

BACKGROUND INFORMATION

DETAILED EVALUATION OF ALTERNATIVE SOLUTIONS

1

Alternative 1 – Do Nothing

Maintain existing conditions. No change to the existing transportation network within the south-west quadrant of the City of Brantford.

Transportation	Land Use Planning Objectives	Natural Environment	Social Environment
<ul style="list-style-type: none"> Somewhat accommodates existing traffic volume in the City of Brantford but does not improve capacity of the transportation network. Does not accommodate future traffic volume in the City of Brantford or improve capacity of the transportation network. Does not provide new or improved connections to existing or future roads in the City. 	<ul style="list-style-type: none"> Does not address existing provincial policy objectives for transportation and growth including protection for future transportation corridors to meet current and projected needs. Does not address the City's existing policy objectives for transportation and growth for maintaining an appropriate road network to accommodate commercial, industrial and private vehicular traffic. 	<ul style="list-style-type: none"> No impacts to aquatic habitat, vegetation or Species at Risk (SAR). No changes to natural heritage areas or designated features. No impacts to terrestrial species or SAR. Potential Climate Change impacts resulting from increased long-term congestion. No impacts to existing watercourses or waterbodies. 	<ul style="list-style-type: none"> No impacts to residential property and access, community facilities and access, recreational facilities and access or pedestrians and cyclists. Land acquisition is not required. No noise or vibration impacts to existing or future sensitive land uses. No change to Air Quality, however increased congestion in the City will increase emissions. No impacts to existing community aesthetics or built form.
Cultural Environment	Economic Environment	First Nation & Indigenous Communities	Other
<ul style="list-style-type: none"> No impacts to archaeological resources or areas with potential resources. No impacts to built or cultural heritage resources. 	<ul style="list-style-type: none"> Does not improve transportation conditions for existing and future land uses No capital costs required. Land acquisition is not required No operational costs required. 	<ul style="list-style-type: none"> Does not transect existing First Nation lands. This alternative is not expected to impact existing treaty rights and avoids changes within treaty areas. No impacts to archaeological resources or areas with potential resources. This alternative may fall within an area subject to an unresolved land claim. 	<ul style="list-style-type: none"> Would not impact any existing utilities. Would not impact drainage or require stormwater management facilities. Would not require flexibility in implementation. Would not require traffic diversion during construction.

Summary: Not recommended as this alternative would not address the problem and opportunity statement.

- All directions and peak periods would be at, or above capacity (gridlock) in 2041, except the southbound direction in morning peak period. Existing roadways would require additional capacity to accommodate 2041 traffic demands.
- The congestion experienced through population and employment growth would remain and worsen over time.
- There would be no opportunity for improving connectivity to the existing and future road network nor improvements to Active Transportation, Transit or Transportation Demand Management programs.
- Inconsistent with the goals and objectives of the City of Brantford's Official Plan, 2019 Growth Plan and 2020 Provincial Policy Statement.

2

Alternative 2 – Improve Transit, Active Transportation and Transportation Demand Management

Increase transit operations / level of service to increase transit modal share. Improve cycling and pedestrian facilities to increase active transportation modal share and implement Transportation Demand Management (TDM) measures to reduce auto dependency such as carpooling, working from home or shifting work hours.

Transportation	Land Use Planning Objectives	Natural Environment	Social Environment
<ul style="list-style-type: none"> Somewhat accommodates existing traffic volume in the City of Brantford but does not significantly improve capacity of the transportation network. Does not adequately accommodate future traffic volume in the City of Brantford but or improve capacity of the transportation network. Provide facilities or programs that support transit use in the City. 	<ul style="list-style-type: none"> Does not adequately address existing provincial policy objectives for transportation and growth. Does not adequately address the City's existing policy objectives for transportation and growth. 	<ul style="list-style-type: none"> Unlikely impacts to aquatic habitat vegetation or Species at Risk (SAR). Unlikely changes to natural heritage areas or designated features. Unlikely impacts to terrestrial species or SAR. Moderate potential for Climate Change improvements resulting from fewer private vehicular trips. Unlikely impacts to existing watercourses or waterbodies. 	<ul style="list-style-type: none"> Potential for some impacts to residential property and access, community facilities and access, recreational facilities and access or pedestrians and cyclists. There is a potential for land acquisition to be required for this alternative. Potential for noise or vibration impacts to existing or future sensitive land uses including residential areas requiring mitigation. Potential for changes to Air Quality requiring mitigation however reduced congestion in the City which would reduce emissions.
Cultural Environment	Economic Environment	First Nation & Indigenous Communities	Other
<ul style="list-style-type: none"> No significant impacts to archaeological resources or areas with potential resources. No significant impacts to built or cultural heritage resources. 	<ul style="list-style-type: none"> Somewhat Improves transportation conditions for existing and future land uses. Potential for a moderate amount of new capital funding required to improve transit operations (\$60 million) and active transportation facilities (\$30 million) to the 2041 as per the 2020 TMP. Land acquisition is unlikely to be required for this alternative. Potential for moderate operational costs required to implement this alternative related to vehicle maintenance and road operations. 	<ul style="list-style-type: none"> Does not transect existing First Nation lands. This alternative is not expected to impact existing treaty rights and avoids changes within treaty areas. No significant impacts to archaeological resources or areas with potential resources. This alternative may fall within an area subject to an unresolved land claim. 	<ul style="list-style-type: none"> Would not be expected to significantly impact any existing utilities. Would not be expected to significantly impact drainage or require stormwater management facilities. Would allow for flexibility in implementation as part of a long-term strategy for the City to 2041 as per the 2020 TMP. Would likely not require traffic diversion during construction.

Summary: Does not perform well under the Transportation and Land Use Planning Objectives criteria and is **not recommended since it would not address the problem and opportunity statement.**

- Increased transit service would operate using the existing transportation system which would still experience congestion due to population and employment growth, since private vehicular trips are forecast to make up 73.8% of morning Peak Period trips by 2041 as noted in the City's 2020 Transportation Master Plan.
- Additional active transportation facilities and the enhancement of transit service would help to reduce the traffic demand within the study area and slightly mitigate deficiencies, however, they are not able to resolve the issues completely.
- The peak hour directional traffic flows are still forecast at near or over capacity conditions.
- Would not adequately accommodate future traffic volume in the City or provide new or adequately improve connections to existing and future roads in the City.

3

Alternative 3 – Implement Localized Intersection Improvements

Implement intersection improvements within key intersections such as dedicated turning lanes, new facilities such as traffic signals and/or improvement of existing traffic signal timing to improve traffic operations.

Transportation	Land Use Planning Objectives	Natural Environment	Social Environment
<ul style="list-style-type: none"> Somewhat accommodates existing traffic volume in the City of Brantford with some improvements to the transportation network. Does not adequately accommodate future traffic volume in the City of Brantford or improve capacity of the transportation network. Does not sufficiently provide facilities or programs that support transit use in the City. 	<ul style="list-style-type: none"> Does not adequately address existing provincial policy objectives for transportation and growth. Does not adequately address the City's existing policy objectives for transportation and growth. 	<ul style="list-style-type: none"> Potential for some impacts to aquatic habitat, vegetation or Species at Risk (SAR) Potential for changes to natural heritage areas or designated features requiring mitigation. Potential for some impacts to terrestrial species or SAR. Potential for some impacts to existing watercourses or waterbodies. 	<ul style="list-style-type: none"> Potential for some impacts to residential property and access, community facilities and access, recreational facilities and access or pedestrians and cyclists. Potential for land acquisition to be required for this alternative. Potential for some noise or vibration impacts to existing or future sensitive land uses. No significant changes to Air Quality however this alternative does not fully address increased congestion in the City which would increase emissions. Potential for some impacts to existing community aesthetics or built form.
Cultural Environment	Economic Environment	First Nation & Indigenous Communities	Other
<ul style="list-style-type: none"> Potential for some impacts to archaeological resources or areas with potential resources. Potential for some impacts to built or cultural heritage resources. 	<ul style="list-style-type: none"> Somewhat improves transportation conditions for existing and future land uses. Potential for a moderate amount of new capital funding required to improve intersections at an estimated an average cost of \$1 million per intersection depending on the improvements. There is a potential for land acquisition. Potential for moderate operational costs required to implement this alternative related to road operations. 	<ul style="list-style-type: none"> Does not transect existing First Nation lands. This alternative is not expected to impact existing treaty rights in a manner that affects any such rights. Potential for some impacts to archaeological resources or areas with potential resources. This alternative may fall within an area subject to an unresolved land claim. 	<ul style="list-style-type: none"> Would likely result in minor impacts existing utilities depending on the scope of intersection improvements. Would likely result in minor impacts to drainage or require stormwater management facilities. Would allow for flexibility in implementation as part of a long-term strategy for the City to 2041 as per the 2020 TMP. This alternative would require significant traffic diversion or disruption during construction.

Summary: Not recommended as this alternative would not address the problem and opportunity statement.

- Would somewhat accommodate existing traffic volume in the City.
- Does not adequately accommodate future traffic volume or improve capacity of the transportation network.
- Would not adequately address existing provincial and local policy objectives for transportation and growth.
- The average cost for improvements to intersections are estimated to be approximately \$1 million per intersection, depending on the extent of improvements.

4

Alternative 4 – Improve Alternative Roadways

Improve parallel north-south corridors or provide alternative crossing of the Grand River. This could include improvements to corridors such as Rest Acres Rd, Colbourne St W, Brant Av, Hardy Rd or Phelps Rd.

Transportation	Land Use Planning Objectives	Natural Environment	Social Environment
<ul style="list-style-type: none"> Accommodates existing traffic volume in the City of Brantford with some improvements to the transportation network. Somewhat accommodates future traffic volume in the City of Brantford and improves capacity of the transportation network. Somewhat provides new or improved connections to existing and future roads in the City with reduced connectivity of future communities to Hwy 403. 	<ul style="list-style-type: none"> Somewhat addresses existing provincial policy objectives for transportation and growth. Somewhat addresses the City's existing policy objectives for transportation and growth. 	<ul style="list-style-type: none"> Potential for impacts to aquatic habitat, vegetation or Species at Risk (SAR) requiring mitigation. Potential for significant changes to natural heritage areas or designated features requiring mitigation. Potential for some impacts to terrestrial species or SAR requiring mitigation such as habitat offset areas. Increased roadway footprint and induced demand would require mitigation of Climate Change impacts. Potential for impacts to existing watercourses or waterbodies requiring mitigation. 	<ul style="list-style-type: none"> Potential for some impacts to residential property and access, community facilities and access, recreational facilities and access or pedestrians and cyclists. Potential for land acquisition to be required. Potential for noise or vibration impacts to existing or future sensitive land uses including residential areas requiring mitigation. Potential for changes to Air Quality requiring mitigation however reduced congestion in the City which would reduce emissions. Potential for impacts to existing community aesthetics or built form.
Cultural Environment	Economic Environment	First Nation & Indigenous Communities	Other
<ul style="list-style-type: none"> Potential for impacts to archaeological resources or areas with potential resources. Potential for impacts to built or cultural heritage resources. 	<ul style="list-style-type: none"> Somewhat improves transportation conditions for existing and future land uses. Potential for a high amount of new capital funding required to improve alternative roadways. The approximate cost of implementing a 4 lane road is \$5 million per kilometer depending on design requirements. Potential for land acquisition. Potential for high operational costs required to implement this alternative. 	<ul style="list-style-type: none"> Does not transect existing First Nation lands. This alternative is not expected to impact existing treaty rights but may require changes within treaty areas. Potential for impacts to archaeological resources or areas with potential resources. This alternative may fall within an area subject to an unresolved land claim. 	<ul style="list-style-type: none"> Would likely impact existing utilities and require relocation. Would result in impacts to drainage and require stormwater management facilities. Would allow for some flexibility in implementation as part of a long-term strategy for the City to 2041 as per the 2020 TMP. Would require significant traffic diversion or disruption during construction

Summary: Not recommended as this alternative would not address the problem and opportunity statement.

- The 2020 TMP notes that the transportation capacity of Brant Avenue is strategic in nature, noting the lack of a direct connection between Northwest Brantford (commercial/industrial use) and Southwest Brantford (residential use) being a main issue.
- The 2020 TMP identified that a considerable amount of traffic traveling between Northwest and Southwest Brantford is forced to travel east towards downtown in order to cross the Grand River, then back to the west to reach intended destinations.
- The 2020 TMP notes the City recently implemented more stringent parking restrictions on Brant Avenue, and other traffic signal system measures to improve its operation.
- The 2020 TMP clarifies that Brant Avenue, between St. Paul Avenue and the Lorne Bridge, is part of the Brant Avenue Heritage Conservation District, and that the widening of Brant Avenue to provide 5-6 lanes would have significant property impacts, and thereby potentially impact many properties with Heritage Conservation District designations.
- Improvements to Rest Acres Road are outside of the City's jurisdiction.
- The City's TMP notes that a high percentage of trips have origins and destinations within Brantford (>70%). Utilizing Rest Acres Road would result in longer travel distances to connect Northwest and Southwest Brantford.
- A previous traffic sensitivity analysis showed that the expansion of Rest Acres Road to 4 lanes from Highway 403 to Colborne Street would not alleviate capacity deficiencies. This is confirmed in the current EA; assigning vehicular trips to a widened Rest Acres Road as an alternative to an Oak Park extension would still result in congestion on Rest Acres Road by 2041.
- Widening Rest Acres Road would present its own property, environmental and cost constraints, such as the crossing of Whitemans Creek, and may require additional enhancement at key locations such as intersections and interchanges.

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Alternative 5 – Implement Localized Intersection Improvements and Improve Alternative Roadways

Combination of Alternatives 3 and 4.

Transportation	Land Use Planning Objectives	Natural Environment	Social Environment
<ul style="list-style-type: none"> Accommodates existing traffic volume in the City of Brantford with some improvements to the transportation network. Somewhat accommodates future traffic volume in the City of Brantford and improves capacity of the transportation network. Somewhat provides new or improved connections to existing and future roads in the City with reduced connectivity of future communities to Hwy 403. 	<ul style="list-style-type: none"> Somewhat addresses existing provincial policy objectives for transportation and growth. Somewhat addresses the City's existing policy objectives for transportation and growth. 	<ul style="list-style-type: none"> Potential for impacts to aquatic habitat, vegetation or Species at Risk (SAR) requiring mitigation. Potential for significant changes to natural heritage areas or designated features requiring mitigation. Potential for some impacts to terrestrial species or SAR requiring mitigation such as habitat offset areas. Increased roadway footprint and induced demand would require mitigation of Climate Change impacts. Potential for impacts to existing watercourses or waterbodies requiring mitigation. 	<ul style="list-style-type: none"> Potential for some impacts to residential property and access, community facilities and access, recreational facilities and access or pedestrians and cyclists. Potential for land acquisition to be required for this alternative. Potential for noise or vibration impacts to existing or future sensitive land uses including residential areas requiring mitigation. Potential for changes to Air Quality requiring mitigation however reduced congestion in the City which would reduce emissions. Potential for impacts to existing community aesthetics or built form.
Cultural Environment	Economic Environment	First Nation & Indigenous Communities	Other
<ul style="list-style-type: none"> Potential for impacts to archaeological resources or areas with potential resources. Potential for impacts to built or cultural heritage resources. 	<ul style="list-style-type: none"> Somewhat improves transportation conditions for existing and future land uses. Potential for a high amount of new capital funding required to implement these alternatives. There is a potential for land acquisition to be required for this alternative. Potential for high operational costs required to implement this alternative related to road operations depending on extent of improvements. 	<ul style="list-style-type: none"> Does not transect existing First Nation lands. This alternative is not expected to impact existing treaty rights but may require changes within treaty areas. Potential for impacts to archaeological resources or areas with potential resources. This alternative may fall within an area subject to an unresolved land claim. 	<ul style="list-style-type: none"> Would likely impact existing utilities and require relocation. Would result in impacts to drainage and require stormwater management facilities. Would allow for some flexibility in implementation as part of a long-term strategy for the City to 2041 as per the 2020 TMP. Would require significant traffic diversion or disruption during construction.

Summary: Not recommended as this alternative would not address the problem and opportunity statement.

- Localized intersection improvements does not adequately accommodate future traffic volume in the City or improve capacity of the transportation network.
- Would also not adequately address existing provincial and local policy objectives for transportation and growth.
- Improving other alternative roadways including Rest Acres, Paris Road/Brant Avenue or other routes does not sufficiently address the Problem and Opportunity Statement for addressing future travel demand associated with population and employment growth in the City, providing additional roadway capacity and reducing travel times between West Brantford (West Brant), Northwest Brantford and the Highway 403.

6

Alternative 6 – Limit Development of Surrounding Lands

Implement planning policies which would limit population and employment growth in the south-west quadrant of the City of Brantford.

Transportation	Land Use Planning Objectives	Natural Environment	Social Environment
<ul style="list-style-type: none"> Somewhat accommodates existing traffic volume in the City of Brantford but does not improve capacity of the transportation network. Does not accommodate future traffic volume in the City of Brantford or improve capacity of the transportation network. Does not provide new or improved connections to existing and future roads in the City. 	<ul style="list-style-type: none"> Inconsistent with the 2019 Growth Plan for the Greater Golden Horseshoe for future land use in the City of Brantford including growth within Designated Greenfield Areas. Does not address existing and planned land uses in the City's Official Plan. 	<ul style="list-style-type: none"> No impacts to aquatic habitat, vegetation or Species at Risk (SAR). No changes to natural heritage areas or designated features. No impacts to terrestrial species or SAR. Potential for Climate Change improvements resulting from reduced carbon footprint of development. No impacts to existing watercourses or waterbodies. 	<ul style="list-style-type: none"> No impacts to residential property and access, community facilities and access, recreational facilities and access or pedestrians and cyclists. There is a potential for impacts to developable lands for this alternative. No noise or vibration impacts to existing or future sensitive land uses. No change to Air Quality however congestion in the City from current traffic conditions will increase emissions. No impacts to existing community aesthetics or built form.
Cultural Environment	Economic Environment	First Nation & Indigenous Communities	Other
<ul style="list-style-type: none"> No impacts to archaeological resources or areas with potential resources. No impacts to built or cultural heritage resources. 	<ul style="list-style-type: none"> Does not improve transportation conditions for existing land uses. No capital costs required to implement this alternative. Land acquisition is not required for this alternative. No operational costs required to implement this alternative. 	<ul style="list-style-type: none"> Does not transect existing First Nation lands. This alternative is not expected to impact existing treaty rights and avoids changes within treaty areas. No impacts to archaeological resources or areas with potential resources. This alternative may fall within an area subject to an unresolved land claim. 	<ul style="list-style-type: none"> Would not impact any existing utilities. Would not impact drainage or require stormwater management facilities. Would not require flexibility in implementation. Would not require traffic diversion during construction.

Summary: Not recommended due to inconsistencies with provincial and local land use planning objectives and its inability to address the problem and opportunity statement.

- Would not accommodate future traffic volume in the City of Brantford or improve capacity of the transportation network.
- Inconsistent with the 2019 Growth Plan for the Greater Golden Horseshoe for future land use in the City of Brantford including growth within Designated Greenfield Areas.
- Does not address existing and planned land uses in the City's Official Plan.

Alternative 6A – Combination of Alternatives 2 to 6.

Combination of Alternatives 2 to 6 to improve transit, active transportation, TDM, implement localized intersection improvements, improve alternative roadways and limit development of surrounding lands.

Transportation	Land Use Planning Objectives	Natural Environment	Social Environment
<ul style="list-style-type: none"> Accommodates existing traffic volume in the City of Brantford with some improvements to the transportation network. Somewhat accommodates future traffic volume in the City of Brantford and improves capacity of the transportation network. Somewhat provides new or improved connections to existing roads in the City. 	<ul style="list-style-type: none"> Somewhat addresses provincial policy objectives but is inconsistent with the 2019 Growth Plan for the Greater Golden Horseshoe for future land use in the City of Brantford. Somewhat addresses the City's existing policy objectives for transportation and growth but does not address existing land uses in the City's Official Plan. 	<ul style="list-style-type: none"> Potential for impacts to aquatic habitat, vegetation or SAR requiring mitigation. Potential for impacts to aquatic species or SAR requiring mitigation. Potential for significant changes to natural heritage areas or designated features requiring mitigation. Potential for some impacts to terrestrial species or SAR requiring mitigation. Increased roadway footprint and induced demand would require mitigation of Climate Change impacts. Potential for impacts to existing watercourses or waterbodies requiring mitigation. 	<ul style="list-style-type: none"> Potential for some impacts to residential property and access, community facilities and access, recreational facilities and access or pedestrians and cyclists. There is a potential for impacts to developable lands for this alternative. Potential for noise or vibration impacts to existing or future sensitive land uses including residential areas requiring mitigation. Potential for changes to Air Quality requiring mitigation however reduced congestion in the City which would reduce emissions. Potential for impacts to existing community aesthetics or built form.
Cultural Environment	Economic Environment	First Nation & Indigenous Communities	Other
<ul style="list-style-type: none"> Potential for impacts to archaeological resources or areas with potential resources. Potential for impacts to built or cultural heritage resources. 	<ul style="list-style-type: none"> Somewhat improves transportation conditions for existing and future land uses. Potential for a high amount of new capital funding required to implement all alternatives 2 to 6. There is a potential for land acquisition to be required for this alternative. Potential for moderate operational costs required to implement this alternative related to vehicle maintenance and road operations. 	<ul style="list-style-type: none"> Does not transect existing First Nation lands. This alternative is not expected to impact existing treaty rights in a manner that affects any such rights. Potential for impacts to archaeological resources or areas with potential resources. This alternative may fall within an area subject to an unresolved land claim. 	<ul style="list-style-type: none"> Would likely impact existing utilities and require relocation. Would result in impacts to drainage and require stormwater management facilities. Would allow for some flexibility in implementation as part of a long-term strategy for the City to 2041 as per the 2020 TMP. Would require significant traffic diversion or disruption during construction.

Summary: Not recommended due to inconsistencies with provincial and local land use planning objectives and its inability to address the problem and opportunity statement.

- Similar to the score for Alternatives 4 and 5, does not adequately accommodate future traffic volume in the City or improve capacity of the transportation network.
- Somewhat addresses provincial policy objectives but is inconsistent with the 2019 Growth Plan for the Greater Golden Horseshoe for future land use in the City of Brantford.

7

Alternative 7 – Construct New Roadway Crossing of the Grand River

Implement an extension of Oak Park Road from the Hardy Road/Kraemer’s Way intersection to Colbourne Street West as envisioned in the 2020 Transportation Master Plan Update.

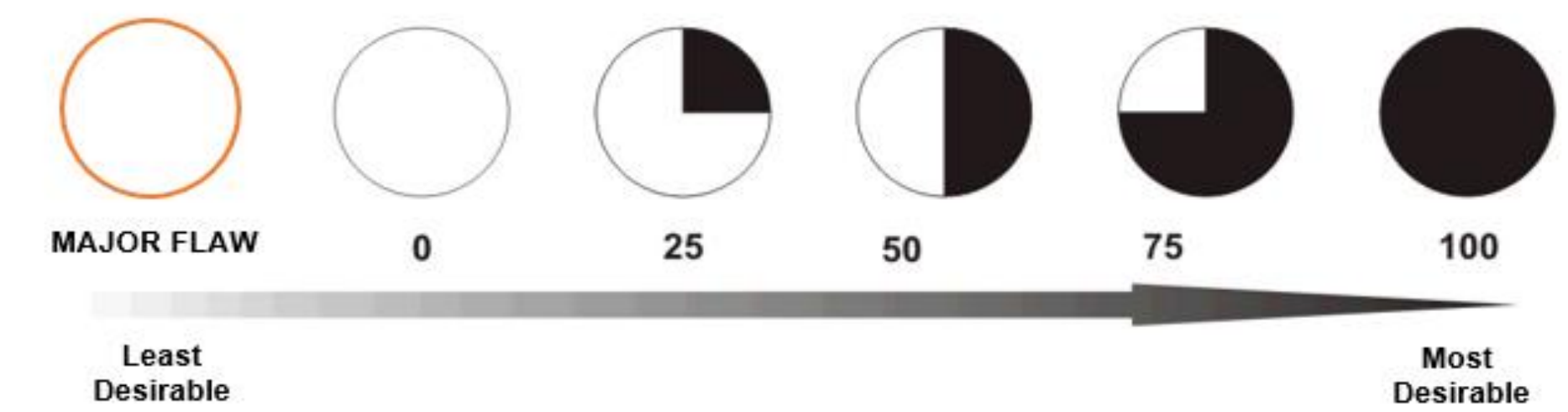
Transportation	Land Use Planning Objectives	Natural Environment	Social Environment
<ul style="list-style-type: none"> Accommodates existing and future traffic volume in the City of Brantford with significant improvements to the transportation network. Supports development of an active transportation network in the City. Temporary impacts to existing trails would require mitigation. Provides facilities or programs that supports transit use in the City with improved connections for buses. 	<ul style="list-style-type: none"> Addresses existing provincial policy objectives for transportation and growth including protection for future transportation corridors to meet current and projected needs. Addresses the City's existing policy objectives for transportation and growth for maintaining an appropriate road network to accommodate commercial, industrial and private vehicular traffic. 	<ul style="list-style-type: none"> Potential for impacts to aquatic habitat or vegetation requiring mitigation or habitat offset areas in the Grand River. Potential for impacts to aquatic species or SAR in the Grand River requiring mitigation and approvals. Potential for significant changes to natural heritage areas or designated features requiring mitigation. Potential for some impacts to terrestrial species or SAR requiring mitigation such as habitat offset areas. Increased roadway footprint and induced demand would require mitigation of Climate Change impacts, however travel distance is reduced. Impacts to the Grand River or other waterbodies requiring mitigation. 	<ul style="list-style-type: none"> Potential for impacts to residential property and access, community facilities and access, recreational facilities and access or pedestrians and cyclists, including temporary disruption to the Oakhill Trail. Potential for land acquisition can be reduced depending on the alignment. Potential for noise or vibration impacts to existing or future sensitive land uses including residential areas requiring mitigation. Potential for changes to Air Quality requiring mitigation however reduced congestion in the City which would reduce emissions. Significant impacts to existing community aesthetics or built form requiring mitigation.
Cultural Environment	Economic Environment	First Nation & Indigenous Communities	Other
<ul style="list-style-type: none"> Potential for impacts to archaeological resources or areas with potential resources requiring mitigation. Potential for significant impacts to built or cultural heritage resources including Oakhill Cemetery requiring mitigation. 	<ul style="list-style-type: none"> Significantly improves transportation conditions for existing and future land uses. Potential for high capital costs in the range of \$100 million subject to preferred alternative design concept in Phase 3 of the EA process. Potential for land acquisition can be reduced depending on the preferred alternative design concept in Phase 3 of the EA process if the existing protected corridor is utilized. Potential for high amount of new operational costs related to road operations in the range of \$340,000 per year. 	<ul style="list-style-type: none"> Does not transect existing First Nation lands. This alternative is not expected to impact existing treaty rights but would require significant changes within treaty areas. Potential for impacts to archaeological resources or areas with potential resources requiring mitigation. This alternative falls within an area subject to an unresolved land claim. 	<ul style="list-style-type: none"> Would likely impact existing utilities and require relocation. Would result in impacts to drainage and require stormwater management facilities. Would allow for some flexibility in implementation from a design and construction perspective such as phases. Would require some traffic diversion or disruption during construction, however a phased construction approach would allow construction to occur outside of existing transportation corridors for a longer duration with reduced disruptions.

Summary: Recommended. Best addresses the Problem and Opportunity Statement for addressing travel demand associated with population and employment growth in the City, providing additional roadway capacity and reducing travel times between West Brantford (West Brant), Northwest Brantford and Highway 403.

- Best accommodates existing and future traffic volumes in the City and provides new and improved connections to existing and future roads.
- Supports development of an active transportation network to connect residential, institutional, commercial and industrial areas as per the City’s planning policies.
- Provides facilities that support transit use in the City with improved connections for buses.
- Expected to result in impacts to lands or bodies of water within the Haldimand Tract and, specifically, to the Grand River and requires mitigation of impacts to the natural, social and cultural environments.

DETAILED EVALUATION

Select “Cntrl +” to Zoom In and “Cntrl -” to Zoom Out



#	Criteria	Indicator	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 6A	Alternative 7	Qualifier
			Do Nothing	Improve Transit, Active Transportation and TDM	Implement Localized Intersection Improvements	Improve Alternative Roadways	Implement Localized Intersection Improvements and Alternative Roadways	Limit Development of Surrounding Lands	Combination of Alternatives 2 to 6	Construct New Roadway Crossing Grand River	
Transportation											
1	Existing Transportation Network	a) How will the Alternative accommodate existing traffic volume in the City of Brantford?									Alternatives which improve capacity of the City's transportation network perform better for this indicator.
2	Future Transportation Network	b) How will the Alternative accommodate projected traffic volume from population and employment growth in the City of Brantford?									Alternatives which improve capacity of the City's transportation network perform better for this indicator.
3	Connectivity	a) Does the Alternative provide connectivity to the existing road network?									Alternatives which provide connections to existing roads in the City perform better for this indicator.
		b) Does the Alternative provide connectivity to the planned road network?									Alternatives which provide connections to future roads in the City perform better for this indicator.
4	Active Transportation	a) How will the Alternative respond to the City of Brantford policies for pedestrian and cycling infrastructure?									Alternatives that support the development of a comprehensive network of bikeways and trails throughout the City to connect residential, institutional, commercial and industrial areas perform better for this indicator.
5	Transportation Demand Management	a) How will the Alternative accommodate Transportation Demand Management objectives?									Alternatives which introduce TDM measures to reduce or redistribute the travel demand (e.g. carpooling, workplace changes, road pricing) perform better for this indicator.
6	Transit Services	a) Is the Alternative able to provide facilities that support transit use?									Alternatives which accommodate buses perform better for this indicator.

#	Criteria	Indicator	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 6A	Alternative 7	Qualifier
			Do Nothing	Improve Transit, Active Transportation and TDM	Implement Localized Intersection Improvements	Improve Alternative Roadways	Implement Localized Intersection Improvements and Alternative Roadways	Limit Development of Surrounding Lands	Combination of Alternatives 2 to 6	Construct New Roadway Crossing Grand River	
Land Use Planning Objectives											
7	Provincial Policies	a) How will the Alternative respond to existing policies related to transportation and growth at the provincial level?									Alternatives which are consistent with objectives of the 2020 Provincial Policy Statement and 2019 Growth Plan for the Greater Golden Horseshoe perform better for this indicator.
			Does not address existing provincial policy objectives for transportation and growth including protection for future transportation corridors to meet current and projected needs.	Does not adequately address existing provincial policy objectives for transportation and growth.	Does not adequately address existing provincial policy objectives for transportation and growth.	Somewhat addresses existing provincial policy objectives for transportation and growth.	Somewhat addresses existing provincial policy objectives for transportation and growth.	Inconsistent with the 2019 Growth Plan for the Greater Golden Horseshoe for future land use in the City of Brantford including growth within Designated Greenfield Areas.	Somewhat addresses provincial policy objectives but is inconsistent with the 2019 Growth Plan for the Greater Golden Horseshoe for future land use in the City of Brantford.	Adds existing provincial policy objectives for transportation and growth including protection for future transportation corridors to meet current and projected needs.	
8	Local Policies	a) How will the Alternative respond to existing policies related to transportation and growth at the local level?									Alternatives which are consistent with the objectives of the 2016 and draft 2020 City of Brantford Official Plan and 2020 City of Brantford Transportation Master Plan perform better for this indicator.
			Does not address the City's existing policy objectives for transportation and growth for maintaining an appropriate road network to accommodate commercial, industrial and private vehicular traffic.	Does not adequately address the City's existing policy objectives for transportation and growth.	Does not adequately address the City's existing policy objectives for transportation and growth.	Somewhat addresses the City's existing policy objectives for transportation and growth.	Somewhat addresses the City's existing policy objectives for transportation and growth.	Does not address existing and planned land uses in the City's Official Plan.	Somewhat addresses the City's existing policy objectives for transportation and growth but does not address existing land uses in the City's Official Plan.	Adds the City's existing policy objectives for transportation and growth for maintaining an appropriate road network to accommodate commercial, industrial and private vehicular traffic.	
Natural Environment											
9	Aquatic Habitat	a) Will the Alternative impact aquatic habitat/vegetation?									Alternatives that minimize required modifications to existing watercourses will perform better for this indicator.
			No impacts to aquatic habitat or vegetation.	Unlikely impacts to aquatic habitat or vegetation.	Potential for some impacts to aquatic habitat or vegetation.	Potential for impacts to aquatic habitat or vegetation requiring mitigation.	Potential for impacts to aquatic habitat or vegetation requiring mitigation.	No impacts to aquatic habitat or vegetation.	Potential for impacts to aquatic habitat or vegetation requiring mitigation.	Potential for impacts to aquatic habitat or vegetation requiring mitigation or habitat offset areas in the Grand River.	
		b) Will the Alternative impact aquatic species including Species at Risk (SAR)?									Alternatives that minimize impacts and/or can accommodate mitigation measures for areas with identified aquatic species or Species at Risk (SAR) perform better for this indicator.
			No impacts to aquatic species or SAR.	Unlikely impacts to aquatic species or SAR.	Potential for some impacts to aquatic species or SAR.	Potential for impacts to aquatic species or SAR requiring mitigation.	Potential for impacts to aquatic species or SAR requiring mitigation.	No impacts to aquatic species or SAR.	Potential for impacts to aquatic species or SAR requiring mitigation.	Potential for impacts to aquatic species or SAR in the Grand River requiring mitigation and approvals.	
10	Terrestrial Habitat	a) Will the Alternative impact designated natural heritage features?									Alternatives that minimize or avoid impacts to natural heritage areas or other identified natural areas will perform better for this indicator.
			No changes to natural heritage areas or designated features.	Unlikely changes to natural heritage areas or designated features.	Potential for changes to natural heritage areas or designated features requiring mitigation.	Potential for significant changes to natural heritage areas or designated features requiring mitigation.	Potential for significant changes to natural heritage areas or designated features requiring mitigation.	No changes to natural heritage areas or designated features.	Potential for significant changes to natural heritage areas or designated features requiring mitigation.	Potential for significant changes to natural heritage areas or designated features requiring mitigation.	
		b) Will the Alternative impact terrestrial species including Species at Risk (SAR)?									Alternatives that minimize impacts and/or can accommodate mitigation measures for areas with identified terrestrial species or Species at Risk (SAR) perform better for this indicator.
			No impacts to terrestrial species or SAR.	Unlikely impacts to terrestrial species or SAR.	Potential for some impacts to terrestrial species or SAR.	Potential for some impacts to terrestrial species or SAR requiring mitigation such as habitat offset areas.	Potential for some impacts to terrestrial species or SAR requiring mitigation such as habitat offset areas.	No impacts to terrestrial species or SAR.	Potential for some impacts to terrestrial species or SAR requiring mitigation.	Potential for some impacts to terrestrial species or SAR requiring mitigation such as habitat offset areas.	
11	Natural Heritage Features	a) Will the Alternative impact designated natural heritage features?									Alternatives that minimize impacts and/or can accommodate mitigation measures for natural heritage areas or other identified natural areas will perform better for this indicator.
			No changes to natural heritage areas or designated features.	Unlikely changes to natural heritage areas or designated features.	Potential for changes to natural heritage areas or designated features requiring mitigation.	Potential for significant changes to natural heritage areas or designated features requiring mitigation.	Potential for significant changes to natural heritage areas or designated features requiring mitigation.	No changes to natural heritage areas or designated features.	Potential for significant changes to natural heritage areas or designated features requiring mitigation.	Potential for significant changes to natural heritage areas or designated features requiring mitigation.	
12	Climate Change	a) How will the Alternative address climate change considerations including Greenhouse Gas Emissions and Extreme Weather events?									Alternatives which minimize and/or can accommodate mitigation measures for impacts from extreme weather events, enhancements to natural features and reduction of emissions will perform better for this indicator.
			Potential Climate Change impacts resulting from increased long-term congestion.	Moderate potential for Climate Change improvements resulting from fewer private vehicular trips.	Moderate potential for Climate Change improvements resulting from reduced idling and increased roadway footprint.	Increased roadway footprint and induced demand would require mitigation of Climate Change impacts.	Increased roadway footprint and induced demand would require mitigation of Climate Change impacts.	Potential for Climate Change improvements resulting from reduced carbon footprint of development.	Increased roadway footprint and induced demand would require mitigation of Climate Change impacts.	Increased roadway footprint and induced demand would require mitigation of Climate Change impacts, however travel distance is reduced.	
13	Surface Water	a) Will the Alternative impact an existing watercourse or waterbody including the Grand River and its tributaries?									Alternatives that minimize required modifications at or within existing watercourses and waterbodies will perform better for this indicator.
			No impacts to existing watercourses or waterbodies.	Unlikely impacts to existing watercourses or waterbodies.	Potential for some impacts to existing watercourses or waterbodies.	Potential for impacts to existing watercourses or waterbodies requiring mitigation.	Potential for impacts to existing watercourses or waterbodies requiring mitigation.	No impacts to existing watercourses or waterbodies.	Potential for impacts to existing watercourses or waterbodies requiring mitigation.	Impacts to the Grand River or other waterbodies requiring mitigation.	

#	Criteria	Indicator	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 6A	Alternative 7	Qualifier
			Do Nothing	Improve Transit, Active Transportation and TDM	Implement Localized Intersection Improvements	Improve Alternative Roadways	Implement Localized Intersection Improvements and Alternative Roadways	Limit Development of Surrounding Lands	Combination of Alternatives 2 to 6	Construct New Roadway Crossing Grand River	
Social Environment											
14	Existing Communities	a) Will the Alternative impact residential property and access, community facilities and access, recreational facilities and access, pedestrians and cyclists?	●	●	◐	◐	◐	●	◐	◐	Alternatives which avoid placement of new facilities which impact residential property and access, community facilities and access, recreational facilities and pedestrians and cyclists will perform better for this indicator.
15	Property Requirements	a) Will the Alternative require private property acquisition?	●	◐	◐	◐	◐	◐	◐	◐	Alternatives with the least amount of land acquisition will perform better for this indicator.
16	Noise and Vibration	a) How will the Alternative provide separation between noise and vibration sources and sensitive receivers?	●	◐	◐	◐	◐	●	◐	◐	Alternatives that maximize their separation from existing/future sensitive land uses will perform better for this indicator.
17	Air Quality	a) Will the Alternative result in changes to air quality?	◐	◐	◐	◐	◐	◐	◐	◐	Alternatives that improve vehicle capacity and maximize separation from existing/future land uses will perform better for this indicator.
18	Aesthetics	a) Will the Alternative impact existing community aesthetics including built form?	●	◐	◐	◐	◐	●	◐	○	Alternatives which avoid the placement of new facilities which would impact existing community aesthetics and built form will perform better for this indicator.
Cultural Environment											
19	Archaeological Resources	a) Will the Alternative impacts existing archaeological resources or areas with archaeological potential?	●	●	◐	◐	◐	●	◐	◐	Alternatives that minimize impacts on existing archaeological resources or avoid areas of archaeological potential will perform better for this indicator.
20	Built and Cultural Heritage Resources	a) Will the Alternative impact designated, or potential built and cultural heritage resources?	●	●	◐	◐	◐	●	◐	○	Alternatives that minimize impacts on or avoid built and cultural heritage resources including the Oakhill Cemetery will perform better for this indicator.

#	Criteria	Indicator	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 6A	Alternative 7	Qualifier	
			Do Nothing	Improve Transit, Active Transportation and TDM	Implement Localized Intersection Improvements	Improve Alternative Roadways	Implement Localized Intersection Improvements and Alternative Roadways	Limit Development of Surrounding Lands	Combination of Alternatives 2 to 6	Construct New Roadway Crossing Grand River		
Economic Environment												
21	Existing / Future Land Use	a) How will the Alternative support existing and future land uses?										Alternatives which improve transportation for existing and future land uses will perform better for this indicator.
22	Capital Cost of Implementation	a) What are the capital infrastructure costs of implementing the Alternative including the need to alter or abandon existing infrastructure?										Alternatives that minimize construction of new infrastructure/reconstruction of existing infrastructure will perform better for this indicator.
23	Property Costs	a) What are the anticipated property acquisition costs?										Alternatives that maximize use of existing roadway networks and protected corridors will perform better for this indicator.
24	Operation and Maintenance Costs	a) What are the road and infrastructure maintenance and replacement costs (Life-Cycle Costs)?										Alternatives with the least amount of new infrastructure will perform better for this indicator.
First Nation & Indigenous Communities												
25	Lands	a) Will the Alternative impact existing First Nation lands?										Alternatives which avoid transecting existing First Nations lands will perform better for this indicator.
26	Treaty Rights	a) Will the Alternative impact existing treaty rights?										Alternatives which avoid potential for impacts to treaty rights and avoid changes within treaty areas will perform better for this indicator.
27	Archaeological Sites	a) Will the Alternative impacts existing archaeological resources or areas with archaeological potential?										Alternatives that minimize impacts on existing archaeological resources or avoid areas of archaeological potential will perform better for this indicator.
28	Land Claims	a) Will the Alternative impact areas subject to any unresolved Land Claims?										Alternatives which do not fall within areas subject to unresolved land claims will perform better for this indicator.

Note: The assessment for criterion 25 to 28 may be modified with further input from First Nations.

#	Criteria	Indicator	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 6A	Alternative 7	Qualifier
			Do Nothing	Improve Transit, Active Transportation and TDM	Implement Localized Intersection Improvements	Improve Alternative Roadways	Implement Localized Intersection Improvements and Alternative Roadways	Limit Development of Surrounding Lands	Combination of Alternatives 2 to 6	Construct New Roadway Crossing Grand River	
Other											
29	Utility Impacts	a) What effect will the Alternative have on existing utilities?	● This alternative would not impact any existing utilities.	● This alternative would not be expected to significantly impact any existing utilities.	◐ This alternative would likely result in minor impacts existing utilities depending on the scope of intersection improvements.	◑ This alternative would likely impact existing utilities and require relocation.	◑ This alternative would likely impact existing utilities and require relocation.	● This alternative would not impact any existing utilities.	◑ This alternative would likely impact existing utilities and require relocation.	◑ This alternative would likely impact existing utilities and require relocation.	Alternatives that minimize modifications to existing utilities will perform better for this indicator.
30	Grading, Drainage and Stormwater Management	a) What effect will the Alternative have on drainage and stormwater management facilities?	● This alternative would not impact drainage or require stormwater management facilities.	◑ This alternative would not be expected to significantly impact drainage or require stormwater management facilities.	◐ This alternative would likely result in minor impacts to drainage or require stormwater management facilities.	◑ This alternative would result in impacts to drainage and require stormwater management facilities.	◑ This alternative would result in impacts to drainage and require stormwater management facilities.	● This alternative would not impact drainage or require stormwater management facilities.	◑ This alternative would result in impacts to drainage and require stormwater management facilities.	◑ This alternative would result in impacts to drainage and require stormwater management facilities.	Alternatives that minimize modifications to existing grading and stormwater management requirements will perform better for this indicator.
31	Phasing and Implementation	a) Will the Alternative be able to be phased and incrementally implement?	● This alternative would not require flexibility in implementation.	● This alternative would allow for flexibility in implementation as part of a long-term strategy for the City to 2041 as per the 2020 TMP.	● This alternative would allow for flexibility in implementation as part of a long-term strategy for the City to 2041 as per the 2020 TMP.	◐ This alternative would allow for some flexibility in implementation as part of a long-term strategy for the City to 2041 as per the 2020 TMP.	◐ This alternative would allow for some flexibility in implementation as part of a long-term strategy for the City to 2041 as per the 2020 TMP.	● This alternative would not require flexibility in implementation.	◑ This alternative would allow for some flexibility in implementation as part of a long-term strategy for the City to 2041 as per the 2020 TMP.	◐ This alternative would allow for some flexibility in implementation from a design and construction perspective such as phases.	Alternatives which provide flexibility for implementation perform better for this indicator.
		b) Will the Alternative require traffic diversion during construction?	● This alternative would not require traffic diversion during construction	● This alternative would likely not require traffic diversion during construction	◑ This alternative would require significant traffic diversion or disruption during construction	◑ This alternative would require significant traffic diversion or disruption during construction	◑ This alternative would require significant traffic diversion or disruption during construction	● This alternative would not require traffic diversion during construction	◑ This alternative would require significant traffic diversion or disruption during construction	◑ This alternative would require some traffic diversion or disruption during construction, however a phased construction approach would allow construction to occur outside of existing transportation corridors for a longer duration with reduced disruptions.	Alternatives that avoid disturbance to the existing transportation network will perform better for this indicator.