main Street' section. All Bell infrastructure which is currently located on the east side of Clarkway Drive will require relocation. Watermain will be located under the future sidewalk/boulevard on the west side. Sanitary sewer between Countryside Drive and Castlemore Road will be located under the southbound lanes. Moderate utility impacts. 	<ul style="list-style-type: none"> Hydro would require relocation where the road curves near Countryside Drive, as well as from the 'Main Street' section south to Castlemore Road. Segments of Bell infrastructure on either side of the roadway would require relocation between Mayfield Road and Castlemore Road. Watermain will be located under the roadway with exception of the segment between East-West Arterial and Countryside Drive, where it will be located under the west side boulevard. Sanitary sewer between Countryside Drive and Castlemore Road will be located under the southbound lanes. Moderate utility impacts. 															
		Measure of anticipated infrastructure impacts (m)	<table border="1"> <tr> <td>Hydro</td> <td>~ 4100 m</td> </tr> <tr> <td>Bell</td> <td>~ 7400 m</td> </tr> </table>	Hydro	~ 4100 m	Bell	~ 7400 m	<table border="1"> <tr> <td>Hydro</td> <td>~ 3000 m</td> </tr> <tr> <td>Bell</td> <td>~ 3800 m</td> </tr> </table>	Hydro	~ 3000 m	Bell	~ 3800 m	<table border="1"> <tr> <td>Hydro</td> <td>~ 2400 m</td> </tr> <tr> <td>Bell</td> <td>~ 4300 m</td> </tr> </table>	Hydro	~ 2400 m	Bell	~ 4300 m	<table border="1"> <tr> <td>Hydro</td> <td>~ 2100 m</td> </tr> <tr> <td>Bell</td> <td>~ 3600 m</td> </tr> </table>	Hydro	~ 2100 m	Bell
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	Capital Costs	Function of total road length and width, AT facilities provided, intersection infrastructure, structural area required, and amount of utility relocation.	<ul style="list-style-type: none"> 4.3 km of roadway to be reconstructed. 8.6 km of sidewalk and cycle lanes to be constructed. Two new arterial-to-arterial signalized intersections. Significant utility impacts. 	<ul style="list-style-type: none"> 4.3 km of roadway to be reconstructed. 8.6 km of sidewalk and cycle lanes to be constructed. Two new arterial-to-arterial signalized intersections. Moderate utility impacts 	<ul style="list-style-type: none"> 4.3 km of roadway to be reconstructed. 8.6 km of sidewalk and cycle lanes to be constructed. Two new arterial-to-arterial signalized intersections. Moderate utility impacts 	<ul style="list-style-type: none"> 4.3 km of roadway to be reconstructed. 8.6 km of sidewalk and cycle lanes to be constructed. Two new arterial-to-arterial signalized intersections. Moderate utility impacts
	Operating Costs	Function of road length, area of bridge structures (for maintenance) and number of traffic signals.	<ul style="list-style-type: none"> 4.3 km of roadway to be maintained. Two new traffic signals (Countryside Drive and East-West Arterial). 640 m² of bridge deck to be maintained. Moderate operating costs. 	<ul style="list-style-type: none"> 4.3 km of roadway to be maintained. Two new traffic signals (Countryside Drive and East-West Arterial). 640 m² of bridge deck to be maintained. Moderate operating costs. 	<ul style="list-style-type: none"> 4.3 km of roadway to be maintained. Two new traffic signals (Countryside Drive and East-West Arterial). 640 m² of bridge deck to be maintained. Moderate operating costs. 	<ul style="list-style-type: none"> 4.3 km of roadway to be maintained. Two new traffic signals (Countryside Drive and East-West Arterial). 640 m² of bridge deck to be maintained. Moderate operating costs.
	Property Acquisition	Estimated cost of acquiring required property	<ul style="list-style-type: none"> Approximately 6.15 ha of property required to construct the proposed roadway along this alignment. Moderate property requirements. 	<ul style="list-style-type: none"> Approximately 6.1 ha of property required to construct the proposed roadway along this alignment. Moderate property requirements. 	<ul style="list-style-type: none"> Approximately 6.1 ha of property required to construct the proposed roadway along this alignment. Moderate property requirements. 	<ul style="list-style-type: none"> Approximately 6.0 ha of property required to construct the proposed roadway along this alignment. Moderate property requirements.
Social / Cultural Environment	Conformance to Planning Objectives (Growth Plan, Official Plan, Secondary Plan, Area 47 TTMP)	<ul style="list-style-type: none"> Alignment improvements at Mayfield Road result in impacts to planned Mixed-Use commercial in southeast quadrant of that intersection. Remainder of alignment is as assumed during completion of the transportation master plan for the area. 	<ul style="list-style-type: none"> Alignment improvements at Mayfield Road result in impacts to planned Mixed-Use commercial in southeast quadrant of that intersection. Remainder of alignment is further west than assumed during completion of the transportation master plan for the area and would require some modifications to the Block Plan layout at the East-West arterial and through the 'Main Street' section. 	<ul style="list-style-type: none"> Alignment improvements at Mayfield Road result in impacts to planned Mixed-Use commercial in southeast quadrant of that intersection. Remainder of alignment is further east than assumed during completion of the transportation master plan for the area and would require some modifications to the Block Plan layout through the 'Main Street' section. Edge impacts on the planned community park. 	<ul style="list-style-type: none"> Alignment improvements at Mayfield Road result in impacts to planned Mixed-Use commercial in southeast quadrant of that intersection. Remainder of alignment meanders to limit impacts to Clarkway Creek and would therefore require some modifications to the Block Plans. Edge impacts to the Community Park and Secondary School at the East-West Arterial. Alignment from East-West Arterial south is primarily what was assumed during completion of the transportation master plan for the area. 	
	Residential/Business Access and Displacement	Potential adverse effects including changes to existing entrances.	<ul style="list-style-type: none"> No existing residential properties will require full buyout. Three existing residential properties require bridges over Clarkway Creek to access their properties. These will require replacement to complete construction of the roadway. 	<ul style="list-style-type: none"> One residential property will require full buyout. Three existing residential properties require bridges over Clarkway Creek to access their properties. These will require replacement to complete construction of the roadway. 	<ul style="list-style-type: none"> Two existing residential properties will require full buyout. Parking will require reconfiguration at one residential property. 	<ul style="list-style-type: none"> Two existing residential properties will require full buyout. Parking will require reconfiguration at two residential properties.



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	Emergency Services (Police, Fire, Ambulance)	Potential to reduce response times. Potential adverse effects include changes to existing entrances.	<ul style="list-style-type: none"> Improved roadway connectivity, particularly adjacent to the proposed East-West Arterial, as well as resulting from increased capacity on intersecting roadways, is anticipated to reduce response times. No significant difference between alternatives. 	<ul style="list-style-type: none"> Improved roadway connectivity, particularly adjacent to the proposed East-West Arterial, as well as resulting from increased capacity on intersecting roadways, is anticipated to reduce response times. No significant difference between alternatives. 	<ul style="list-style-type: none"> Improved roadway connectivity, particularly adjacent to the proposed East-West Arterial, as well as resulting from increased capacity on intersecting roadways, is anticipated to reduce response times. No significant difference between alternatives. 	<ul style="list-style-type: none"> Improved roadway connectivity, particularly adjacent to the proposed East-West Arterial, as well as resulting from increased capacity on intersecting roadways, is anticipated to reduce response times. No significant difference between alternatives.
	Noise Levels Impacts	Potential effects of traffic related noise on residences, community facilities, or institutions adjacent to and/or within the study area	<ul style="list-style-type: none"> South of the "Main Street" portion of Clarkway Drive, the edge of pavement will be moved approximately 7 m closer to four existing homes. Remainder of the roadway remains two lanes and follows the existing centerline alignment. Opportunities to mitigate any significant changes in noise levels will be investigated. 	<ul style="list-style-type: none"> South of the "Main Street" portion of Clarkway Drive, the edge of pavement will be moved approximately 9 m closer to two existing homes. Through the future 'Main Street' section north to Countryside Drive, the future edge of pavement will be moved approximately 10 m closer to 7 existing homes on the west side of Clarkway Drive. Opportunities to mitigate any significant changes in noise levels will be investigated. 	<ul style="list-style-type: none"> South of the "Main Street" portion of Clarkway Drive, the edge of pavement will be moved approximately 9 m closer to two existing homes. Through the future 'Main Street' section north to Mayfield Road, the future edge of pavement will be moved approximately 10 m closer to 18 existing homes on the east side of Clarkway Drive. Opportunities to mitigate any significant changes in noise levels will be investigated. 	<ul style="list-style-type: none"> South of the "Main Street" portion of Clarkway Drive, the edge of pavement will be moved approximately 7 m closer to four existing homes. Through the future 'Main Street' section north to Mayfield Road, the future edge of pavement will be moved an average of 12 m closer to 15 existing homes on Clarkway Drive. Opportunities to mitigate any significant changes in noise levels will be investigated.
	Cultural Heritage Impacts	Potential adverse impacts on archaeological resources and built heritage adjacent to and/or within the study area.	<ul style="list-style-type: none"> Would require acquisition of approximately 1,200 m² of the west frontage (extending 8 m from the existing property limit) from the designated heritage property in the southeast quadrant of the Countryside Drive intersection. No anticipated impacts to the buildings on the site. Property would be required from two listed heritage properties at the south end of Clarkway Drive. No anticipated impacts to the buildings on the sites. Clarkway Drive is a cultural heritage landscape, design is to maintain this heritage value to the extent possible. 	<ul style="list-style-type: none"> Clarkway Drive is a cultural heritage landscape, design is to maintain this heritage value to the extent possible. 	<ul style="list-style-type: none"> Would require acquisition of approximately 1,700 m² of the west frontage (extending 14 m from the existing property limit) from the designated heritage property in the southeast quadrant of the Countryside Drive intersection. No anticipated impacts to the buildings on the site. Property would be required from two listed heritage properties at the south end of Clarkway Drive. No anticipated impacts to the buildings on the sites. Clarkway Drive is a cultural heritage landscape, design is to maintain this heritage value to the extent possible. 	<ul style="list-style-type: none"> Property would be required from two listed heritage properties at the south end of Clarkway Drive. No anticipated impacts to the buildings on the sites. Clarkway Drive is a cultural heritage landscape, design is to maintain this heritage value to the extent possible.
	Agricultural Impacts		<ul style="list-style-type: none"> 3.2 ha of agricultural property along the existing road ROW will be impacted by this alignment, most of which has been identified for redevelopment. Minor impacts to agricultural lands. 	<ul style="list-style-type: none"> 3.6 ha of agricultural property along the existing road ROW will be impacted by this alignment, most of which has been identified for redevelopment. Minor impacts to agricultural lands. 	<ul style="list-style-type: none"> 3.6 ha of agricultural property along the existing road ROW will be impacted by this alignment, most of which has been identified for redevelopment. Minor impacts to agricultural lands. 	<ul style="list-style-type: none"> 4.0 ha of agricultural property along the existing road ROW will be impacted by this alignment, most of which has been identified for redevelopment. Minor impacts to agricultural lands.



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Natural Environment	Impact to Designated Natural Heritage Features including wetlands	Proximity to, and significance of, impact to designated feature.	No designated natural heritage features within the study area. No difference among alternatives.			
	Impact to Natural Heritage Features such as vegetation and watercourses	Proximity, size, characteristics, and sensitivity of significant rural areas, terrestrial ecosystems, and wetlands. Potential impact or loss of natural areas, terrestrial ecosystems or wetland areas, function or habitat.	<ul style="list-style-type: none"> Widening will impact an additional 2.5 ha of natural area associated with Clarkway Creek. No natural heritage features identified within the study area. Moderate/significant impacts to the existing natural features. 	<ul style="list-style-type: none"> Widening will impact an additional 2.2 ha of natural area associated with Clarkway Creek. No natural heritage features identified within the study area. Moderate/significant impacts to the existing natural features. 	<ul style="list-style-type: none"> Widening will impact an additional 1.6 ha of natural area associated with Clarkway Creek. No natural heritage features identified within the study area. Moderate impacts to the existing natural features. 	<ul style="list-style-type: none"> Widening will impact an additional 1.6 ha of natural area associated with Clarkway Creek. No natural heritage features identified within the study area.
	Impact to Avian, Wildlife and Plant Species at Risk (SAR)	Potential effects to SAR habitat.	No SAR habitat was identified in close proximity to Clarkway Drive. No difference between alternatives.			
	Groundwater Impacts	Potential for adverse effects on existing groundwater resources (water quality and/or quantity).	<ul style="list-style-type: none"> 4.1 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 4.1 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 4.1 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 4.1 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments.
	OVERALL RANKING					
PREFERRED ALTERNATIVE			Alternative 1, widen about the existing centerline, is the preferred alternative.			



Detailed Evaluation of Alternative Alignments for Countryside Drive at Regional Road 50

Cat.	Criteria	Criteria Indicator	Alternative 1 Partial Correction of Skew and Large Diameter Curves West of Regional Road 50	Alternative 2 Curves West of Regional Road 50 with 90 km/h Design Speed	Alternative 3 Curves West of Regional Road 50 with 70 km/h Design Speed	Alternative 4 Shift Countryside Drive North and Keep 90 km/h Design Speed
Addresses Problem and Opportunity Statement:	Provide enhanced inter-regional connectivity;	<ul style="list-style-type: none"> Intersection alignment correction will improve connectivity between York and Peel Regions by improving driver comfort with use of the intersection. 	<ul style="list-style-type: none"> Intersection alignment correction will improve connectivity between York and Peel Regions by improving driver comfort with use of the intersection. 	<ul style="list-style-type: none"> Intersection alignment correction will improve connectivity between York and Peel Regions by improving driver comfort with use of the intersection. 	<ul style="list-style-type: none"> Intersection alignment correction will improve connectivity between York and Peel Regions by improving driver comfort with use of the intersection. 	<ul style="list-style-type: none"> Intersection alignment correction will improve connectivity between York and Peel Regions by improving driver comfort with use of the intersection.
	Improve roadway geometrics to meet or exceed City and Regional standards;	<ul style="list-style-type: none"> Reduced tangent length at Regional Road 50 does not meet City/Regional standards. Intersection still slightly skewed. 	<ul style="list-style-type: none"> Improved Countryside Drive/Regional Road 50 intersection meets City / Regional standards. Skewed intersection introduced at Coleraine Drive, which is not preferred and does not improve on the existing intersection. 	<ul style="list-style-type: none"> Improved Countryside Drive/Regional Road 50 intersection meets City/Regional standards provided posted speed on Countryside Drive is reduced to 50 km/h. 	<ul style="list-style-type: none"> Improved Countryside Drive/Regional Road 50 intersection meets City/Regional design standards. 	
	Provide pedestrian and cycling facilities;	<ul style="list-style-type: none"> Pedestrian and cycling facilities will be provided on Countryside Drive. 	<ul style="list-style-type: none"> Pedestrian and cycling facilities will be provided on Countryside Drive. 	<ul style="list-style-type: none"> Pedestrian and cycling facilities will be provided on Countryside Drive. 	<ul style="list-style-type: none"> Pedestrian and cycling facilities will be provided on Countryside Drive. 	
	Improve intersection safety and operations;	<ul style="list-style-type: none"> Partial correction of the skew at Regional Road 50 will result in improved safety at that intersection. Profile adjustments will also be required. 	<ul style="list-style-type: none"> Partial correction of the skew at Regional Road 50 will result in improved safety at that intersection. Introduction of a skew at the Coleraine Drive intersection will reduce sight distances at that intersection (not preferred). Profile adjustments will also be required. 	<ul style="list-style-type: none"> Correction of skew and reduction of operating speeds will improve safety at the Regional Road 50 intersection, provides drivers actual reduce operating speeds approaching the intersection. Profile adjustments will also be required. 	<ul style="list-style-type: none"> Correction of the skew and provision of adequate tangent sections at Regional Road 50 will improve the safety of that intersection. Spacing between existing and future Countryside Drive intersections with Coleraine Drive would be substandard. Profile adjustments will also be required. 	
	<ul style="list-style-type: none"> Improve watercourse crossings to enhance hydraulics, stream function and fisheries and wildlife passage; 	<ul style="list-style-type: none"> Existing creek crossings will be improved as part of the planned widening of Countryside Drive. Northerly shift in the alignment of Countryside Drive at Regional Road 50 will result in a new crossing being located within a wider portion of the Robinson Creek floodplain (common to all alternatives). 	<ul style="list-style-type: none"> Existing creek crossings will be improved as part of the planned widening of Countryside Drive. Northerly shift in the alignment of Countryside Drive at Regional Road 50 will result in a new crossing being located within a wider portion of the Robinson Creek floodplain (common to all alternatives). 	<ul style="list-style-type: none"> Existing creek crossings will be improved as part of the planned widening of Countryside Drive. Northerly shift in the alignment of Countryside Drive at Regional Road 50 will result in a new crossing being located within a wider portion of the Robinson Creek floodplain (common to all alternatives). 	<ul style="list-style-type: none"> Existing creek crossings will be improved as part of the planned widening of Countryside Drive. Northerly shift in the alignment of Countryside Drive at Regional Road 50 will result in a new crossing being located within a wider portion of the Robinson Creek floodplain (common to all alternatives). New, additional crossing of Rainbow Creek will be required north of the existing Countryside Drive crossing. 	



Cat.	Criteria	Criteria Indicator	Alternative 1 Partial Correction of Skew and Large Diameter Curves West of Regional Road 50	Alternative 2 Curves West of Regional Road 50 with 90 km/h Design Speed	Alternative 3 Curves West of Regional Road 50 with 70 km/h Design Speed	Alternative 4 Shift Countryside Drive North and Keep 90 km/h Design Speed
	•Address structural deficiency;		<ul style="list-style-type: none"> Existing structures will be improved as part of the widening of Countryside Drive. 	<ul style="list-style-type: none"> Existing structures will be improved as part of the widening of Countryside Drive. 	<ul style="list-style-type: none"> Existing structures will be improved as part of the widening of Countryside Drive. 	<ul style="list-style-type: none"> Existing structures will be improved as part of the widening of Countryside Drive.
		Improve pavement conditions.	<ul style="list-style-type: none"> Roadway will be fully reconstructed between Regional Road 50 and the tie-in to existing Countryside Drive. Pavement condition will be improved as a result. 	<ul style="list-style-type: none"> Roadway will be fully reconstructed between Regional Road 50 and the tie-in to existing Countryside Drive. Pavement condition will be improved as a result. 	<ul style="list-style-type: none"> Roadway will be fully reconstructed between Regional Road 50 and the tie-in to existing Countryside Drive. Pavement condition will be improved as a result. 	<ul style="list-style-type: none"> Roadway will be fully reconstructed between Regional Road 50 and the tie-in to existing Countryside Drive. Pavement condition will be improved as a result.
	Transportation Network Safety (includes natural hazards)	Safety related factors include roadway geometrics, roadside hazards, intersection design, and control, accommodating pedestrians and cyclists.	<ul style="list-style-type: none"> Improved visibility for critical turning movements provided by skew correction and removal of the northbound right-turn channel. As a result of shorter tangent section, provision of intersection sight triangles for critical turning movements will require purchase of lands within 12 m of curves. Maintains consistent design speed on intersecting roadways. 	<ul style="list-style-type: none"> Improved visibility for critical turning movements provided by skew correction and removal of the northbound right-turn channel. Some property beyond limits of proposed 36 m right-of-way will be required for critical intersection sight triangles. Maintains consistent design speed on intersecting roadways. 	<ul style="list-style-type: none"> Improved visibility for critical turning movements provided by skew correction and removal of the northbound right-turn channel. As a result of smaller radius curves, intersection sight triangles for critical turning movements are larger than with other alternatives (lands within 18 m of curve) Requires speed reduction on east-west approaches to the intersection which reduces intersection capacity. 	<ul style="list-style-type: none"> Improved visibility for critical turning movements provided by skew correction and removal of the northbound right-turn channel. Intersection sight triangles for critical turning movements are within limits of standard right-of-way. Maintains consistent design speed on intersecting roadways.
			No significant difference between alternatives.			
	Transportation Network Connectivity	Impacts of traffic on local roads and outside the study area. Transportation network improvement and accommodation of goods movement.				
	Transportation Network Capacity	Impacts of traffic on local roads and outside the study area. Transportation network improvement and accommodation of goods movement.	<ul style="list-style-type: none"> No significant change compared to existing. 	<ul style="list-style-type: none"> No significant change compared to existing. 	<ul style="list-style-type: none"> No significant change compared to existing. 	<ul style="list-style-type: none"> Would require construction of a new intersection 175 m north of the current Countryside Drive/Coleraine Drive intersection. Absolute minimum intersection spacing along arterials is generally 200 m.
Promotion of Active Transportation			Impact on the safety and usability of planned AT infrastructure, as well as adherence to City AT policy.	<ul style="list-style-type: none"> Improved intersection alignment at Regional Road 50 will provide better visibility for pedestrians and cyclists moving through the intersection. 	<ul style="list-style-type: none"> Improved intersection alignment at Regional Road 50 will provide better visibility for pedestrians and cyclists moving through the intersection. Introduction of skew at Coleraine Drive intersection reduces visibility at that location. 	<ul style="list-style-type: none"> Improved intersection alignment at Regional Road 50 will provide better visibility for pedestrians and cyclists moving through the intersection. Reduced vehicular operating speeds provide for a safer AT environment.



Cat.	Criteria	Criteria Indicator	Alternative 1 Partial Correction of Skew and Large Diameter Curves West of Regional Road 50	Alternative 2 Curves West of Regional Road 50 with 90 km/h Design Speed	Alternative 3 Curves West of Regional Road 50 with 70 km/h Design Speed	Alternative 4 Shift Countryside Drive North and Keep 90 km/h Design Speed
	Transit Improvement	Potential adverse impact on transit service. Assessment of impact on planned transit service improvements.				
			<ul style="list-style-type: none"> Reduced tangent length on eastbound approach to Regional Road 50 places transit stop on a curve, reducing visibility of transit vehicles moving into and out of transit stops. No other difference from existing condition. 	<ul style="list-style-type: none"> Increased tangent length on eastbound approach to Regional Road 50 places transit stop on a curve, increasing visibility of transit vehicles moving into and out of transit stops. No other difference from existing condition. 	<ul style="list-style-type: none"> Reduced tangent length on eastbound approach to Regional Road 50 places transit stop on a curve, reducing visibility of transit vehicles moving into and out of transit stops. No other difference from existing condition. 	<ul style="list-style-type: none"> Increased tangent length on eastbound approach to Regional Road 50 places transit stop on a curve, increasing visibility of transit vehicles moving into and out of transit stops. No other difference from existing condition.
	Structural Impacts	Potential adverse impact on existing structures.	<ul style="list-style-type: none"> Existing creek crossings will be improved as part of the planned widening of Countryside Drive. 	<ul style="list-style-type: none"> Existing creek crossings will be improved as part of the planned widening of Countryside Drive. 	<ul style="list-style-type: none"> Existing creek crossings will be improved as part of the planned widening of Countryside Drive. 	<ul style="list-style-type: none"> Existing creek crossings will be improved as part of the planned widening of Countryside Drive.
		Potential adverse impacts on proposed structures.	<ul style="list-style-type: none"> Floodplain for Robinson creek is limited to south of Countryside Drive. As a result, no new structure will be required. 	<ul style="list-style-type: none"> Floodplain for Robinson creek is limited to south of Countryside Drive. As a result, no new structure will be required. 	<ul style="list-style-type: none"> Floodplain for Robinson creek is limited to south of Countryside Drive. As a result, no new structure will be required. 	<ul style="list-style-type: none"> Floodplain for Robinson creek is limited to south of Countryside Drive. As a result, no new structure will be required. New, additional crossing of Rainbow Creek will be required north of the existing Countryside Drive crossing.
Hydraulics and Hydrology Impacts (Creeks)	Impact on floodplain, existing flood depths at proposed crossing locations, and existing flood return period.	<ul style="list-style-type: none"> No new linear infrastructure to be constructed within a floodplain. No anticipated impacts to hydraulics or hydrology. 	<ul style="list-style-type: none"> No new linear infrastructure to be constructed within a floodplain. No anticipated impacts to hydraulics or hydrology. 	<ul style="list-style-type: none"> No new linear infrastructure to be constructed within a floodplain. No anticipated impacts to hydraulics or hydrology. 	<ul style="list-style-type: none"> 0.3 ha of new linear infrastructure to be constructed within the floodplain. 	
Financial	Utility Relocation	Ability to minimize effects on existing and proposed utilities.	<ul style="list-style-type: none"> Approximately 650 m of new overhead hydro/Bell would be required along new roadway alignment. Approximately 620 m of this overhead will require relocation to accommodate road widening regardless of which alternative is selected. 	<ul style="list-style-type: none"> Approximately 1230 m of new overhead hydro/Bell would be required along new roadway alignment. Approximately 1200 m of this overhead would have required relocation to accommodate road widening regardless of which alternative is selected. 	<ul style="list-style-type: none"> Approximately 460 m of new overhead hydro/Bell would be required along new roadway alignment. Approximately 470 m of this overhead will require relocation to accommodate road widening regardless of which alternative is selected. 	<ul style="list-style-type: none"> Approximately 1400 m of new overhead hydro/Bell would be required along new roadway alignment. Approximately 1330 m of this overhead will require relocation to accommodate road widening regardless of which alternative is selected.



Cat.	Criteria	Criteria Indicator	Alternative 1 Partial Correction of Skew and Large Diameter Curves West of Regional Road 50	Alternative 2 Curves West of Regional Road 50 with 90 km/h Design Speed	Alternative 3 Curves West of Regional Road 50 with 70 km/h Design Speed	Alternative 4 Shift Countryside Drive North and Keep 90 km/h Design Speed
	Capital Costs	Function of total road length and width, AT facilities provided, intersection infrastructure, structural area required, and amount of utility relocation.	<ul style="list-style-type: none"> Approximately 30 m of additional roadway required as a result of realignment at the intersection. Limited utility relocations required. New crossing structures for Rainbow Creek and Robinson Creek required. Intersections to be reconstructed as part of Countryside Drive widening, regardless of select alternative. Lower capital cost. 	<ul style="list-style-type: none"> Approximately 35 m of additional roadway required as a result of realignment at the intersection. Significant utility relocations required. New crossing structures for Rainbow Creek and Robinson Creek required. Intersections to be reconstructed as part of Countryside Drive widening, regardless of select alternative. Limited utility relocations required of select alternative. Moderate capital costs. 	<ul style="list-style-type: none"> Approximately 20 m of additional roadway required as a result of realignment at the intersection. Limited utility relocations required. New crossing structures for Rainbow Creek and Robinson Creek required. Intersections to be reconstructed as part of Countryside Drive widening, regardless of select alternative. Lower capital cost. 	<ul style="list-style-type: none"> Approximately 60 m of additional roadway required as a result of realignment at the intersection. Significant utility relocations required. Two new crossing structures for Rainbow Creek and a new structure over Robinson Creek required. Intersections to be reconstructed as part of Countryside Drive widening, regardless of select alternative. High capital cost.
			Operating Costs	Function of road length, area of bridge structures (for maintenance) and number of traffic signals.	<ul style="list-style-type: none"> Approximately 30 m off additional road length. Two crossing structures to be maintained. Signalized intersections at Coleraine Drive and Regional Road 50. Low operating costs. 	<ul style="list-style-type: none"> Approximately 35 m off additional road length. Two crossing structures to be maintained. Signalized intersections at Coleraine Drive and Regional Road 50. Low operating costs.
Property Acquisition		<ul style="list-style-type: none"> 1.84 ha of property required along this alignment as compared to 1.00 ha of property if road is widened along existing alignment. 0.84 ha of property required beyond what is already being considered as part of Countryside Drive widening. Overall low cost 			<ul style="list-style-type: none"> Purchase of 5 residential properties required. Relocation of one listed heritage structure required. 3.50 ha of property required along this alignment as compared to 1.86 ha of property if road is widened along existing alignment. 1.64 ha of property required beyond what is already being considered as part of Countryside Drive widening. Overall high cost 	<ul style="list-style-type: none"> 1.81 ha of property required along this alignment as compared to 1.27 ha of property if road is widened along existing alignment. 0.54 ha of property required beyond what is already being considered as part of Countryside Drive widening. Overall low cost
		Social / Cultural Environment	Conformance to Planning Objectives (Growth Plan, Official Plan, Secondary Plan, Area 47 TMP)	<ul style="list-style-type: none"> Conforms to OP, Area 47 TMP and Secondary Plan. Would require some minor redistribution of property limits within areas slated for future development. 	<ul style="list-style-type: none"> Conforms to OP, Area 47 TMP and Secondary Plan. Would require some redistribution of property limits within areas slated for future development. 	<ul style="list-style-type: none"> Conforms to OP, Area 47 TMP and Secondary Plan. Would require some minor redistribution of property limits within areas slated for future development.



Cat.	Criteria	Criteria Indicator	Alternative 1 Partial Correction of Skew and Large Diameter Curves West of Regional Road 50	Alternative 2 Curves West of Regional Road 50 with 90 km/h Design Speed	Alternative 3 Curves West of Regional Road 50 with 70 km/h Design Speed	Alternative 4 Shift Countryside Drive North and Keep 90 km/h Design Speed	
Natural Environ	Residential/ Business Access and Displacement	Existing residences and businesses	<ul style="list-style-type: none"> Some property required from existing residential properties fronting onto Countryside Drive 	<ul style="list-style-type: none"> Significant impacts to 5 residential properties. 	<ul style="list-style-type: none"> No impacts to residential or business properties or access ways. 	<ul style="list-style-type: none"> Will impact residential access as properties will no longer front onto Countryside Drive. Impacts could be mitigated by maintaining existing roadway for local access. 	
		Planned residential, commercial and industrial developments	<ul style="list-style-type: none"> Minor impacts to planned development adjacent to the Countryside Drive/ Regional Road 50 intersection. 	<ul style="list-style-type: none"> Would require some redistribution of property limits within areas slated for future development. 	<ul style="list-style-type: none"> Minor impacts to planned development adjacent to the Countryside Drive/ Regional Road 50 intersection. 	<ul style="list-style-type: none"> Would require some redistribution of property limits within areas slated for future development. 	
	Emergency Services (Police, Fire, Ambulance)	Potential to reduce response times.	<ul style="list-style-type: none"> No anticipated impact to response times. 	<ul style="list-style-type: none"> No anticipated impact to response times. 	<ul style="list-style-type: none"> No anticipated impact to response times. 	<ul style="list-style-type: none"> Alternative would move access to existing residential properties off of mainline Countryside Drive, resulting in minimal impacts to response times. 	
			<ul style="list-style-type: none"> Countryside Drive would be relocated closer to one existing residential property. Changes in noise level will need to be mitigated to the extent possible. 	<ul style="list-style-type: none"> No impact to noise levels to existing residential receivers as all properties will require buyout to implement this alternative. 	<ul style="list-style-type: none"> No change in noise levels anticipated, as roadway not moved closer to any existing residential properties. 	<ul style="list-style-type: none"> Countryside Drive will be relocated to the reverse frontage of five existing residential properties. Changes in noise level will need to be mitigated to the extent possible. 	
	Noise Level Impacts	Potential effects of traffic related noise on residences, community facilities, or institutions adjacent to and/or within the study area	<ul style="list-style-type: none"> New alignment has potential archaeological impacts. 	<ul style="list-style-type: none"> Significant impacts to listed heritage property at 5556 Countryside Drive. New alignment has potential archaeological impacts. 	<ul style="list-style-type: none"> New alignment has potential archaeological impacts. 	<ul style="list-style-type: none"> New alignment has potential archaeological impacts. As this alternative has the longest segment of realigned roadway and a new creek crossing, it has the greatest potential for archaeological impacts. 	
			<ul style="list-style-type: none"> Minor impacts to one agricultural property. 	<ul style="list-style-type: none"> Will divide two existing agricultural properties. 	<ul style="list-style-type: none"> Minor impacts to one agricultural property. 	<ul style="list-style-type: none"> Will divide two existing agricultural properties. 	
	Cultural Heritage Impacts	Potential adverse impacts on archaeological resources and built heritage adjacent to and/or within the study area.	<ul style="list-style-type: none"> Minor impacts to one agricultural property. 	<ul style="list-style-type: none"> Will divide two existing agricultural properties. 	<ul style="list-style-type: none"> Minor impacts to one agricultural property. 	<ul style="list-style-type: none"> Will divide two existing agricultural properties. 	
			<ul style="list-style-type: none"> Minor impacts to one agricultural property. 	<ul style="list-style-type: none"> Will divide two existing agricultural properties. 	<ul style="list-style-type: none"> Minor impacts to one agricultural property. 	<ul style="list-style-type: none"> Will divide two existing agricultural properties. 	
	Agricultural Impacts	Impact on existing agricultural properties.	<ul style="list-style-type: none"> Minor impacts to one agricultural property. 	<ul style="list-style-type: none"> Will divide two existing agricultural properties. 	<ul style="list-style-type: none"> Minor impacts to one agricultural property. 	<ul style="list-style-type: none"> Will divide two existing agricultural properties. 	
			<ul style="list-style-type: none"> Minor impacts to one agricultural property. 	<ul style="list-style-type: none"> Will divide two existing agricultural properties. 	<ul style="list-style-type: none"> Minor impacts to one agricultural property. 	<ul style="list-style-type: none"> Will divide two existing agricultural properties. 	
	Impact to Designated Natural Heritage Features including wetlands	Proximity to and significance of impact to designated feature.	No designated natural heritage features within this portion of the study area.				



Cat.	Criteria	Criteria Indicator	Alternative 1 Partial Correction of Skew and Large Diameter Curves West of Regional Road 50	Alternative 2 Curves West of Regional Road 50 with 90 km/h Design Speed	Alternative 3 Curves West of Regional Road 50 with 70 km/h Design Speed	Alternative 4 Shift Countryside Drive North and Keep 90 km/h Design Speed
	Impact to Natural Heritage Features such as vegetation and watercourses	Proximity, size, characteristics, and sensitivity of significant rural areas, terrestrial ecosystems, and wetlands. Potential impact or loss of natural areas, terrestrial ecosystems or wetland areas, function or habitat.	No natural areas, terrestrial ecosystems or wetland areas within this section of the study area – only agricultural and residential property impacts. No significant difference among alternatives.			
	Impacts to Avian, Wildlife and Plant Species at Risk (SAR)	Potential effects avian and wildlife including SAR identified in the study area	<ul style="list-style-type: none"> Approximately 1.1 ha of potential Bobolink habitat impacted by proposed road alignment. Minor impacts to identified Bobolink habitat in the agricultural fields adjacent to the existing intersection/residential properties. Compensation will be required. 	<ul style="list-style-type: none"> Approximately 1.6 ha of potential Bobolink habitat impacted by proposed road alignment. Minor impacts to identified Bobolink habitat in the agricultural fields adjacent to the existing intersection/residential properties. Compensation will be required. 	<ul style="list-style-type: none"> Approximately 1.1 ha of potential Bobolink habitat impacted by proposed road alignment. Minor impacts to identified Bobolink habitat in the agricultural fields adjacent to the existing intersection/residential properties. Compensation will be required. 	<ul style="list-style-type: none"> Approximately 2.6 ha of potential Bobolink habitat impacted by proposed road alignment. Moderate impacts to identified Bobolink habitat in the agricultural fields adjacent to the existing intersection/residential properties. Compensation will be required.
	Groundwater Impacts	Potential for adverse effects on existing groundwater resources (water quality and/or quantity).	<ul style="list-style-type: none"> 0.84 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 1.64 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 0.54 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 2.44 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments.
OVERALL RANKING (Percentage of Total Available Score)						
PREFERRED ALTERNATIVE			Alternative 3 is the Preferred Alternative			



Detailed Evaluation of Alternative Alignments for Countryside Drive at Regional Road 50

Category	Criteria	Criteria Indicator	Alternative 1 Widen about existing centerline	Alternative 2 Widen to the North	Alternative 3 Widen to the South	Alternative 4 Composite Alignment (Widened to the south to east of Countryside Drive, then to the north to Regional Road 50)
Engineering	Addresses Problem and Opportunity Statement	Provide enhanced inter-regional connectivity;	<ul style="list-style-type: none"> No additional inter-regional connectivity provided through widening of existing roadways. No difference between alternatives. 	<ul style="list-style-type: none"> No additional inter-regional connectivity provided through widening of existing roadways. No difference between alternatives. 	<ul style="list-style-type: none"> No additional inter-regional connectivity provided through widening of existing roadways. No difference between alternatives. 	<ul style="list-style-type: none"> No additional inter-regional connectivity provided through widening of existing roadways. No difference between alternatives.
		Provide access to proposed development;	<ul style="list-style-type: none"> No new road network access provided to proposed development through widening of an existing roadway. No difference between alternatives. 	<ul style="list-style-type: none"> No new road network access provided to proposed development through widening of an existing roadway. No difference between alternatives. 	<ul style="list-style-type: none"> No new road network access provided to proposed development through widening of an existing roadway. No difference between alternatives. 	<ul style="list-style-type: none"> No new access road network provided to proposed development through widening of an existing roadway. No difference between alternatives.
		Improve roadway geometrics to meet or exceed City and Regional standards;	<ul style="list-style-type: none"> Profile and sight distance triangles will be adjusted to mitigate issues with visibility and flooding to the extent feasible. Existing linear nature of Countryside Drive will not be changed, with exception of the intersection with Regional Road 50 (covered in an earlier chapter of the ESR). No significant differences between alternatives. 	<ul style="list-style-type: none"> Profile and sight distance triangles will be adjusted to mitigate issues with visibility and flooding to the extent feasible. Existing linear nature of Countryside Drive will not be changed, with exception of the intersection with Regional Road 50 (covered in an earlier chapter of the ESR). No significant differences between alternatives. 	<ul style="list-style-type: none"> Profile and sight distance triangles will be adjusted to mitigate issues with visibility and flooding to the extent feasible. Existing linear nature of Countryside Drive will not be changed, with exception of the intersection with Regional Road 50 (covered in an earlier chapter of the ESR). No significant differences between alternatives. 	<ul style="list-style-type: none"> Profile and sight distance triangles will be adjusted to mitigate issues with visibility and flooding to the extent feasible. Existing linear nature of Countryside Drive will not be changed, with exception of the intersection with Regional Road 50 (covered in an earlier chapter of the ESR). No significant differences between alternatives.
		Provide pedestrian and cycling facilities;	<ul style="list-style-type: none"> New sidewalks and cycle lanes will provide pedestrian and cycling facilities on both sides of Countryside Drive. No difference between alternatives. 	<ul style="list-style-type: none"> New sidewalks and cycle lanes will provide pedestrian and cycling facilities on both sides of Countryside Drive. No difference between alternatives. 	<ul style="list-style-type: none"> New sidewalks and cycle lanes will provide pedestrian and cycling facilities on both sides of Countryside Drive. No difference between alternatives. 	<ul style="list-style-type: none"> New sidewalks and cycle lanes will provide pedestrian and cycling facilities on both sides of Countryside Drive. No difference between alternatives.
Improve traffic, pedestrian and cyclist safety;	<ul style="list-style-type: none"> Additional capacity on congested roadways, correction of sight distance issues, as well as separation of vehicular and active transportation road users will improve overall safety of the roadway. No significant difference between alternatives. 	<ul style="list-style-type: none"> Additional capacity on congested roadways, correction of sight distance issues, as well as separation of vehicular and active transportation road users will improve overall safety of the roadway. No significant difference between alternatives. 	<ul style="list-style-type: none"> Additional capacity on congested roadways, correction of sight distance issues, as well as separation of vehicular and active transportation road users will improve overall safety of the roadway. No significant difference between alternatives. 	<ul style="list-style-type: none"> Additional capacity on congested roadways, correction of sight distance issues, as well as separation of vehicular and active transportation road users will improve overall safety of the roadway. No significant difference between alternatives. 		
Improve watercourse crossings to enhance hydraulics, stream function and fisheries and wildlife passage;	<ul style="list-style-type: none"> Existing crossings of Countryside Drive over The Gore Road Tributary, Clarkway Creek and Rainbow Creek will be improved to mitigate 	<ul style="list-style-type: none"> Existing crossings of Countryside Drive over The Gore Road Tributary, Clarkway Creek and Rainbow Creek will be improved to 	<ul style="list-style-type: none"> Existing crossings of Countryside Drive over The Gore Road Tributary, Clarkway Creek and Rainbow Creek will be improved to 	<ul style="list-style-type: none"> Existing crossings of Countryside Drive over The Gore Road Tributary, Clarkway Creek and Rainbow Creek will be improved to 		



Category	Criteria	Criteria Indicator	Alternative 1 Widen about existing centerline	Alternative 2 Widen to the North	Alternative 3 Widen to the South	Alternative 4 Composite Alignment (Widened to the south to east of Countryside Drive, then to the north to Regional Road 50)	
	Address structural deficiency	any identified issues with culvert /bridge capacities (flooding). • Assessment of flood depths and return period to be assessed based on hydraulic modelling of alternatives.	mitigate any identified issues with culvert /bridge capacities (flooding). • Assessment of flood depths and return period to be assessed based on hydraulic modelling of alternatives.	mitigate any identified issues with culvert /bridge capacities (flooding). • Assessment of flood depths and return period to be assessed based on hydraulic modelling of alternatives.	mitigate any identified issues with culvert /bridge capacities (flooding). • Assessment of flood depths and return period to be assessed based on hydraulic modelling of alternatives.	mitigate any identified issues with culvert /bridge capacities (flooding). • Assessment of flood depths and return period to be assessed based on hydraulic modelling of alternatives.	
		No structural deficiencies noted for any existing crossings along the study portion of Countryside Drive. Existing structures will be lengthened / replaced in support of road widening efforts, as well as to address hydraulic capacity issues. No significant difference between alternatives.	• No structural deficiencies noted for any existing crossings along the study portion of Countryside Drive. • Existing structures will be lengthened / replaced in support of road widening efforts, as well as to address hydraulic capacity issues. • No significant difference between alternatives.	• No structural deficiencies noted for any existing crossings along the study portion of Countryside Drive. • Existing structures will be lengthened / replaced in support of road widening efforts, as well as to address hydraulic capacity issues. • No significant difference between alternatives.	• No structural deficiencies noted for any existing crossings along the study portion of Countryside Drive. • Existing structures will be lengthened / replaced in support of road widening efforts, as well as to address hydraulic capacity issues. • No significant difference between alternatives.	• No structural deficiencies noted for any existing crossings along the study portion of Countryside Drive. • Existing structures will be lengthened / replaced in support of road widening efforts, as well as to address hydraulic capacity issues. • No significant difference between alternatives.	• No structural deficiencies noted for any existing crossings along the study portion of Countryside Drive. • Existing structures will be lengthened / replaced in support of road widening efforts, as well as to address hydraulic capacity issues. • No significant difference between alternatives.
		Improve pavement conditions	Roadway will be reconstructed as part of widening efforts. Pavement conditions will therefore be improved. No significant difference between alternatives.	Roadway will be reconstructed as part of widening efforts. Pavement conditions will therefore be improved. No significant difference between alternatives.	Roadway will be reconstructed as part of widening efforts. Pavement conditions will therefore be improved. No significant difference between alternatives.	Roadway will be reconstructed as part of widening efforts. Pavement conditions will therefore be improved. No significant difference between alternatives.	Roadway will be reconstructed as part of widening efforts. Pavement conditions will therefore be improved. No significant difference between alternatives.
	Transportation Network Safety (includes natural hazards)	Safety related factors include roadway geometrics, roadside hazards, intersection design and control, accommodating pedestrians and cyclists.	ROW would be moved closer to Clarkway Creek at Clarkway Drive, as well as an existing pond southwest of The Gore Road Tributary crossing of Countryside, and another on private property; Replacement of existing guiderail will be required at these locations.	Replacement of existing guiderail would be required.	Replacement of existing guiderail would be required. As alignment moves closer to several headwater drainage features of Rainbow Creek adjacent to Coleraine Drive, need for additional guiderail would need to be evaluated.	Replacement of existing guiderail would be required.	
	Transportation Network Connectivity		Widening of existing roadways does not have significant impacts on network connectivity. No significant differences between alternatives.	Widening of existing roadways does not have significant impacts on network connectivity. No significant differences between alternatives.	Widening of existing roadways does not have significant impacts on network connectivity. No significant differences between alternatives.	Widening of existing roadways does not have significant impacts on network connectivity. No significant differences between alternatives.	
	Transportation Network Capacity	Impacts on traffic on local roads and outside the study area. Transportation network improvement and	Widening of Countryside Drive will provide additional capacity along the roadway. No significant differences between alternatives.	Widening of Countryside Drive will provide additional capacity along the roadway. No significant differences between alternatives.	Widening of Countryside Drive will provide additional capacity along the roadway. No significant differences between alternatives.	Widening of Countryside Drive will provide additional capacity along the roadway. No significant differences between alternatives.	



Category	Criteria	Criteria Indicator	Alternative 1 Widen about existing centerline	Alternative 2 Widen to the North	Alternative 3 Widen to the South	Alternative 4 Composite Alignment (Widened to the south to east of Countryside Drive, then to the north to Regional Road 50)
		accommodation of goods movement.				
	Promotion of Active Transportation	Adheres to Brampton's Active Transportation Policies and Initiatives as Defined in the TTMP / ATMP	<ul style="list-style-type: none"> Provision of dedicated pedestrian and cyclist facilities will promote use of active transportation along the corridor. Sidewalk will need to be moved in close to the roadway to minimize impacts to Clarkway Creek at the intersection with Clarkway Drive. This will reduce separation between vehicles and pedestrians/cyclists. 	<ul style="list-style-type: none"> Provision of dedicated pedestrian and cyclist facilities will promote use of active transportation along the corridor. Sidewalk will need to be moved in close to the roadway to minimize impacts to Clarkway Creek at the intersection with Clarkway Drive. This will reduce separation between vehicles and pedestrians/cyclists. 	<ul style="list-style-type: none"> Provision of dedicated pedestrian and cyclist facilities will promote use of active transportation along the corridor. Sidewalk will need to be moved in close to the roadway to minimize impacts to Clarkway Creek at the intersection with Clarkway Drive. This will reduce separation between vehicles and pedestrians/cyclists. 	<ul style="list-style-type: none"> Provision of dedicated pedestrian and cyclist facilities will promote use of active transportation along the corridor. Sidewalk will need to be moved in close to the roadway to minimize impacts to Clarkway Creek at the intersection with Clarkway Drive. This will reduce separation between vehicles and pedestrians/cyclists.
	Transit Supportive Development	Potential adverse impact on transit service. Assessment of impact on planned transit service improvements.	<ul style="list-style-type: none"> In general, increased roadway capacity, provision of bus bays, and transit service along the corridor will encourage use of transit services. Potential impacts to Clarkway Creek at Clarkway Drive may limit ability to provide transit platforms at this intersection. No difference between alternatives. 	<ul style="list-style-type: none"> In general, increased roadway capacity, provision of bus bays, and transit service along the corridor will encourage use of transit services. Potential impacts to Clarkway Creek at Clarkway Drive may limit ability to provide transit platforms at this intersection. No difference between alternatives. 	<ul style="list-style-type: none"> In general, increased roadway capacity, provision of bus bays, and transit service along the corridor will encourage use of transit services. Potential impacts to Clarkway Creek at Clarkway Drive may limit ability to provide transit platforms at this intersection. No difference between alternatives. 	<ul style="list-style-type: none"> In general, increased roadway capacity, provision of bus bays, and transit service along the corridor will encourage use of transit services. Potential impacts to Clarkway Creek at Clarkway Drive may limit ability to provide transit platforms at this intersection. No difference between alternatives.
	Structural Impacts	Potential adverse impact on existing structures.	<ul style="list-style-type: none"> Existing structures along Countryside Drive will require widening / replacement to accommodate additional traffic lanes and active transportation facilities, regardless of the alternative selected. No difference between alternatives. 	<ul style="list-style-type: none"> Existing structures along Countryside Drive will require widening / replacement to accommodate additional traffic lanes and active transportation facilities, regardless of the alternative selected. No difference between alternatives. 	<ul style="list-style-type: none"> Existing structures along Countryside Drive will require widening / replacement to accommodate additional traffic lanes and active transportation facilities, regardless of the alternative selected. No difference between alternatives. 	<ul style="list-style-type: none"> Existing structures along Countryside Drive will require widening / replacement to accommodate additional traffic lanes and active transportation facilities, regardless of the alternative selected. No difference between alternatives.
		Need for additional bridge structures.	<ul style="list-style-type: none"> No new crossings will be required for this alignment alternative. 	<ul style="list-style-type: none"> No new crossings will be required for this alignment alternative. 	<ul style="list-style-type: none"> No new crossings will be required for this alignment alternative. 	<ul style="list-style-type: none"> No new crossings will be required for this alignment alternative.
	Stormwater Management and Low Impact Development		<ul style="list-style-type: none"> Input to be provided by Water Resources team following completion of the geotechnical/hydrogeological assessment. No differences anticipated between alternatives. 	<ul style="list-style-type: none"> Input to be provided by Water Resources team following completion of the geotechnical/hydrogeological assessment. No differences anticipated between alternatives. 	<ul style="list-style-type: none"> Input to be provided by Water Resources team following completion of the geotechnical/hydrogeological assessment. No differences anticipated between alternatives. 	<ul style="list-style-type: none"> Input to be provided by Water Resources team following completion of the geotechnical/hydrogeological assessment. No differences anticipated between alternatives.



Category	Criteria	Criteria Indicator	Alternative 1 Widen about existing centerline	Alternative 2 Widen to the North	Alternative 3 Widen to the South	Alternative 4 Composite Alignment (Widened to the south to east of Countryside Drive, then to the north to Regional Road 50)																																															
	Hydraulics and Hydrology Impacts (Creeks)	Impact on floodplain, existing flood depths at proposed crossing locations, and existing flood return period.	<ul style="list-style-type: none"> Approximately 2,900 m² of linear infrastructure to be constructed within the floodplain of The Gore Road Tributary. Approximately 4,000 m² of linear infrastructure to be constructed within the floodplain of Clarkway Creek. Approximately 8,200 m² of linear infrastructure to be constructed within the floodplain of Rainbow Creek. Assessment of flood depths and return period to be assessed based on hydraulic modelling of alternatives Significant impact on existing floodplains. 	<ul style="list-style-type: none"> Approximately 3,000 m² of linear infrastructure to be constructed within the floodplain of The Gore Road Tributary. Approximately 4,100 m² of linear infrastructure to be constructed within the floodplain of Clarkway Creek. Approximately 9,400 m² of linear infrastructure to be constructed within the floodplain of Rainbow Creek. Assessment of flood depths and return period to be assessed based on hydraulic modelling of alternatives Significant impact on existing floodplains. 	<ul style="list-style-type: none"> Approximately 2,700 m² of linear infrastructure to be constructed within the floodplain of The Gore Road Tributary. Approximately 3,700 m² of linear infrastructure to be constructed within the floodplain of Clarkway Creek. Approximately 5,600 m² of linear infrastructure to be constructed within the floodplain of Rainbow Creek. Assessment of flood depths and return period to be assessed based on hydraulic modelling of alternatives Moderate impact on existing floodplains. 	<ul style="list-style-type: none"> Approximately 4,200 m² of linear infrastructure to be constructed within the floodplain of The Gore Road Tributary. Approximately 3,700 m² of linear infrastructure to be constructed within the floodplain of Clarkway Creek. Approximately 5,600 m² of linear infrastructure to be constructed within the floodplain of Rainbow Creek. Assessment of flood depths and return period to be assessed based on hydraulic modelling of alternatives Moderate impact on existing floodplains. 																																															
Financial	Utility Relocation	Anticipated impacts to existing and proposed utilities.	<ul style="list-style-type: none"> All overhead utilities within the corridor will require relocation. Watermain will not be located per the City's standard and may need to be relocated as a result. Significant utility impacts. 	<ul style="list-style-type: none"> Overhead pole line (Hydro, Bell) will need to be relocated between west study limit and Clarkway Drive, as well as between Coleraine Drive and Regional Road 50. Bell pedestals on the north side of Countryside Drive will need to be relocated between west study limit and Coleraine Drive. Watermain may need relocation between west study limit and Clarkway Drive. Moderate utility impacts. 	<ul style="list-style-type: none"> Overhead pole line (Hydro, Bell) will need to be relocated from 400 m east of Clarkway Drive, to Regional Road 50. Bell pedestals on both sides of Countryside Drive would need to be relocated between west study limit and Clarkway. From Clarkway Drive to the east, infrastructure on the south side would need to be relocated. Watermain may need relocation between Clarkway Drive and 300 m east of Coleraine Drive. Moderate /significant utility impacts. 	<ul style="list-style-type: none"> Overhead pole line (Hydro, Bell) will need to be relocated from Clarkway Drive to 520 m to the east, and then again between Coleraine Drive and Regional Road 50. Bell pedestals will require relocation along the entire corridor. Moderate/ significant utility impacts. 																																															
			Measure of anticipated infrastructure impacts (m)	<table border="1"> <tr><td>Hydro</td><td>~ 2500 m</td></tr> <tr><td>Bell</td><td>~ 5000 m</td></tr> <tr><td>Gas</td><td>~ 130 m</td></tr> <tr><td>Watermain</td><td>~ 2400 m</td></tr> <tr><td>Storm Sewer</td><td>N/A</td></tr> <tr><td>Sanitary Sewer</td><td>N/A</td></tr> </table>	Hydro	~ 2500 m	Bell	~ 5000 m	Gas	~ 130 m	Watermain	~ 2400 m	Storm Sewer	N/A	Sanitary Sewer	N/A	<table border="1"> <tr><td>Hydro</td><td>~ 1350 m</td></tr> <tr><td>Bell</td><td>~ 2100 m</td></tr> <tr><td>Gas</td><td>~ 130 m</td></tr> <tr><td>Watermain</td><td>~ 680 m</td></tr> <tr><td>Storm Sewer</td><td>N/A</td></tr> <tr><td>Sanitary Sewer</td><td>N/A</td></tr> </table>	Hydro	~ 1350 m	Bell	~ 2100 m	Gas	~ 130 m	Watermain	~ 680 m	Storm Sewer	N/A	Sanitary Sewer	N/A	<table border="1"> <tr><td>Hydro</td><td>~ 1400 m</td></tr> <tr><td>Bell</td><td>~ 2700 m</td></tr> <tr><td>Gas</td><td>~ 0 m</td></tr> <tr><td>Watermain</td><td>~ 1680 m</td></tr> <tr><td>Storm Sewer</td><td>N/A</td></tr> <tr><td>Sanitary Sewer</td><td>N/A</td></tr> </table>	Hydro	~ 1400 m	Bell	~ 2700 m	Gas	~ 0 m	Watermain	~ 1680 m	Storm Sewer	N/A	Sanitary Sewer	N/A	<table border="1"> <tr><td>Hydro</td><td>~ 1180 m</td></tr> <tr><td>Bell</td><td>~ 3250 m</td></tr> <tr><td>Gas</td><td>~ 0 m</td></tr> <tr><td>Watermain</td><td>~ 300 m</td></tr> <tr><td>Storm Sewer</td><td>N/A</td></tr> <tr><td>Sanitary Sewer</td><td>N/A</td></tr> </table>	Hydro	~ 1180 m	Bell	~ 3250 m	Gas	~ 0 m	Watermain	~ 300 m	Storm Sewer	N/A
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Capital Costs	Function of total road length and width, AT facilities provided, intersection infrastructure, structural area required, and amount of utility relocation.	Function of total road length and width, AT facilities provided, intersection infrastructure, structural area required, and amount of utility relocation.	<ul style="list-style-type: none"> 3,100 m of four lane roadway to be constructed. 6,200 m of cycle lanes and sidewalks to be constructed. 1,500 m² of new culverts / bridge structures to be constructed. 3 new signalized intersections between The Gore Road and Regional Road 50. Significant utility relocations required. Significant capital cost. 	<ul style="list-style-type: none"> 3,100 m of four lane roadway to be constructed. 6,200 m of cycle lanes and sidewalks to be constructed. 1,500 m² of new culverts / bridge structures to be constructed. 3 new signalized intersections between The Gore Road and Regional Road 50. Moderate utility relocations required. Moderate capital cost. 	<ul style="list-style-type: none"> 3,100 m of four lane roadway to be constructed. 6,200 m of cycle lanes and sidewalks to be constructed. 1,500 m² of new culverts / bridge structures to be constructed. 3 new signalized intersections between The Gore Road and Regional Road 50. Moderate / significant utility relocations required. Moderate / significant capital cost. 	<ul style="list-style-type: none"> 3,100 m of four lane roadway to be constructed. 6,200 m of cycle lanes and sidewalks to be constructed. 1,500 m² of new culverts / bridge structures to be constructed. 3 new signalized intersections between The Gore Road and Regional Road 50. Moderate / significant utility relocations required. Moderate / significant capital cost.
			Operating Costs	Function of road length and number of traffic signals.	No significant difference between alternatives.	
Property Acquisition	Estimated cost of acquiring required property	Estimated cost of acquiring required property	<ul style="list-style-type: none"> Approximately 3.3 ha of property required to widen and provide active transportation facilities to Coleraine Drive. No difference between alternatives. Moderate property acquisition costs. 	<ul style="list-style-type: none"> Approximately 3.3 ha of property required to widen and provide active transportation facilities to Coleraine Drive. No difference between alternatives. Moderate property acquisition costs. 	<ul style="list-style-type: none"> Approximately 3.3 ha of property required to widen and provide active transportation facilities to Coleraine Drive. No difference between alternatives. Moderate property acquisition costs. 	<ul style="list-style-type: none"> Approximately 3.3 ha of property required to widen and provide active transportation facilities to Coleraine Drive. No difference between alternatives. Moderate property acquisition costs.
Social / Cultural Environment	Conformance to Planning Objectives (Growth Plan, Official Plan, Secondary Plan, Area 47 TTMP)	Conformance to Planning Objectives (Growth Plan, Official Plan, Secondary Plan, Area 47 TTMP)	<ul style="list-style-type: none"> Alignment assumed during completion of the SP47 TMP. Requirement for widening identified in the Citywide TMP. Primarily matches assumptions regarding ROW widening adjacent to Block 47-2 and Orlando properties, with exception of portion east of Coleraine Drive. 	<ul style="list-style-type: none"> Requirement for widening identified in the Citywide TMP. North right-of-way limit will be located 16 m north of existing, and 6.5 m north of the property limits assumed for development Block Plan 47-2 and the Industrial development area. Minor amendment of the Block Plan designs will be required. 	<ul style="list-style-type: none"> Requirement for widening identified in the Citywide TMP. South right-of-way limit will be located 16 m south of existing, and 9.5 m south of the property limits assumed for development Block Plan 47-2 and the Industrial development area. Amendment of the Block Plan designs will be required. 	<ul style="list-style-type: none"> Requirement for widening identified in the Citywide TMP. South right-of-way limit will primarily be located 16 m south of existing, and 9.5 m south of the property limits assumed for development Block Plan 47-2 to mid-block between Clarkway Drive and Coleraine Drive. From mid-block between Clarkway Drive and Coleraine Drive, right-of-way is widened to the north by 16 m. Amendment of the Block Plan designs will be required.



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	Residential/Business Access and Displacement	Potential adverse effects including limited access and changes to existing entrances.	<ul style="list-style-type: none"> Access to one property at the western limit of the project, and one property west of Coleraine Drive will be significantly impacted through required removal of existing circular driveways. Driveways for 13 additional properties will be shortened. 	<ul style="list-style-type: none"> Three residences will require full buyout. Driveways of seven other properties west of Coleraine Drive will be shortened by 16 m. Significant impacts to existing buildings and accesses. 	<ul style="list-style-type: none"> Accesses to five properties on the south side of Countryside Drive will be shortened by 16 m. Existing buildings on south side are set well back from the existing right-of-way limit. Minor impacts to residential accesses. 	<ul style="list-style-type: none"> Accesses to three properties on the south side of Countryside Drive will be shortened by 16 m. Existing buildings on south side are set well back from the existing right-of-way limit. Access to six properties on the north side of Countryside Drive will be shortened. One property immediately west of Coleraine Drive will be displaced.
	Emergency Services (Police, Fire, Ambulance)	Potential to reduce response times. Potential adverse effects include changes to existing entrances.	<ul style="list-style-type: none"> Additional roadway capacity will help to reduce response times by reducing congestion at intersections and providing areas where emergency vehicles can safely pass other traffic. No significant difference between alternatives. 	<ul style="list-style-type: none"> Additional roadway capacity will help to reduce response times by reducing congestion at intersections and providing areas where emergency vehicles can safely pass other traffic. No significant difference between alternatives. 	<ul style="list-style-type: none"> Additional roadway capacity will help to reduce response times by reducing congestion at intersections and providing areas where emergency vehicles can safely pass other traffic. No significant difference between alternatives. 	<ul style="list-style-type: none"> Additional roadway capacity will help to reduce response times by reducing congestion at intersections and providing areas where emergency vehicles can safely pass other traffic. No significant difference between alternatives.
Noise Levels Impacts	Potential effects of traffic related noise on residences, community facilities, or institutions adjacent to and/or within the study area	<ul style="list-style-type: none"> Roadway moved closer to 15 existing residential properties west of Coleraine Drive. Anticipated noise level increases above the allowable threshold will be mitigated through landscaping and noise barriers, where feasible. 	<ul style="list-style-type: none"> Roadway moved significantly closer to seven properties on the north side of Countryside Drive, west of Coleraine Drive. Anticipated noise level increases above the allowable threshold will be mitigated through landscaping and noise barriers, where feasible. 	<ul style="list-style-type: none"> Roadway will be moved closer to five existing residential buildings, which are currently set well back from the existing right-of-way limit. Anticipated noise level increases above the allowable threshold will be mitigated through landscaping and noise barriers, where feasible. 	<ul style="list-style-type: none"> Roadway moved closer to nine existing residential properties, three of which are significantly set back, and six of which are located in closer proximity to the existing right-of-way limit. Anticipated noise level increases above the allowable threshold will be mitigated through landscaping and noise barriers, where feasible. 	
Archaeological, Built Heritage and Cultural Landscape Impacts	Potential adverse impacts on archaeological resources and built heritage adjacent to and/or within the study area. Impact to cultural landscape and aesthetic nature of the roadway corridor	<ul style="list-style-type: none"> All non-developed land adjacent to the corridor has been identified as having archaeological potential. Widening will require 2,200 m² of property from the north side of the designated heritage property at 10955 Clarkway Drive, although there will be no anticipated impacts to existing building. Widening will require 1,200 m² of property from the southern limit of the listed heritage property at 5556 Countryside Drive. Moderate impacts to heritage properties. 	<ul style="list-style-type: none"> All non-developed land adjacent to the corridor has been identified as having archaeological potential. Widening will not require property from the designated heritage property at 10955 Clarkway Drive. Widening will require 3,000 m² of property from the southern limit of the listed heritage property at 5556 Countryside Drive. Moderate impacts to heritage properties. 	<ul style="list-style-type: none"> All non-developed land adjacent to the corridor has been identified as having archaeological potential. Widening will require 4,400 m² of property from the north side of the designated heritage property at 10955 Clarkway Drive, although there will be no anticipated impacts to existing building. Widening will not require property from the listed heritage property at 5556 Countryside Drive. Moderate impacts to heritage properties. 	<ul style="list-style-type: none"> All non-developed land adjacent to the corridor has been identified as having archaeological potential. Widening will require 4,200 m² of property from the north side of the designated heritage property at 10955 Clarkway Drive, although there will be identified impacts to existing building. Widening will require 3,200 m² of property from the southern limit of the listed heritage property at 5556 Countryside Drive. Significant impacts to heritage properties. 	



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	Agricultural Impacts		<ul style="list-style-type: none"> 2.3 ha of agricultural property west of Coleraine Drive will be impacted by widening along this alignment. Moderate impacts to agricultural properties. 	<ul style="list-style-type: none"> 2.0 ha of agricultural property west of Coleraine Drive will be impacted by widening along this alignment. Moderate impacts to agricultural properties. 	<ul style="list-style-type: none"> 2.6 ha of agricultural property west of Coleraine Drive will be impacted by widening along this alignment. Moderate impacts to agricultural properties. 	<ul style="list-style-type: none"> 2.1 ha of agricultural property west of Coleraine Drive will be impacted by widening along this alignment. Moderate impacts to agricultural properties.
Natural Environment	Impact to Designated Natural Heritage Features including wetlands	Proximity to, and significance of, impact to designated feature.	No designated natural heritage features within the study area. No difference among alternatives.			
	Impact to Natural Heritage Features such as vegetation and watercourses	Proximity, size, characteristics, and sensitivity of significant rural areas, terrestrial ecosystems, and wetlands. Potential impact or loss of natural areas, terrestrial ecosystems or wetland areas, function or habitat.	<ul style="list-style-type: none"> Would require widening and upsizing of existing Gore Road Tributary, Clarkway Creek, and Rainbow Creek structures, resulting in loss of approximately 8,200 m² of natural area associated with those creeks. Pond on the south side of Countryside Drive, west of Clarkway Drive will be impacted for all alternatives. No natural heritage features identified within the study area. 	<ul style="list-style-type: none"> Would require widening and upsizing of existing Gore Road Tributary, Clarkway Creek, and Rainbow Creek structures, resulting in loss of approximately 8,200 m² of natural area associated with those creeks. Pond on the south side of Countryside Drive, west of Clarkway Drive will be impacted for all alternatives. No natural heritage features identified within the study area. 	<ul style="list-style-type: none"> Would require widening and upsizing of existing Gore Road Tributary, Clarkway Creek, and Rainbow Creek structures, resulting in loss of approximately 8,300 m² of natural area associated with those creeks. Pond on the south side of Countryside Drive, west of Clarkway Drive will be impacted for all alternatives. No natural heritage features identified within the study area. 	<ul style="list-style-type: none"> Would require widening and upsizing of existing Gore Road Tributary, Clarkway Creek, and Rainbow Creek structures, resulting in loss of approximately 8,200 m² of natural area associated with those creeks. Pond on the south side of Countryside Drive, west of Clarkway Drive will be impacted for all alternatives. No natural heritage features identified within the study area.
	Impact to Avian, Wildlife and Plant Species at Risk (SAR)	Potential effects to SAR habitat.	<ul style="list-style-type: none"> Approximately 2,700 m² of potential Bobolink habitat impacted by proposed roadway alignment. Compensation may be required. 	<ul style="list-style-type: none"> No anticipated impacts to identified potential Bobolink habitat. 	<ul style="list-style-type: none"> Approximately 5,300 m² of potential Bobolink habitat impacted by proposed roadway alignment. Compensation may be required. 	<ul style="list-style-type: none"> No anticipated impacts to identified potential Bobolink habitat.
	Groundwater Impacts	Potential for adverse effects on existing groundwater resources (water quality and/or quantity).	<ul style="list-style-type: none"> 4.1 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 4.1 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 4.1 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 4.1 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments.
OVERALL RANKING						



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<p style="text-align: center;">PREFERRED ALTERNATIVE</p>			<p>While both Alternatives 2 and 3 score equally overall, Alternative 3 will have the least significant impact on existing residential properties, both in terms of necessary acquisitions and noise. As a result, Alternative 3, widen to the south, is the preferred alternative.</p>			



Detailed Evaluation of Alternative Alignments for the East-West Arterial

Cat.	Criteria	Criteria Indicator	Alternative 1 SP 47 TMP Alignment (Blue)	Alternative 2 Shift to the South (Red)	Alternative 3 Shift North of the Pipeline (Yellow)	Alternative 4 Shift North of Creek (Green)
Addresses Problem and Opportunity Statement:	• Provide enhanced inter-regional connectivity;	• The East-West Arterial functions as an east-west connection between Arterial A2/Major Mackenzie Drive (York Region) and the development area west of Arterial A2 and east of The Gore Road. • Primarily local connectivity.				
		• Provides access to proposed development, particularly south of the TCPL where there is currently no arterial access.				
	• Provide access to proposed development;	• Alignment of the East-West Arterial between Clarkway Drive and Arterial A2 will require use of back-to-back curves and shortened tangent sections at intersections, which is not preferred. • East-West Arterial/Arterial A2 intersection will be located on a curve, which is not preferred. • Alignment between The Gore Road and Clarkway Drive will be linear, which is preferred.				
		• Multi-use pathways will be provided on both sides of the road.				
	• Improve roadway geometrics to meet or exceed City and Regional standards;	• Multi-use pathways will be provided on both sides of the road.				
		• Provide pedestrian and cycling facilities;				
• Improve traffic, pedestrian and cyclist safety;	• Collector road intersections with the East-West Arterial east of Clarkway Drive will be located on curves, which is not preferred due to reduced sight distances. • Arterial road access south of the TCPL will permit better traffic flow within the southerly development block and hence reduce collision potential.					
	• Collector road intersections with the East-West Arterial east of Clarkway Drive will be located on curves, which is not preferred due to reduced sight distances. • Limited access to the arterial roadway from the south development areas has the potential to increase traffic in that area.					



Cat.	Criteria	Criteria Indicator	Alternative 1 SP 47 TMP Alignment (Blue)	Alternative 2 Shift to the South (Red)	Alternative 3 Shift North of the Pipeline (Yellow)	Alternative 4 Shift North of Creek (Green)
	<ul style="list-style-type: none"> • Improve watercourse crossings to enhance hydraulics, stream function and fisheries and wildlife passage; 		<ul style="list-style-type: none"> • Will require new crossings of The Gore Road Tributary and Clarkway Creek, as well as three headwater drainage features (two from The Gore Trib.) • Crossing structures will be designed to accommodate flows from the Regional Storm, as well fish and wildlife passage. 	<ul style="list-style-type: none"> • Will require new crossings of The Gore Road Tributary and Clarkway Creek, as well as two headwater drainage features. • Crossing structures will be designed to accommodate flows from the Regional Storm, as well fish and wildlife passage. 	<ul style="list-style-type: none"> • Will require new crossings of The Gore Road Tributary and Clarkway Creek, as well as three headwater drainage features (two from The Gore Trib.) • Crossing structures will be designed to accommodate flows from the Regional Storm, as well fish and wildlife passage. 	<ul style="list-style-type: none"> • Will require new crossings of The Gore Road Tributary and Clarkway Creek, as well as two headwater drainage features. • Crossing structures will be designed to accommodate flows from the Regional Storm, as well fish and wildlife passage.
	<ul style="list-style-type: none"> • Address structural deficiency; 		<ul style="list-style-type: none"> • No existing structures along any proposed East-West Arterial alignments. 	<ul style="list-style-type: none"> • No existing structures along any proposed East-West Arterial alignments. 	<ul style="list-style-type: none"> • No existing structures along any proposed East-West Arterial alignments. 	<ul style="list-style-type: none"> • No existing structures along any proposed East-West Arterial alignments.
	Transportation Network Safety (includes natural hazards)	Safety related factors include roadway geometrics, roadside hazards, intersection design, and control, accommodating pedestrians and cyclists.	<ul style="list-style-type: none"> • 90 degree traditional intersection with Clarkway Drive and the Gore Road • Profile of proposed road to pass through two flood plain areas where guiderails may be required (fill sections) 	<ul style="list-style-type: none"> • 90 degree traditional intersection with Clarkway Drive and the Gore Road • Profile of proposed road to pass through two flood plain areas where guiderails may be required (fill sections) 	<ul style="list-style-type: none"> • 90 degree traditional intersection with Clarkway Drive and the Gore Road. • Profile of proposed road to pass through two flood plain areas where guiderails may be required (fill sections) 	<ul style="list-style-type: none"> • 90 degree traditional intersection with Clarkway Drive and the Gore Road • Profile of proposed road to pass through three flood plain areas where guiderails may be required (fill sections)
Transportation Network Connectivity		<ul style="list-style-type: none"> • Improved east-west connectivity provided within the proposed development south of the TCPL. 	<ul style="list-style-type: none"> • Improved east-west connectivity provided within the proposed development south of the TCPL. 	<ul style="list-style-type: none"> • East-west connection to Arterial A2/Major Mackenzie Drive within the planned development area south the TCPL will require additional crossings of the pipeline corridor. 	<ul style="list-style-type: none"> • Provides enhanced east-west connectivity within the planned development north of the TCPL and south of Countryside Drive. • Does not provide adequate east-west connectivity within the development planned south of the TCPL. 	
Transportation Network Capacity	Impacts of traffic on local roads and outside the study area. Transportation network improvement and accommodation of goods movement.	<ul style="list-style-type: none"> • Will provide improved east-west network capacity between The Gore Road and Arterial A2. 	<ul style="list-style-type: none"> • Will provide improved east-west network capacity between The Gore Road and Arterial A2. 	<ul style="list-style-type: none"> • Will provide improved east-west network capacity between The Gore Road and Arterial A2. • Connection to the East-West Arterial from Block 47-1 will be limited to permitted crossings of the TCPL. 	<ul style="list-style-type: none"> • Will provide improved east-west network capacity between The Gore Road and Arterial A2. • Access to Highway 427 from Block 47-1 will require drivers to either head north along the 'character road' portion of Clarkway Drive towards the East-West Arterial, or alternatively head south on Clarkway Drive and then east on Castlemore Road. • Unplanned widening of both Clarkway Drive and Castlemore Road may be required as a result. 	



Cat.	Criteria	Criteria Indicator	Alternative 1 SP 47 TMP Alignment (Blue)	Alternative 2 Shift to the South (Red)	Alternative 3 Shift North of the Pipeline (Yellow)	Alternative 4 Shift North of Creek (Green)
Financial	Promotion of Active Transportation	Impact on the safety and usability of planned AT infrastructure, as well as adherence to City AT policy.	<ul style="list-style-type: none"> Active transportation will be provided on both sides of the East-West Arterial. Mitigating visibility issues associated with locating intersections on curves will be required east of Clarkway. 	<ul style="list-style-type: none"> Active transportation will be provided on both sides of the East-West Arterial. Mitigating visibility issues associated with locating intersections on curves will be required east of Clarkway. 	<ul style="list-style-type: none"> Active transportation will be provided on both sides of the East-West Arterial. Mitigating visibility issues associated with locating intersections on curves will be required east of Clarkway. 	<ul style="list-style-type: none"> Active transportation will be provided on both sides of the East-West Arterial. Mitigating visibility issues associated with locating intersections on curves will be required east of Clarkway.
	Transit Improvement	Potential adverse impact on transit service. Assessment of impact on planned transit service improvements.	<ul style="list-style-type: none"> It is anticipated that road linkages across the TCPL will be limited, resulting in reduced accessibility to planned transit services along the East-West Arterial from the north. This roadway configuration was used to develop the recommended transit plan included in the SP47 TMP. 	<ul style="list-style-type: none"> It is anticipated that road linkages across the TCPL will be limited, resulting in reduced accessibility to planned transit services along the East-West Arterial from the north. This roadway configuration is very similar to that used to develop the recommended transit plan included in the SP47 TMP. 	<ul style="list-style-type: none"> It is anticipated that road linkages across the TCPL will be limited, resulting in reduced accessibility to planned transit services along the East-West Arterial from the south. This roadway configuration is very similar to that used to develop the recommended transit plan included in the SP47 TMP. 	<ul style="list-style-type: none"> East-west transit services planned along the East-West Arterial will no longer be located approximately midway between planned services on Countryside Drive and Castlemore Road, making use of these services less desirable for individuals who live south of the TCPL.
	Structural Impacts	Potential adverse impact on existing structures.	<ul style="list-style-type: none"> No existing structures along proposed East-West arterial alignment. 	<ul style="list-style-type: none"> No existing structures along proposed East-West arterial alignment. 	<ul style="list-style-type: none"> No existing structures along proposed East-West arterial alignment. 	<ul style="list-style-type: none"> No existing structures along proposed East-West arterial alignment.
		Potential impact on proposed structures.	<ul style="list-style-type: none"> Will require new crossings of The Gore Road Tributary and Clarkway Creek, as well as three headwater drainage features (two from The Gore Trib.) 	<ul style="list-style-type: none"> Will require new crossings of The Gore Road Tributary and Clarkway Creek, as well as two headwater drainage features. 	<ul style="list-style-type: none"> Will require new crossings of The Gore Road Tributary and Clarkway Creek, as well as three headwater drainage features (two from The Gore Trib.) 	<ul style="list-style-type: none"> Will require new crossings of The Gore Road Tributary and Clarkway Creek, as well as two headwater drainage features.
	Hydraulics and Hydrology Impacts (Creeks)	Impact on floodplain, existing flood depths at proposed crossing locations, and existing flood return period.	<ul style="list-style-type: none"> 0.30 ha of new linear infrastructure to be constructed within the The Gore Tributary floodplain. 0.65 ha of new linear infrastructure to be constructed within the Clarkway Creek floodplain. 	<ul style="list-style-type: none"> 0.24 ha of new linear infrastructure to be constructed within the The Gore Tributary floodplain. 0.36 ha of new linear infrastructure to be constructed within the Clarkway Creek floodplain. 	<ul style="list-style-type: none"> 0.40 ha of new linear infrastructure to be constructed within the The Gore Tributary floodplain. 0.30 ha of new linear infrastructure to be constructed within the Clarkway Creek floodplain. 	<ul style="list-style-type: none"> 0.52 ha of new linear infrastructure to be constructed within the The Gore Tributary floodplain. 0.42 ha of new linear infrastructure to be constructed within the Clarkway Creek floodplain.
	Utility Relocation	Ability to minimize effects on existing and proposed utilities.	<ul style="list-style-type: none"> May require minimal hydro pole relocation at intersection with the Gore Road and Clarkway Drive. Servicing design for the block plans has been developed assuming use of this alignment. 	<ul style="list-style-type: none"> May require minimal hydro pole relocation at intersection with the Gore Road and Clarkway Drive. Rework of the servicing plan for Blocks 47-1 and 47-2 will be required. 	<ul style="list-style-type: none"> May require minimal hydro pole relocation at intersection with the Gore Road and Clarkway Drive. Rework of the servicing plan for Blocks 47-1 and 47-2 will be required. 	<ul style="list-style-type: none"> May require minimal hydro pole relocation at intersection with the Gore Road and Clarkway Drive. Rework of the servicing plan for Blocks 47-1 and 47-2 will be required.



Cat.	Criteria	Criteria Indicator	Alternative 1 SP 47 TMP Alignment (Blue)	Alternative 2 Shift to the South (Red)	Alternative 3 Shift North of the Pipeline (Yellow)	Alternative 4 Shift North of Creek (Green)
Social / Cultural Environment	Capital Costs	Function of total road length and width, AT facilities provided, intersection infrastructure, structural area required, and amount of utility relocation.	<ul style="list-style-type: none"> Two signalized intersections 2.4 km of roadway Five new crossing structures. Overall medium/high cost 	<ul style="list-style-type: none"> Two signalized intersections 2.5 km of roadway Four new crossing structures. Overall medium cost 	<ul style="list-style-type: none"> Two signalized intersections 2.4 km of roadway Five new crossing structures. Overall medium/high cost 	<ul style="list-style-type: none"> Two signalized intersections 2.1 km of roadway Four new crossing structures. Overall medium cost
	Operating Costs	Function of road length, area of bridge structures (for maintenance) and number of traffic signals.	<ul style="list-style-type: none"> Two signalized intersections 2.4 km of roadway Five new crossing structures. Overall medium/high cost 	<ul style="list-style-type: none"> Two signalized intersections 2.5 km of roadway Four new crossing structures. Overall medium cost 	<ul style="list-style-type: none"> Two signalized intersections 2.4 km of roadway Five new crossing structures. Overall medium/high cost 	<ul style="list-style-type: none"> Two signalized intersections 2.1 km of roadway Four new crossing structures. Overall medium cost
	Property Acquisition		<ul style="list-style-type: none"> Will require the purchase of approximately 8.6 ha of property. Requires acquisition of one residential property and one commercial property which is not currently participating in redevelopment. Overall substantial cost 	<ul style="list-style-type: none"> Will require the purchase of approximately 9.0 ha of property. Requires acquisition of one residential property. Overall substantial cost 	<ul style="list-style-type: none"> Will require the purchase of approximately 8.6 ha of property. Requires acquisition of one residential property Overall substantial cost 	<ul style="list-style-type: none"> Will require the purchase of approximately 7.6 ha of property. Requires acquisition of two residential properties. Overall substantial cost
Conformance to Planning Objectives (Growth Plan, Official Plan, Secondary Plan, Area 47 TMP)		<ul style="list-style-type: none"> Conforms to City's Official Plan Area 47 TMP and Secondary Plan. Alignment identified through the SP47 TMP. 	<ul style="list-style-type: none"> Conforms to City's Official Plan Area 47 TMP and Secondary Plan Alignment varies slightly from what was presented in the SP47 TMP. 	<ul style="list-style-type: none"> Conforms to City's Official Plan Area 47 TMP and Secondary Plan. Alignment varies slightly from what was presented in the SP47 TMP. 	<ul style="list-style-type: none"> This alignment varies from what was proposed during completion of the Area 47 TMP (similar alignment, significantly different location) 	
	Existing residences and businesses		<ul style="list-style-type: none"> Would require relocation of one residence, as well as require purchase of one business that currently fronts onto Clarkway Drive. 	<ul style="list-style-type: none"> Would require relocation of one residence/farm. 	<ul style="list-style-type: none"> Would require relocation of one residence and have impacts on adjacent property. 	<ul style="list-style-type: none"> Would require relocation of two residences.
Residential/ Business Access and Displacement	Planned residential, commercial and industrial developments	<ul style="list-style-type: none"> Aligns with planned development. 	<ul style="list-style-type: none"> Primarily aligns with planned development. Would create a strip of property with limited development potential between the East-West Arterial and the TCPL. 	<ul style="list-style-type: none"> Aligns with planned development but removes direct arterial road access from south of the TCPL / along the north limit of commercial district. 	<ul style="list-style-type: none"> Locates arterial roadway along 'character' portion of Clarkway Drive, limiting development potential along the roadway. 	



Cat.	Criteria	Criteria Indicator	Alternative 1 SP 47 TMP Alignment (Blue)	Alternative 2 Shift to the South (Red)	Alternative 3 Shift North of the Pipeline (Yellow)	Alternative 4 Shift North of Creek (Green)	
Natural Environment	Emergency Services (Police, Fire, Ambulance)	Potential to reduce response times.	<ul style="list-style-type: none"> Locating a new east-west arterial linkage along the TCPL may provide improved response times in the development areas between the TCPL and Castlemore Road. Collector Roadways will be required to provided improved penetration by emergency services into the development areas. 	<ul style="list-style-type: none"> Locating a new east-west arterial linkage along the TCPL may provide improved response times in the development areas between the TCPL and Castlemore Road. Collector Roadways will be required to provided improved penetration by emergency services into the development areas. 	<ul style="list-style-type: none"> Locating a new east-west arterial linkage along the TCPL may provide improved response times in the development areas between the TCPL and Castlemore Road. Collector Roadways will be required to provided improved penetration by emergency services into the development areas. 	<ul style="list-style-type: none"> Locating a new east-west arterial linkage midway between Countryside Drive and Castlemore Road may provide improved response times in the development areas north of the TCPL. Collector Roadways will be required to provided improved penetration by emergency services into the development areas. 	
	Noise Level Impacts	Potential effects of traffic related noise on residences, community facilities, or institutions adjacent to and/or within the study area	<ul style="list-style-type: none"> Presence of new arterial road and intersection will moderately increase noise levels for four existing homeowners who front onto The Gore Road. Noise impacts will be mitigated through the use of landscaping and noise barriers (if required). 	<ul style="list-style-type: none"> Minor increases in noise levels anticipated as no existing residential properties would be in close proximity to new roadway/intersection (assumes existing property at intersection is bought out). 	<ul style="list-style-type: none"> Presence of new arterial road and intersection will increase noise levels for three adjacent homeowners, two of which will directly abut the new roadway. Noise impacts will be mitigated through the use of landscaping and noise barriers (if required). 	<ul style="list-style-type: none"> Presence of new arterial road and intersection will increase noise levels for four adjacent homeowners, all of which front onto the new intersection. Noise impacts will be mitigated through the use of landscaping and noise barriers (if required). 	
	Cultural Heritage Impacts	Potential adverse impacts on archaeological resources and built heritage adjacent to and/or within the study area.	<ul style="list-style-type: none"> All undeveloped land within the study area has archaeological potential. No identified archaeological sites or cultural heritage properties are impacted by this alternative 	<ul style="list-style-type: none"> All undeveloped land within the study area has archaeological potential. No identified archaeological sites or cultural heritage properties are impacted by this alternative 	<ul style="list-style-type: none"> All undeveloped land within the study area has archaeological potential. Alignment borders a listed heritage property 	<ul style="list-style-type: none"> All undeveloped land within the study area has archaeological potential. No identified archaeological sites or cultural heritage properties are impacted by this alternative 	
	Agricultural Impacts	Impact on existing agricultural properties.	<ul style="list-style-type: none"> Alignment runs immediately south of the TCPL easement. Minimal impact to agricultural properties. 	<ul style="list-style-type: none"> Would segment small section of two agricultural properties 	<ul style="list-style-type: none"> Alignment runs between property limits. Minimal impact to agricultural properties. 	<ul style="list-style-type: none"> Alignment runs along property limits. Minimal impact to agricultural properties. 	
	Impact to Designated Natural Heritage Features including wetlands	Proximity to, and significance of, impact to designated feature.	No designated natural heritage features within the study area. No difference among alternatives.				
	Impact to Natural Heritage Features such as vegetation and watercourses	Proximity, size, characteristics, and sensitivity of significant rural areas, terrestrial ecosystems, and wetlands. Potential impact or loss of natural areas, terrestrial ecosystems or wetland areas, function or habitat.	<ul style="list-style-type: none"> Would require 2 new crossings of Clarkway Creek Tributary and Gore Road Tributary, resulting in some loss of natural areas. 	<ul style="list-style-type: none"> Would require 2 new crossings of Clarkway Creek Tributary and Gore Road Tributary, resulting in some loss of natural areas. 	<ul style="list-style-type: none"> Would require 2 new crossings of Clarkway Creek Tributary and Gore Road Tributary, resulting in some loss of natural areas. 	<ul style="list-style-type: none"> Would require two new crossings of Gore Road Tributary, resulting in some loss of natural areas. 	



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	Impacts to Avian, Wildlife and Plant Species at Risk (SAR)	Potential effects avian and wildlife including SAR identified in the study area	<ul style="list-style-type: none"> No identified SAR habitat along this alignment alternative. 	<ul style="list-style-type: none"> No identified SAR habitat along this alignment alternative. 	<ul style="list-style-type: none"> No identified SAR habitat along this alignment alternative. 	<ul style="list-style-type: none"> Alignment runs along the northern limit of approximately 270 m of potential Bobolink and/or Eastern Meadowlark habitat.
	Groundwater Impacts	Potential for adverse effects on existing groundwater resources (water quality and/or quantity).	<ul style="list-style-type: none"> 8.6 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 9.0 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 8.6 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments. 	<ul style="list-style-type: none"> 7.6 ha reduction in pervious surface area as a result of construction of this alternative. TRCA requirements for groundwater balance will be met for all alternatives, through provision of off-site recharge or use of on-site LID methods. Preferred method to be confirmed based on hydrogeological and geotechnical assessments.
OVERALL RANKING (Percentage of Total Available Score)						
PREFERRED ALTERNATIVE			The preferred alignment for the East-West Arterial is Alternative 1.			

