Line 8 and Sideroad 10 Environmental Study Report Addendum

Planmac Engineering Inc.

Bradford West Gwillimbury
A Growing Tradition

PLANMAC ENGINEERING INC.

Line 8 and Sideroad 10 Improvements

Line 8 from Barrie Street to 10 Sideroad and 10 Sideroad from North of Line 8 to Reagens Industrial Parkway

Environmental Study Report - Amendment

Prepared for:
Town of Bradford West Gwillimbury

Prepared by:
Planmac Engineering Inc.

October 2025

Standard Limitations

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This Standard Limitations statement is considered part of this report.

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Executive Summary

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Municipal Class Environmental Assessment: Line 8 & Sideroad 10 Improvements

Background

In the fall of 2016, the Town of Bradford West Gwillimbury (Town) initiated a Municipal Class Environmental Assessment (Class EA) to evaluate transportation improvements along Line 8 (Barrie Street to Sideroad 10) and Sideroad 10 (Line 8 to Reagens Industrial Parkway). The study aimed to address existing and future 2031 traffic conditions, including active transportation enhancements. The planning process adhered to Schedule C requirements under the Municipal Engineers Association Class EA guidelines (October 2000, as amended in 2007, 2011, and 2015).

The Class EA was informed by comprehensive background studies encompassing:

- Traffic analysis and modelling
- Stormwater management
- Natural environment assessment
- Geomorphic assessment
- Noise assessment
- Road safety performance
- Archaeological assessment
- Built heritage and cultural heritage landscape assessment

Public & Stakeholder Consultation

An extensive public, agency, and stakeholder engagement process was conducted to facilitate feedback on study findings and recommendations. Between 2017 and 2019, the Town hosted:

- Four Public Information Centres (PICs)
- Two stakeholder meetings
- Two Technical Advisory Committee (TAC) meetings

Key topics included the study purpose, assessment of alternative solutions, selection of the preferred design solution, environmental impact assessments, and mitigation measures. The findings were compiled into an Environmental Study Report (ESR), presented to Town Council in February 2020 for endorsement.

Following the presentation, Council expressed concerns regarding land acquisition requirements. Before finalization, the study was put on hold in March 2020 due to the COVID-19 pandemic.

Bradford Bypass and Other Studies

The original Class EA traffic analysis (2017–2019) did not account for the future Bradford Bypass, as no provincial commitment existed at the time. However, in fall 2021, the province announced plans for the design and construction of the bypass, necessitating a reassessment of future traffic conditions on Line 8.

Between 2021 and 2022, the Town completed updates to:

- **Transportation Master Plan (TMP)** – confirmed the continued need for road and active transportation improvements on Line 8.
- **Holland Street Class EA** – functional changes in the downtown core influencing traffic patterns.

Study Reactivation & Updated Traffic Analysis

In fall 2022, the Class EA study for Line 8 was reactivated, incorporating:

- **Updated future traffic volumes for Line 8 and Sideroad 10** – incorporating the Bradford Bypass and updated TMP macro traffic model results.
- **Updated traffic analysis for Line 8 and Sideroad 10** - micro simulation modelling of various alternative lane configurations (i.e., 2, 3 and 4 lane cross sections) and intersection treatments (i.e., traffic signals and roundabouts).

Spring 2025 Public Open House

In spring 2025, the Town of Bradford West Gwillimbury hosted a fourth public open house to provide:

- **Study Update** – A progress report on developments since the previous public open house in November 2019.
- **Presentation of the Revised Design Concept** – Introduction of the updated preliminary preferred design concept.
- **Public Engagement & Feedback** – Collection of comments and input regarding the preliminary preferred design concept for Line 8 and Sideroad 10.

As part of the public open house, concept drawings were presented, illustrating primarily a visual and functional upgrade maintaining a primarily 2-lane cross section with installation of multi-use pathways.

Spring 2025 Council Resolution

Following the public open house, the preferred design was presented to the Town of Bradford West Gwillimbury Council at a regular scheduled meeting. Following this meeting, there were suggestions made and conversations held between the design team and Town staff which are further described in the following sections. Ultimately, the following major design features were selected as the preferred design:

Road Upgrades

- **Sideroad 10 (Line 8 to Reagens Industrial Parkway)** – Upgrade existing 2-lane rural cross-section to 4-lane urban cross-section.
- **Line 8 (Sideroad 10 to Professor Day Drive)** – Upgrade 2-lane rural cross-section to 4-lane urban cross-section.
- **Line 8 (Professor Day Drive to Noble Drive)** – Upgrade 2-lane rural cross-section to 4-lane urban cross-section.
- **Line 8 (Noble Drive to Barrie Street)** – Upgrade 2-lane semi-urban cross-section to 4-lane urban cross-section.

Intersection Upgrades

- **Line 8 & Sideroad 10** – Convert temporary signals to two-lane roundabout.
- **Line 8 & Langford Blvd / Sumerlyn Trail / Rogers Trail / Professor Day Drive / Noble Drive** – Replace temporary signals with permanent signals and maintain turn lanes (Professor Day Drive includes additional WB & EB left-turn lanes).
- **Line 8 & Northgate Drive** – Upgrade stop control to permanent signals.
- **Line 8 & Barrie Street** – Add second eastbound left-turn lane, remove channelized westbound right-turn lane on Dissette Street, and normalize westbound right-turn lane at intersection approach.

Active Transportation Upgrades

- **Line 8 (Noble Drive to Barrie Street)** – Sidewalks on the North Side of the road.
- **Line 8 (Noble Drive to Sideroad 10)** – Multi-use paths on both sides of the road.
- **Sideroad 10 (Line 8 to Reagens Industrial Parkway)** – Multi-use paths on both sides of the road.

Implementation Considerations

Utility impacts and relocation requirements will be coordinated during the design phase with affected service providers. Land acquisition will be required in localized sections of Line 8 and on Sideroad 10 to facilitate road widening and multi-use path installation, as well as the intersection works. Additional temporary easements may be required to address utility relocation requirements.

Pending budget approval and regulatory permits, construction is expected to be completed in 2-stages, commencing in 2027, with completion anticipated by 2031.

Conclusion

This addendum to the draft 2020 Environmental Study Report (ESR) provides a summary of the updated consultation process and transportation recommendations for Line 8 and Sideroad 10. The background environmental information presented in the original ESR, along with supporting study reports, remains valid and continues to inform the assessment.

If concerns arise regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, individuals may submit a request for a higher level of study or conditional approval to the Minister of the Environment, Conservation and Parks & Director of the Environmental Assessment Branch. Requests may be submitted by mail or email.

Minister of the Environment, Conservation and Parks
Ministry of the Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto, ON M7A 2J3
Minister.mecp@ontario.ca

Director, Ministry of the Environment, Conservation and Parks
Environmental Assessment Branch

135 St. Clair Avenue West, 1st Floor
Toronto, ON M4V 1P5
EABDirector@ontario.ca

Requests should also be copied to the Study Team by mail or email. For more information on requests for orders under Section 16 of the Environmental Assessment Act, please visit the Ministry of the Environment, Conservation and Parks website:

https://www.ontario.ca/page/class-environmental-assessments-section-16-order

1.0 Introduction

1.1 Background

The Town of Bradford West Gwillimbury (Town) engaged Planmac Engineering Inc. (Planmac) to finalize the draft Environmental Study Report (ESR) prepared in 2020 in compliance with the Municipal Class Environmental Assessment (MCEA) Process under Schedule 'C' Environmental Assessment (EA) requirements.

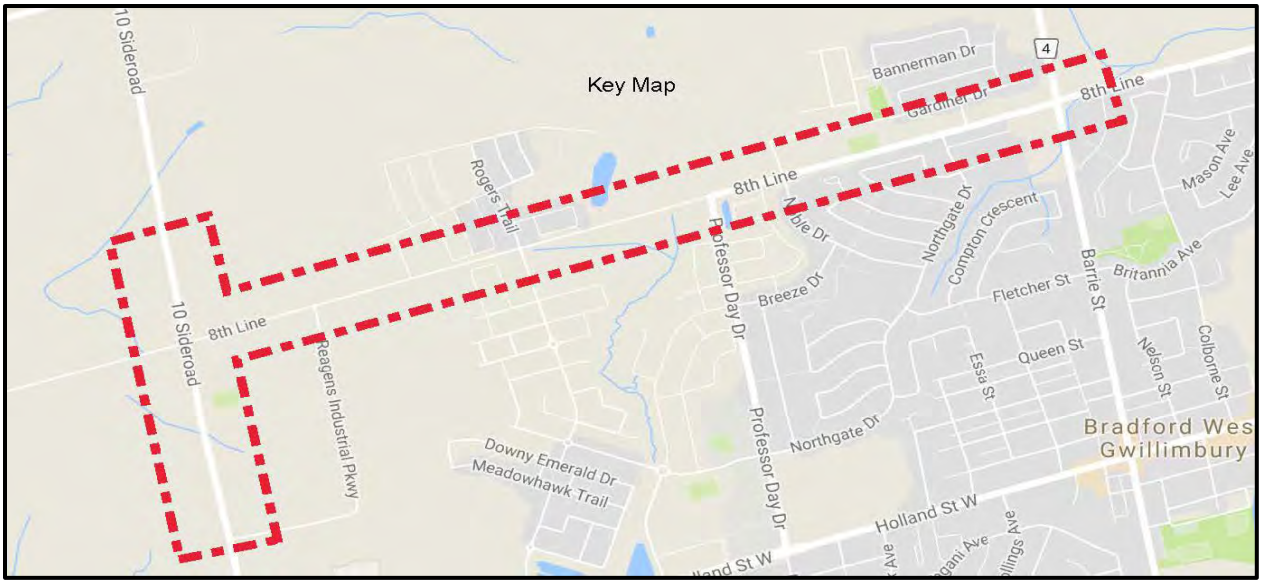
The MCEA process serves as a structured decision-making and planning framework designed to identify and mitigate potential project impacts before implementation. This process mandates:

- Evaluation of possible solutions
- Development of design concepts
- Selection of the optimal approach based on an assessment of environmental effects and mitigation strategies

1.2 Study Limits

The Class EA study area includes:

- **Line 8**: Barrie Street to 10 Sideroad
- **Sideroad 10**: North of Line 8 to Reagens Industrial Parkway



1.3 Preferred Design Concept Amendments

Following the completion of the draft 2020 Environmental Study Report (ESR), additional information has emerged that was previously unavailable during the initial assessment. This new data has necessitated adjustments to the recommended design improvements, ensuring alignment with updated traffic forecasts and infrastructure developments.

One of the most significant factors influencing these refinements is the proposed Bradford Bypass. Traffic modelling now indicates that this new corridor will divert future traffic volumes away from certain sections of Line 8, particularly between Sideroad 10 and Professor Day Drive, thereby reducing capacity concerns in this area.

Conversely, the planned Bradford Bypass interchange at County Road 4, located just north of the Line 8/Barrie Street intersection, is expected to increase traffic demand and congestion at the east end of Line 8. To accommodate these traffic pressures, the revised design includes:

- A second eastbound through lane from Professor Day Drive to Barrie Street
- Eastbound-to-northbound dual left-turn lanes at the west approach to Line 8 and Barrie Street intersection

These modifications ensure optimal traffic flow, capacity efficiency, and long-term sustainability, allowing the transportation network to adapt to evolving regional needs.

1.4 ESR Addendum

This addendum document serves to review and refine the findings of the draft Environmental Study Report (ESR) prepared in 2020. Its primary objective is to:

- Present updates to traffic forecasts and modelling results
- Amend recommendations for road and intersection improvements
- Incorporate new background information influencing design considerations

The revisions reflect evolving infrastructure plans, including the proposed Bradford Bypass, and ensure that the transportation network remains efficient, adaptable, and aligned with future travel demands.

1.5 Problem and Opportunity Statement

At the inception of this project, and in alignment with Phase 1 of the Municipal Class Environmental Assessment (MCEA) process, a problem/opportunity statement was developed to establish the study’s purpose and objectives.

For the Line 8 and 10 Sideroad study area, the primary objective is:

"To address existing and future traffic infrastructure and pedestrian safety deficiencies in an environmentally responsible manner, while accommodating continued growth and evolving travel demands based on projected 2031 traffic conditions for the Town of Bradford."

This statement serves as the foundation for evaluating and implementing transportation improvements, ensuring long-term efficiency, safety, and sustainability within the study area.

1.6 Alternative Solutions

As part of the draft Environmental Study Report (ESR), six alternative solutions were developed to address the problem/opportunity statement. These alternatives remain consistent with their original conception and rationale.

- **Do Nothing** – Maintain existing conditions without infrastructure improvements.
- **Traffic Demand Management** – Encourage alternative modes of transportation to reduce congestion.
- **Expand Transit Services** – Improve public transit options to accommodate future travel demand.
- **Alternative Travel Routes** – Enhance existing and new travel corridors to redistribute traffic flow.
- **Upgrade Two-Lane Road** – Convert to an urban cross-section with intermittent left-turn median lanes and intersection improvements.
- **Widen to a Three to Four Lane Configuration** – Expand to an urban cross-section with comprehensive intersection improvements.

1.7 Screening Assessment – Phase 2 of the MCEA Process

To comply with Phase 2 of the Municipal Class Environmental Assessment (MCEA) Process, a screening assessment was conducted to evaluate each alternative solution using the following criteria:

- **Transportation / Technical Feasibility** – Effectiveness in addressing future traffic demand and operational needs.
- **Natural Environment Impact** – Potential effects on ecological features and mitigation strategies.
- **Social Environment Considerations** – Impacts on residents, businesses, and community connectivity.
- **Cultural Heritage Environment** – Influence on heritage landscapes and historical sites.
- **Economic Environment Factors** – Cost-effectiveness, funding feasibility, and long-term benefits.

Matrices were developed to document the outcome of the screening assessment, providing a comparative analysis of each alternative's performance against the evaluation criteria.

1.8 Updated Preferred Design Alternative

Following the screening assessment, the study team determined that the most appropriate solution is to upgrade the roadway to urban design standards, incorporating 3 and 4-lane configurations based on updated traffic volumes and capacity assessment. Ultimately, the goal of this reconstruction project should be to "future proof" this section of roadway against an anticipated consistent growth throughout the next several decades. This will allow the road to last longer, without the need for a future additional reconstruction, ultimately reducing cost impacts and disruptions to the town and residents associated with road widening activities. This solution includes:

- Intersection upgrades
- Active transportation facilities, such as multi-use paths

This approach aligns with the problem/opportunity statement and provides the most effective long-term transportation solution for Line 8 and Sideroad 10.

The previously preferred design alternative, introduced in 2020, featured a four-lane urban cross-section spanning the entire Line 8 and Sideroad 10 corridor. This design incorporated two-lane roundabouts at strategic intersections, along with auxiliary turn lanes at signalized junctions to optimize traffic flow. However, this plan was formulated before the announcement of the Bradford Bypass, which now necessitate reassessment to ensure alignment with the provinces plans for the Bradford Bypass.

Building on this, updated traffic modeling has shown that the Bradford Bypass will effectively redirect traffic volumes away from Line 8 (between Sideroad 10 and Professor Day Drive), alleviating capacity concerns within this segment. However, the planned Bradford Bypass interchange at County Road 4, situated just north of the Line 8/Barrie Street intersection, is expected to drive a substantial increase in Line 8 traffic volumes, between Professor Day Drive and Barrie Street requiring:

- A second eastbound through lane from Professor Day Drive to Barrie Street.
- Eastbound to northbound dual left-turn lanes at the west approach to the Line 8 and Barrie Street intersection.
- A second westbound through lane from Barrie Street to Noble Drive.

Regarding intersection upgrades, the updated traffic assessment and revised road configuration necessitate the following modifications to the 2020 preferred design concepts:

1. **Line 8 and Sideroad 10 intersection** – 2 lane roundabout instead of a single lane roundabout.
2. **Line 8 and Langford Blvd, Rogers Trail/Summerlyn Trail, and Professor Day Drive** – replace temporary signals with permanent signals instead of 2-lane roundabouts.
3. **Line 8 and Northgate Drive** – maintain 3-leg intersection configuration and install traffic signals.

The decision to replace the roundabout treatment with permanent traffic signals at Langford Blvd, Rogers Trail/Summerlyn Trail, and Professor Day Drive was based on a comparative analysis of intersection performance. Both treatments offered similar operational efficiency and pedestrian crossing opportunities; however, the signalized intersections were determined to have a lower impact on the built side roads, particularly in transitioning existing temporary signals to permanent ones.

Preliminary engineering drawings depicting the proposed road and intersection improvements are included in **Appendix A** for reference.

2.0 Summary of Consultation Efforts

2.1 Public Consultation

The Municipal Class Environmental Assessment (MCEA) process incorporated extensive public and agency consultation throughout the duration of the study, including engagement with Indigenous communities. The consultation activities conducted since the public review of the 2020 Environmental Summary Report, prepared by Planmac Engineering Inc., are summarized as follows:

Notice of Public Information Centre #4:
A public notice for the fourth Public Information Centre (PIC) was published on the Town's website and in digital editions of the Bradford News and Bradford Times on February 7, 2025. Additionally, printed copies were hand-delivered to residents and businesses along Line 8 and Sideroad 10. Following a scheduling change, the meeting was rescheduled, and updated notifications were issued via email on February 25, alongside revised postings on the Town's website and local digital newspapers.

Public Information Centre #4:
The fourth PIC was held at the Bradford Community Hub on March 24, 2025, from 5:30 p.m. to 7:30 p.m. This session provided a comprehensive update on the project's progress, including an overview of the previously completed work for Line 8 improvements. It also presented the revised preferred design concept following the assessment of the Bradford Bypass impacts. Additionally, the session outlined the problem/opportunity statement, explored alternative solutions, and reviewed supplemental technical and environmental studies undertaken after January 2020.

Selection of Preferred Design Concept:
Following PIC 4, multiple discussions and meetings were convened between Town staff and the Environmental Assessment (EA) Team to evaluate public feedback and extend the planning horizon beyond 2031. These information workshops provided a thorough review of all facets of the project, with particular emphasis on safety considerations and long-term infrastructure planning and forecasting. The collaborative effort ensured that decisions were made with the best interests of the community in mind.

2.2 PIC 4 Summary of Comments and Responses

Before and after **Public Information Centre #4**, the Study Team received numerous comments from external agencies and members of the public. Each comment was systematically recorded, reviewed, and responded to. A summary of these comments, along with the corresponding responses, is provided in the table below.

Comment	Response
Thank you for providing this notice of public consultation for upcoming work on Line 8 in the Town of Bradford West Gwillimbury. MSIFN Consultation requests to receive further information on the scope of this work and potential design details for span bridges and/or culverts. For this, we strongly support the use of fish-friendly designs. We also note the presence of an unevaluated wetland to the south of the stormwater pond—can you confirm whether this wetland is anticipated to be impacted by this work?	This project encompasses comprehensive road and intersection enhancements to address current and future 2031 traffic conditions. It includes improvements to active transportation facilities and the implementation of low-impact development (LID) stormwater management measures, alongside drainage culvert upgrades. Key elements of the project: Culvert Replacements on Sideroad 10 (South of Line 8): The existing 3.0-meter steel multi-plate culvert will be replaced with a 4.2-meter span precast concrete box culvert. Intersection Upgrades at Line 8 and Sideroad 10: The current twin 900mm HDPE culvert on the west leg of the intersection and the 800mm CSP culvert on the south side will be replaced with a 2.4-meter span low-profile concrete box culvert. Preservation of Adjacent Infrastructure: The large box culvert crossing and wetland feature near Line 8, west of the Professor Day Drive intersection, are not expected to be affected by the proposed road improvements. This carefully designed initiative balances infrastructure upgrades with sustainable development measures to support future growth while minimizing environmental impact.
Thank you for your email regarding the upcoming roadway improvement project in Bradford. *Based on the limits of the project identified on the map, Hydro One Networks Inc. owns and operates electrical distribution assets in the area. Unfortunately, without a proper survey showing existing assets in the area, we cannot provide detailed information. As the project continues to progress and a clear scope of work has been established, please keep myself and our general field business center mailbox [CentralFBCPlanning@HydroOne.com] included on all future correspondence. Should you have any conflicts with existing HONI assets, we would first complete what we call a Class C estimate which is a high level (±50%) estimation of the total project costs. Once agreed to by the Town, we would then complete a detailed design and estimate (±10%) to*	Noted. The Design Team will be in contact with Hydro One to discuss potential conflicts and relocation strategies.

satisfy the relocation requirements. For your reference I have attached both our process for Municipal Driven Relocations, as well as our guidelines for excavation limits around HONI plant to assist in establishing any conflicts. Please don't hesitate to reach out at any time with additional questions or concerns.	
CANCEL THIS PROJECT (WIDENING) *DO NOT SUPPORT* *Bradford By-Pass will alleviate many traffic concerns & traffic volumes presently.* *Enhance public safety - by adding sidewalks where required & streetlighting required. ""ONLY""* *Fully support the proposed interchange (Bradford By-Pass) at 10th Sideroad.*	Concerns noted.
Overall things look great! I really like the overall vision and making choices that may not be popular with the masses (e.g roundabouts) but are based on the best data available to balance safety and traffic throughout. The only request I have is if the utility lines can be buried in conjunction with the project. It's probably prohibitive and a larger coordinated effort with the companies that use those lines, but it would be a great cap to put on it for the visual impact of driving down the new and improved Line 8	Opportunities to relocate utilities underground will be explored in consultation with each utility service provider during the detailed design phase. As you have noted, this approach may have significant cost implications and other construction challenges.
Concern over hydro lines, underground? *Expropriating 3m off front yard to tie back retaining wall properly between my house and the neighbor to west. Noise pollution from stretching in front of my house where 5 lanes proposed. If not noise, for help with blocking the visual aspect of so many vehicles. Light from streetlamps if moved to the north side of the road. Confusion for vehicles crossing 2-3 lanes traffic to travel on opposite side of the road."*	Opportunities to relocate utilities underground will be explored in consultation with each utility service provider during the detail design phase. However, this approach may have significant cost implications and other construction challenges. The recommended road improvements including retaining walls required for grading containment purposes will be designed to suit the existing municipal road allowance. Expropriation is not being considered. Based on the noise assessment completed as part of this study, noise levels are not anticipated to increase above the threshold which would other require noise mitigation measures. Streetlight improvements will be designed to be dark sky compliant and to avoid any light spillage onto private property. It is anticipated the additional travel lanes will address capacity issues and provide gaps in the traffic stream to improve ingress and egress from private driveways.
1) some intersections need a turn lane. *minimal extra cost ->lots of room available* *2) Truck turning a little tight at prof day + reagan + langford.* *wider at intersection lane then taper.* *3) consider morre roundabout intersections.* *safer, less congestion.* *4) add a little more room for turning at all*	All intersections, except for Taucar Gate and Lowes Gate, will have auxiliary turn lanes. Intersections will be designed to accommodate large truck turning movements. The implementation of additional roundabout treatments will be considered. Opportunities to provide additional pavement area for turning movements will be investigated during the detailed

intersections + roundabout. *make things safer.*	design phase.
Concerned about noise pollution *Jake brakes as trucks slow for new stoplight at Northgate, additional tires on pavement, more horns, trash + garbage (litter), air pollution, dust from brakes, dust from rubber/asphalt, salt brine moisture in air CO2 levels at more ICEngines safety guarding against vehicles into backyard light pollution headlights at night subsidence + disturbed gradient, falling fences vibration, privacy*	Comments noted. The installation of signs advising heavy trucks to avoid using engine brakes will be implemented.
Definitely should not have 4 live lanes East of Professor Day Drive. There are subdivisions and driveways that have difficulties turning left when there is only 2 lanes. Imagine going to turn left through 2 live lanes in 2 directions. *This is a recipe for disaster.* *The straight lane leading east by 8th/Northgate turns into a left turn lane. This will cause confusion.* *On the 6th Line/Simcoe there have already been many issues with the straight lane that becomes a turning lane. People drivve into oncoming traffic and that will happen here.* *The project can also be scaled back. The bypass will help immensely with traffic and this road will not have as high of volumes.* *The whole road should be 3 lanes, the whole way. There are two live lanes of traffic, one median lane for left turns, and then an apron for right hand turns only at subdivisions, it would mack much more sense and make the road safer.*	Comments noted. The recommended design concept is intended to improve traffic flow, capacity, level of service and safety based on forecasted 2031 traffic volumes and traffic simulation modelling, which includes the proposed Bradford Bypass and the influence it will have on traffic patterns and diversion from Line 8. Appropriate signage will be installed to help guide traffic through the transition to the dual left turn lanes. Based on traffic modelling results, maintaining 1 lane in each direction will result in significant congestion and large queue lengths with traffic backing up and blocking Lowes Gate and Northgate intersections.
1) Do we actually require 4 lanes between Professor Day Drive + Barrie Street intersections. *2) I back onto 8th Line from Prince Drive. What sound + safety measures will be taken for the residence after adding an additional 2 more lanes onto 8th Line? Currently it is very noisey and people not obeying speed limits making unsafe situations for residence. In the past vehicles have already gone through the chain link fence into backyards.* *3)Will 8th Line at its current state not handle traffic after teh 404 Link is built?* *4) What is the timeline when this project will commence?*	Based on traffic forecasts and traffic modelling, which included the proposed Bradford Bypass, additional lanes are required to address capacity, congestion and safety concerns. Based on the results of the noise impact study, noise levels are not anticipated to exceed acceptable level increases. As such noise mitigation measures are not deemed necessary. Construction is tentatively planned to commence in 2027.
Due to unforeseen plans I will not be able to attend the PCC in regards to the Line 8 improvements from Barrie Street to Sideroad 10. *I would love to offer some thoughts on the new intersection at Line 8 and Professor Day Drive. I think turning lanes on both sides would greatly help ease traffic flow as I've seen multiple vehicles take the shoulders to avoid drivers that are turning*	Upgrades to Line 8/Professor Day Drive intersection will include westbound and eastbound dedicated turning lanes. To accommodate active transportation and pedestrian traffic, sidewalks and multi-use pathways will be provided on both sides of Line 8 and on the east side of Sideroad 10. Taucar Gate was designed to operate as a right in / right out only intersection due to its proximity to

making it unsafe for pedestrians. *Speaking of pedestrians, a sidewalk is greatly needed between Professor Day Drive and Taucar Gate.* *I live on Matthewson Avenue. Now that the traffic lights have been installed at Professor Day Drive, my travel time has increased. Is there a possibility to remove the concrete median that is blocking travelers going West on Line 8? This would allow people to get to their homes faster by taking Taucar Gate, also helping with traffic flow at the lights.*	Noble Drive and to address traffic safety and operational concerns. As such, it will not be possible to remove the median island.
"I'm happy to see some multi-use trails along the planned roadway, but I think it's important to prioritize continuing it all the way to Barrie St. This would connect the trail to the new one on County Rd 4 and make it easier for residents to actively travel East/West across town since there are currently no safe trails in that direction. Prioritizing trails would have multiple benefits to residents: *-alleviate traffic congestion* *-promote active & healthy lifestyle* *-increase public safety for pedestrians, cyclists, scooters, etc.* *-provide alternatives beyond driving* *-improve air quality, address climate change.* *- connect parks (henderson & scanlon creek)* *- This project is a great opportunity to build an active transportation network in the town and I would hate to see it missing.* *- I'm happy to see the roundabout at 10th Sideroad.* *- I know space is limited, but right turn (southbound) lane at Barrie Street would alleviate a lot of traffic congestion.* *- In fact, more right turn lanes at all intersections would keep traffic moving more effectively.* *- Will the multi-use trail connect to the existing trails at Taucar Gate and Langford Blvd? They should.*	Comments noted. Multi-use trails are planned for both sides of Line 8, including from Taucar Gate to Langford Blvd. Due to property constraints between Noble Drive and Barrie Street, concrete sidewalks are proposed on the north side of Line 8 and partially on the south side where boulevard space permits.
I would like to acknowledge receipt of your correspondence, which was received March 7th, 2025, regarding the above noted project. *As you may be aware, the area in which this project is proposed is situated within the Traditional Territory of Alderville First Nation. Our First Nation's Territory is incorporated within the Williams Treaties Territory and was the subject of a claim under Canada's Specific Claims Policy, which has now been settled. All 7 First Nations within the Williams Treaties have had their harvesting rights legally re-affirmed and recognized through this settlement (2018).* *In addition to Aboriginal title, Alderville First Nation rights in its Reserve and Traditional Territory and/or Treaty Territory include rights to hunt, fish and trap, to harvest plants for food and medicine, to protect and honour burial sites and other*	The requested review fee will be addressed. Background documents will be circulated for review. A meeting to discuss the project and respond to questions may be arranged if necessary.

significant sites, to sustain and strengthen its spiritual and cultural connection to the land, to protect the Environment that supports its survival, to govern itself, sustain itself and prosper including deriving revenues from its lands and resources, and to participate in all governance and operational decisions about how the land and resources will be managed, used and protected. *Alderville First Nation is requiring a File Fee for this project in the amount of $300.00. This Fee includes administration, an initial meeting, project updates as well as review of standard material and project overviews. Depending on the number of documents to be reviewed by the Consultation Department, additional fees may apply. Please make this payment to Alderville First Nation and please indicate the project name or number on the cheque.* *If you do not have a copy of Alderville First Nation's Consultation Protocol, it is available at: alderville.ca/wp-content/uploads/2017/02/AFNProtocol2.pdf.* *Please note that the mapping in this document needs updating to reflect the Williams Treaties First Nations Settlement Agreement 2018.* *In order to assist us in providing you with timely input, please provide us with a Notice of Request to Consult containing relevant information and material facts in sufficient form and detail to assist Alderville First Nation to understand the matter in order to prepare a meaningful response. Guidance for giving notice can be found on pages 11-12 of our Consultation Protocol. Based on the information that you have provided us with respect to the notice of Line 8 Improvements from Barrie Street to Sideroad 10 and Sideroad 10 from north of Line 8 to Reagens Industrial Parkway Municipal Class Environmental Assessment, Alderville First Nation may require a mutual agreement to establish a special consultation process for this project. After the information is reviewed it is expected that you or a representative will be in contact to discuss this matter in more detail and possibly set up a date and time to meet with Alderville First Nation in person or virtually.* *Although we have not conducted exhaustive research nor do we have the resources to do so, there may be the presence of burial or archaeological sites in your proposed project area. Please note, that we have particular concern for the remains of our ancestors. Should excavation unearth bones, remains, or other such evidence of a native burial site or any other archaeological findings, we must be notified without delay. In the case of a burial site, Council reminds you of your obligations under the Cemeteries Act to notify the nearest First Nation Government or other*	

community of Aboriginal people which is willing to act as a representative and whose members have a close cultural affinity to the interred person. As I am sure you are aware, the regulations further state that the representative is needed before the remains and associated artifacts can be removed. Should such a find occur, we request that you contact our First Nation immediately. *Furthermore, Alderville First Nation also has available, trained Archaeological Liaisons who can actively participate in the archaeological assessment process as a member of a field crew, the cost of which shall be borne by the proponent. Alderville First Nation expects engagement at Stage 1 of an archaeological assessment, so that we may include Indigenous Knowledge of the land in the process. We insist that at least one of our Archaeological Liaisons be involved in any Stage 2-4 assessments, including test pitting, and/or pedestrian surveys, to full excavation.* *Although we may not always have representation at all stakeholders' and rights holders' meetings, it is our wish to be kept apprised throughout all phases of this project.*	
Concerns: purpose of project, transport trucks navigating the roundabout, roundabout sidewalk crossing safety, need for extending multi-use path on the west side of Sideroad 10 to improve safety for residents walking to Walmart Development, bus stop provisions on Sideroad 10, construction timeline and duration	"The objective of the project is to address transportation infrastructure requirements, considering both current and projected traffic conditions for 2031. Key priorities include enhancing public safety, improving road and intersection operations, and resolving capacity and level-of-service deficiencies. The proposed roundabout has been meticulously designed to accommodate large tractor-trailers in compliance with provincial and international standards. During the detailed design phase, opportunities to extend the multi-use path along the west side of Sideroad 10 will be explored and implemented where feasible. Additionally, transit stops along Sideroad 10 will be assessed during this phase and incorporated as appropriate. Construction is tentatively planned to begin in 2027, with an estimated timeline of approximately three years for completion.
"The Ministry of Natural Resources (MNR) has received the Notice of Public Consultation Centre No. 4 for the Line 8 Improvements in the Town of Bradford on March 10, 2025. Thank you for circulating this to our office. Our apologies for not replying to this email sooner. *MNR has prepared the attached MNR Southern Region Information Package – For External Proponent Environmental Assessments (Package) to help project proponents understand MNR's role as a commenting agency and interests related to*	Thank you for the response and accompanying documents. We will await any further comments following MNR review. In the meantime, we will forward a copy of the information display material presented to the public at PIC #4.

environmental assessment within the Ministry's mandate. The Package also provides information on the Ministry's regulatory authority to issue authorizations, permits, licenses and/or approvals. The information provided is subject to change from time to time and it is the proponent's responsibility to ensure the information used to support project planning and compliance with Environmental Assessment Act requirements is current and accurate. It is the proponent's responsibility to be aware of, and comply with, all relevant federal or provincial legislation, municipal by-laws and/or other agency approvals. *Please note that the ministry will complete a screening of natural heritage and other resource values and that assessment will be completed within the next week. If no MNR interests are identified based on the information contained in this Package, there is no need to further circulate MNR as a commenting agency when undertaking consultation and review under the applicable EA process. If you have identified any MNR interests in your project planning and require additional technical information, or if you have questions about the content of this Package, please feel free to contact me, or SR.planning@ontario.ca.* *In addition, we would like to request that you send us the materials prepared for Public Consultation Centre No. 4. This information will aid us in identifying any potential areas of interest to MNR."*	

3.0 Permit and Approvals

The following permits and approvals will be addressed during the detailed design phase:

- **LSRCA Permitting** under Ontario Regulation (O.Reg) 179/06 Development, Interference with Wetlands, and Alteration to Shorelines and Watercourses Regulation. To support permit approval, the design requirements outlined in the LSRCA Technical Guidelines for Stormwater Management Submissions (LSRCA, 2022) will be referenced and adhered to during detailed design development. Relevant design criteria are provided in Section 1.2 of the Interim Stormwater Management Report (Aquafor Beech, 2025).

- **Consolidated Linear Infrastructure Environmental Compliance Approval** (CLI ECA). An application will be submitted to the Ministry of the Environment, Conservation and Parks (MECP) for approvals related to proposed stormwater, wastewater, and potable water infrastructure modifications. In support of the MECP CLI ECA application, stormwater management requirements outlined in Appendix A of the Town of Bradford West Gwillimbury Environmental Compliance Approval (ECA Number 116-S701) will be referenced and followed in detailed

design development. CLI ECA design criteria are outlined in Section 1.2 of the Interim Stormwater Management Report (Aquafor Beech, 2025).

- **Species at Risk Considerations**. Potential impacts on species at risk will be assessed during detailed design. Any necessary consultations or approvals from MECP under the Endangered Species Act will be confirmed at that stage.

4.0 Description of the Existing Environment

The MCEA study identified several key environmental concerns, including property effects, stormwater management and drainage, impacts on the natural environment, and archaeological considerations.

To mitigate potential adverse environmental effects associated with the preferred design concept, a series of measures have been developed. The project has adopted the strictest reasonable mitigation strategies to ensure that the reconstructed road does not result in lasting harm to the natural environment while also minimizing or eliminating impacts during construction.

A summary of environmental features and constraints is provided in the following sections. Additionally, the environmental field studies and reports supporting these findings are included in the Natural Environment Assessment Report Update (Aquafor Beech Limited, 2025), available in **Appendix D**.

4.1 Natural Environment

Aquafor Beech Limited conducted a Natural Environmental Assessment Report that encompasses terrestrial and fisheries investigations, ecological land classification, and an assessment of tree species and vegetation within the study area. A summary of these findings is provided in the following section, while a full copy of the report can be found in **Appendix D**.

Key maps of the study area, along with detailed findings from the environmental studies, are further examined in Part III of this document, specifically within the 2020 Environmental Summary Report (ESR) prepared by Planmac Engineering Inc.

4.1.1 Designated Natural Heritage Features

There are no designated natural heritage features within the study area, including Areas of Natural and Scientific Interest (ANSI), Provincially Significant Wetlands (PSW), or significant wildlife habitats. Additionally, no other protected areas have been identified within the study boundary.

However, unevaluated wetlands have been mapped to the north and south of Line 8, based on provincial wetlands mapping accessed through the Natural Heritage Information

Centre (NHIC) Make-a-Map online database. Notably, wetlands are present west of Professor Day Drive. Aquafor's investigations confirmed the presence of wetlands in this area, as well as several smaller patches adjacent to the existing road.

Further details on these findings are discussed in Part III of this document, within the 2020 Environmental Summary Report (ESR) prepared by Planmac Engineering Inc.

4.1.2 Ecological Land Classification and Botanical Inventory

The vegetation communities within the study area were investigated and classified using the Ontario Ecological Land Classification (ELC) System (First Approximation—Lee et al., 1998, with amendments from MNR, 2009 [draft update], as applicable). Identified community types include cultural meadows and woodlands, wetlands (thicket swamps, cattail marshes, deciduous swamps), and upland forests, along with anthropogenic areas dominated by existing development and similar land uses.

Natural vegetation and habitat are primarily concentrated in the natural area and open stormwater management block located south and north of Line 8, respectively, between Summerlyn Trail and Professor Day Drive. None of the identified vegetation communities are considered provincially rare or significant. The ELC system is used to describe, classify, and assess ecological regions based on key environmental factors such as habitat type, land use, vegetation, topography, and soil composition. Within the study area, six (6) distinct ELC community types were identified.

Aquafor's investigations documented the presence of one Species at Risk (SAR) Black Ash (Fraxinus nigra), which is designated as Endangered and associated with swamp habitat in the vegetated area south of Line 8 between Summerlyn Trail and Professor Day Drive. Additionally, eight plant species considered rare within the Lake Simcoe Region Conservation Authority (LSRCA) jurisdiction (LSRCA, 2003) were identified:

- Water Beggarticks (Bidens beckii)
- Marsh Horsetail (Equisetum palustre)
- Spotted Geranium (Geranium maculatum)
- Yellow Water Buttercup (Ranunculus flabellaris)
- Bristly Black Currant (Ribes lacustre)
- One-seeded Bur-cucumber (Sicyos angulatus)
- Arrow-leaved Aster (Symphyotrichum urophyllum)
- Eastern Ninebark (Physocarpus opulifolius)

All of these species were documented within the natural areas between Summerlyn Trail and Professor Day Drive.

4.1.3 Tree Species and Vegetation Tree Inventory

In 2017, Aquafor Beech Limited conducted a comprehensive vegetation inventory of trees within the right-of-way (ROW) in the study area. The field investigation, completed on February 16 and 17, 2017, covered the road ROW of Line 8 from Line 8/Barrie Street to

Sideroad 10, as well as adjacent areas north and south of Line 8 and Sideroad 10, as illustrated in Exhibit 4.

Trees within the ROW were assessed and tagged, while those located on private residential properties were evaluated but not tagged, receiving an NT# (no tag) designation in the inventory. In total, 157 trees or tree groupings were identified within the study area. Notably, over half (54%) of the surveyed trees were concentrated on the south side of Line 8 between Professor Day Drive and Summerlyn Trail, which represents the only natural area within the study limits.

At the time of the assessment, the majority (67%) of surveyed trees were classified as being in fair-to-good or good condition based on observations conducted during the dormant season, while approximately 33% were categorized as fair, fair-to-poor, or poor. Due to the inventory being conducted outside the growing season, some key indicators of tree health were not fully observable. However, signs of stress caused by road salt spray and sodic soils were evident, as winter road salting activities tend to impact trees located closest to the road surface.

Given that the initial tree inventory was completed in 2017, and natural systems can undergo significant changes over an eight-year period, an updated inventory will be required during the detailed design phase. The scope of the updated inventory may be limited to trees that are directly impacted or scheduled for removal as part of the proposed works (if applicable). Additionally, it must confirm the presence of Species at Risk (SAR) trees, such as Black Ash and Butternut, as well as trees providing habitat features suitable for other SAR species (particularly bats, as discussed in Section 4.1.5).

4.1.4 Terrestrial Wildlife

Breeding bird surveys for the study area were conducted in 2017 and 2019, with additional incidental observations recorded during site visits in 2023. Across all survey periods, a total of 48 bird species were documented, the majority of which are common and widespread in Ontario. Two Species at Risk (SAR) were identified: Bank Swallow (Riparia riparia*) and Barn Swallow (Hirundo rustica). Further details on these species are provided in Section 4.1.5.

Most of the remaining species are protected under the Migratory Birds Convention Act, which prohibits damage to or destruction of active nests during activities such as tree clearing (incidental take). As a result, seasonal timing restrictions on vegetation clearing and removal will likely be required during construction to ensure compliance with regulations.

Aquafor Beech Limited also completed amphibian surveys in 2019 within the natural wetland areas south of Line 8. Three species were documented during these surveys:

- Spring Peeper (Pseudacris crucifer)
- Gray Treefrog (Dryophytes versicolor)
- Green Frog (Lithobates clamitans)

Additionally, American Toad (Anaxyrus americanus) and Northern Leopard Frog (Lithobates pipiens) were recorded in the area on separate occasions. The abundance of breeding amphibians in this region qualifies the wetland as Significant Wildlife Habitat (SWH) under provincial SWH criteria schedules for Ecoregion 6E (MNR, 2015).

Other wildlife species observed within the study area include various mammals, a single snake species, and several insect species. None of the documented species are considered rare or at risk in Ontario. However, certain SWH categories were flagged as potentially present, including Bat Maternity Colonies in association with woodland areas and Turtle Wintering Areas in deep-water sections and pooled portions of watercourses.

While the proposed design is not expected to significantly impact these habitat types, mitigation measures will be required during construction to protect retained features (e.g., tree protection fencing) and prevent indirect or off-site effects (e.g., sediment and erosion control).

4.1.5 Species at Risk Screening, and Species of Concern

The evaluation of Species at Risk (SAR) within the study area was conducted by compiling a list of potential species associations based on background resources, followed by a comparison of habitat requirements against the actual conditions present in the study area. Primary and secondary information sources were utilized to assess the presence of SAR and other species of conservation concern within a 120m radius of the study boundary.

For the purposes of this study, SAR are defined as species classified as Endangered, Threatened, or Special Concern under either the provincial Endangered Species Act or the federal Species at Risk Act. Provincially designated Endangered or Threatened species receive regulatory protection for both the species and their habitat, and any potential impacts may necessitate additional agency reviews or mitigation measures. Conversely, Special Concern species do not receive direct regulatory protection but may qualify as Significant Wildlife Habitat (SWH) under municipal natural heritage policies.

A total of 23 potential SAR associations were assessed for the study area, with most species screened out due to the anticipated lack of habitat impacts from the proposed works. Key findings and recommendations from the screening process include:

- **Black Ash** (Fraxinus nigra) - Confirmed by Aquafor's investigations (see Section 5.1.2), this Endangered species is protected under the Ontario Endangered Species Act, which prohibits harm or destruction of the species or its habitat without authorization. Black Ash habitat extends 30m from the base of qualifying individuals (as per O.Reg. 6/24, effective January 2024). During detailed design, it will be necessary to assess whether any proposed works encroach upon Black Ash habitat and to confirm the health status of individual trees.

- **Butternut** (Juglans cinerea) - Not observed during Aquafor's ecological investigations or the prior tree inventory, though habitat conditions in some portions of the study area could be suitable for this Endangered species. A

Butternut survey is recommended during detailed design to account for potential seedling growth since previous assessments. If identified, a health assessment should be conducted to determine regulatory protection status, with a 25m habitat buffer established for impact assessment.

- **Bank Swallow** (Riparia riparia) - Observed in 2017 in the gravel pit along 10 Sideroad, but not in subsequent reviews. Although unlikely to nest within the road allowance, excavation or stockpiling of soil/gravel during construction could attract individuals looking to establish nesting habitat. Construction methods should avoid creating vertical banks or large soil stockpiles during the nesting season to prevent conflicts.

- **Barn Swallow** (Hirundo rustica) - Nests were not identified during the 2023 field investigations, though individuals were observed foraging over wetlands. Future nesting may occur within or on structures in the study area, including box culverts. Prior to construction during the nesting season, a qualified biologist should conduct a nest survey to identify potential conflicts with species protected under the Migratory Birds Convention Act.

- **Endangered Bats** (Northern Myotis, Little Brown Myotis, Tri-Colored Bat) - Some trees within the study area may serve as maternity roosting sites. Since proposed road works will be maintained within the ROW, impacts to trees are expected to be minimal. However, tree removals should be assessed in detail during design to ensure compliance with the Endangered Species Act.

- **SAR Turtles** (Midland Painted Turtle, Snapping Turtle, Northern Map Turtle) - Potential habitat exists north of Line 8, east of Gosnel Circle, within the SWM pond and wetlands associated with the adjacent creek. As these species are Special Concern, they do not receive protection under the Endangered Species Act, though general wildlife mitigation measures (e.g., turtle habitat protection) are recommended during construction.

- **Yellow-banded Bumble Bee** (Bombus terricola) - A generalist species found in mixed woodlands and open habitats such as roadsides and meadow patches. Expected impacts are minimal; however, restoration measures should incorporate native wildflowers to support this species.

The Ministry of Natural Resources and Forestry (MNRF) Midhurst District identified potential presence of Butternut (Endangered), Snapping Turtle (Special Concern), Northern Myotis (Endangered), Little Brown Myotis (Endangered), and Tri-colored Bat (Endangered) within the study area. Additionally, data from the NHIC Make-a-Map database recorded five provincially rare species within 1km of the study area.

In total, 11 SAR and other species of conservation concern have previously been recorded within or adjacent to the study area, including:

- Butternut

- Weak Bluegrass
- Bobolink
- Eastern Meadowlark
- Little Brown Myotis
- Northern Myotis
- Tri-colored Bat
- Northern Map Turtle
- Snapping Turtle
- Arrow Clubtail
- Green-striped Darner

Of these, Weak Bluegrass, Arrow Clubtail, and Green-striped Darner were determined to be absent due to a lack of suitable habitat. Additionally, Eastern Meadowlark was included in the assessment due to the presence of agricultural fields in the vicinity.

No Barn Swallow nests were observed during tree survey investigations conducted within the ROW on February 16–17, 2017.

4.1.5 6 Fisheries and, Aquatic Ecosystems and Wetlands Habitat

The study area contains three unnamed tributaries with varying drainage characteristics and ecological functions:

- The **first tributary** crosses Sideroad 10 at two locations and Line 8 northwest of the Line 8/Sideroad 10 intersection.

- The **second tributary** crosses Line 8 approximately 160m west of Professor Day Drive.

- The **third tributary** crosses Line 8 approximately 140m east of the Line 8/Barrie Street/Yonge Street intersection and Barrie Street approximately 140m south of the intersection.

The first and third tributaries function as intermittent drainage features and may provide supporting fish habitat under wet conditions. The second tributary, however, is a more significant drainage system, conveyed through a large box culvert under Line 8, connecting wetland areas north and south of the corridor.

Aquatic Ecology Conditions
Aquafor Beech Limited assessed and summarized existing aquatic ecology conditions within the 3.2 km study extent, which includes the three tributary crossings. Background research and in-field observations informed the findings outlined below.

According to the West Holland River Subwatershed Management Plan, the study area is part of one of the largest subwatersheds in the Lake Simcoe Basin. Many tributaries originate in the Oak Ridges Moraine, though Fraser Creek, where these three tributaries are located, does not. As a result, Fraser Creek exhibits distinct thermal and aquatic

conditions from moraine-origin tributaries. The subwatershed plan identifies Fraser Creek as impaired, largely due to agricultural influences (LSRCA, 2010).

The segment of Fraser Creek within the study area reflects impacts from adjacent land uses, agriculture, residential development, and industrial activities. Tributary reaches show evidence of channelization and realignment, accommodating development and stormwater management infrastructure (LSRCA, 2010). On-site investigations by Aquafor staff on May 8, 2019, confirmed signs of stormwater influence, hardened tributary sections, and limited riparian cover. Benthic macroinvertebrate data provided by LSRCA further supports Fraser Creek's impairment (LSRCA, 2010).

Fish Habitat & Community
No specific fish community studies were available for the study area; however, LSRCA surveys identified 34 fish species within the West Holland River subwatershed. The subwatershed plan documents 98 known barriers to fish movement within Fraser Creek, significantly limiting connectivity for fish passage. However, the precise location and extent of these barriers remain uncertain. Fraser Creek should be considered potential fish habitat, as fish presence may vary seasonally. A list of potential fish species is provided in Exhibit 7.

Species at Risk (SAR) Considerations
Redside Dace (Clinostomus elongatus), an aquatic SAR, appears in background datasets for the region. However, according to the Department of Fisheries and Oceans Canada (DFO, 2019), the study area does not contain confirmed aquatic SAR habitat or critical habitat for SAR species. Additionally, the MNRF and NHIC mapping do not indicate any provincial aquatic SAR within the study area, either historically or presently. Consequently, the study area was not classified as potential SAR habitat for this assessment.

In-Water Work Timing Restrictions
Confirmation from MNRF Midhurst District states that any required in-water works during construction should occur between July 16 and March 14 to protect spring-spawning fish species.

4.1.6 7 Drainage

The project area for this study is located within the West Holland Subwatershed, where existing drainage follows a southerly flow pattern in two distinct directions:

- The area east of Professor Day Drive drains south before flowing eastward into an open channel that ultimately leads to the West Holland River.

- The areas west of Professor Day Drive drain south before flowing westward through various open channels that connect to Fraser Creek, which then discharges into the Holland Marsh and eventually the West Holland River.

Appendix D includes detailed Existing Condition maps for each area, as outlined in the

Interim Stormwater Management Report (Aquafor Beech Limited, 2017–2025).

Existing Roadway Drainage Features
At the local site scale, two distinct roadway cross sections exist along Line 8:

- **West of the Taucar Gate intersection**, Line 8 features a two-lane rural cross section, with roadside ditches and centerline culverts handling most roadway and external runoff.

- **East of Taucar Gate**, Line 8 transitions into a semi-urban cross section, incorporating curb and gutter drainage into a storm sewer system along the south side of the roadway. Additionally, a small roadside swale on the north side of the road directs runoff into ditch inlet catch basins at regular intervals.

Further, an existing storm sewer system along Professor Day Drive collects runoff from the north roadside ditch on Line 8 (east of the intersection) and outlets into the southwest ditch.

10 Sideroad, south of Line 8, maintains a two-lane rural cross section, with roadside ditches and centerline culverts providing drainage.

External Catchment Contributions
Several external catchment areas also contribute runoff to Line 8 and 10 Sideroad. Flow from these areas is managed through external stormwater management systems or directed via roadside ditches into one of seven existing centerline culverts, located along Line 8 and 10 Sideroad, or into the existing storm sewer system east of Professor Day Drive on Line 8.

4.1.8 Fluvial Geomorphic Assessment

A fluvial geomorphic assessment was conducted for all watercourses within the study area as part of the Line 8 and 10 Sideroad road improvements study (**Appendix D**). The findings indicate that no evidence supports the determination of a meander belt at any of the four identified crossings.

- **Crossings at Line 8 and 10 Sideroad** - These crossings belong to the same historically modified watercourse, which facilitates headwater drainage connectivity through adjacent agricultural fields. Consequently, the concept of a meander belt does not apply.

- **Crossing west of Professor Day Drive**—This crossing conveys flow from an upstream pond to a downstream wetland and does not exhibit meandering characteristics. As such, delineation of a meander belt is not applicable.

- **Eastern crossing of the study area** - This feature is completely piped, meaning meander belt hazard delineation is unnecessary for the proposed road improvements. However, downstream of Crossing 4, a meander belt assessment

may be required for future road improvements, given its proximity to Line 8, though it remains outside the scope of the current project.

4.2 Social Environment Overview

Noise-Sensitive Areas (NSAs)
Land uses designated as noise-sensitive by the Ministry of the Environment, Conservation and Parks (MECP) and Ministry of Transportation Ontario (MTO) include:

- Residential areas
- Hospitals
- Nursing homes / retirement residences

These receptors represent all Noise-Sensitive Areas (NSAs) within the study boundary and are detailed in **Appendix C**.

Based on noise analysis and modeling conducted as part of the Study, the proposed roadway improvements are anticipated to have insignificant noise impacts on existing dwellings along the study corridor. However, daytime sound levels at residences backing onto the south side of Line 8, from Noble Drive to Barrie Street, are projected to exceed the 65 dBA threshold. To mitigate these effects, 2.6-meter-high sound barriers are recommended in locations where noise levels exceed the established threshold.

Land Use Characteristics
The predominant land uses within the study area include residential and commercial developments, with additional community facilities and open spaces located adjacent to the proposed works.

- **West of Line 8 / Sideroad 10 intersection** - Land use is predominantly agricultural, extending westward toward Highway 400.

- **Line 8 Corridor** - Includes parcels of existing agricultural land, particularly northeast of Reagens Industrial Parkway and north of Crossland Boulevard.

- **North and northeast of Line 8 / Barrie Street / Yonge Street intersection -** Agricultural land continues along Yonge Street.

Private Property
The road allowance along the Line 8 and Sideroad 10 corridors range from 23.0 meters to 36.0 meters. To minimize impacts on private property, adjustments to the horizontal alignment, vertical profile, and cross-section grading have been evaluated and integrated into the preliminary design drawings included in **Appendix A**. There will be a requirement for the Town to acquire some additional property to accommodate the widened cross-section and two-lane roundabout. The area that will consider land acquisitions are on Sideroad 10, the portion of Line 8 between Sideroad 10 and the Summerlynn/Rogers Trail, and in the Northwest, Northeast, and Southeast quadrant of the Line8/Sideroad 10 intersection.

5.0 Archaeological and Cultural Heritage Environment

Stage 1, 2, and 3 archaeological assessments were conducted as part of this project for areas both within and outside the right-of-way (ROW). Additionally, a Built Heritage and Cultural Heritage Landscape Assessment was completed for the study area by Archaeological Research Associates Ltd. (ARA) in June 2019. Details regarding the investigations carried out, anticipated future assessments during detailed design, and proposed mitigation measures are outlined in the draft Environmental Study Report (ESR) provided in **Appendix C**.

ARA identified two sites of archaeological interest within the study area. Site 1 is located on the north side of Line 8, between #2580 and #2604 Line 8, while Site 2 is situated on the north side of Line 8, just south of Belfrey Cemetery. Further archaeological investigations, including a Stage 4 assessment that will be conducted during the detailed design phase to ensure proper documentation and mitigation.

6.0 Transportation Features

Transportation features of Line 8 and Sideroad 10 are described in detail in Section 3.5 of the draft ESR (**Appendix C**). The major attributes of the transportation features have not changed in any meaningful way since the preparation of the 2020 ESR produced by Planmac Engineering Inc.

7.0 Revisiting Alternative Solutions

During the preparation of the 2020 Environmental Study Report (ESR), a comprehensive evaluation of alternative solutions was conducted to address the problem and opportunity statement. The alternatives considered included:

- **Do Nothing**: This option involves maintaining existing infrastructure without modifications. It serves as a benchmark for comparing other alternatives.
- **Traffic Demand Management (TDM)**: This approach focuses on reducing travel demand and encouraging mode shift through strategies such as active transportation (walking, cycling, rollerblading, skateboarding), public transit usage (buses), trip reduction measures (carpooling, telecommuting, compressed workweeks), and pricing mechanisms (e.g., parking fees to discourage short trips and promote longer stays).
- **Transit Improvements**: Enhancements to public transit infrastructure, including additional bus stops, shelters, bus bays, and increased service frequency, are proposed to improve mobility, reduce reliance on personal vehicles, and alleviate congestion and parking pressures.
- **Alternative Travel Routes**: Rather than improving Line 8 and Sideroad 10, enhancements to other corridors/routes were explored to provide alternative travel paths through the study area.

- **Two-Lane Road with Center Median**: Upgrading the existing two-lane rural cross-section on Line 8 and Sideroad 10 to a two-lane rural or urban cross-section with a center median lane, intersection upgrades (e.g., traffic signals or roundabouts), and auxiliary turn lanes was considered.
- **Four- to Five-Lane Road with Intersection Improvements**: Expanding Line 8 and Sideroad 10 to a four- or five-lane rural or urban cross-section, along with intersection improvements to address existing and future operational, capacity, and level-of-service (LOS) deficiencies, was assessed.

7.1 Evaluation and Selection of Alternative Solutions and Preferred Design Concept - 2020

A comprehensive evaluation of each alternative solution was conducted between 2016 and 2020 based on a set of criteria, including transportation and technical feasibility, natural environment considerations, social impacts, cultural heritage preservation, and economic factors. Each option was assigned a numerical value, ranging from high negative to high positive effects, to systematically assess its overall viability.

Based on this analysis, the Study Team determined that a four-lane urban road with intersection improvements was the preferred solution. The preferred design concept presented in the 2020 draft Environmental Study Report (ESR) proposed widening Line 8 and Sideroad 10 to accommodate two eastbound and two westbound through lanes.

Intersection upgrades along Line 8 at Sideroad 10, Langford Boulevard, Rogers Trail/Summerlyn Trail, and Professor Day Drive consisted of two-lane roundabouts to enhance traffic flow and operational efficiency. Additionally, the temporary traffic signals at the Line 8 and Noble Drive intersection were recommended for replacement with permanent traffic signals.

For the Northgate Drive and Lowes Gate intersections, the proposed improvement involved closing the Lowes Gate connection to Line 8 and extending Northgate Drive. This modification would convert the existing three-leg intersection into a four-leg configuration with traffic signals, effectively mitigating operational inefficiencies caused by offset intersections.

7.2 Updated Traffic Analysis and Revised Design Concept – 2025

Following the reactivation of the Class Environmental Assessment (EA) Study in 2022, a comprehensive traffic analysis was conducted by WSP to reassess future traffic conditions utilizing current data and updated traffic modeling, incorporating the proposed Bradford Bypass. The study aimed to validate the identified needs and problem justification while determining the optimal configuration for the Line 8 corridor and 10 Sideroad intersections under projected future conditions. A copy of the updated traffic assessment report prepared by WSP is provided in **Appendix B**.

Key considerations included:

- Potential widening of Line 8.
- Evaluation of alternative improvement scenarios for the intersection of Line 8 and Barrie Street under 2031 forecasted conditions.
- Assessment of intersection modifications for Northgate and Lowes Gate to address spacing constraints.

Additionally, roundabout alternatives were evaluated for the following intersections:

- 10 Sideroad
- Langford Boulevard
- Rogers Trail/Summerlyn Trail
- Professor Day Drive

Following an extensive evaluation of alternative traffic scenarios (Alternatives 1-8), Alternative 4 was identified as the preferred solution, offering improved and manageable traffic operations for the study area intersections along Line 8 and 10 Sideroad under projected 2031 conditions.

Modification to this alternative is proposed for the intersection of Line 8 at Barrie Street. Across all alternatives, the existing westbound right-turn lane at Barrie Street includes a channelization island. The proposed reconfiguration involves the removal of this island to integrate the right-turn movement into the intersection. This adjustment will allow the second northbound receiving lane to accommodate traffic from the eastbound-to-northbound dual left-turn lanes.

7.2.1 Line 8/Barrie Street Intersection Traffic Simulation Findings & Operational Enhancements

Traffic simulations indicate that, under the revised configuration, long queue lengths are expected for the westbound right-turn movement, particularly during PM peak hours due to high right-turn volumes (~1110 vehicles/hour). To mitigate congestion, a protected overlap phase for the westbound right-turn, coordinated with the protected southbound left-turn movement, will be implemented, significantly improving intersection performance and maintaining acceptable queue lengths and level of service (LOS).

7.2.2 Key Modifications at Line 8 & Barrie Street Intersection

- Removal of the channelized right-turn lane, integrating it into the intersection.
- Introduction of a protected westbound right-turn overlap phase, synchronized with the protected southbound left-turn phase.

7.2.3 2031 Proposed Alternative (Revised Alternative 4) Improvements

- Addition of an eastbound lane from Professor Day Drive to Barrie Street, converting into a second left-turn lane at Barrie Street.
- Addition of a westbound lane from Barrie Street to Noble Drive.

7.2.4 Line 8 & Barrie Street Intersection Configuration

- Increased eastbound left-turn (EBL) storage length to 150 meters.
- Addition of a 70-meter eastbound right-turn lane.
- Additional eastbound left-turn lane with revised approach configuration: 2 EBL + 1 EBT + 1 EBR.
- Normalization of the westbound right-turn movement by removing the channelization island and integrating the movement into the intersection.
- Northbound approach north of Line 8: repurposing the former channelized lane to accommodate a second northbound receiving lane, tapering to a single lane at the north end (consistent with existing conditions).
- Implementation of a revised signal plan featuring a protected overlap phase for the high-volume westbound right-turn movement, synchronized with the protected southbound left-turn.

Due to property constraints, the implementation of a dedicated eastbound right-turn lane is not feasible at this time. However, pending future development plans and potential opportunities for the Town to acquire the necessary land, provisions will be made to introduce a right-turn lane in the future.

Similarly, the addition of a second westbound lane at the intersection will be evaluated as part of future planning efforts, contingent upon land availability on the north side of Line 8 within the northwest quadrant of the intersection.

7.2.5 Intersection Control Modifications

Line 8 & Professor Day Drive

- Signalization maintained with fully actuated controls, accounting for pedestrian crossings.
- Addition of storage lanes for eastbound and westbound left-turns.
- Implementation of a protected westbound left-turn phase, warranted by high traffic volume.
- Pedestrian signals (WALK/flashing DON’T WALK) activated only upon pedestrian request.

Line 8 & Northgate Drive

- Conversion of existing stop-control to semi-actuated signal control.
- Implementation of a protected westbound left-turn phase, warranted by high traffic volume.
- Pedestrian signals activated only upon pedestrian request.

Line 8 & 10 Sideroad Intersection

- Replacement of temporary traffic signals with a dual-lane roundabout.
- Alternatively, upgrading the temporary signals to permanent and adding dedicated northbound right-turn (NBR) and southbound left-turn (SBL) lanes (80 meters each).

- Increased storage length for the westbound left-turn (WBL) lane to 60 meters.

Line 8 & Rogers Trail/Summerlyn Trail Intersection
- Increased westbound left-turn (WBL) storage length to 70 meters.
- Increased southbound left-turn (SBL) storage length to 50 meters.

Pedestrian Crossing Facilities
- Pedestrian crossing infrastructure incorporated at all signalized intersections and roundabouts to support active transportation and pedestrian safety.

8.0 Stormwater Management Considerations

Given the scale of this undertaking, the design incorporates a range of strategic improvements to ensure a durable and modern transportation solution. Additionally, considerations have been made to address stormwater management impacts, which are summarized in the following section. Additional information may be found in the Interim Stormwater Management Report prepared by Aquafor Beech (**Appendix D**).

The proposed roadway expansions along Line 8 and Sideroad 10 will result in increased impervious surface area within the project drainage zones, leading to higher peak flow rates and runoff volumes. To mitigate downstream impacts associated with these hydrologic changes, a comprehensive stormwater management system must be implemented.

Low Impact Development (LID) Approach

A Low Impact Development (LID) Concept Plan was developed and analyzed to assess the feasibility of incorporating LID features as a stormwater management solution for the project. Implementing LID measures will help achieve stormwater management objectives, particularly in water quality enhancement, stream erosion control, and water balance preservation.

The Interim Stormwater Management Report (Aquafor Beech, 2025) provides detailed insights into the feasibility of LID feature integration across the project area, considering key site conditions such as infiltration rates, groundwater depths, and the hydrologic effects of a preliminary LID-based system compared to both existing and conventional (non-LID) conditions.

Proposed LID Features

Enhanced Swales

Vegetated open channels designed to convey, treat, and attenuate stormwater runoff while facilitating sedimentation, filtration through the root zone, evapotranspiration, and infiltration into native soils. Periodic sediment removal may be required to maintain functionality.

Permeable Sidewalks

Permeable pavement systems, including interlocking concrete pavers, permeable asphalt, and permeable concrete, placed over a crushed, open-graded stone base. These surfaces allow stormwater infiltration into an underlying reservoir, reducing runoff volume. Seasonal maintenance may be necessary to address accumulated sand and de-icing materials.

Bioretention Cells

Localized stormwater filtration and infiltration systems designed to temporarily store, treat, and infiltrate runoff using a filter bed composed of sand, organic material, and mulch. Depending on native soil conditions, an underdrain may be incorporated to support infiltration. A pre-treatment mechanism is recommended to prevent clogging. Bioretention cells require minimal maintenance and include overflow pathways for large storm events.

Constructed Wetlands

Engineered stormwater treatment systems that store, treat, and infiltrate runoff through a structured filter bed composed of sand, organic matter, and fines. Similar to bioretention cells, constructed wetlands may integrate an underdrain based on native soil permeability. These systems require pre-treatment to remove fine particles that could impair long-term function.

Perforated Pipes & Etobicoke Exfiltration Systems

Linear infiltration systems integrated into storm sewer networks to provide stormwater treatment and controlled infiltration.

- **Perforated Pipe Systems**: Feature gravel trenches surrounding storm sewer pipes with perforations that allow gradual runoff infiltration into subsurface soils.
- **Etobicoke Exfiltration Systems**: Combine conventional storm sewers with a perforated exfiltration pipe positioned directly beneath each storm sewer run. Water is captured within the exfiltration pipe and underlying gravel trench, facilitating infiltration into native subsoils.

These systems can replace traditional storm sewer pipes where topography and groundwater table depths permit effective infiltration.

9.0 Active Transportation & Pedestrian Safety Considerations

Ensuring pedestrian safety and accessibility is a key priority in the design of Line 8 and Sideroad 10. To support active transportation and provide safe crossing opportunities, sidewalks and multi-use trails will be incorporated as follows:

- **Line 8**: North side, from Barrie Street to Sideroad 10.

- **Line 8**: South side, from Barrie Street to the walkway leading to the subdivision. Due to boulevard space constraints, sidewalk continuation to Noble Drive is not feasible.
- **Line 8**: South side, from Noble Drive to Sideroad 10.
- **Sideroad 10**: East and west side, from Line 8 to Reagens Industrial Parkway.

To support safe pedestrian crossings, pedestrian signals, crosswalks, and cross rides will be provided at all signalized intersections. Additionally, at the Line 8/Sideroad 10 roundabout, pedestrian crosswalks will be included at all four approaches, complemented by refuge islands to enhance pedestrian safety and accessibility. Concerns were raised throughout the public and council consultation activities regarding pedestrian safety associated with roundabout crossings. Roundabouts have been proven to be safer than signalized intersections for pedestrian safety, and there are several options to incorporate “Pedestrian Crossovers” (PXO) into the intersections, which feature specific pavement marking and overhead lighting/signage providing pedestrians with the “right-of-way” to cross the road safely. Currently, pedestrian traffic volumes do not warrant the installation of PXO’s.

10.0 Public Utilities

During the detailed design phase, utility services within the Line 8 and Sideroad 10 corridor will be assessed for potential conflicts with the proposed road and intersection improvements. Wherever feasible, the design will be optimized to minimize impacts on existing utilities. In cases where avoidance is not possible, the design team will collaborate with affected utility service providers to develop appropriate relocation strategies.

11.0 Municipal Services

Within the Line 8 and Sideroad 10 corridors, the Town maintains municipal water distribution and sanitary sewer services. No modifications or extensions to the existing water distribution system are proposed as part of this project.

The existing sanitary sewer on Line 8 at the east end of the project will be extended further west, subject to grade and cover depth constraints. Residential properties on the north side of Line 8, currently serviced by private septic systems, will have the option to connect to the municipal sanitary sewer network if desired.

12.0 Town Transit Service

Where bus stops are impacted by construction along Line 8, east of Northgate Drive and south of the Line 8/Professor Day Drive intersection, temporary alternative bus stops will be implemented in coordination with BWG Transit.

During the detailed design phase, discussions will be conducted regarding the placement of temporary stops, the reinstatement of existing stops, and the potential for new stop locations as part of the project.

13.0 Construction Staging and Duration

The construction of road and intersection improvements is tentatively planned to occur in two stages:

- **Stage 1** will focus on the reconstruction of Sideroad 10, including the roundabout at the Line 8/Sideroad 10 intersection, as well as improvements along Line 8 between Sideroad 10 and Reagens Industrial Parkway. Construction is expected to begin in spring 2027 and reach completion by summer 2028.

- **Stage 2** will involve roadway and intersection enhancements along Line 8 from Reagens Industrial Parkway, extending eastward to Barrie Street. Construction is expected to begin in spring 2030 and reach completion by summer 2031.

14.0 Estimated Construction Cost

The estimated construction cost for the Line 8 and Sideroad 10 roadway and intersection improvements is $39 million, including costs associated with engineering, construction supervision, property acquisitions and utility relocations. The estimated cost will be reassessed and updated during the detailed design phase.

15.0 Potential Impacts and Mitigation Measures

The potential effects and proposed mitigation measures associated with the Preferred Design are detailed in the 2020 draft Environmental Study Report (ESR), available in **Appendix C**.

The following table summarizes the key environmental concerns and the commitments/mitigation measures to be implemented, ensuring that project construction does not result in significant or lasting environmental impacts.

Summary of Potential Environmental Effects, Mitigation and Commitments to Future Works

ID #	Environmental Issue / Concern / Potential Effects	ID #	Mitigation / Protection / Monitoring
Natural Environment			
1.0	Trees and Other Vegetation	1.1	An updated tree inventory will be completed during detailed design to confirm the species/condition and quantity of required tree removals, and to confirm whether there will be any impacts to tree SAR or trees providing habitat characteristics that could be suitable for SAR bats. In the event that SAR trees or SAR bat habitat is found and will be impacted by the proposed works, then additional requirements for protection/mitigation and agency consultation could apply.
		1.2	Damage to vegetation beyond that required for construction can be limited by clearly delineating vegetation protection zones on contract documents and in the field using sturdy fencing, and using appropriate tree clearing practices including felling trees away from retained areas. The landscape planting plan and road design will consider potential impacts to retained vegetation associated with salt spray and other operational impacts and mitigate these impacts to the extent possible.
		1.3	An erosion control strategy will be developed to isolate construction zones from retained vegetation using silt fencing. Silt fencing will be monitored and maintained throughout the construction period to ensure proper function. Areas where temporary disturbance/removal of vegetation is required for construction will be re-vegetated immediately following construction with an appropriate native seed mix (which includes wildflowers for habitat enhancement) and planting of native trees and shrubs to stabilize soils.
		1.4	A planting plan and edge management plan will be developed at detailed design in accordance with any specifications from LSRCA or the municipality for compensation of any lost trees and to guard against edge damage due to new woodland edges. Monitoring of survival of planted trees and re-planting will occur as necessary.

ID #	Environmental Issue / Concern / Potential Effects	ID #	Mitigation / Protection / Monitoring
		1.5	Timely re-vegetation (maximum 45 days) of exposed soils shall be undertaken for both temporary work areas and final grades; existing vegetation on embankments shall be maintained as long as possible and new slopes shall be stabilized as soon as possible by seeding and mulching.
2.0	Terrestrial Wildlife and Habitat	2.1	Vegetation clearing and removal shall preferentially be completed outside of the bird nesting window which extends from April 1 to August 31 (as identified by Environment Canada's General Nesting Periods of Migratory Birds in Canada for Nesting Zone C2). If removals must occur within this window, the absence of active nests may be possible to confirm through a nest assessment by a qualified person; however, this method is recommended only for simple habitats and isolated trees as complex cover can make it prohibitively difficult to detect nests with confidence. In the instance that a nest is encountered, the contractor shall avoid damaging or destroying the nest and should consult with the contract administrator to develop a management strategy to avoid interfering with active nesting.
		2.2	Workers shall be advised to perform visual survey of machinery and work area prior to commencing work, since wildlife may be found basking or hiding on or under equipment, rocks, debris piles, etc. During the active season for turtle nesting, road shoulders, embankments, and stockpiles should be reviewed for evidence of nesting (dig sites) prior to any excavation or disturbance.
		2.3	In the event that wildlife is found within the construction area, work in the vicinity should cease until the animal has vacated the area. In the event that the animal does not vacate (e.g., in the instance of a nesting turtle), the contractor will immediately cease all work that could potentially harm the animal and will contact the contract administrator for direction.
		2.4	The contractor should avoid creating any excavated vertical banks or soil surfaces during construction so as to avoid any potential conflicts with SAR Bank Swallow attempting to establish nesting territory.

ID #	Environmental Issue / Concern / Potential Effects	ID #	Mitigation / Protection / Monitoring
		2.5	For construction occurring during the bird nesting season, affected structures (e.g., box culverts) should be reviewed for the presence of active bird nests prior to any construction affecting those structures.
3.0	Fisheries and Aquatic Ecosystems	3.1	Riparian vegetation clearing should be limited to the extent possible, particularly at the water's edge where vegetation provides overhead cover for fish.
		3.2	Any equipment, machinery, or tools utilized in or immediately adjacent to the water shall be cleaned and maintained in good repair. All machinery shall be inspected for fluid leaks or other potential pollutants.
		3.3	All in-water works shall take place between July 16 to March 14 to protect fish populations during their spawning and nursery periods.
		3.4	The footprints of any cofferdams and in-water work areas shall be limited to the greatest extent possible, to minimize potential impacts to fish habitat and fish passage.
		3.5	Prior to completing dewatering of any in-water works areas, stranded fish shall be salvaged by a qualified professional. Any captured fish shall be immediately released back into the watercourse from which they originated.
		3.6	Should a cofferdam or in-water work area become breached, allowing fish to potentially re-enter the site, fish salvage activities shall be repeated.
		3.7	A Licence to Collect Fish for Scientific Purposes (LCFSP) shall be obtained from MNRF Midhurst to permit fish collection activities. All fisheries equipment shall be cleaned and disinfected according to MNRF Best Management Practices (MNR, 2011), prior to and following use.
		3.8	Any dewatering pump intakes that are placed in potential fish-bearing waters shall be fitted with screens to prevent the entrainment or impingement of fish or other aquatic wildlife. All water intake screens must adhere to Fisheries and Oceans Canada's Freshwater Intake End-of-Pipe Fish Screen Guideline (DFO, 1995).
		3.9	If construction activities result in harm to fish habitat, DFO's Fisheries Protection Program shall be notified as soon as possible. Work shall be halted.

ID #	Environmental Issue / Concern / Potential Effects	ID #	Mitigation / Protection / Monitoring
4.0	Erosion and Sediment Control	4.1	A comprehensive erosion and sediment control plan will be implemented by the contractor throughout construction in accordance with Ontario Provincial Standard Specification (OPSS) 805.
		4.2	Erosion and sediment control measures will be maintained in an effective, functioning, stable condition. Routine inspections will be required, and repair will be undertaken as required.
		4.3	Adherence to OPSS 804 Construction specification for seed and cover – specifies requirements for seed mixes.
Socio-Economic Environment			
5.0	Noise and Vibration	5.1	To minimize construction noise impacts on the surrounding environment adjacent residential / commercial properties, standard mitigation measures and best management practices will be included in the contract package. Specifically, the contractor will be required to keep idling of construction equipment to a minimum and to maintain equipment in good working order to reduce noise resulting from construction activities to adjacent residential and commercial receptors.
		5.2	If complaints regarding construction noise arise during construction, they will be investigated according to the provisions of the MTO Noise Guide (October 2006). The guide states that any initial complaint from the public will require verification that the general noise control measures agreed to are in effect. If not, the contract administrator / Town of Bradford West Gwillimbury will warn the contractor of any problems and enforce its contract.
		5.3	During construction, the Town's noise by-law will be adhered to (By-law 2008-083). This restricts any sound made by construction activities to the hours of 7:00 p.m. to 7:00 a.m. (to 9:00 a.m. on Saturdays) and at all times on Sundays and holidays.

ID #	Environmental Issue / Concern / Potential Effects	ID #	Mitigation / Protection / Monitoring
		5.4	Upgrade of the existing backyard fences to closed board 2.6m noise attenuating fences on the north and south side of Line 8 between Noble Drive and Barrie Street.
6.0	Air Quality & Dust Emissions	6.1	The contractor will be required to implement standard mitigation measures for dust control during construction, and steps will be taken as necessary to control dust resulting from the construction works such that it does not affect traffic, enter surface waters, or escape beyond Line 8 or Sideroad 10 to cause a nuisance to residents or businesses.
		6.2	The contractor will be required to implement dust suppression methods (water or other suppressant as appropriate) in close proximity to dust sensitive areas (i.e. residential and commercial receptors) to control off-site migration of particulates. It is noted that the Ministry of the Environment, Conservation and Parks (MECP) recommends the use of non-chloride dust suppressants. Other dust control methods include: - On-site vehicle and equipment idling will be discouraged where practical; - Tracking of earth or soil from the site on trucks will be minimized through the use of mud mats located at the site entrance – if this is not effective then the physical removal of earth or soil from vehicles will be implemented; - Vehicles hauling soil, aggregates or other dusty materials will be covered to minimize dust generation; - Construction activities will be scheduled to limit areas of exposed soil and dust generation; and - Exposed sources of fugitive dust will be covered where practical and soil surfaces will be restored and re-vegetated as soon as practical.

ID #	Environmental Issue / Concern / Potential Effects	ID #	Mitigation / Protection / Monitoring
7.0	Contaminated Property & Waste Management	7.1	Demolition or any disturbance of any silica-containing roadway materials should be conducted following Part XXIV and recommendations detailed within the Ministry of Labour Guideline, “Silica on Construction Projects”, dated April 2011, where specific legislation is not included under the OHSA. Recycling of silica-based materials removed from any work areas should be conducted in accordance with O. Reg. 102/94 and O. Reg. 103/94 under the Ontario Environmental Protection Act.
		7.2	All parties will be advised of the potential for designated substances to be present during construction. Potential designated substances identified will be provided in the contract package.
8.0	Excess Materials Management	8.1	Any temporarily stockpiled soil, debris or other excess materials, and any construction-related materials, will be properly contained (e.g. inside silt fencing) in accordance with OPSS 180. All construction materials, excess materials and debris will be removed and appropriately disposed of following construction.
		8.2	All construction-related activities will be controlled to prevent entry of any petroleum products, debris or other potential contaminants/deleterious substances, in addition to sediment as outlined above, to the watercourses as outlined in OPSS 805 and in accordance with a Spills Prevention and Emergency Response Plan. The Plan, as well as appropriate emergency response materials, will be kept on-site throughout construction and all employees made aware of its requirements and response protocols.
9.0	Traffic Management	9.1	Advance road signage notifying motorists of the construction and potential lane closures will be provided prior to the start of construction. Emergency services will be granted priority passage (by on-site traffic control personnel) through all work area.
		9.2	The contractor will take all appropriate measures to ensure access to adjacent residential and commercial properties are maintained throughout the duration of the proposed works.
Cultural Heritage			

ID #	Environmental Issue / Concern / Potential Effects	ID #	Mitigation / Protection / Monitoring
10.0	Archaeology	10.1	If previously unknown or unassessed deeply buried archaeological resources are uncovered during construction, the contractor shall immediately notify the CA. Work shall remain suspended within the subject area until otherwise directed by the CA in writing, according to subsection GC 7.11, Suspension of Work. The CA will contact the Ministry of Heritage, Sport, Tourism and Culture Industries representative (Laura Hatcher, Heritage Planner; Phone: 416-314-3108) who will confirm the need to engage a licensed consultant archaeologist to carry out any archaeological fieldwork, in compliance with Section 48 (1) of the Ontario Heritage Act.
		10.2	If human remains are encountered during construction, the contractor shall immediately notify the CA. Work shall remain suspended within the subject area until otherwise directed by the CA in writing, according to subsection GC 7.11, Suspension of Work. The CA will contact the Ministry of Heritage, Sport, Tourism and Culture Industries representative who will notify the police, coroner and the Registrar of the Bereavement Authority of Ontario.
		10.3	In relation to site 2 (south of the know limits of Belfry Cemetery), the strategy of avoiding direct impact on Belfry was opted. All construction activities shall be undertaken within the previously disturbed area of the ROW, along with providing temporary fencing and “no-go areas” during construction to prevent disturbance within the cemetery, and having a licensed archaeologist on-site during construction activities when work is being conducted within 10m of the cemetery property.
11.0	Built Heritage and Cultural Heritage Landscapes	11.1	During detail design, cultural heritage resources shall be avoided, where possible, and any construction staging areas be located on lands well away from any of the candidate BHRs and CHLs.
		11.2	During detail design, the removal of mature trees within CHLs 1 and 2 shall be avoided, where possible. For any trees that cannot be saved during construction, the 2:1 replacement of similar trees should be examined as per tree protection best practices.

ID #	Environmental Issue / Concern / Potential Effects	ID #	Mitigation / Protection / Monitoring
		11.3	Consideration shall be given to the type of construction techniques and machinery used (i.e. those with reduced vibrations to be selected) where possible, in close proximity to cultural heritage resources (CHLs 1 and 2) to minimize any vibration impacts.
		11.4	Once detail design work has begun, the Town shall give consideration to whether a Heritage Impact Assessment (HIA) report is required to evaluate any additional impact of the proposed design, as well as outline avoidance / mitigation measures to minimize the impact.

16.0 Additional Information

For further details regarding the Study, please refer to the contact information provided below.

Mr. David Latarius, C.Tech., PMP
Project Manager, Capital Projects
Town of Bradford West Gwillimbury
3541 Line 11, P.O. box 160
Bradford, Ontario, L3Z 2A8
905-775-5366 ext. 2106
Email: dlatarius@townofbwg.com

17.0 Next Steps

The final step in the Environmental Assessment process involves circulating the Environmental Summary Report (ESR) Amendment to the public, accompanied by a thirty-day (30) review and commenting period. The filing of the ESR marks the completion of the planning and preliminary design phase of the project.

To ensure public accessibility, the ESR will be placed on the public record and made available for review from **November 1, 2025, to November 30, 2025**. A public notice (Notice of Study Completion) will be issued to formally announce the commencement of the review period. Additionally, hard copies of the report were made available during regular business hours at the following location:

Town of Bradford West Gwillimbury
3541 Line 11, PO Box 160, Bradford, ON, L3Z 2A8

A digital copy of the report can also be found on the Town's website at:

https://www.townofbwg.com/en/business-development/Engineering_Studies__EAs_and_Detailed_Design.aspx

Following the completion of the Class Environmental Assessment (EA) process, the project may proceed to the implementation phase, which includes the following key activities:

- Detail design for the preferred design concept.
- Utility conflict review and relocation.
- Permits and approvals.
- Tender preparation.
- Tendering and contract award.
- Construction.