

Welcome

Northwest Municipal Services Expansion Municipal Class Environmental Assessment

Public Information Centre No. 2

Walter Gretzky Municipal Golf Course

Wednesday October 30, 2024, 5:00 pm to 7:00 pm

Why are we here? Public Information Centre (PIC) No. 1



Key Dates

Notice of Commencement – April 13, 2023

PIC No. 1 – January 18, 2024

PIC No. 2 – October 30, 2024

Notice of Completion – 2025

Public Information Centre (PIC) Objectives



Present the study area and objectives.



Present the environmental assessment process.



Present environmental and technical background relevant to the development of servicing alternatives.



Receive feedback on the study process and servicing opportunities and constraints.

Stay Engaged!

- ✓ Please sign in and take a comment sheet.
- ✓ Have a look at the project information on display and chat with the Project Team.
- ✓ Provide your feedback regarding the information presented.

Additional project information can be found on the project website:
Brantford.ca/NWServicesExpansion

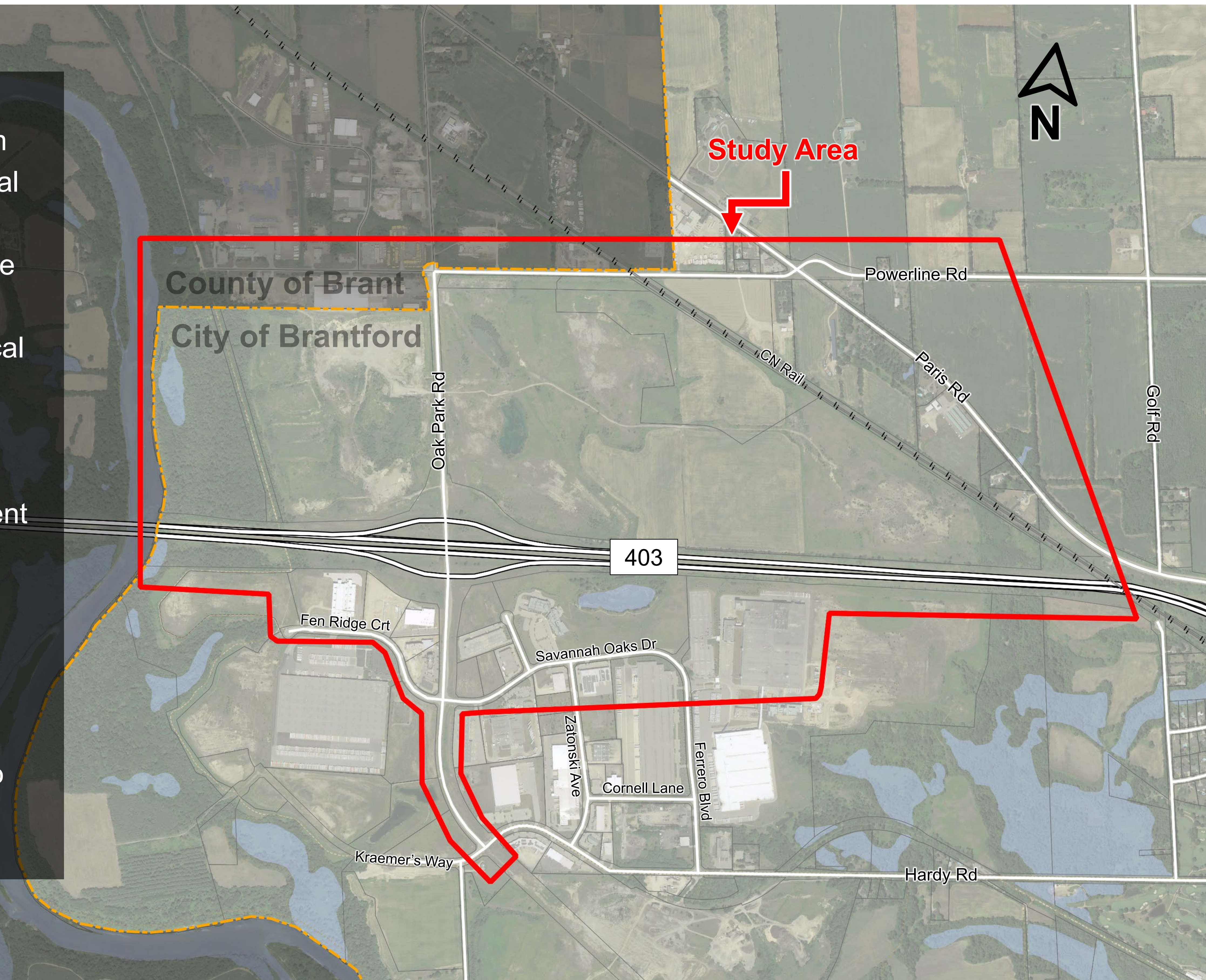


Northwest Municipal Services Expansion Environmental Assessments



The City of Brantford (the City) has long-term growth plans which identified critical municipal infrastructure required to service the City's Northwest Expansion lands, as outlined in the Master Servicing Plan (MSP), and the Transportation Master Plan (TMP). This critical infrastructure corridor will connect the City's existing water, wastewater, stormwater, and transportation infrastructure to the City's Northwest Expansion Lands, and development lands north of Highway 403.

The City is undertaking seven (7) Municipal Class Environmental Assessment (MCEA) Studies to identify and consider alternative solutions to expand the municipal services to the study area.



How is this study being conducted? Municipal Class Environmental Assessment Process



The Northwest Services Expansion Environmental Assessments (EA) project is comprised of the following Schedule B (Phases 1-2) and Schedule C (Phases 1-4) EA projects:

EA projects:

- Schedule B Projects

- Oak Park Road Trunk Watermain
- Powerline Road Trunk Watermain
- Oak Park Road Trunk Sewer
- Powerline Road Trunk Sewer
- Stormwater Management in Grand River Northwest Catchment

- Schedule C Projects

- Oak Park Road Widening
- Powerline Road Widening

PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
Problem or Opportunity	Alternative Solutions	Alternative Design Concepts for Preferred Solution	Environmental Study Report (ESR)	Implementation
Identify Problem or Opportunity	Identify Alternative Solutions to Problem or Opportunity	Identify Alternative Solutions to Problem or Opportunity	Complete Environmental Study Report (ESR)	Complete Contract Drawings and Tender Documents
Discretionary Public Consultation to Review Problem or Opportunity	Inventory Natural, Social, Economic Environment	Detail Inventory Natural, Social, Economic Environment	Notice of Completion to Review Agencies and Public	Proceed to Construction and Operation
	Engagement. RE: Problem or Opportunity and Conceptual Solutions. (PIC 1)	Identify Impact of Alternative Designs on Environment, and Mitigating Measures	Copy of Notice of Completion to Ministry of Environment Environmental Assessment Branch	Monitor for Environmental Provisions and Commitments
	Identify Impact of Alternative Solutions on the Environment, and Mitigating Measures	Evaluate Alternative Designs: Identify Recommended Solutions	Environmental Study Report Placed on Public Record	
	Evaluate Alternative Solutions: Identify Recommended Solutions	Consult Review Agencies and Previously Interested and Directly Affected Public. (PIC 2)	Opportunity to Request Minister Within 30 Days of Notification to Request and Order	
	Consult Review Agencies and Previously Interested and Directly Affected Public	Select Preferred Design		
	Select Preferred Solution	Preliminary Finalization of Preferred Design		

PIC No. 2 Objectives



Project Name	Project MCEA Schedule	PIC 2 Objective					
		Opportunity & Constraints	Evaluation Methodology	Alternatives	Preferred Alternative	Design Concepts	Preferred Design Concepts
Oak Park Road Trunk Watermain	B	Project File Completed					
Powerline Road Trunk Watermain	B	✓	✓	✓	✓		
Oak Park Road Trunk Sewer	B	Project File Completed					
Powerline Road Trunk Sewer	B	✓	✓	✓	✓		
Stormwater Management in Grand River Northwest Catchment	B	✓	✓	✓	X		
Oak Park Road Widening	C	✓	✓	✓	✓	✓	✓
Powerline Road Widening	C	✓	✓	✓	✓	✓	✓

✓ Includes

X Does Not Include



The Northwest Municipal Services Expansion Municipal Class Environmental Assessment (MCEA) studies will develop an optimized long-term municipal infrastructure strategy that supports existing users and future residential and employment growth opportunities in Brantford's northwest lands and that minimize potential impacts to the environment, existing utilities, and future land uses. There are opportunities to consider water, wastewater and transportation infrastructure improvements in an integrated manner through these MCEA studies.



Northwest Municipal Expansion Services

Water Projects

- Oak Park Road Trunk Watermain
- Powerline Road Trunk Watermain

Stormwater Project

- Stormwater Management in Grand River Northwest Catchment

Wastewater Projects

- Oak Park Road Trunk Sewer
- Powerline Road Trunk Sewer

Transportation Projects

- Oak Park Road Widening
- Powerline Road Widening



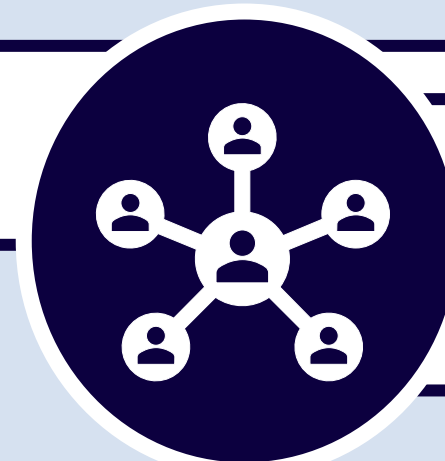
Natural Heritage

- The desktop study was completed to identify natural heritage features within the study area, including but not limited to Species at Risk and potential for rare vegetation. The results of the study are used to guide the evaluation process, to identify potential mitigation requirements, and to confirm if additional investigations are required.



Stage 1 Archaeology

- The Stage 1 background study was completed to identify previously registered archaeological sites (with or without further archaeological potential), and to identify locations within the Study Area that exhibit archaeological potential. For any areas that exhibit archaeological potential, if impacted by project implementation, a Stage 2 archeological assessment will be conducted prior to construction.



Cultural Heritage

- The desktop study was completed to identify built heritage resources and cultural heritage landscapes within the study area. The results are used to guide the evaluation process and effort will be made to avoid negative impacts to the identified.



Geotechnical & Hydrogeological

- The desktop geotechnical and hydrogeological studies were completed to identify areas of bedrock, and the general subsurface material. The information provided are used to guide the evaluation process. Further geotechnical and hydrogeological investigation are underway and/or will be undertaken to support the stormwater technical analysis and the preliminary design of different project elements.

Water / Wastewater Projects

Northwest Municipal Expansion Services

Water Projects

- Oak Park Road Trunk Watermain

Identify and develop the preferred trunk watermain alignment that will provide the core water servicing link connecting the existing water system south of Highway 403 to the northwest lands, with consideration for potential future trunk water infrastructure and water system improvements, service area expansions, and the potential impacts of climate change on future water needs.

- Powerline Road Trunk Watermain

Identify and develop the preferred trunk watermain alignment that will support growth in the Northwest Expansion Lands with consideration for potential future trunk water infrastructure and water system improvements, service area expansions, and the potential impacts of climate change on future water needs.

Stormwater Project

- Stormwater Management in Grand River Northwest Catchment

Wastewater Projects

- Oak Park Road Trunk Sewer

Identify and develop the preferred trunk wastewater sewer alignment that will provide the core wastewater servicing link to the existing wastewater system south of Highway 403 to the northwest lands, with consideration for potential future service area expansions, and the potential impacts of climate change on future wastewater flows.

- Powerline Road Trunk Sewer

Identify and develop the preferred trunk watermain alignment that will support growth in the Northwest Expansion Lands with consideration for potential future trunk sewer infrastructure and wastewater system improvements, service area expansions, and the potential impacts of climate change on future wastewater flows.

Transportation Projects

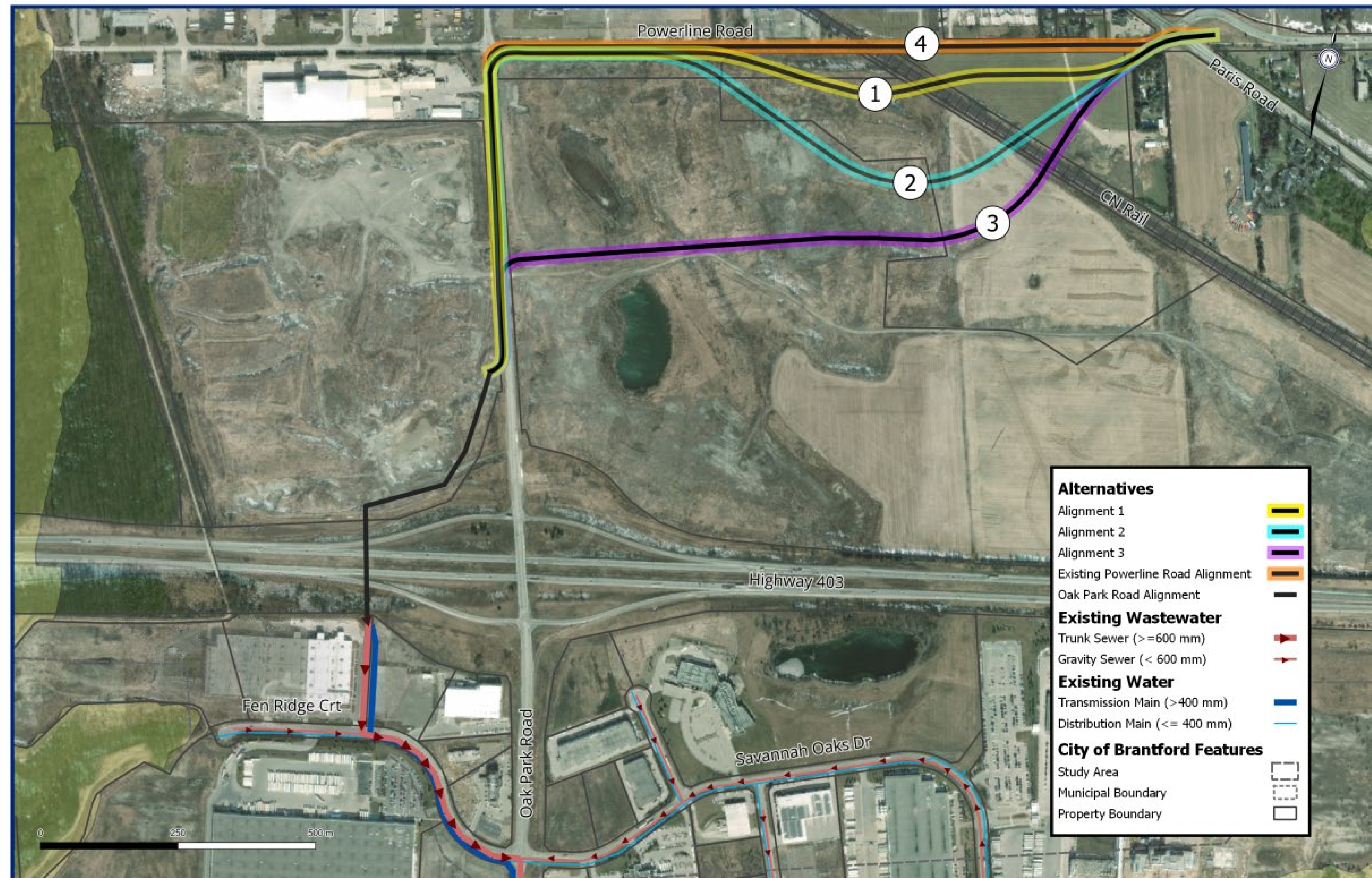
- Oak Park Road Widening

- Powerline Road Widening

Water / Wastewater Long List of Alternatives – Powerline Road Projects



- Watermain and sewer alignments are coupled for construction and phasing synergies
- The water and wastewater alignments evaluations considered the joint impacts and construction as they will be constructed together (construction phasing, etc.).
- The Oak Park Road water and wastewater projects were completed first to encourage development north of Highway 403 to occur expeditiously.
- This PIC shows the evaluation for the Powerline Road water and wastewater projects.
- Long list alignments provide a high-level representation of the general alignment and correspond to the transportation alignment options.
- Powerline Road alternatives are:
 1. Transportation Alignment 1
 2. Transportation Alignment 2
 3. Transportation Alignment 3
 4. Existing Powerline Road
 5. Do Nothing
 - The Do Nothing alternative was screened out as it does not allow for servicing of the northwest lands.



Water / Wastewater Alternative 1 – Powerline Road Projects

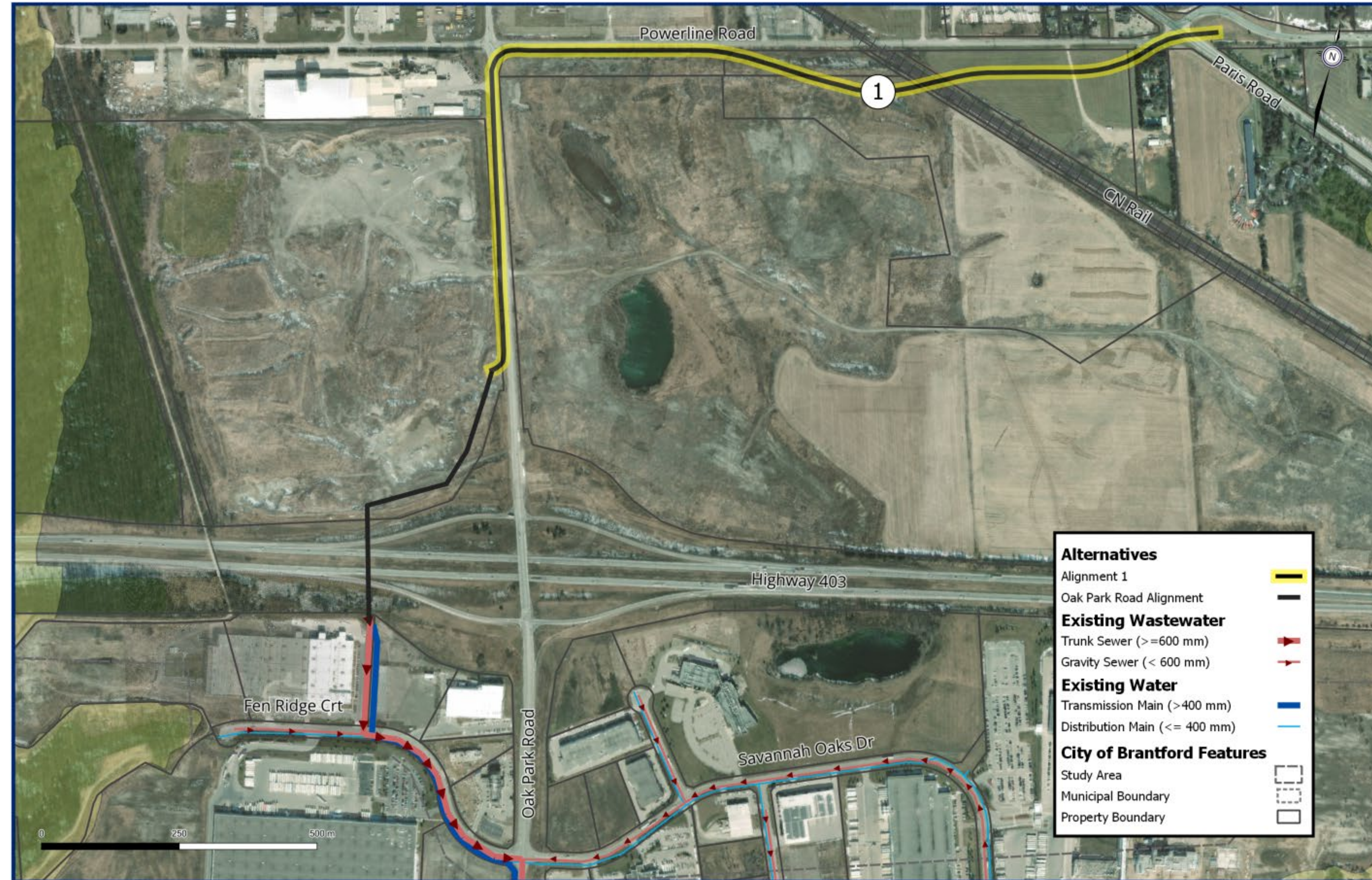


Advantages

- Shortest distance interacting with Hydro One infrastructure on Powerline Road
- Provides opportunity for servicing connection to County of Brant
- Low impact to environmental features
- Avoids areas of cultural significance and archaeological potential
- Opportunity for phasing with transportation projects

Disadvantages

- Proximity to Hydro One infrastructure on Powerline Road
- Easement and land required south of Powerline Road and east of CN Rail



Water / Wastewater Alternative 2 – Powerline Road Projects



Advantages

- Provides opportunity for servicing connection to County of Brant
- Low impact to environmental features
- Avoids areas of cultural significance and archaeological potential

Disadvantages

- Significant easement and land required south of Powerline Road and east of CN Rail; presents largest impact to landowners
- Longest route alignment
- Proximity to Hydro One infrastructure on Powerline Road



Water / Wastewater Alternative 3 – Powerline Road Projects



Advantages

- Lowest proximity to Hydro One infrastructure on Powerline Road
- Shortest route alignment
- Low impact to environmental features
- Avoids areas of cultural significance and archaeological potential

Disadvantages

- Connection to County of Brant would require additional infrastructure on Oak Park Road to Powerline Road intersection
- Significant easement and land required south of Powerline Road and east of CN Rail



Water / Wastewater Alternative 4 – Powerline Road Projects



Advantages

- Provides opportunity for servicing connection to County of Brant
- Low impact to environmental features
- Avoids areas of cultural significance and archaeological potential
- Limited land and easement required

Disadvantages

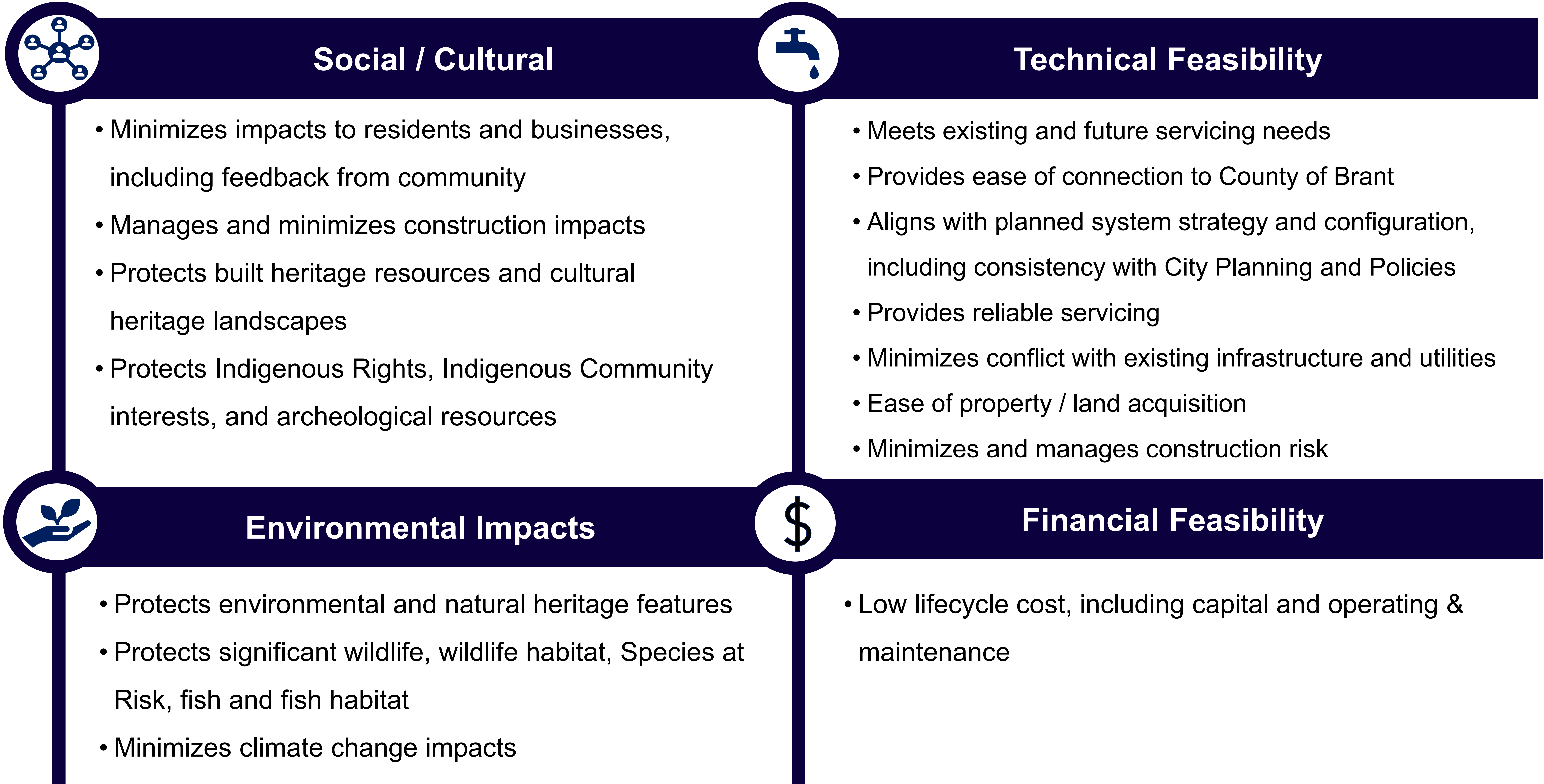
- Significant proximity to Hydro One infrastructure on Powerline Road
- Does not allow for alignment with transportation alternatives; additional costs for road reconstruction required



Water / Wastewater Evaluation Criteria – Powerline Road Projects



The water and wastewater alignments were evaluated according to the criteria shown, with each category being considered equally. The highest score identifies the preferred option.



Powerline Road Trunk Watermain and Trunk Sewer Evaluation



Evaluation Category	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Technical Feasibility	<ul style="list-style-type: none"> Proximity to Hydro One infrastructure on Powerline Road Opportunity for project phasing Opportunity for connection to County of Brant 	<ul style="list-style-type: none"> Proximity to Hydro One infrastructure on Powerline Road Opportunity for project phasing Opportunity for connection to County of Brant Significant easement and land required south of Powerline Road and east of CN Rail; presents largest impact to landowners 	<ul style="list-style-type: none"> Lowest proximity to Hydro One infrastructure on Powerline Road Shortest route alignment Connection to County of Brant would require additional infrastructure Project phasing would be dependent on landowner activities 	<ul style="list-style-type: none"> Significant proximity to Hydro One infrastructure on Powerline Road Project phasing subject to coordination with Hydro One
Environmental Impacts	<ul style="list-style-type: none"> Limited environmental impacts as alignment is in an area which has already been disturbed 	<ul style="list-style-type: none"> Limited environmental impacts as alignment is in an area which has already been disturbed 	<ul style="list-style-type: none"> Limited environmental impacts as alignment is in an area which has already been disturbed 	<ul style="list-style-type: none"> Limited environmental impacts as alignment is in an area which has already been disturbed
Social / Cultural Impacts	<ul style="list-style-type: none"> Moderate impact to residents and businesses during construction Areas of archaeological potential east of CN Rail 	<ul style="list-style-type: none"> Moderate impact to residents and businesses during construction Areas of archaeological potential east of CN Rail 	<ul style="list-style-type: none"> Moderate impact to residents and businesses during construction Areas of archaeological potential east of CN Rail 	<ul style="list-style-type: none"> Significant impact to residents and businesses during construction Areas of archaeological potential east of CN Rail
Financial Viability	<ul style="list-style-type: none"> Estimated cost is within 20% of lowest cost estimate 	<ul style="list-style-type: none"> Longest alignment presents the highest cost alternative 	<ul style="list-style-type: none"> Lowest estimated cost due to shortest alignment 	<ul style="list-style-type: none"> Does not allow for alignment with transportation alternatives; additional costs for road reconstruction required
Evaluation Result	Carried Forward	Not Carried Forward	Not Carried Forward	Not Carried Forward

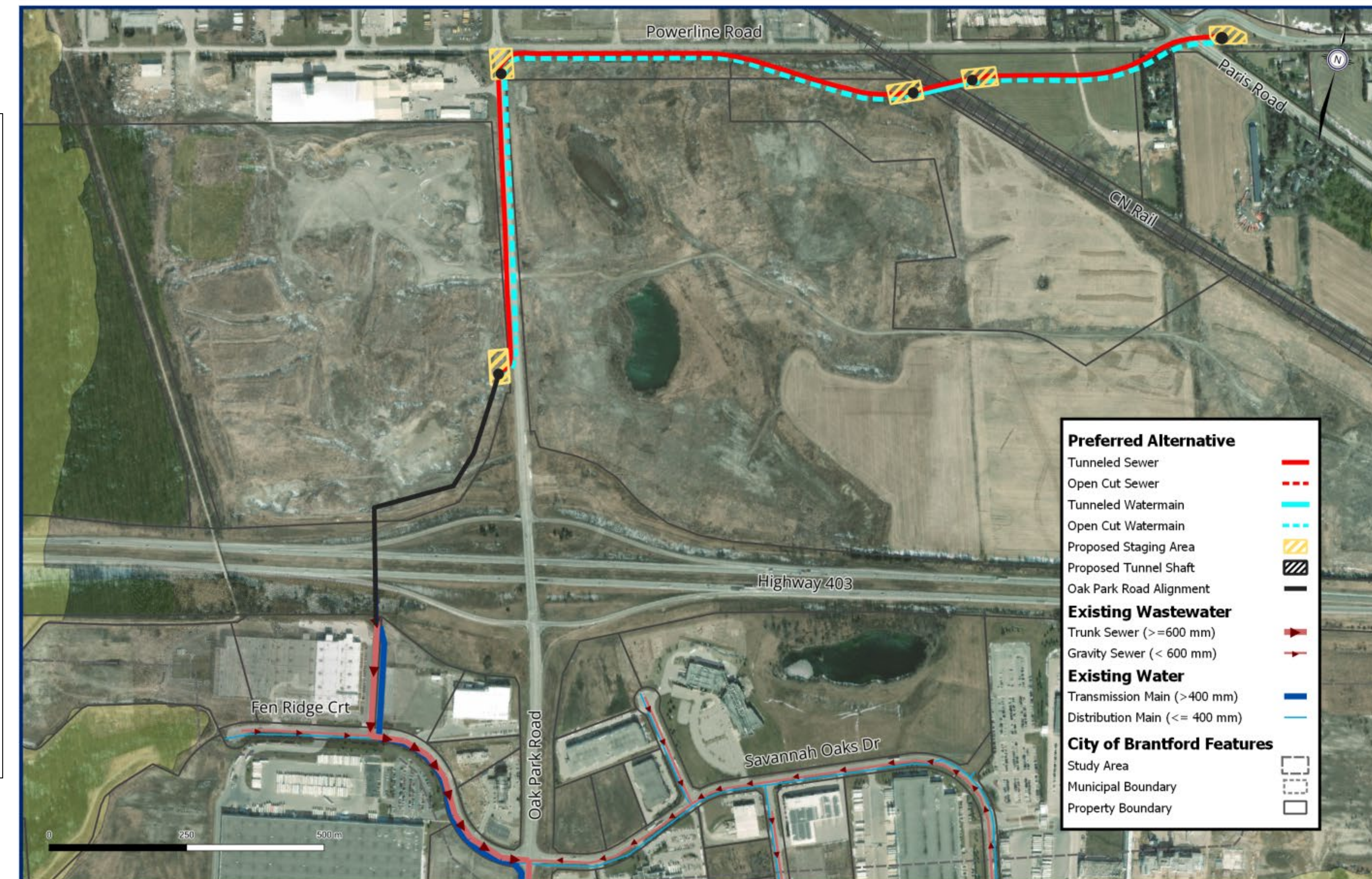
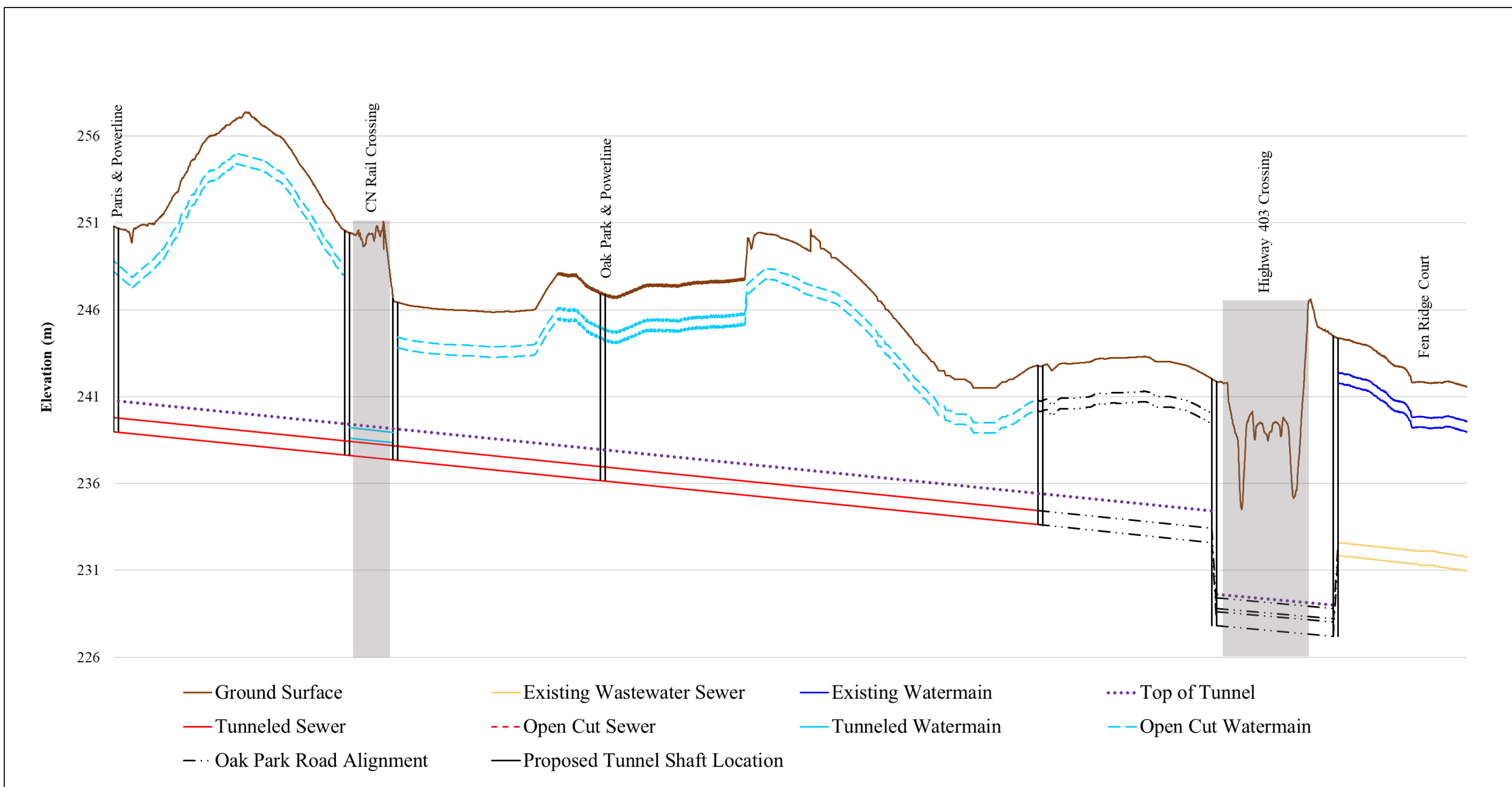
	Minimal impacts
	Moderate impacts
	Significant impacts

Water / Wastewater Preferred Alternative – Powerline Road Projects



Preferred Alternative

- The preferred alternative alignment and profile for the Powerline Road Trunk Watermain and Powerline Road Trunk Sewer are shown below.



Stormwater Project

Northwest Municipal Expansion Services

Water Projects

- Oak Park Road Trunk Watermain
- Powerline Road Trunk Watermain

Stormwater Project

- Stormwater Management in Grand River Northwest Catchment

Identify and develop a holistic stormwater management strategy for the lands in the City's Grand River Northwest Catchment with consideration for stormwater flows, water quality, groundwater recharge, source water protection, risk management, and the potential impact of climate change on storm characteristics.

Wastewater Projects

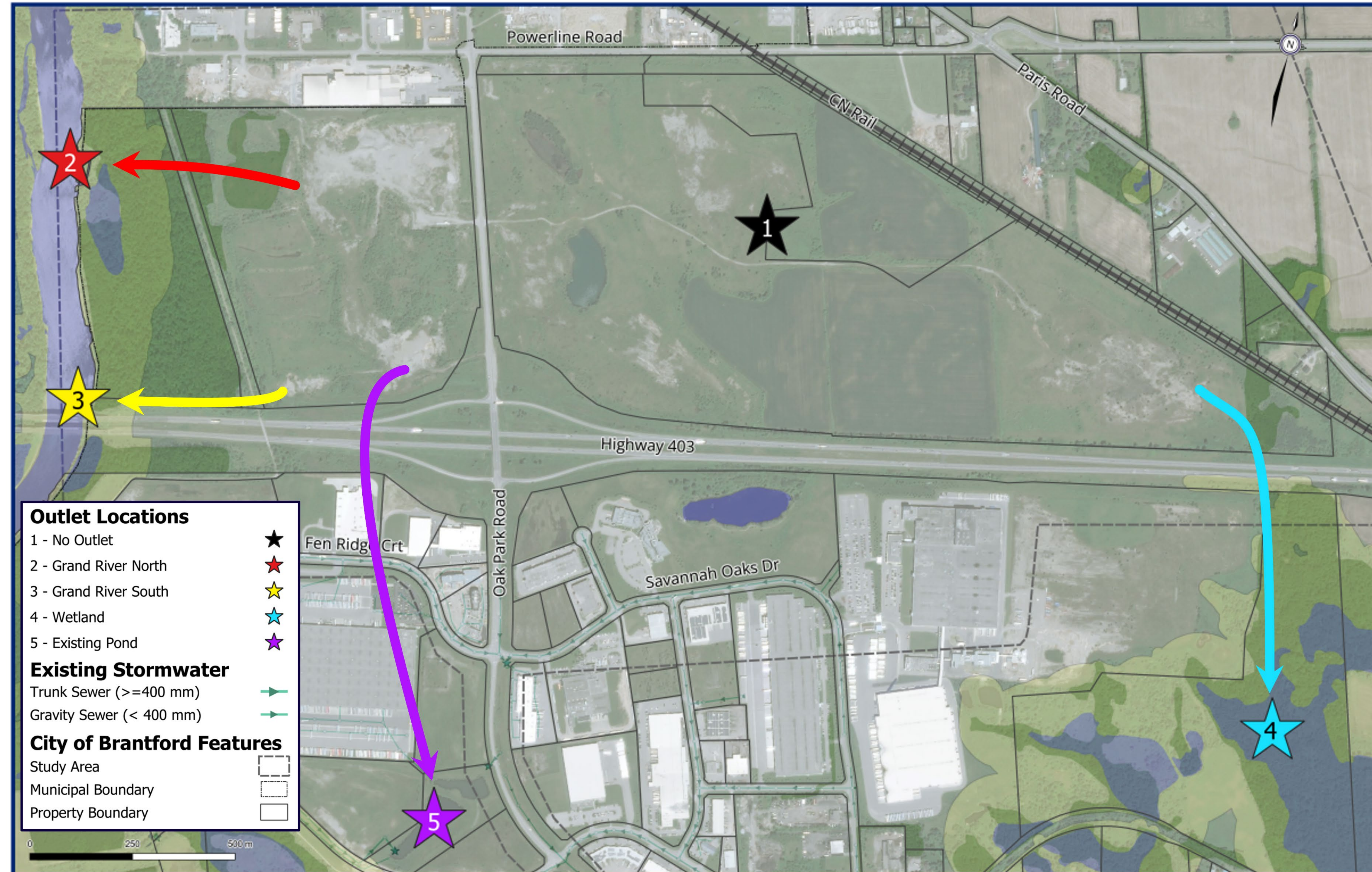
- Oak Park Road Trunk Sewer
- Powerline Road Trunk Sewer

Transportation Projects

- Oak Park Road Widening
- Powerline Road Widening

Stormwater Long List of Alternatives

- Future development requires identification of an appropriate management strategy to safely manage stormwater flows while addressing watershed quantity and quality requirements.
- Focus of the stormwater solution is to provide an appropriate outlet for storm flows which can manage flows from the development and upstream County of Brant lands.
 1. No outlet – all water infiltrates
 2. Outlet to the Grand River on the north side of the study area
 3. Outlet to the Grand River on the south side of the study area, utilizing a Highway 403 drainage ditch
 4. Outlet to the wetland southeast of the study area
 5. Outlet to an existing stormwater management pond, requiring crossing of Highway 403



Stormwater Screening Criteria & Results



Screening Criteria

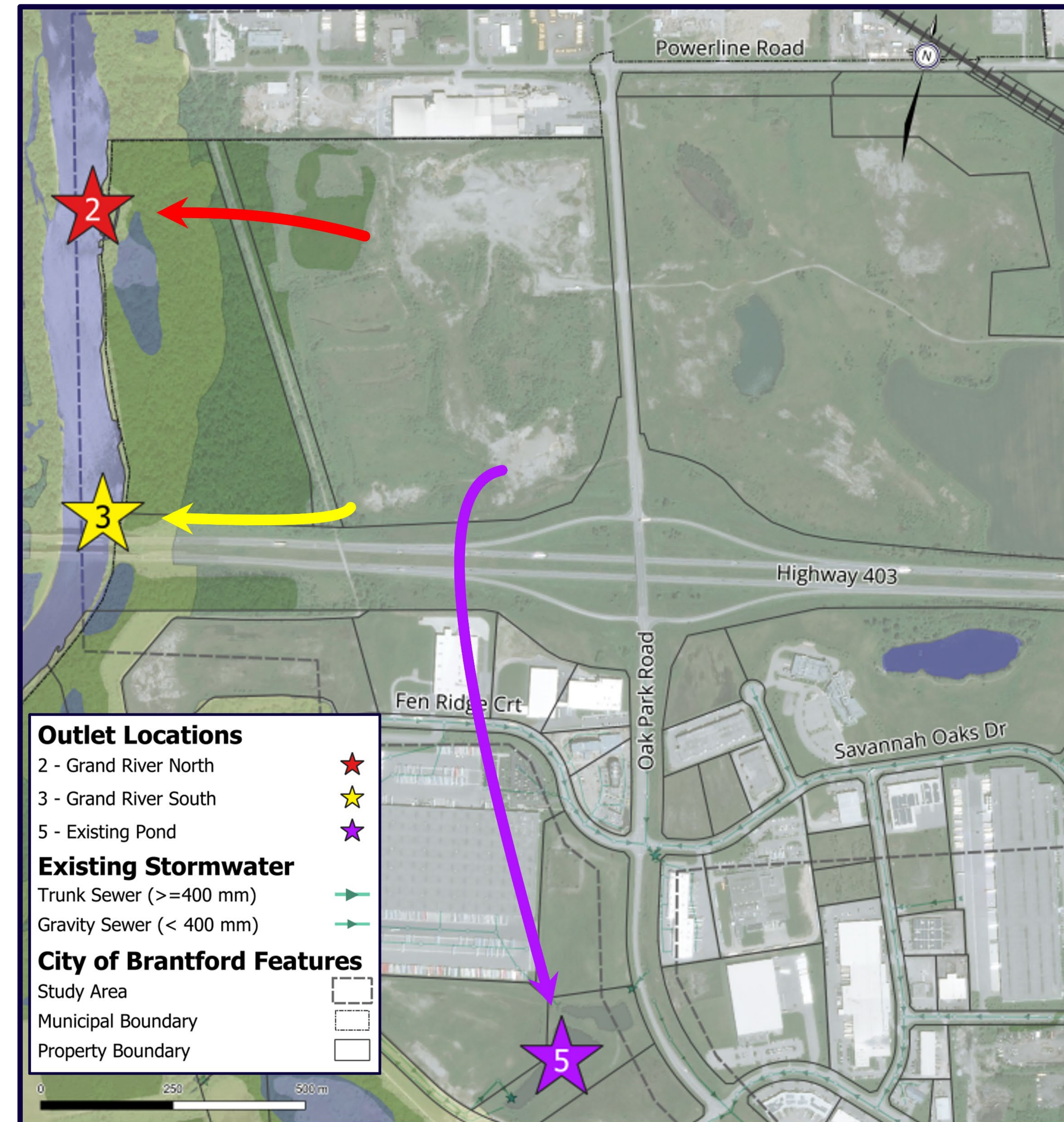
- ✓ Addresses Flooding Risk
- ✓ Outlet Capacity and Management Requirements
- ✓ Maintains Existing Hydrology
- ✓ Integration with Internal (Private) Servicing
- ✓ Integration with External Servicing
- ✓ Minimizes External Property and Easement Requirements
- ✓ Construction Impacts and Complexity
- ✓ Minimizes Environmental and Cultural Impacts

Alternative	Screening Result
1 – No Outlet	Not Carried Forward: Unlikely to provide adequate protection against flooding risk
2 – Grand River North	Carried Forward
3 – Grand River 403	Carried Forward
4 – Southeast Wetland	Not Carried Forward: Limited outlet capacity, significant regrading required, environmental and cultural impacts
5 – Existing Pond	Carried Forward

Stormwater Short List of Alternatives



	Advantages	Disadvantages
Option 2	<ul style="list-style-type: none"> Provides adequate flooding protection No constraints regarding outlet capacity Furthest outlet from water intake 	<ul style="list-style-type: none"> Easement / land acquisition needs to accommodate new outlet Construction within Provincially Significant Woodland Potential environmental and cultural impacts due to new outlet
Option 3	<ul style="list-style-type: none"> Provides adequate flooding protection No constraints regarding outlet capacity 	<ul style="list-style-type: none"> Easement required for construction, particularly along Highway 403 Potential for extensive drainage infrastructure upgrades along Highway 403 Potential environmental and cultural impacts due to new outlet
Option 5	<ul style="list-style-type: none"> Limited environmental and cultural impacts due to use of existing infrastructure / outlet Potential synergies with W/WW crossing 	<ul style="list-style-type: none"> Further investigation required to determine outlet capacity Existing outlet and storm sewer capacity may limit flooding protection Construction impacts south of Highway 403





Social / Cultural

- Minimizes impacts to residents and businesses, including feedback from community
- Manages and minimizes construction impacts
- Protects built heritage resources and cultural heritage landscapes
- Protects Indigenous Rights, Indigenous Community interests, and archeological resources



Technical Feasibility

- Meets existing and future servicing needs
- Aligns with planned system strategy and configuration, including consistency with City Planning and Policies
- Provides adequate flooding protection
- Maintains baseflow needs
- Minimizes impacts downstream of outlet
- Minimizes conflict with existing infrastructure and utilities
- Optimizes useable land while limiting additional infrastructure and / or regrading
- Minimizes and manages construction risk



Environmental Impacts

- Protects environmental and natural heritage features
- Protects significant wildlife, wildlife habitat, Species at Risk, fish and fish habitat
- Minimizes climate change impacts



Financial Feasibility

- Low lifecycle cost, including capital and operating & maintenance

Transportation Projects

Transportation

What is This Study About?

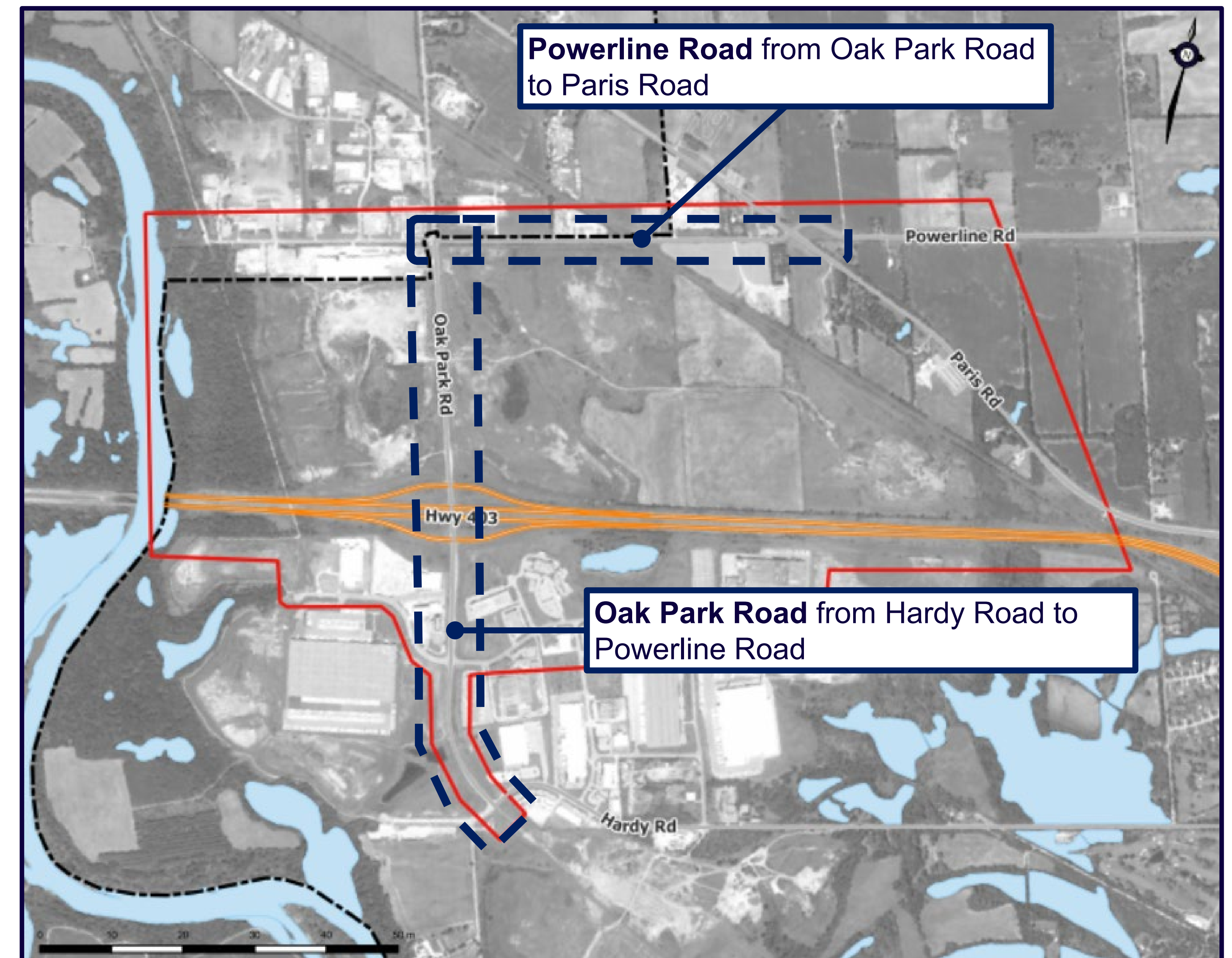


Study Objectives

As part of the Northwest Services Expansion Environmental Assessments (EA) project, the City of Brantford (the City) is undertaking two separate Schedule 'C' transportation projects for **Oak Park Road** and **Powerline Road**.

Improvements being explored as part of these studies include:

- Roadway capacity needs
- Intersection operations
- Pedestrian and cyclist facilities (active transportation)
- Transit opportunities
- Goods movement
- Roadway drainage and stormwater management



Transportation Project Study Areas

Existing Conditions on Oak Park Road

- Study area is approximately 2.0 km
- North-south minor arterial road with one lane in each direction
- Posted speed limit: 60 km/h (Hardy Road to Highway 403) & 70 km/h (Highway 403 to Powerline Road)
- No walking or cycling facilities
- SC Johnson Trail west of Oak Park Road
- No transit routes



Existing Conditions on Powerline Road

- Study area is approximately 1.3 km
- East-west major arterial road with one lane in each direction
- Existing right-of-way: 19 m (Oak Park Road to CN Railway) & 27 m (CN Railway to Paris Road)
- No walking or cycling facilities
- No transit routes
- Major utility infrastructure along the corridor (Hydro One Transmission Towers, GrandBridge Energy Distribution Poles, and Two Transformer Substations)

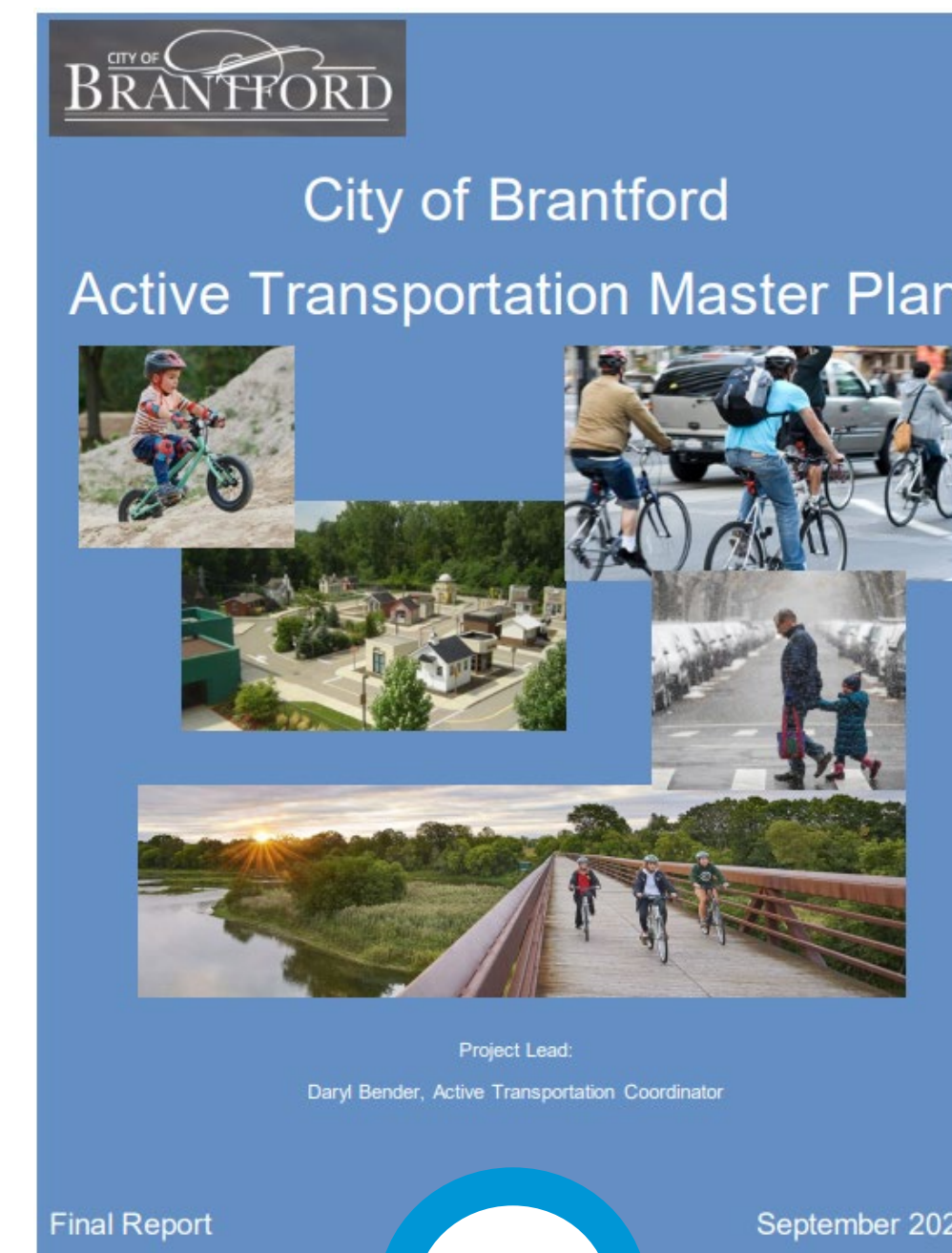


Planning Context



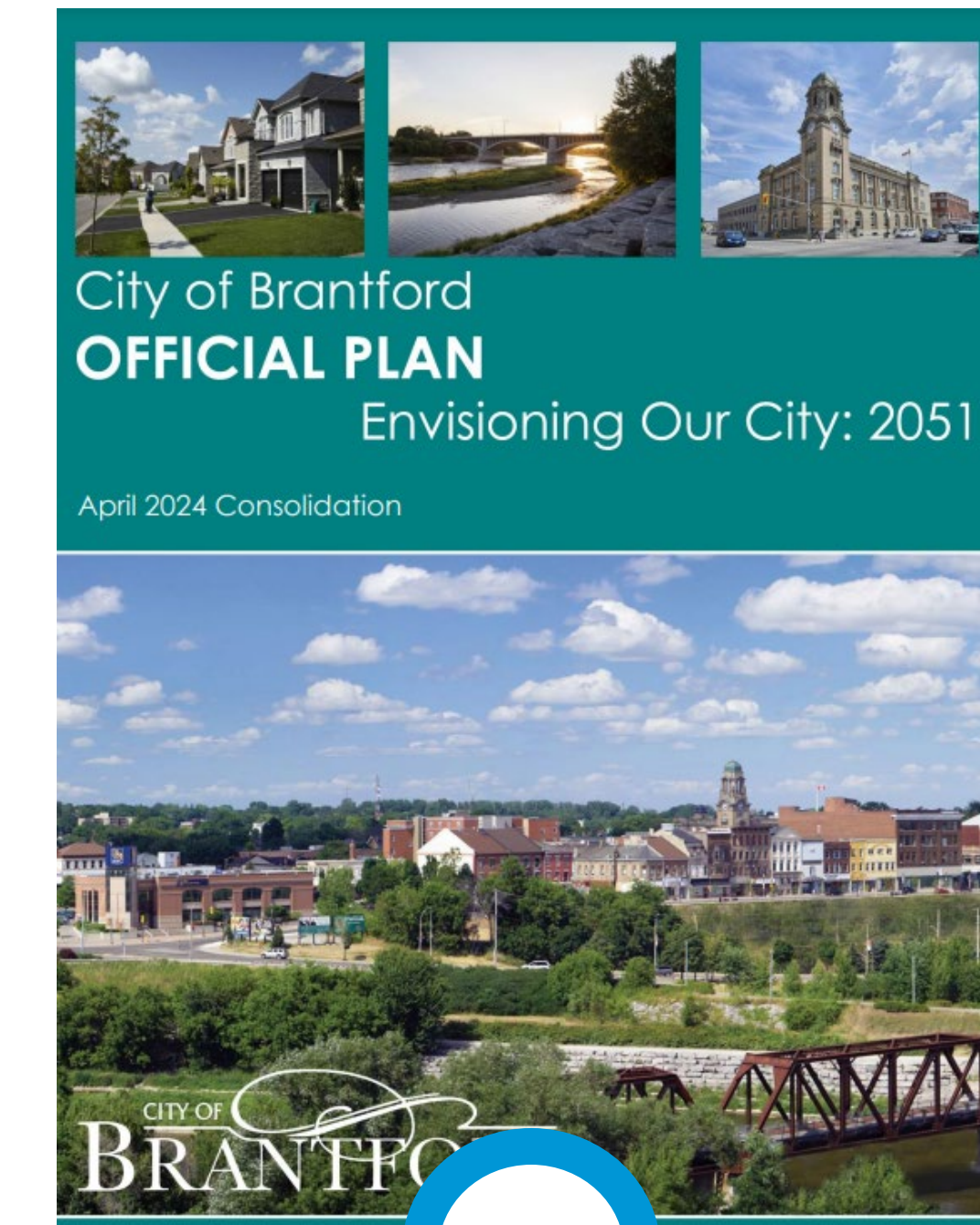
The **Transportation Master Plan (TMP)** provides policies, tools, and strategies to accommodate transportation demand in Brantford to 2051.

The TMP identified the need for road widening on Oak Park Road from Hardy Road to Powerline Road and Powerline Road from Oak Park Road to City east limits.



The **Active Transportation Master Plan (ATMP)** provides a guide to build a fully integrated active transportation network within Brantford.

The ATMP proposed multi-use paths on Oak Park Road and Powerline Road. Bike lanes are proposed on Fen Ridge Court / Savannah Oaks Gate.



The **Official Plan (OP)** contains policies about how land within the municipality may develop and be used in the future.

Lands within the study area are designated as 'Prestige Employment' area.

Problem & Opportunity Statements

Oak Park Road Widening

Identify and develop the proposed Oak Park Road improvement strategy to support the north-south arterial link and highway connection to the future development lands north of Highway 403, with consideration for the City-wide transportation strategy, including traffic capacity and operational needs, active transportation, goods movement, opportunities for transit improvements and benefit to existing and future users.

Powerline Road Widening

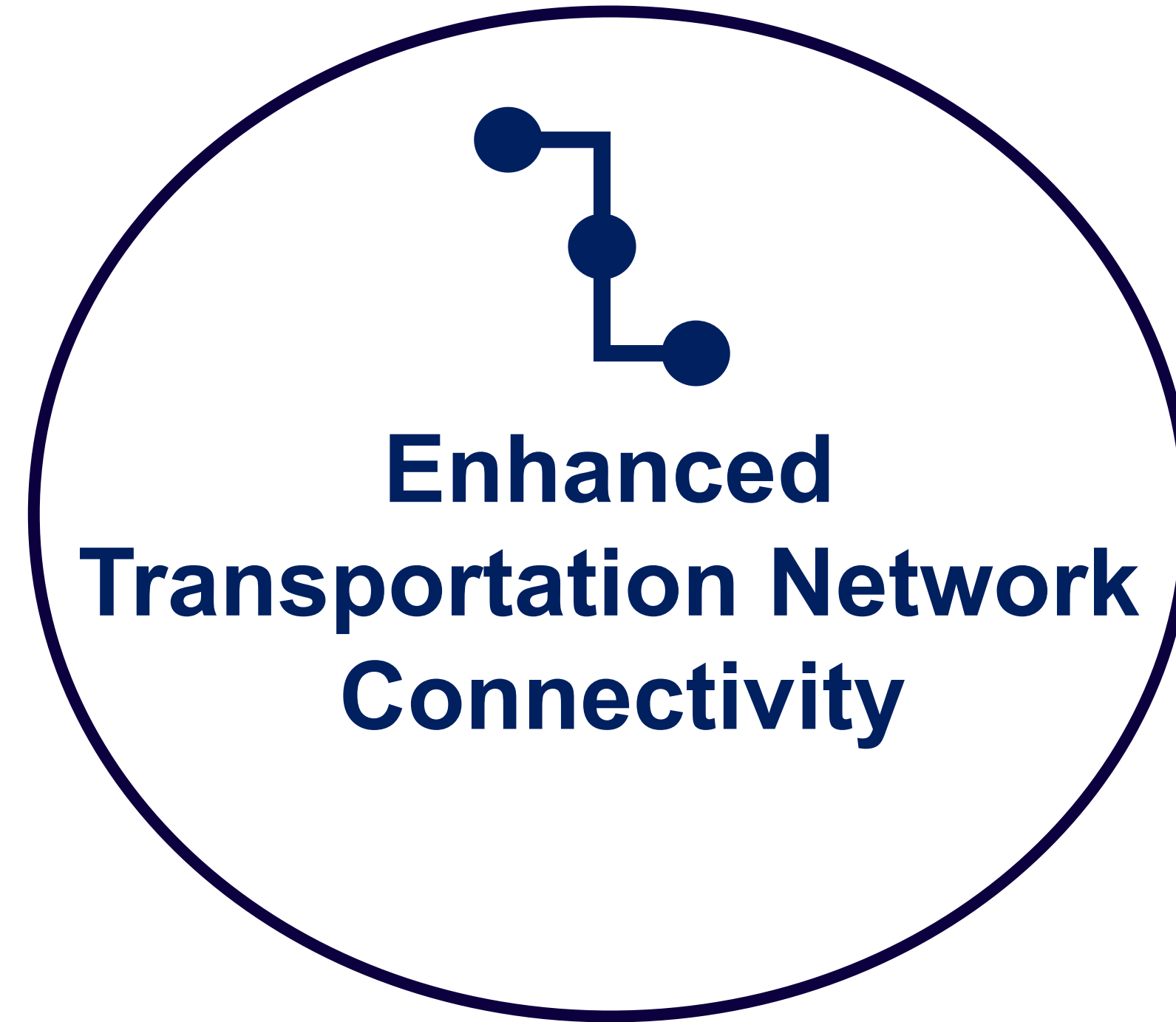
Identify and develop the proposed Powerline Road improvement strategy to support the east-west arterial link and access to the future development lands north of Highway 403, with consideration for the City-wide transportation strategy including traffic capacity and operational needs, active transportation and goods movement, opportunities for transit improvements, as well as considering constraints such as the railway crossing, hydro corridors along Powerline Road and the associated hydro substations.

Alternative Solutions

By 2051, all study area intersections are expected to operate over capacity with long delays and queues exceeding the available storage lengths.

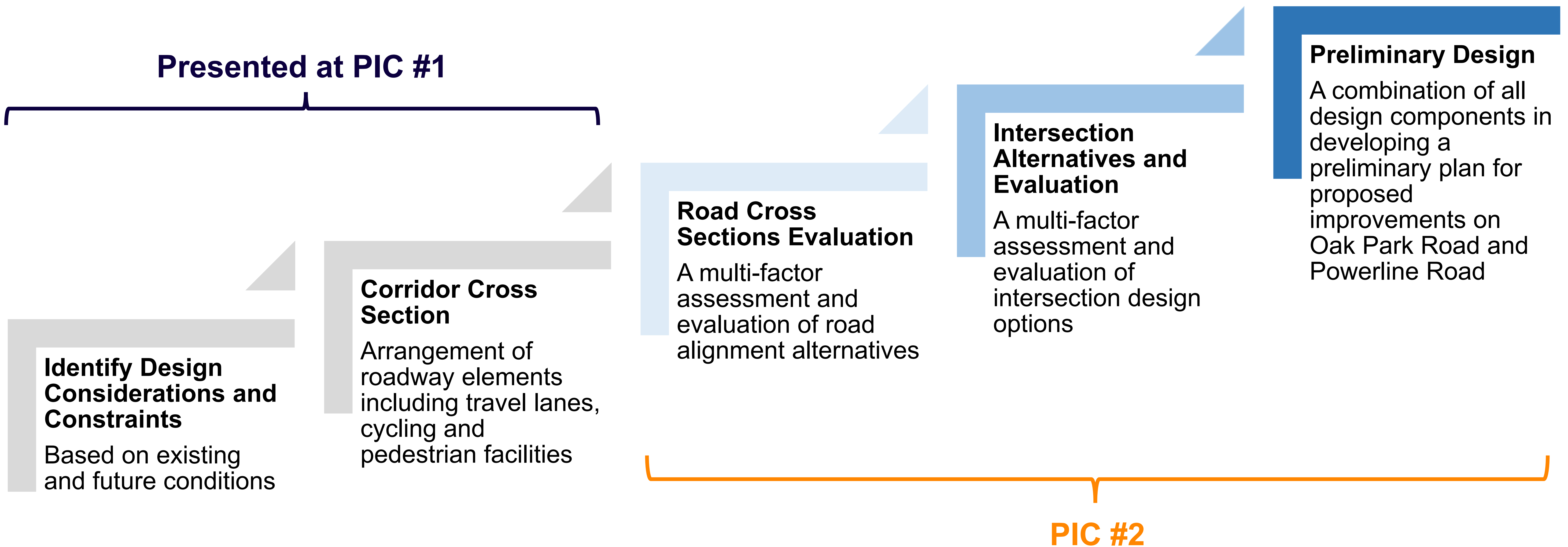
Traffic analysis confirmed the need for four lanes on Oak Park and Powerline Road to accommodate future growth and improve traffic operations.

An evaluation of alternative solutions confirmed that widening on Oak Park Road and Powerline Road with active transportation facilities is the preferred solution.



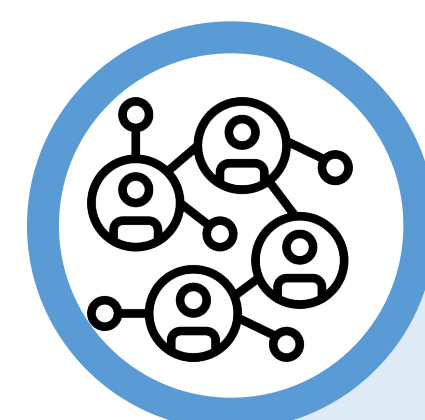
Where Are We in the Design Process?

Following the selection of the Preferred Solutions the design process consists of a number of decision points for different components of the roadway.



Assessment Criteria for Intersection Design Alternatives

The following criteria were used to assess the design alternatives for the intersections within Oak Park Road and Powerline Road



Socio-Economic Environment

- Property
- Access
- Municipal Policies and Priorities
- Land Use
- Community Effects



Transportation & Technical

- Traffic Operations & Safety
- Active Transportation
- Accessibility
- Utilities
- Maintenance / Operations
- Constructability
- Cost



Natural Environment

- Climate Change
- Natural Heritage
- Surface Water and Stormwater Management

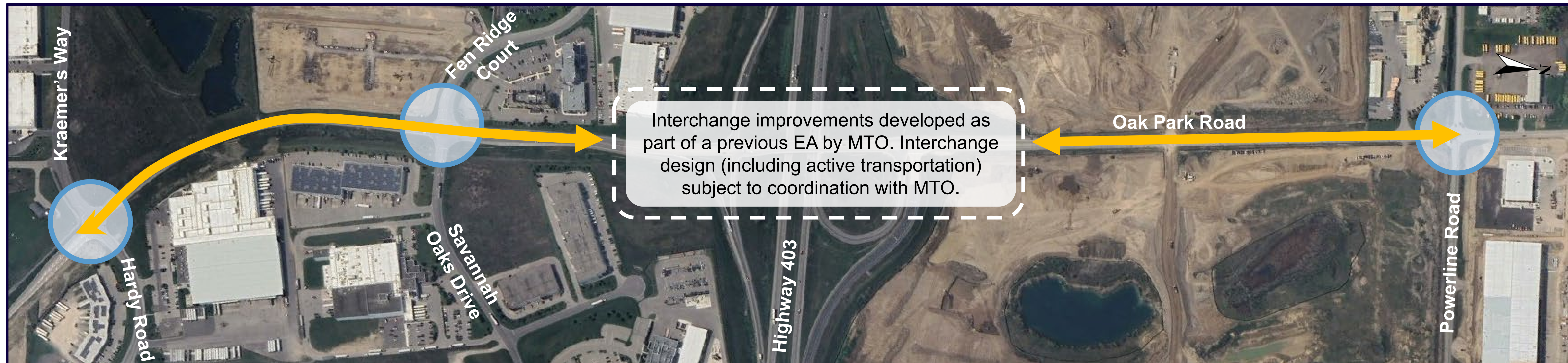


Cultural Environment

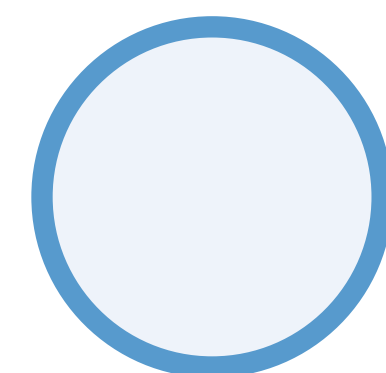
- Archaeological Resources
- Built Heritage Resources and Cultural Heritage Landscapes

Roadway Components

There are several components that form the overall design for Oak Park Road. Design alternatives have been developed for each component. The design alternatives were assessed considering a wide range of socio-economic, cultural, natural, transportation, and technical factors.



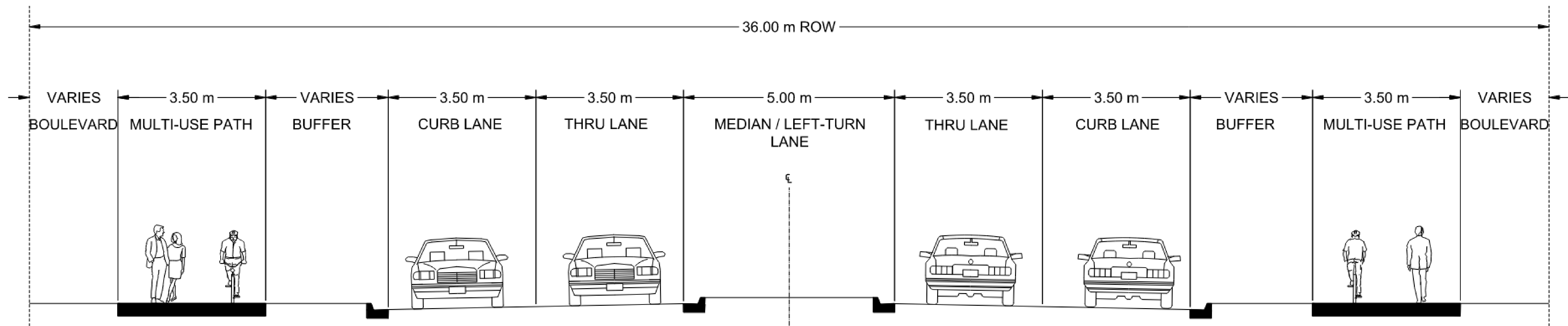
Road Alignment / Cross-Section Design



Intersection Design Alternatives

Road Alignment / Cross-Section Design

- Road corridor generally follows centreline of existing right-of-way
- Alignment developed to minimize utility impacts
- Proposed typical cross-section based on arterial road with 36 m right-of-way
- Widening from two to four lanes (two lanes in each direction)
- Active transportation facilities for pedestrians and cyclists
- Urban cross-section with curb and gutter



Oak Park Road Typical Cross-Section

Evaluation Summary Oak Park Road & Hardy Road/Kraemer's Road

A detailed assessment and evaluation of the Oak Park Road & Hardy Road/Kraemer's Road intersection design alternatives was completed to identify the preferred intersection configuration. The table below provides a summary of the evaluation.

Evaluation Criteria	Signalized Intersection	Roundabout
Socio-Economic Environment	Neutral	Neutral
Cultural Environment	Neutral	Neutral
Natural Environment	Neutral	Neutral
Transportation	Not Preferred	Preferred
Technical	Preferred	Not Preferred
Overall Recommendation	Do Not Carry Forward	Carry Forward

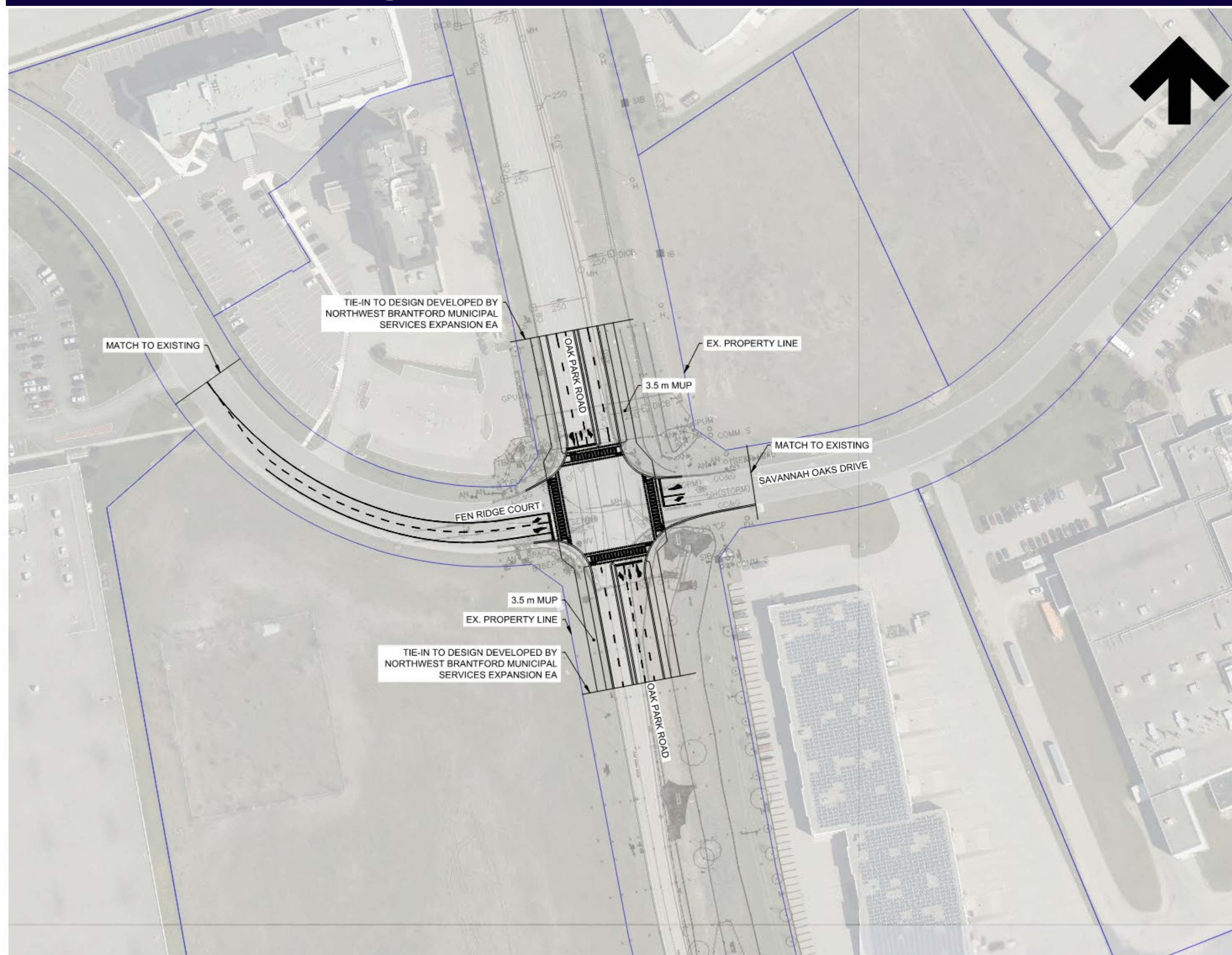
Roundabout is preferred:

- Both alternatives have similar impacts to the socio-economic, cultural, and natural environments.
- Both alternatives provide connections to existing and planned active transportation facilities.
- While roundabout is more expensive and complex to construct, it performs better from a traffic operations and safety perspective.

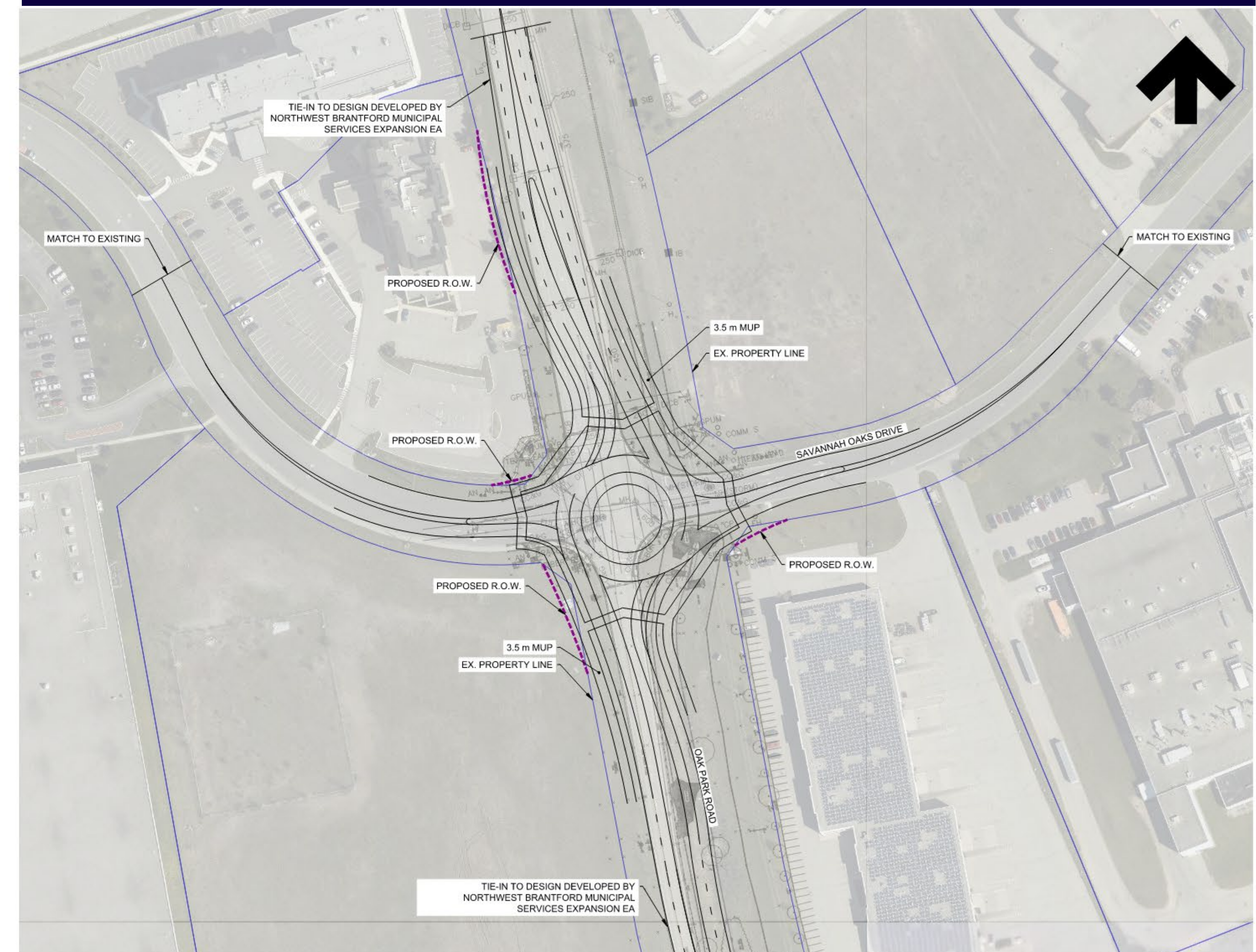
Intersection Design Alternatives Oak Park Road & Fen Ridge Court/Savannah Oaks Drive

Please Note: designs are conceptual only for comparison/evaluation purposes. Additional design work will be completed for the preferred alternative.

Signalized Intersection



Roundabout



Evaluation Summary Oak Park Road & Fen Ridge Court/Savannah Oaks Drive

A detailed assessment and evaluation of the Oak Park Road & Fen Ridge Court/Savannah Oaks Drive intersection design alternatives was completed to identify the preferred intersection configuration. The table below provides a summary of the evaluation.

Evaluation Criteria	Signalized Intersection	Roundabout
Socio-Economic Environment	Preferred	Not Preferred
Cultural Environment	Neutral	Neutral
Natural Environment	Neutral	Neutral
Transportation	Not Preferred	Preferred
Technical	Preferred	Not Preferred
Overall Recommendation	Carry Forward	Do Not Carry Forward

Signalized intersection is preferred:

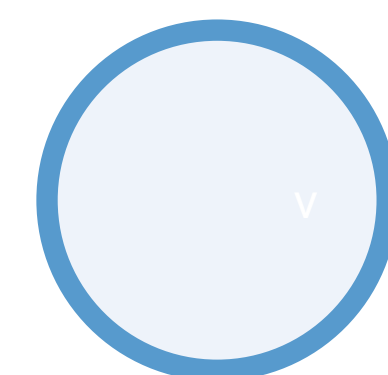
- Both alternatives have similar impacts to the cultural and natural environments.
- The roundabout performs better from a traffic operations and safety perspective; however, it would result in greater impacts to adjacent properties.
- The signalized intersection is less expensive and simpler to construct.

Roadway Components

There are several components that form the overall design for Powerline Road. Design alternatives have been developed for each component. The design alternatives were assessed considering a wide range of socio-economic, cultural, natural, transportation, and technical factors.



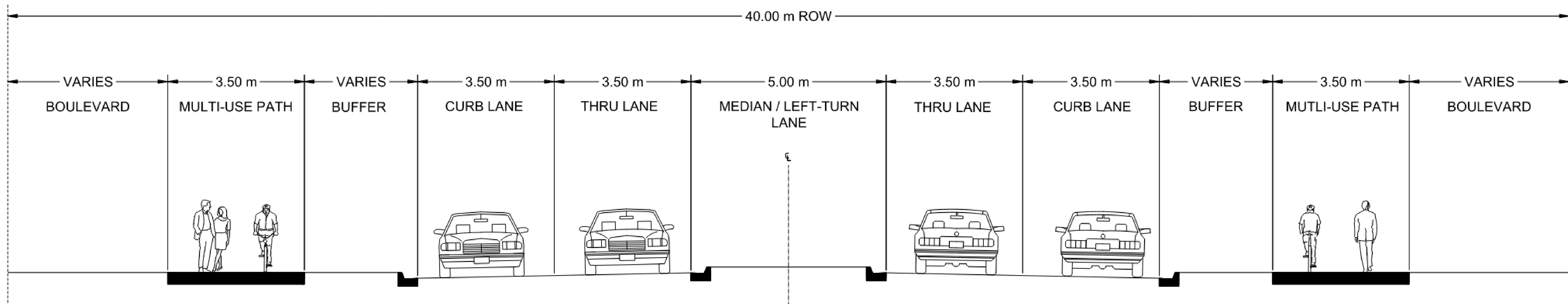
Road Corridor Design Alternatives



Intersection Design Alternatives

Typical Cross-Section

- Proposed typical cross-section based on arterial road with 40 m right-of-way
- Widening from two to four lanes (two lanes in each direction)
- Active transportation facilities for pedestrians and cyclists
- Urban cross-section with curb and gutter



Powerline Road Typical Cross-Section

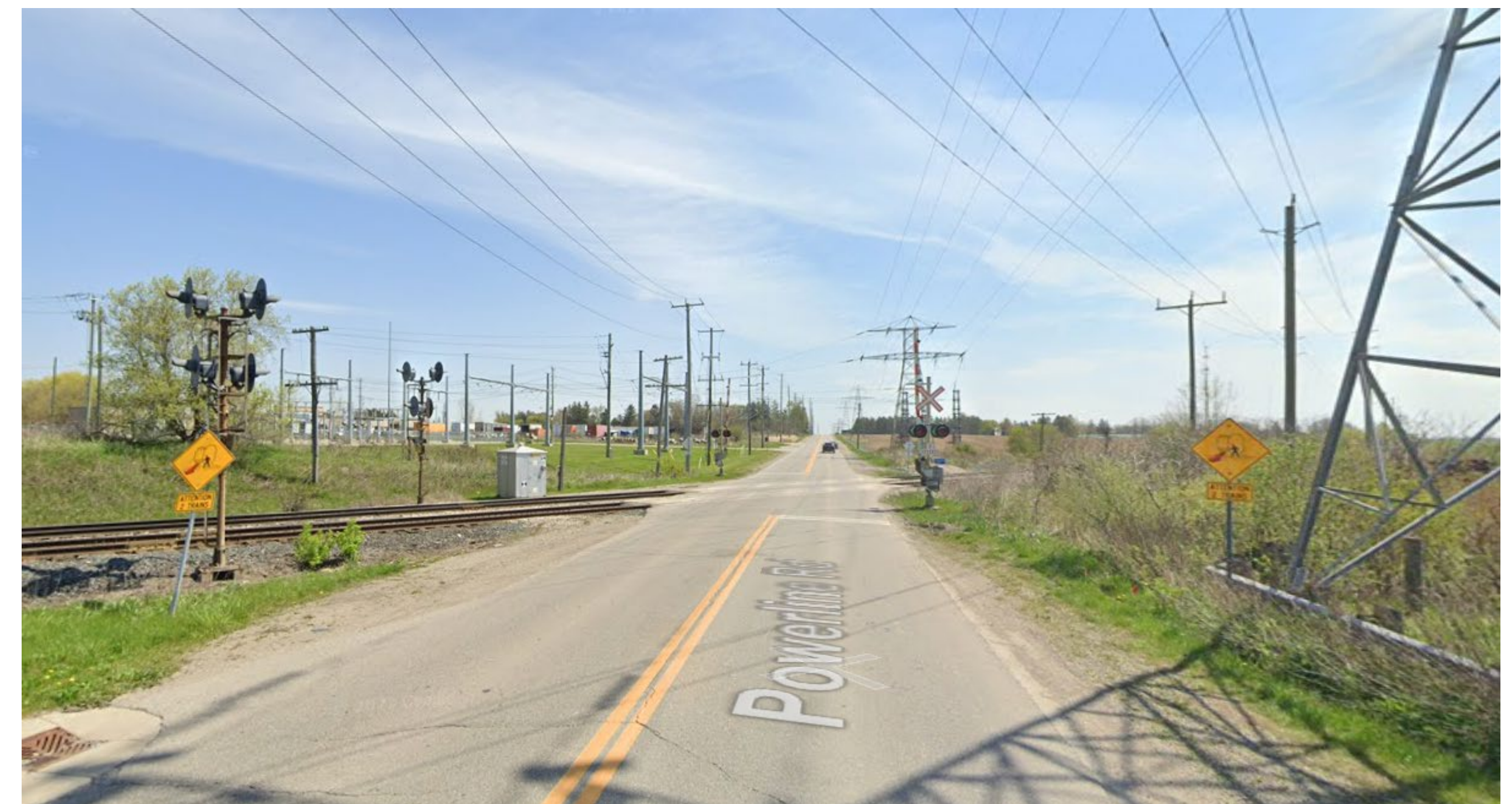
Road Alignment Design Alternatives

Three design alternatives were developed for the Powerline Road alignment:

1. Minor Shift to the South from Existing Alignment
2. Major Shift to the South from Existing Alignment
3. Relocation of Powerline Road including new Oak Park Road Intersection

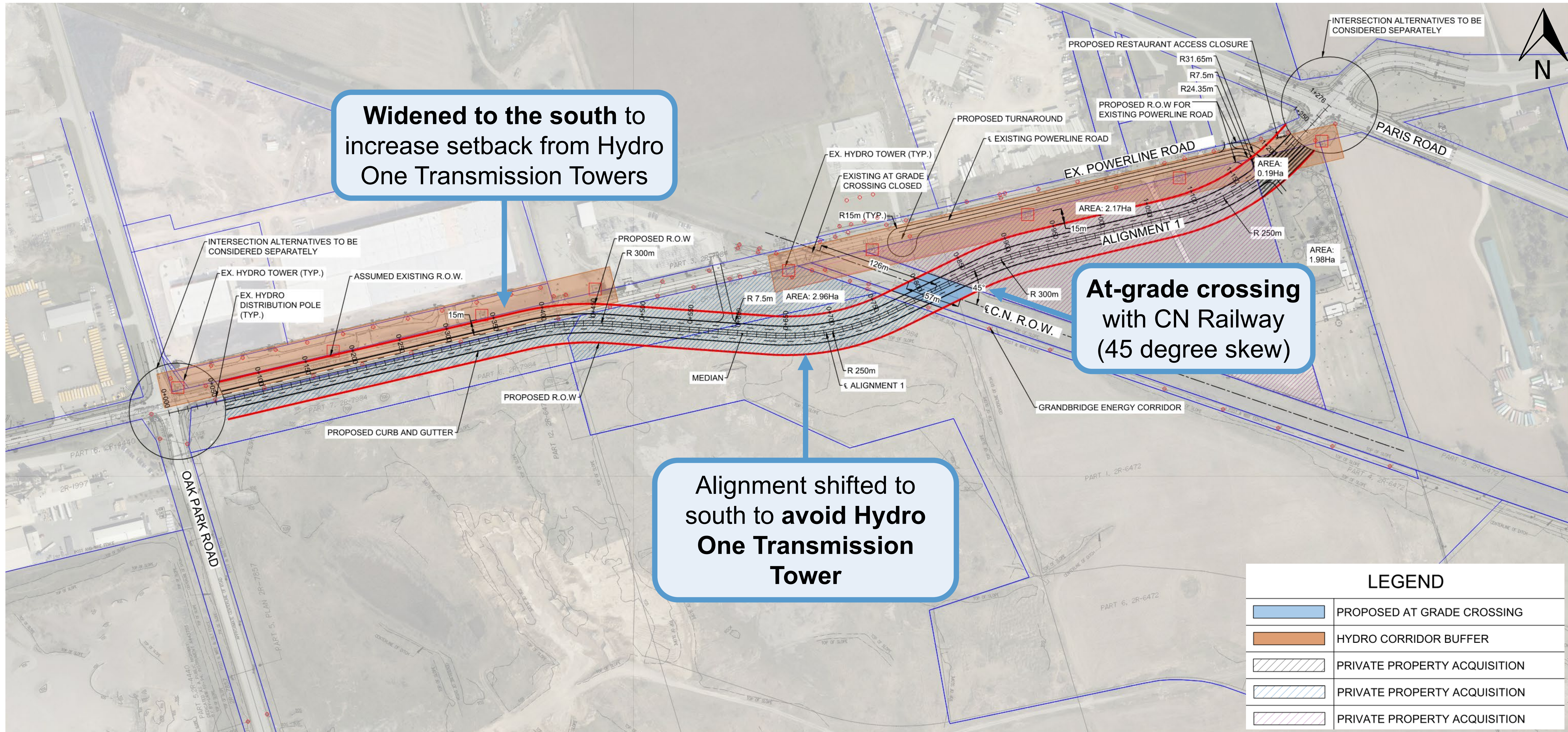
All alignment design alternatives:

- Are based on the typical cross-section
- Widen to the south of the existing alignment
- Minimize impacts to Hydro One Transmission Towers
- Maintain the at-grade crossing at the Canadian National (CN) Railway
- Do not preclude grade-separation, which is not warranted at this time

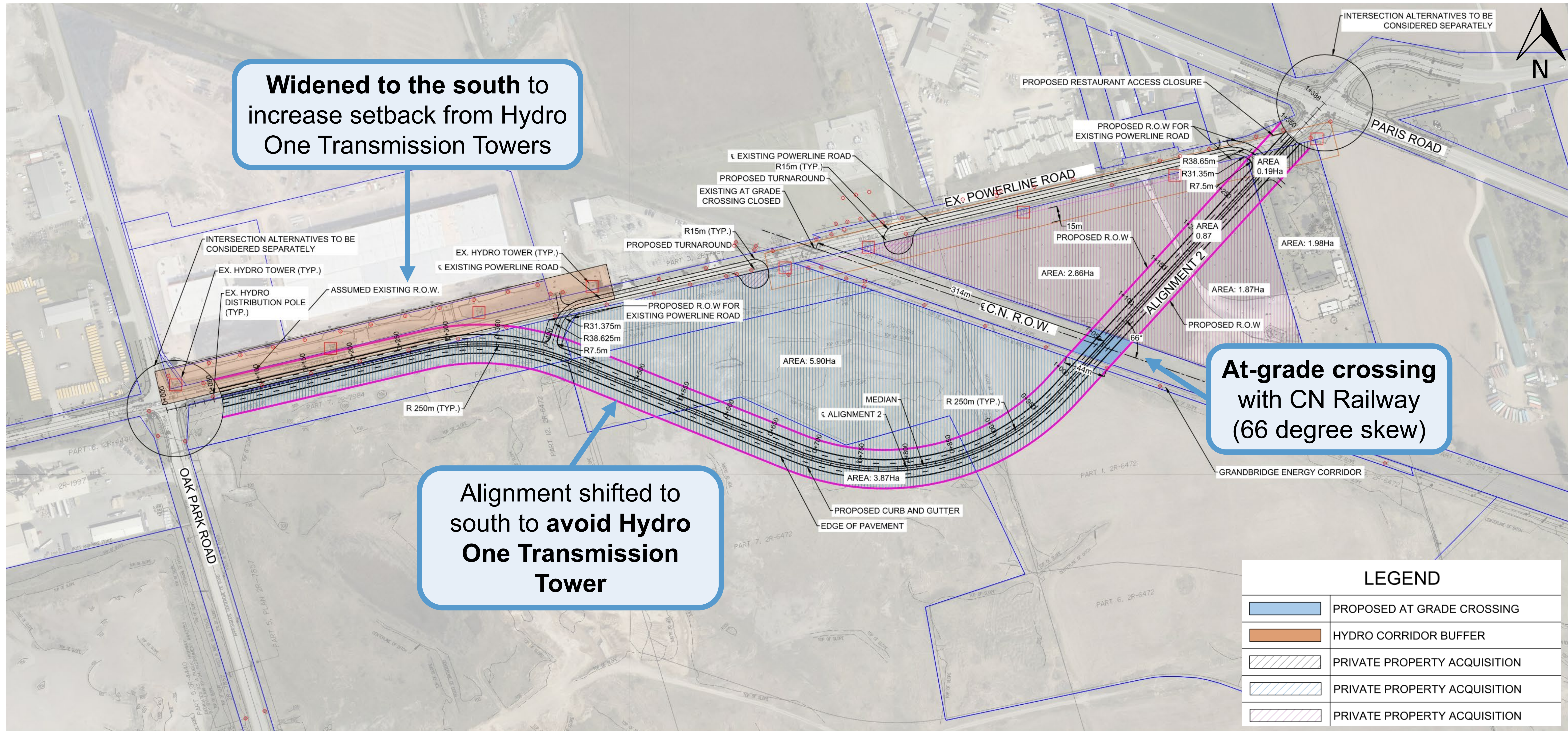


Powerline Road at CN Railway Looking East

Alignment 1: Minor Shift to South

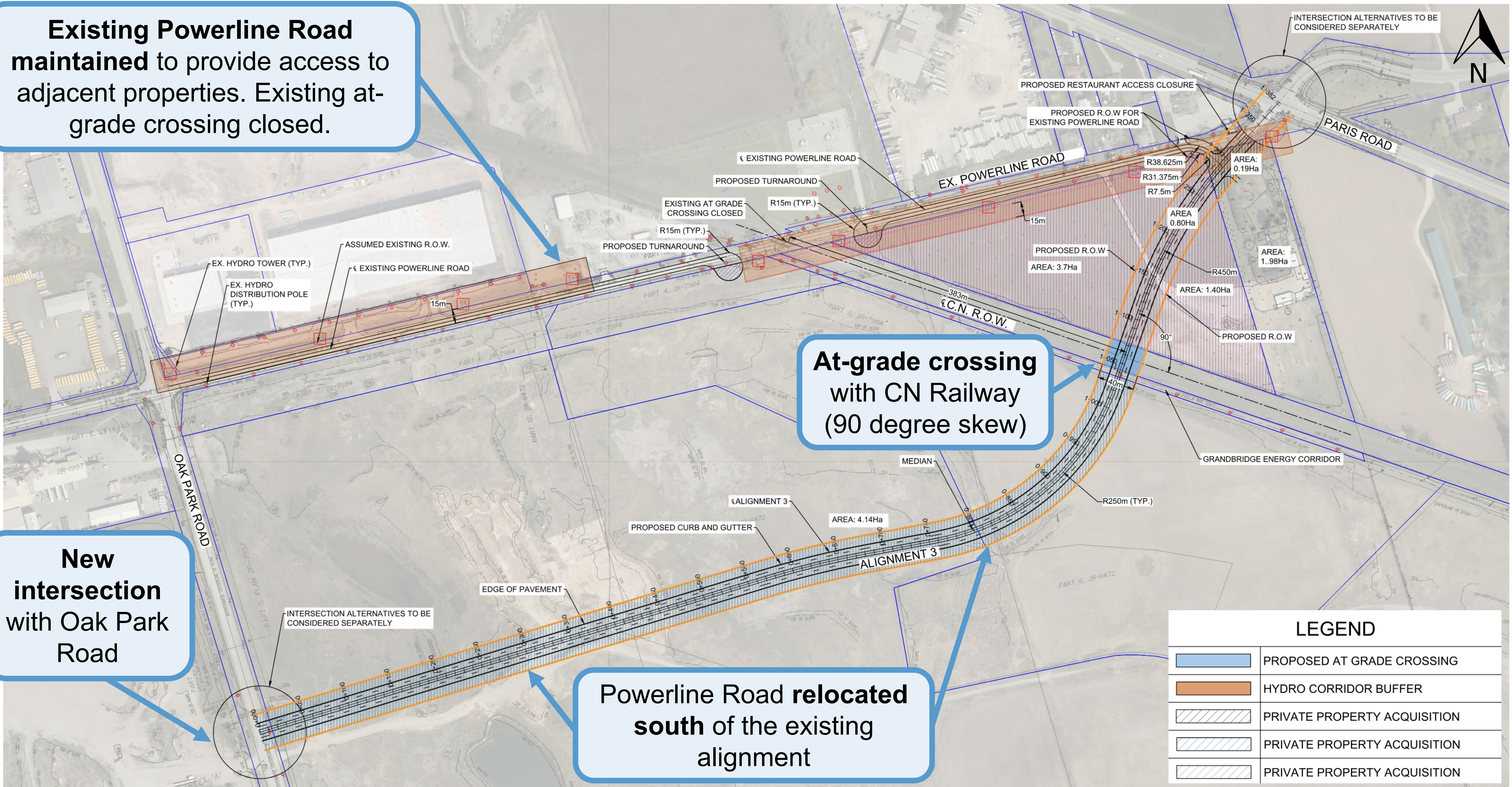


Alignment 2: Major Shift to South



Alignment 3: Relocation of Powerline Road




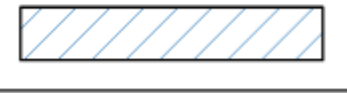

Existing Powerline Road maintained to provide access to adjacent properties. Existing at-grade crossing closed.



At-grade crossing with CN Railway (90 degree skew)

New intersection with Oak Park Road

Powerline Road relocated south of the existing alignment

LEGEND	
	PROPOSED AT GRADE CROSSING
	HYDRO CORRIDOR BUFFER
	PRIVATE PROPERTY ACQUISITION
	PRIVATE PROPERTY ACQUISITION
	PRIVATE PROPERTY ACQUISITION

Evaluation Summary Powerline Road Alignment

A detailed assessment and evaluation of the Powerline Road design alternatives was completed to identify the preferred alignment. The table below provides a summary of the evaluation.

Evaluation Criteria	Alignment 1: Minor Shift to South	Alignment 2: Major Shift to South	Alignment 3: Relocation
Socio-Economic Environment	Preferred	Not Preferred	Neutral
Cultural Environment	Neutral	Neutral	Neutral
Natural Environment	Neutral	Neutral	Neutral
Transportation	Preferred	Preferred	Not Preferred
Technical	Not Preferred	Not Preferred	Preferred
Overall Recommendation	Carry Forward	Do Not Carry Forward	Do Not Carry Forward

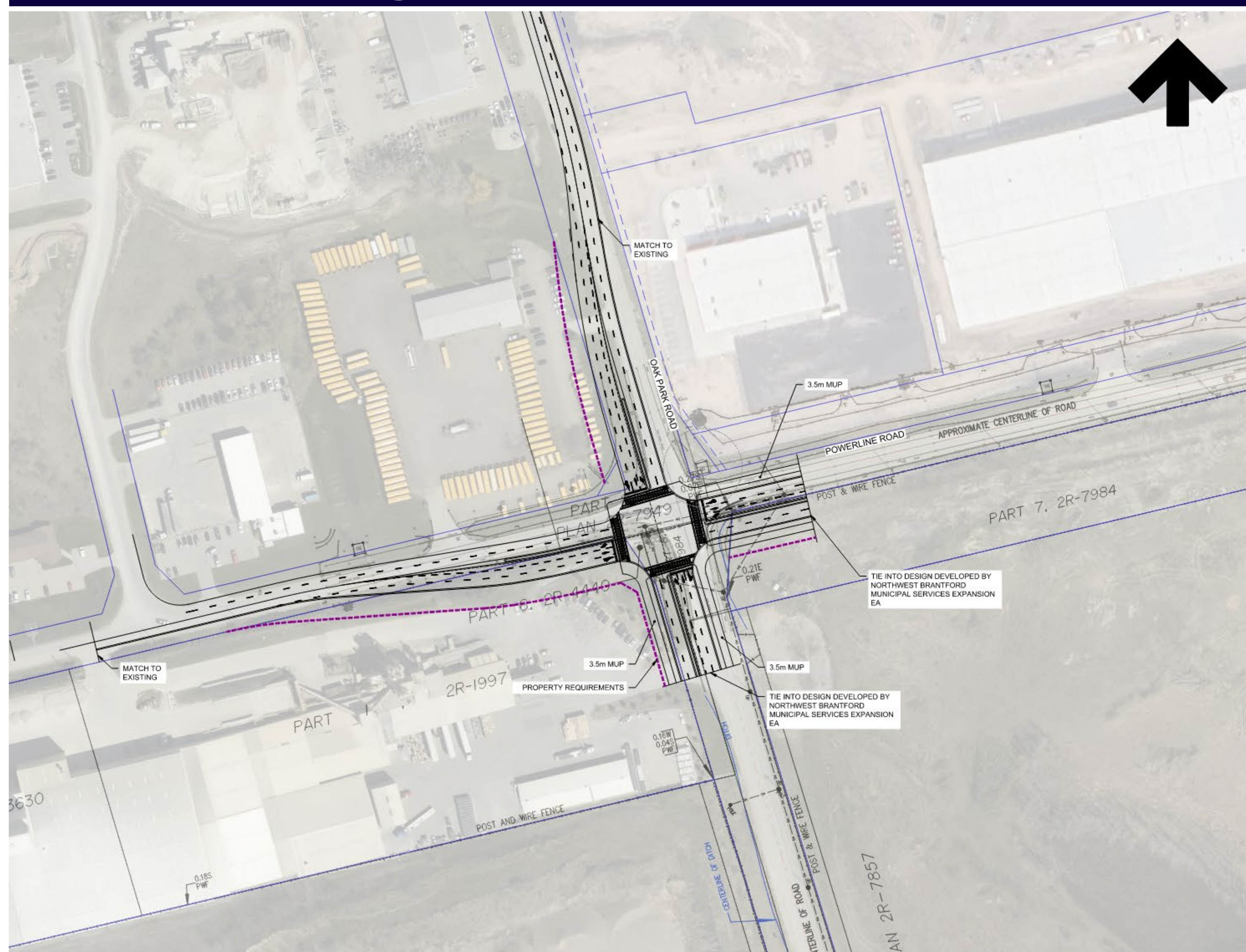
Alignment 1 is preferred because this alignment:

- Has smaller property requirements and footprint impacts and still provides separation between roadway and hydro towers
- Maintains location of intersection at Oak Park Road which provide continuity in road network and separation from Highway 403 interchange
- All alternatives have similar impacts to the cultural and natural environments

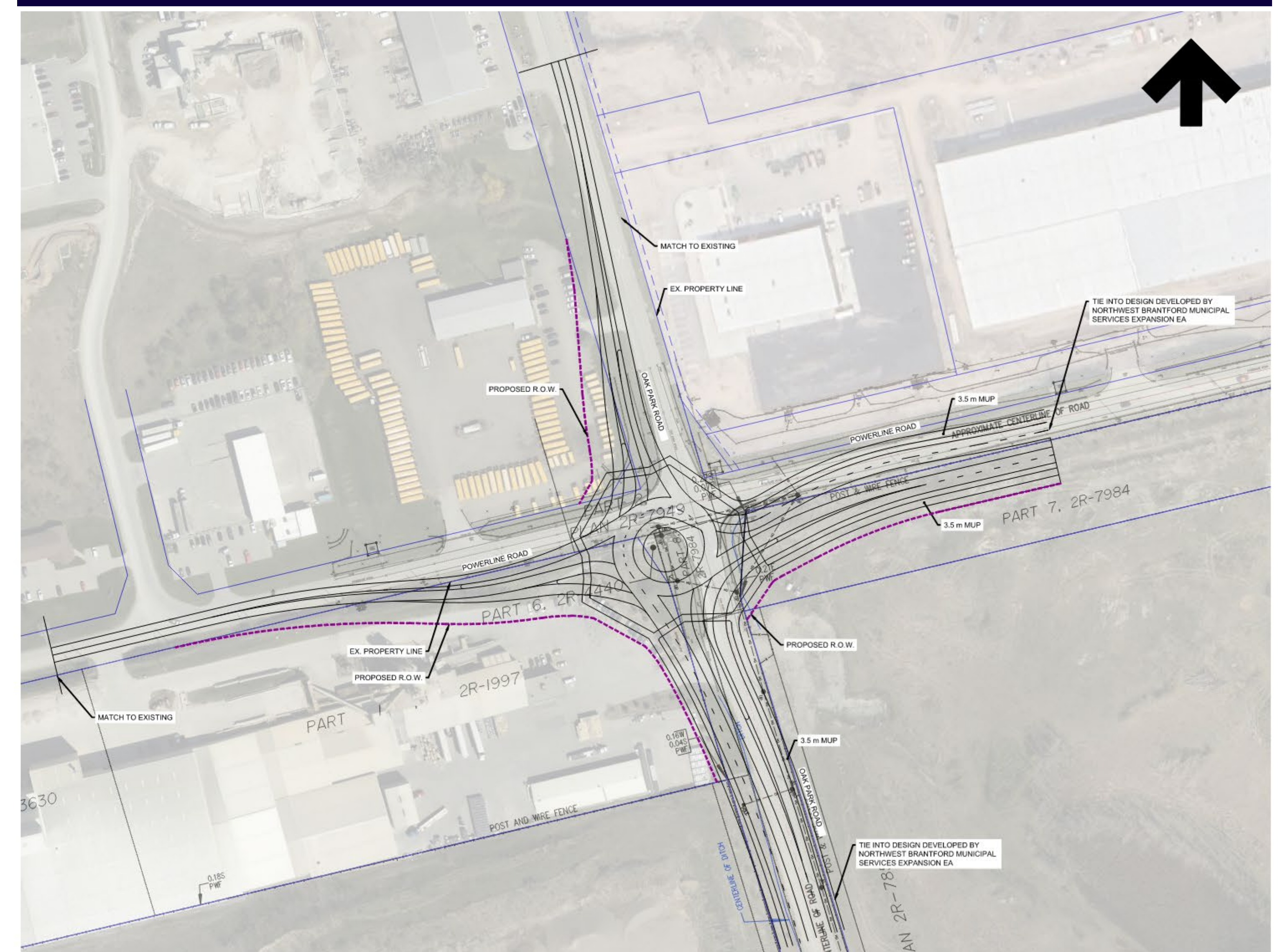
Intersection Design Alternatives Powerline Road & Oak Park Road

Please Note: designs are conceptual only for comparison/evaluation purposes. Additional design work will be completed for the preferred alternative.

Signalized Intersection



Roundabout



Evaluation Summary Powerline Road & Oak Park Road

A detailed assessment and evaluation of the Powerline Road & Oak Park Road intersection design alternatives was completed to identify the preferred intersection configuration. The table below provides a summary of the evaluation.

Evaluation Criteria	Signalized Intersection	Roundabout
Socio-Economic Environment	Preferred	Not Preferred
Cultural Environment	Neutral	Neutral
Natural Environment	Neutral	Neutral
Transportation	Not Preferred	Preferred
Technical	Preferred	Not Preferred
Overall Recommendation	Carry Forward	Do Not Carry Forward

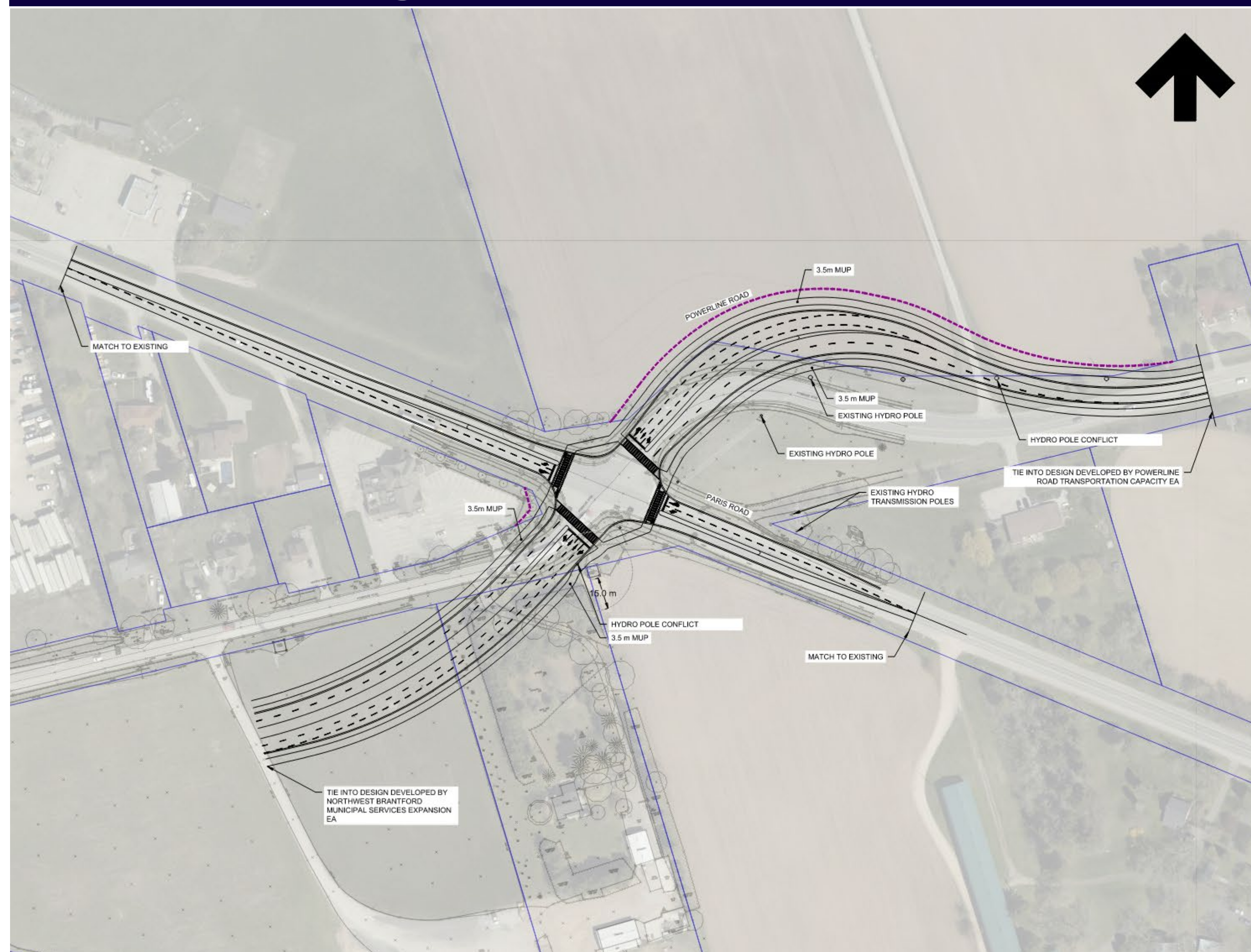
Signalized intersection is preferred:

- Both alternatives have similar impacts to the cultural and natural environments.
- The roundabout performs better from a traffic operations and safety perspective however, it would result in greater impacts to adjacent properties.
- The signalized intersection is less expensive and simpler to construct.

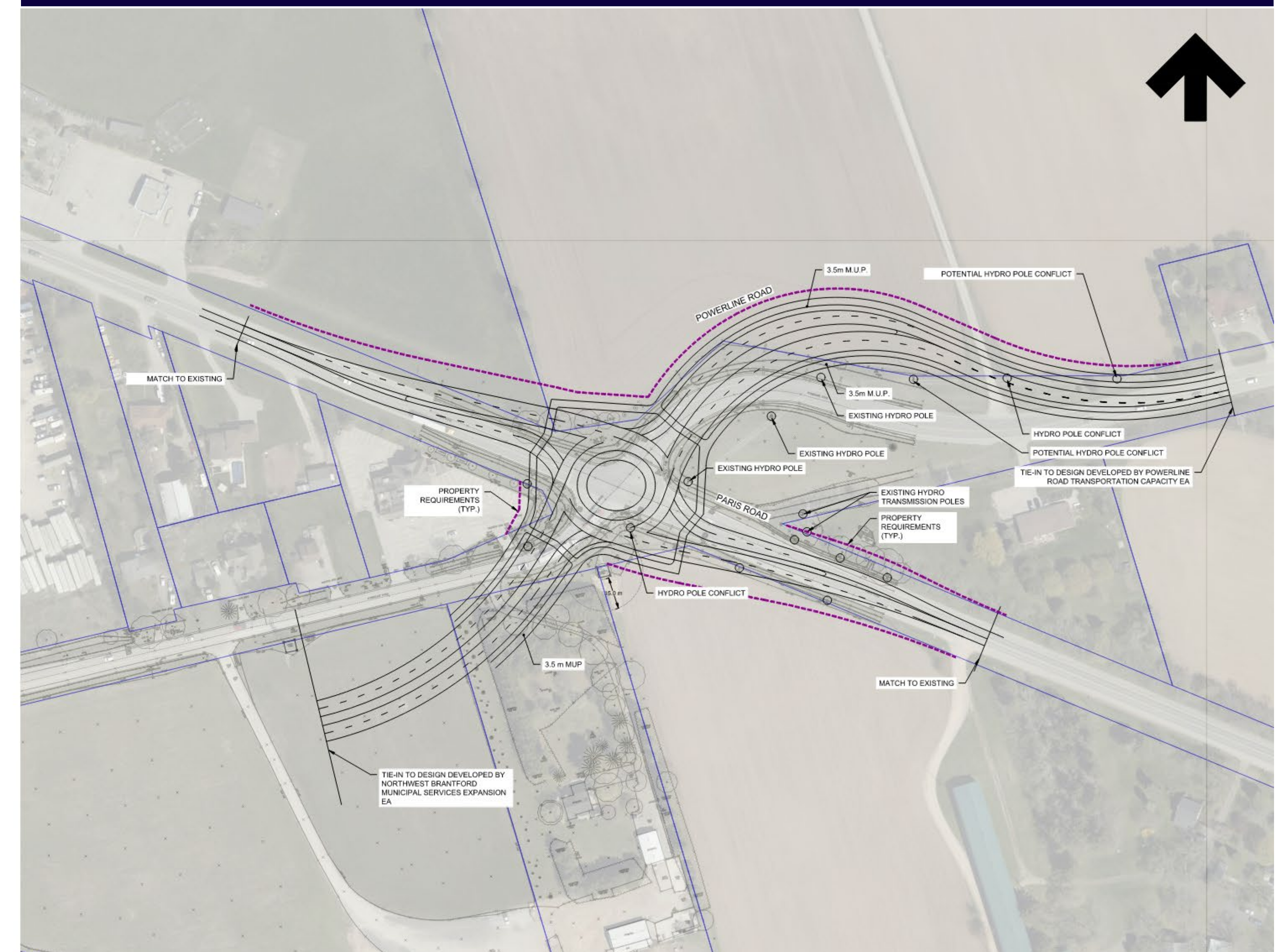
Intersection Design Alternatives Powerline Road & Paris Road

Please Note: designs are conceptual only for comparison/evaluation purposes. Additional design work will be completed for the preferred alternative.

Signalized Intersection



Roundabout



Evaluation Summary Powerline Road & Paris Road

A detailed assessment and evaluation of the Powerline Road & Paris Road intersection design alternatives was completed to identify the preferred intersection configuration. The table below provides a summary of the evaluation.

Evaluation Criteria	Signalized Intersection	Roundabout
Socio-Economic Environment	Preferred	Not Preferred
Cultural Environment	Neutral	Neutral
Natural Environment	Neutral	Neutral
Transportation	Not Preferred	Preferred
Technical	Neutral	Neutral
Overall Recommendation	Do Not Carry Forward	Carry Forward

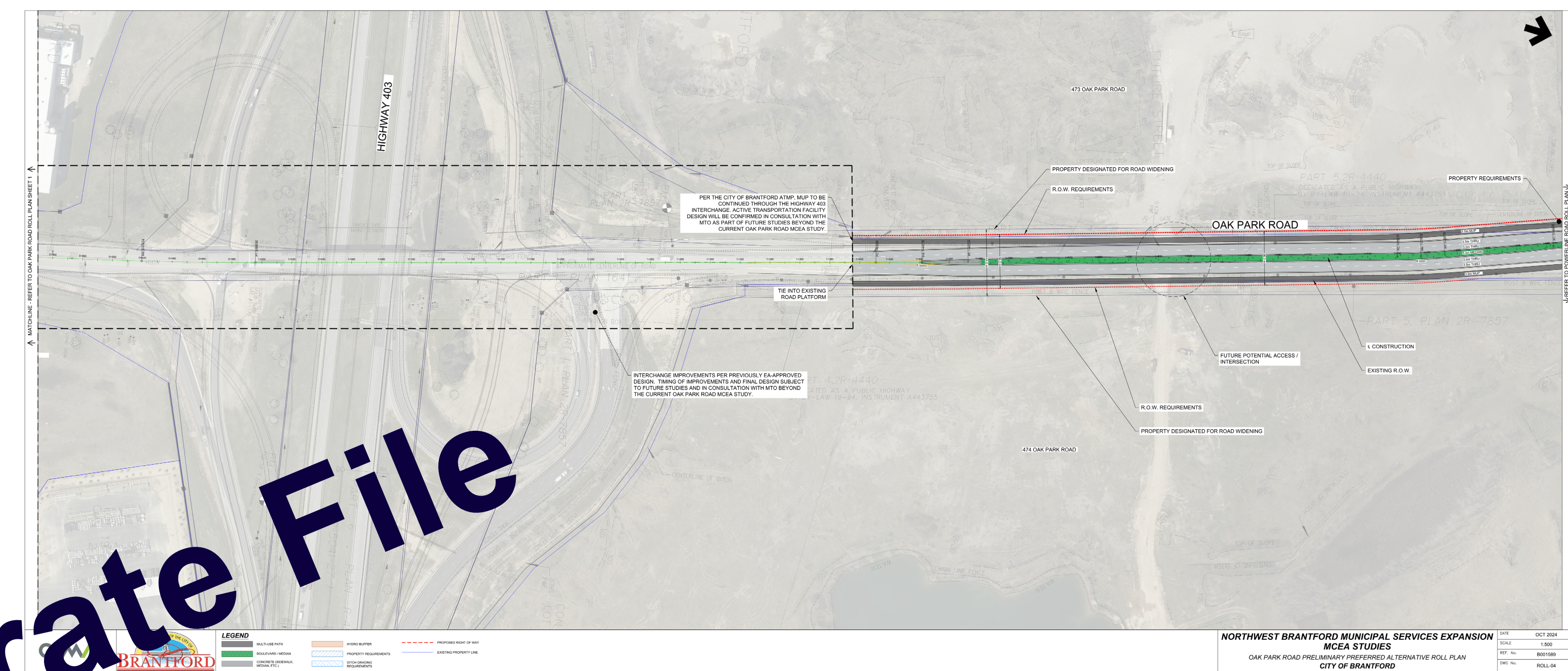
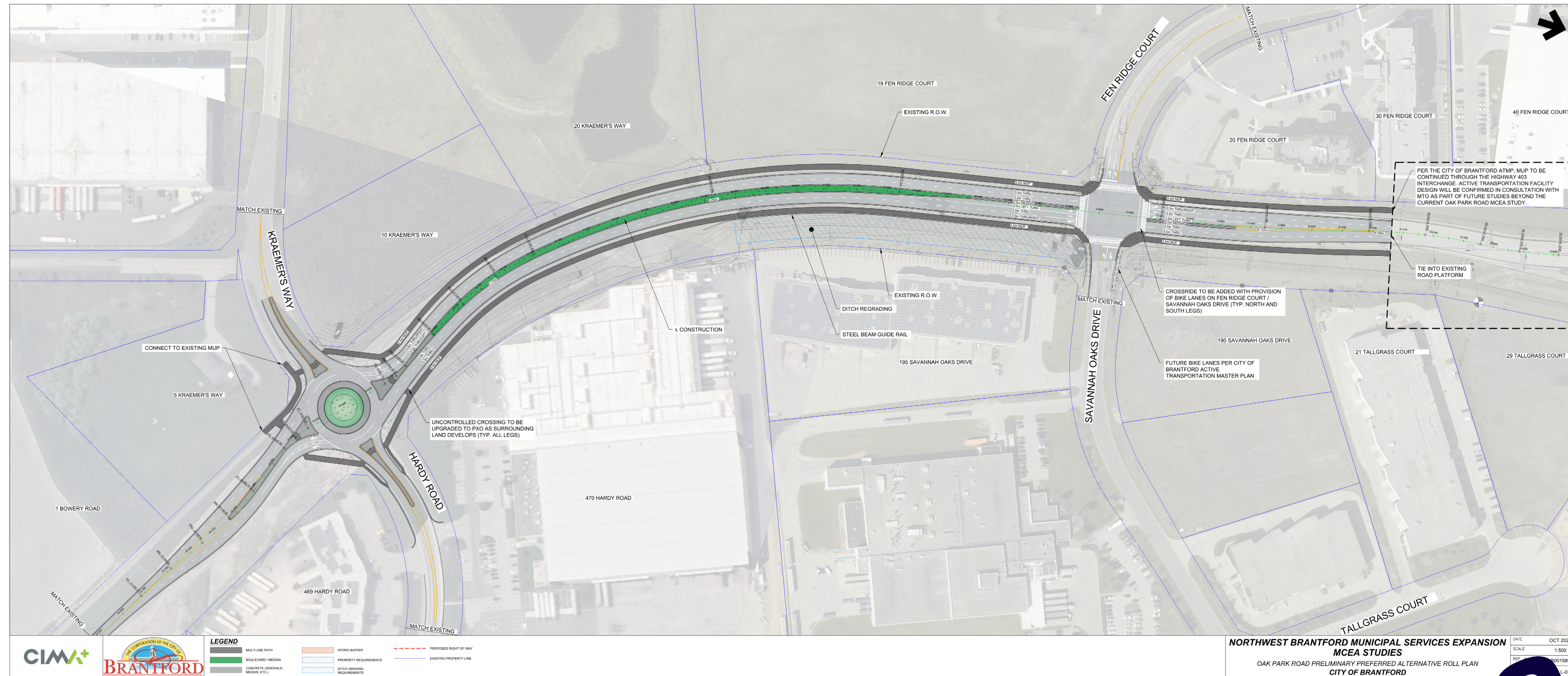
Roundabout is preferred:

- While the signalized intersection has a smaller footprint, the roundabout provides better traffic operations.
- The roundabout better accommodates the skewed geometry of the intersection.
- The roundabout accommodates a wider multi-use path compared to the signalized intersection.
- Both alternatives have similar impacts to the cultural and natural environments, as well as technical considerations.

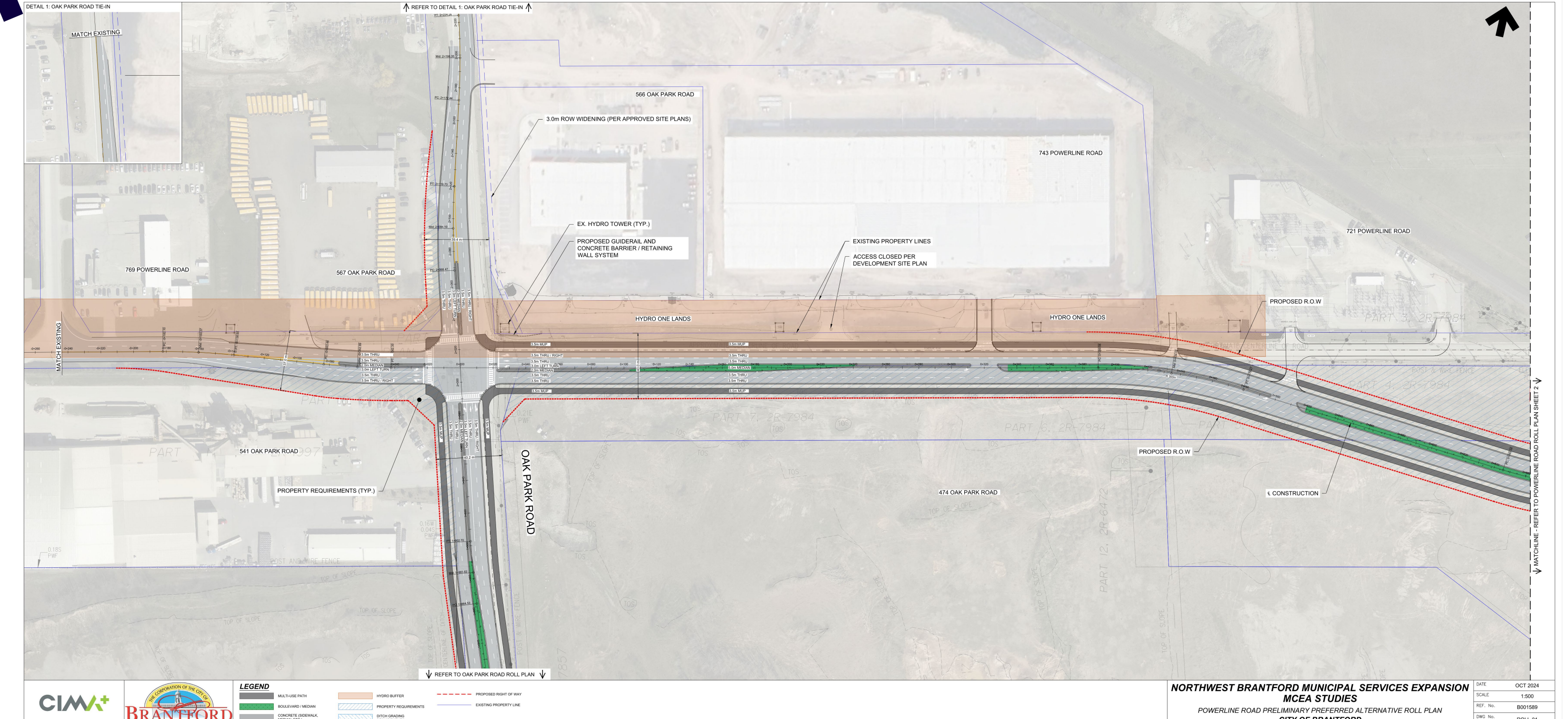
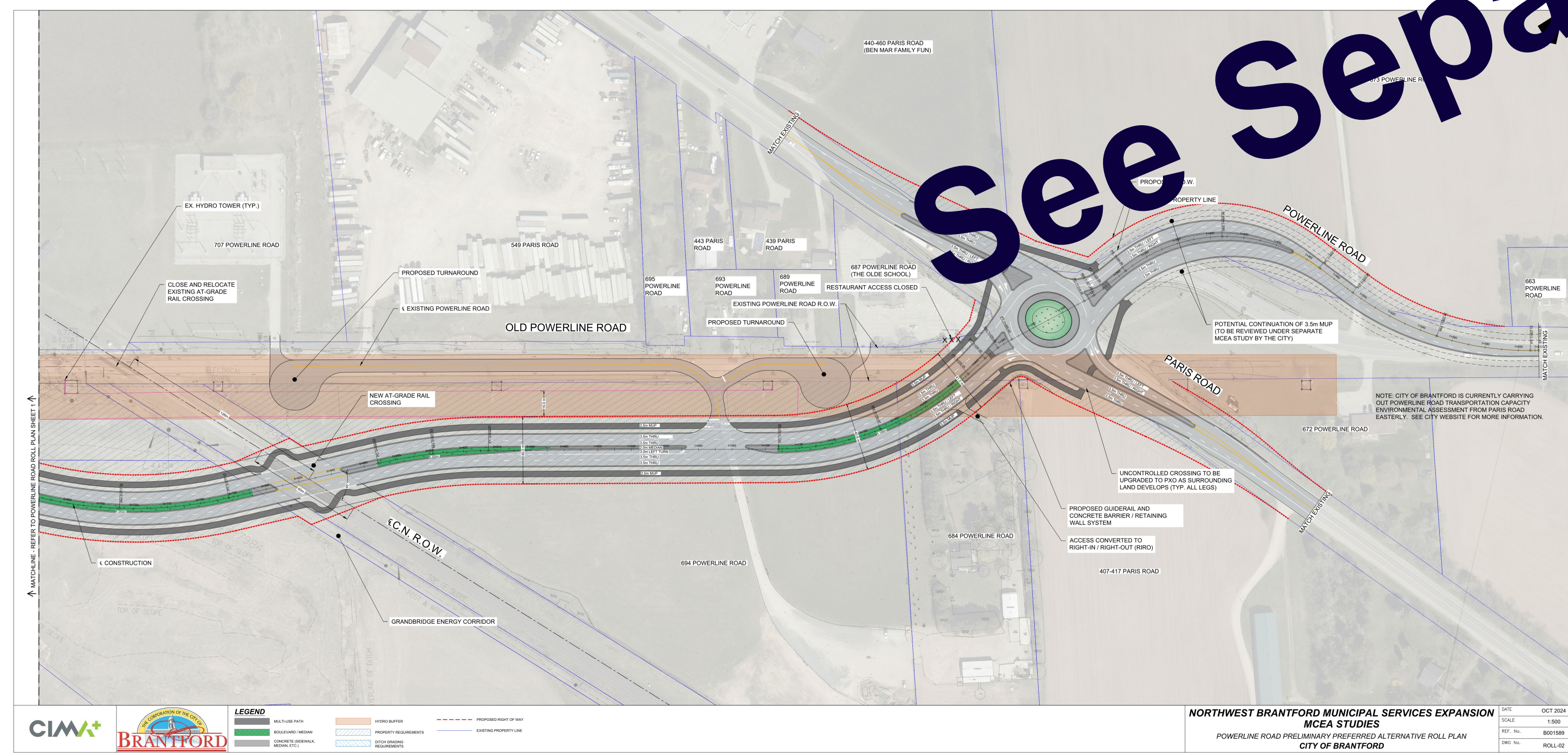
Transportation Oak Park Road & Powerline Road



Preliminary Preferred Plan



See Separate File



Next Steps

After this Public Information Centre, the following work will be completed for both projects:

- Finalize roadway drainage and stormwater management requirements
- Refine and finalize the preliminary preferred plan and complete preliminary design
- Identify mitigate measures and commitments to future work to manage potential effects on the socio-economic, cultural, natural, and technical environments and ensure all regulatory requirements are met
- Prepare separate Environmental Study Reports (ESR) for Oak Park Road and Powerline Road to document the study findings and decision-making process
- File ESRs for public review (minimum 30-day review period)

Stay Engaged!

- ✓ Please sign in and take a comment sheet.
- ✓ Have a look at the project information on display and chat with the Project Team.
- ✓ Provide your feedback regarding the information presented by **November 15**

Visit the study website at:

[Brantford.ca/NW_ServicesExpansion](https://brantford.ca/NW_ServicesExpansion)

Do you have any questions, comments, or want to stay up to date?

Please contact us anytime!

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