

TOWN OF INNISFIL 7TH Line Improvements Municipal Class Environmental Assessment Schedule 'C' PUBLIC OPEN HOUSE NO. 2



Date: Wednesday, March 28, 2018.

Time: 4:00 p.m. to 7:00 p.m.

Location: Town Hall Community Rooms
2101 Innisfil Beach Road
Innisfil, ON



Your Input is Appreciated!

- Please review the display material and feel free to discuss the project with members of the study team in attendance.
- All POH material will be available for download from the Town's website at www.innisfil.ca/7thea after March 28, 2018.
- We invite you to provide any comments, in writing, on the Comment Sheet provided.

PLEASE SIGN IN

MUNICIPAL FREEDOM OF INFORMATION & PROTECTION OF PRIVACY ACT

Comments and information regarding this project are being collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act for the purpose of meeting environmental assessment requirements. With the exception of personal information, all comments received will become a part of the public record. For more information about the collection, please contact Magdalena Koehler, Town of Innisfil, 705-436-37040 ext. 3226.

This public meeting will present the following information:

- Background Information & Project Study Area
- Problem / Opportunity
- The Municipal Class Environmental Assessment Process
- Public Open House No. 1 Update Including Selection of the Final Preferred Solution
- Alternative design concepts developed for the Preferred Solution
- Evaluation of the design alternatives
- Preliminary Preferred Design Alternative
- Next Step in process

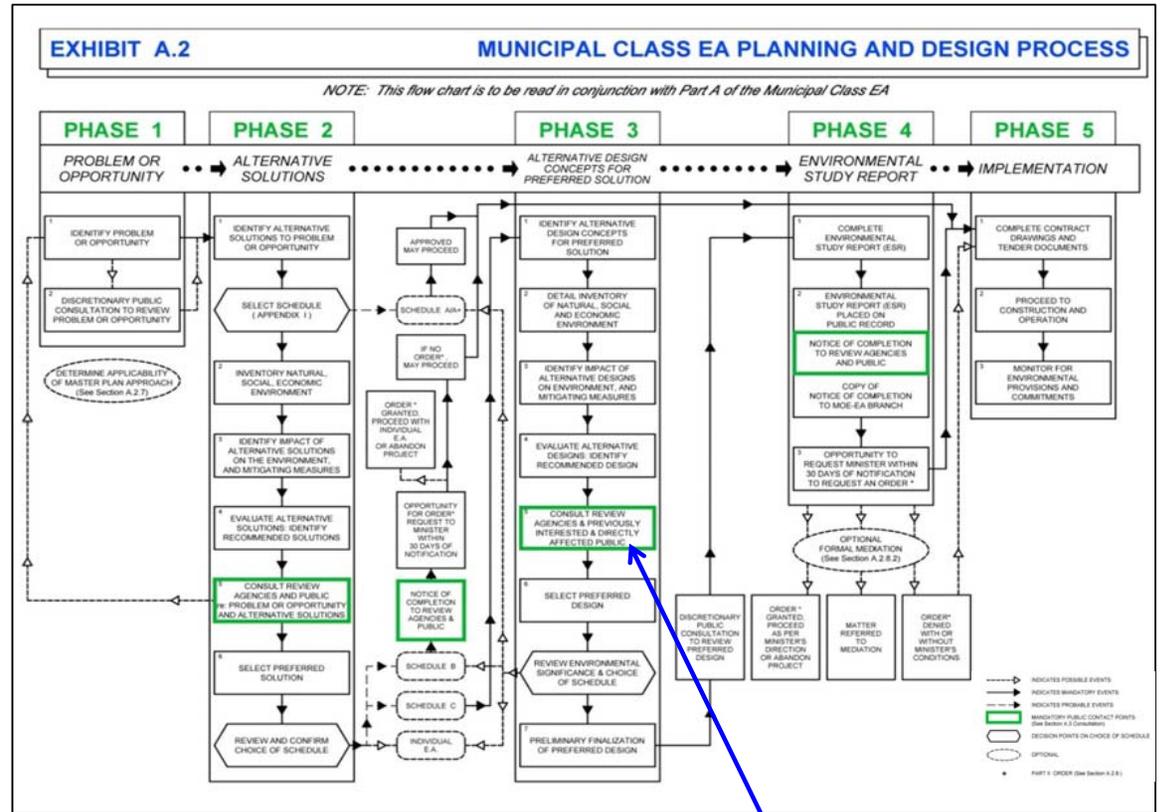
Problem

- The Town of Innisfil has initiated this Municipal Class Environmental Assessment (Class EA) to undertake improvements to the 7th Line to accommodate future growth in the Alcona area and to address traffic capacity and operational deficiencies affecting the subject corridor.

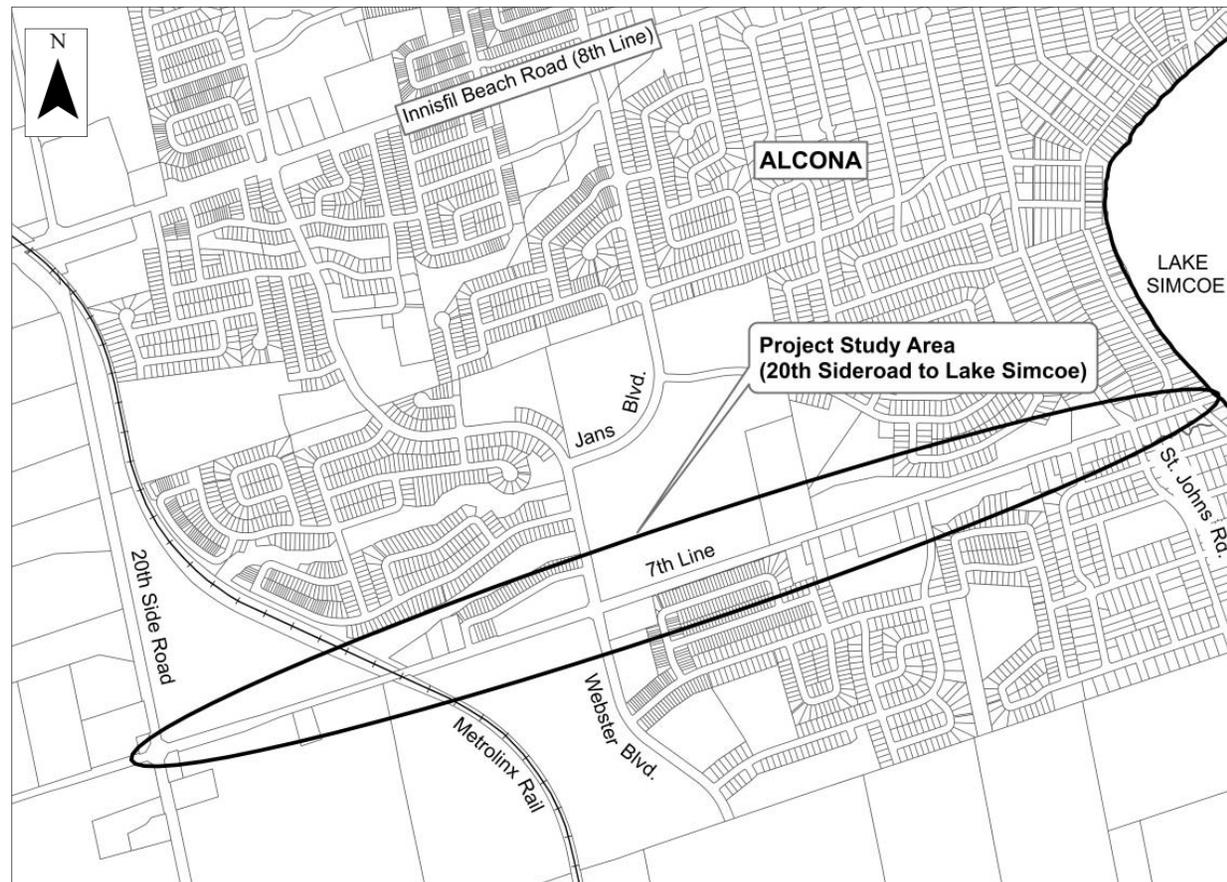
Opportunities

- Addressing the problem also provides an opportunity to:
 - ✓ Provide for active transportation (i.e. walking, cycling etc.) and improve safety;
 - ✓ Address pavement structure deficiencies;
 - ✓ Address drainage and stormwater management concerns;
 - ✓ Accommodate long term municipal servicing requirements; and
 - ✓ Rehabilitate portions of Bank's Creek.

- A municipality is required to conduct a Municipal Class Environmental Assessment before this type of infrastructure improvement project can proceed to construction. A Municipal Class Environmental Assessment follows an approved planning process designed to protect the environment and to ensure compliance with the Ontario Environmental Assessment Act.
- The purpose of the Ontario Environmental Assessment Act (EA Act) is to provide for "...the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment." The term "environment" is broadly defined and includes the built, natural, socio economic and cultural environments.
- The process requires the evaluation of potential solutions and design concepts so as to select a suitable approach that will address the problem/opportunity, but also keep impacts to a minimum.
- Based on the scope of work proposed this project is classified as a Schedule 'C' in accordance with the Municipal Class Environmental Assessment (Oct. 2000, as amended 2007, 2011 & 2015) and requires completion of Phases 1 to 4, with implementation in Phase 5.
- POH No. 1 was held October 11, 2017 during Phase 2 where the Town presented the alternative solutions under consideration.
- We are currently in Phase 3 of the Class EA process. Tonight's meeting will identify the Preferred Solution selected at the close of Phase 2 and the design alternatives currently under consideration to implement that solution.



WE ARE HERE



The study area includes the 7th Line, extending from the 20th Side Road to Lake Simcoe, a distance of approximately 3.0 km.

At Public Open House No. 1 (October 11th, 2017) the Town of Innisfil presented several alternative solutions to address the deficiencies affecting the corridor as follows:

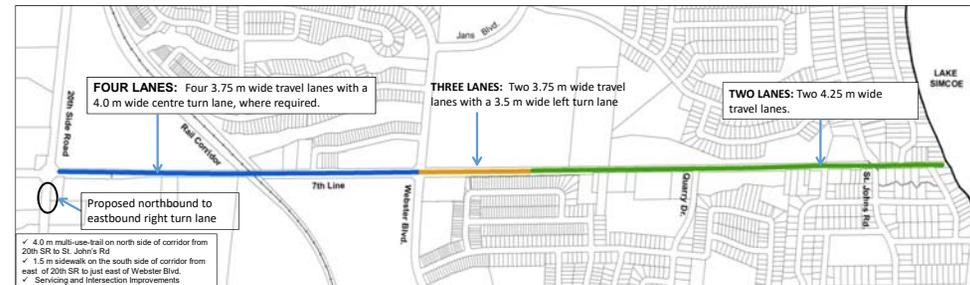
- ALTERNATIVE 1 (“Do Nothing”): This option proposes no changes or modifications to existing infrastructure within the study area.
- ALTERNATIVE 2 (Two lanes): Reconstruct 7th Line to a two lane urban cross-section with two travel lanes for the entire project length.
- ALTERNATIVE 3 (Three Lanes): Reconstruct 7th Line to a two lane urban cross-section with two travel lanes and one continuous centre turn lane for the entire project length.
- ALTERNATIVE 4 (Four lanes): Reconstruct 7th line to a four lane urban cross-section with four travel lanes and a left turn lane, where required.
- ALTERNATIVE 5 (Combination): Some combination of Alternatives 2 through 4.

Note: Each of the above alternatives also included intersection and servicing improvements.

At POH No. 1 Alternative 5 was identified as the Preliminary Preferred Solution. It consisted of the following:

- Four lanes from 20th Sideroad to Webster Boulevard, three lanes from the 20th Sideroad to east of Webster Boulevard, and two lanes from east of Webster Boulevard. to St. John’s Road.
- A 4.0 m wide paved multi-use trail on north side of 7th Line from 20th Sideroad to St. John’s Road and a 1.5 m sidewalk on the south side of 7th Line from 20th Sideroad to just east of Webster Boulevard.
- Servicing and Intersection Improvements.

ALTERNATIVE 5



SELECTION OF PREFERRED SOLUTION

- Subsequent to a review of comments received, the Town of Innisfil has selected ALTERNATIVE 5 as the final Preferred Solution; however, following POH No. 1, Alternative 5 was modified slightly to reflect comments received and the results of updated traffic analysis data for future developments in the area.
- The number of required lanes at the west end of the study area was reduced from four lanes to three lanes. The width of the multi-use trail was also reduced from 4.0 m to 3.0 m.
- The rationale for the selection of Alternative 5 is further detailed below:

ALTERNATIVE SOLUTIONS PRESENTED AT POH 1	RATIONALE FOR SELECTION	
ALTERNATIVE 1 'DO NOTHING'	✘	This alternative is not being carried forward because it does not address capacity or operational deficiencies and does not accommodate future development.
ALTERNATIVE 2 – TWO LANES Reconstruct 7th Line to an urban cross section with two travel lanes for the entire length.	✘	This alternative is not being carried forward because it does not address capacity and operational deficiencies. An increase in the number of lanes would be required at some point in the future.
ALTERNATIVE 3 – THREE LANES Reconstruct 7th Line to an urban cross section with two travel lanes and one continuous centre turn lane for the entire length.	✘	This option will address capacity and operational deficiencies, but traffic analysis has confirmed that three lanes is not warranted for the full length of the project. Three lanes at the east end of the study area will require property acquisition and result in increased impacts to adjacent properties. This alternative was therefore not carried forward.
ALTERNATIVE 4 – FOUR LANES Reconstruct 7th line to an urban cross section with four travel lanes and a left turn lane, where required.	✘	While this alternative will fully address capacity and operational deficiencies, traffic analysis indicates that four lanes for the entire project length is not warranted within the design horizon. This alternative has the largest construction footprint and will require property acquisition and utility relocation. It has an increased potential to impact existing natural heritage features (i.e. vegetation, the watercourse, fish and fish habitat etc.) and will be the most costly option to implement. This alternative was therefore not carried forward.
ALTERNATIVE 5 – COMBINATION Some combination of Alternatives 2 through 4.	✔	<p>PHASE 2 PREFERRED SOLUTION:</p> <ul style="list-style-type: none"> This option will more efficiently address future traffic capacity requirements since the cross-section is increased only where needed and reduced where not required. It will fully provide for Active Transportation (i.e. pedestrians and cycling). Increasing the number of lanes to three, only where necessary, will reduce the need for property acquisition, minimize utility relocation and reduce the potential to impact natural features (i.e. vegetation, the watercourse, fish and fish habitat etc.). Costs associated with property acquisition and construction costs will be more reasonable.

As part of Phase 3 of the Class EA process various alternative design concepts are developed to implement the Preferred Solution selected at the close of Phase 2. The design alternatives currently under consideration are identified below:

PREFERRED SOLUTION
ALTERNATIVE 5 (COMBINATION)

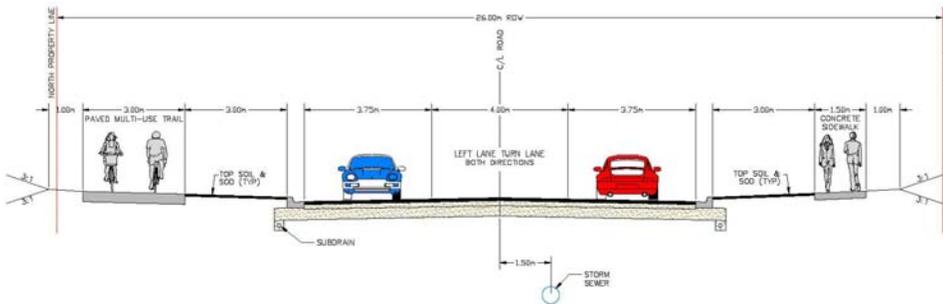
- Three lanes from the 20th Sideroad to east of Webster Boulevard.
- Two lanes from east of Webster Boulevard to St. John's Road.
- Multi-use Trail and Sidewalks.
- Servicing and Intersection Improvements.

DESIGN ALTERNATIVES DEVELOPED FOR THE PREFERRED SOLUTION			
DESIGN DETAILS	DESIGN ALTERNATIVE 1 Two / Three Lane Urban Cross-section with Multi-use Trail and Sidewalk	DESIGN ALTERNATIVE 2 Two / Three Lane Urban and Rural Cross-section with Bike Lanes and Limited Sidewalks	DESIGN ALTERNATIVE 3 Two / Three Lane Urban & Rural Cross-section with Limited Bike Lanes and Sidewalks
Road Cross-Section	<ul style="list-style-type: none"> ▪ 3 Lane urban cross-section from 20th Sideroad to approximately 200 m east of Webster Boulevard. ▪ 2 Lane urban cross-section from east of Webster Blvd. to St. John's Road. 	<ul style="list-style-type: none"> ▪ 3 lane rural cross-section from 20th Sideroad to Metrolinx rail corridor. ▪ 3 lane urban cross-section from Metrolinx rail corridor to east of Webster Blvd. ▪ 2 lane urban cross-section from east of Webster Boulevard to St. John's Road. 	<ul style="list-style-type: none"> ▪ Three lane rural cross-section from 20th Sideroad to Metrolinx rail corridor. ▪ Three lane urban cross-section from Metrolinx rail corridor to east of Webster Blvd. ▪ Two lane rural cross-section with paved shoulders from east of Webster Boulevard to St. John's.
Sidewalks	<ul style="list-style-type: none"> ▪ 1.5 m sidewalk from the pedestrian entrance to Lamstone Street to just east of the 20th Sideroad. 	<ul style="list-style-type: none"> ▪ 1.5 m sidewalk from Metrolinx rail corridor to St. John's Rd. on the south side only. 	<ul style="list-style-type: none"> ▪ 1.5 m sidewalk from the pedestrian entrance to Lamstone Street to Metrolinx rail corridor.
Multi-use Trail	<ul style="list-style-type: none"> ▪ 3.0 m paved multi-use trail on the north side of corridor from 20th Sideroad to St. John's Road. 	<ul style="list-style-type: none"> ▪ Not Included 	<ul style="list-style-type: none"> ▪ Not Included
Dedicated Bike Lanes	<ul style="list-style-type: none"> ▪ Not Included 	<ul style="list-style-type: none"> ▪ 1.5 m dedicated bike lanes from Metrolinx rail corridor to St. John's Road. 	<ul style="list-style-type: none"> ▪ 1.5 m dedicated bike lanes from Metrolinx rail corridor to east of Webster Boulevard.
Bank's Creek Improvements	<ul style="list-style-type: none"> ▪ Naturalization of Bank's Creek and extensive shift (i.e. approximately 12.0 m) of watercourse northwards to provide increased separation distance between roadway and creek and improved fish habitat. 	<ul style="list-style-type: none"> ▪ Naturalization of Bank's Creek and moderate shift (i.e. approximately 8.0 m) northwards to provide improved separation distance between roadway and creek and improved fish habitat. 	<ul style="list-style-type: none"> ▪ Minor shift (approximately 4.0 m) of Bank's Creek to the north to accommodate reconstruction, but creek will continue to run parallel to roadway as a ditch.

Fully Urbanized Cross-section with Multi-use Trail + Bank's Creek Naturalization



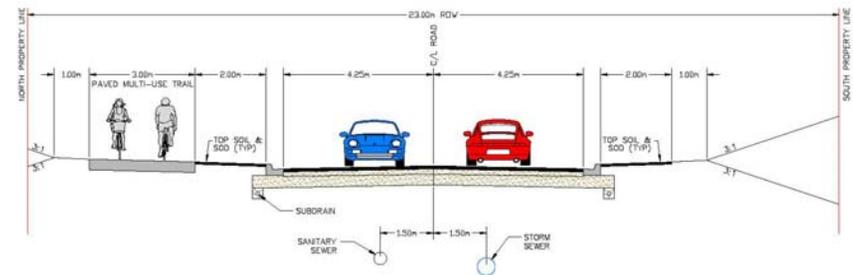
**Three Lane Urban Cross-Section
From 20th Sideroad to East of Webster Blvd.**



Reconstruct this segment to a 3 lane urban cross-section providing:

- Two 3.75 m wide travel lanes
- One 4.0 m wide continuous centre turn lane
- 3.0 m multi-use trail north side with 3.0 m offset from back of curb.
- 1.5 m sidewalk south side with 3.0 m offset from back of curb.

**Two Lane Urban Cross-Section
From Webster Blvd. to St. John's Rd.**



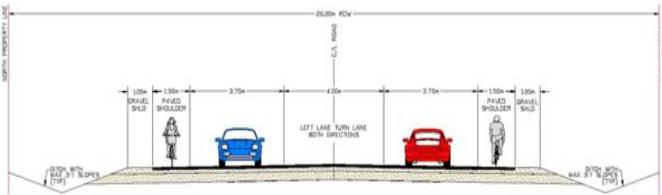
Reconstruct this segment to a 2 lane urban cross-section providing:

- Two 4.25 m wide travel lanes
- 3.0 m multi-use trail north side with 2.0 m offset from back of curb.
- No sidewalks.

Intermediate Cross-section



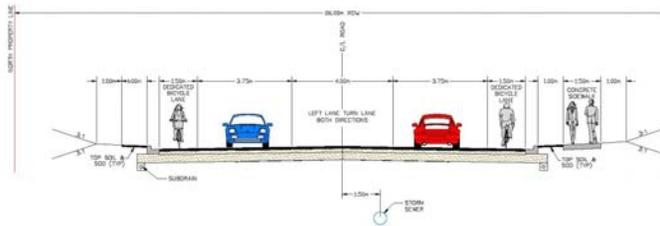
Three Lane Rural Cross-Section From 20th Sideroad to Metrolinx Rail Corridor



Reconstruct this segment to a 3 lane rural cross-section providing:

- Two 3.75 m wide travel lanes
- One 4.0 m wide continuous centre turn lane
- 1.5 m paved shoulders in lieu of multi-use trail
- 1.0 m gravel shoulders

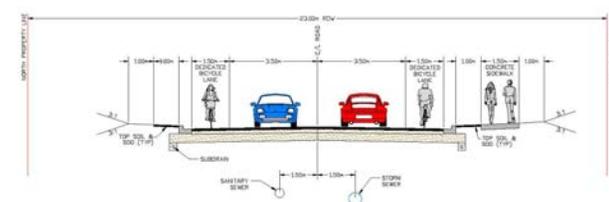
Three Lane Urban Cross-Section From Metrolinx Rail Corridor to East of Webster Blvd.



Reconstruct this segment to a 3 lane urban cross-section providing:

- Two 3.75 m wide travel lanes
- One 4.0 m wide continuous centre turn lane
- 1.5 m sidewalk south side
- 1.5 m dedicated bike lanes both sides of corridor in lieu of multi-use trail

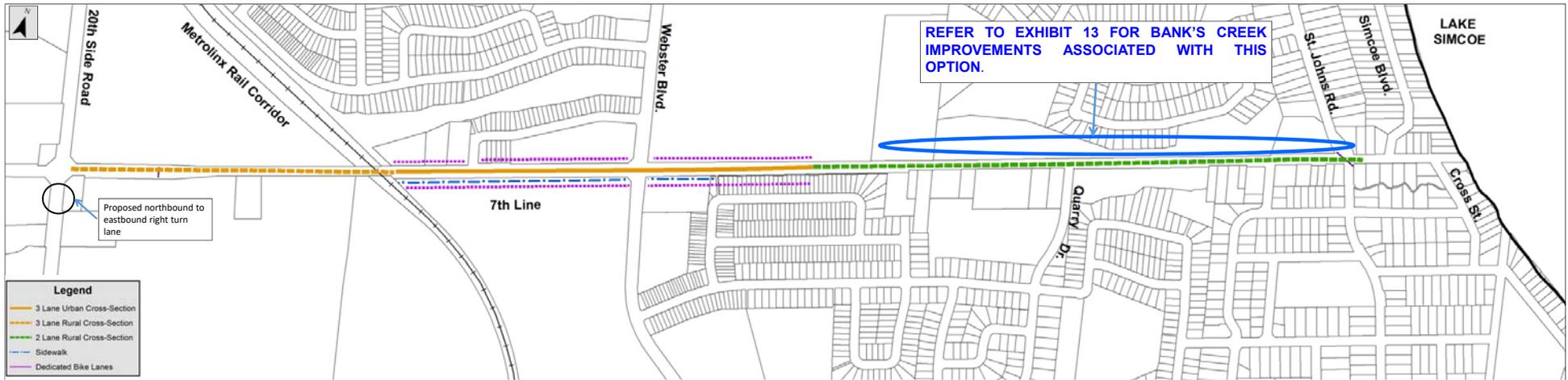
Two Lane Urban Cross-Section From Webster Blvd. to St. John's Rd.



Reconstruct this segment to a 2 lane urban cross-section providing:

- Two 3.50 m wide travel lanes
- 1.5 m sidewalk south side
- 1.5 m dedicated bike lanes both sides of corridor in lieu of multi-use trail
- 1.0 m boulevard

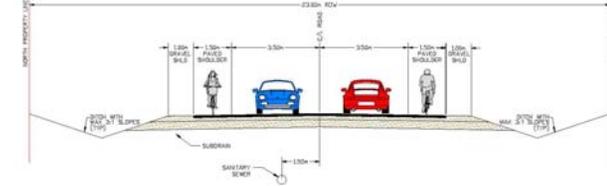
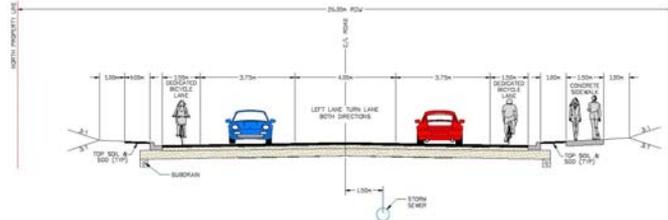
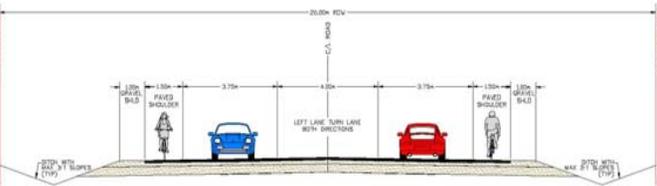
Minimum Cross-section



Three Lane Rural Cross-Section
From 20th Sideroad to Metrolinx Rail Corridor

Three Lane Urban Cross-Section
From Metrolinx Rail Corridor to East of Webster Blvd.

Two Lane Rural Cross-Section
From Webster Blvd. to St. John's Rd.



Reconstruct this segment to a 3 lane rural cross-section providing:

- Two 3.75 m wide travel lanes
- One 4.0 m wide continuous centre turn lane
- 1.5 m paved shoulders in lieu of multi-use trail
- 1.0 m gravel shoulders

Reconstruct this segment to a 3 lane urban cross-section providing:

- Two 3.75 m wide travel lanes
- One 4.0 m wide continuous centre turn lane
- 1.5 m dedicated bike lanes in lieu of multi-use trail

Reconstruct this segment to a 2 lane rural cross-section providing:

- Two 3.5 m wide travel lanes
- 1.5 m paved shoulders in lieu of multi-use trail
- 1.0 m gravel shoulders

Bank's Creek

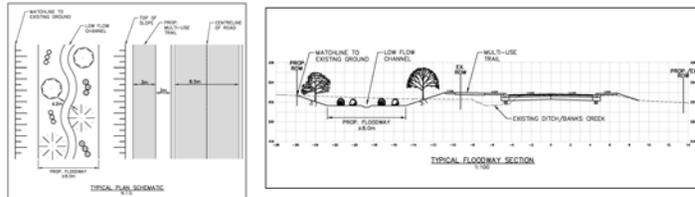
- A portion of Bank's Creek flows immediately adjacent to the 7th line on the north side of the corridor, as illustrated below.
- The watercourse top of bank is less than 3.0 m from the gravel shoulder of the road and is essentially a ditch, as illustrated in Figure 1.
- Bank's Creek is a coldwater watercourse that provides direct fish habitat. The proximity of this watercourse to the roadway can negatively impact fish and fish habitat.



Figure 1
Existing Bank's Creek

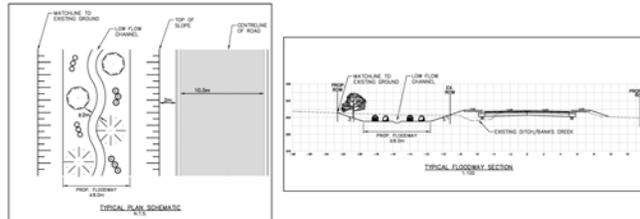


Bank's Creek Improvements Associated with Design Alternative 1



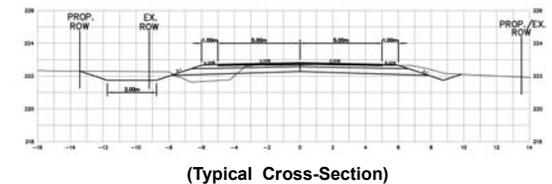
- In an effort to improve the quality of Bank's Creek and the associated fish habitat, Design Alternative 1 proposes a shift of approximately 1.0 km of the watercourse north for a distance of approximately 12.0 m.
- Naturalization of the channel will be completed including an increased separation distance between the roadway and the creek resulting in improved fish habitat.
- While this will improve the watercourse it will require extensive vegetation removals; however, landscaping can be completed post construction to assist in re-naturalizing the area.
- A Department of Fisheries and Oceans (DFO) Authorization will be required to complete these improvements.

Bank's Creek Improvements Associated with Design Alternative 2

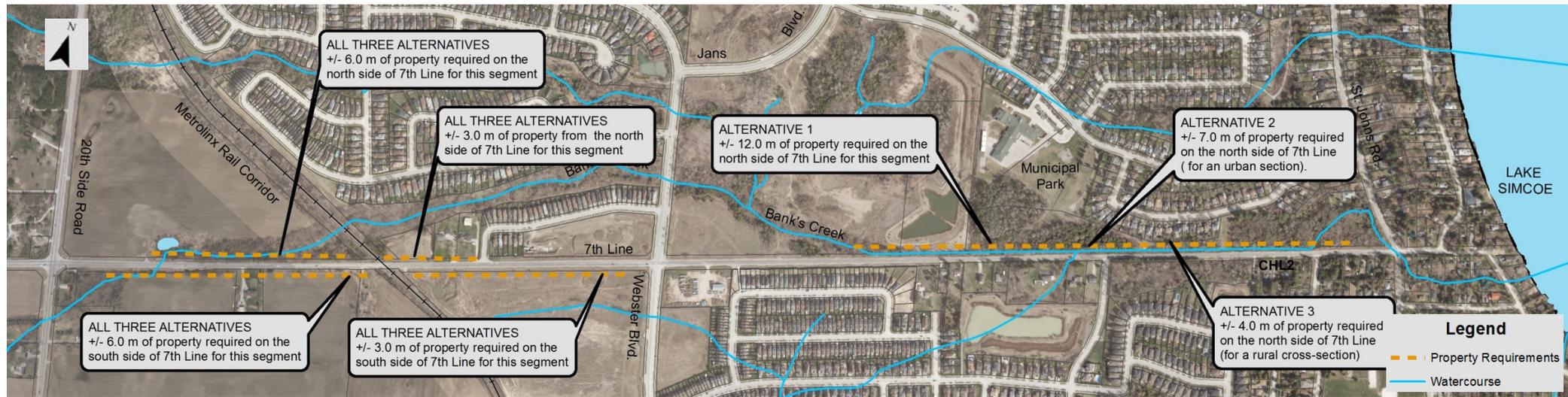


- With Design Alternative 2 a 1.0 km (approximate) segment of watercourse would need to shift approximately 8.0 m north to accommodate the reconstruction.
- Naturalization of the channel would be completed; however, the separation distance between the watercourse and roadway would not be as extensive as Design Alternative 1.
- This will improve the watercourse and the associated fish habitat and it will not require as extensive vegetation removals as Design Alternative 1.
- A Department of Fisheries and Oceans (DFO) Authorization will be required to complete these improvements.

Bank's Creek Improvements Associated with Design Alternative 3



- For Alternative 3, the construction footprint is reduced in comparison to the other design alternatives so as to minimize impacts to adjacent properties and natural heritage features.
- A 1.0 km (approximate) segment of watercourse would need to shift approximately 4.0 m north to accommodate the reconstruction. The watercourse would continue to be located immediately adjacent to the roadway post construction.
- A DFO Authorization will be required to complete the relocation of the watercourse.



From 20th Sideroad to Metrolinx Rail Corridor

- All three alternatives require approximately +/- 6.0 m of property from both the north and south sides of the corridor.

From Metrolinx to Webster Boulevard

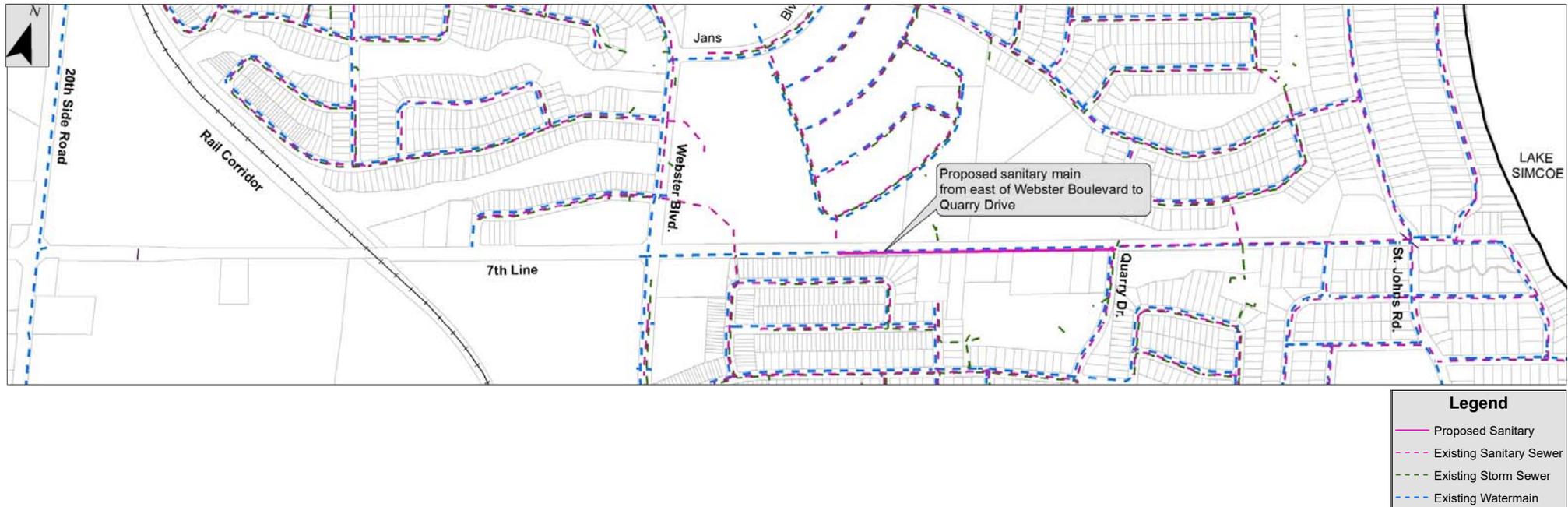
- All three alternatives require approximately +/- 3.0 m of property from the south side of the corridor.
- All three alternatives require approximately +/- 3.0 m from the north side of 7th Line from Metrolinx to just west of Fox Hill Street.

From Webster Boulevard to St. John's Road

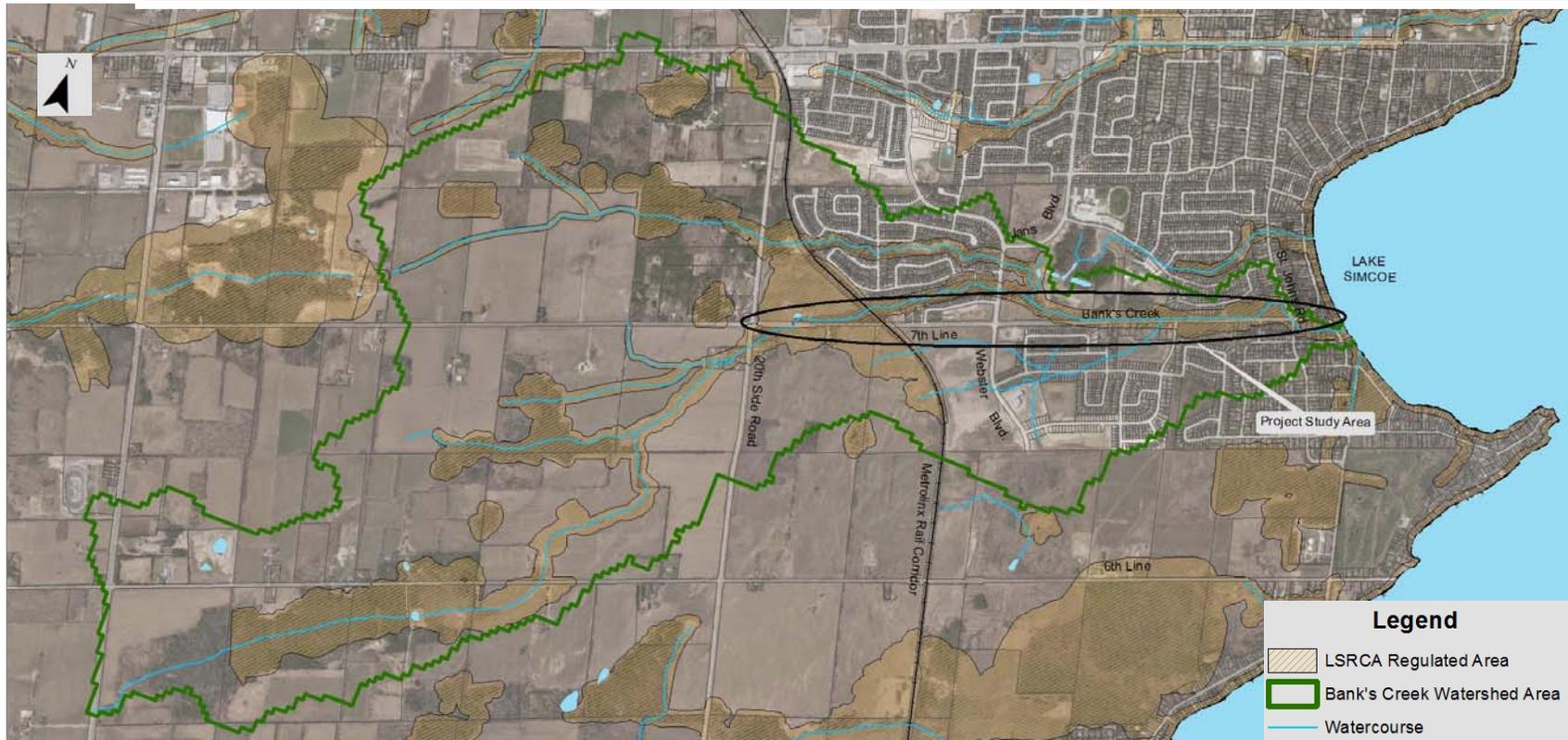
- Alternative 1 will require approximately +/- 12.0 m of property from the north side of 7th Line.
- Alternative 2 will require approximately +/- 12.0 m of property from the north side of 7th Line.
- Alternative 3 will require approximately +/- 4.0 m of property from the north side of 7th Line

REFER TO ROLL PLAN DRAWING AND TYPICAL CROSS-SECTIONS FOR ADDITIONAL DETAILS REGARDING PROPERTY IMPACTS

- There are existing sanitary sewer and watermain within the limits of the study area.
- As illustrated below, a new segment of sanitary sewer is proposed from east of Webster Boulevard to Quarry Drive.
- Existing watermain on 7th Line will be preserved.



Legend	
	Proposed Sanitary
	Existing Sanitary Sewer
	Existing Storm Sewer
	Existing Watermain

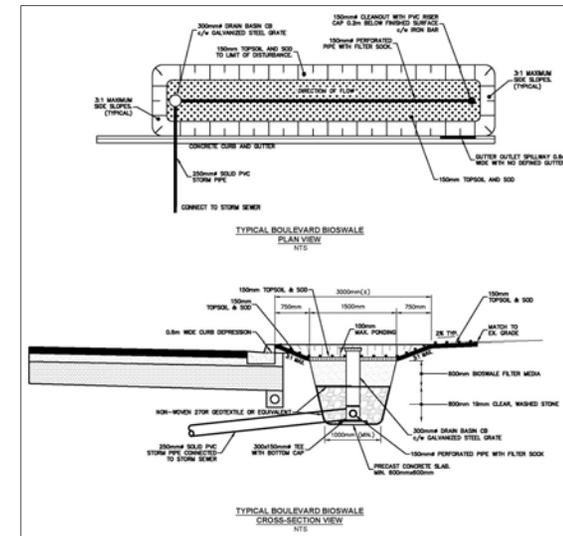


- A large portion of the project limits is within an area regulated by the Lake Simcoe Region Conservation Authority (LSRCA). A permit will be required from the LSRCA prior to construction.
- The above map shows the Bank's Creek Watershed Area illustrating that an area of approximately 900 ha drains through the study area.
- Given the above, stormwater management is a key component that will need to be addressed in the design for this corridor.



There are four key parts to stormwater management that need to be addressed to meet the requirements of the Lake Simcoe Protection Plan. These include water balance, quality control, quantity control, and cut / fill balance in the floodplain as detailed below:

- 1. Balance Cut/Fill in Floodplain:** The above map illustrates the general area (schematic only) needed in the northeast quadrant of 7th Line and 20th Sideroad to balance cut/fill in the floodplain. The subject area will have to be re-graded towards the creek. Alternative 1 requires an excavation of approximately 3000 m³.
- 2. Quality Control through Stormwater Infrastructure within the Corridor:** This will include storm sewers and catch basins. Stormwater quality will be controlled through catch basin filters, grassed swales, and stormwater ponds as well as the implementation of Low Impact Development (LID) measures, where possible.
- 3. Control Runoff from Post-development to Pre-development Rates:** The above map identifies several possible locations where a stormwater management pond could be constructed to assist in addressing water quality and quantity. It is proposed to either purchase property for a standalone pond to accommodate roadway runoff or to incorporate it into stormwater ponds required for adjacent land development proposals.
- 4. Control of the First 25 mm Flush from Impervious Area:** As per LSRCA requirements, the proposed road design will need to assimilate the first 25mm flush from the corridor during a rain event. This can be addressed through infiltration galleries constructed in the boulevard as illustrated in the above map. An infiltration gallery is further detailed in the adjacent figure. Providing this feature for approximately 1/6 the length of the project would



**INFILTRATION GALLERY
TYPICAL DETAIL**



NATURAL ENVIRONMENT

Fisheries/Aquatic:

- Bank's Creek is a coldwater watercourse that provides direct fish habitat.

Vegetation:

- One Butternut Tree (Endangered) is located east of the 20th Sideroad on the north side of 7th Line.
- Tree removals may be subject to the policies of the LSRCA Ecological Offsetting Plan (May 2017) and may require compensation.

Groundwater:

- The study area is not located within a wellhead protection area.
- There are 24 wells located within the estimated zone of influence of construction dewatering.

Wildlife (Including Species at Risk):

- Potential endangered bat habitat is located in adjacent woodlands.
- No areas adjacent to the corridor function as significant amphibian breeding habitat.
- No SAR birds were observed during breeding bird surveys and there is limited potential to impact SAR birds.

Surface Water:

- Bank's Creek crosses the study area in three locations and runs parallel to the corridor for a large segment.

Designated Areas:

- A large portion of the project study area is within the Lake Simcoe Region Conservation Authority Regulation Area.
- This project is not within the Greenbelt Area, the Oak Ridges Moraine Area or the Niagara Escarpment Plan Area.

CULTURAL ENVIRONMENT

Built Heritage and Cultural Heritage Landscapes:

A Cultural Heritage Resource Assessment was completed for the project study area which identified the following five cultural heritage resources:

Built Heritage Resources (BHR):

- BHR1 (1497 7th Line Former Nantyr School): Property not formally designated under the Ontario Heritage Act, but is included on the Town's Heritage Registry. A Cultural Heritage Impact Assessment was completed for this location and mitigation established for its protection during construction.
- BHR2 (1363 7th Line Farmstead with Barn): There will be no direct impacts to the structure(s), but some minor loss of vegetation.

Cultural Heritage Landscapes (CHL):

- CHL1: Stand of Lilacs
- CHL2: Views to Lake Simcoe
- CHL3: The 'cottage community' located east of St. John's Rd.

Archaeological:

- A Stage 1 Archaeological assessment has been completed for the project study area.
- The review determined that parts of the study area exhibit archaeological potential and other areas do not on account of deep and extensive land disturbance or low and wet conditions. A Stage 2 will be completed for localized areas.

SOCIO ENVIRONMENT

Land Use:

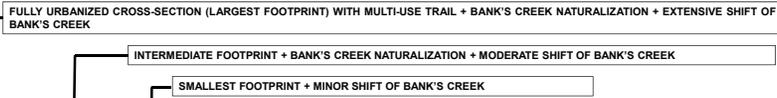
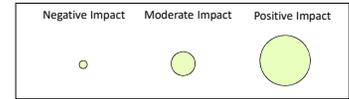
- Land use within the study area is primarily residential with a number of lots fronting directly onto the corridor at the east end.
- Lands west of the railway corridor to the 20th Sideroad are within the Alcona South Secondary Plan area. While these lands are currently used for agricultural purposes, they form part of the Alcona Expansion Area and will eventually be developed.
- Lands east of the railway corridor to Lake Simcoe are within the limits of the Alcona Settlement Area.
- There is one municipal park (i.e. Anna Maria Park) located on the north side of the 7th Line, east of St. John's Road.

Tourism:

- At the eastern limits of the study area there is a public access to Simcoe Beach of Lake Simcoe.

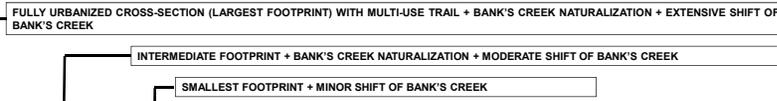
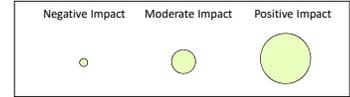
EVALUATION MATRIX PART A

The table below provides a simplified, visual comparison of the potential for each design alternative to impact the study area environment (physical, natural, socio-economic and cultural). An increased number of larger circles indicates that an alternative will have a reduced potential for negative impact.



EVALUATION CRITERIA	DESIGN ALT 1	DESIGN ALT 2	DESIGN ALT 3	DESCRIPTION OF EFFECTS
TECHNICAL ENVIRONMENT				
Future Traffic Capacity Will the alternative address capacity requirements?	●	●	●	All three options will equally address traffic capacity requirements.
Active Transportation Will the alternative provide for pedestrians and cyclists?	●	●	●	Design Alt. 1 will fully provide for active transportation since it provides both a multi-use trail and a sidewalk. Design Alts. 2 & 3 provide bike lanes as paved shoulders within the corridor and sidewalks.
Safety Will the alternative address safety concerns?	●	●	●	All three design alternatives will equally address safety.
Municipal Services (sanitary, water, storm) Will the alternative accommodate servicing requirements?	●	●	●	All three design alternatives will equally address servicing requirements.
Utilities Will the alternative impact existing utilities (i.e. relocation)?	●	●	●	Design Alt. 1 will have the largest construction footprint and will require utility relocation. Design Alts. 2 & 3 will have a moderate impact in this regard.
NATURAL ENVIRONMENT				
Terrestrial Wildlife (including Species at Risk) Potential to impact area wildlife and SAR	●	●	●	As Design Alt. 1 will have the largest construction footprint and proposes more extensive channel relocation it will have an increased potential to impact area wildlife through loss of vegetation and disruption during construction; however, mitigation can be utilized to keep impacts to a minimum. Design Alts. 2 and 3 will have more moderate impacts in this regard.
Fisheries / Aquatic Potential to impact fish habitat and aquatic features	●	●	●	While there will be temporary impacts during construction with any of the alternatives, Design Alt. 1 proposes naturalization and a relocation of Bank's Creek providing an increased separation distance from the roadway resulting in improved fish habitat. Alt. 3 will continue to flow immediately beside the corridor post construction. Design Alt. 2 will provide naturalization of the channel but the separation distance between the road and the watercourse will not be as extensive as Design Alt. 1.
Vegetation Potential to impact existing vegetation	●	●	●	Design Alt. 1 has the largest footprint and will require extensive vegetation removals to accommodate the channel naturalization and will therefore have greatest impact to area vegetation. Design Alts. 2 & 3 will have a moderate impact in this regard.
Surface Water / Drainage Potential to impact surface water and area drainage	●	●	●	Design Alt. 1 will have the most positive impact in this regard since it proposes full urbanization and includes a stormwater management pond for quality and quantity control. Design Alt. 2 also proposes urbanization but does not include a stormwater pond. Design Alt. 3 proposes a small segment of urbanization and will utilize mainly ditch drainage with no stormwater management pond.
Groundwater Potential to impact area groundwater resources	●	●	●	The study area is not within a wellhead protection area. All three options will have a low potential to impact area groundwater.
Climate Change How does the alternative impact climate change and how does climate change impact the alternative?	●	●	●	All three options are expected to have a similar impact on climate change. While the improvements proposed will address capacity deficiencies, the anticipated increase in vehicle emissions is not expected to be significant or result in substantial increases in green house gases over existing conditions. While vegetation removal is required landscaping will be completed post construction which will contribute to replacement of vegetative cover necessary to assist in the removal of carbon dioxide. The stormwater management improvements (i.e. urbanization & storm ponds) as well as the use of Low Impact Development measures (i.e. infiltration galleries) will assist in maintaining infiltration and reducing the impacts from increased temperatures and extreme rain events.
Air Quality Will the alternative impact air quality?	●	●	●	All three design alternatives propose an increase in the number of lanes at the west end of the study area only, in an area that is largely vacant. The improvements proposed are not expected to result in a significant change in air quality over existing conditions.

The table below provides a simplified, visual comparison of the potential for each alternative to impact the study area environment (physical, natural, socio-economic and cultural). An increased number of larger circles indicates that an alternative will have a reduced potential for negative impact.



EVALUATION CRITERIA	DESIGN ALT 1	DESIGN ALT 2	DESIGN ALT 3	DESCRIPTION OF EFFECTS
SOCIAL ENVIRONMENT				
Land Use Planning Objectives Is alternative in accordance with planning objectives?	●	●	●	All three alternatives propose improvements that will address future development requirements and are therefore in accordance with land use planning objectives; however, Design Alt. 1 is more compatible with future development expansion westwards.
Property Impacts Will the alternative require property acquisition?	○	●	●	Design Alt. 1 proposes the widest construction footprint and will require the most amount of property. Design Alts. 2 & 3 will require less property acquisition than Design Alt. 1.
Aesthetics Will the alternative impact the area visually?	●	●	●	All three alternatives propose a reconstruction which will improve the overall appearance of the area by addressing the deteriorating condition of the existing pavement and by adding boulevard trees and landscaping.
Residential Will the alternative impact area residences and access?	○	●	●	As all three alternatives propose a reconstruction there will be temporary impacts during the construction period relating to property access; however, measures can be implemented to minimize impacts.
Areas Businesses Will the alternative impact area commercial operations?	●	●	●	As all three alternatives propose a reconstruction there will be temporary impacts during the construction period; however, measures can be implemented to minimize impacts.
Noise and Vibration Will the alternative impact noise levels during construction and the long term?	●	●	●	All three alternatives propose an increase from two to three lanes at the west end of the study limits, in an area that is largely vacant. It is not expected that the proposed improvements will result in a significant increase in noise. The application of standard noise mitigation during construction will assist in reducing noise impacts during the construction period.
CULTURAL ENVIRONMENT				
Archaeological Will the alternative impact area archaeological resources?	●	●	●	A Stage 1 archaeological report has confirmed that all lands within the municipal right-of-way have been subject to previous disturbance and are therefore cleared of archaeological concerns. A Stage 2 assessment is being completed for localized areas outside of the existing municipal right-of-way that will be subject to construction.
Built Heritage & Cultural Heritage Landscapes Will the alternative impact area built heritage resources?	●	●	●	There will be no direct impacts to built heritage resources with any of the alternatives. Cultural Heritage Landscapes may be temporarily affected during construction; however, mitigation will assist in keeping impacts to a minimum.
ECONOMIC ENVIRONMENT				
Property Acquisition Costs Will the alternative require property acquisition?	○	●	●	All three design alternatives will require property acquisition; however, Design Alt. 1 will be the most extensive.
Construction Costs Will the alternative be expensive to construct?	○	●	●	Design Alt. 1 will be the most costly to implement. Design Alts. 2 & 3 will be less costly and are expected to be relatively similar.
Operating & Maintenance Costs Will the alternative be expensive to maintain?	●	●	●	All three design alternatives will have similar operating and maintenance costs.

The Municipality considers **DESIGN ALTERNATIVE 1** as the **PRELIMINARY PREFERRED DESIGN CONCEPT** for the following reasons:

- This option will more efficiently address future traffic capacity requirements.
- It will provide for Active Transportation (i.e. pedestrians and cycling)
- It will provide improvements to Bank's Creek including improved fish habitat.
- The proposed urbanization of the corridor will provide improvements to stormwater management in terms of water quality and quantity.

Note: The above selection may change following the receipt of public and agency input.

The following mitigation will assist in reducing the potential for negative impacts during construction and post construction:

Aquatic Wildlife (Including Species at Risk)

- Obtain necessary approvals from the Lake Simcoe Region Conservation Authority (LSRCA), the Ministry of Natural Resources and Forestry (MNRF) and Department of Fisheries and Oceans (DFO).
- Application of standard best management practices for working in and around water (i.e. sediment & erosion control; site restoration following construction; equipment refueling and maintenance restrictions etc.).

Terrestrial Wildlife (Including Species at Risk)

- Minimize vegetation removals and impacts to habitat.
- Complete vegetation removals outside of the active season for breeding birds in accordance with the Migratory Birds Convention Act and the Migratory Birds Regulations so as to avoid impacting migratory birds, including Species at Risk.

Surface Water

- Obtain a permit from the LSRCA for all work within the LSRCA regulated area.
- Application of standard best management practices for working in and around water (i.e. sediment & erosion control; site restoration following construction; equipment refueling and maintenance restrictions etc.).
- Complete water taking (consumptive use, surface water diversions etc.) in accordance with the requirements of the Ontario Water Resources Act and the Environmental Protection Act.

Groundwater

- Complete water taking (groundwater) in accordance with the requirements of the Ontario Water Resources Act and the Environmental Protection Act.
- Implement Low Impact Development (LID) measures, where possible, to assist in water quality and quantity control.

Air Quality

- Utilize standard best management practices during construction to minimize impacts to air quality (i.e. covering stockpiles, utilizing dust suppressants; and ensuring that all equipment pollution control devices are operational and properly maintained).

Climate Change

- Implement Low Impact Development (LID) measures where possible.
- Minimize vegetation removal. Restore vegetation post construction through landscaping.
- Encourage alternative forms of transportation (i.e. cycling, transit, walking and etc.).

Vegetation (Including Species at Risk)

- Re-stabilize and re-vegetate exposed surfaces as soon as possible following construction.
- Define limits of construction with fencing to minimize intrusion into unnecessary areas.

Archaeological/Built Heritage

- Minimize direct impacts to heritage structures (i.e. BHR1 & BHR2).
- BHR2 – re-establish landscaping.
- CHL1 – Incorporate the planting of lilacs and other typical vegetation into the landscaping design.
- CHL2 – maintain the unobstructed view to Lake Simcoe.
- CHL3 – maintain the ‘cottage community’ east of St. John’s Road.
- Complete Stage 2 Archaeological Assessment.

Noise

- Complete construction in accordance with municipal noise by-law.
- Utilize standard noise mitigation measures to minimize potential for impact (i.e. construction equipment to comply with the noise emission standards; equipment to be in good repair & fitted with functioning mufflers; maximize the separation distance between construction staging areas and nearby receptors to the greatest extent possible).

Adjacent Land Use

- Use of grading techniques to minimize potential for impact to adjacent properties.
- Use of traffic management measures (i.e. construction staging, detours etc.) to minimize impacts to local traffic and to maintain access during construction.
- Providing advance notice to property owners regarding temporary access closures during construction.

Utilities/Service

- Advance contact with utility companies during detail design process to develop re-location strategies.
- Ongoing communication with utility companies during construction.

FUNDING

This is a growth related project and it will therefore be funded by area development.

PRELIMINARY PROJECT SCHEDULE

- EA complete 2018
- Detailed Design complete 2018-2019
- Property Acquisition 2020
- Utility Relocation 2020-2021
- Road Construction 2021-2022

The above timing will be subject to funding and the receipt of all necessary approvals.

- The project team will give consideration to all comments received following completion of this Public Open House and will confirm selection of the Preferred Design Alternative.
- The project will then move into Phase 4 of the Class EA process. An Environmental Screening Report (ESR) will be prepared to document the Class EA process and made available for a 30 day public review period.
- A Notice of Completion will be issued that will identify the final Preferred Design Alternative, the start of the 30 day review period and the locations available to review the ESR document. The notice will also provide instructions for submitting a Part II Order (i.e. bump up) request.
- Once the 30 day public review period ends and there are no further objections or requests for a Part II Order, the Class EA process is considered complete. The project can then move forward to Phase 5 involving the completion of detailed design and construction at a future date.

- All POH material will be available for download from the Town's website at www.innisfil.ca/7thea on March 28, 2018.
- We invite you to provide any comments, in writing, on the Comment Sheet provided.
- All comments are to be submitted by April 11, 2018 to either of the following members of the Project Team:

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Thank you for your attendance at this meeting!
We appreciate your participation.

MUNICIPAL FREEDOM OF INFORMATION & PROTECTION OF PRIVACY ACT

Comments and information regarding this project are being collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act for the purpose of meeting environmental assessment requirements. With the exception of personal information, all comments received will become a part of the public record. For more information about the collection, please contact Magdalena Koehler, Town of Innisfil, 705-436-37040 ext. 3226.