



City of Brantford

**Powerline Road Transportation
Capacity Environmental Assessment**

Public Information Centre #2

August 28, 2025



WELCOME TO PUBLIC INFORMATION CENTRE # 2



Present the Study Area, Purpose & Objectives



Outline the Environmental Assessment and Consultation Process



Review existing conditions including Transportation, Natural and Socio-Economic Environments



Identify the recommended preferred solution for Powerline Road Improvements based on technical assessment and consultation activities

Seek public input / comments & provide opportunities for public to ask questions

We want to hear from you as your involvement is key to the success of the Powerline Road Transportation Capacity Environmental Assessment. **Please sign in before leaving!**

More details about the project are available on the project website:
Brantford.ca/PowerlineRoadEA

PROBLEM AND OPPORTUNITY STATEMENT

Powerline Road is a major arterial roadway within the City of Brantford (City) and is a two-lane rural road that serves east-west traffic along the former northern municipal boundary.

The City's Transportation Master Plan Update (2020 TMP) forecasts that Powerline Road will experience significant growth in traffic volumes over the coming years that will result in the majority of Powerline Road approaching or exceeding capacity during the future 2051 planning horizon. The 2020 TMP identified the need for infrastructure improvements to Powerline Road, from Paris Road to the east municipal boundary, to provide relief to the anticipated (2051) capacity constraints and to service future growth.

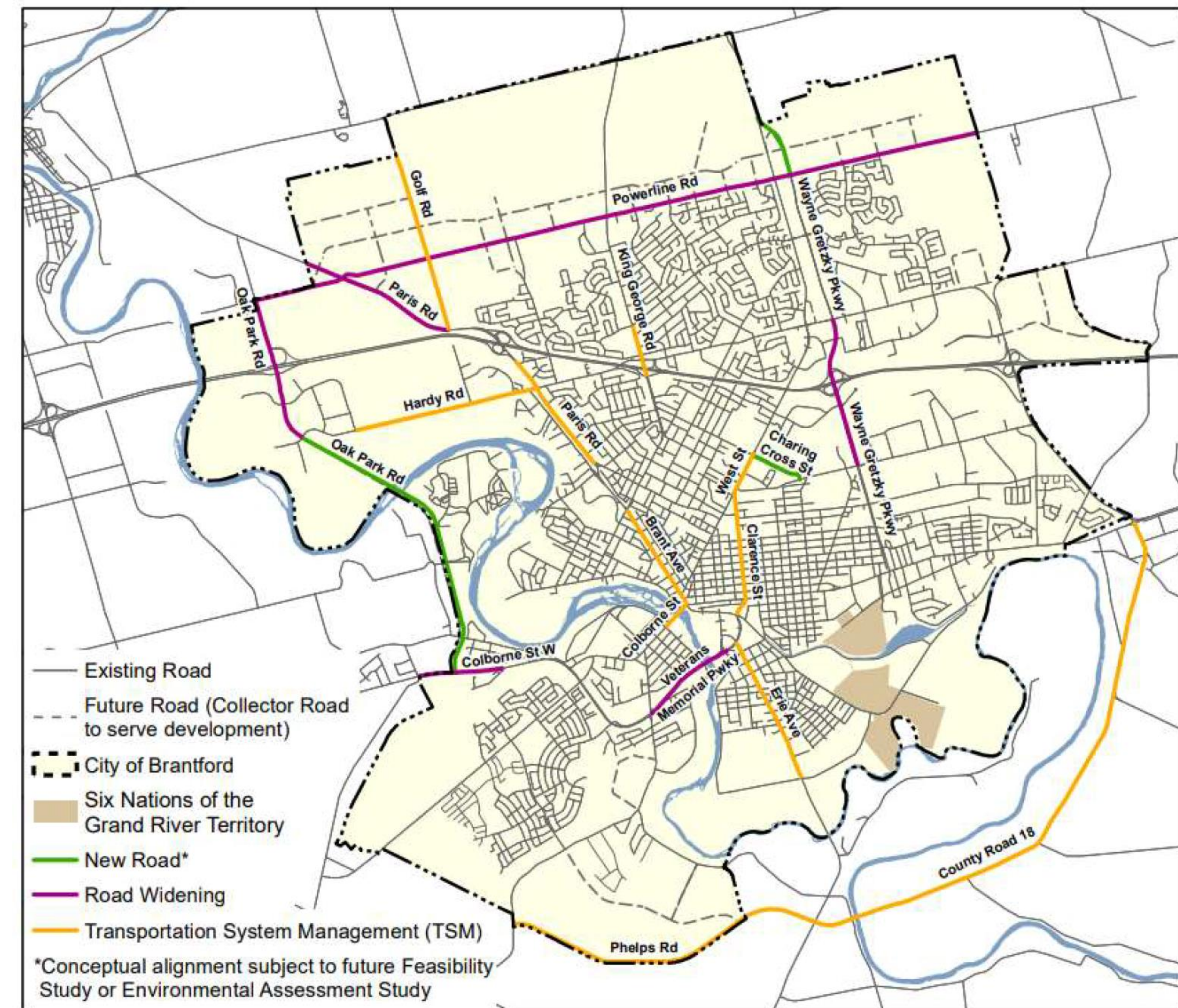
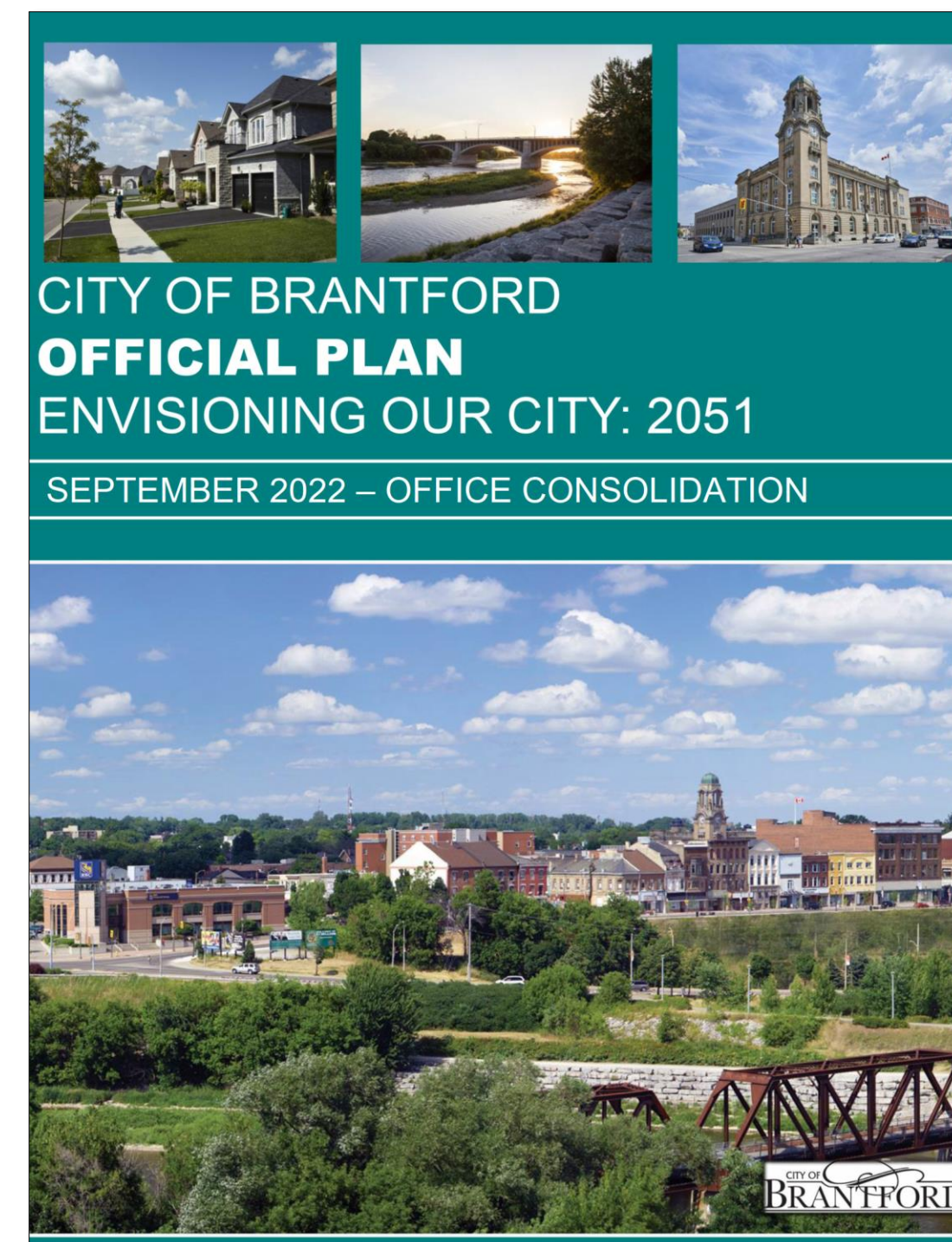
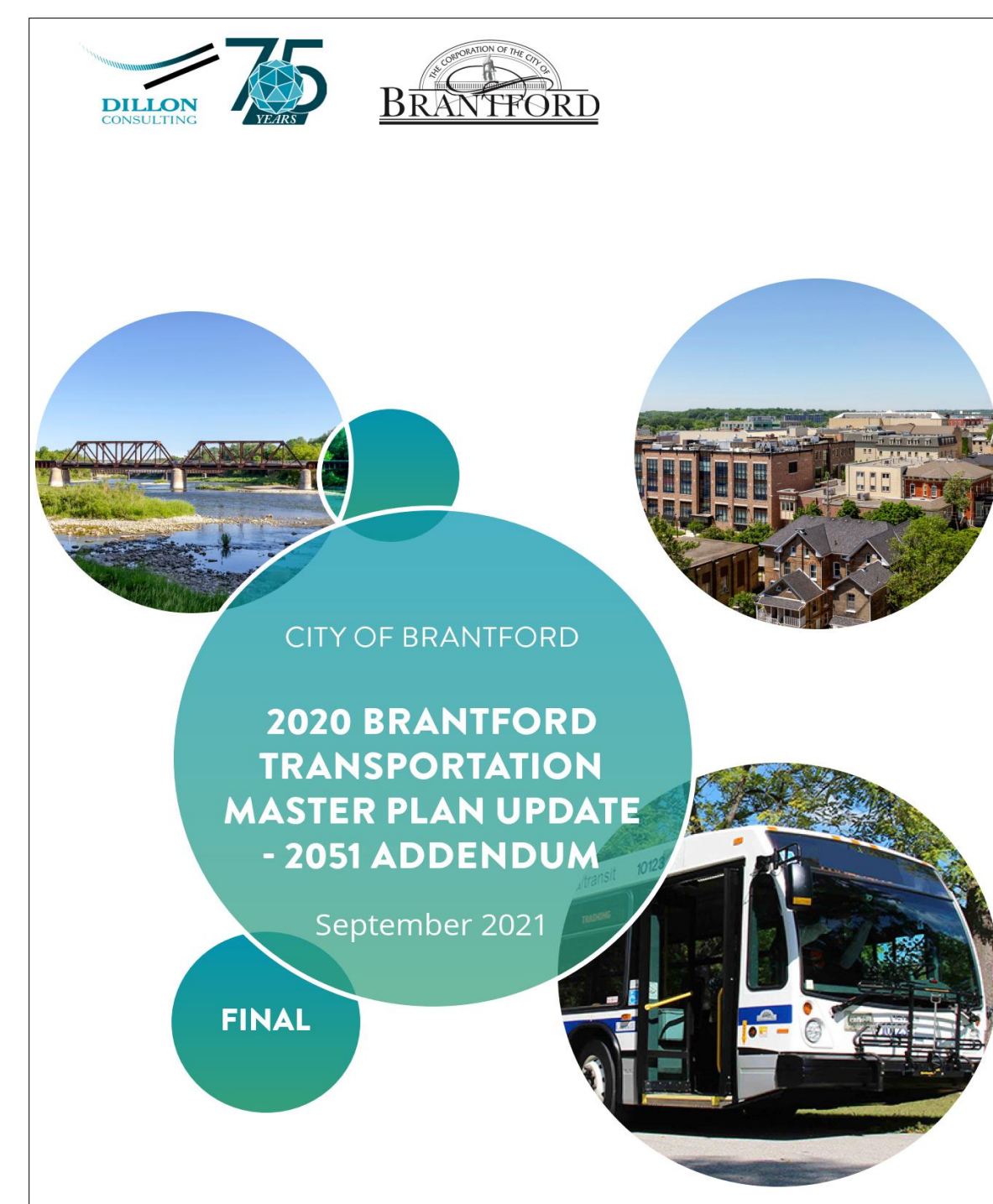
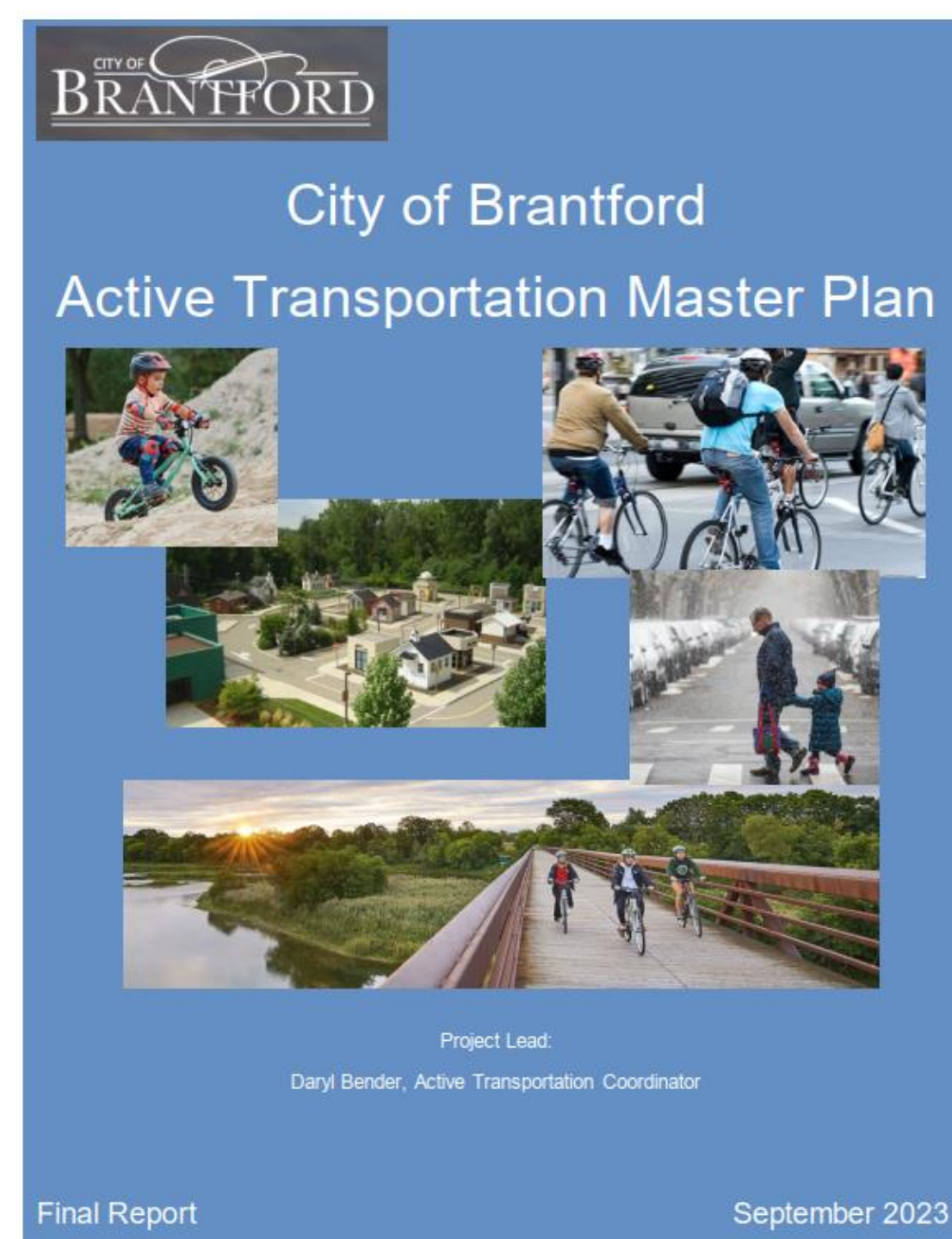
The project presents an opportunity to optimize the transportation network to accommodate the current and future travel demands, while minimizing potential impacts to the environment and climate change by:

- improving infrastructure along Powerline Road between Paris Road to the east municipal boundary, including active transportation infrastructure, to improve connectivity and safety for road users, pedestrians, and cyclists;
- enhancing existing intersection operations and optimizing level of service, and
- providing an improved connection to the designated greenfield area developments and northwest industrial areas and enhancing access to future neighborhood centres in support of the City's vision for growth in the Boundary Expansion Lands.



PLANNING AND POLICY CONTEXT

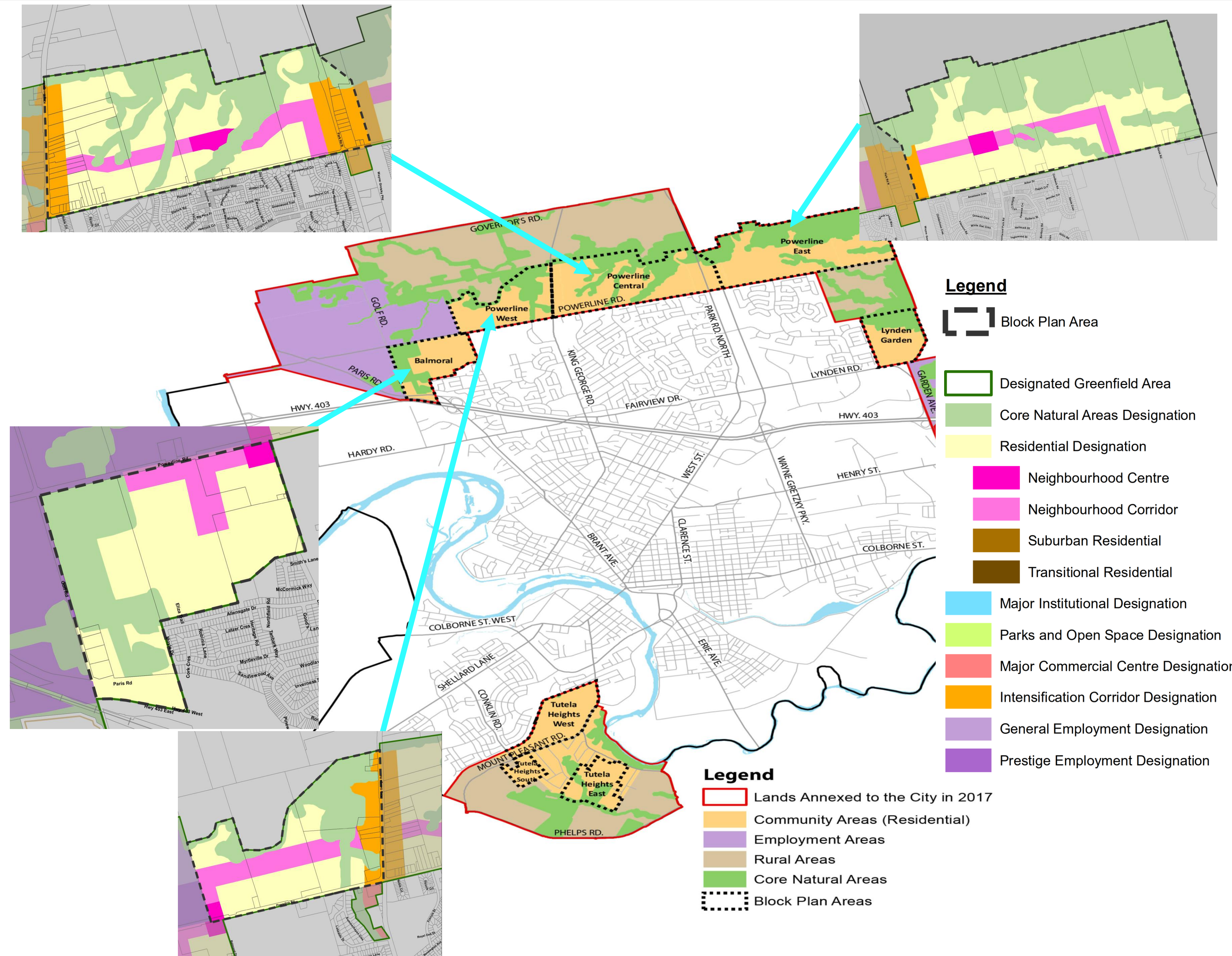
- City visions, policies, and principles have been outlined in the City’s Official Plan, 2020 Transportation Master Plan (TMP) Update and Active Transportation Master Plan (2023).
- Updated Transportation Master Plan (2020) provided recommendations for future road network which included:
 - City wide Transportation Demand Management (TDM) initiative for new/extending transit services into the urban expansion area;
 - Incorporate Transportation System Management (TSM) initiatives into the redesign, including urban cross section, intersection control, auxiliary lane provisions, traffic signal coordination, roundabouts where feasible, etc., and
 - Widen Powerline Road to provide a basic 4-lane cross section between Paris Road and Coulbeck Road.
- Considering employment and population growth forecasts, Powerline Road is expected to operate at or above capacity by 2051.



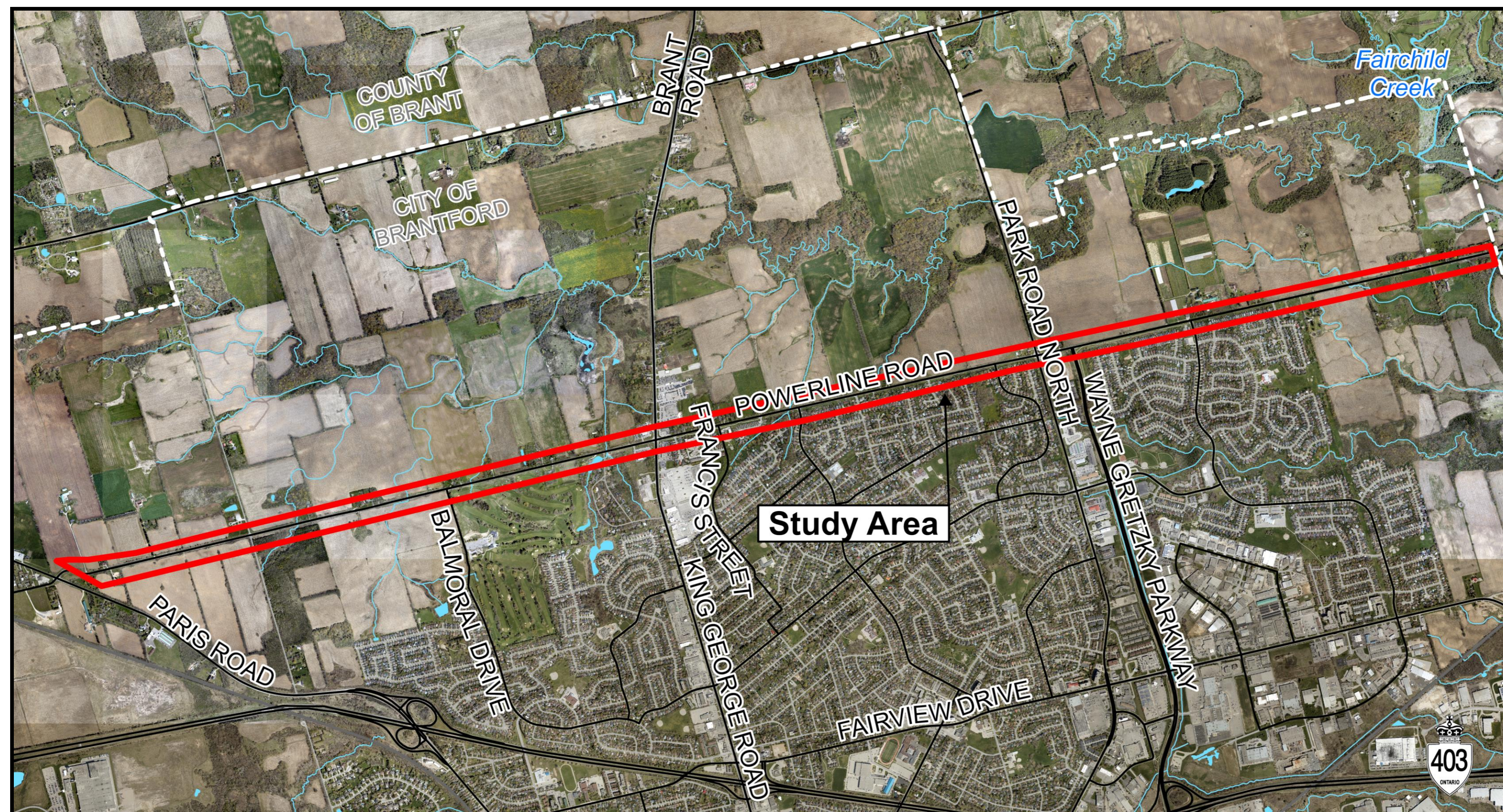
Source: Figure 4-11: Proposed 2051 Road Network Brantford TMP

STUDY AREA AND OVERVIEW

- The study area is to the north of Highway 403 and includes Powerline Road, from Paris Road to the east municipal boundary.
- Powerline Road is classified as a Major Arterial Roadway.
- Currently a two-lane rural road serving east-west traffic along the former northern City boundary.
- The study area land use is primarily rural and agricultural north of Powerline Road and more urbanized residential/commercial.
- In 2017, the City of Brantford annexed land from the County of Brant.
- The study area is within the North Expansion Lands in the Block Plan areas of Powerline East, Powerline West, Powerline Central and Balmoral.



- Additional infrastructure improvements also recommended to accommodate future growth include;
 - New East-West Collector Road north of Powerline Road;
 - Widening Paris Road from Golf Road to the north-west City limits;
 - Northly extension of Wayne Gretzky Parkway from Powerline Road to Park Road North, and
 - Widening of Wayne Gretzky Parkway from Henry Street to Lynden Road.

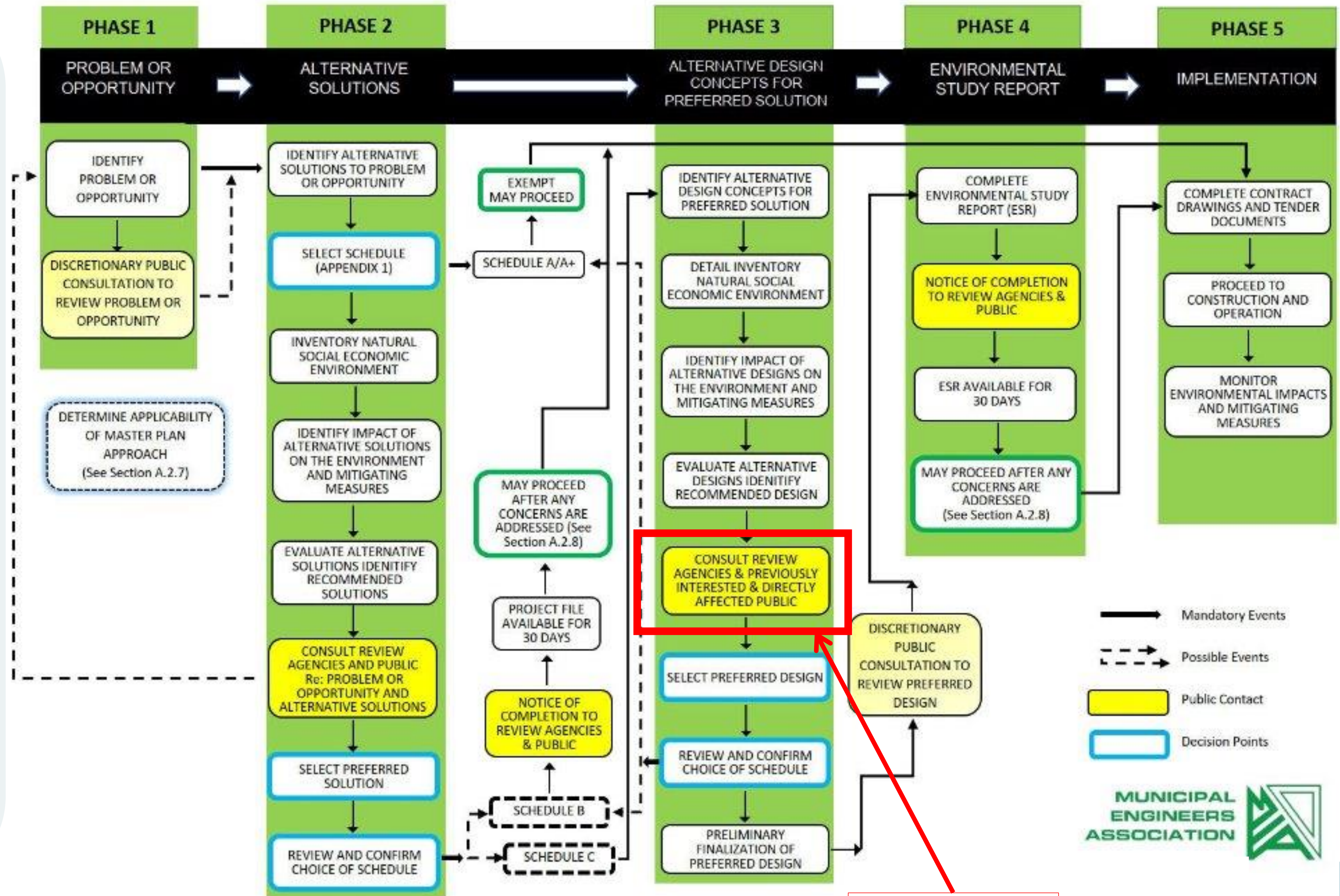


MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

- The Wayne Gretzky Parkway North Extension will be completed in accordance with a Schedule 'C' Municipal Class Environmental Assessment (MCEA) and will complete Phase 1 to 4.
- The MCEA is a process by which municipal infrastructure projects (municipal roads, water and wastewater) are planned in accordance with the Environmental Assessment Act.
- The MCEA gives due regard to protect the environment, impacts, and includes the involvement of affected stakeholders in the decision-making process.
- Please visit: <https://municipalclassea.ca> for more information on the Municipal Class Environmental Assessment Process.

MUNICIPAL CLASS EA PLANNING AND DESIGN PROCESS

NOTE: This flow chart is to be read in conjunction with Part A of the Municipal Class EA



We are here

CONSULTATION SUMMARY

Engagement Strategies:

Methods employed to reach out to obtain input throughout the study include:



Direct Mail Notice

Circulation of Notice of Study Commencement, Notice of Public Information Centers and Notice of Completion via mail and email.



Social Media

Posting Notices and updates on City's social media channels.



Newspaper Notices

Published in the Civic News and Two Row Times/Turtle Island News.



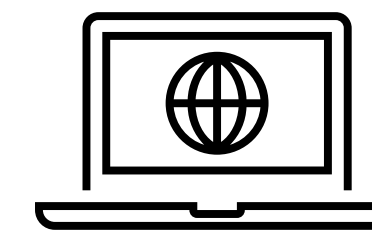
Workshop Meetings

Meetings with Agencies, Stakeholders and First Nations.



Public Information Centres

Hosted two in-person Public Information Centres.



City Project Website-

Brantford.ca/PowerlineRoadEA

What We Have Heard:



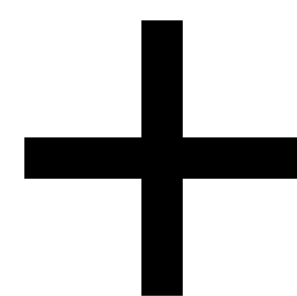
Congestion and Queuing

Increase road capacity to reduce travel times and improve unsafe travel conditions



Active Transportation

Improve walking and cycling by providing new facilities



Intersections Operations

Improve efficiency and safety at intersections (i.e. Signals vs Roundabouts)



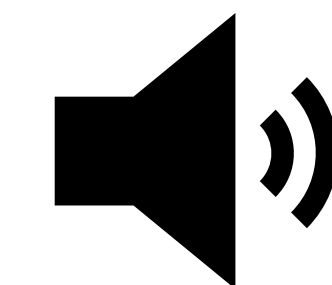
Potential Property Impacts

Impact to homes and businesses along Powerline Road



Natural Heritage

Preserve the natural environment and wildlife



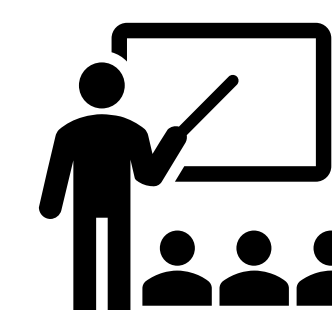
Noise & Disruption

Concerns due to existing/future growth and associated construction



Timing of Improvement

Infrastructure is not supporting the growth and should be completed before development occurs



New High School

Concerns pertaining to timing, traffic and lack of Active Transportation Facilities

INVENTORY STUDIES

Phase 2 Studies/Investigations - Completed

- Natural Heritage Assessment
- Additional Natural Heritage Assessment – SAR Target Surveys
- Socio-Economic Assessment
- Stage 1 Archaeological Assessment
- Cultural and Built Heritage Assessment (CHRA)
- Source Water Protection Review
- Transportation Impact Study (on-going)

Phase 3 On-going Studies

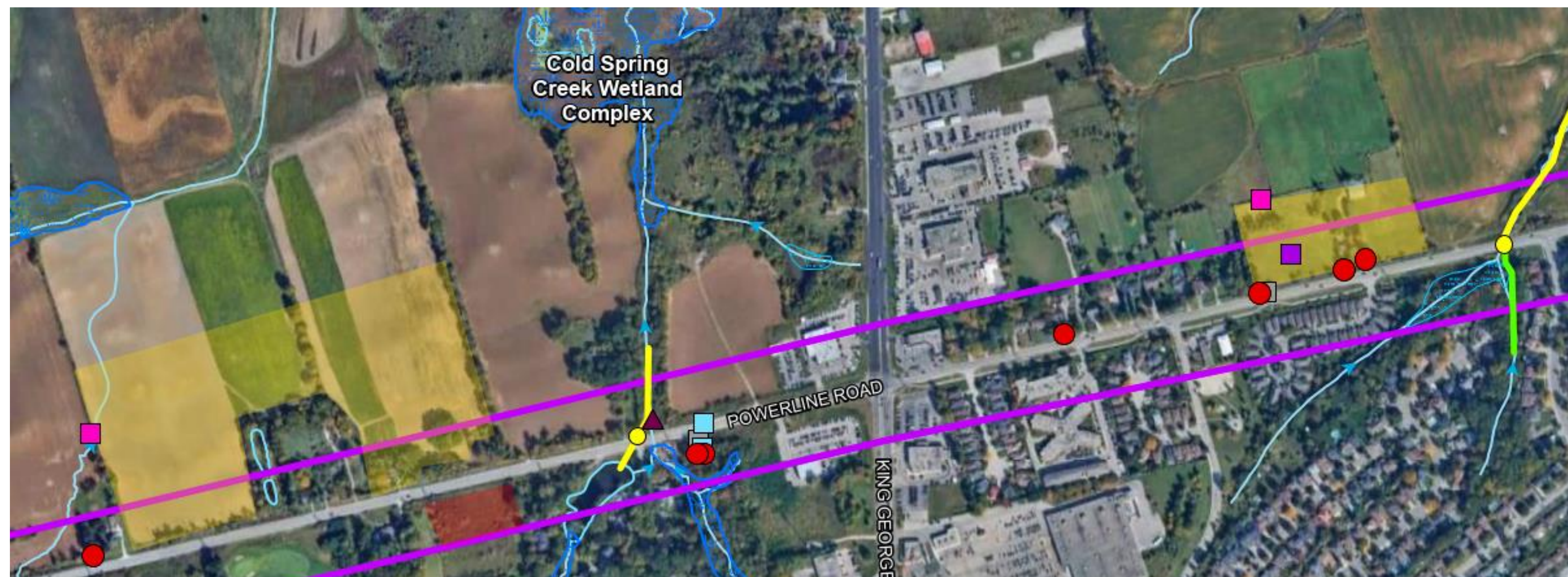
- Watercourse and Culvert Crossing Assessment
- Air Quality and Emission Assessment including Climate Change Assessment
- Noise Impact Assessment
- Stage 2 Archaeological Assessment
- Geotechnical and Hydrogeological Investigation
- Stormwater Management Assessment



NATURAL HERITAGE ENVIRONMENTAL

Natural heritage features within the study area include:

- Tributaries of Lower Jones Creek, and Fairchild Creek, and Cold Spring Creek Complex (Provincially Significant Wetland). There are four watercourse crossings along Powerline Road.
- Natural vegetation / woodland coverage is confined to the edges of cultivated fields, natural features (tributaries and Cold Spring Creek Complex), residences / farmsteads and existing roadway corridors.
- Areas of limited vegetation along Powerline Road corridor due to existing overhead utility transmission towers, poles and lines.
- Avian community comprised primarily of common, generalist species which favor the urban / rural fringe and agricultural habitat.
- Appropriate habitat present for breeding/nesting/foraging for several Herptiles, birds, and mammals.
- Potential habitat for species at risk (SAR) – Bats (Little Brown Myotis, Northern Myotis, and Tri-colored Bat), Birds (Chimney Swift, Common Nighthawk, Eastern Meadowlark and Bobolink), Snapping Turtle, Eastern Milksnake, Western Chorus Frog, and Butternut Trees.
- Grand River Conservation Authority (GRCA) - Regulatory Floodplain, Meander Belt, Unstable Slopes/Soils (Slope Erosion, and Slope Valley) and Wetland.



LEGEND

Study Area

Bat Snag Trees

SAR Observations

- Butternut
- Eastern Meadowlark
- Eastern Wood Pewee
- Red Mulberry
- Barn Swallow

SAR Habitat

- Potential Bobolink Habitat
- Potential Habitat for Other Grassland Species
- Potential Eastern Meadowlark Habitat

Invasive Species

- European Buckthorn
- European Buckthorn
- Garlic Mustard
- Japanese Knotweed
- Phragmites

ARCHAEOLOGICAL AND BUILT CULTURAL HERITAGE

Archaeological Assessment

A Stage 1 Archaeological Assessment was undertaken by ACC Archaeological Consultants Canada.

- Majority of ROW exhibits low to no potential for the recovery of archaeological resources.
- Stage 2 Archaeological Assessment required for identified undisturbed areas adjacent to existing infrastructure.

Cultural Heritage

A Cultural Heritage Report was completed for the study area and noted the following:

- The study area is not located within or adjacent to a Heritage Conservation District designated under Part V of the Ontario Heritage Act.
- No Part IV designated properties are located within or adjacent to the study area.
- There are a total of eleven (11) built heritage resources (BHRs) and cultural heritage landscapes (CHLs) within the EA study area, including three (3) known and eight (8) potential BHRs/CHLs.
 - One (1) property is listed on the Brantford Heritage Register.
 - Two (2) BHRs/CHLs were noted in the Phase 1 Report for the City of Brantford Heritage Register Project (ASI, 2019) as being on the Brant Heritage Inventory.



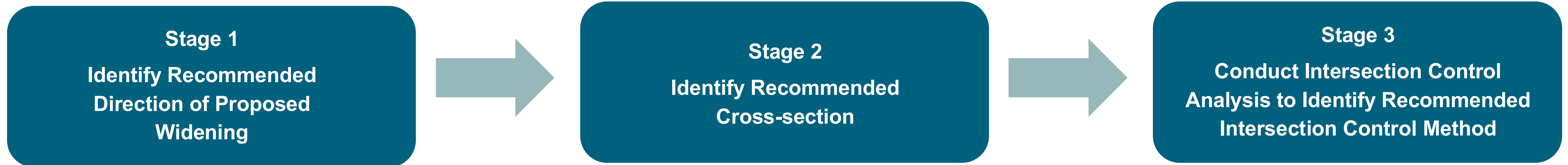
Legend:



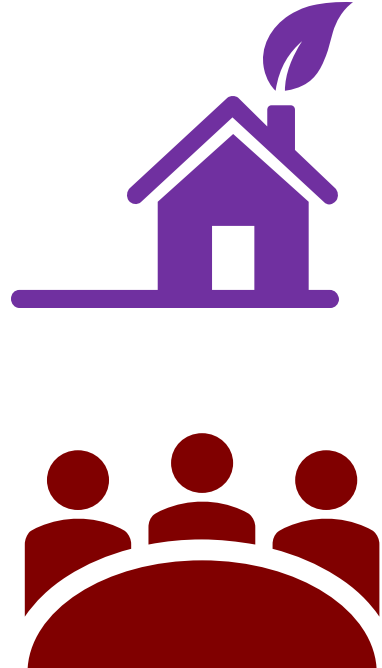



- subject property
- previously subject to Stage 2 assessment, TLA, 2014
- previously subject to Stage 2 assessment, ASI, 1991 (approximate limits)
- watercourse
- image location and direction
- archaeological potential, Stage 2 test pit survey required
- low to no archaeological potential, disturbed, no further fieldwork required
- low to no archaeological potential, steeply sloped, no further fieldwork required

* Example of Stage 1 Archeological Assessment Results

EVALUATION PROCESS FOR PROPOSED DESIGN CONCEPTS

THREE STAGE APPROACH

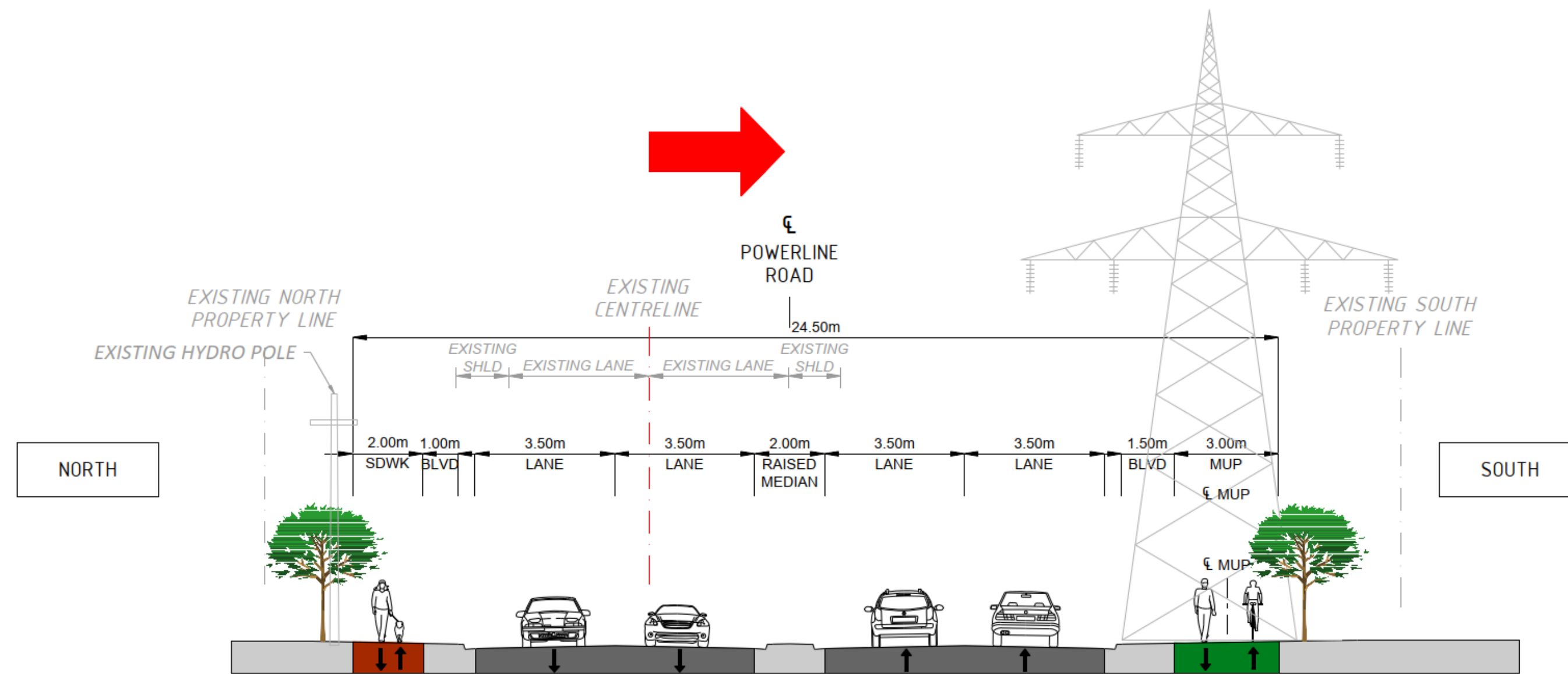


Transportation Operation / Technical Engineering	Natural Environment	Social Environment
 <ul style="list-style-type: none"> • Existing and Future Transportation Network • Connectivity – Existing and Future • Active Transportation • Transit Service • Traffic Safety • Constructability • Existing Infrastructure • Durability/ Service Life • Phasing and Implementation 	 <ul style="list-style-type: none"> • Environmentally Sensitive Areas • Terrestrial Habitat (Wildlife and Vegetation) • Fisheries/Aquatic Impacts • Species at Risk • Existing Watercourses • Ground and Surface Water Quality/Quantity • Air Quality • Climate Change Mitigation 	 <ul style="list-style-type: none"> • Land Use • Property Requirements • Noise and Vibration • Air Quality • Aesthetics
Land Use Planning Objectives	First Nations / Cultural Environment	Economic Environment
 <ul style="list-style-type: none"> • City Policies • Provincial Policies 	 <ul style="list-style-type: none"> • First Nation Lands • Natural Resources - Hunting, Harvesting, and Seedling Cultivating • Archaeological Resources • Built Heritage Resources and Cultural Heritage Landscapes 	 <ul style="list-style-type: none"> • Capital Costs • Operational and Maintenance Costs • Property Acquisition Costs

STAGE 1 - PROPOSED DIRECTION OF WIDENING

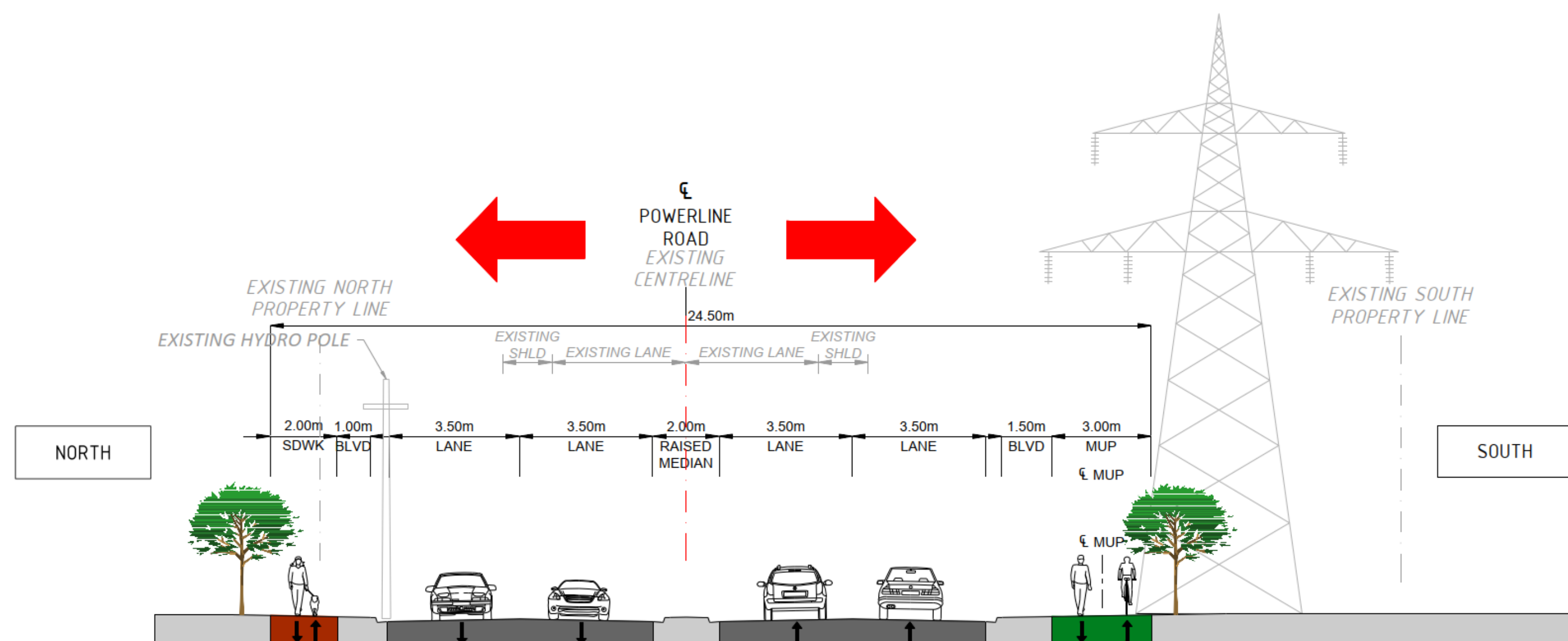
Direction Alternative 1 - Widen to South

- Widen from the existing north property line so associated impacts occur on the south side of Powerline Road.



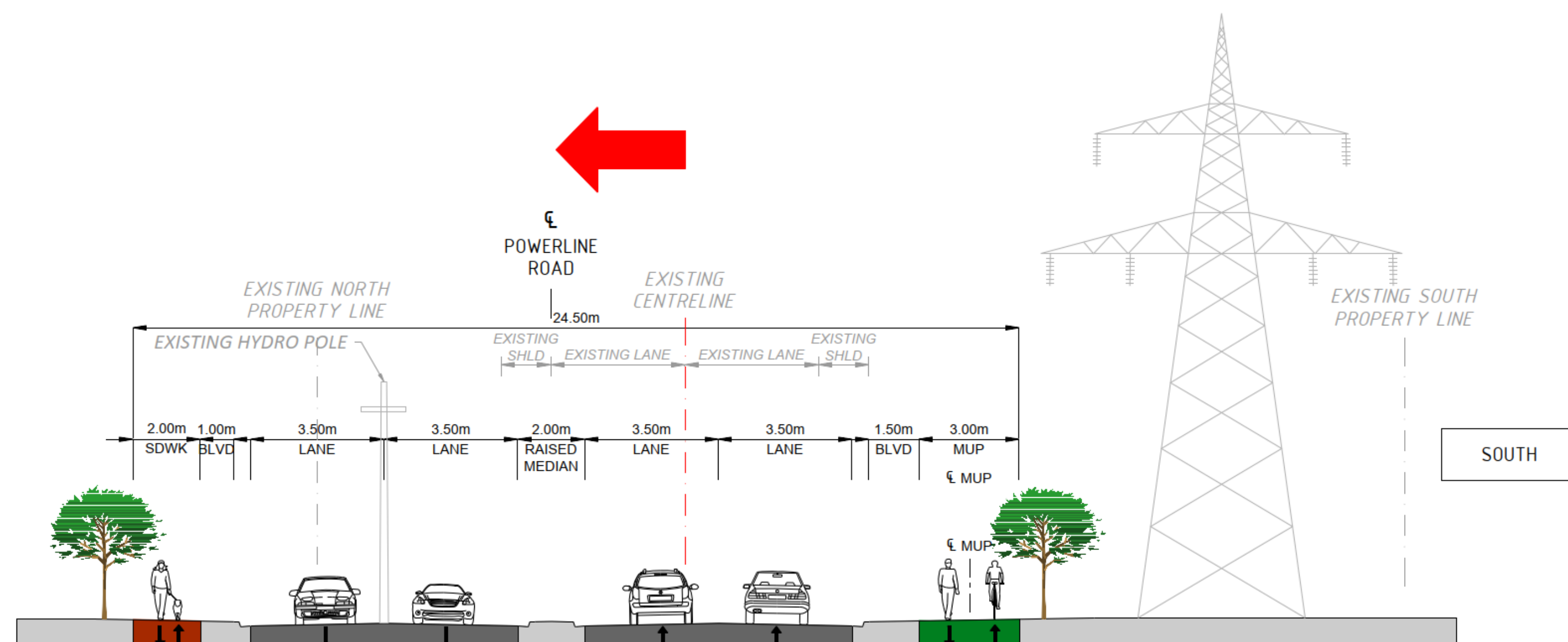
Direction Alternative 2 - Widen about the Centreline

- Widen from the existing centreline which will impact both the south and north sides of Powerline Road.



Direction Alternative 3 - Widen to North

- Widening from the existing south property line so associated impacts occur on the north side of Powerline Road.



EVALUATION AND RECOMMENDATION

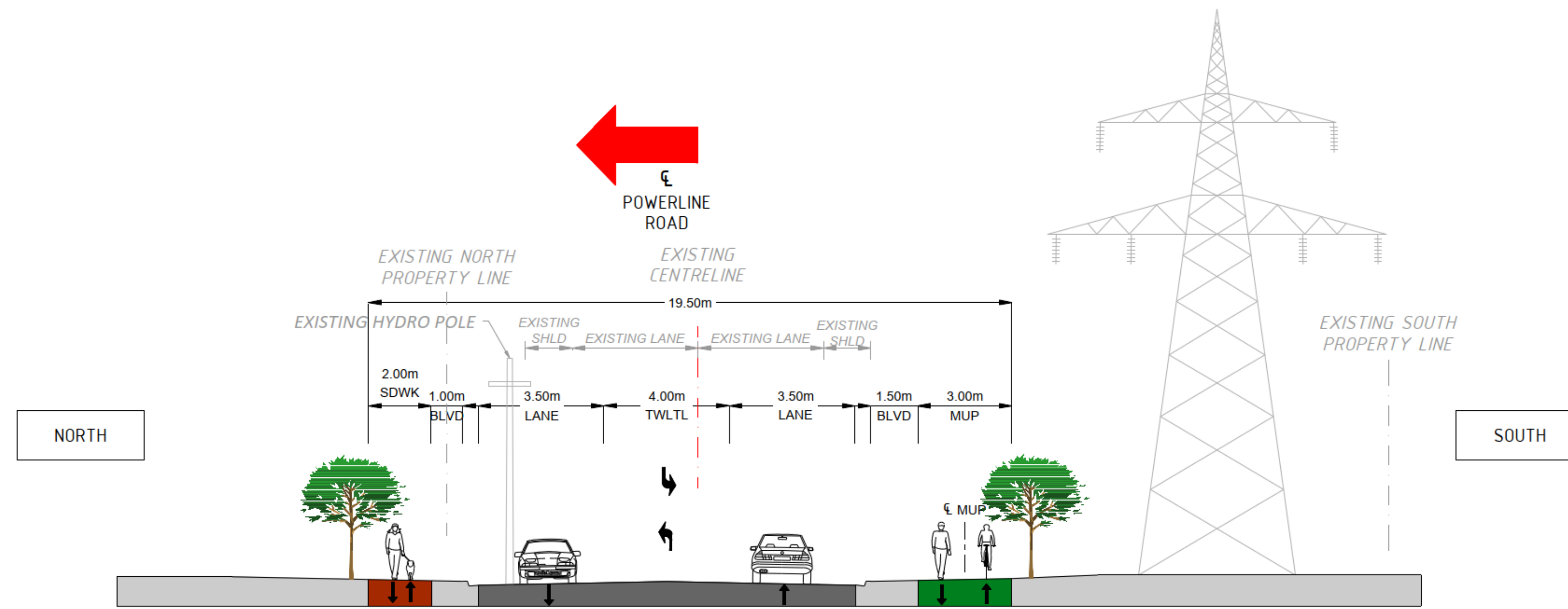
DIRECTION OF WIDENING

Category	Direction Alternative #1 Widen to South	Direction Alternative #2 Widen about the Centreline	Direction Alternative #3 Widen to North
Transportation / Engineering	Not Preferred	Less Preferred	Preferred
Land Use Planning Objectives	Not Preferred	Less Preferred	Preferred
Natural Environment	Less Preferred	Preferred	Less Preferred
First Nations / Cultural Environment	Preferred	Less Preferred	Not Preferred
Social Environment	Not Preferred	Less Preferred	Preferred
Economic Environment	Not Preferred	Less Preferred	Preferred
<p>Abbreviation Legend:</p> <ul style="list-style-type: none"> ▪ P&O – Problem and Opportunity ▪ TMP – City of Brantford Transportation Master Plan ▪ ATMP – City of Brantford Active Transportation Master Plan ▪ OP – City of Brantford Official Plan ▪ GHG – Greenhouse Gas ▪ ROW – Right-of-Way <p>Ranking:</p> <div style="display: flex; align-items: center; gap: 10px;"> <div style="background-color: #f08080; padding: 5px; text-align: center;">Not Preferred</div> <div style="background-color: #ffd700; padding: 5px; text-align: center;">Less Preferred</div> <div style="background-color: #90ee90; padding: 5px; text-align: center;">Preferred</div> </div> <p style="text-align: center; margin-top: 5px;">→</p>	<p>Pros:</p> <ul style="list-style-type: none"> ✓ Impacts to vegetation and wildlife are expected to be minor, as the corridor between Balmoral Drive and Coulbeck Road is largely urbanized and consist of hydro tower corridor. ✓ Less potential impacts to First Nations natural resources and their ability to access as lands <p>Cons:</p> <ul style="list-style-type: none"> × Highest complexity when compared to other alternatives. × Widening of the platform entirely to the south will impact existing infrastructures and residential communities, as well will have a significant impact on utilities as hydro towers would need to be relocated. × Hinder meeting the City's existing policy objectives for transportation and growth for maintaining an appropriate road network to accommodate service needs. × Widening to the south would result in substantial capital construction costs due to the required relocation of existing hydro towers, along with potentially significant residential property acquisitions, given the presence of established communities on the south side. 	<p>Pros:</p> <ul style="list-style-type: none"> ✓ There is a lower potential for impacts on private properties and businesses to accommodate the proposed widening as it will be spread out between the north and south. × Will have impacts across both the south and north, however will result in less of an impact on surrounding terrestrial habitats, fisheries, SAR, watercourses/ wetlands and First Nations natural resources and their ability to access compared to Alternative 3. <p>Cons:</p> <ul style="list-style-type: none"> × Moderate to high complexity, as the portion of platform widening to the south will necessitate reconfiguration at all existing junctions throughout the corridor, including intersections and select approaches. × Significant impacts to utilities, as select hydro towers would need to be relocated to accommodate widening to the south and hydro poles would need to be relocated for widening to the north. × Widening to the south has limitations due to existing infrastructure and residential communities, which may hinder meeting the City's existing policy objectives for transportation and growth for maintaining an appropriate road network to accommodate service needs. × Widening about the centreline would result in substantial capital construction costs due to the required relocation of existing hydro towers and poles, along with potential residential property acquisitions. 	<p>Pros:</p> <ul style="list-style-type: none"> ✓ Lower complexity when compared to other alternatives - area to the North of Powerline Road is currently undeveloped, which provides greater flexibility for implementation of widened road platform. ✓ Greater potential to enhance cyclist and pedestrian safety through the inclusion of dedicated active transportation facilities to both the north and south. ✓ Addresses the City's existing policy objectives for transportation and growth for maintaining an appropriate road network to accommodate service needs. <p>Cons:</p> <ul style="list-style-type: none"> × Utility poles located along the north side of Powerline Road will require relocation. × Overall largest construction footprint to the north resulting in higher impacts to surrounding terrestrial habitats, fisheries, SAR, watercourses/wetlands and First Nations natural resources and their ability to access. × Moderate-higher potential for impacts on private properties and businesses to accommodate the proposed widening. × Higher capital construction costs are anticipated due to the combination of utility pole relocation on the north side, and residential property acquisition to the north. However, this alternative does not require relocating the hydro towers (south), which will significantly reduce capital construction costs as compared to other options.
Overall Recommendation:	Not Recommended	Not Recommended	Recommended

STAGE 2 - PROPOSED CROSS-SECTIONS

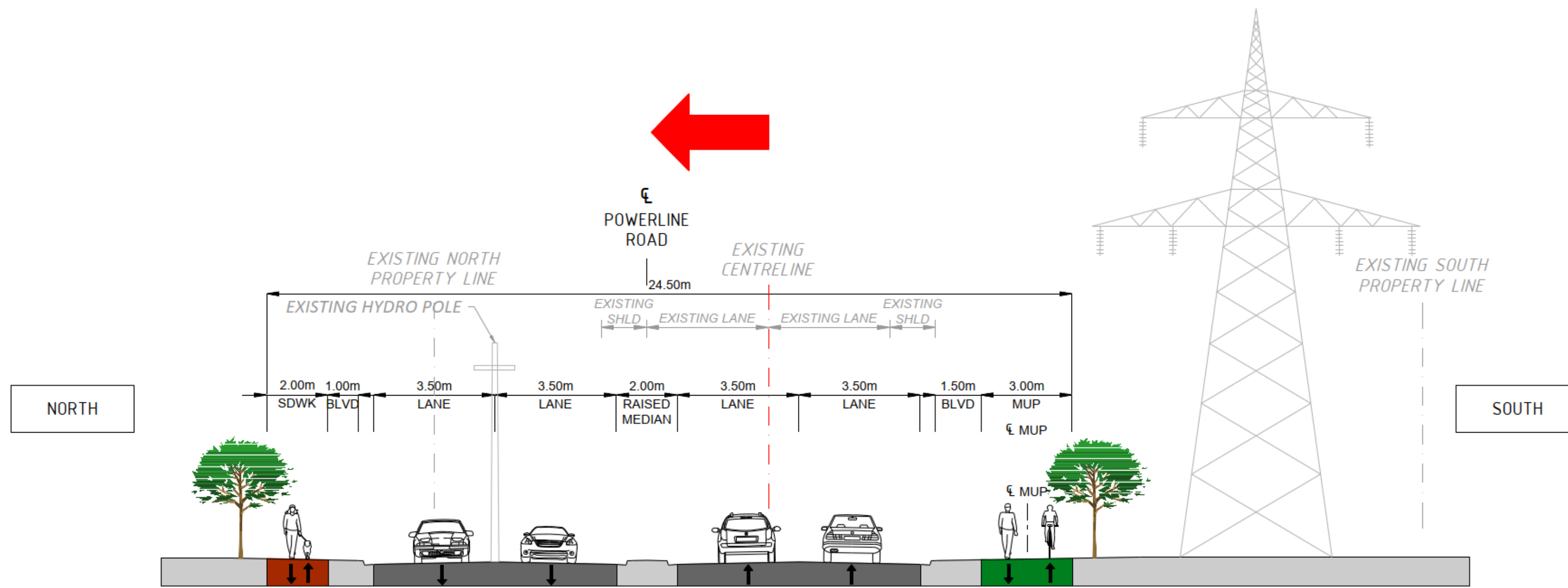
Cross-Section 1 - Three Lanes

- Widen from two (2) to three (3) lanes with the placement of a two-way left-turn lane.
- Turn lane will be constructed in the middle of Powerline Road and will provide a safe area for vehicles to make left turns in both directions along the roadway, without disrupting traffic flow.



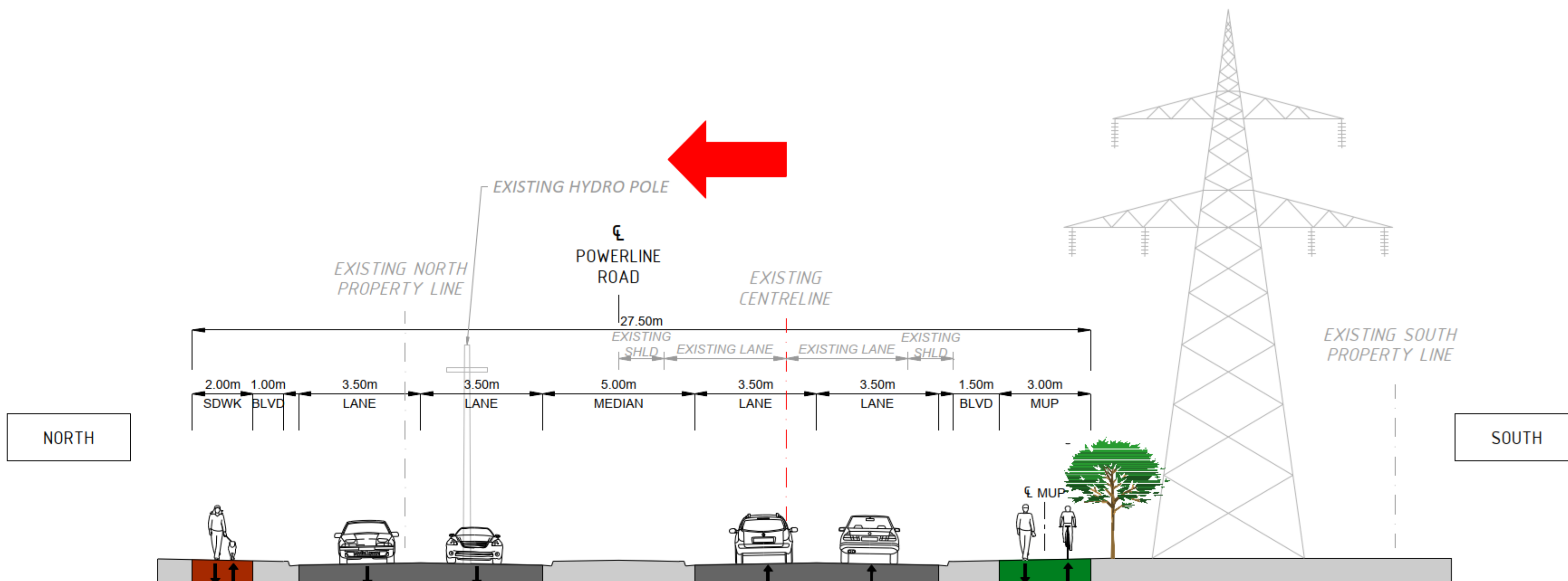
Cross-Section 2 - Four Lanes with Narrow Median

- Widen from two (2) to four (4) lanes with a narrow median.

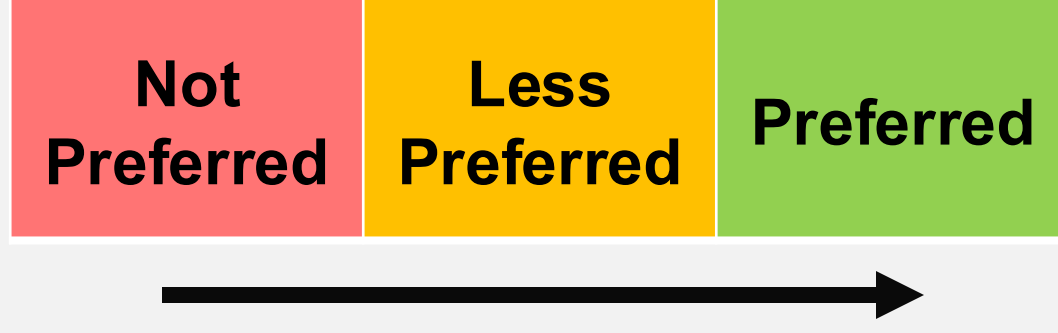


Cross-Section 3 - Four Lanes with Full Median

- Widen from two (2) to four (4) lanes with a full median.



EVALUATION AND RECOMMENDATION CROSS-SECTIONS

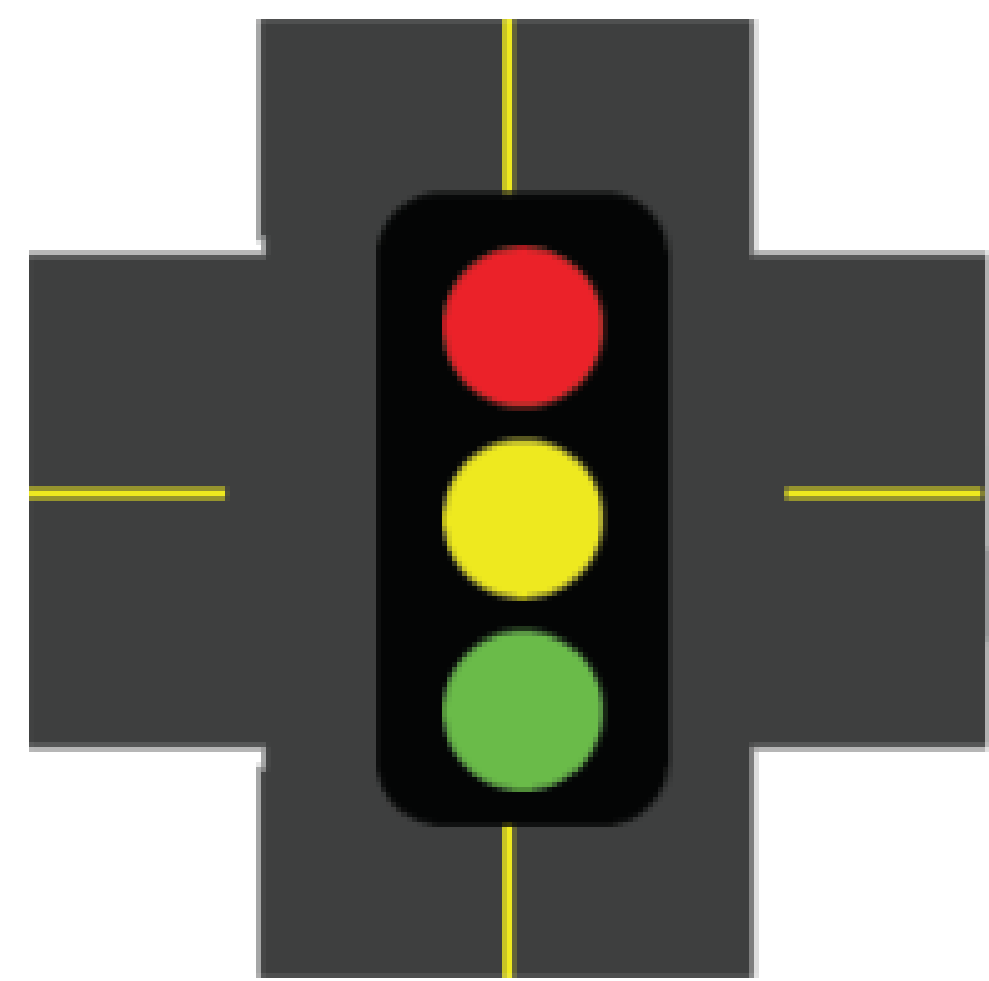
Category	Cross-Section #1 Three Lanes	Cross-Section #2 Four Lanes with Narrow Median	Cross-Section #3 Four Lanes with Full Median
Transportation / Engineering	Not Preferred	Preferred	Less Preferred
Land Use Planning Objectives	Not Preferred	Preferred	Preferred
Natural Environment	Preferred	Less Preferred	Not Preferred
First Nations / Cultural Environment	Preferred	Less Preferred	Not Preferred
Social Environment	Preferred	Preferred	Not Preferred
Economic Environment	Preferred	Preferred	Not Preferred
<p>Abbreviation Legend:</p> <ul style="list-style-type: none"> ▪ P&O – Problem and Opportunity ▪ TMP – City of Brantford Transportation Master Plan ▪ ATMP – City of Brantford Active Transportation Master Plan ▪ OP – City of Brantford Official Plan ▪ GHG – Greenhouse Gas ▪ ROW – Right-of-Way <p>Ranking:</p> 	<p>Pros:</p> <ul style="list-style-type: none"> ✓ Improves flow by allowing vehicles to make left turns without impeding through traffic. ✓ Lowest complexity when compared to other alternatives – widening limited to one lane. ✓ Minimal impact to existing intersection geometry. ✓ Narrower cross-section will have less of an impact on the surrounding terrestrial habitats, fisheries, SAR and watercourses/wetlands. ✓ Reduces the potential for impacts on private properties and businesses. ✓ Lowest capital cost. ✓ Less potential impacts to First Nations natural resources and their ability to access as lands. <p>Cons:</p> <ul style="list-style-type: none"> × Limited ability to accommodate growth in peak hour volumes. × Moderate reduction in traffic congestion and improvements to network connectivity. × Restricts traffic capacity, hindering the ability to meet the City's current policy objectives for transportation and growth (particularly in maintaining an adequate road network to support service requirements). 	<p>Pros:</p> <ul style="list-style-type: none"> ✓ Provides significant capacity improvements to alleviate traffic congestion and enhance overall network connectivity, while also incorporating dedicated active transportation (AT) facilities to improve safety and accessibility for pedestrians and cyclists. ✓ Narrow median can improve safety and operations by reducing conflict points and allows flexibility in select locations for left turn movements. ✓ A narrow median allows four lanes within a smaller footprint than a full median, minimizing additional land needs (i.e., property impacts) compared to full-scale designs. ✓ Addresses the City's existing policy objectives for transportation and growth for maintaining an appropriate road network to accommodate service needs. <p>Cons:</p> <ul style="list-style-type: none"> × Moderate/higher impacts anticipated on the surrounding terrestrial habitats, fisheries, SAR, watercourses/wetlands and First Nations natural resources and their ability to access. × Moderate impacts to First Nations natural resources and their ability to access as lands. × Moderate potential impacts on private properties and businesses. × Higher capital costs compared to Cross-section #1. 	<p>Pros:</p> <ul style="list-style-type: none"> ✓ Provides a fully built-out right-of-way that can support future development and minimize property impacts. ✓ Provides significant capacity improvements to alleviate traffic congestion and enhance overall network connectivity, while also incorporating dedicated active transportation facilities to improve safety and accessibility for pedestrians and cyclists. ✓ Wide median significantly reduces risk of severe (head-on) collisions, increasing driver comfort. ✓ Addresses the City's existing policy objectives for transportation and growth for maintaining an appropriate road network to accommodate service needs. <p>Cons:</p> <ul style="list-style-type: none"> × Overall largest construction footprint resulting in higher impacts to surrounding terrestrial habitats, fisheries, SAR, watercourses/wetlands and First Nations natural resources and their ability to access. × Higher potential impacts to First Nations natural resources and their ability to access as lands. × Extensive ROW expansion, increasing the likelihood of property impacts, especially in constrained areas. × Highest capital costs as compared to cross-sections #1 & 2.
Overall Recommendation:	Not Recommended	Recommended	Not Recommended

STAGE 3 - PROPOSED INTERSECTION CONTROL METHODS

Key considerations in the evaluation of control methods for each intersection include:

- Intersection efficiency and operation (Level of Service),
- Design vehicle (transport trucks and farm equipment) expected to traverse the intersection,
- Geometry of proposed intersection,
- Impacts to existing infrastructure,
- Integration with Active Transportation Facilities,
- Consistency within the corridor,
- Property requirements, and
- Potential environmental impacts.

Proposed Intersection Control Methods:



Traffic Signals



Roundabouts

Table 1: Definition of LOS for a Signalized Intersection

Level of Service (LOS)	Control Delay (s/veh)	Description
A	≤ 10	Free flow
B	> 10 - 20	Stable flow (slight delays)
C	> 20 - 35	Stable flow (acceptable delays)
D	> 35 - 55	Approaching unstable flow (moderate delays)
E	> 55 - 80	Unstable flow (intolerable delays)
F*	> 80	Forced flow (very high delay)

Table 2: Definition of LOS for a Unsignalized Intersection or Roundabout

Level of Service (LOS)	Control Delay (s/veh)	Description
A	≤ 10	Free flow
B	> 10 - 15	Stable flow (slight delays)
C	> 15 - 25	Stable flow (acceptable delays)
D	> 25 - 35	Approaching unstable flow (moderate delays)
E	> 35 - 50	Unstable flow (intolerable delays)
F*	> 50	Forced flow (very high delay)

*V/C > 1.0 indicates LOS F

STAGE 3 - PROPOSED INTERSECTION CONTROL METHODS

- The Powerline Road study area includes twelve (12) existing intersections involving local, arterial and collector roads.
- Proposed Block Plan intersections:
 - New street west of Golf Road;
 - New street east of Golf Road, and
 - New street west of Balmoral Drive.
- The optimized model for the recommended four-lane cross-section:
 - Projected to operate at generally acceptable levels of service, with most movements achieving LOS D or better under peak hour conditions.
 - Critical movements are anticipated to operate near capacity, with volume-to-capacity (v/c) ratios exceeding 0.90.
 - Operational performance is contingent on the implementation of the following improvements:
 - ✓ Signalized intersections at **Golf Road**, the proposed street west of Golf Road, the proposed street east of Golf Road, proposed street west of Balmoral Drive, and Brantwood Park Road;
 - ✓ Maintain signalized intersection at **King George Road**;
 - ✓ Localized improvements at **Park Road North**, and
 - ✓ Reducing to 2-lanes east of **Brantwood Park Road**.
 - Remaining access points along Powerline Road will operate under stop control without requiring signalization or roundabouts.



Figure: Pairs Road to Memorial Drive

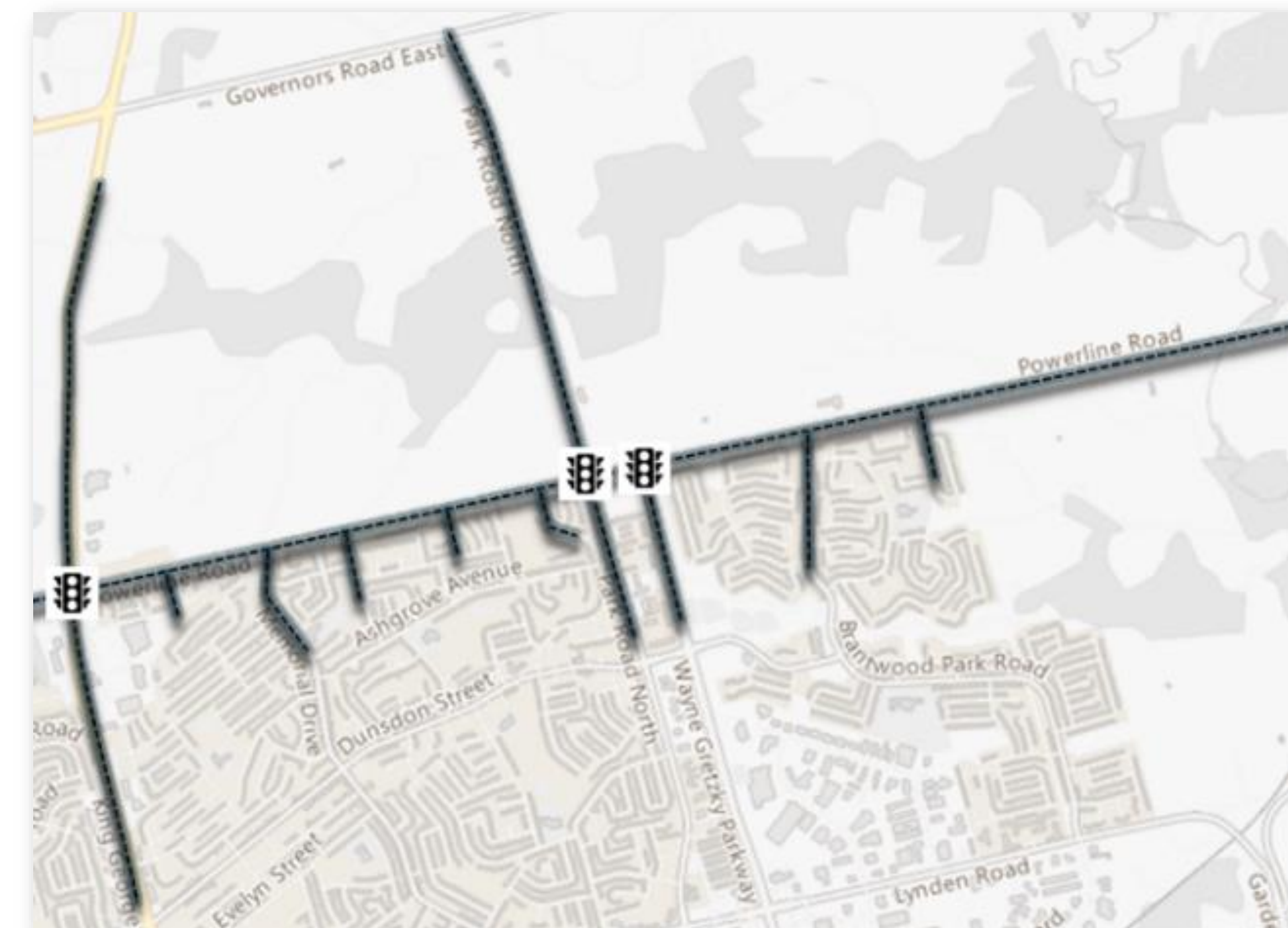


Figure: King George Street to East City Limits

EVALUATION AND RECOMMENDATIONS INTERSECTION CONTROL METHODS

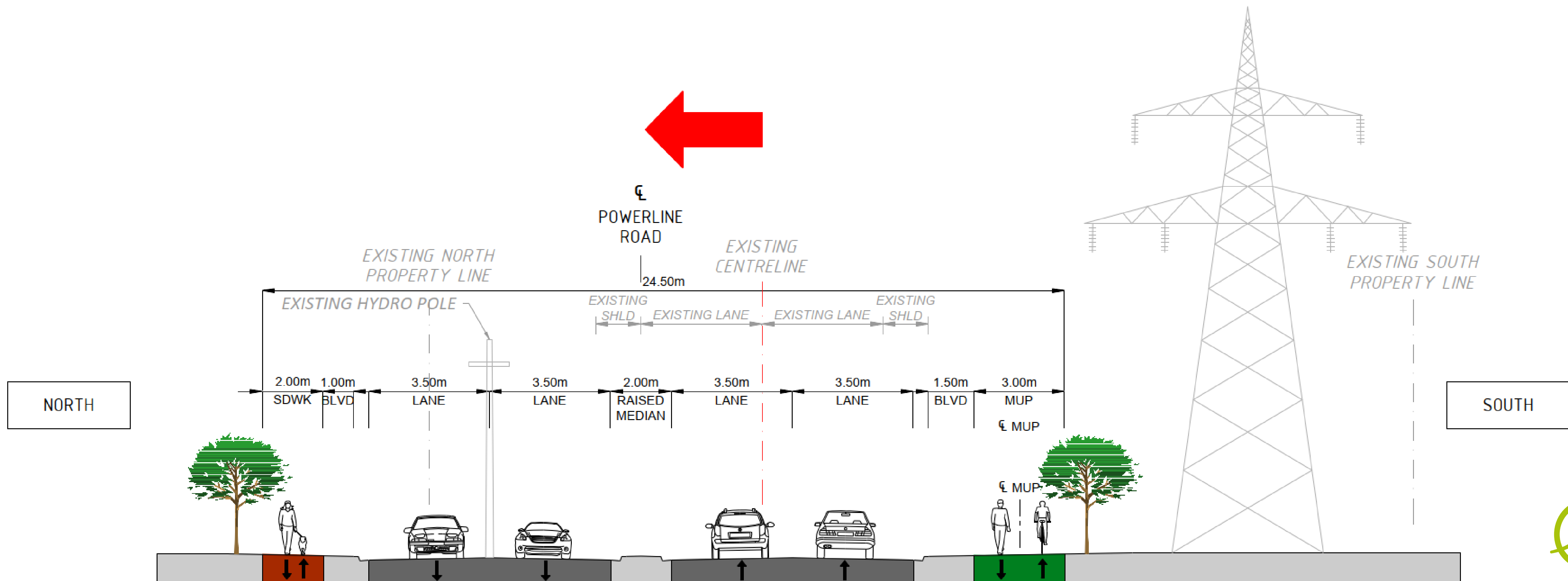
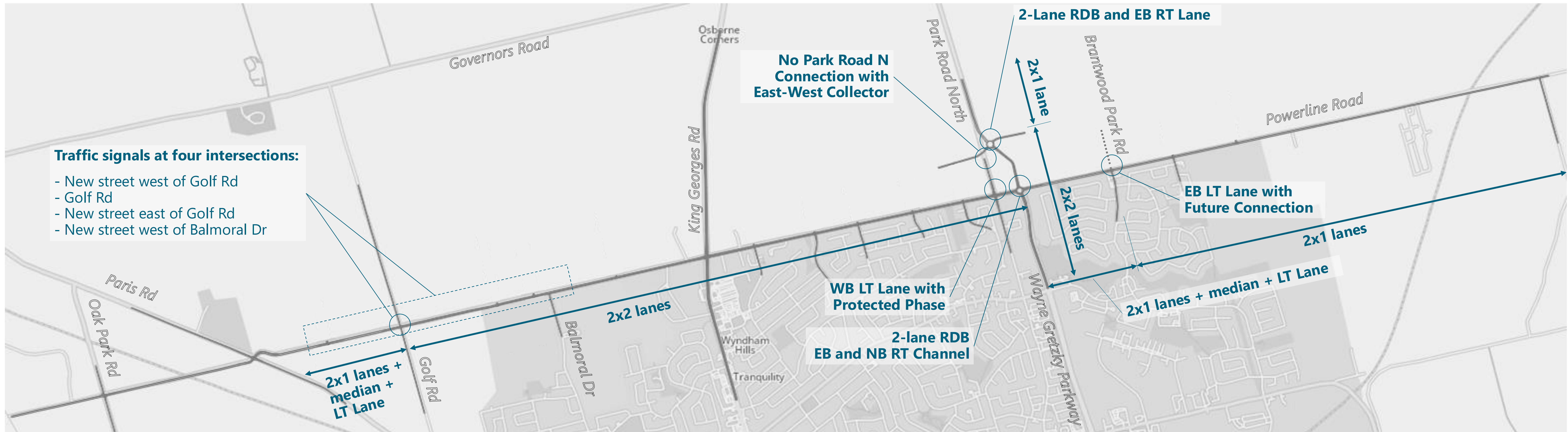
Location	Signalized	Roundabout	Recommendation
Golf Road	<p>Pros:</p> <ul style="list-style-type: none"> Signalized intersection anticipated to operate at acceptable Level of Service (LOS C) under future horizon peak hour traffic conditions. Only minor geometric improvements required to facilitate proposed widening. Reduced cost associated with intersection improvements when compared to replacement with Roundabout. <p>Cons:</p> <ul style="list-style-type: none"> Southbound approach nearing capacity (LOS D) under future horizon PM peak hour conditions. 	<p>Pros:</p> <ul style="list-style-type: none"> Roundabout anticipated to operate at increased Level of Service (LOS A) under future horizon peak hour conditions. Potential to improve network consistency if roundabout is recommended at Powerline Road and Paris Road intersection. <p>Cons:</p> <ul style="list-style-type: none"> Larger overall construction footprint leading to: Increased potential for impacts to SAR woodland birds due to the clearing of trees and cultivated fields. Increased ROW requirements / additional property acquisition Increased overall cost when compared to maintaining signalized intersection. 	Signalized (*see note)
	Preferred	Less Preferred	
King George Road	<p>Pros:</p> <ul style="list-style-type: none"> Signalized intersection anticipated to operate at acceptable Level of Service (LOS D) under future horizon peak hour traffic conditions. No cross-section modifications required at northbound or southbound approaches. <p>Cons:</p> <ul style="list-style-type: none"> Higher overall delay anticipated during future horizon AM peak hour traffic conditions; however, signal timing can effectively balance queue lengths across all approaches such that no individual movement falls below acceptable Level of Service. 	<p>Pros:</p> <ul style="list-style-type: none"> Improved intersection operation (LOS A) anticipated during future horizon AM peak hour traffic conditions. Due to the existing urbanization at the intersection, the proposed roundabout improvements would result in minimal impacts on the natural and cultural environment. <p>Cons:</p> <ul style="list-style-type: none"> Poor performance (LOS F) anticipated at the eastbound approach during future horizon PM peak hour traffic conditions. Traffic demand dictates the need for addition of either dedicated RT channels or a three-lane roundabout, increasing complexity. Three-lane roundabout could lead to operational and safety challenges not typically seen in simpler configurations: <ul style="list-style-type: none"> Unprecedented in Brantford and introduce significant operational and design challenges, including steep learning curve for network users. Complexity far exceeds that of more common single-lane or two-lane roundabouts. The increased number of lanes introduces greater potential for driver confusion. Significantly larger overall construction footprint. 	Signalized
	Preferred	Not Preferred	

*Note: Interim recommendation, pending review of the preferred option for the Powerline Rd and Paris Rd intersection per adjacent Northwest Brantford Municipal Service Expansion EA

EVALUATION AND RECOMMENDATIONS INTERSECTION CONTROL METHODS

Location	Signalized	Roundabout	Recommendation
Park Road North	<p>Pros:</p> <ul style="list-style-type: none"> Signalized intersection anticipated to operate at acceptable Level of Service (LOS C) under future horizon peak hour traffic conditions. Provides greater control over queue lengths and phase timing, allowing for balancing of traffic flow with adjacent roundabout at Wayne Gretzky Pkwy. Provides opportunity to implement reduced cross-sections at northbound and southbound approaches. Allows for increased flexibility in options for north leg, considering potential future dead-end configuration. <p>Cons:</p> <ul style="list-style-type: none"> Eastbound approach nearing capacity (LOS D) under future horizon PM peak hour conditions. Necessitates dedicated auxiliary lanes on eastbound and westbound approaches. 	<p>Pros:</p> <ul style="list-style-type: none"> Roundabout anticipated to operate at increased Level of Service (LOS A) under future horizon peak hour conditions; however, queuing at adjacent roundabout may impact performance. <p>Cons:</p> <ul style="list-style-type: none"> Eastbound queuing at adjacent Wayne Gretzky Parkway roundabout poses a risk of spillback, impacting overall performance during peak periods. Placing roundabout in close proximity to proposed roundabout at Wayne Gretzky Parkway is not advisable, as it introduces high risk of negative interaction between intersections. Larger overall construction footprint could have potential impacts on Built Heritage Resource (BHR-1), as well as to existing vegetation. 	Signalized
	Preferred	Less Preferred	
Brantwood Park Road	<p>Pros:</p> <ul style="list-style-type: none"> Signalized intersection anticipated to operate at acceptable Level of Service (LOS B) under future horizon peak hour traffic conditions. Minor geometric improvements required to facilitate widening. No cross-section modifications required at northbound approach. <p>Cons:</p> <ul style="list-style-type: none"> Requires additional westbound auxiliary lane to facilitate future connection to development via addition of a north leg. 	<p>Pros:</p> <ul style="list-style-type: none"> Improved intersection operation (LOS A) anticipated during future horizon AM peak hour traffic conditions. Complies with City of Brantford's Roundabout Installation Policy. <p>Cons:</p> <ul style="list-style-type: none"> Larger overall construction footprint, leading to increased impact to adjacent lands and/or additional property acquisition. Increased overall cost when compared to maintaining signalized configuration. Low cost-benefit when considering modest level of service improvements. Larger overall construction footprint could have potential impacts on Built Heritage Resource (BHR-8). 	Signalized
	Preferred	Not Preferred	

RECOMMENDED PREFERRED DESIGN CONCEPT



PROJECT SCHEDULE AND NEXT STEPS

Municipal Class Environmental Assessments Phases	Estimated Timeline
Phase 1 – Problem and Opportunity	Q3 2023
Phase 2 – Alternative Solutions	Q1 2024
Phase 3 – Alternative Design Concepts for Preferred Solution	Q3 2025
Phase 4 – Environmental Study Report	Q4 2025
Phase 5 – Implementation (Design and Construction)	To Be Determined

- Review and address public comments received and consider in the evaluation of design concepts;
- Continue consultation with Agencies, Stakeholders, First Nations, Development Communities, Utilities, and the Public;
- Update evaluation criteria and matrix, and confirm selection of the recommended Preferred Design Concept based on consultation;
- Identify impacts of Preferred Design Concept on the environment and develop mitigation measures, and
- Select the Preferred Design Concept (s), to address the Problems and Opportunities Statement identified in Phase 1.

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Thank you!
Your input is important to us.