



CORPORATION OF THE TOWN OF INNISFIL

**Highway 400 / 6th Line Interchange
Schedule 'C' Municipal Class Environmental Assessment**

Environmental Study Report

January 2017



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Table of Contents

1.0	Introduction.....	1		5.1.1	Regional TMP Alternative Planning Solutions/Alternatives to the Undertaking...	19
	1.1	Study Area	1	5.1.2	Alternative Planning Solutions for Alcona Growth.....	19
	1.2	Municipal EA Process	2	5.1.3	Assessment of Candidate Interchange Locations.....	20
	1.3	Federal Environmental Assessment Process.....	3	5.2	Preliminary Design Alternatives	20
2.0	Problem Statement.....		5	5.2.1	Interchange Alternatives	20
	2.1	Need and Justification.....	5	6.0	Evaluation of Alternatives	27
3.0	Consultation Program.....		8	6.1.1	Evaluation Criteria	27
	3.1	Notices	8	6.1.2	Social Utility Function	30
	3.2	Contact List.....	8	6.1.3	Linear Utility Function	30
	3.3	Public Open Houses (POH's).....	8	6.1.4	Weighted Factors and Sub-Factors	31
	3.3.1	POH No. 1	8	6.1.5	Weighting Results.....	31
	3.3.2	POH No. 2	8	6.1.6	Interchange Alternatives	31
	3.4	Stakeholder Consultation	8	6.2	Sensitivity Tests	34
	3.4.1	MTO Senior Management.....	8	7.0	Recommended Plan.....	36
	3.4.2	Technical Advisory Committee	9	7.1	Technically Preferred Alternative	36
	3.4.3	Interest Groups and Agencies	9	7.2	Refinements.....	36
	3.4.4	Property Owners.....	9	7.3	ONroute Weaving Analysis	36
	3.4.5	First Nations.....	9	7.4	Recommended Plan.....	36
4.0	Studies & Investigations		11	7.5	Interim Plan.....	36
	4.1	Transportation	11	7.5.1	Effects and Mitigation.....	36
	4.1.1	Existing Conditions	11	7.6	Driveway Refinements	46
	4.1.2	Future Conditions	11	7.7	Property Requirements	46
	4.1.3	Existing Structures.....	11	7.8	Stormwater Management.....	46
	4.1.4	Geotechnical.....	12	7.8.1	Design Criteria	46
	4.2	Environmental Conditions	13	7.9	Structure	48
	4.2.1	Natural Environment.....	13	7.10	Cost Estimate.....	48
	4.2.2	Social and Cultural Environmental.....	13	7.11	Statement of Flexibility	49
	4.2.3	Future Land Use	13	7.12	Future MTO Approvals.....	49
	4.2.4	Drainage Assessment.....	15	8.0	Future Activities.....	50
	4.2.5	Phase 1 Environmental Site Assessment.....	15	8.1	Future EA Studies.....	50
	4.2.6	Utilities	16	8.2	Future Detail Design Investigations.....	50
	4.2.7	Cultural Heritage.....	17			
5.0	Generation of Alternatives		19			
	5.1	Assessment of Alternative Planning Solutions	19			

List of Figures

Figure 1: Study Area 1
 Figure 2: 6th Line Sub-Study Area 2
 Figure 3: Municipal Class EA Planning and Design Process 4
 Figure 4: Recommended 2031 Road Network Improvements..... 6
 Figure 5: Future Growth Areas 7
 Figure 6: Simcoe County TMP, Road Network Improvement..... 7
 Figure 7: Six Nations Land Claim in Innisfil Township..... 10
 Figure 8: Surficial Geology 12
 Figure 9: Population per Zone 14
 Figure 10: Employment per Zone 14
 Figure 11: InnServices proposed trunk watermain 16
 Figure 12: Recommended Wastewater Servicing Network 17
 Figure 13: Evaluation Summary of Alternative Planning Solutions/Alternatives to the Undertaking (Source: Innisfil 2013 TMP) 19
 Figure 14: Horizontal Alignment Alternatives A & B 22
 Figure 15: Horizontal Alignment Alternative C..... 23
 Figure 16: Vertical Alignment Alternatives 1 & 2 24
 Figure 17: Interchange Configuration Alternatives 1-6 25
 Figure 18: Interchange Configuration Alternatives 7-10 26
 Figure 19: Combination of Alternatives to develop Technically Preferred Plan 28
 Figure 20: Sample Utility Functions..... 30
 Figure 21: MATS Weighting Results for Interchange Alternatives..... 32
 Figure 22: Bridge Structure Alternatives MATS Evaluation Ranking Results 33
 Figure 23: Technically Preferred Alternative 37
 Figure 24: Average Speed, 2031 Traffic Projection, Refined TPA 38
 Figure 25: Average Speed, Highway 400 between 6th Line..... 38
 Figure 26: Ultimate Recommended Plan..... 39
 Figure 27: Interim Recommended Plan..... 40
 Figure 28: Preliminary Recommended Profile 41
 Figure 29: Interim & Ultimate Structure Deck Section 42
 Figure 30: Interim & Ultimate Preliminary General Arrangement 43
 Figure 31: Driveway Alternatives..... 47
 Figure 32: Recommended Bridge Cross Section and Elevation..... 48

List of Photos

Photo 1: Existing Bridge 5
 Photo 2: View of the bridge from Highway 400 12

Photo 3: View of the bridge looking west 12
 Photo 4: History of Innisfil Settlement 18
 Photo 5: Former Schoolhouse (3654 6th Line)..... 18
 Photo 6: 1956 Map of Simcoe County..... 18

List of Tables

Table 1: 2031 Traffic Volumes at the 6th Line Interchange, AM Peak Hour 11
 Table 2: 2031 Traffic Volumes at the 6th Line Interchange, PM Peak Hour..... 11
 Table 3: Interchange Location Evaluation Summary 20
 Table 4: Short List of Factors and Sub-factors for Combined Interchange Alternatives 29
 Table 5: Sample Global Factor / Sub-Factor Weights (Sample)..... 31
 Table 6: Sensitivity Testing Results for Interchange Alternatives..... 35
 Table 7: Summary of Potential Environmental Effects and Proposed Mitigations 44
 Table 8: Proposed Storm Water Management Ponds 46
 Table 9 : Recommended Plan Alignment Cost Estimate..... 48

Glossary of Terms..... 50

List of Appendices

Appendix A	Study Design
Appendix B	Record of Consultation
Appendix C	Select Correspondance
Appendix D	Transportation
Appendix E	Geotechnical Desktop Review
Appendix F	Natural Environment Assessment Report
Appendix G	Fisheries Report
Appendix H	Land Use Plan Report
Appendix I	Noise Report
Appendix J	Archaeology Report
Appendix K	Drainage Report
Appendix L	Phase I ESA Report
Appendix M	Cultural Heritage Report
Appendix N	Analysis and Evaluation Report

1.0 Introduction

An Environmental Assessment (EA) was initiated by the Town of Innisfil (Town) in February 2016 to plan for a new interchange on Highway 400 at 6th Line. The interchange has been identified in the Town's Official Plan (OP) and Transportation Master Plan (TMP). Improvements to 6th Line and a new interchange will service the current and future vehicular traffic for the Expansion Areas in the Town, specifically for the Sleeping Lion development in Alcona, which is being planned for 1,800 new residential dwelling units and Innisfil Heights along Highway 400.

This EA study documents the transportation need and the Recommended Plan to address current and future operational needs considering all modes of travel. This interchange will provide all users (pedestrians, bikes and vehicular traffic) with a safe and convenient route to travel along 6th Line and have access to the provincial highway network. This interchange will provide a long term link to accommodate growth in Alcona and Innisfil Heights and relieve the congestion of the Innisfil Beach Road connection to Highway 400.

The EA has examined alternative interchange locations at 4th Line, 5th Line and 6th Line and recommended 6th Line as the next interchange location within the Town. This was then followed by an examination of interchange configuration alternatives for the new interchange on Highway 400 at 6th Line, taking into account property impacts, transportation safety, traffic operations and environmental and social impacts.

1.1 Study Area

The project location is within the County of Simcoe (County) and the Town. The overall Study Area, illustrated in **Figure 1**, was expanded based on comments received on the draft study design by the public. Following the assessment of interchange locations and the recommendations to complete the second stage analysis at 6th Line, a 6th Line sub-study area was defined for the detailed assessment, as depicted in **Figure 2**. The Sub-Study Area extends from 5th Side Road easterly to approximately 600 m east of Highway 400. The downstream influences of trips attracted to the new interchange were also considered.

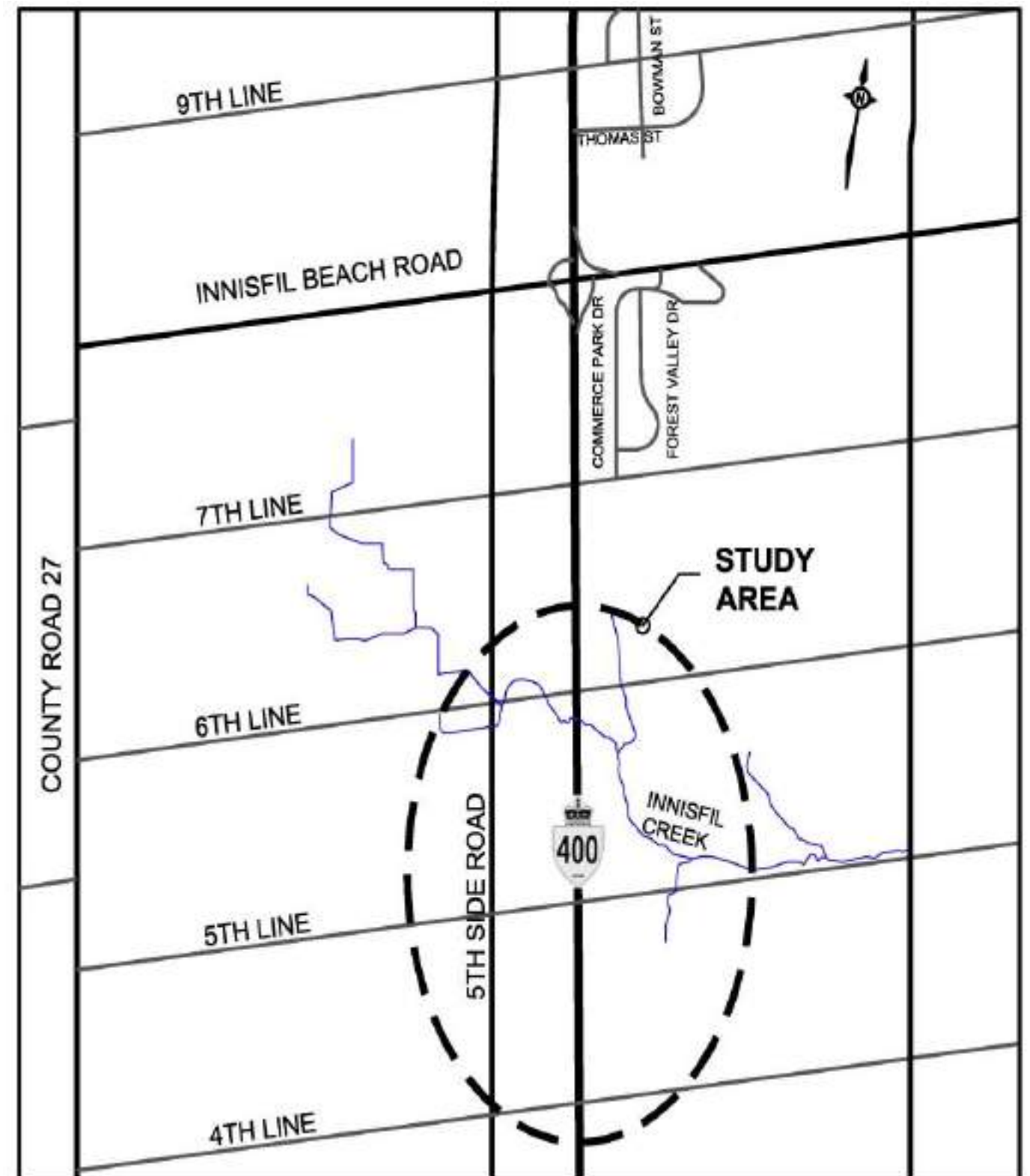


Figure 1: Study Area

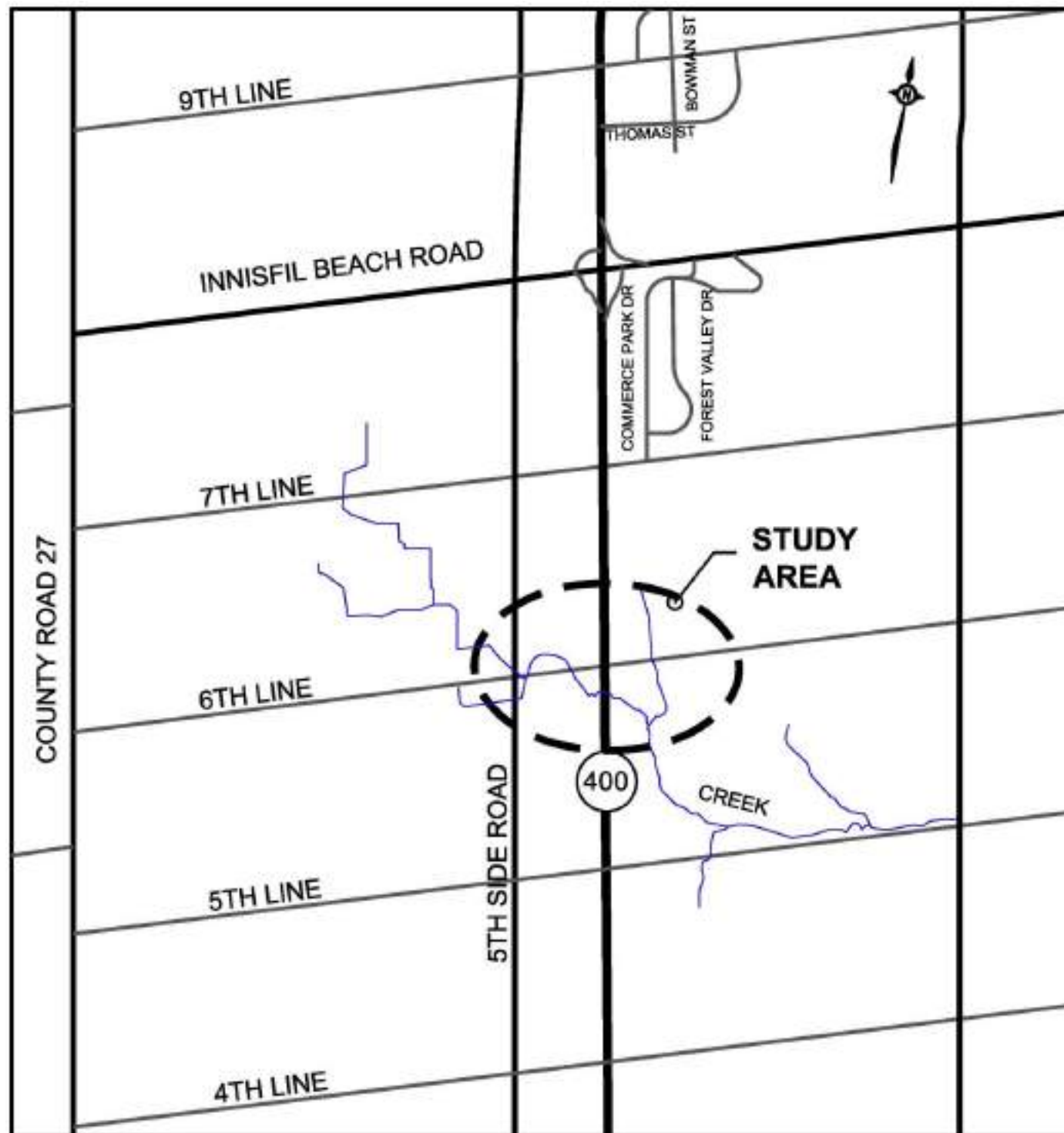


Figure 2: 6th Line Sub-Study Area

1.2 Municipal EA Process

This project was undertaken to satisfy the Environmental Assessment Act following the “Municipal Class Environmental Assessment” process for a Schedule ‘C’ project as amended in 2015. This document specifies the procedures required to plan specific road projects according to an approved planning process. This is a self-assessment process that includes mandatory public consultation. The EA has examined alternatives for a new interchange on Highway 400 within the Study Area.

The approach to the study includes the Ministry of the Environment and Climate Change’s (MOECC’s) five guiding principles for EA studies, namely:

- Consider all reasonable alternatives;
- Provide a comprehensive assessment of the environment;
- Utilize a systematic and traceable evaluation of net effects;
- Undertake a comprehensive public consultation program; and
- Provide clear and concise documentation of the decision-making process and public consultation program.

The Class EA process includes an evaluation of all reasonable alternatives and the selection of a preferred alternative(s) with mitigation measures for any residual effects (including avoidance and mitigation) on the natural, social and cultural environments.

The EA process entails five phases. This study reviewed previous analyses for the interchange identified in the TMP and validated the conclusions to satisfy Phases 1 and 2 in 2016, and subsequently completed Phases 3 and 4, finalizing the ESR in 2017.

The following is the specific breakdown of tasks by phase for a Schedule ‘C’ project¹:

Phase 1: Identify the Problem (originally completed in TMP and reviewed by current study)

- Step 1: Identification and description of the problem or opportunity
- Step 2: Discretionary public consultation – Circulate Study Design Spring 2016

Phase 2: Alternative Solutions (originally completed in TMP and reviewed by current study)

- Step 1: Identification of alternative solutions to the problem
- Step 2: Identify the Study Area and a general inventory of the natural, social and cultural environments
- Step 3: Identification of the net positive and negative effects of each alternative solution.

¹ Municipal Class Environmental Assessment, Municipal Engineers Association, 2015.

Step 4: Evaluation of alternative solutions and preliminary recommendation of a preferred solution

Step 5: Public consultation at Public Open House (POH) No. 1 (June 7, 2016)

Step 6: Selection of the preferred solution, following public and agency review

Phase 3: Alternative Design Concepts for the Preferred Solution (Concepts for 6th Line Interchange)

Step 1: Identification of alternative designs

Step 2: Preparation of a detailed inventory of the social and economic environments

Step 3: Identification of the potential impact of the alternative designs

Step 4: Evaluation of the alternative designs

Step 5: Public consultation at POH No.2 (December 6, 2016)

Phase 4: Environmental Study Report (ESR)

Step 1: Completion of the ESR

Step 2: File the ESR and Notice of Completion

Step 3: Opportunity to request a Part II Order

Phase 5: Implementation

Not included as part of this study

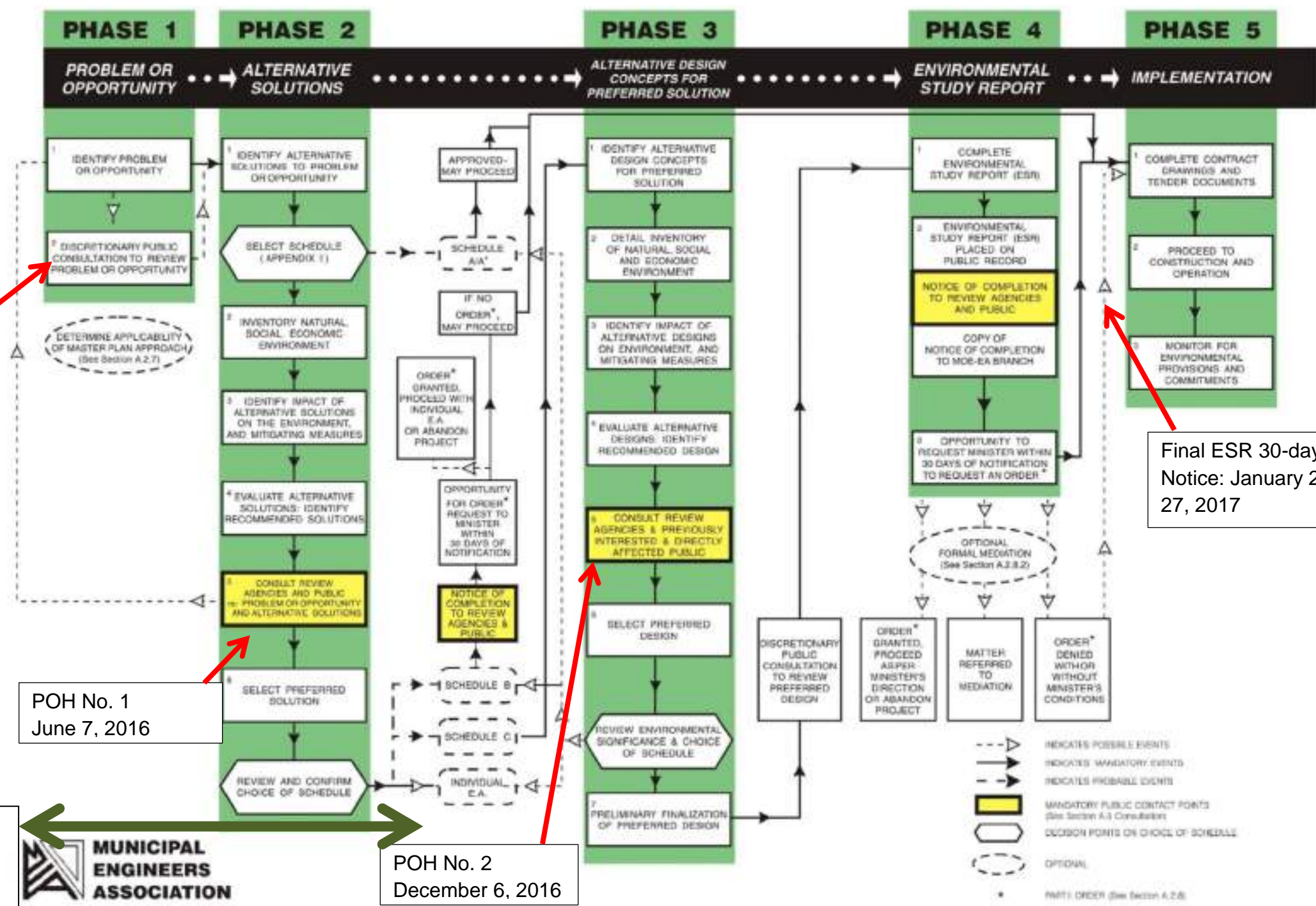
The Municipal Class EA process is illustrated in **Figure 3**.

This study will only be completed to the end of the Municipal Class EA process (i.e. Phase 4); however, further federal requirements may need to be met before federal approvals are provided.

1.3 Federal Environmental Assessment Process

Projects such as this one will no longer require a Canadian Environmental Assessment Act (CEAA) screening even if a former 'federal EA trigger' exists. However, projects will still be subject to relevant federal laws, regulations and standards, as applicable. CEAA 2012 still requires that before federal authorities make any decision that would allow a project to proceed, they must determine whether a project is likely to cause significant adverse environmental effects. Therefore, the potential need for any federal approvals for the project will be determined when the detailed design is completed for elements on Innisfil Creek. However, based on the scope of the Recommended Plan it is expected that this ESR documentation will meet any Federal requirements.

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



Circulation of Study Design
 Spring 2016

POH No. 1
 June 7, 2016

POH No. 2
 December 6, 2016

Final ESR 30-day Review
 Notice: January 20 and
 27, 2017

Completed by
 Transportation Master Plan
 and subsequently reviewed
 and validated by this study.



Figure 3: Municipal Class EA Planning and Design Process

2.0 Problem Statement

The Town of Innisfil is currently undergoing a period of tremendous population and employment growth. By 2031 the population is projected to more than double. Infrastructure improvements are required to accommodate the traffic growth resulting from this proposed development. A multi-modal transportation strategy, to service those demands, was developed through a TMP.

As part of the TMP process, the Town has adopted a Transportation Vision Statement which is as follows:

“Innisfil’s transportation network connects people and communities, fostering healthy living and operates efficiently across the Town as an environmentally and financially sustainable system”.

Further to this vision statement, the Town’s TMP has identified an additional Highway 400 interchange (subject of this Study) as one of the Town’s long term transportation priorities to address future increased traffic demand. Current and expected increases in traffic in the County of Simcoe and Town of Innisfil necessitate transportation improvements to the surrounding infrastructure.

2.1 Need and Justification

The Town of Innisfil’s OP defines developments and lands that will be allowed to be serviced to permit residential, commercial and industrial development in the Town. The Innisfil Heights expansion area, as identified in the approved OP, triggers servicing plans (water, sewer and transportation) to support this level of land use intensification.

Servicing plans along 6th Line to Innisfil Heights are documented in the Town-wide Water and Wastewater Servicing Master Plan (completed in 2012). The transportation servicing is defined in the TMP and the Draft Active Innisfil Plan by Parks, Recreation and Culture. These documents are triggering project specific improvements in the Town, which include improvements to 6th Line (defined in the separate 6th Line Environmental Assessment Environmental Study Report) and a new interchange on Highway 400 (subject of this EA Study).

The Alcona South Secondary Plan includes the Sleeping Lion Development (to the east of Highway 400) which is the first of the residential developments that will generate traffic destined to a new interchange on Highway 400. This new development will be a 1,800 unit subdivision.

The immediate need for the project is to confirm that the Ministry of Transportation’s (MTO’s) planned replacement of the existing 6th Line and Highway 400 overpass, as presented in **Photo 1**, will accommodate the future interchange. The existing bridge provides substandard vertical clearance, its condition is deteriorating, and it is approaching the end of its service life. MTO have

identified that the existing bridge will need to be replaced to accommodate a future 10-lane cross section on Highway 400.



Photo 1: Existing Bridge

As a long range property protection exercise the Town is planning for an ultimate interchange on Highway 400 as identified in their OP (2006) and TMP (2013). The justification and need for the proposed interchange was established in the TMP by the Town (2013) and the County TMP (2014). The Town TMP, as presented in **Figure 4**, recommended improvements to 6th Line and protection for an interchange on Highway 400 at 6th Line. The traffic analysis was based on a population forecast of 65,000. This reflects the addition of future growth areas such as the Sleeping Lion (Alcona South Expansion Area) and Friday Harbour developments which had not been included in the previous Provincial Growth Plan, as presented in **Figure 5**.

The County TMP was based on the same growth projections used for the Town’s TMP. This recommended the widening of Innisfil Beach Road (County Road 21) to 4 lanes but confirmed those improvements would be unable to accommodate the increased traffic demands between the growth areas and Highway 400, as presented in **Figure 6**.

Additional traffic forecasts were more recently developed by the Town as part of a 6th Line EA. The 6th Line EA was planning for the ultimate land use scenario which included additional development in the Alcona North and Alcona South expansion areas. This resulted in a total population of 82,000 and an employment of 16,000.

Regardless of the pace of development growth, this proposed project will have two timelines. The initial timeline is the replacement of the existing bridge and any necessary complimentary road alignment for 6th Line or change in elevation of Highway 400, to allow the new bridge to

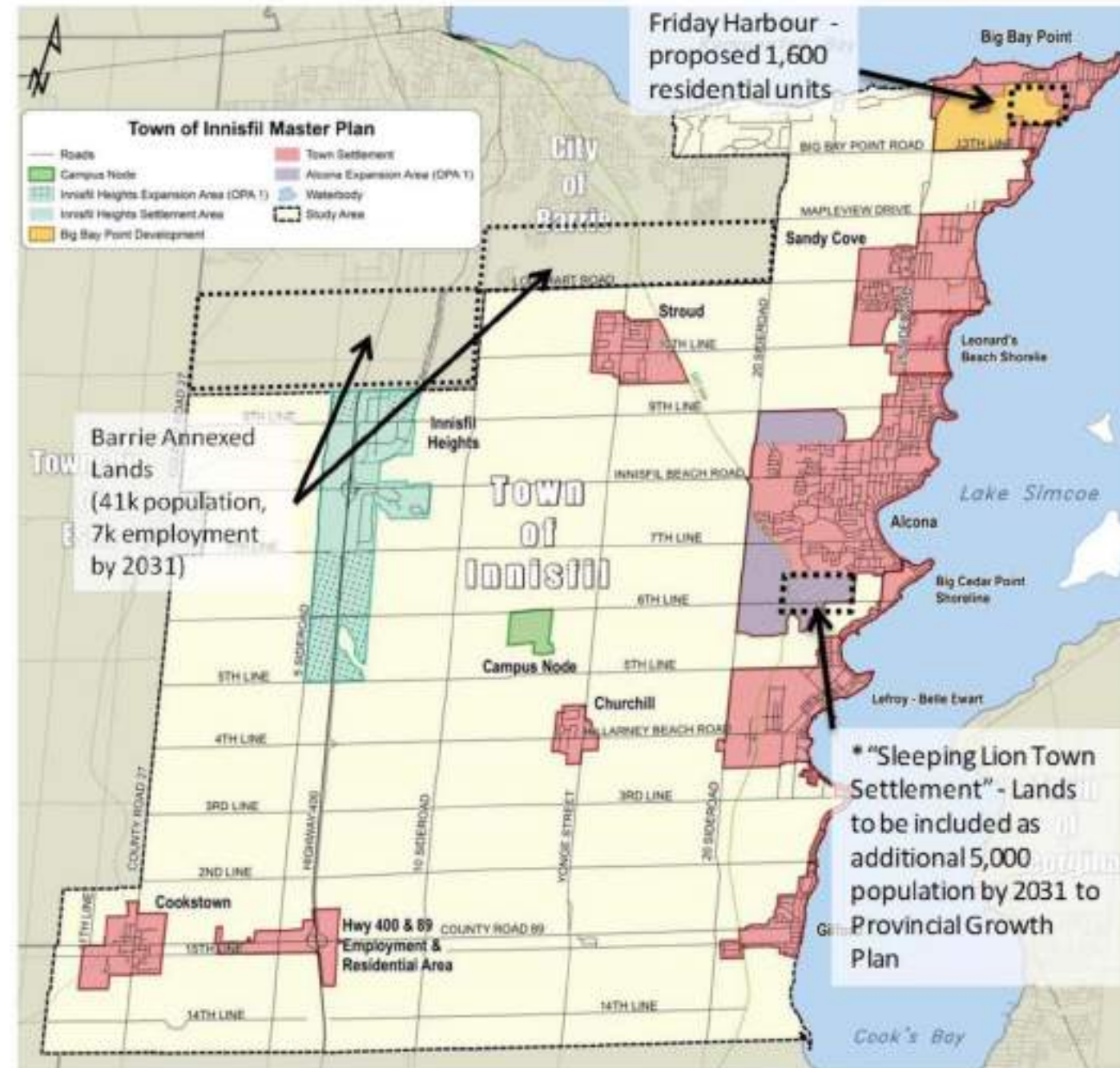
accommodate a future interchange and 4-lane arterial (6th Line) with a sidewalk and a Multi-Use Pathway (MUP) for active transportation. The second timeline is for the construction of the interchange. As per the Town's TMP, this timeline will be dependent on development growth and may occur by the 2031 planning horizon.

MTO is systematically replacing the original structures on Highway 400 to accommodate the planned widening of Highway 400 to 10 lanes. MTO has scheduled the 6th Line structure for replacement in 2018.



Figure 4: Recommended 2031 Road Network Improvements

Innisfil Town of Innisfil
Transportation Master Plan



(Source: Innisfil Town-Wide Water and Wastewater Master Servicing Plan)

Figure 5: Future Growth Areas

MMM GROUP
TRANSPORTATION MASTER PLAN UPDATE

Table 5.3-4: Additional Improvements for Inclusion in the Draft 2031 Road Network

Road	Limits	Improvement		Multiple Account Evaluation (MPE):							MPE Pass?
		2011	2031	GM	CON	AT	TRA	ENV	\$	TOTAL	
CR-4, Innisfil	Innisfil 10th Line to CR-21	2	4	CONGESTED DESPITE IMPROVEMENT							
CR-53, Innisfil	CR-21 to Barrie City Limit	2	4	0	4	10	5	10	4	33	✓
CR-10, Clearview	CR-9 to Highway 26	2	4	0	6	10	5	6	4	31	✓
CR-90, Springwater	CR-28 to the Barrie City Limit	2	5	CONGESTED DESPITE IMPROVEMENT							
CR-43, Springwater	CR-28 to Highway 26	2	4	0	0	10	1	10	4	25	✓
CR-93, Oro-Medonte	CR-11 to Barrie City Limit	2	4	67	0	0	77	6	4	243	✓
CR-21, Innisfil	CR-53 to CR-4	2	4	CONGESTED DESPITE IMPROVEMENT							
CR-89 / CR-3, Innisfil	CR-53 to CR-39	2	4	0	6	0	2	55	4	17.5	✗
4th Line, Innisfil	CR-53 to CR-39	LOCAL	CR	0	6	0	1	5	4	16	✗
CR-93, Midland	CR-25 to Highway 12	2	4	0	0	0	10	10	4	24	✓
Line 3 N, Oro Medonte	CR-23 to CR-19	LOCAL	CR	0	10	10	0	5	8	33	✓
Line 7 N, Oro Medonte	CR-19 to Highway 400	LOCAL	CR	0	10	0	0	7	8	25	✓

Figure 6: Simcoe County TMP, Road Network Improvement

3.0 Consultation Program

The following sections provide a summary of the consultation activities held during the study.

3.1 Notices

Notices for the Study Commencement, POH's, and Notice of Study Completion were publicized as follows:

- Study Commencement Notice – Innisfil Community Bulletin/Innisfil Examiner on April 1, 2016 and April 8, 2016
- POH No. 1 - Innisfil Community Bulletin/Innisfil Examiner on May 20, 2016 and May 27, 2016
- POH No. 2 - Innisfil Community Bulletin/Innisfil Examiner on November 18, 2016 and November 25, 2016
- Notice of Study Completion – Innisfil Community Bulletin/Innisfil Examiner on January 20, 2017 and January 27, 2017

See **Appendix B** for the Notice of Study Commencement and POH No. 1 and No. 2 reports.

3.2 Contact List

A property owner/public mailing list was provided by the Town at the outset of the study. Additions to the list were sought via the EA Study Commencement Notice and Notice of POH's in addition to comment sheets at the POH's. The lists were updated throughout the duration of the study. To ensure all property owners were notified, over 100 letters were mailed to property owners adjacent to the road corridor in advance of POH No. 1 and POH No. 2, along with notifications for the Study Commencement and Study Completion.

An agency contact list was developed and expanded throughout the study. See **Section 3.4.3** Interest Groups and Agencies for the list of agencies contacted and contact persons.

3.3 Public Open Houses (POH's)

3.3.1 POH No. 1

The first POH meeting was held on Tuesday June 7, 2016 at the Town Hall from 4:00 pm to 7:00 pm. All property owners and agencies noted on the study contact list were mailed individual letters inviting them to attend the POH.

Display panels (text, photos and drawings) were set up around the perimeter of the room for leisurely viewing. The project goals, need and justification for an interchange, alternative planning

solutions, environmental inventories, and technical studies were presented and public/agency input/feedback was encouraged. Town and consultant staff members were available to respond to any verbal comments/questions.

Twenty-three (23) people registered at the POH. Those in attendance were encouraged to provide a written response to any issues or concerns. A total of five (5) comment sheets, letters or e-mails were submitted at the POH and during the subsequent 2 week comment period.

Refer to **Appendix B** for the POH No. 1 report and comment sheets.

3.3.2 POH No. 2

The second POH was held on Tuesday December 6, 2016 from 4:00 pm to 7:00 pm.

All property owners were mailed individual letters inviting them to attend the POH.

Display panels (text, photos and drawings) were set up around the perimeter of the room for leisurely viewing. The need and justification, Alternatives for Evaluation, Evaluation Results, Statement of Flexibility, Sensitivity Testing, roundabout information, Recommended Plan and refinements to the Recommended Plan were presented and public/agency input/feedback was encouraged.

Fifteen (15) people registered at the second POH. Those in attendance were encouraged to provide a written response to any issues or concerns. A total of two (2) comment sheets, letters or e-mails were submitted at the POH and during the subsequent 2 week comment period.

Refer to **Appendix B** for the POH No. 2 report and comment sheets.

3.4 Stakeholder Consultation

3.4.1 MTO Senior Management

Two meetings were held with MTO Senior Management to present the study recommendations and analysis through the course of the study. This included presenting the background master planning of land use and expansion areas in the County and Town and associated TMP's accommodate this growth (Town of Innisfil and County of Simcoe). The information provided to MTO included the detailed traffic analysis of the project and traffic modelling. The initial meeting was held May 24, 2016 prior to POH No. 1. The second presentation occurred on November 7, 2016 and presented the evaluation of alternatives and the technical recommendations. Senior Ministry staff identified the planning should accommodate the planned MTO structure replacement project timelines and future Highway 400 widening and that MTO design approvals would be necessary for the final project design development.

3.4.2 Technical Advisory Committee

The Technical Advisory Committee (TAC) met six times to discuss the technical aspects of the project, including a value planning session, property acquisition, design, technically preferred alternative evaluation and refinements. The members of the TAC consisted of a diverse group of transportation planners, environmental planners plus structural and transportation engineers and technicians representing the Town of Innisfil, InnPower, InnServices, County of Simcoe, MTO and the Project Team. Meetings took place on March 2, April 7, May 4, June 28, July 28, and August 22 of 2016.

3.4.3 Interest Groups and Agencies

Agencies or groups that may have had an interest in the project or any documentation to contribute to the study were contacted at the start of the EA for their input. These agencies were invited to attend the two POH's.

The following groups and agencies were contacted for information and/or input into the project:

- Ministry of Transportation
- Ministry of the Environment and Climate Change
- Ministry of Aboriginal Affairs
- Ministry of Natural Resources and Forestry
- Ministry of Agriculture, Food and Rural Affairs
- Ministry of Tourism, Culture and Sport
- Ministry of Municipal Affairs and Housing
- Environment Canada
- Aboriginal Affairs and Northern Development Canada
- Canadian Pacific Railway
- CN Great Lakes
- Enbridge Gas
- InnPower
- InnServices
- Hydro One Networks
- County of Simcoe
- Bell Canada
- Rogers Communications
- Nottawasaga Valley Conservation Authority
- Lake Simcoe Region Conservation Authority
- Metrolinx / Go Transit
- Greater Innisfil Chamber of Commerce

- Cookstown and District Chamber of Commerce
- Bayview Beach Ratepayers Association
- Innisfil District Association
- Alcona Beach Club Inc.
- Degrassi Cove Association
- Innisfil Creek Golf Course
- Innisfil Heritage Committee
- Georgian College
- Patson Holdings Ltd.
- Skelton Brumwell & Associates Inc.
- Belpark Homes
- Cookshill Developments
- Cortel Group
- Celeste Phillips Planning Inc.
- PGC Group of Companies
- Gilmore & Gilmore Professional Corporation
- Lormel Homes
- Urban Watershed Group (a member of the Greenland Group of Companies)

3.4.4 Property Owners

Property owners noted on the study contact list were sent a draft Study Design at the study commencement and had opportunity to provide input. A meeting took place on December 12, 2016 with one property owner. Questions and concerns of the individual were addressed and appropriate action was taken. **Appendix A** includes the final Study Design and **Appendix C** includes correspondence and meeting notes regarding the property owners' questions and concerns.

3.4.5 First Nations

3.4.5.1 First Nations Contact Group

The following First Nations groups were contacted at various milestones throughout the project, including EA Commencement, the POH's and Study Completion.

- Six Nations of the Grand River
- Six Nations Haudensaunee
- Six Nations Council
- Chippewas of Georgina
- Beausoleil First Nations

- Chippewas of Rama First Nations
- Alderville First Nations
- Hiawatha First Nations
- Curve Lake First Nations
- Moose Deer Point First Nations
- Mississauga of Scugog First Nations
- Wahta Mohawks
- Georgian Bay Métis Council
- Métis Nation of Ontario
- Haudenosaunee Confederacy Chiefs Council
- Mississaugas of the New Credit First Nations
- Huron-Wendat Nation Contact

Appendix C includes select correspondence received from interested groups and agencies and First Nations contacts.

3.4.5.2 Six Nations Land Claim

The Six Nations of the Grand River have a land claim in Innisfil Township originating from the appropriation of Colonel Williams Claus estate in 1831 as payment for debt to the Six Nations. It was confirmed that the project (subject of the EA study) is outside of this land claim along with the land claims associated with the Haldimand Treaty and Nafnan Treaty. See **Figure 7** for the Land Claim location in Innisfil filed on January 21, 1982 to Aboriginal Affairs and Northern Development Canada (AANDC). This file was closed by AANDC in 1995.

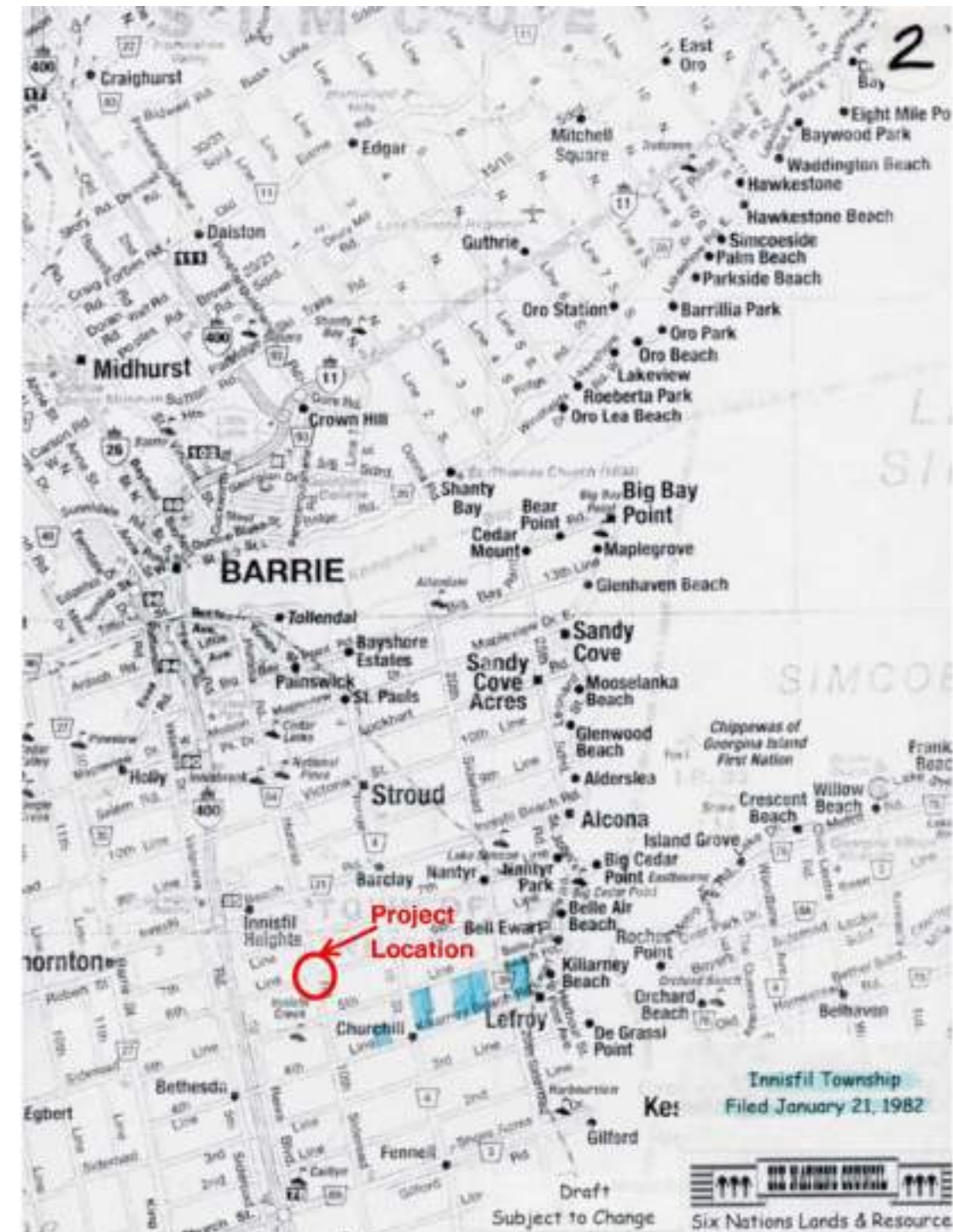


Figure 7: Six Nations Land Claim in Innisfil Township

4.0 Studies & Investigations

4.1 Transportation

4.1.1 Existing Conditions

Within the Study Area, 6th Line is currently a local 2-lane undivided rural roadway surrounded by farmland and a few sparsely located wooded areas. The existing roadway, with narrow shoulders, makes no provision for pedestrians or cyclists. According to Innisfil's 2013 TMP, existing traffic on 6th Line near Highway 400 does not exceed 300 vehicles per day, both directions combined. In comparison, the TMP identifies that traffic on Innisfil Beach Road, a rural arterial road and Innisfil's main access road, was measured at 20,000 vehicles per day.

Traffic counts conducted by MTO in August 2012, the traffic distribution at the Innisfil Beach Road interchange (excluding the Highway 400 mainline) is primarily from east/west to south during the morning peak hour and from south to east/west during the afternoon peak hour (traffic is split almost evenly between east and west). Other significant movements include the north-to-east turning movement during the AM peak hour and the west-to-east through movement during the PM peak hour.

4.1.2 Future Conditions

Traffic volumes for the 2031 horizon were determined using a regional transportation model developed by HDR and documented in their January 2015 memorandum titled 6th Line Municipal Class Environmental Assessment – Needs Analysis: Travel Demand Forecasting which formed part of the Town's separate 6th Line Municipal Class EA ESR (September 2016).

Since the traffic volumes from the regional model are provided as mid-block daily volumes, the peak hour turning movement forecast at the future 6th Line interchange were based on the following assumptions:

- The directional traffic distribution at the future 6th Line interchange will be similar to the current traffic distribution at the existing Innisfil Beach Road interchange; and
- Other traffic patterns, such as the peak hour volume / daily volume ratio at the future 6th Line interchange remain similar to the current ratio at the existing Innisfil Beach Road interchange.

Table 1 and **Table 2** present the projected turning movement volumes at the future 6th Line interchange during the AM and the PM peak hours respectively. The calculations are documented

in the Ramp Volumes memorandum provided in **Appendix D**. The future 2031 average daily traffic volume on 6th Line west of Highway 400 is estimated at over 30,000 vehicles per day.

Table 1: 2031 Traffic Volumes at the 6th Line Interchange, AM Peak Hour

		Destination				TOTAL
		East	West	North	South	
Origin	East		58	350	688	1,095
	West	104		29	290	423
	North	477	106			583
	South	503	76			579
	TOTAL	1,084	240	379	978	2,681

Table 2: 2031 Traffic Volumes at the 6th Line Interchange, PM Peak Hour

		Destination				TOTAL
		East	West	North	South	
Origin	East		262	550	612	1,423
	West	161		171	104	436
	North	459	30			489
	South	1,009	266			1,275
	TOTAL	1,629	557	721	716	3,623

By 2031, the south-to-east and the east-to-south movements are projected to experience a very high demand in 2031 and will likely require a special treatment such as channelization or double-laning in order to limit congestion. The north-to-east and east-to-north movements are also projected to experience a moderate to high demand by 2031.

Innisfil's Master Plans for future transportation place greater emphasis on transit and active transportation such as cycling and walking. The plans include the provision of a MUP along 6th Line to connect people and communities while fostering healthy living.

4.1.3 Existing 6th Line Structure

The existing structure on the site is a rigid frame structure with a vertical clearance of 4.3 m and a horizontal opening of approximately 10 m. The structure has been rehabilitated with patch repairs on the soffit and abutment walls. The width of the structure is sufficient for the existing cross section on Highway 400.

The existing bridge does not meet the horizontal width requirement for the 6th Line with either a 2-lane cross section with a MUP or a 4-lane cross section and does not meet current vertical clearance requirements. It is therefore not suitable for use with the reconstructed 6th Line.

The existing bridge condition is in fair condition, with significant deterioration in the bridge soffit and at the exposed ends of the bridge. Ongoing significant repairs to the deck and soffit would be required if the bridge were retained. High life cycle costs would be anticipated given the high cost of performing rehabilitation or replacement in the Highway 400 corridor unless the work is integrated into the Highway 400 reconstruction project.

The existing bridge requires replacement since the geometric limitations of the structure preclude the widening of 6th Line and Highway 400. The existing structure is pictured in **Photo 2** and **Photo 3**.



Photo 2: View of the bridge from Highway 400



Photo 3: View of the bridge looking west

4.1.4 Geotechnical

The site is located in the drumlinized till plains known as the Innisfil Uplands, part of the Physiographic Region called the Peterborough Drumlin Field. The existing conditions indicate

equal portions of silt and sand with clay and gravel deposits consistent with till geology. Surficial geology is dominated by aged till plains, shown in **Figure 8** below.

The existing conditions in the vicinity of the crossing have been summarized in a Geotechnical Desktop Report, see **Appendix E**.

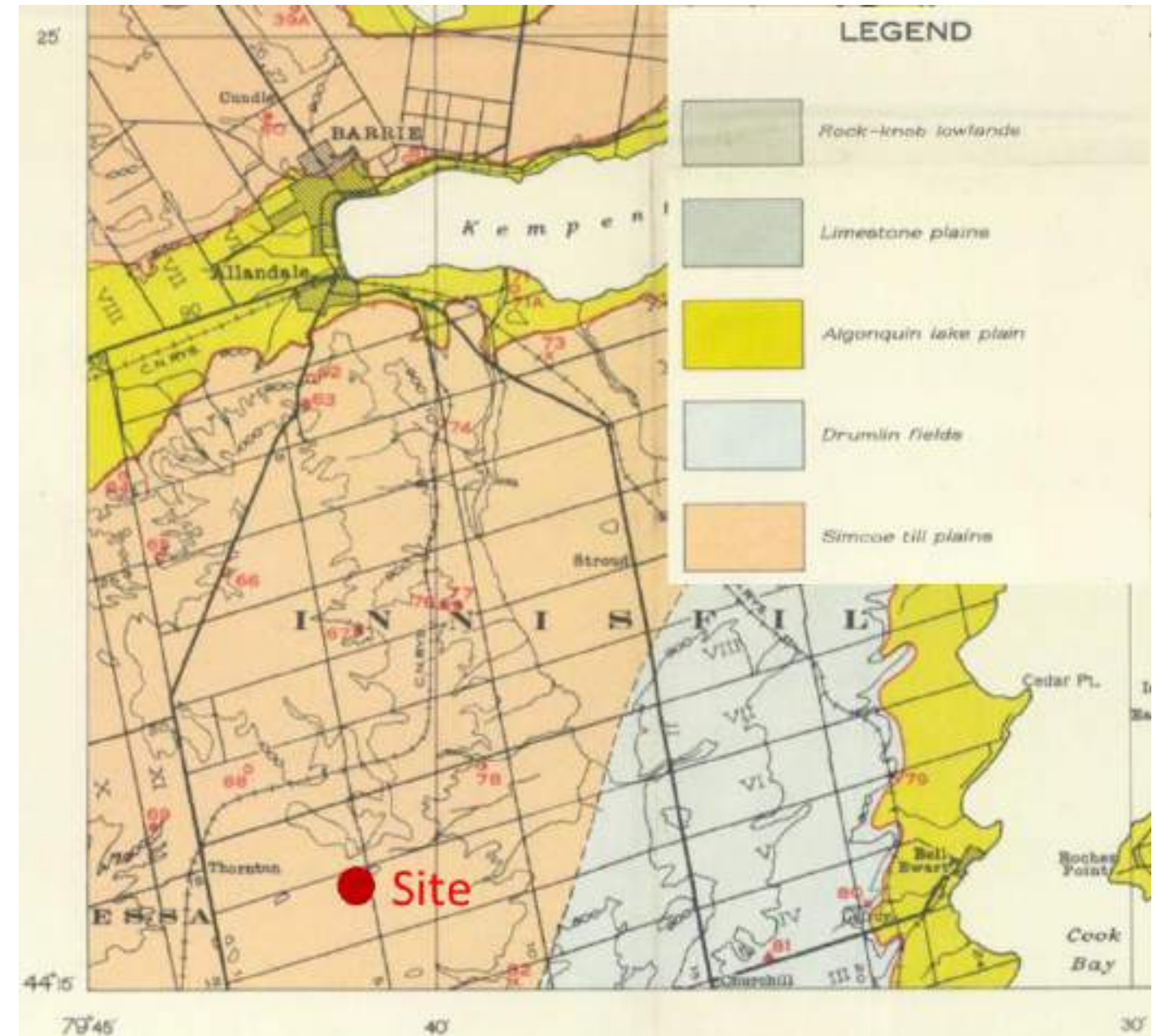


Figure 8: Surficial Geology

4.2 Environmental Conditions

Inventories and investigations of the existing natural, social and cultural environments in the 6th Line Interchange Study Area are described in the following sections.

4.2.1 Natural Environment

4.2.1.1 Terrestrial

The woodland habitat away from the creek ravine south of 6th Line and east of Highway 400 has been significantly impacted by cutting and represents regenerating former farmland in some areas. The woodland on the slopes of the ravine appears to be natural and largely unaltered by humans. There was very little water in the creek, but seasonally (i.e. at spring melt) it can support a larger quantity of water. The Study Area supports six natural habitats, none of which are intrinsically significant. Species at Risk (SAR) were observed in two of these habitats (meadow and deciduous woodland). SAR found in the area includes Barn Swallow, Eastern Meadowlark, Bobolink and Eastern Wood Pewee. The ravine forests have potential to support another SAR bird species, Whip-poor-will.

Non-fisheries natural environment constraints are minimal beyond the Innisfil Creek ravine. Grassland SARs are impacted by all possible design alternatives. However, such impact (to be precisely defined during design stages of the interchange development) can be readily mitigated by habitat protection and/ or off-site habitat enhancement, if and as necessary.

Similarly, Significant Wildlife Habitat (SWH) eligible for designation appears to be present within the Innisfil Creek ravine and across the agricultural landscape of the 6th Line Road Interchange study area due the presence of SAR. All interchange alternatives are affected but the most significant impact would be from those directly involving the ravine. Potential SWH impacts are minor (small reduction in total area) and can readily be mitigated by habitat protection/ enhancement measures during interchange construction.

The Natural Environment Assessment report is documented in **Appendix F**.

4.2.1.2 Fisheries

The fisheries review and assessment was completed following field visits in April and August of 2016. The Highway 400 intersection with the 6th Line of the Town of Innisfil is adjacent to the main channel of Innisfil Creek, a tributary of the Nottawasaga River joining the main stem near Alliston. From its source west of Highway 400, the Creek arches across active pasture before leaving the agricultural lands and crossing under 6th Line 300 metres west of Highway 400 through a partially obstructed 1.8 m diameter Corrugated Steel Pipe (CSP) culvert. Conditions

observed in the cattle impacted channel quickly improved as the stream entered the woodlands to the south.

The main channel of Innisfil Creek was identified as being cool water with recorded temperatures ranging from 18°C to 20°C. Fish habitat west of Highway 400 was severely stressed due to highly enriched waters associated with agricultural activities. Fish habitat conditions improved to the south and east; however, by mid-summer, a tributary east of the Highway was dry and only pools remained in the main channel. Only forage fish species were identified as resident.

No aquatic SAR have been identified as present in Innisfil Creek on the Department of Fisheries and Oceans Aquatic Species at Risk website.

The fisheries assessment is documented in **Appendix G**.

4.2.2 Social and Cultural Environmental

4.2.2.1 Existing Land Use Agriculture and Property

The lands within and surrounding the Study Area are designated agricultural lands by the Town of Innisfil's Official Plan (OP) Schedule B. There are a number of residential properties on 6th Line along with active farms. Innisfil Creek is within the study area and intersects with 6th Line in three locations and then finally crosses Highway 400.

The Land Use Planning report is documented in **Appendix H**.

4.2.3 Future Land Use

The proposed interchange is to address the projected increased traffic volumes generated by the continued development of Alcona. Alcona is projected to grow to 65,000 people, the Barrie Annex lands will add another 41,000 people, and the Sleeping Lion subdivision will grow by approximately 5,000 people. This growth will result in the creation of 7,000 job opportunities.

Figure 9 and **Figure 10** illustrate the expected population and employment growth.

Development growth within Alcona will also be promoted by Metrolinx's plan to construct a GO Transit station at 6th Line.



Figure 9: Population per Zone

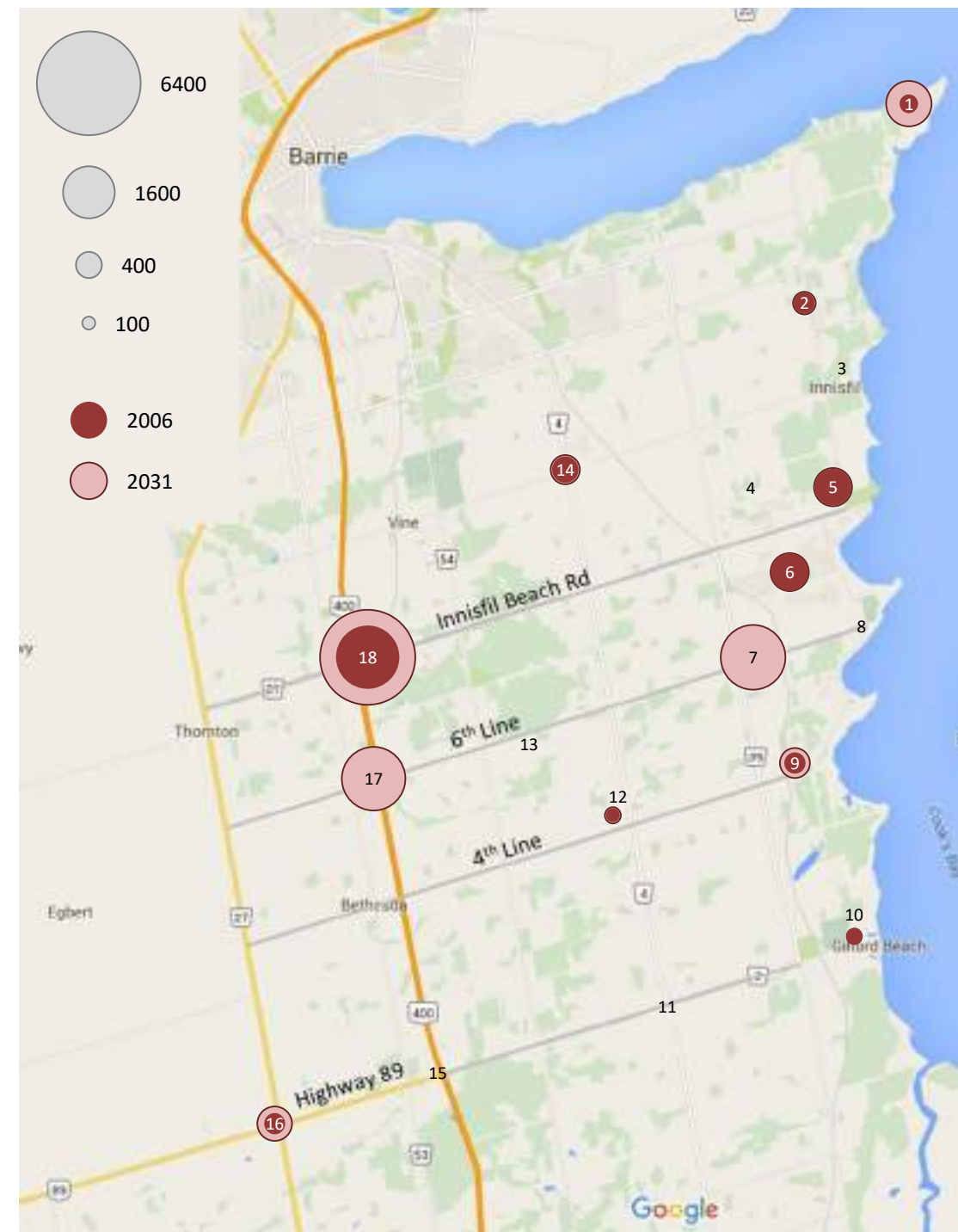


Figure 10: Employment per Zone

4.2.3.1 Provisions for Pedestrians and Cyclists

As development growth continues, the Town has a goal to facilitate accessible active transportation opportunities as part of the social environment. The importance of active transportation in promoting a healthy lifestyle for the community has been recognized. A Trails Master Plan was developed to “provide both residents and visitors with recreational opportunities and healthy alternatives for sustainable transportation by connecting them with local points of interest and regional networks.”

Connectivity is one of the guiding principles for the Town to achieve its goals, in being responsive to community needs. The Highway 400 corridor typically represents a major barrier to alternative (non-motorized) modes of transportation. To assist in overcoming that barrier, the Trails Master Plan recommended the provision of a MUP extending along 6th Line from the 5th Side Road, across Highway 400 to Lake Simcoe.

4.2.3.2 Noise

A noise assessment was conducted in July 2016. The analysis was conducted using acoustical modelling software, STAMSON Version 5.1. Specifically, the analysis included: determination of the characteristics of the Noise Sensitive Area (NSA); noise modelling; and an assessment of the need for mitigation measures required to meet the appropriate noise criteria for developments adjacent to existing transportation corridors.

Two residential dwellings (receiver sites) are currently on the south side of 6th Line to the west of Highway 400 within 500 m of the proposed interchange. Noise sources included vehicular traffic noise on Highway 400 and 6th Line. No other noise sources, such as rail and aircraft, were considered for the Study Area since neither are present in the vicinity. Traffic volumes were derived from the County of Simcoe’s travel demand forecasting model and forecasted to the year 2031, and MTO’s forecasts for Highway 400. The year 2031 represents the planning horizon for the Town’s TMP and is the longest horizon for which development projections are available.

Sound levels were generated for year 2031 conditions for the following two cases: without the interchange; and, with the interchange. Receiver site 1 (3573 6th Line) was determined to have a noise level of approximately 61 dBA without the interchange and is projected to increase to 62 dBA following construction of the interchange. By 2031, receiver site 2 (3581 6th Line) was determined to have a noise level of approximately 60 dBA without the interchange and is projected to increase to 62 dBA with the interchange. These magnitudes of sound changes (below 3 dBA) are imperceptible to the human ear. With a sound level increase of less than 5 dBA, a noise barrier is not recommended.

The detailed noise report is documented in **Appendix I**.

4.2.3.3 Archaeology

The Stage 1 archaeological background study was undertaken in August 2016 to examine, evaluate and determine the overall archaeological and heritage potential within the project limits. Areas of archaeological potential were found and a Stage 2 Archaeological Assessment is recommended to be completed. This Stage 2 assessment will be completed during detailed design.

The Stage 1 Archaeological Assessment Report is documented in **Appendix J**.

4.2.4 Drainage Assessment

Hydrologic and hydraulic analyses were carried out for a proposed storm sewer along 6th Line at Highway 400 in the Town of Innisfil, including culvert analysis (existing and proposed) at Highway 400. This review was conducted to confirm 6th Line road grades at Highway 400 for a future bridge overpass/ roadway alternatives.

A preliminary analysis of the existing Innisfil Creek culvert (CUL-1-08) indicates that replacement with a 3.0 m (span) x 2.0 m (rise) precast concrete box, or equivalent opening size, would convey the 50-year flow in this location with a 1.97 m freeboard to the proposed 6th Line future grade.

The detailed drainage assessment is documented in **Appendix K**.

4.2.5 Phase 1 Environmental Site Assessment

A Phase 1 Environmental Site Assessment (ESA) was completed in November 2016. The Phase I ESA was completed in accordance with Canadian Standards Association Standard Z768-01 and in general accordance with the requirements of Ontario Regulation (O.Reg.) 153/04 (as amended). The purpose of the Phase I ESA was to identify areas of potential environmental contamination concerns at the Study Area site related to the proposed 6th Line and Highway 400 interchange; the Phase I ESA will not be used to support the preparation of a Record of Site Condition (RSC) in accordance with O. Reg.153/04 (as amended).

The historical land use of the Study Area has been community, consisting of roads, including present 6th Line and Highway 400. The Phase I Study Area has historically consisted of agricultural properties with rural residences and undeveloped land. No areas of natural significance were identified within the Phase I Study Area. Tributaries of Innisfil Creek and four (4) water wells were identified on properties located within the Phase I Study Area.

No areas of potential environmental concern were identified for the Phase I Site or Phase I Study Area. Based on available information, it is our opinion that a Phase II ESA is not required for the

Phase I Site or the properties adjacent to the site which may require land acquisition based on the currently proposed interchange configuration.

The Phase 1 ESA Report is documented in **Appendix L**.

4.2.6 Utilities

Within the project limits for the proposed works existing privately owned aboveground and buried infrastructure is present. There are also a number of proposed public utilities that are planned to run through the project area as growth in the Town continues.

It should be noted that the proposed public utilities are not a certainty and may be re-examined depending on how growth occurs. Public utilities currently planned to travel through the project area are described with the existing infrastructure below.

4.2.6.1 Existing Infrastructure

4.2.6.1.1 Bell Buried Cables

There are two runs of Bell buried cables in the project area that will be affected by proposed works.

One run travels east-west on the south side of 6th Line. The run is direct buried in the ditch line approximately 10 metres from the shoulder of 6th Line and further out as it travels beneath Highway 400.

The second run, a buried fibre-optic cable, travels north-south on the west side of Highway 400. The run is direct buried except for the crossing under 6th Line which is protected with conduit and sits approximately 5 m off the shoulder of Highway 400.

4.2.6.1.2 InnPower

An InnPower primary aerial line travels parallel to 6th Line on the north side, approximately 5 m off the travelled roadway. The line carries two cables on 15 m wooden poles with the lowest hanging wire sitting approximately 10 m above ground level.

On the south side of 6th Line there are a number of anchor and service poles with typical easements. These are wooden poles varying in height and also sit approximately 5 m off the travelled roadway. Crossings over 6th Line vary in height depending on the location but are at least 5 m above the roadway.

4.2.6.2 Proposed Infrastructure

4.2.6.2.1 InnServices Watermain

The InnServices water servicing network plan proposes a trunk watermain to travel along 6th Line between 20 Sideroad to the east and 5 Sideroad to the west.

This proposed trunk watermain will connect the existing Innisfil Heights and Lefroy pumping stations with the proposed Zone 2 pumping station in a continuous loop. This trunk main will service residential, commercial and industrial growth in the area.

A plan of the proposed trunk watermain is shown by a thick purple line in **Figure 11**.

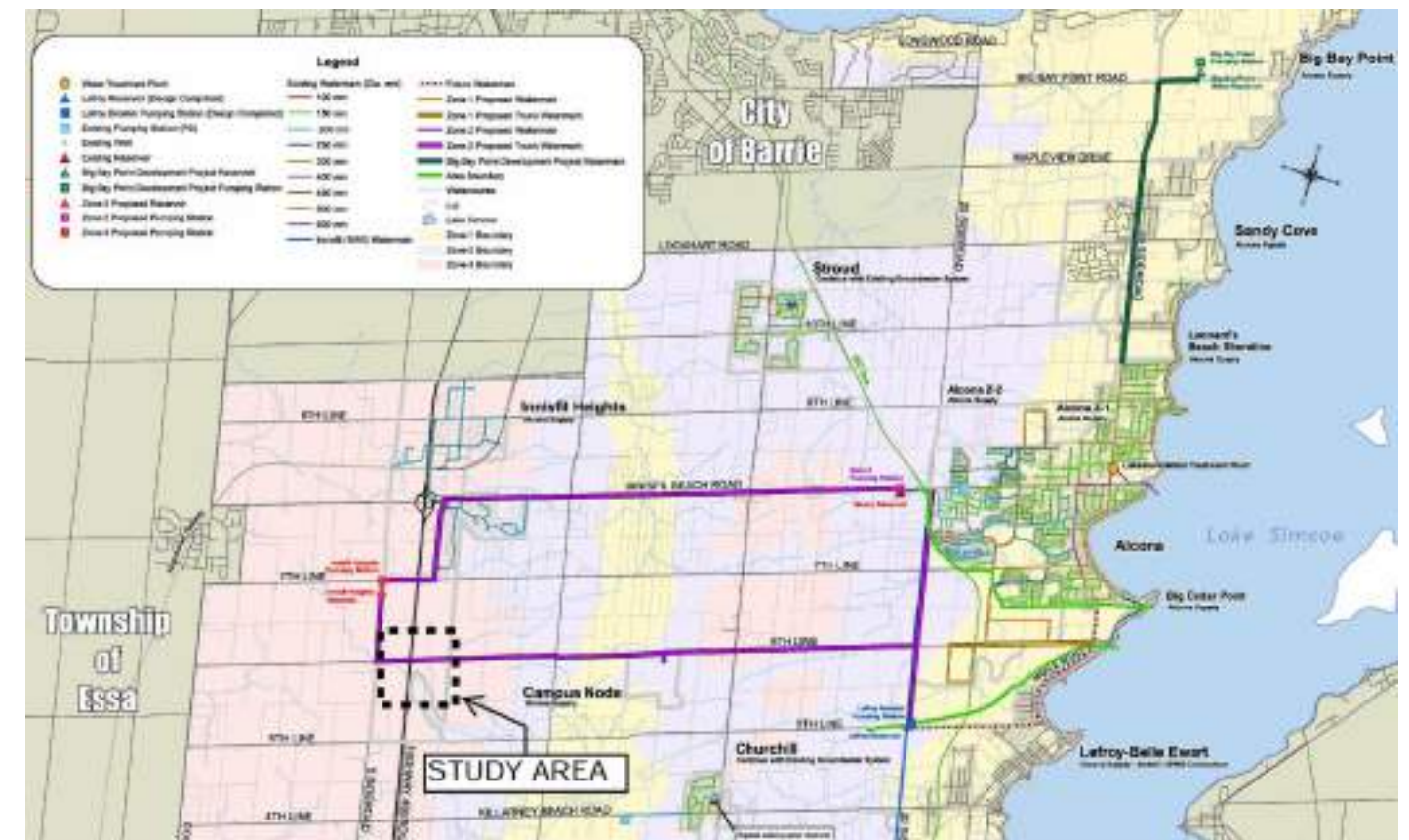


Figure 11: InnServices proposed trunk watermain

4.2.6.2.2 InnServices Sanitary Infrastructure

The InnServices sanitary servicing network plan proposes a mixed alternative sanitary forcemain and gravity sewer to travel along 6th Line.

In the project area the proposed infrastructure is currently a sanitary forcemain with a proposed pump station located at the intersection of 5 Sideroad and 6th Line.

A plan of the proposed sewer is shown by a dashed brown and white in **Figure 12**.

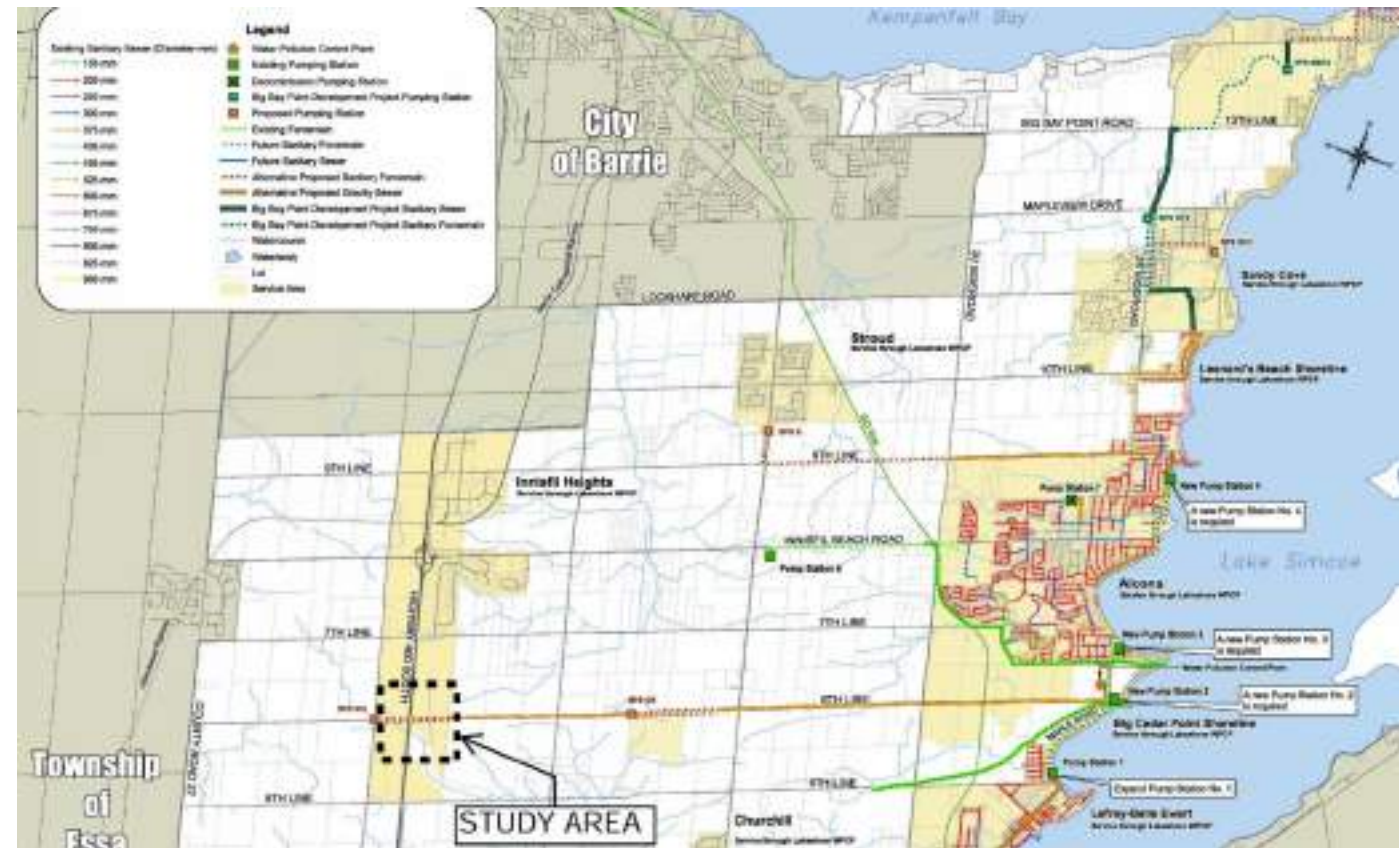


Figure 12: Recommended Wastewater Servicing Network

4.2.6.3 Cleared Infrastructure

The following companies have identified that they do not have any infrastructure in the defined project area:

- Enbridge
- TransCanada
- Hydro One
- Allstream (now called Zayo)
- Rogers Communications

Correspondence with utility companies can be found in **Appendix C**.

4.2.7 Cultural Heritage

The Town of Innisfil stems from the original Township of Innisfil, which was originally surveyed in 1820.

Settlers began arriving soon after surveying, but growth was slow until the first sawmill and grist mill were erected in the 1830's. Early settlement was focused on the area around Kempenfelt Bay, and by 1843 the first school was constructed. By 1850 the Township had a population of 1,807, and following the connection of the Northern Railway the Township became an important shipping hub for the lumber industry (Archaeological Services Inc., 2015). Since the mid-1800's, the Township has continued to be a strong agricultural community, as well as host to the section of a main thoroughfare connecting Toronto and Barrie.

The construction of Highway 400 dates from the late 1940's, with the stretch of highway between Toronto and Barrie opening in late 1951. A plaque is present on 6th Line illustrating the history of the area, see **Photo 4**.

There were no designated properties within the study area. There are two cultural heritage resources of interest to the Town. The study team was advised that the former schoolhouse located at 3654 6th Line (see **Photo 5**) is on the municipal register and identified as a non-designated property of cultural heritage interest. These properties and structures are located outside the study area. Two remnant farm complexes are located within the project area on the west side of Highway 400. Preliminary interchange options appear to avoid these built heritage resources. See **Photo 6** for a historical map of Simcoe County.

The Cultural Heritage assessment is documented in **Appendix M**.



Photo 4: History of Innisfil Settlement

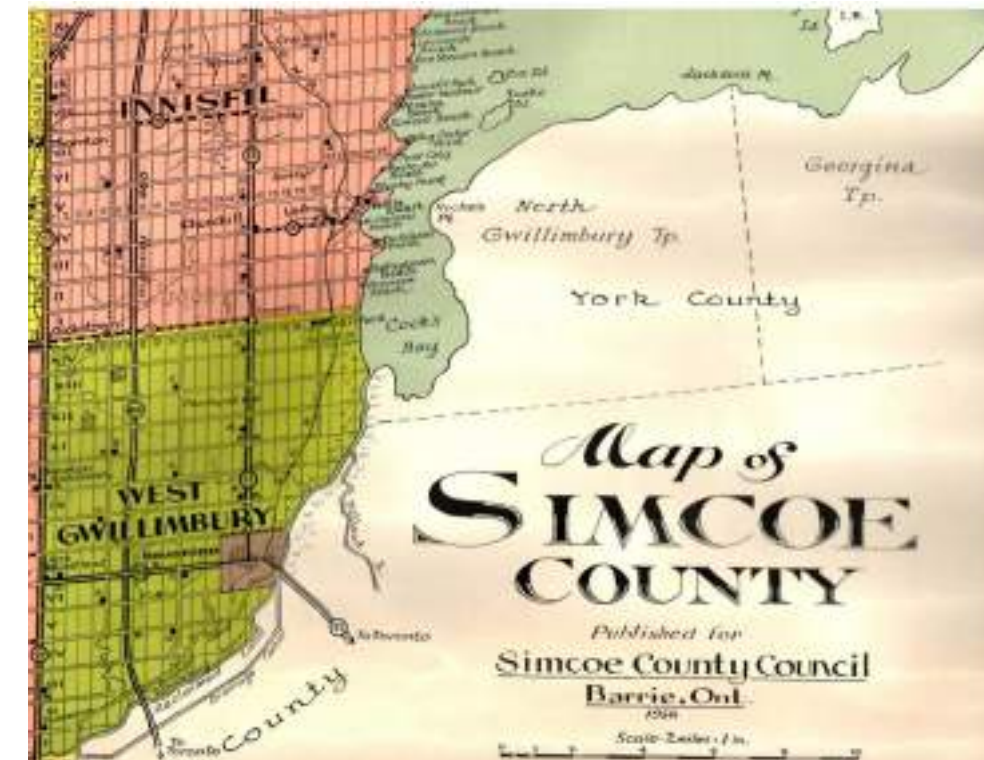


Photo 6: 1956 Map of Simcoe County



Photo 5: Former Schoolhouse (3654 6th Line)

5.0 Generation of Alternatives

5.1 Assessment of Alternative Planning Solutions

The analysis and evaluation process involves a 2-step decision-making process. Initially the study documents the analysis and evaluation of Alternative Planning Solutions (alternative project types or alternative strategies to address the problem) followed by the subsequent assessment of preliminary design alternatives.

5.1.1 Regional TMP Alternative Planning Solutions/Alternatives to the Undertaking

The Alternative Planning Solutions (defined as Alternative Planning Strategies in the Innisfil TMP) represent candidate strategies for meeting the needs of the problem statement of the Town:

- 1) Alternative 1: The “Do Nothing” Alternative
- 2) Alternative 2: Business as Usual
- 3) Alternative 3: Balanced Approach
- 4) Alternative 4: Aggressive Approach

A summary of the evaluation is documented in Section 7.5 of the TMP. The evaluation is shown in **Figure 13** (Table 7-2 of the TMP). Alternatives 1 and 2 were screened out based on not meeting future traffic demands. Alternatives 3 and 4 were carried forward for further evaluation.

While the Town and County OP’s currently identifies an interchange at 5th Line on Highway 400, the Town of Innisfil TMP recognizes it may be more beneficial to the Town for the interchange to be located at 6th Line to support future growth and provide better access to Innisfil Heights and the Sleeping Lion development.

This recommendation was presented at POH No. 1 and there were no public or agency comments objecting to this study recommendation.

Criterion	Alternative 1: Do Nothing	Alternative 2: Business As Usual	Alternative 3: Balanced Approach	Alternative 4: Aggressive Approach
Transportation Service				
Natural Environment				
Policy Environment				
Socio-Economic Environment				
Financial Implications				
Preliminary Findings:	Screened Out	Screened Out	Carried Forward	Carried Forward
Legend:	Does Not Meet Criterion Meets Criterion			

Figure 13: Evaluation Summary of Alternative Planning Solutions/Alternatives to the Undertaking (Source: Innisfil 2013 TMP)

5.1.2 Alternative Planning Solutions for Alcona Growth

The Town’s TMP identified the need for a new Highway 400 interchange as one of the Town’s long term transportation priorities. The alternative solutions presented for analysis in Section 8.4.3 of the TMP were as follows:

- 1) Interchange at the 5th Line; and,
- 2) Interchange at the 6th Line.

In response to a public comment received by the project team prior to POH No. 1, consideration was also given to the 4th Line as a potential location for the interchange.

In determining the preferred planning alternative for the Town, Alternative Planning Solutions were further analyzed as part of this current EA study for the growth of Alcona and Innisfil Heights. The following recommendations were presented to the TAC and public at POH No. 1:

- 1) **The “Do Nothing” Alternative** – as mandated by the Class EA, must be considered. It represents a baseline from which other approaches can be compared.
- 2) **Restrict Development** – this strategy would be an approach that would limit any new residential development and therefore eliminate the need for a new interchange.
- 3) **Transportation Demand Management (TDM)** – This strategy would reduce vehicular demand and would encourage more active modes of transportation (cycling and walking).

- 4) **Transportation System Management (TSM)** – This strategy would consider operational improvements to existing infrastructure to improve the performance of traffic operations. System improvements may include signal timing improvements, signal coordination or introduction of improvements such as turn lanes.
- 5) **New Infrastructure** – This strategy would be to provide roadway improvements and a new interchange to accommodate future demand.

The “Do Nothing” alternative was not carried forward as it would not meet the needs of projected increase in traffic of the planned developments in the area (Sleeping Lion and Innisfil Heights).

The TDM and TSM alternatives were not carried forward as standalone solutions, but rather were incorporated with the New Infrastructure alternative as a Recommended Solution. This recommendation is consistent with the findings of the 2013 TMP and was presented to the public at POH No. 1 and received no objections.

5.1.3 Assessment of Candidate Interchange Locations

The comparison of the alternative interchange locations which included the 4th, 5th, and 6th Lines was presented at POH No. 1. The comparison table is shown in **Table 3**.

Criteria	4th Line Interchange	5th Line Interchange	6th Line Interchange
Network Wide Benefit (addresses Innisfil Beach Road Capacity Constraint)	x	x	✓
Supports Future Growth Areas	x	-	✓
Environmental Impacts	-	-	-
Property Impacts	-	-	-
Constructability and Cost	-	x	✓
Proximity to Current Development	x	-	✓
Proximity to Projected Development	x	-	✓
Interchange Spacing	✓	✓	-
Highway Geometry - Spatial Separation from Travel Centre	x	x	-
Recommended to be carried forward?	No	No	Yes

Legend:

✓ Good Performance	- Fair Performance	x Poor Performance
--------------------	--------------------	--------------------

The evaluation of alternative interchange locations is provided in **Appendix D**.

5.2 Preliminary Design Alternatives

Based on the existing environmental conditions and constraints identified within the sub-Study Area, several preliminary design interchange/ alignment alternatives were developed. An evaluation was undertaken on the following mutually exclusive groups of alternatives:

- Horizontal Alignment Alternatives
- Vertical Alignment Alternatives
- Interchange Alternatives

The alternatives evaluated involve a combination of 6th Line horizontal alignment alternatives, 6th Line vertical alignment alternatives and interchange configuration alternatives.

The alternatives are described in the following sections, the detailed coarse screening is found in **Appendix D**.

5.2.1 Interchange Alternatives

Horizontal Alignment Alternatives

Three horizontal roadway alignment alternatives were identified as follows:

- Alternative A: Existing Alignment, see **Figure 14**;
- Alternative B: 50 m Northerly Alignment, see **Figure 14**; and,
- Alternative C: 50 m Southerly Alignment, see **Figure 15**.

Alternative C (50 m southerly alignment) was coarse screened to not be carried forward due to the major environmental impacts to the woodlot and ravine.

Vertical Alignment Alternatives

Two vertical roadway alignments (Highway 400 grade separation) were identified and carried forward as follows:

- Alternative 1: 6th Line under Highway 400, see **Figure 16**; and,
- Alternative 2: 6th Line over Highway 400, see **Figure 16**.

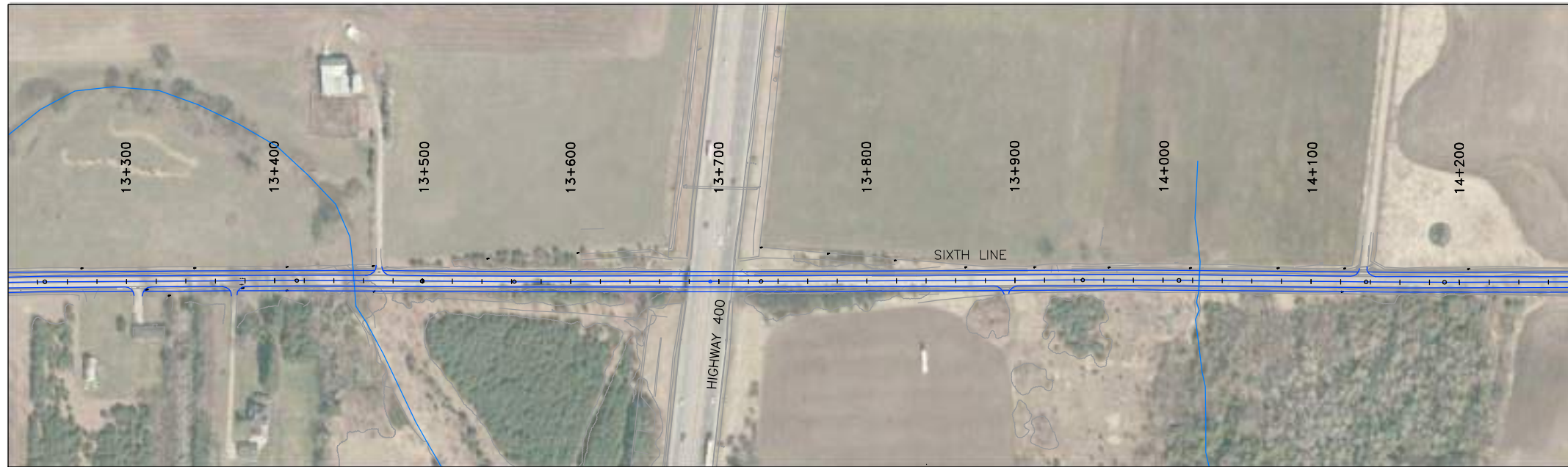
Interchange Configuration Alternatives

Ten interchange configuration alternatives were identified and carried forward for the evaluation as follows:

- Alternative 1: Diamond, see **Figure 17**;
- Alternative 2: Diamond with Roundabout, see **Figure 17**;

- Alternative 3: Parclo A2 with 180 m direct taper on 6th Line, design speed of 100 km/h, see **Figure 17**;
- Alternative 4: Parclo A4 with 180 m direct taper on 6th Line, design speed of 100 km/h, see **Figure 17**;
- Alternative 5: Parclo A2 with 110 m direct taper on 6th Line, design speed of 80 km/h, see **Figure 17**;
- Alternative 6: Parclo A4 with 110 m direct taper on 6th Line, design speed of 80 km/h, see **Figure 17**;
- Alternative 7: Parclo A2 with 110 m direct taper on 6th Line beyond structure, design speed of 80 km/h, see **Figure 18**;
- Alternative 8: Parclo A4 with 110 m direct taper on 6th Line beyond structure, design speed of 80 km/h, see **Figure 18**;
- Alternative 9: Parclo B2, see **Figure 18**; and,
- Alternative 10: Parclo B4, see **Figure 18**.

ALTERNATIVE A
EXISTING ALIGNMENT



ALTERNATIVE B
NORTHERLY ALIGNMENT



Legend:

FIGURE 14
HORIZONTAL ALIGNMENT ALTERNATIVES

HIGHWAY 400/6th LINE INTERCHANGE
SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
ENVIRONMENTAL STUDY REPORT



SCALE
N.T.S.

ALTERNATIVE C
SOUTHERLY ALIGNMENT



FILEPATH: V:\BTEng Projects\2016 Proj\16-006 - Town of Innisfil 6th Line Interchange EA\005-Drawings\6th Line\dwg\ESR Figures\6th Line Alternative Alignment Alts- PIC2.dwg | Jan 25, 2017 - 11:37am

Legend:

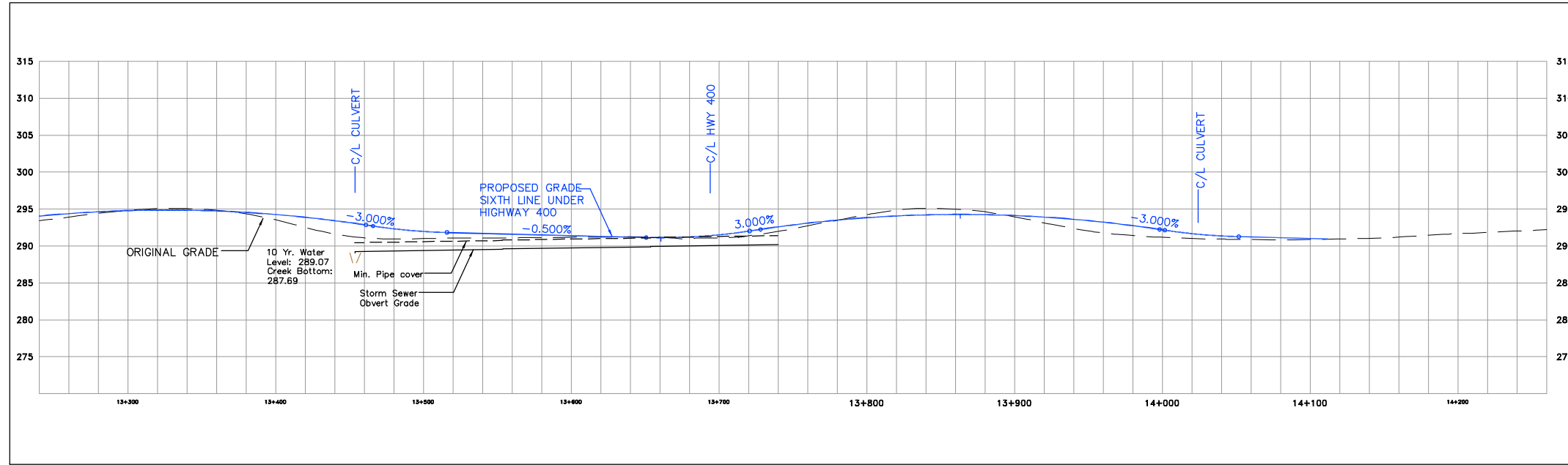
FIGURE 15
HORIZONTAL ALIGNMENT ALTERNATIVES

HIGHWAY 400/6th LINE INTERCHANGE
SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
ENVIRONMENTAL STUDY REPORT

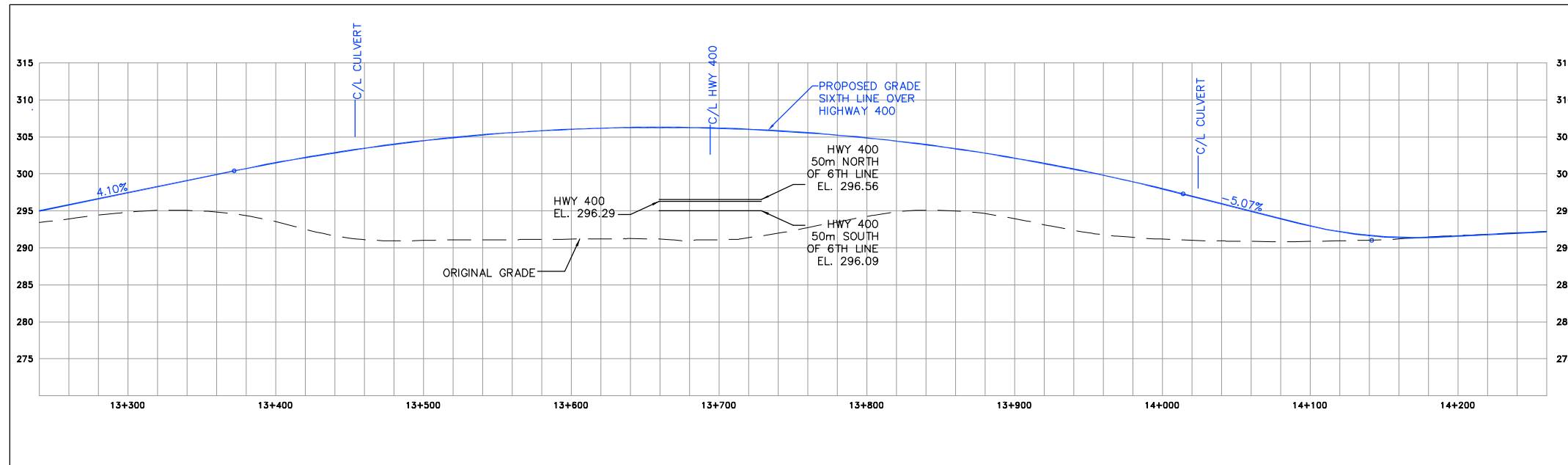


SCALE
N.T.S.

ALTERNATIVE 1 SIXTH LINE UNDER HIGHWAY 400



ALTERNATIVE 2 SIXTH LINE OVER HIGHWAY 400



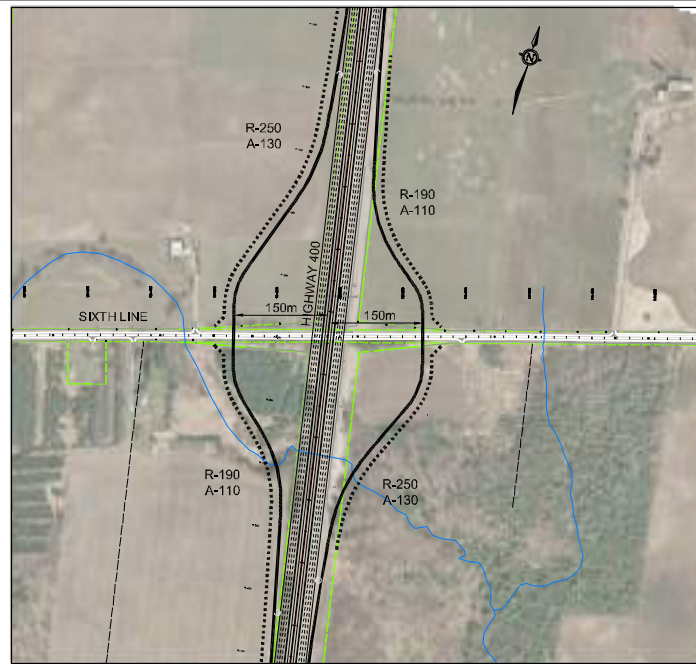
Legend:

FIGURE 16
VERTICAL ALIGNMENT ALTERNATIVES

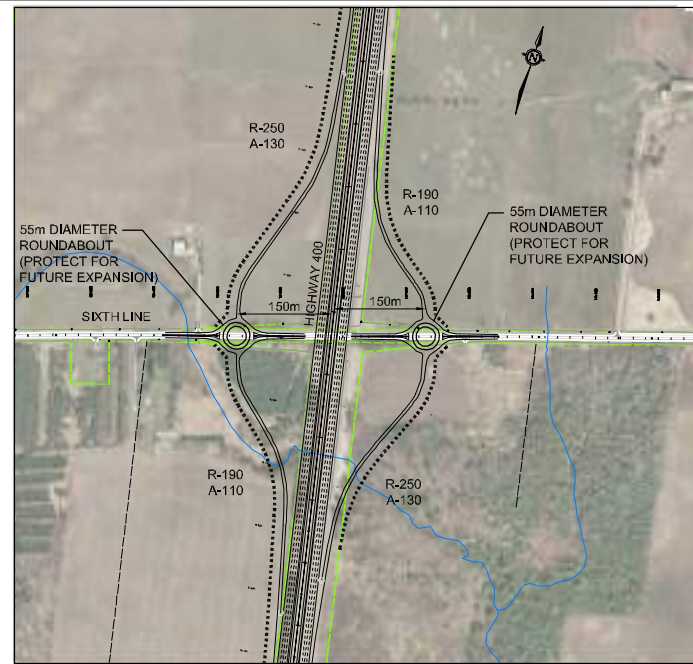
HIGHWAY 400/6th LINE INTERCHANGE
SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
ENVIRONMENTAL STUDY REPORT



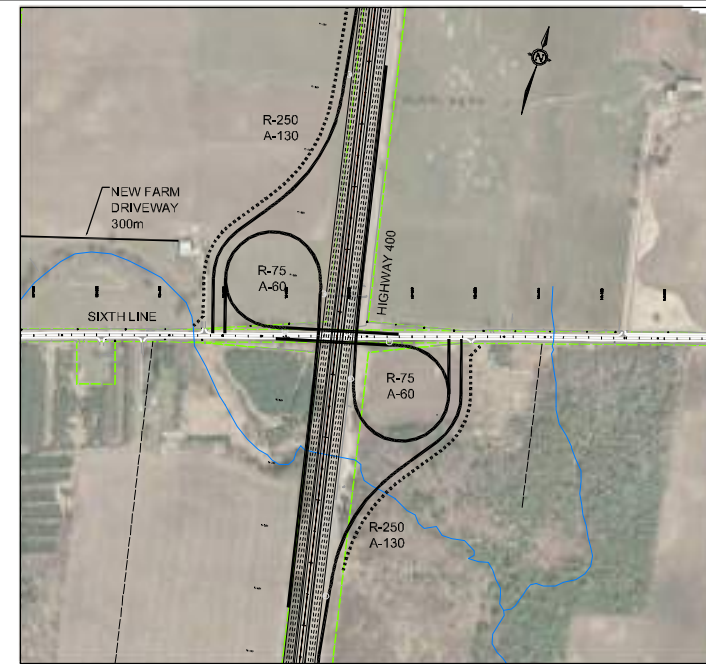
SCALE
N.T.S.



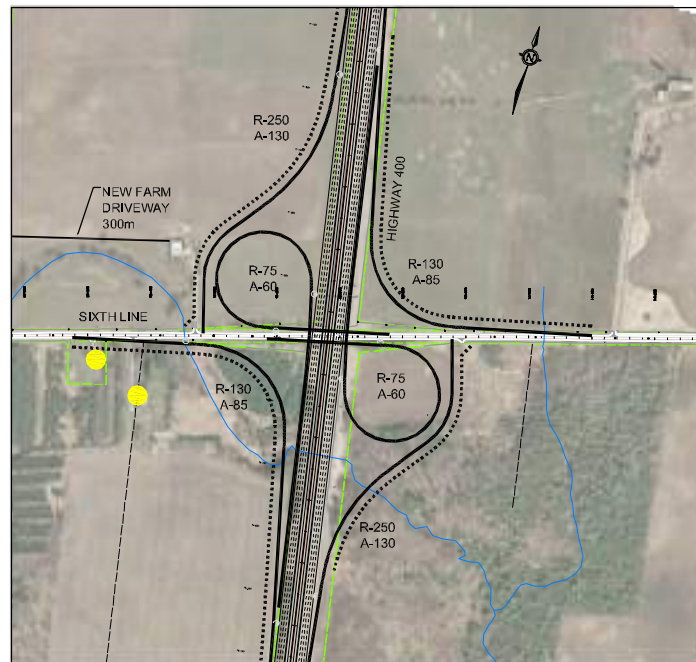
ALTERNATIVE 1
DIAMOND



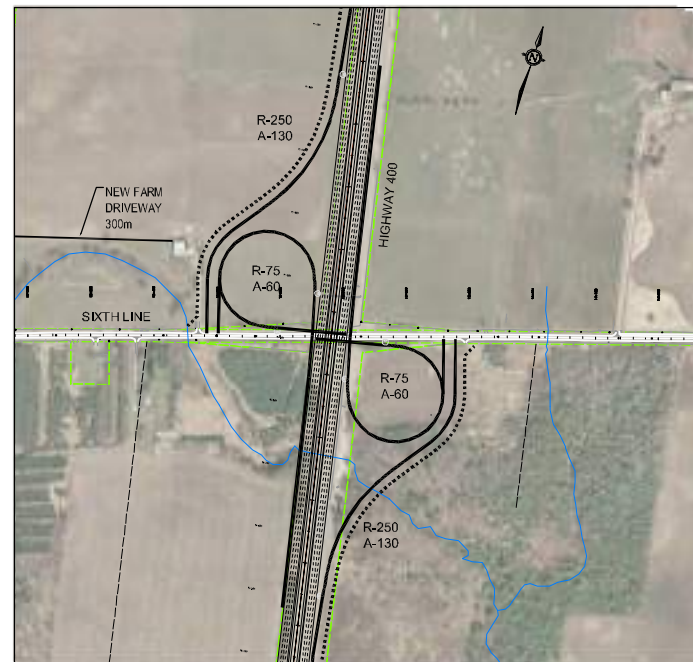
ALTERNATIVE 2
DIAMOND WITH ROUNDABOUT



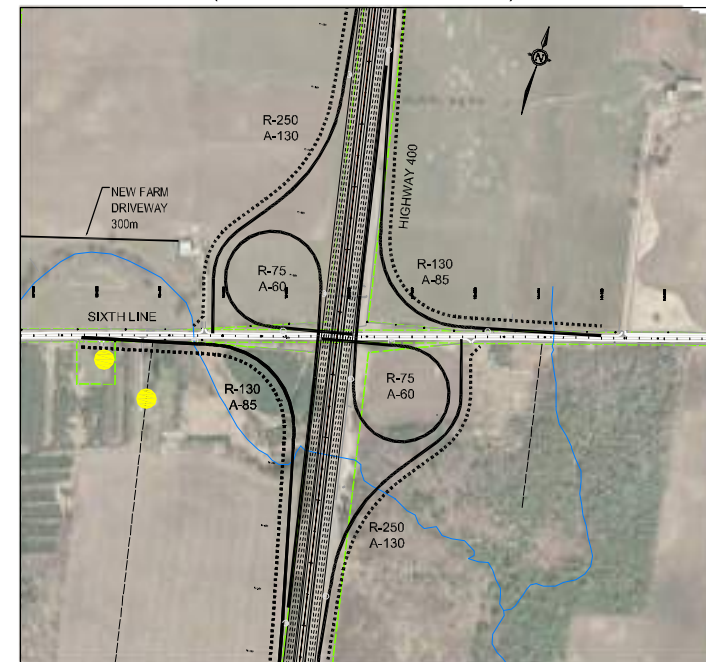
ALTERNATIVE 3
PARCLO A2
180m DIRECT TAPER ON SIXTH LINE
(100 km/h DESIGN SPEED)



ALTERNATIVE 4
PARCLO A4
180m DIRECT TAPER ON SIXTH LINE
(100 km/h DESIGN SPEED)



ALTERNATIVE 5
PARCLO A2
110m DIRECT TAPER ON SIXTH LINE
(80 km/h DESIGN SPEED)



ALTERNATIVE 6
PARCLO A4
110m DIRECT TAPER ON SIXTH LINE
(80 km/h DESIGN SPEED)

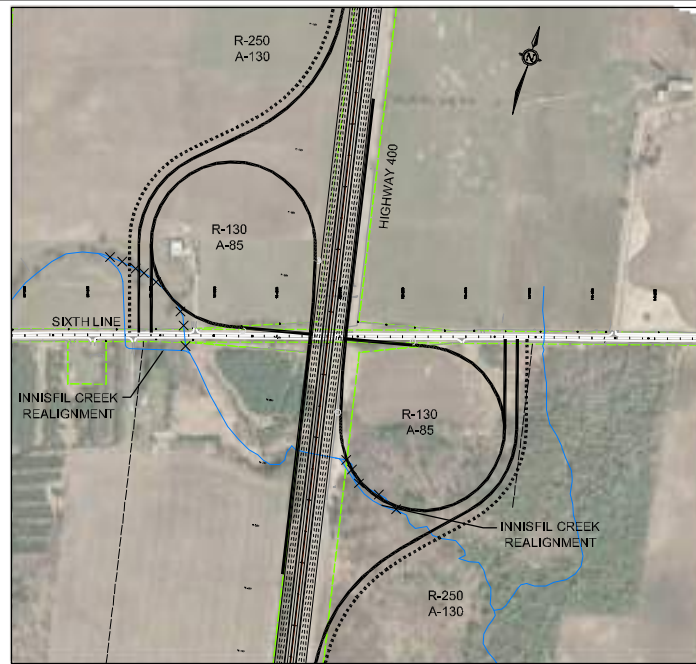
- Legend:
- Potential Property Acquisition
 - Existing R-O-W
 - - - - - Proposed R-O-W

FIGURE 17 INTERCHANGE CONFIGURATION ALTERNATIVES

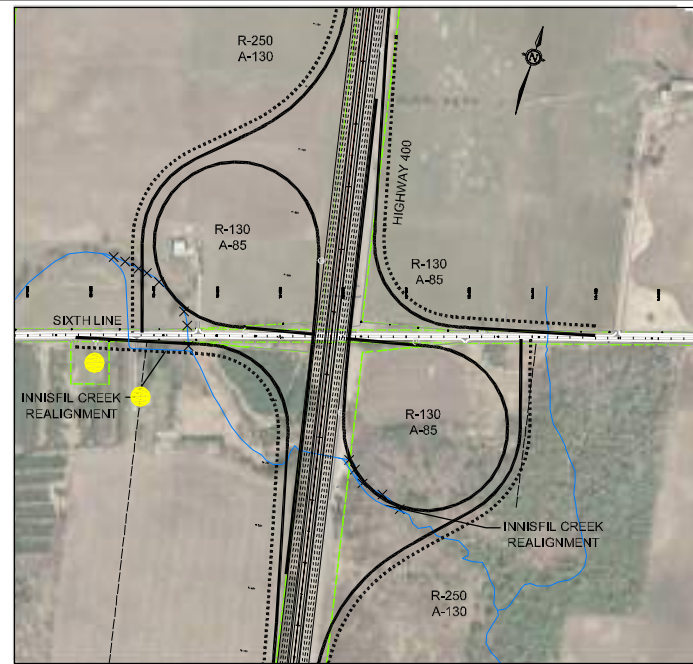
HIGHWAY 400/6th LINE INTERCHANGE
SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
ENVIRONMENTAL STUDY REPORT



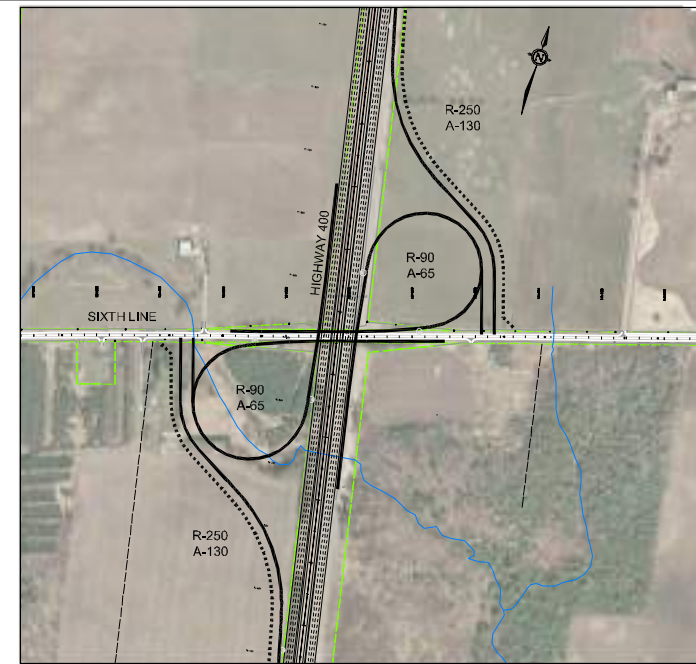
SCALE
N.T.S.



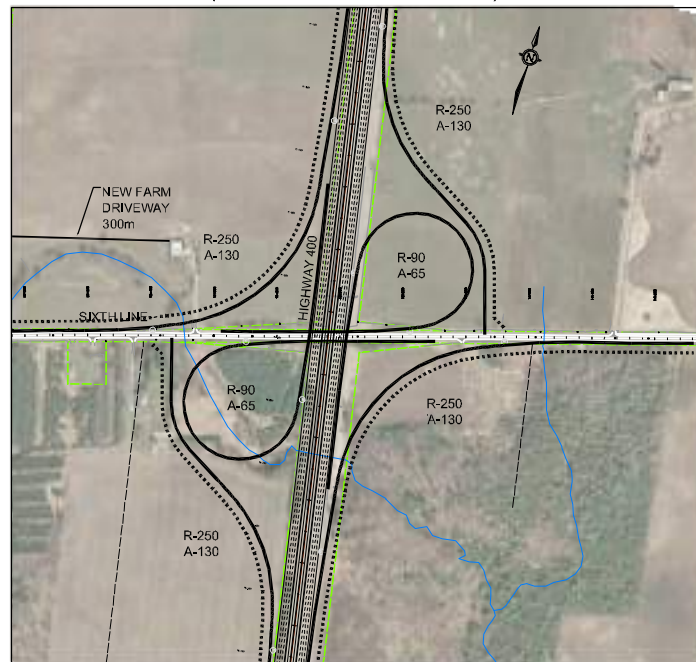
ALTERNATIVE 7
PARCLO A2
110m DIRECT TAPER ON SIXTH LINE BEYOND STRUCTURE
(80 km/h DESIGN SPEED)



ALTERNATIVE 8
PARCLO A4
110m DIRECT TAPER ON SIXTH LINE BEYOND STRUCTURE
(80 km/h DESIGN SPEED)



ALTERNATIVE 9
PARCLO B2



ALTERNATIVE 10
PARCLO B4

Legend:

- Potential Property Acquisition
- Existing R-O-W
- - - - - Proposed R-O-W

FIGURE 18 INTERCHANGE CONFIGURATION ALTERNATIVES

HIGHWAY 400/6th LINE INTERCHANGE
SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
ENVIRONMENTAL STUDY REPORT



SCALE
N.T.S.

6.0 Evaluation of Alternatives

The evaluation of the alternatives was completed using a quantitative assessment to compare the net effects and performance of the alternatives. The quantitative assessment used a weighted average score method to mathematically determine the preference of alignment options being considered using various global factors. This process is described below.

The evaluation approach is based on the “Weighted Additive Method” which focuses on the differences between the alternatives, addresses the complexity of the base data collected, and provides a traceable decision-making process. In addition, the method allows quick sensitivity tests to be performed because of the matrix configuration of the assessment and the use of numerical scores to measure the impact of the alternatives. The sensitivity tests are also documented in this report. This approach is consistent with the MTO and MOECC practices for the evaluation of numerous and complex alternatives. Using the “Weighted Additive Method”, overall scores are assigned to each alternative and the option with the highest score is selected as the preferred alternative to complete the evaluation.

The steps shown below, as described in the Analysis and Evaluation Methodology report included in **Appendix N**, were followed by the TAC to arrive at an overall score for each alternative.

- Development of Evaluation Criteria (coarse screening a long list of criteria to develop a short list of criteria to carry forward for evaluation). These factors and sub-factors are used to measure the differences between the alternatives;
- Public review (POH No. 1);
- Development of definitions and utility functions for each sub-factor carried forward. (Data must be collected for each alternative under each sub-factor. Measurements for each alternative, under each sub-factor, are conducted using topographic plans, field surveys, numerical modelling etc.);
- Weighting of Criteria (assigning weights to each Factor and Sub-factor based on their importance to each team member’s discipline or area of expertise);
- Rating Alternatives (based on Average TAC Weights);
- Selection of Technically Preferred Alternative (TPA) – Highest Ranked Alternative;
- Sensitivity testing;
- Refinements to the TPA;
- Public review (POH No. 2); and
- Recommendations and presentation of a Recommended Plan.

This systematic approach is consistent with MOECC practices for the evaluation of numerous and complex alternatives. It avoids many of the pitfalls associated with qualitative assessments by using an analytical approach that measures scores based on a mathematical relationship, i.e. the degree of subjectivity by the TAC is minimized. This traceable process allows the TAC and the

public an opportunity to assess trade-offs involved in the evaluation and use of this information in the decision making process. These steps are briefly described in the following sections.

The three sets of alternatives (horizontal road alignment, vertical road alignment and interchange configuration alternatives) were combined to create 30 candidate interchange alternatives carried forward for the evaluation, as illustrated in **Figure 19**.

6.1.1 Evaluation Criteria

The initial task in the evaluation is to develop evaluation criteria from which alternatives will be assessed. This process includes the identification of “global” groups of factors followed by the selection of a number of “local” sub-factors under the global groups.

6.1.1.1 Global Evaluation Factors

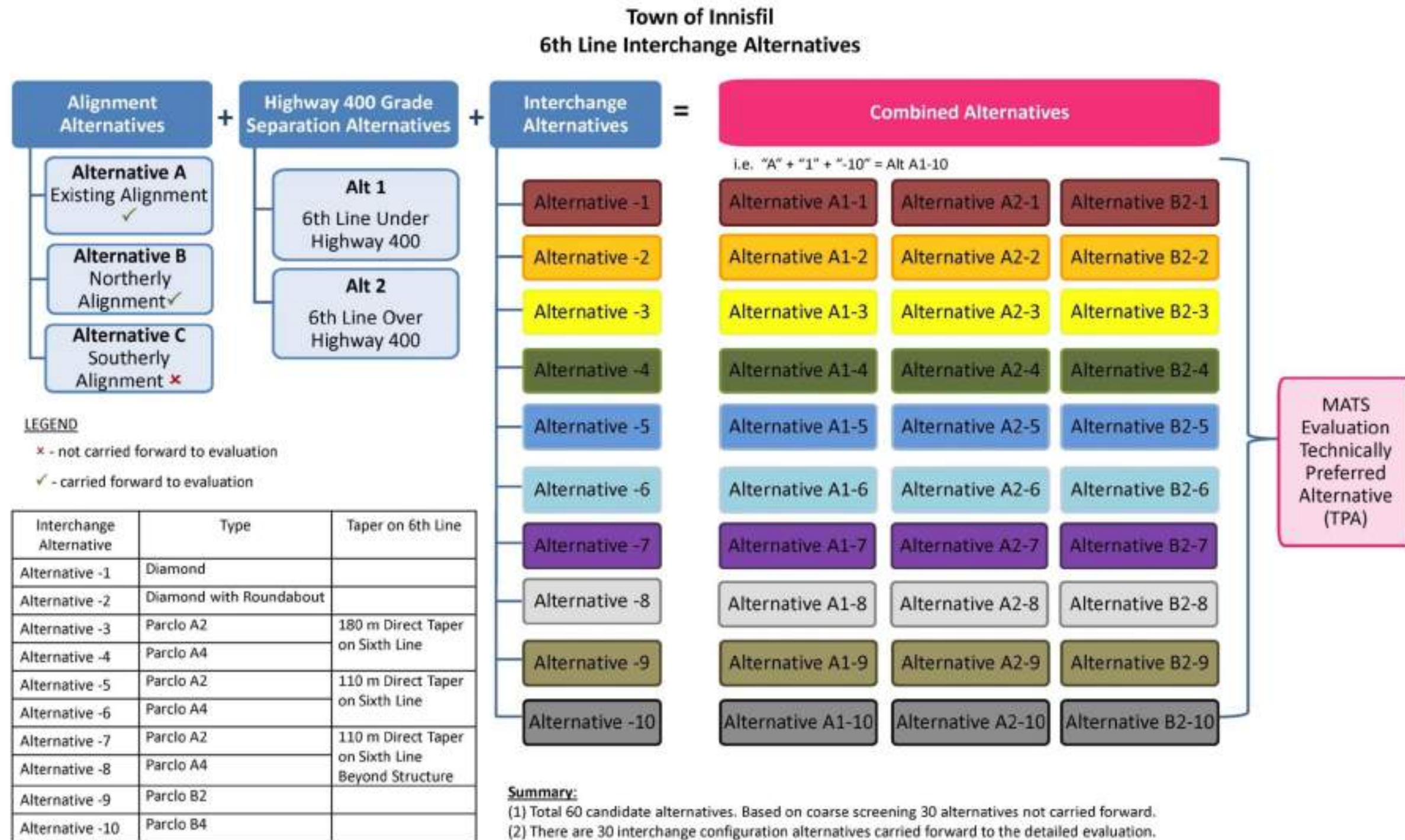
As an initial step, the evaluation criteria were grouped into broad categories, or factors, established to describe the study specific engineering and environmental concerns. Eight factors were selected which were used for each evaluation.

The global factors for the combined roadway and interchange alternatives are: Transportation; Natural Environment; Structures; Heritage; Social and Cultural Environment; Land Use and Property; Economic Environment; and Cost.

6.1.1.2 Evaluation Sub-Factors

Under each of the eight general global factors listed above there were a number of sub-factors selected under which measurements could be made. These sub-factors, under one of the applicable global factors, were the individual descriptors for the evaluation. The selection of the sub-factors is very important to the decision-making process because they must adequately describe the issue or aspect of the environment to be evaluated and the unique features of each alternative. Any information regarding an alternative, where there are differences among alternatives, is incorporated into the decision making process by including it as a sub-factor. Generally, the process begins by establishing a long list of potential sub-factors through discussions with the TAC, Stakeholders and the Public. Then, for each group of alternatives being evaluated the sub-factors are reviewed and screened by eliminating those that were considered equal or not applicable among the alternatives. This was presented at the initial POH for public review and comment. The long list can be found in **Appendix N**.

Table 4 provides the Short List of Factors and Sub-Factors carried forward for interchange alternatives to the analysis for each alternative.



Version dated Jul 19 16

Figure 19: Combination of Alternatives to develop Technically Preferred Plan

Table 4: Short List of Factors and Sub-factors for Combined Interchange Alternatives	
Factors and Sub-Factors	Unit of Measurement
Transportation	
Traffic Operations – Offset to ONroute Service Centre	m
Interchange Safety (Freeway Exits)	High/Low
Interchange Design Consistency	High/Medium/Low
Collision Potential –Highway 400 during Construction	High/Low
Arterial Road Safety	High/Medium/Low
Pedestrian Safety	High/Medium/Low
Bicycle Safety	High/Medium/Low
Out-of-way Travel (During Construction)	High/Low
Flexibility to Accommodate Barrie Bypass	Yes/No
Peak Directional Movements - GTA	High/Low
Peak Directional Movements - Barrie	High/Medium/Low
Traffic Capacity Potential on the Arterial	High/Low
Natural Environment	
Cool water fish habitat impacted – Realigned Creek	m
Cool water fish habitat impacted – Length of Culverts	m
Warm water fish habitat affected – Realigned Creek	m
Warm water fish habitat affected – Length of Culverts	m
Water quality – stormwater runoff	m ²
Regionally significant natural areas and habitat (Stream Valley Ravine)	m ²
Significant Wildlife Habitat Impacted	m ²
Specimen Trees Removed	Yes/No
Woodlands and other Vegetated Areas	m ²
Transformed Landscape (active and regenerating agricultural area)	m ²
Special Concern Species at Risk (SAR) Impacted	Yes/No
SAR Loss of Habitat (Barn Swallows in Barn)	Yes/No
Structures	
Constructability of Structure Type	High/Medium/Low
Durability of Structure	High/Low
Complexity of Future Rehabilitation Staging	High/Low
Ease of Future Widening of Highway 400	Yes/No
Heritage	
Cultural Heritage Landscape Impact – Northwest Remnant Farm Complex	High/Medium/Low
Cultural Heritage Landscape Impact – Southwest Remnant Farm Complex	High/Medium/Low
Existing Barn Structure Property Impacts	Yes/No
3573 6th Line Impacts	High/Medium/Low

Table 4: Short List of Factors and Sub-factors for Combined Interchange Alternatives	
Factors and Sub-Factors	Unit of Measurement
Social and Cultural Environment	
Prehistoric Archaeological Potential Areas Impacted	m ²
Sound Level Increases for Stop and Go Traffic	Yes/No
Land Use and Property	
Number of Property Acquisitions (Residential)	No. Acquisitions
Economic Environment	
Loss of farmland	m ²
Impact to Existing Barn Structure (North)	Yes/No
Out-of-way travel for Farm Equipment during Construction	Yes/No
Cost	
Life Cycle Cost	\$M

6.1.2 Social Utility Function

The evaluation method used to evaluate alternatives related the performance or attractiveness of alternatives using a mathematical relationship. This included two variables. The first was the raw, measured or modelled data, and the second was the utility score. The utility score is the measure of the attractiveness of the alternative under the particular sub-factor. For this study, the relationship between these two variables was described by either a linear, stepped or a dichotomous social utility function. These utility functions assigned a dimensionless score between 0 and 1 to an alternative for each sub-factor.

Examples of dichotomous, stepped and linear functions used in this study are explained in the following sections.

Dichotomous Utility Function

The dichotomous utility function, shown in **Figure 20** permits the decision-makers to establish criteria that present an “either-or” situation (desirable or undesirable, negative or positive, present or absent, etc.). If a “no” answer is desirable then a utility score of ‘one’ would be assigned to this criterion, otherwise a value of ‘zero’ would be assigned; no other utility score being available.

Stepped Utility Function

The stepped utility function, shown in **Figure 20**, permits the decision-makers to assess criteria when the sub-factor presents more than one level of impact. An example of this situation is where the sub-factor can be categorized into “high, medium or low” degrees of impact. If a “high” answer is undesirable then a utility score of zero is assigned to this criterion, a “medium” answer would be 0.5 and “low” would have a value of 1.0 assigned to it. The stepped function may have more than three categories, with each category assigned a value between one and zero.

The value for each step is determined by the subject area specialist (expert). The maximum value found within the group is either the highest or lowest step. If the maximum value is undesirable it is given a value of zero and conversely the lowest value is desirable and is assigned a value of one.

6.1.3 Linear Utility Function

The linear function, shown in **Figure 20**, was used to convert scores for sub-factors that had varying measurements. Given a measurement, a unique score between zero and one could be assigned to a sub-factor.

The slope of the linear utility function is either negative or positive depending on the desirability of the impact. In the example below, the slope of the function is negative. The short listed criteria, including definitions and their respective social utility functions are included in **Appendix N**.

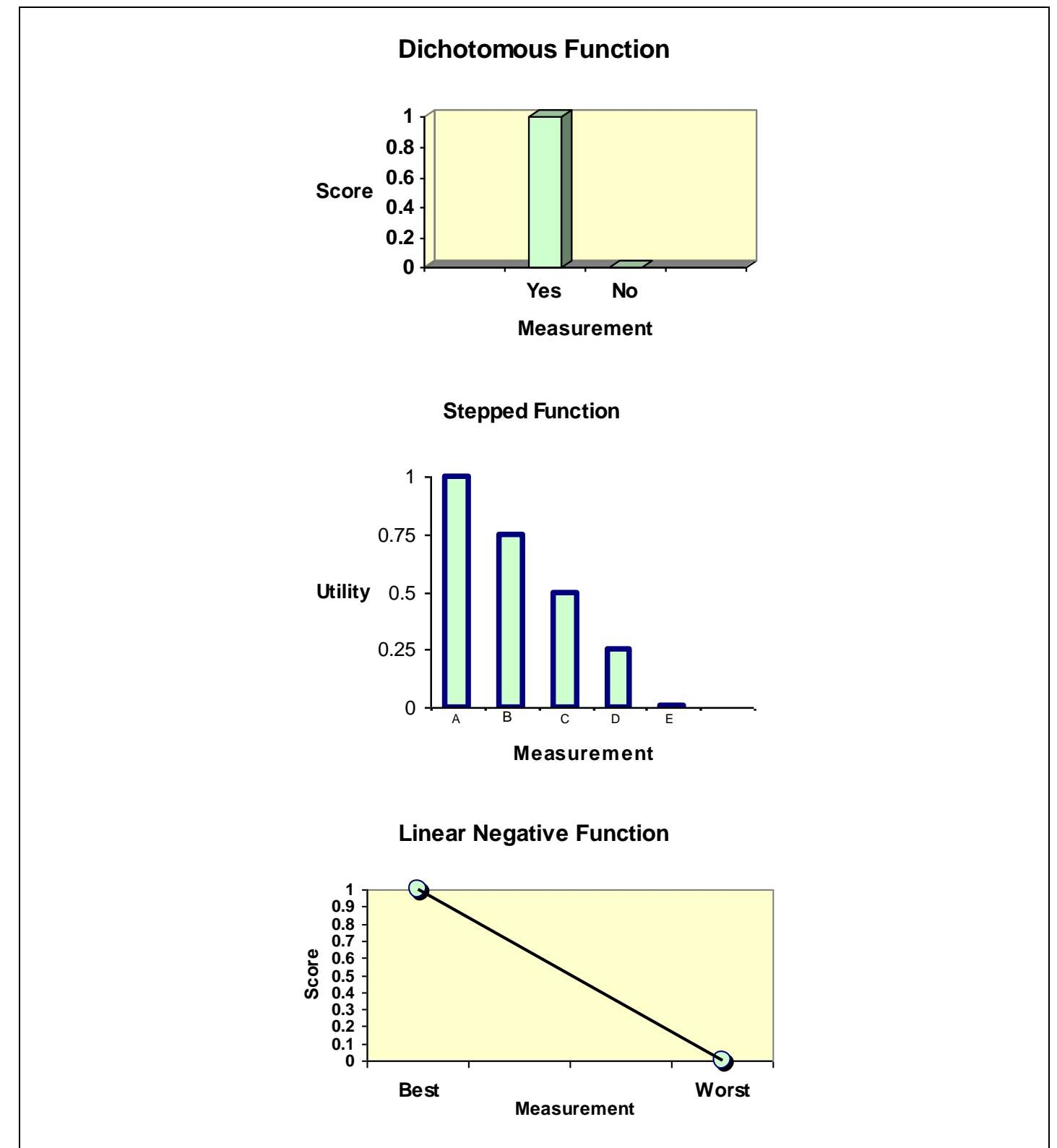


Figure 20: Sample Utility Functions

6.1.4 Weighted Factors and Sub-Factors

Factors were eliminated where they were not applicable (because there was no difference between alternatives or they were considered equal). The selection of weights for the factors and sub-factors was based on assessments by the TAC. Within a group of factors, inevitably there was an ordering with some sub-factors having more importance than others. This is accounted for by each individual assigning weights to each factor and sub-factor, which is reflected in the “Global Factor Weight” and “Sub-factor Weight” columns in **Table 5**.

Global Factors/Sub-factors	TAC	
	Global Factor Weight	Sub-factor Weight
Transportation	41.7%	
• Accessibility for Pedestrians		75%
• Pedestrian Safety		10.5%
• Bicycle Safety		7.8%
• Disruption of Area Traffic		6.7%
TOTAL		100%

The percentage weight for all global factors totalled, (considered as global weights), is 100%. As well, the percentage weight for the sub-factors under each global factor, described as local weights, must total 100%. There is a degree of subjectivity in deciding which global factor is the most important and which is the least important factor. Every person assigning weights has a personal bias and understanding of the scope of the project and life experience. Hence, there is an advantage to having a diversified team of professionals with varied backgrounds performing the evaluation. The members of the TAC consisted of a diverse group of transportation planners, environmental planners plus structural and transportation engineers and technicians representing the Town of Innisfil, InnPower, InnServices, County of Simcoe, MTO and the Project Team.

Each member assigns percentage weights to each global factor and sub-factor based on their opinion of the relative importance of each after a presentation by each specialist to TAC members. Their individual weights were then averaged to determine the TAC weight for each global factor and sub-factor.

The results of the weighting exercise for each alternative are provided in the following sections.

6.1.5 Weighting Results

The weighting exercises were carried out by the TAC. The results of the weighting exercises and the sensitivity tests have been included in the following sections. The sensitivity tests provided the TAC with an indication of possible trade-offs between indicators.

The Multi Attribute Trade-off System (MATS) evaluation method is a numerical quantitative evaluation methodology based on the weighted additive method. For the purpose of this report, they can be treated as identical terms.

6.1.6 Interchange Alternatives

The results of the weights and rankings of the MATS evaluation for the interchange alternatives are illustrated in **Figure 21** and **Figure 22**, respectively, with the detailed results of the weights for each sub-factor found in the Analysis and Evaluation Report in **Appendix N**. The MATS evaluation ranked Alternative B2-2 as the TPA. Alternative B2-2 includes:

- Horizontal alignment Alternative B: a 50 m northerly shift of 6th Line;
- Vertical alignment Alternative 2: 6th Line crossing over Highway 400; and,
- Interchange configuration Alternative 2: Diamond with roundabouts.

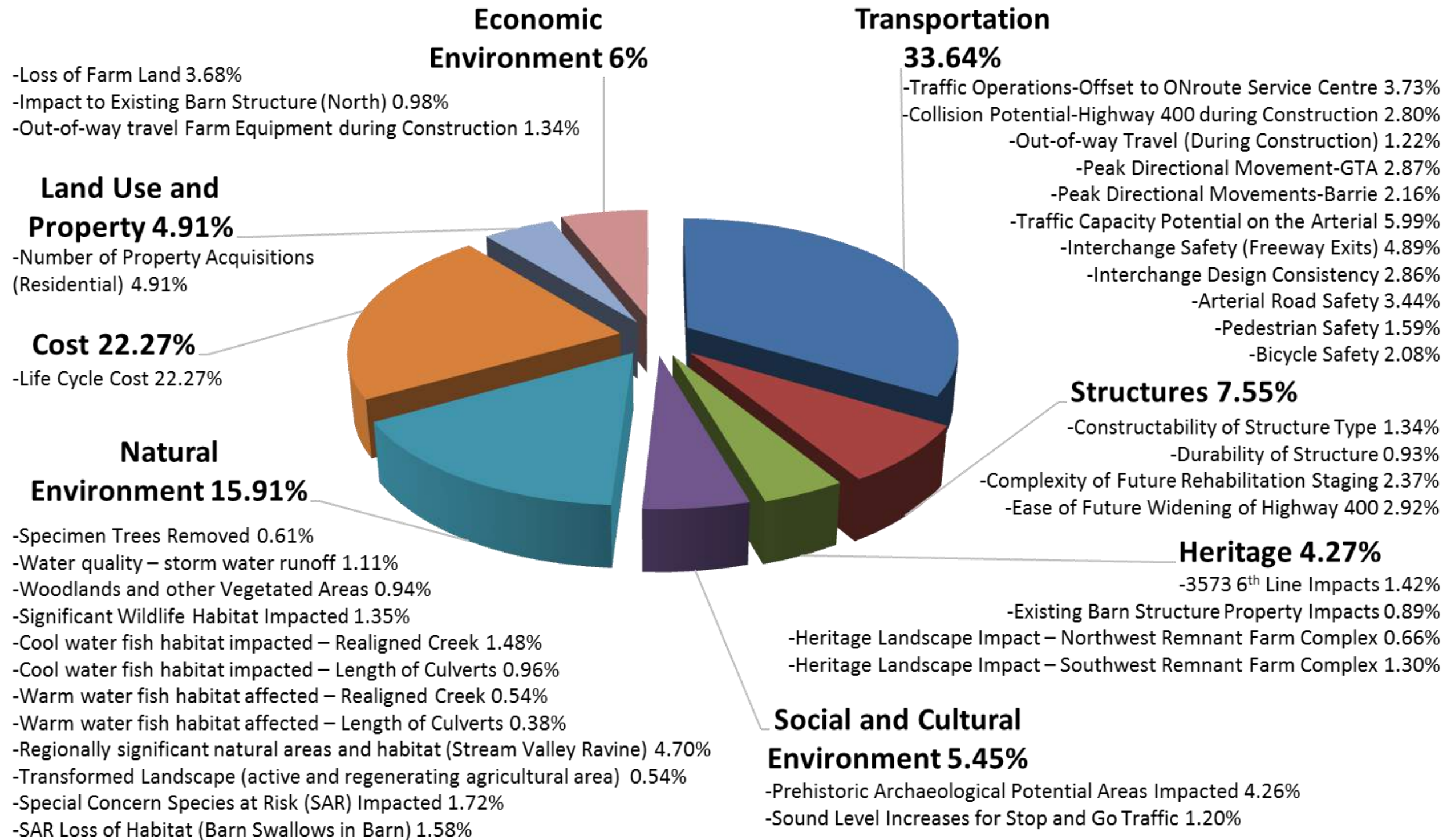


Figure 21: MATS Weighting Results for Interchange Alternatives

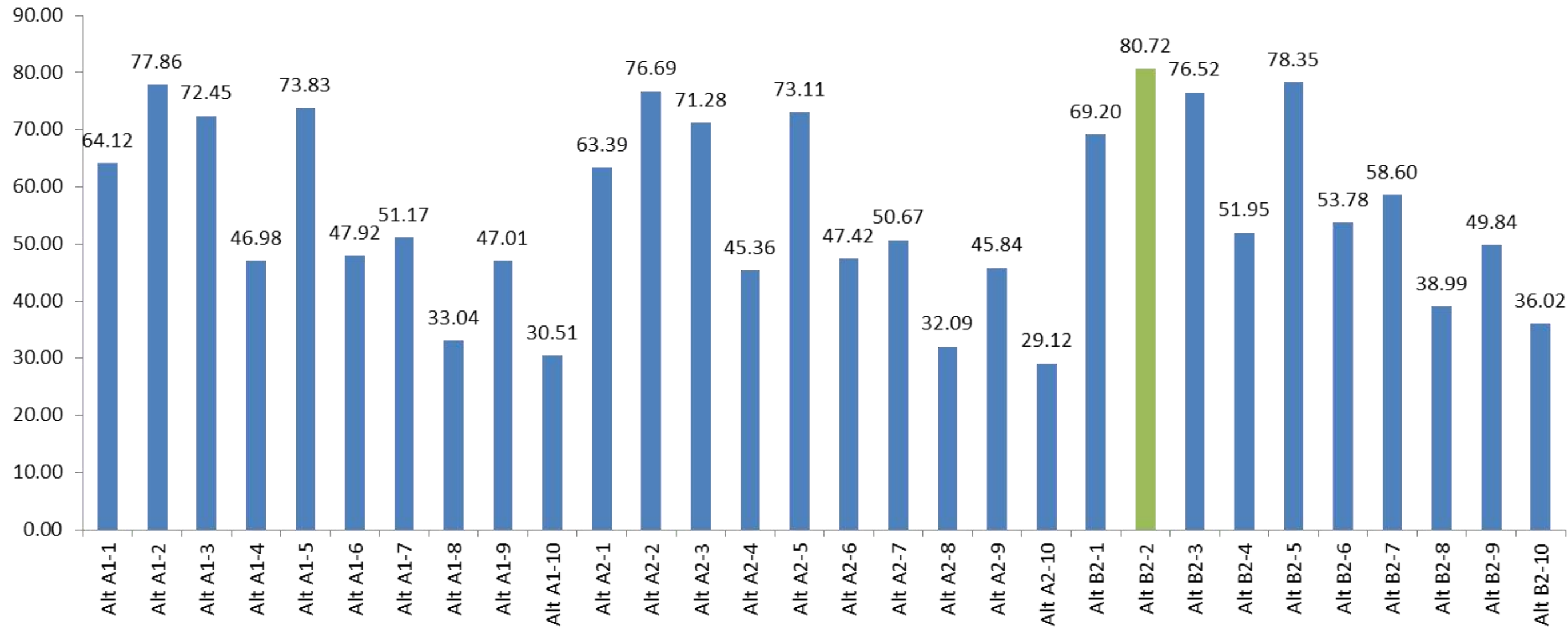


Figure 22: Bridge Structure Alternatives MATS Evaluation Ranking Results

6.2 Sensitivity Tests

It should be recognized that the scope of the evaluation and determination of weights for the evaluation criteria are a matter of professional judgment. Accordingly, it is considered essential to conduct sensitivity testing to determine if the nature of the evaluation is sensitive to the weights assigned to each criterion.

There is a spread of values among the groups of evaluators for the selection of weights. The range is dependent on the value judgment of individuals and specialists. Using the average of the group does not necessarily capture what the standard deviation was among the individual scores. Therefore, sensitivity testing is conducted to test a range of weights either higher or lower than the group's average.

For this study an independent test was undertaken which placed greater or less emphasis on a global factor and redistributing the weight to the other factors using the average values of the TAC. In fact, a separate test was completed for each factor using the highest weight given by anyone in the TAC as well as the lowest weight.

Following this methodology a series of tests was completed varying the weight for each global factor. The three tests included:

- Average TAC Weight
- Highest Weight in a factor group by any TAC member
- Lowest Weight in a factor group by any TAC member

Following this series of tests, the results were reviewed to assess whether the preferred alternative changed when the weights were varied.

Using this information alone is not the only justification for selecting a particular option, but it provides a level of confidence in the selection and the ability to assess trade-offs. This information is considered and used in the decision-making process before a TPA is recommended to be carried forward. The sensitivity testing was presented at POH No. 2 and can be found in the Analysis and Evaluation report in **Appendix N**.

The sensitivity test results, shown in **Table 6** shows that there are trade-offs for Low Transportation where Alternative B2-5 rated high for this trade-off.

The Recommended Plan is a combination of the TPA and modifications and refinements made following the evaluation. This is discussed in **Section 7.0**.

Table 6: Sensitivity Testing Results for Interchange Alternatives

Alternative	A1-1	A1-2	A1-3	A1-4	A1-5	A1-6	A1-7	A1-8	A1-9	A1-10	A2-1	A2-2	A2-3	A2-4	A2-5	A2-6	A2-7	A2-8	A2-9	A2-10	B2-1	B2-2	B2-3	B2-4	B2-5	B2-6	B2-7	B2-8	B2-9	B2-10	
Rank	11	3	8	22	6	19	16	27	21	29	12	4	9	24	7	20	17	28	23	30	10	1	5	15	2	14	13	25	18	26	
Transportation	High	14	3	9	21	8	19	20	25	27	30	11	2	7	18	6	16	17	24	26	29	10	1	5	15	4	13	12	22	23	28
	Low	11	5	6	22	4	21	16	29	15	26	12	8	9	24	7	23	19	30	18	28	10	3	2	20	1	17	13	27	14	25
Natural Environment	High	11	4	8	21	6	17	18	28	22	27	12	5	9	23	7	19	20	30	24	29	10	1	3	15	2	14	13	25	16	26
	Low	11	2	8	22	6	19	15	27	20	29	12	3	9	24	7	21	16	28	23	30	10	1	5	17	4	14	13	25	18	26
Structures	High	11	3	8	22	6	19	16	27	21	29	12	5	9	24	7	20	18	28	23	30	10	1	4	15	2	14	13	25	17	26
	Low	11	2	8	22	6	19	16	27	21	29	12	4	9	24	7	20	17	28	23	30	10	1	5	15	3	14	13	25	18	26
Heritage	High	11	3	8	23	6	21	15	28	19	27	12	5	9	24	7	22	16	29	20	30	10	1	4	18	2	14	13	25	17	26
	Low	11	3	8	21	6	19	16	27	22	29	12	4	9	23	7	20	17	28	24	30	10	1	5	15	2	14	13	25	18	26
Social and Cultural Environment	High	11	2	8	22	6	19	17	27	21	28	12	4	9	24	7	20	18	29	23	30	10	1	5	15	3	14	13	25	16	26
	Low	11	3	8	21	6	19	15	27	22	29	12	5	9	24	7	20	17	28	23	30	10	1	4	16	2	14	13	25	18	26
Land Use and Property	High	11	3	8	23	6	21	14	29	18	27	12	4	9	24	7	22	15	30	20	28	10	1	5	19	2	17	13	26	16	25
	Low	11	3	8	20	6	17	16	27	23	29	12	4	9	22	7	19	18	28	24	30	10	1	5	15	2	14	13	25	21	26
Economic Environment	High	11	3	8	22	6	19	17	27	20	28	12	5	9	24	7	21	18	29	23	30	10	1	4	15	2	14	13	25	16	26
	Low	11	2	8	21	6	19	15	27	22	29	12	4	9	23	7	20	16	28	24	30	10	1	5	17	3	14	13	25	18	26
Cost	High	11	3	7	22	5	21	14	27	18	28	12	6	9	24	8	23	16	29	20	30	10	1	4	19	2	15	13	25	17	26
	Low	12	5	9	20	8	18	22	28	24	30	11	2	7	17	6	16	19	27	23	29	10	1	4	15	3	14	13	25	21	26

7.0 Recommended Plan

7.1 Technically Preferred Alternative

The TPA is Alternative B2-2 (**Figure 23**): a diamond interchange configuration protecting for a future E–S inner loop ramp on the west side of Highway 400. This TPA would provide roundabouts on 6th Line at the ramp terminals. 6th Line would be realigned crossing over Highway 400 approximately 50 metres north of its current location.

The Recommended Plan is a combination of the TPA for the interchange and post-evaluation refinements to the alternative described in the following section.

7.2 Refinements

The TPA was refined through discussions with the Town and MTO, comments received after the second POH and through various TAC meetings. Refinements were recommended to the TPA following these meetings and a traffic operational review and detailed traffic modelling.

The traffic modelling and capacity analysis, included in **Appendix D**, revealed that the west side of the interchange would perform more efficiently with a Parclo A2 configuration. It was therefore recommended to implement the inner loop for the E/W-S ramp and to protect property for a future direct W-S ramp.

Traffic operations in terms of average speed are illustrated in **Figure 24**. As illustrated, the TPA is expected to operate adequately with this refinement.

Other refinements include:

- The flexibility for long term expansion, including protection for a W-N inner loop (Parclo A-4 design) on the east side;
- Provisions for a barrier to protect the MUP on the bridge over Highway 400; and,
- Driveway refinements for 3325 6th Line. See **Section 7.6**.

7.3 ONroute Weaving Analysis

The weaving zone between 6th Line and the nearby ONroute centre has been included and simulated in the traffic model. The original TPA (without refinements) has been selected as the worst case scenario since the distance between the on-ramp from 6th Line and the off-ramp to ONroute is the shortest.

The ONroute travel service centre is located on Highway 400 in the southbound direction 1.5 km south of 6th Line. A traffic count performed on May 19, 2016 indicates that as much as 82 vehicles per hour exit the freeway to stop at the ONroute centre during the morning and 85

vehicles per hour during the afternoon. In 2031, the traffic demand for the ONroute centre is expected to reach 122 and 127 vehicles during the morning and the afternoon peak hours respectively.

The simulation results indicate that the traffic on Highway 400 will be generally well-balanced and that the speed between the 6th Line interchange and the ONroute centre will not be significantly affected by the traffic entering from 6th Line or exiting to the ONroute.

Figure 25 shows the simulated average traffic speeds between 6th Line and the ONroute centre.

7.4 Recommended Plan

The TPA and the refinements combine to create the Recommended Plan. The Recommended Plan was presented to the public at the second POH in December 2016.

The Ultimate Recommended Plan is illustrated in **Figure 26**.

7.5 Interim Plan

The need for the ultimate interchange will be contingent on population growth, budget and other restraints. An Interim Plan has been recommended as illustrated in **Figure 27** which will accommodate the immediate need for the structure replacement and protect for the ultimate interchange.

The cross section for 6th Line was previously evaluated under the Town's 6th Line Environmental Assessment completed in fall 2016 by HDR.

The preliminary recommended profile is illustrated in **Figure 28** and the ultimate cross section alternative for the bridge over Highway 400 is illustrated in **Figure 29**. The Preliminary General Arrangement plan for the Interim and Ultimate Plan is in **Figure 30**.

7.5.1 Effects and Mitigation

Effects on the environment were considered in accordance with the Municipal Class EA process.

The remaining areas of concern, related to the Recommended Plan, will be mitigated to minimize or remove any detrimental effects. **Table 7** provides a description of areas of concern and responses to issues that were identified with the Recommended Plan. No other effects requiring mitigation were identified in this study.

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Legend:
 — Existing Right-of-Way & Property Fabric
 - - - Proposed Right-of-Way

FIGURE 23
TECHNICALLY PREFERRED ALTERNATIVE

HIGHWAY 400/6th LINE INTERCHANGE
 SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
 ENVIRONMENTAL STUDY REPORT



SCALE
 20m 40m
 HORIZONTAL 1:4,000

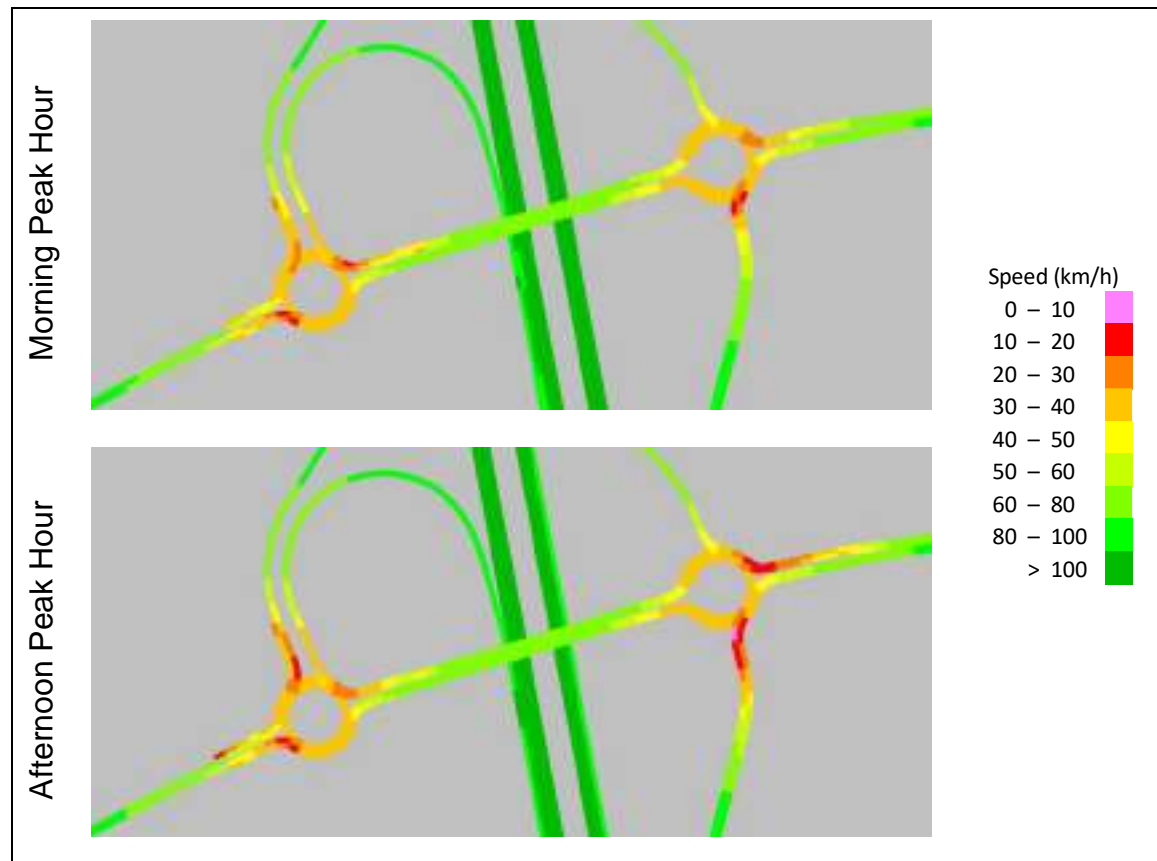


Figure 24: Average Speed, 2031 Traffic Projection, Refined TPA

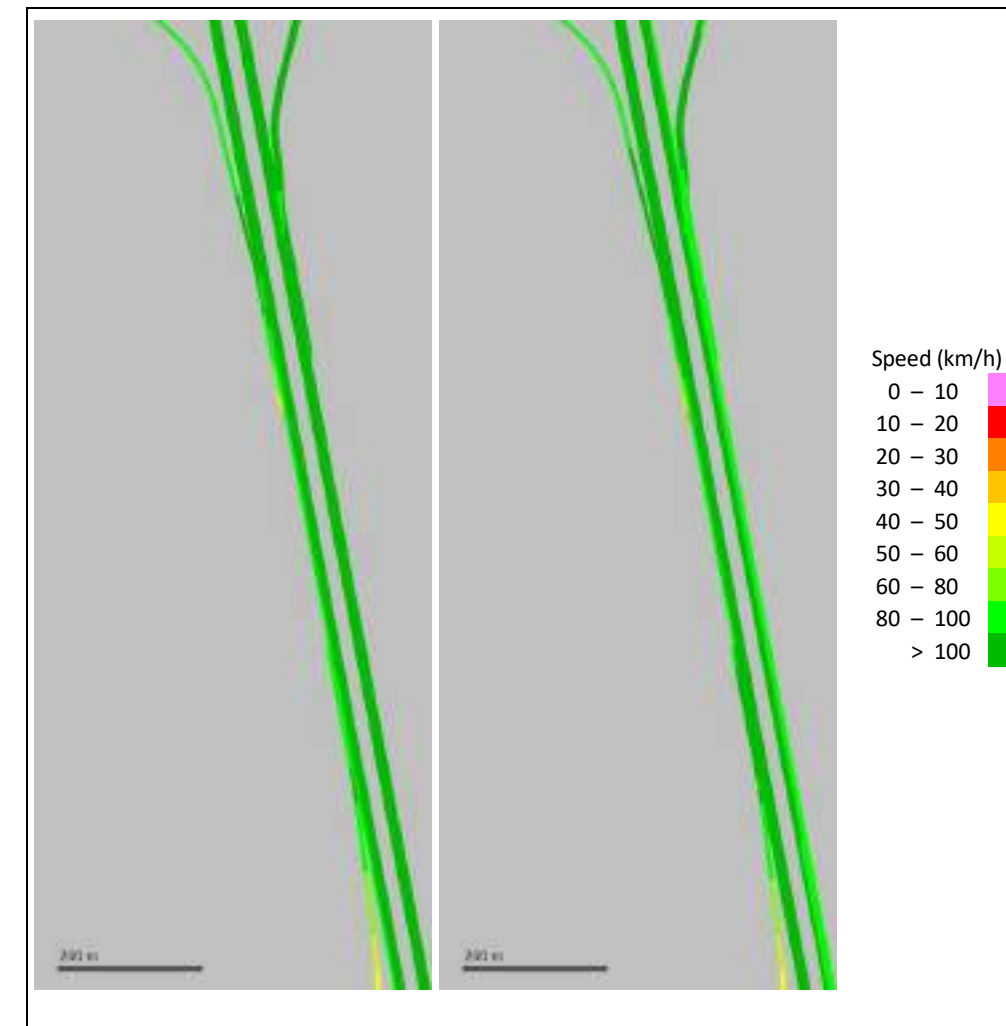


Figure 25: Average Speed, Highway 400 between 6th Line and ONroute, 2031 Traffic Projection, TPA

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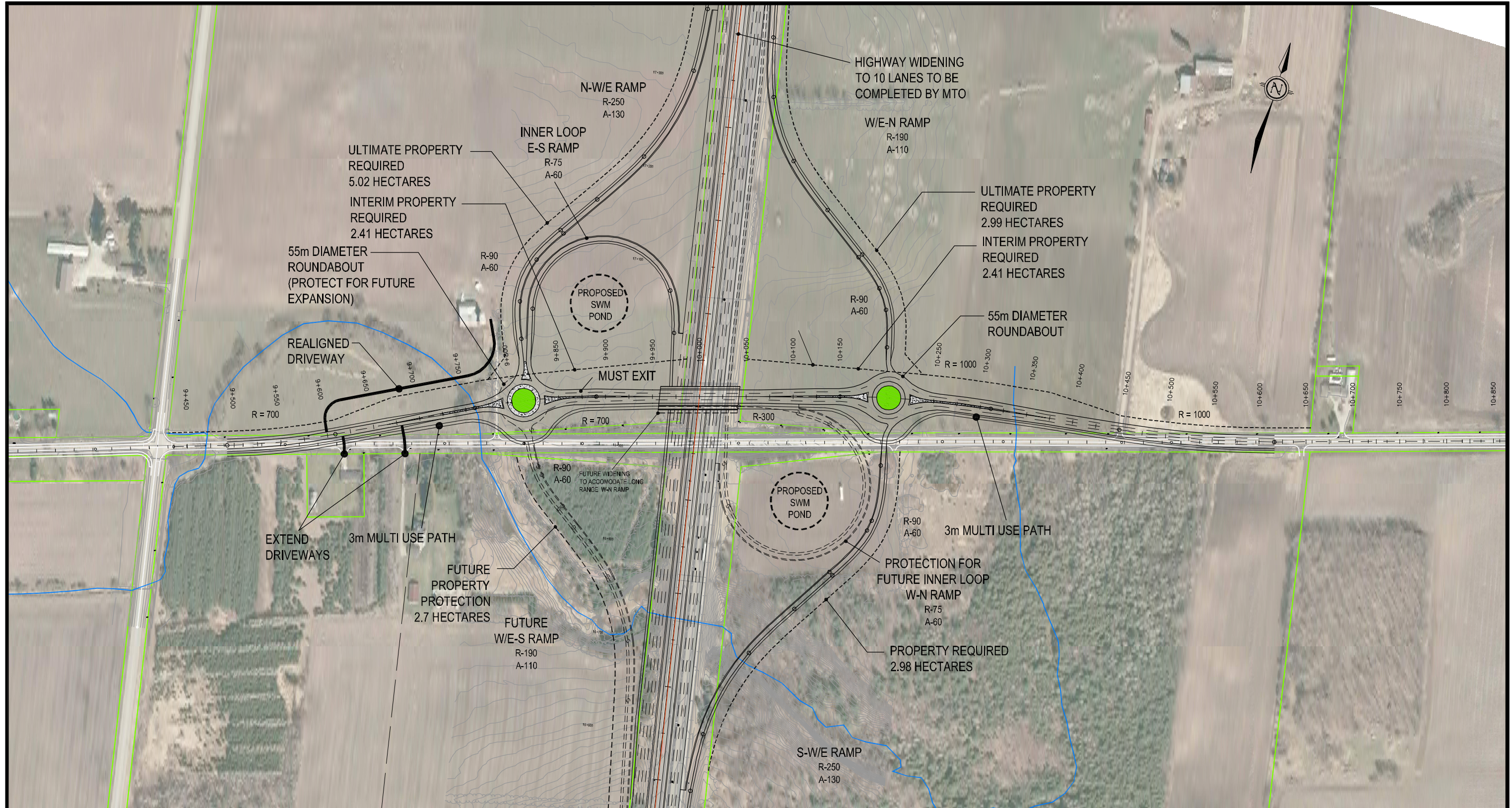


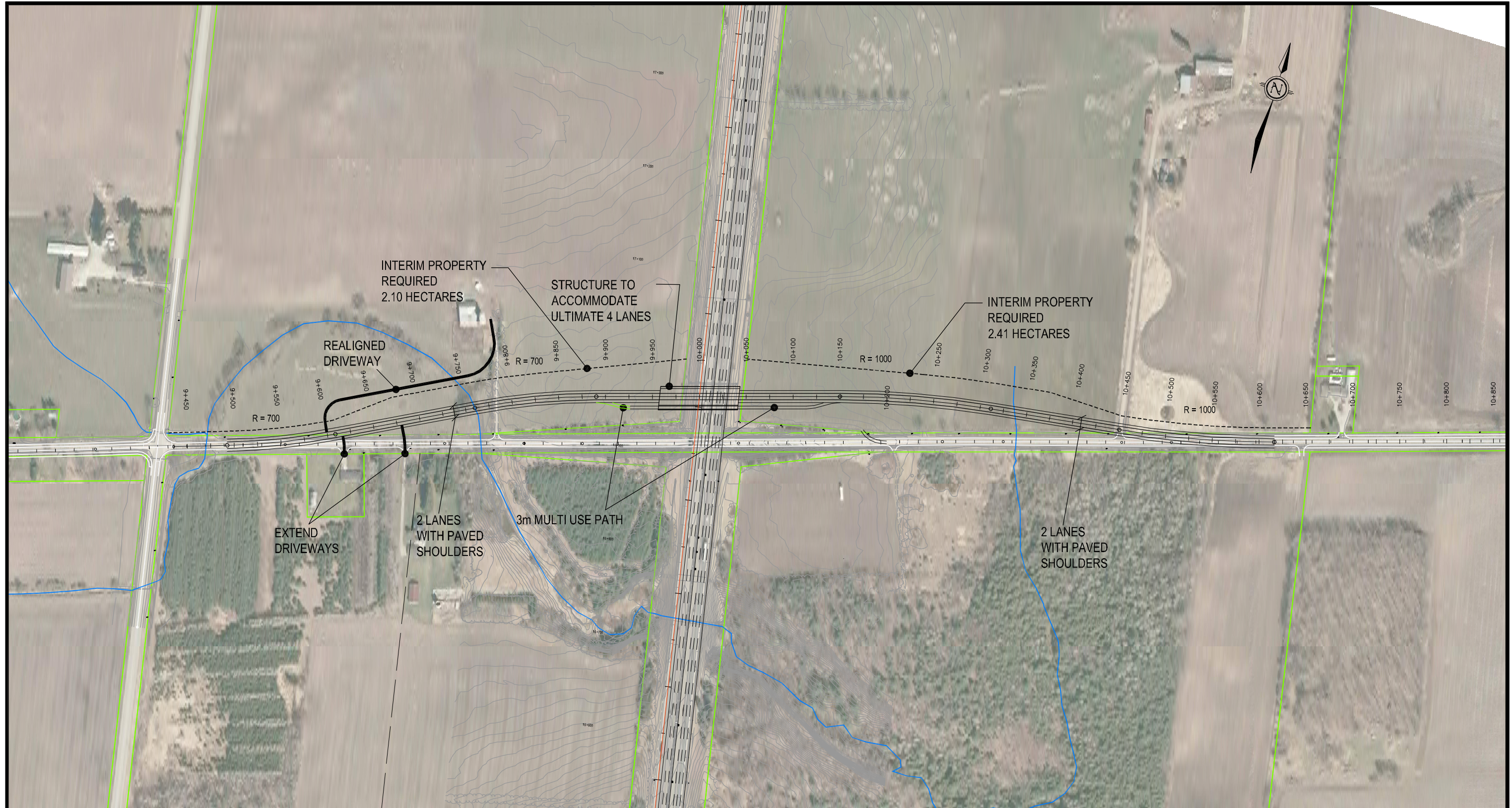
FIGURE 26
ULTIMATE RECOMMENDED PLAN

HIGHWAY 400/6th LINE INTERCHANGE
SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
ENVIRONMENTAL STUDY REPORT



SCALE
 20m C 40m
 HORIZONTAL 1:4,000

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Legend:
 - Existing Right-of-Way & Property Fabric
 - Proposed Right-of-Way

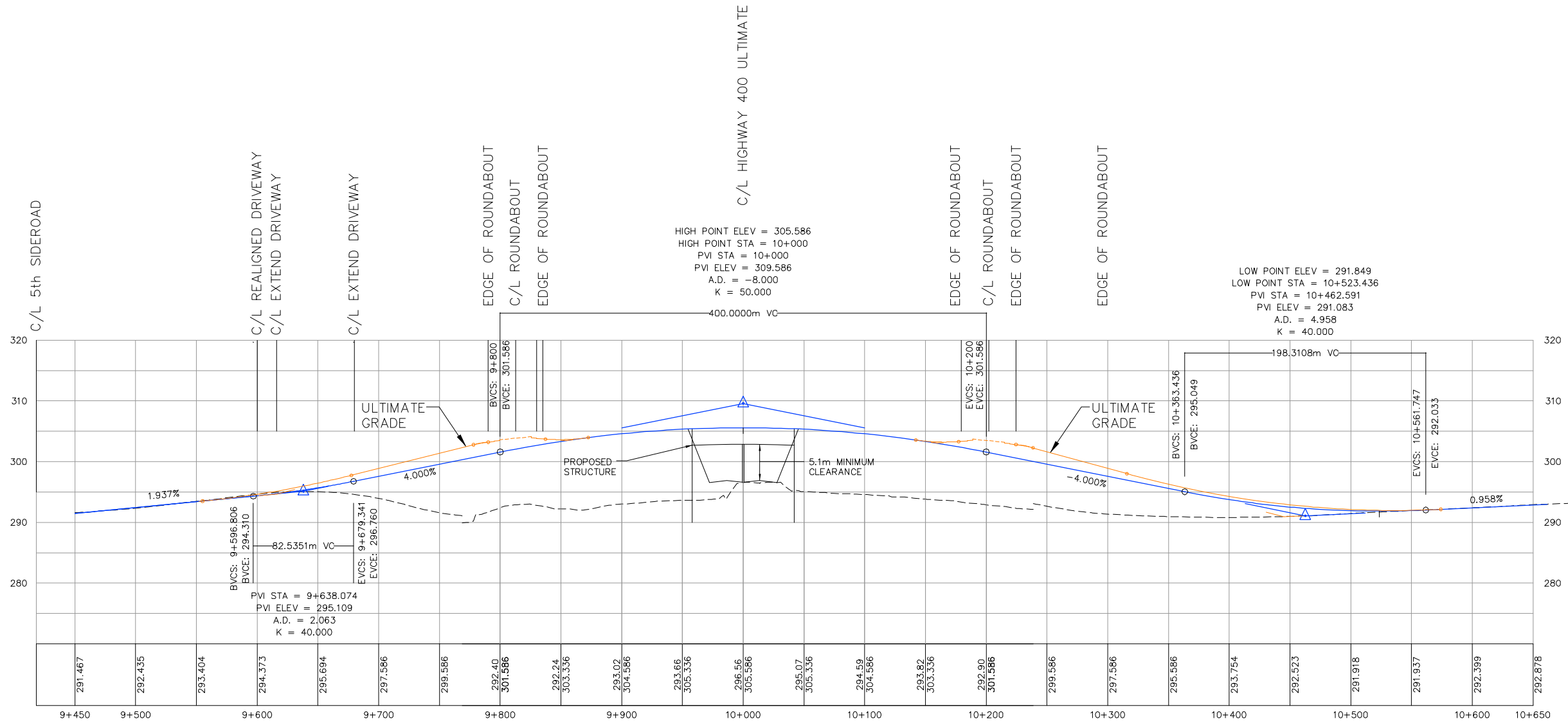
Note:
 Horizontal alignment to tie in points to be reviewed in detailed design stage in conjunction with HDR Sixth line Environmental Assessment Report.
 For additional Highway 400 details refer to AECOM Highway 400 Preliminary Design Report.

FIGURE 27 INTERIM RECOMMENDED PLAN

**HIGHWAY 400/6th LINE INTERCHANGE
SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
ENVIRONMENTAL STUDY REPORT**



SCALE
20m C 40m
HORIZONTAL 1:4,000



Note:
 Preliminary profile to be reviewed in detail design stage in conjunction with AECOM Highway 400 Preliminary Design Report.

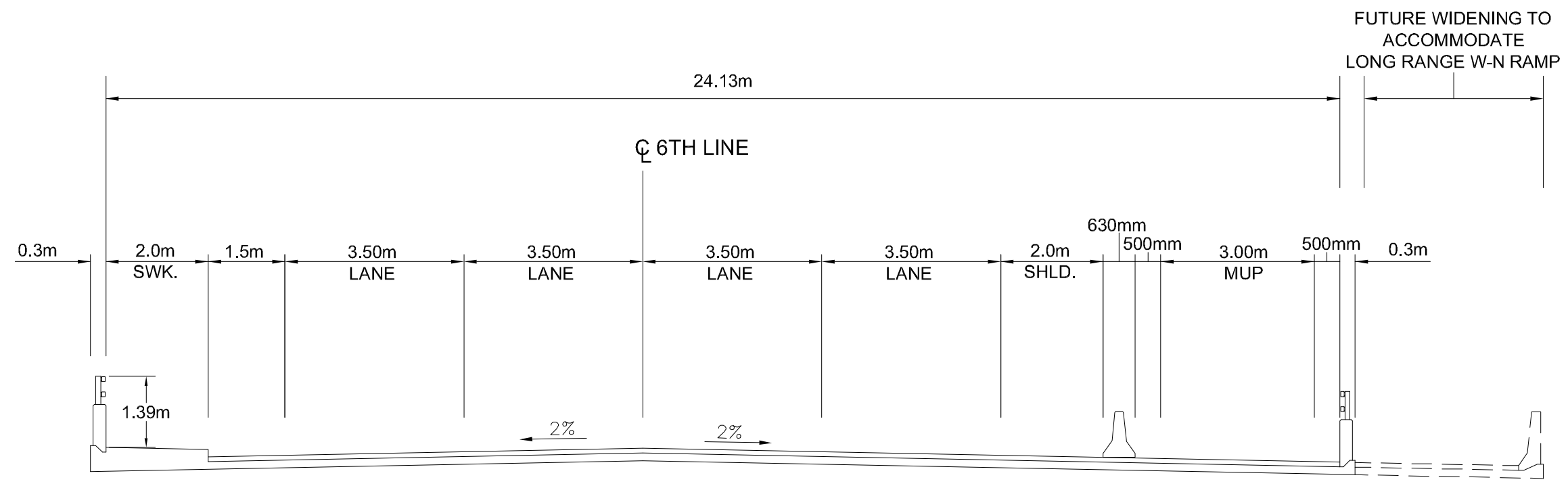
FIGURE 28 PRELIMINARY RECOMMENDED PROFILE

HIGHWAY 400/6th LINE INTERCHANGE
 SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
 ENVIRONMENTAL STUDY REPORT



SCALE
 20m 40m
 HORIZONTAL 1:4,000

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RECOMMENDED DECK SECTION
SCALE 1:100

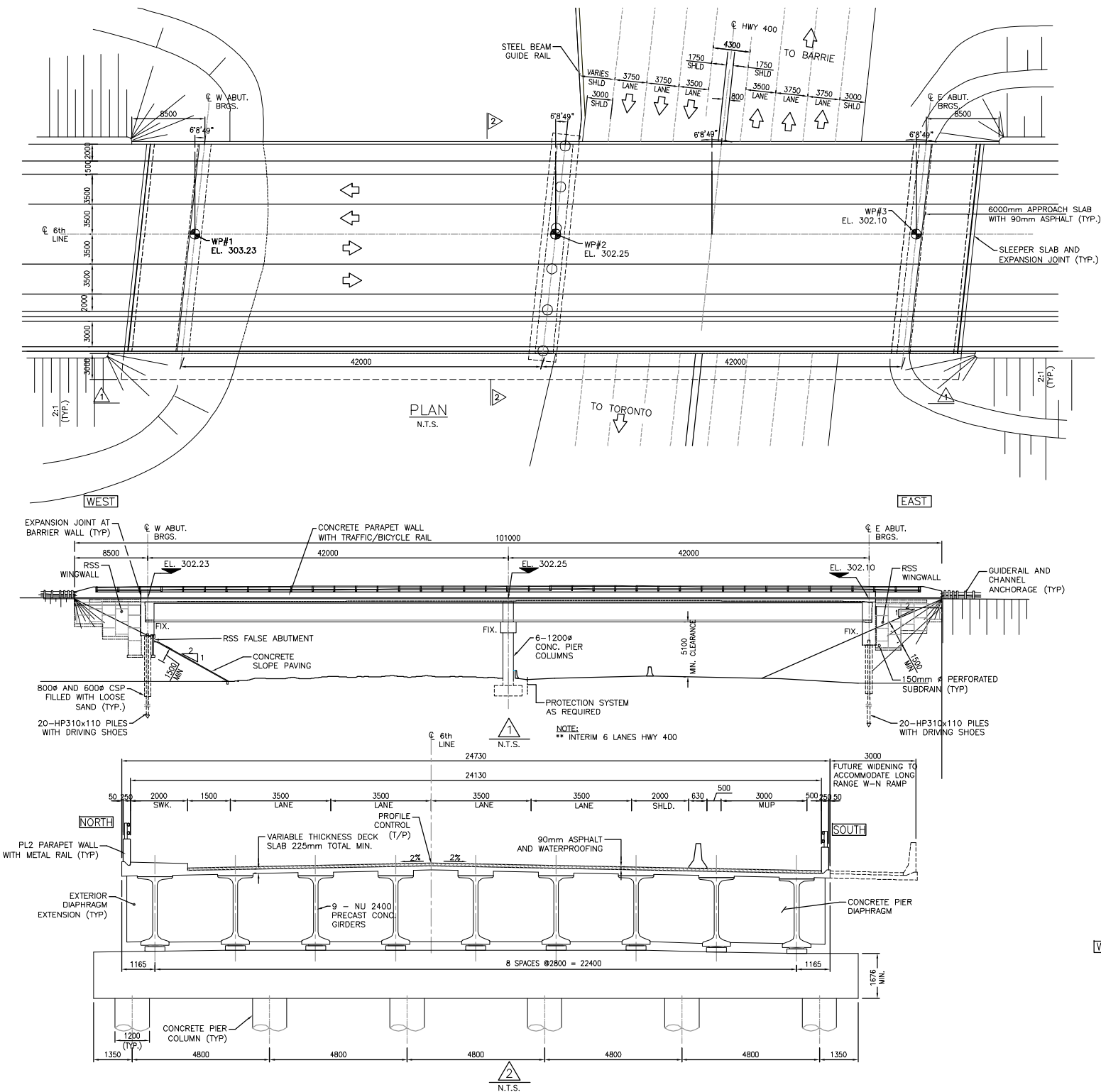
Legend:

FIGURE 29
ULTIMATE STRUCTURE DECK SECTION

HIGHWAY 400/6th LINE INTERCHANGE
SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
ENVIRONMENTAL STUDY REPORT



SCALE
AS NOTED



GENERAL NOTES:

- CLASS OF CONCRETE:
 PRECAST GIRDERS 60MPa
 DECK 30MPa
 REMAINDER 30MPa
 UNLESS NOTED OTHERWISE
- CLEAR COVER TO REINFORCING STEEL:
 FOOTING 100±25
 DECK - TOP 70±20
 DECK - BOTTOM 40±10
 REMAINDER 70±20
 UNLESS NOTED OTHERWISE
- REINFORCING STEEL:
 REINFORCING STEEL SHALL BE GRADE 400W UNLESS OTHERWISE SPECIFIED.
 BAR MARKS WITH PREFIX 'S' DENOTE STAINLESS STEEL BARS.
 STAINLESS STEEL REINFORCING BARS SHALL BE TYPE 316LN OR DUPLEX 2205 AND HAVE MINIMUM YIELD STRENGTH OF 500 MPa.
 UNLESS SHOWN OTHERWISE TENSION LAP SPLICES SHALL BE CLASS B.
 BAR HOOKS SHALL HAVE STANDARD HOOK DIMENSIONS USING MINIMUM BEND DIAMETERS, WHILE STIRRUPS AND TIES SHALL HAVE MINIMUM HOOK DIMENSIONS. ALL HOOKS SHALL BE IN ACCORDANCE WITH THE STRUCTURAL STANDARD DRAWING SS12-1 UNLESS INDICATED OTHERWISE.

CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL ESTABLISH THE BEARING SEAT ELEVATIONS BY DEDUCTING THE ACTUAL BEARING THICKNESS FROM THE TOP OF BEARING ELEVATIONS. IF THE ACTUAL BEARING THICKNESSES ARE DIFFERENT FROM THOSE GIVEN WITH THE BEARING DESIGN DATA, THEN THE CONTRACTOR SHALL ADJUST THE REINFORCING STEEL TO SUIT.
- CONTRACTOR TO INSURE THE STABILITY OF ABUTMENTS DURING CONSTRUCTION.
- BACKFILL SHALL NOT BE PLACED BEHIND THE ABUTMENTS UNTIL DECK CONCRETE HAS REACHED 25MPa.
- CONSTRUCT ABUTMENT AND WINGWALLS TO THE BEARING SEAT ELEVATIONS. THE CONTRACTOR SHALL SUPPLY TEMPORARY LATERAL BRACING FOR THE ABUTMENTS. FORMWORK AND LATERAL BRACING SHALL NOT BE REMOVED UNTIL CONCRETE HAS REACHED 70% OF ITS SPECIFIED 28-DAY STRENGTH.
- BACKFILL TO ABUTMENTS SHALL BE PLACED SIMULTANEOUSLY, KEEPING THE HEIGHT OF THE BACKFILL APPROXIMATELY THE SAME. AT NO TIME SHALL THE DIFFERENCE IN HEIGHTS OF THE BACKFILL BE GREATER THAN 500mm.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE EXISTING BRIDGE, DIMENSIONS, PROPOSED WORK AND DETAILS AND REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH THE WORK.
- ROADWAY PROTECTION SYSTEM SHALL MEET REQUIREMENTS FOR PERFORMANCE LEVEL 2. PROTECTION SYSTEM IS SHOWN SCHEMATIC ONLY. EXACT LIMITS SHALL BE DETERMINED THE CONTRACTOR.
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR ADEQUATE PROTECTION OF ALL UTILITIES, SERVICES, STRUCTURES, ROADWAYS, ETC. DURING CONSTRUCTION OPERATIONS.

LIST OF ABBREVIATIONS:

- RSS DENOTES RETAINED SOIL SYSTEM
- WP DENOTES WORKING POINT
- TYP DENOTES TYPICAL
- CL DENOTES CENTRE LINE
- EL. DENOTES ELEVATION
- ABUT. DENOTES ABUTMENT
- MIN. DENOTES MINIMUM
- MAX. DENOTES MAXIMUM
- DIA. DENOTES DIAMETER
- BRGS. DENOTES BEARINGS

FIGURE 30
INTERIM & ULTIMATE PRELIMINARY GENERAL ARRANGMENT

HIGHWAY 400/6th LINE INTERCHANGE
 SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
 ENVIRONMENTAL STUDY REPORT



SCALE
 N.T.S.

Table 7: Summary of Potential Environmental Effects and Proposed Mitigations

I.D #	Factors	Agency/Authority	Issue & Potential Effects	Proposed Mitigation Measure
1.1 Natural Environments				
1.1	Species at Risk	MNRF	<ul style="list-style-type: none"> Potential disruption to terrestrial habitat and SAR (including identified Barn Swallow, Eastern Meadowlark, Bobolink and Eastern Wood Pewee as well as potential Whip-poor-will). 	<ul style="list-style-type: none"> Prepare appropriate mitigation plan in detailed design phase for protection of existing Innisfil Creek watercourse and natural habitat. Ensure contractor's staff are trained to recognize potentially affected species and are required to notify authorities if any are encountered on site.
1.2	Terrestrial	Public	<ul style="list-style-type: none"> Accommodate wildlife passage across Highway 400. 	<ul style="list-style-type: none"> Consider maintaining a structure under Highway 400.
1.3	Erosion and Sediment	MOECC	<ul style="list-style-type: none"> Potential for erosion / sedimentation during construction. 	<ul style="list-style-type: none"> Incorporate standard erosion and sediment control measures into the construction contract, including measures to prevent off-site transport of sediment and prompt restoration of disturbed areas.
1.4	Groundwater Source Protection	MOECC	<ul style="list-style-type: none"> No wellhead protection areas or municipal wells were identified in the area. Potential impacts to private drinking water wells if extensive dewatering is necessary. 	<ul style="list-style-type: none"> Assess impacts to groundwater if dewatering is necessary.
1.5	Wetland Hydrology	NVCA	<ul style="list-style-type: none"> No provincially significant wetlands were identified within the Study Area and the Recommended Plan does not interfere with the provincially significant wetlands to the northeast. Potential disruption to or reduction of woodland and other wetlands as a result of construction of the 6th Line/Highway 400 interchange. 	<ul style="list-style-type: none"> Design alternatives and the selection of the TPA considered avoiding or minimizing impacts to the greatest extent possible. Prepare appropriate mitigation plan in detailed design phase for protection of existing Innisfil Creek watercourse and natural habitat.
2.0 Cultural Environments				
2.1	Archaeology	MTCS	<ul style="list-style-type: none"> Stage 1 Archaeological Assessment has identified areas of archaeological potential. 	<ul style="list-style-type: none"> If deeply buried archaeological remains are encountered during construction, the contractor must notify the Ministry of Tourism, Culture and Sport. A Stage 2 Archaeological Assessment will be completed during detail design.
2.2	Heritage	MTCS	<ul style="list-style-type: none"> No impacts were identified to Heritage buildings or property in the area. 	
2.3	Stormwater Quality	MOECC	<ul style="list-style-type: none"> Potential for erosion, flood risk and impact on water quality in the adjoining Innisfil Creek as a result of construction of the 6th Line/Highway 400 interchange. 	<ul style="list-style-type: none"> Stormwater management plan, in accordance with best management practice, including measures to improve stormwater runoff quality and attenuate flows.
3.0 Socio-Economic Environments				

Table 7: Summary of Potential Environmental Effects and Proposed Mitigations

I.D #	Factors	Agency/Authority	Issue & Potential Effects	Proposed Mitigation Measure
3.1	Property Impacts – Permanent	Property Owner	<ul style="list-style-type: none"> Property impacts (i.e. field tile drainage interception) as a result of partial property acquisition. 	<ul style="list-style-type: none"> Early coordination / communication with owner(s) and tenants to minimize disruption associated with property acquisition. Reinstatement of tile drainage in disturbed areas to original condition or better and provision of new outlet.
3.2	Property Impacts – Permanent	Property Owner	<ul style="list-style-type: none"> Property impacts (i.e. driveway realignment) for properties as a result of partial property acquisition. 	<ul style="list-style-type: none"> Early coordination / communication with owner(s) and tenants to minimize disruption associated with property acquisition. Incorporate design measures to reduce the length of realigned driveway(s) to reduce future maintenance costs (Alternative 3 or as modified by land owner) Incorporate pavement structure to accommodate future vehicle traffic (i.e. heavy farm trucks).
3.3	Noise Quality	MTO, MOECC, Town of Innisfil	<ul style="list-style-type: none"> Noise nuisance from construction equipment and vehicles during construction. Sound level changes as a result of construction of the 6th Line/Highway 400 interchange. 	<ul style="list-style-type: none"> Contractor will be required to abide by noise control bylaws for day-to-day operations. Noise analysis determined no meaningful change in sound levels that would require mitigation.
4.0 Transportation Environment				
4.1	Safety of Pedestrian / Cycling Public	MTO, Town of Innisfil	<ul style="list-style-type: none"> Potential for restricted movement during construction. Potential for safety and collision issues arising from increased traffic as a result of construction of the 6th Line/Highway 400 interchange. 	<ul style="list-style-type: none"> Provide alternate detour routes and advance notifications of temporary closures. Inclusion of sidewalk on bridge for pedestrians and MUP for active transportation.
4.2	Utilities	Town of Innisfil, Utilities	<ul style="list-style-type: none"> Potential for impacts to existing utilities as a result of construction of the 6th Line/Highway 400 interchange. 	<ul style="list-style-type: none"> Ensure advance coordination with utility companies and approval for any utility relocations / protection. Consider maintaining old road right-of-way for municipal services as design build proposal call is being initiated by InnServices.

7.6 Driveway Refinements

There were three driveway alternatives considered for 3325 6th Line.

- 1) Alternative 1: Relocate the driveway entrance from 6th Line to 5th Side Road. See **Figure 31**.
- 2) Alternative 2: Relocate the driveway to cut across property and attach to the existing west access driveway on 6th Line. See **Figure 31**.
- 3) Alternative 3: Realign the driveway to follow the property line along the proposed ramp to attach to the existing west access driveway on 6th Line. See **Figure 31**.

The preferred alternative for the property owner is Alternative 3.

Two driveways to the south of 6th Line, 3573 6th Line and 3581 6th Line, require extension to the north to meet with the realigned 6th Line. These driveway extensions are shown on the Recommended Plan, see **Figure 26** and **Figure 27**.

See **Appendix C** for meeting and consultation records regarding the driveway refinements.

7.7 Property Requirements

Land acquisition is required for the 6th Line Interchange as well as the realignment/extension of three driveways. The preliminary property requirements are illustrated on **Figure 26**.

7.8 Stormwater Management

The proposed 6th Line interchange increase the potential for stormwater runoff, erosion, flood risk and impact on water quality in the adjoining Innisfil Creek. A stormwater management plan for the proposed interchange, in accordance with best management practice, will mitigate this potential impact.

The proposed system will consist of a combination of swales and ditches and, where necessary, closed conveyance systems from the point of interception to storm water management ponds, outfalling at a controlled level of discharge to the Innisfil Creek. Flow-control dams and sustainable source control measures will be utilized to improve the stormwater runoff quality and attenuate flows throughout the proposed system. See **Table 8** for a summary of the stormwater management ponds design.

7.8.1 Design Criteria

Design flows for the minor and major systems are 10 years and 100 years respectively. The capacity of the system will be designed to ensure adequate freeboard and no increase in flood risk

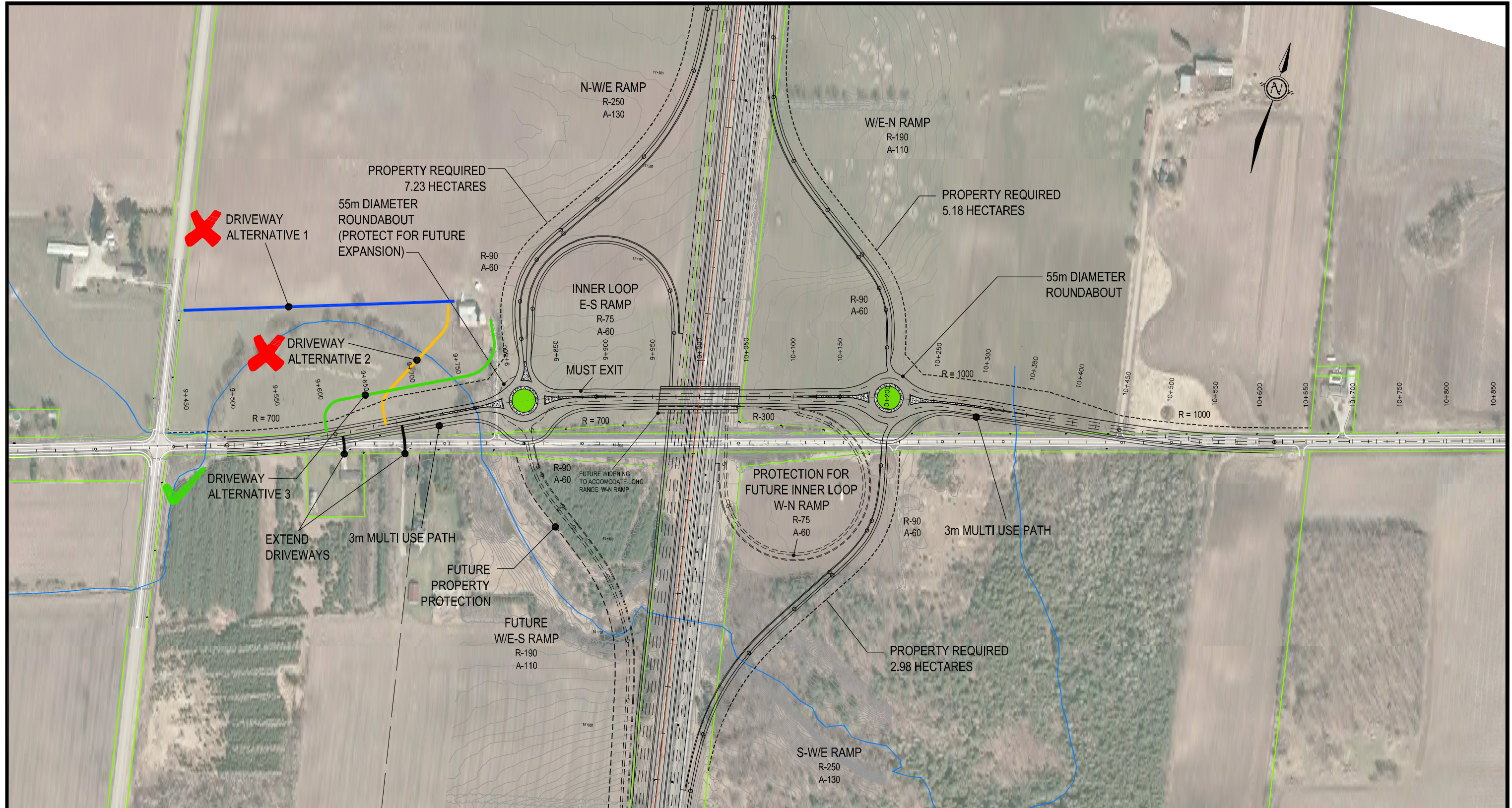
to adjoining properties. Any overland flow will be in accordance with the Design of Roadside Ditches (MTO).

Parameter	Value	Comment
Minor Storm System	10 year return period	MTO Drainage Design Standards (Urban Arterial)
Major Storm System	100 year return periods	MTO Drainage Design Standards (Urban Arterial)
Regional Design Storm/ Flood Hazard Criteria	Hurricane Hazel Storm or the 100 year flood, whichever is greater	MTO Drainage Design Standards
Rainfall intensity	City of Barrie – rainfall curve, climate change modified	

A series of storm water management ponds are planned for the proposed Highway 400 mainline widening. The proposed 6th Line Interchange design will incorporate storm water management ponds in the northwest and southeast quadrants (**Figure 26**). The sizing of these ponds will be completed during detailed design when design areas and constraints are further defined. It is proposed that Highway 400 will be realigned and ultimately widened ten lanes by MTO as a separate project. In addition to the 6th Line Interchange, the ponds may be sized to incorporate the future stormwater runoff of Highway 400 (ten lanes) in the vicinity of the 6th Line interchange; the extent of the contributing area will be confirmed with the MTO. For each pond the construction and location will be coordinated between the MTO and the Consultant Design Team for the Highway 400 mainline widening.

The drainage design for the proposed 6th Line interchange will incorporate the same design characteristics as the Highway 400 expansion focusing on both the quality and the control level of storm water discharge to the Innisfil Creek.

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- Legend:**
-  Preliminary Recommendation to Not Carry Forward
 -  Preliminary Recommendation to Carry Forward

FIGURE 31
DRIVEWAY ALTERNATIVES

HIGHWAY 400/6th LINE INTERCHANGE
 SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
 ENVIRONMENTAL STUDY REPORT



SCALE
 20m 40m
 HORIZONTAL 1:4,000

7.9 Structure

The preferred alternative, as show in **Figure 32**, is a girder bridge, similar to the other recent bridges over Highway 400 at various locations. The bridge is a two span integral abutment structure with RSS false abutments. NU2400 girders at 2800 mm spacing are used with a 225 mm thick concrete deck and 90 mm asphalt and waterproofing. Piers are a concrete pier cap supported by 1200 mm dia. concrete columns on spread footings. The bridge is sized to permit the full current Highway 400 cross section under the east span with limited shoulders. Full shoulders are provided in the final configuration. Future widening is limited to a 3 m widening for possible W-N ramp. The parapets are sized to be suitable for bicycle traffic at both the multi-use path and sidewalk sides of the structure (a minimum 1.2 m tall) in recognition of potential use of both sides of the bridge for cyclists. Concrete parapets with a 2 rail system are indicated. The MUP is separated from the live lanes with a standard concrete barrier (approximately 825 mm high) floating in the asphalt to minimize penetrations in the waterproofing.

The bridge type was selected for economy and consistency with the typical structures over Highway 400. The span arrangement facilitates the planned development of Highway 400. Pier and abutment design includes provision for the full cross section minimizing future disruption to Highway 400. The design will provide the same level of durability as the other recent bridges in the corridor.

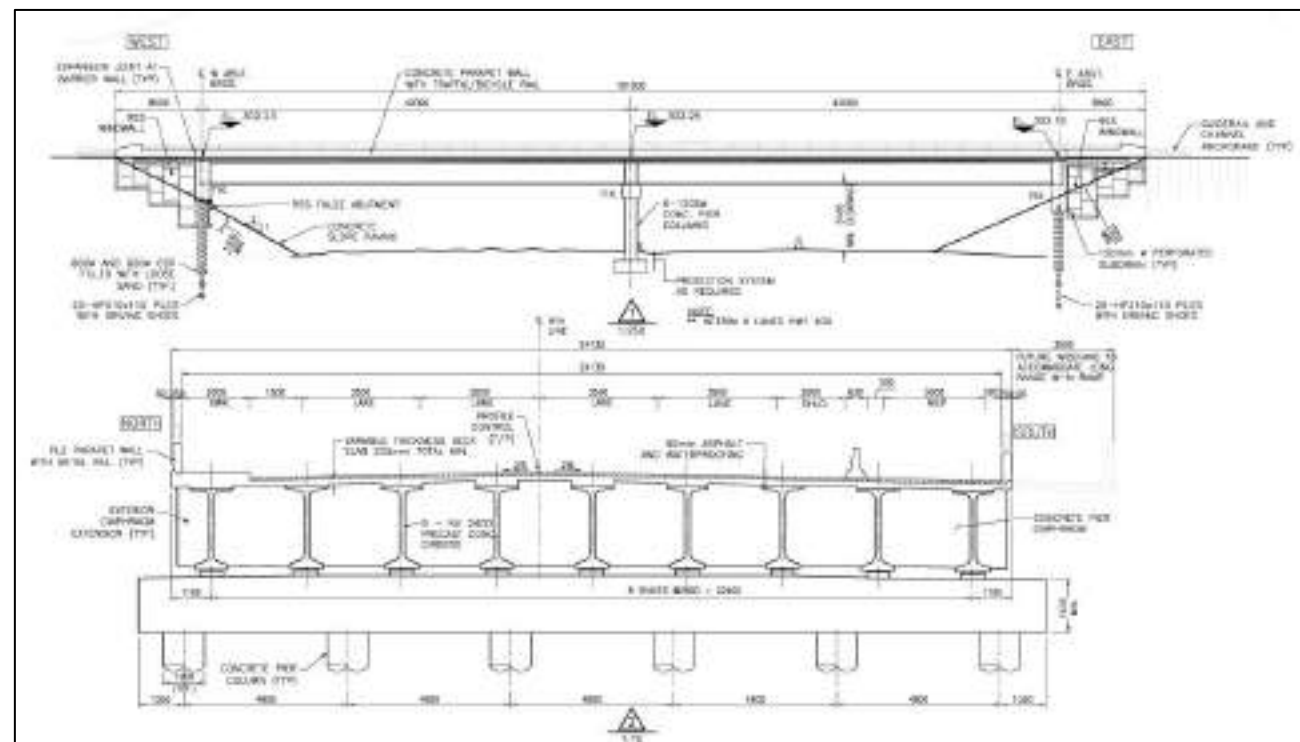


Figure 32: Recommended Bridge Cross Section and Elevation

7.10 Cost Estimate

The project cost for the construction of the complete interchange is illustrated in Table 9. This cost estimate reflects the value of the project in 2016 dollars recognizing there will be escalation to the future year of implementation. The Recommended Plan is the most cost effect design for the project as it avoids traffic staging costs associated with Highway 400. The new alignment for 6th Line allows the project to be implemented in a green-field and maintains traffic operation on both Highway 400 and the 6th Line. The Recommended Plan also achieves significant cost savings in comparison to alternatives that utilized the existing alignment of 6th Lane.

The project may be implemented in phases with the cost of the project split between phases. **Table 9** reflects the entire construction cost. In addition, the estimate includes a contingency allowance for additional design (undefined during the EA phase of the project) which may include design elements that will be determined following the geotechnical investigations.

Table 9 : Recommended Plan Alignment Cost Estimate

Recommended Plan – 6th Line Bridge constructed over Highway 400 on new alignment 50 m north of existing location to accommodate future interchange					
Alternative B2-2 (Partial Diamond with E/W-S Inner Loop and Roundabouts)					
Item #	Description	Unit	Quantity	Unit Price	Estimated Cost
1	Single Lane Ramp	m	1640	\$1,000	\$1,640,000
2	Speed Change Lane and Taper	m	1690	\$1,000	\$1,690,000
3	6th Line Road (open drainage)	m	950	\$2,500	\$2,375,000
4	6th Line Fill	Lump Sum	1	\$2,500,000	\$2,500,000
5	Highway 400 Traffic Staging	Lump Sum	1	\$1,000,000	\$1,000,000
6	Highway 400 Overpass Structure	m ²	2077.32	\$4,000	\$8,309,280
7	Innisfil Creek Structure	m ²	47	\$4,000	\$188,000
8	Innisfil Creek Culvert	m ²	30	\$800	\$24,000
9	Illumination (Conventional)	Lump Sum	1	\$215,500	\$215,500
10	New Farm Driveway	m	350	\$250	\$87,500
11	Rural Property Acquisition	Lump Sum	1	\$1,000,000	\$1,000,000
12	55m Roundabout	Each	2	\$1,300,000	\$2,600,000
13	Stormwater Management Pond	Lump Sum	1	\$250,000	\$250,000
				Subtotal	\$21,879,280
				Contingency (30%)	\$6,563,784
				Total	\$28,443,064

7.11 Statement of Flexibility

The TAC has supported an approach within the ESR that will allow the Town of Innisfil flexibility in implementing the Recommended Plan. Because the need for the project infrastructure has two time horizons (MTO immediate need to replace the bridge and subsequent Town need for addition of interchange ramps to accommodate development) the project will be completed in phases.

Elements of flexibility will include:

- Minor design revisions to the ramp terminal/roundabout designs if necessary, based on MTO design approvals during the detail design that may include an E-S right turn bypass lane.
- Ability to phase the project to allow MTO to construct only the grade separation as a first priority project to replace the aging Highway 400/6th Line structure and to accommodate widening of Highway 400 to 10 lanes.
- Ability to implement a property protection plan to accommodate an ultimate Parclo A4 interchange design when triggered by future growth.
- The public identified benefits to a wildlife movement under the freeway. Variations of crossings could be considered by MTO during the detailed design of the Highway 400 widening.
- Minor modifications within the footprint of the interchange ramps for stormwater management facilities.

7.12 Future MTO Approvals

The level of detail of the design presented in the ESR will require Ministry approval during detail design. Design of the new structure and grade separation is being undertaken by MTO. It is a commitment of the ESR that there will be 60%, 90% and 100% MTO submissions for the design of the full interchange/ramp terminal construction.

8.0 Future Activities

At the end of the 30-day review period, should there be no objections to the project Environmental Clearance will have been achieved. The Town may proceed with design and construction of the recommended plan, subject to availability of funding and construction priorities.

Following EA clearance, this project, or any individual element of this project, may proceed to detail design and construction. The final design will be subject to MTO approvals.

8.1 Future EA Studies

The 5th Side Road and 6th Line intersection should be planned for phased expansion of the unsignalized configuration followed by signalized (or roundabout) intersection options. This planning should also define upstream and downstream controls of the future intersections for access to future developments on 5th Sideroad. The 5th Sideroad is under the jurisdiction of the County of Simcoe who will be responsible for the future planning of this road.

8.2 Future Detail Design Investigations

A member of the public identified a concern with the upgrades to 6th Line for future consideration. The proposed changes will remove a corridor for wildlife to cross under Highway 400. Future investigations, to be completed by MTO, may consider creating an alternative route under a widened Highway 400 in order to accommodate the movement of wildlife and will be reviewed during detail design of the widening of Highway 400.

Glossary of Terms

• AANDC	Aboriginal Affairs and Northern Development Canada	• Class Environmental Assessment Document	An individual environmental report documenting a planning process which is formally submitted under the EA Act. Once the Class EA document is approved, projects covered by the class can be implemented without having to seek further approvals under the EA Act provided the Class EA process is followed.
• AADT	Annual Average Daily Traffic – the average 24-hour, two-way traffic for the period from January 1st to December 31st.	• Class Environmental Assessment Process	A planning process established for a group of projects in order to ensure compliance with the Environmental Assessment (EA) Act. The EA Act, in Section 13 makes provision for the establishment of Class Environmental Assessments.
• Alignment	The vertical and horizontal position of a road.	• Compensation	The replacement of natural habitat lost through implementation of a project, where implementation techniques and other measures could not alleviate the effects.
• Alternative	Well-defined and distinct course of action that fulfils a given set of requirements. The EA Act distinguishes between alternatives to the undertaking and alternative methods of carrying out the undertaking.	• Corridor	A band of variable width between two locations. In transportation studies a corridor is defined area where a new or improved transportation facility might be located.
• Alternative Planning Solutions	Alternative ways of solving problems or meeting demand (Alternatives to the Undertaking).	• Criterion(a)	Explicit feature or consideration used for comparison of alternatives.
• Alternative Design Concepts	Alternative ways of solving a documented transportation deficiency or taking advantage of an opportunity. (Alternative methods of carrying out the undertaking).	• CSP	Corrugated Steel Pipe
• Alternative Project	Alternative Planning Solution, see above.	• Cultural Heritage Landscape	A defined geographical area of heritage significance which has been modified by human activities and is valued by a community. It involves a grouping(s) of individual heritage features such as structures, spaces, archaeological sites and natural elements, which together form a significant type of heritage form, distinctive from that of its constituent elements or parts. The Provincial Policy Statements states that significant built heritage resources and significant cultural heritage landscapes shall be conserved.
• ANSI	Area of Natural or Scientific Interest		
• Berm	Earth landform used to screen areas.		
• BMP	Best management practice.		
• BRT	Bus Rapid Transit		
• Bump-Up	The act of requesting that an environmental assessment initiated as a class EA be required to follow the individual EA process. The change is a result of a decision by the proponent or by the Minister of Environment to require that an individual environmental assessment be conducted.		
• Bypass	A form of realignment in which the route is intended to go around a particular feature or collection of features.		
• Canadian Environmental Assessment Act (CEAA)	The CEAA applies to projects for which the federal government holds decision-making authority. It is legislation that identifies the responsibilities and procedures for the environmental assessment.		

<ul style="list-style-type: none"> • Cumulative Effects Assessment 	<p>Cumulative Effects Assessment assesses the interaction and combination of the residual environmental effects of the project during its construction and operational phases on measures to prevent or lessen the predicted impacts with the same environmental effects from other past, present, and reasonably foreseeable future projects and activities.</p>	<ul style="list-style-type: none"> • Environmental Effect 	<p>A change in the existing conditions of the environment which may have either beneficial (positive) or detrimental (negative) effects.</p>
<ul style="list-style-type: none"> • Decibel (dB) 	<p>A logarithmic unit of measure used for expressing level of sound.</p>	<ul style="list-style-type: none"> • ESA 	<p>Environmental Site Assessment</p>
<ul style="list-style-type: none"> • dB(A) 	<p>'A' weighted sound level; the human ear cannot hear the very high and the very low sound frequencies as well as the mid-frequencies of sound, and hence the predicted sound levels, measured in dB(A), are a reasonable accurate approximation of sound levels heard by the human ear.</p>	<ul style="list-style-type: none"> • Equivalent Sound Level (Leq) 	<p>The level of a continuous sound having the same energy as a fluctuating sound in a given time period. In this report Leq refers to 24-hour, 16 or 18-hour averages.</p>
<ul style="list-style-type: none"> • Detail Design 	<p>The final stage in the design process in which the engineering and environmental components of preliminary design are refined and details concerning, for example, property, drainage, utility relocations and quantity estimate requirements are prepared, and contract documents and drawings are produced.</p>	<ul style="list-style-type: none"> • ESR 	<p>Environmental Study Report.</p>
<ul style="list-style-type: none"> • DFO 	<p>Department of Fisheries and Oceans.</p>	<ul style="list-style-type: none"> • Evaluation 	<p>The outcome of a process that appraises the advantages and disadvantages of alternatives.</p>
<ul style="list-style-type: none"> • EA 	<p>Environmental Assessment</p>	<ul style="list-style-type: none"> • Evaluation Process 	<p>The process involving the identification of criteria, rating of predicted impacts, assignment of weights to criteria, and aggregation of weights, rates and criteria to produce an ordering of alternatives.</p>
<ul style="list-style-type: none"> • EA Act 	<p>Ontario Environmental Assessment Act (as amended by S.O. 1996 C.27), RSO 1980.</p>	<ul style="list-style-type: none"> • External Agencies 	<p>Include Federal departments and agencies, Provincial ministries and agencies, conservation authorities, municipalities, Crown corporations or other agencies other than MTO.</p>
<ul style="list-style-type: none"> • Environment 	<ul style="list-style-type: none"> • Air, land or water, • Plant and animal life, including man, • The social, economic and cultural conditions that influence the life of man or a community, • Any building structure, machine or other device or thing made by man, • Any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from the activities or man, or • Any part or combination of the foregoing and the interrelationships between any two or more of them, in or of Ontario. 	<ul style="list-style-type: none"> • Factor 	<p>A category of sub-factors.</p>
		<ul style="list-style-type: none"> • Flyover 	<p>A grade separation with the side road over the freeway. Also described as an underpass.</p>
		<ul style="list-style-type: none"> • Freeway 	<p>Freeways are controlled access median divided highway facilities with grade separated crossings and interchanges (e.g. Highway 401).</p>
		<ul style="list-style-type: none"> • Grade Separation 	<p>The separation of a cross road with a vertical grade difference from the freeway. Also see overpass, underpass or flyover.</p>
		<ul style="list-style-type: none"> • HADD 	<p>Harmful Alteration, Disturbance or Destruction of fish habitat.</p>
		<ul style="list-style-type: none"> • Individual Environmental Assessment 	<p>An environmental Assessment for an undertaking to which Assessment the EA Act applies and which requires formal review and approval under the Act.</p>
		<ul style="list-style-type: none"> • Interchange 	<p>The intersection between two roadways at different levels with connecting ramps for traffic turning between them.</p>
		<ul style="list-style-type: none"> • LRSCA 	<p>Lake Simcoe Region Conservation Authority</p>

• Mitigating Measure	A measure that is incorporated into a project to reduce, eliminate or ameliorate detrimental environmental effects.
• Mitigation	Taking actions that either remove or alleviate to some degree the negative impacts associated with the implementation of alternatives.
• MNRF	Ministry of Natural Resources and Forestry
• MOECC	Ministry of the Environment and Climate Change
• MTO	Ministry of Transportation Ontario
• MUP	Multi-use pathway
• Noise Attenuation	A mitigation measure used to lessen the intensity of the noise level (dBA) where the noise level is increased in a noise sensitive area greater than 5 dBA 10 years after completion.
• NSA	Noise Sensitive Area is a noise sensitive land use, which has an outdoor living area associated with the residential unit.
• NVCA	Nottawasaga Valley Conservation Authority
• OP	Official Plan
• OLA	Outdoor Living Area is the part of an outdoor amenity area provided for the quiet enjoyment of the outdoor environment.
• Overpass	Cross road goes under the highway.
• Part II Order	The Environmental Assessment Act (EAA) has provisions that allow and interested person, Aboriginal community, or government agency to ask for a higher level of assessment for a class environmental assessment (Class EA) project if they feel that there are outstanding issues that have not been adequately addressed. This is known as a Part II Order
• Planning Alternatives	Planning alternatives are “alternative methods” under the EA Act. Identification of significant transportation engineering opportunities while protecting significant environmental features as much as possible.

• Planning Solutions	That part of the planning and design process where alternatives to the undertaking and alternative routes are identified and assessed. Also described as “Alternative Project” under the federal EA Act.
• POH	Public Open House
• Prime Agricultural Areas	Prime agricultural areas as defined in municipal official plans and other government policy sources.
• Project	A specific undertaking planned and implemented in accordance with this Class EA including all those activities necessary to solve a specific transportation problem.
• Project Team	The project team include the Town of Innisfil, and Consultant technical management team who lead all technical elements of the study.
• Proponent	A person or agency that carries or proposes to carry out an undertaking, or is the owner or person having change, management, or control of an undertaking.
• Public	Includes the general public, interest groups, associates, community groups, and individuals, including property owners.
• RA	Responsible Authority from the Federal government who will act as the lead agency in administering the processing of the federal CEAA screening for this project
• Realignment	Replacement or upgrading of an existing roadway on a new or revised alignment.
• Recommended Plan	That part of the planning and design process, during which various alternative solutions are examined and evaluated including consideration of environmental effects and mitigation; the recommended design solution is then developed in sufficient detail to ensure that the horizontal and vertical controls are physically compatible with the proposed site, that the requirements of lands and rights-of-way are satisfactorily identified, and that the basic design criteria or features to be contained in the design, have been fully recognized and documented in sufficient graphic detail to ensure their feasibility.
• Route Alternatives	Location alternatives within a corridor.

• RSC	Record of Site Condition
• SADT	Summer Average Daily Traffic – the average 24-hour, two-way traffic for the period from July 1 st to August 31 st including weekends.
• SAR	Species at Risk
• Screening	Process of eliminating alternatives from further consideration, which do not meet minimum conditions or categorical requirements.
• Sub-factor	A single criterion used for the evaluation. Each sub-factor is grouped under one of the factors.
• SWH	Significant Wildlife Habitat
• TAC	Technical Advisory Committee
• TDM	Transportation Demand Management
• TSM	Transportation System Management
• TMP	Transportation Master Plan
• TPA	Technically Preferred Alternative
• Traceability	Characteristics of an evaluation process which enables its development and implementation to be followed with ease.
• Underpass	Cross road goes over the highway.
• Undertaking	In keeping with the definition of the Environmental Assessment Act, a project or activity subject to an Environmental Assessment.

Disclaimer

All personal information has been removed, including names and addresses, in accordance with the *Freedom of Information and Protection of Privacy Act*.

Appendix A

Study Design

Figure 5: Municipal Class EA Process	10
Figure 6: Simplified Generalized EA Process	11
Figure 7: Evaluation Summary of Alternative Planning Solutions/Alternatives to the Undertaking (Source: Innisfil 2013 TMP)	25
Figure 8: Alternative Interchange Types	30
List of Photos	
Photo 1: Vertical Curves on 6 th Line	32
Photo 2: Current Overpass Structure	32
List of Tables	
Table 1: Study Schedule	20
Table 2: 5th Line versus 6th Line Interchange Evaluation Summary	28

1.0 Study Introduction

1.1 Preface

The Town of Innisfil (Town) has initiated this Municipal Class Environmental Assessment (EA) to plan for a new interchange on Highway 400 at the 6th Line. This interchange has been identified in the Town's Official Plan (OP) and Transportation Master Plan (TMP). This current Study will review the previous analysis for the interchange identified in the TMP, validate those conclusions (which should satisfy Phases 1 and 2 of the Municipal Class EA) and then undertake Phases 3 and 4 of the Municipal Class EA for a proposed interchange at 6th Line and Highway 400.

This report is the initial public document for the 6th Line Interchange EA Study. It presents a blueprint of the Work Plan and Study Process for the planning and design of this future transportation project.

1.2 Study Area

The project location is within the County of Simcoe and Town of Innisfil as illustrated in **Figure 1**. The Study will provide options for a new interchange in the central area of Simcoe County on Highway 400. Improvements to 6th Line and a new interchange will service the Expansion Area in the Town of Innisfil. The Study Area, illustrated in **Figure 2**, will extend from the 5th Sideroad easterly to approximately 600 m east of Highway 400. A secondary Study Area will consider downstream influences of trips attracted to the new interchange.

1.3 Background

Town of Innisfil Official Plan

The 2011 OP identified future potential interchanges on Highway 400 as shown in **Figure 3**. The OP identified 5th Line as a

potential interchange coinciding with a potential GO station at the 5th Line and 20th Sideroad intersection.

The Town of Innisfil Official Plan review is in progress and is expected to be finalized by the end of 2016. In this review, the location of the new interchange is being reviewed to consider modifying the previous plan and relocating the proposed interchange from 5th Line to 6th Line. The Transportation Master Plan and this current interchange EA study will provide input into the update of the Official Plan.

Town of Innisfil Transportation Master Plan (TMP) 2013

Phases 1 and 2 of the Municipal Class EA that were completed by the TMP involve confirming the need and justification of a set of transportation projects. The Town of Innisfil completed a Transportation Master Plan (TMP) in 2013 that identified both improvements to the 6th Line and an interchange on the 6th Line at Highway 400. This review by the TMP completed the first two phases of the Class EA considering a Regional level analysis of needs.

The 2013 TMP identified the 2031 transit and roadway network requirements based on a specific distribution of population and employment activities within the Town of Innisfil.

The TMP discusses the Ontario Growth Plan for Simcoe County and the identification of the settlement of Alcona, located to the northeast of the Study Area as a Primary Settlement area. Alcona is expected to see the highest population growth of the area and developers intend to build new homes south of Alcona in the development area called Sleeping Lion. The TMP for the Town of Innisfil has recommended revising the Official

Plan to identify 6th Line as a preferred corridor for road improvements and the location for a new interchange with Highway 400, as illustrated in **Figure 4**.

The TMP reviewed potential interchanges on Highway 400 at either the 5th Line or the 6th Line. An interchange at 5th Line will reduce traffic on Innisfil Beach Road and Shore Acres Drive / County Road 89 which are currently the only two roads that connect with Highway 400. An interchange at 6th Line will support future growth and provide better access to Innisfil Heights as well as the Sleeping Lion development in Alcona (if upgrades to 6th Line from Highway 400 to 20th Sideroad are also implemented). This location reduces out-of-way travel in comparison to the 5th Line interchange location. A comment received from the public requested the review of an interchange at 4th Line. These three potential interchange locations are described as the Planning Alternatives.

The assessment of the interchange locations is described in **Section 7.3**.

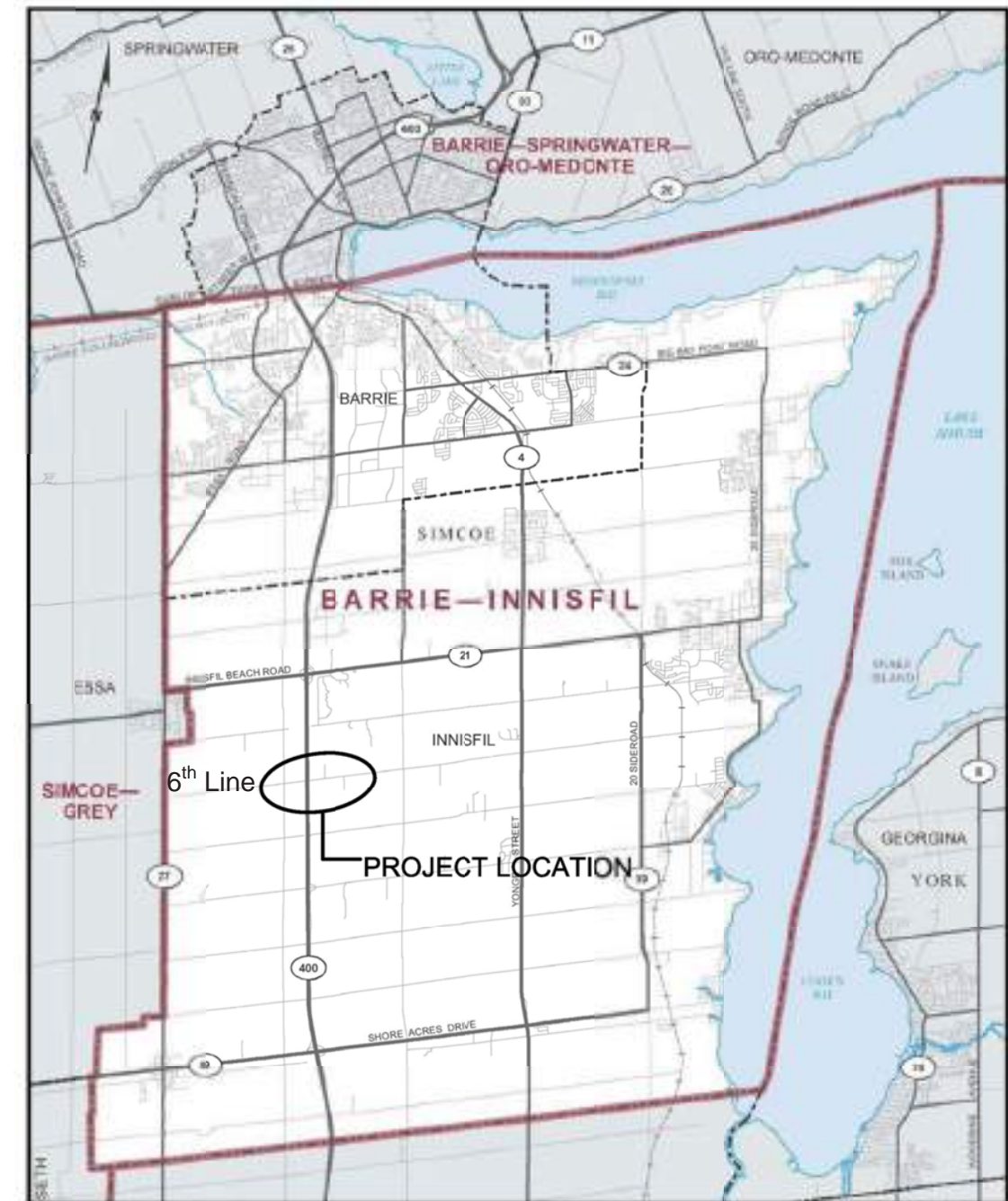


Figure 1: Project Location

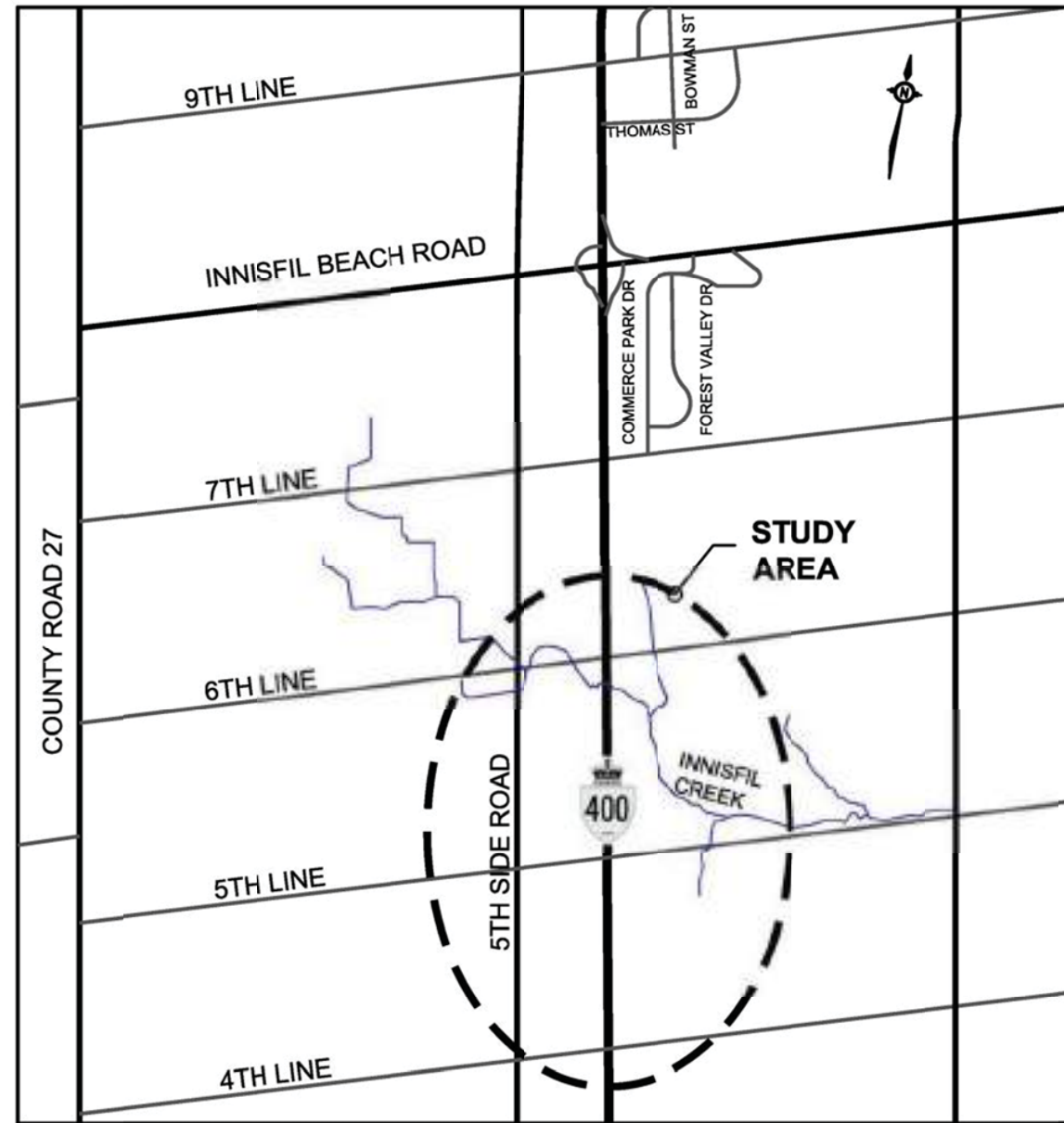


Figure 2: Study Area



Figure 3: Innisfil Road Classification and Right-of-Way Widths
 (Source: Innisfil OP 2006 as approved by OMB 2009, 2010 and 2011)

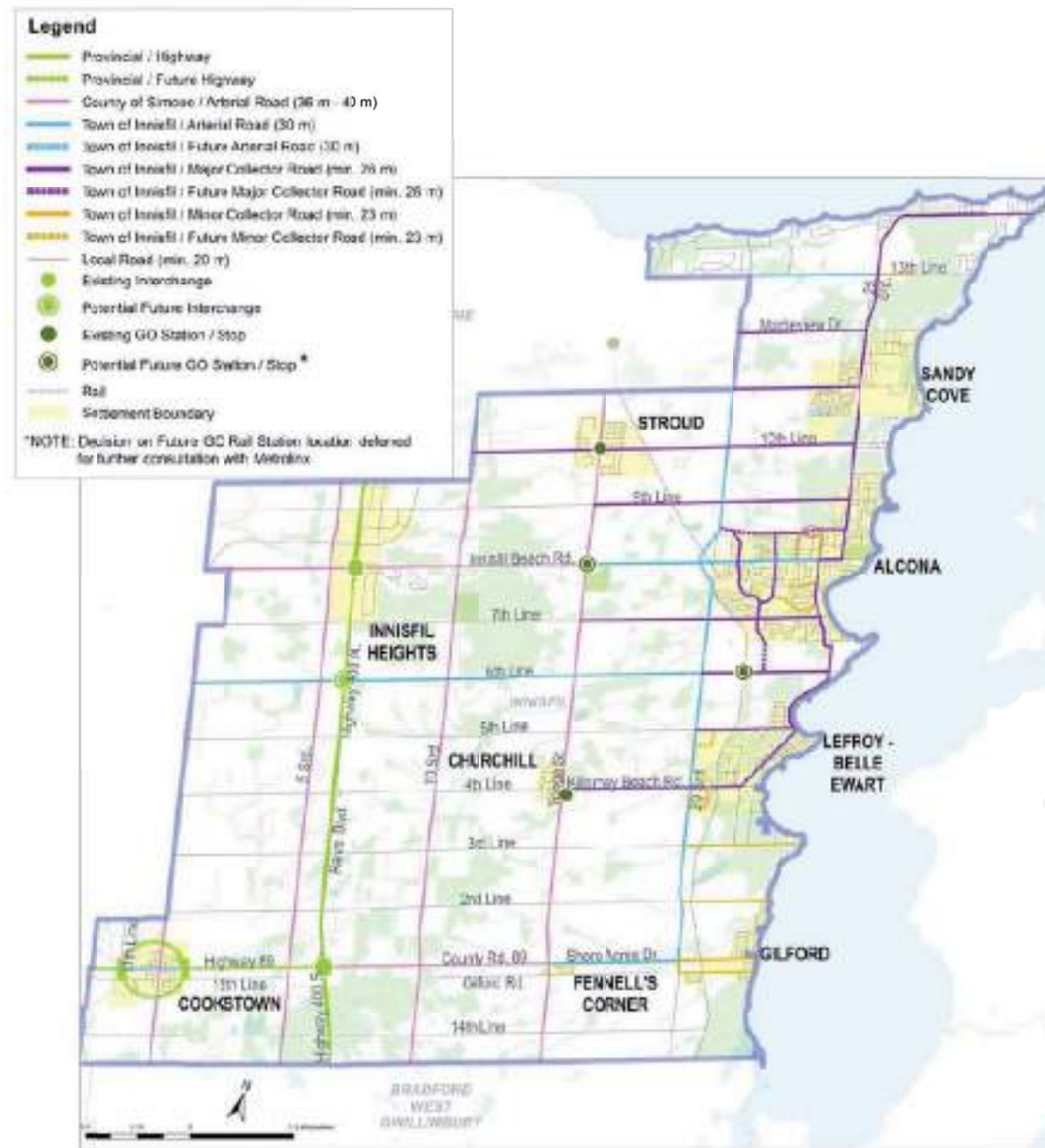


Figure 4: Transportation Master Plan (TMP) Recommended Revisions to Official Plan Schedule C – Transportation Network
(Source: Innisfil TMP 2013)

2.0 Study Approach

This Study will be completed as a standalone EA study meeting the requirements the Municipal Class EA. The final documentation will be a single Environmental Study Report (ESR).

This project will complete all requirements of a Schedule C project under the Municipal Class EA by establishing the need and justification for the project, considering all reasonable alternatives with acceptable effects on the natural, social and cultural environments, and proactively involving the public in defining a recommended plan for improvements. Should the project trigger federal approvals, the documentation will present recommended mitigation to satisfy federal requirements in principle.

2.1 Guiding Principles

The study approach includes the following Ministry of the Environment and Climate Change's (MOECC) five guiding principles for EA studies, namely:

- Consider all reasonable alternatives;
- Provide a comprehensive assessment of the environment;
- Utilize a systematic and traceable evaluation of net effects;
- Undertake a comprehensive public consultation program; and,
- Provide clear and concise documentation of the decision-

making process and public consultation program.

2.2 Environmental Assessment Act Requirements

The Environmental Assessment will follow a Class EA process meeting the requirements of the Municipal Class EA (amended 2011 and 2015).

Based on the range of anticipated effects and capital cost of the project, the study is being initiated as a Municipal Schedule C project. The Town of Innisfil will be the proponent of the project and will consult with the MTO in regard to all aspects of the Class EA. MTO is the regulatory agency and has Corridor Control within 400 m of the freeway.

This Schedule C project will include two Public Open Houses (POHs) and will conclude with the preparation of an ESR report. Following this approach the public will be provided a 30-day review period at the Study conclusion. As the initial step in the Class EA process this Study Design Report is being made available to the public as the discretionary Step 1.2 in the Municipal Class EA process illustrated in **Figure 5**. The public and agencies will have this initial opportunity to comment on this proposed approach.

2.3 EA Phases

2.3.1 Municipal Class EA

The Municipal Class EA Process is illustrated in **Figure 5**.

The following is the specific breakdown of tasks by phase for a Municipal Schedule C project:

**Phase 1: Identify the Problem
(completed by the TMP)**

- Step 1: Identification and description of the problem or opportunity.
- Step 2: Discretionary public consultation (Draft Study Design available on the Town's website).

**Phase 2: Alternative Solutions
(completed by the TMP)**

- Step 1: Identification of alternative solutions to the problem.
- Step 2: Identify the study area and a general inventory of the natural, social and cultural environments.
- Step 3: Identification of the net positive and negative effects of each alternative solution.
- Step 4: Review and validation of Alternative Solutions considered by TMP and preliminary recommendation of a preferred solution.
- Step 5: Identification of Reasonable design alternatives for the preferred solution.
- Step 6: Public consultation at POH No.1.
- Step 7: Confirmation; finalization of Study Design for work program; and refinements and/or addition of interchange design alternatives to be carried forward for Phase 3.
- Step 8: Selection of the preferred solution, following public and agency review.

**Phase 3: Alternative Design Concepts
for the Preferred Solution**

- Step 1: Identification of alternative designs.
- Step 2: Preparation of a detailed inventory of the social and economic environments.
- Step 3: Identification of the potential impacts of the alternative designs.
- Step 4: Evaluation of the alternative designs.
- Step 5: Public consultation at POH No. 2.

**Phase 4: Environmental Study Report
(ESR)**

- Step 1: Completion of the ESR.
- Step 2: 30-day public review period
- Step 3: File the ESR and Notice of Completion.

Phase 5: Implementation

Future phase after this Study.

2.4 Study EA Process

The Municipal EA process proposed for the 6th Line Interchange EA study documents the extended activities from the Municipal Class EA to meet and achieve the requirements of the Canadian Environmental Assessment Agency (CEAA).

The environmental clearance does not require a formal approval in the Provincial/Municipal context (i.e. it is a self-assessment exercise), whereas, formal approvals will be required under the Federal process. In fact, the review and acceptance of the design drawings

and contract documents at the design stage of the project will be required before CEAA approval is given to the project.

A simplified generalized EA process is illustrated in **Figure 6**.

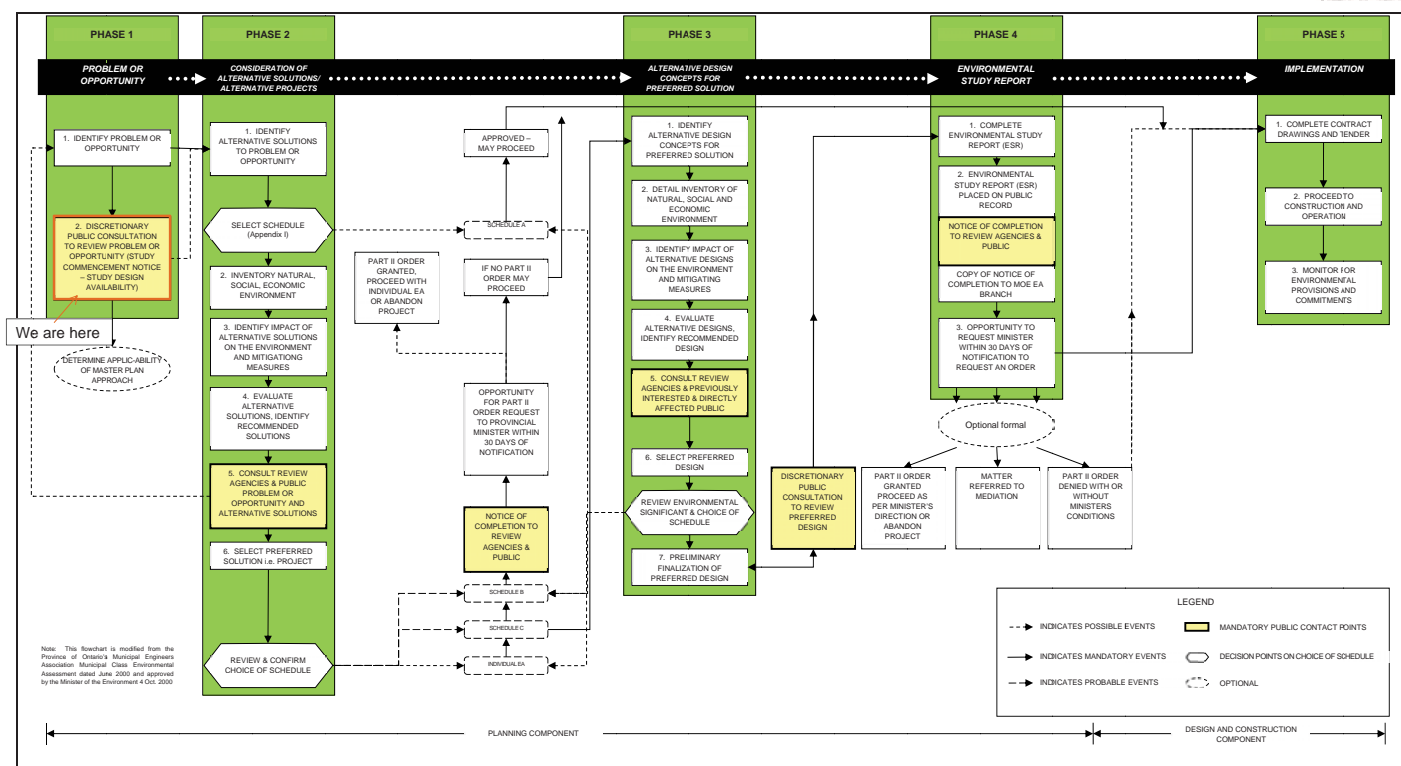


Figure 5: Municipal Class EA Process

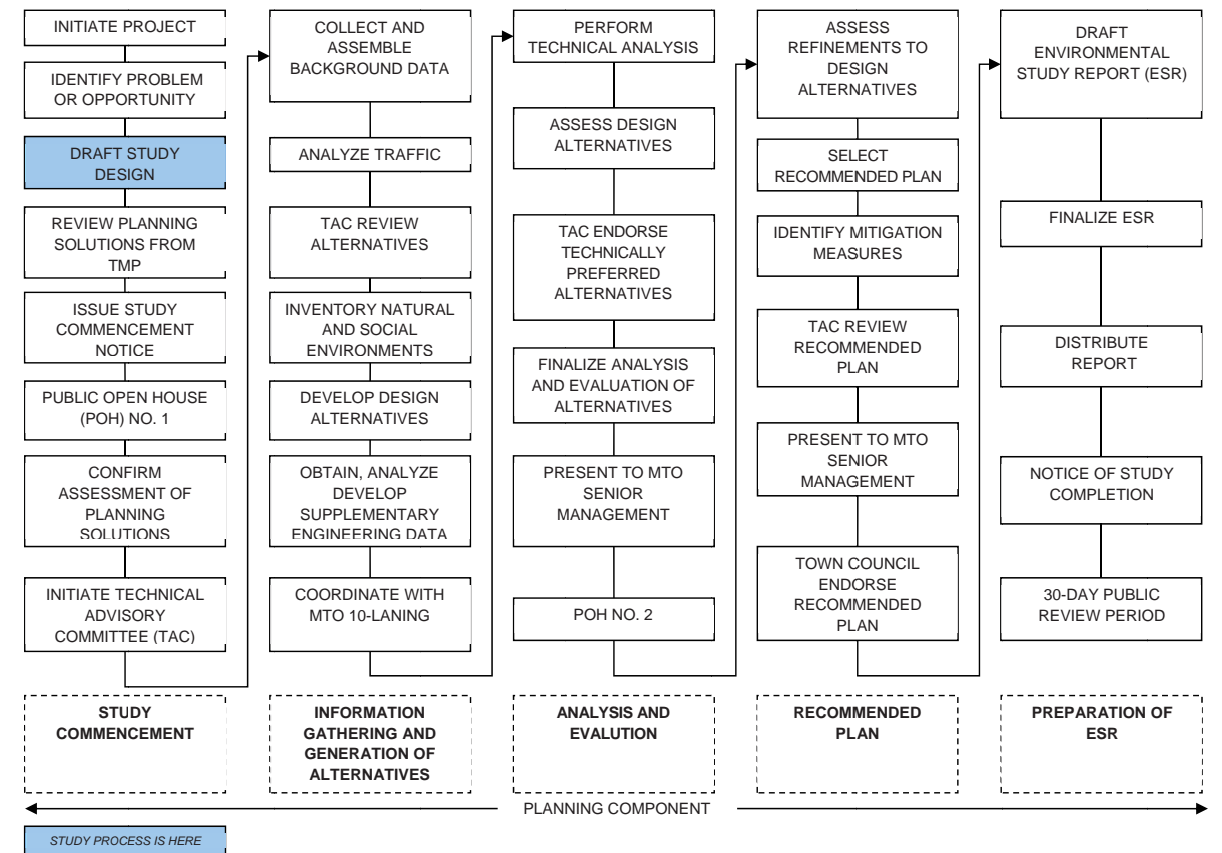


Figure 6: Simplified Generalized EA Process

3.0 Study Process

3.1 Public Consultation Process

The public consultation approach reflects the identified study issues. Several techniques will be used to proactively involve the public including Public Open Houses (POH's) and meetings with a Technical Advisory Committee (TAC) of external agencies that may include: Town of Innisfil; Ministry of Transportation of Ontario (MTO); MTO; Ministry of Natural Resources and Forestry (MNR); Emergency Services; Lake Simcoe Region Conservation Authority (LSRCA); and Nottawasaga Valley Conservation Authority (NVCA).

The TAC will act as the decision-making group making all technical decisions and completing the analysis and evaluation exercise. Other key interest groups and utility companies will be contacted and consulted.

The use of separate meetings with external agencies and interest groups will ensure the highest level of communication with the community on issues and alternatives.

With respect to public involvement, the work program proposes the following key elements:

- Study Commencement Notice and POH notices in local papers and mailed to agencies, First Nations and Utilities.
- Posting a draft Study Design online on the Town's website.
- Maintaining and updating a study mailing list.

- POH No. 1 will present the project goals, problem and opportunity statement, draft Study Design Report (Work Plan), assessment of Alternative Planning Solutions, environmental inventories, traffic analysis, assessment of Alternative Planning Solutions, design criteria for roads and structure under study, preliminary coarse screening of Design Alternatives (interchange types, cross section and structure types) and seek public/agency input. A session will be scheduled to present information to agencies and elected officials in advance of the public.
- POH No. 2 will present the evaluation of preliminary design alternatives and a preferred design and seek public/agency input. A session will be scheduled to present information to agencies and elected officials in advance of the public.
- It is essential that there be involvement and interaction with the regulatory agencies and groups.

3.2 First Nations Consultation

The following First Nations groups, as a minimum, will be contacted throughout the project and will be notified of the EA Commencement, the POH and Study Completion:

- Beausoleil First Nation
- Chippewas of Georgina Island First Nation
- Chippewas of Rama First Nation
- Metis of Ontario
- Coordinator for the Williams Treaties First Nation

- Ontario Native Affairs Secretariat
- Ministry of Aboriginal Affairs, Consultation Unit

3.3 Work Program

The major elements of our technical work program include the following:

Task 1: Project Start-Up

Upon initiation of the project, we will meet to review study scope, budget and schedule, establish members and meeting dates and role of the Technical Advisory Committee (TAC) and prepare all required agreements. The TAC will provide guidance into the technical elements of the study including the study issues, data collection and weighting of factors and the evaluation of alternatives (See **Task 7**).

Task 2: Information Gathering

The collection and organization of the data necessary for the analysis, evaluation and design activities will include:

- Assembly and review of the study materials;
- Field reviews and the collection of photographs to maintain a visual record of existing conditions;
- Collect reports and modelling data/output from the Town's TMP (2013);
- Obtain digital aerial photography and AutoCAD files from the 6th Line Environmental Assessment for improvements from County Road 27 and St. Johns Road (expected to be completed early 2016);

- Review the Official Plan, relevant Official Plan Amendments and Secondary Plans;
- Gather existing natural/social environmental inventories and stormwater reports; and
- Review of existing and projected traffic volumes as identified in any area traffic studies and the TMP.

Task 3: Study Design and Value Planning Workshop

The Study Design (this Scoping Document) describes, at the outset of the study, our intended approach in completing this EA assignment. It will present:

- Our consultation plan;
- Detailed project schedule; and,
- Identify the scope of the study's technical requirements (related to traffic and construction traffic management, highway engineering, drainage/stormwater management, structures, illumination, traffic signals), design standards and proposed evaluation criteria.

The Study Design document will help establish the foundation for all the remaining environmental planning and public consultation processes. This document will be posted on the Town website following acceptance by MTO and the Town and sent to external agencies for public review and comment. The Study Design allows the early identification of the major issues and concerns, and in addition,

recognizes areas of consensus or agreement. It defines the Problem Statement.

Task 4: Transportation Analysis

The transportation analysis will build upon the previous work that has been completed. We will examine, in greater detail, the operational implications of existing and projected traffic demands and the improvement alternatives. In this regard, the transportation analysis will involve the following key tasks:

- An initial review of the previous traffic modelling activities. It will provide an independent and objective professional assessment of the need and justification, which will be documented in the Problem Statement.
- Documentation of existing profile of road users including all modes of travel (vehicular, bicycles, pedestrians and emergency services).
- Consideration of all transportation modes, including bicycles and pedestrian traffic.
- Identification of existing/future operational problems and timelines for need for additional capacity of the transportation network.
- Providing input into the performance of each alternative (traffic operation and safety).
- Provision of input on the safety for the freeway and ramp terminals to be used in the MATS evaluation (**Task 7**).

- Confirmation of the need and justification for roadway improvements and timing.

The traffic analysis will provide a documentation of the traffic Synchro modelling within the study area and measure the operational performance of intersections and roadway links. (Arcady analysis of any roundabout alternative will also be documented.) The traffic report will also provide recommendations on the timing of the improvements. This analysis will be used to identify the preliminary design level of geometric needs of the various alternatives (i.e. storage lengths, auxiliary lanes, signal/traffic controls etc.) and in addition, will be used to evaluate the impacts/benefits of the various competing alternatives.

VISSIM modelling analysis will be utilized to review the potential of a 5th Line interchange location.

Task 5: Inventory of Natural, Social and Cultural Environment

Social Environment

Areas of investigation will include existing and proposed land uses, land use policies and regulations, aesthetics, recreation facilities, and links with pedestrian and cycling facilities. This will document the community plan of the existing and future land uses and form the baseline from which alternatives will be measured. This is expected to include dialogue with major land owners in the Study Area.

Noise Analysis

The acoustical assessment for this project will determine existing daytime sound level contours and future sound levels associated with the improvements for areas with existing residential (noise sensitive) land uses. STAMSON noise software will be used for the noise assessment. If the project becomes complex, STAMINA will be used. Noise mitigation will be assessed in accordance with applicable standards and bylaws and MTO Environmental Reference Manual. Any proposed noise mitigation will be consistent with the existing land uses and will define the future sound levels that might need to be mitigated by land developers for future residential and noise sensitive land uses in the study area. The need for mitigation will be based on both the total sound level and the forecast changes.

Natural Habitat Assessment

The area of the 6th Line/Highway 400 new interchange is a transformed urban landscape recognised to support only a limited extent of natural habitat.

The natural environment review will investigate and categorize the natural and near-natural habitats of the study area and identify their supporting ecological functions. These investigations, aided through advance consultation with the MNRF, will be strategically focussed on specific significant features. Particular attention

will be paid to the potential occurrence of designated terrestrial Species at Risk (SAR) including meadowlarks, bobolinks and barn swallows, which are typically associated with transportation projects involving transformed landscapes. SAR Butternut trees also have potential to occur. We will identify and assess all provincially or regionally significant features known or found to be present. Multi-visit protocol investigation for Species at Risk (SAR) will not be conducted so far in advance of construction, however, since any such investigations are most reliably undertaken shortly before anticipated site disturbance.

A single summer field investigation will be sufficient to provide the necessary original ecological site information and potential SAR conditions in order to assist with the TPA selection process.

Fish Habitat Assessment

Detailed fisheries investigations of the adjacent Innisfil Creek will be undertaken through the course of this project should it appear that an alternative interchange configuration may approach the watercourse. Field reviews will document site conditions for alternative roadway alignments where watercourses/fish habitat may be impacted. Given the proximity to the source, this reach of watercourse could be a cool/cold water stream with sensitive aquatic habitats.

A site reconnaissance of the entire study area in the spring of 2016 will confirm the creek's thermal status, note all aquatic habitat impact zones and observe any potential fish spawning opportunities for resident species. Later in the season if necessary, a field survey team will undertake the required investigations to record resident fish species, physical channel dimensions, bottom substrate, water quality and other characteristics should preferred alternatives potentially impact fish habitat. Roadway design alternatives will be reviewed, identified impacts assessed and mitigation measures developed to avoid any harmful alteration to any aquatic habitat features. The proper documentation of this information will be important to the Town in order to obtain any necessary agency permits or sign-off in the future.

Cultural Heritage

A desktop assessment of available historical sources, mapping and Town of Innisfil information to identify potential for significant cultural heritage resources within or adjacent to the study area will be conducted. The local heritage staff will be contacted to determine if any listed or designated properties are located within or adjacent to the study area. A report and preliminary MTCS screening checklist will be prepared, recommending whether additional study may be necessary to confirm the presence of cultural heritage resources, to assess the potential impact of any of

the selected alternatives, and to identify mitigation measures that may be required to reduce adverse impacts to any identified cultural heritage resources. The bridge at the study area is over 40 years old, and according to MTCS guidelines, will require a Cultural Heritage Evaluation Report (CHER) to determine cultural heritage value and recommend whether a Heritage Impact Assessment is required.

Archaeology

The Stage 1 archaeological assessment to be undertaken for this project will be conducted in accordance with the Ministry of Tourism, Culture and Sports Standards and Guidelines for Consultant Archaeologists (2010).

The objectives of a Stage 1 archaeological background study are to develop an inventory of archaeological resources in the proposed area; to determine the presence of any archaeological sites in the area; and, to recommend appropriate strategies for future planning consideration. This will be accomplished by conducting detailed documentary research of the land use, archaeological history, and present condition of the property. This information will be gathered by reviewing the National Archaeological Site Registration Database. The data gathered will advise the location, type, and significance of registered archaeological sites for a typical radius of one kilometre around the subject

property. Reviewing the registered archaeological site database will identify significant heritage resources on or adjacent to the study area, and will summarize the form and extent of previous cultural heritage investigations undertaken within the general project vicinity.

Agriculture

The agricultural land uses will be documented to define improvements (tile drainage) of fields and the existing use for crop production and livestock. The documentation will include the movement of machinery between farms as often farmers shuttle equipment from rental farms to home farms and movement will cross the interchange along the 6th Line. A consultation tool we have effectively used is to create an interactive exhibit for POH 1 that will build the farm activity mapping for the study area.

Task 6: Technical Investigations

Mapping

Base mapping will be based on photogrammetric mapping.

Structural

Structural liaison will be required with MTO to coordinate the configurations of the new (or interim widened) overpasses with the cross section needs of future 4-lane 6th Line (if required).

The structure team will complete a visual condition survey and review recent MTO condition survey reports. The final deliverable will be a preliminary GA for the structural widening or replacement structures.

Drainage and Hydrology

The drainage and stormwater management design criteria will be confirmed with the Town. Hydrologic calculations will be performed to determine the flows for the 5 to 100 year return period rainfall events and to establish the capacities of the existing system and culvert crossing Highway 400 200m south of the 6th Line overpass structure. As the various alternatives are developed, the corresponding drainage and storm water design will be developed at a conceptual level of detail, sufficient to permit identification of constraints and prepare preliminary cost estimates.

Geotechnical Investigations

The geotechnical scope of work will consist of a desktop review of available information on the subsurface conditions in the study area. This would include a review and compilation of geological maps (including bedrock topography if available) and geotechnical investigation reports for projects completed in and near the study area. The data reviewed will be compiled into a technical memorandum and a geotechnical "planning map" will be prepared which would summarize the subsurface

condition information to assist in the evaluation of alignments.

Task 7: Development, Analysis and Evaluation of Alternatives

As previously noted, the consideration of all reasonable alternatives is a guiding principle for EA studies. The planning alternatives in the TMP will be reviewed and confirm interchange configuration plans (developed using aerial photography).

Alternatives will include but not be limited to the following interchange configurations (and combinations):

- Parclo A;
- Parclo B;
- Parclo AB;
- Diamond; and,
- Diamond/Roundabouts.

Conventional intersection/ramp terminal alternatives will be considered as well as roundabouts. See **Section 7.3.2** for a description of the interchange types.

This study will include a systematic, traceable analysis and evaluation of the needs in the study area, the process used to identify alternatives and the methodology used to analyze and evaluate alternative planning solutions. Additionally, this assignment will include a comprehensive public consultation programme which will assist in the development of a recommended plan.

The identification of evaluation criteria will include potential factors such as

roadway level of service, traffic safety, property impacts, noise, natural environment and cost. The evaluation process will assign a “weight” to each criteria and an iterative process will be used for the evaluation of individual competing alternatives. The iterative process will involve one, or possible two levels of evaluation and sensitivity testing.

Task 8: POH No. 1

Public Open House (POH) No. 1 will present the Problem Statement, Draft Study Design, and our preliminary analysis of Planning Alternatives/Alternative Planning Solutions.

POH No. 1 will summarize the traffic and needs analysis, the environmental inventories, review of Alternative Planning Solutions and provide a recommended solution, an initial list of preliminary design alternatives and potential coarse screening of those planning alternatives. The public will be given the opportunity to provide input on the priorities of the applicable evaluation criteria.

Task 9: POH No. 2

POH No. 2 will present the detailed computer based numerical technical evaluation of design alternatives and recommendation for a Preferred Design. This will quantify measurable differences between the options (performance and environmental effects). This evaluation

will present a sensitivity analysis of the distribution of weights by evaluators for the evaluation criteria. This will demonstrate the trade-offs involved in the Study.

Each POH will include coloured graphics and text boards to describe the process and opportunities for the public to provide comment. In addition, we will hold an initial viewing and briefing of the materials for elected officials and external agencies (afternoon) before opening the meeting to the public (evening).

Task 10: Preparation of ESR

The preparation of the draft and final report will follow the format and content for an ESR accepted by MOECC. The ESR will document the study methodology, findings, public involvement and recommendations. A draft version will be submitted to the Town, MTO and external review agencies prior to the preparation of the final document. Presentations will be made to Town Council.

Task 11: Preliminary Design and Cost Estimates

Preliminary design and cost estimates will be prepared for the preferred design. Functional drawings and final cost estimates for the Preferred Design will be prepared, including coordinated alignment, plans, profiles and cross sections.

Task 12: Public Review of ESR

The public will be notified of the availability of the ESR for a 30-day public review period. Individual letters (or emails) will be sent to persons/ organizations on the contact lists maintained throughout the course of the studies. The ESR will be made available at several convenient locations for the public review. Following the 30-day review period and provided that no bump-up requests have been received, the Town will have the authority to proceed with detail design and construction.

4.0 Study Schedule

A draft schedule for this Study is shown in **Table 1**.

Table 1: Study Schedule	
Task	Date
Project Start-Up Meeting	February 2016
Study Design	February-April 2016
Information Gathering	February-April 2016
Traffic Analysis	March-April 2016
Environmental Inventories: Natural Environment, Archaeology, Fisheries, Land Use	March- August 2016
Technical Investigations” Drainage and Stormwater, Utilities, Surveying, Geotechnical	May-June 2016
Development, Analysis and Evaluation of Alternatives	May-August 2016
Public Open House (POH) No.1	June 7, 2016
Analysis and Evaluation of Design Alternatives	Summer 2016
Selection of Technically Preferred Alternatives	Summer 2016
Preliminary Design and Cost Estimates	Summer 2016
Public Open House (POH) No. 2	Fall 2016
Refinements to Technically Preferred Alternative (if required)	Fall 2016
Recommended Plan (including plan and profile drawings and other functional design elements)	Fall 2016
Draft Environmental Study Report	Fall 2016
Final ESR Submission	Fall 2016
Public Review Period	Winter 2016

5.0 Problem Statement

As part of the TMP process, the Town has adopted a transportation vision statement which is as follows:

“Innisfil’s transportation network connects people and communities, fostering healthy living and operates efficiently across the Town as an environmentally and financially sustainable system”

Further to this vision statement, the Town’s TMP has identified an additional Highway 400 interchange as one of the Town’s long term transportation priorities to address future increased traffic demands.

6.0 Need and Justification

Current and expected increases in traffic in the County of Simcoe and Town of Innisfil necessitate transportation improvements to the surrounding infrastructure.

6.1 Town Plans

The Town of Innisfil's Official Plan, dated July 26, 2006 (updated April 8, 2011) has an update in progress which will be completed by the end of 2016. This land use plan defines developments and lands that will be allowed to be serviced to permit residential, commercial and industrial development in the Town. The Innisfil Heights expansion area, as identified in the approved Official Plan, triggers supporting servicing plans (water, sewer and transportation) to this level of land use intensification.

Servicing plans along 6th Line to Innisfil Heights are documented in the Town-Wide Water and Wastewater Servicing Master Plan (completed in 2012).

The transportation servicing has been defined in a Transportation Master Plan and the Draft Active Innisfil plan by Parks, Recreation and Culture. These documents are triggering project specific improvements in the Town. The project specific improvements have included improvements to 6th Line (defined in the 6th Line Environmental Assessment) and a new interchange on Highway 400 (subject of this EA Study).

The Alcona South Secondary Plan includes the Sleeping Lion Development (to the east of Highway 400) which is the first of the residential developments that will generate traffic destined to a new interchange on Highway 400. This new development will be an 1,800 unit subdivision.

6.2 MTO Projects

Section 5.3 of the TMP outline's MTO's planned Roadway improvements (before 2031) in the area, namely:

- Highway 400 widening to ultimate 10-lane cross section (5 lanes per direction)
- Highway 400 PDR update from Highway 89 to the Highway 400/11 split
- Structure replacements on Southern Ontario Highways Program (SHP)

These roadway improvement projects directly affect this Study, specifically the Highway 400 widening to ultimate 10-lane cross section. The 6th Line Interchange EA Study will consider ramp terminal connections and bridge structure types and configurations that will accommodate the future freeway widening.

6.3 GO Transit Plans

GO Rail service to Barrie based on the 2020 Strategic Plan will not change from today's 30 minute rail service in the peak direction and 1 hour bus service off-peak. GO has previously identified a new GO Station within Innisfil located at

Belle Aire Beach Road (5th Line west of 20th Sideroad) in Lefroy.

Metrolinx/GO Transit has not committed any funds or timeline for the station at 5th Line.

The expectation is that if Metrolinx/GO Transit builds a station it may be at the 6th Line and 20th Sideroad intersection, based on current land use planning.

This analysis is documented in **Section 8.3** of the TMP.

7.0 Assessment of Planning Solutions

Alternative Planning Solutions represent alternative ways or methods of addressing the problem to be solved by the project. These reflect different strategies and include the “Do Nothing” approach (maintaining the status quo). Following the assessment of Alternative Planning Solutions, those alternatives judged to address the Problem will be carried forward and will form the Recommended Planning Solution. The recommended planning solution will be deemed to address the problem statement required to plan for the safety of the travelling public, while providing the best overall balance between transportation engineering objectives, life cycle costs, and other environmental, cultural, socio-economic, and land use planning objectives.

The Town’s TMP identified the need for a new Highway 400 interchange as one of the Town’s long term transportation priorities. The alternative solutions presented for analysis in **Section 8.4.3** of the TMP (see **Reference 1**) were as follows:

- 1) Interchange at the 5th Line
- 2) Interchange at the 6th Line

7.1 Regional TMP Alternative Planning Solutions/Alternatives to the Undertaking

The Alternative Planning Solutions (defined as Alternative Planning Strategies in the Innisfil TMP) represent candidate strategies for meeting the needs of the problem statement of the Town:

- 1) Alternative 1: The “Do Nothing” Alternative.
- 2) Alternative 2: Business As Usual.
- 3) Alternative 3: Balanced Approach
- 4) Alternative 4: Aggressive Approach

A summary of the evaluation is documented in **Section 7.5** of the TMP. The evaluation is shown in **Figure 7 (Table 7-2)** of the TMP). Alternatives 1 and 2 were screened out based on not meeting future traffic demands. Alternatives 3 and 4 were carried forward for further evaluation.

While the Town of Innisfil and the Simcoe County OP’s currently identifies an interchange at 5th Line on Highway 400, the Town of Innisfil TMP recognizes it may be more beneficial to the Town for the interchange to be located at 6th Line to support future growth and provide better access to Innisfil Heights and the Sleeping Lion development. The documentation of the review and validation of the previous analysis of the preferred location for the interchange is described in **Section 7.3**.

Criterion	Alternative 1: Do Nothing	Alternative 2: Business As Usual	Alternative 3: Balanced Approach	Alternative 4: Aggressive Approach
Transportation Service				
Natural Environment				
Policy Environment				
Socio-Economic Environment				
Financial Implications				
Preliminary Findings:	Screened Out	Screened Out	Carried Forward	Carried Forward
Legend:	Does Not Meet Criterion Meets Criterion			

Figure 7: Evaluation Summary of Alternative Planning Solutions/Alternatives to the Undertaking (Source: Innisfil 2013 TMP)

7.2 Alternative Planning Solutions for Alcona Growth

In determining the preferred planning alternative for the Town (Alternative 3: Balanced Approach), Alternative Planning Solutions were further analyzed as part of this current EA study for the growth of Alcona. This further review and validation meets the requirements of the Class EA. The planning alternatives include:

- 1) Alternative 1: “Do Nothing”
- 2) Alternative 2: Restrict Development
- 3) Alternative 3: Transportation Demand Management (TDM)
- 4) Alternative 4: Transportation System Management (TSM)
- 5) Alternative 5: New Infrastructure (Interchange on Highway 400)

The “Do Nothing” Alternative – as mandated by the Class EA, must be considered. It represents a baseline from which other approaches can be compared.

Restrict Development – this strategy would be an approach that would limit any new residential development and therefore eliminate the need for a new interchange.

Transportation Demand Management (TDM) – This strategy would reduce vehicular demand and would encourage more active modes of transportation (cycling and walking).

Transportation System Management (TSM) – This strategy would consider

operational improvements to existing infrastructure to improve the performance of traffic operations. System improvements may include signal timing improvements, signal coordination or introduction of improvements such as turn lanes.

New Infrastructure – This strategy would be to provide roadway improvements and a new interchange to accommodate future demand.

Coarse Screening of Planning Solutions

Based on planned developments in the area (Sleeping Lion and Innisfil Heights) and projected increase in traffic, the “Do Nothing” alternative and Restricting Development are not recommended to be carried forward.

The TDM and TSM are not carried forward as standalone solutions, but rather will be incorporated with the New Infrastructure alternative as a Recommended Solution. This recommendation is consistent with the findings of the 2013 TMP and will be presented to the public at POH No. 1. Should no objection to this recommendation be received by the public, then it will be accepted and the study will continue forward to assess preliminary design alternatives.

7.3 Preliminary Design Alternatives (Alternative Methods of Carrying Out the Undertaking)

Preliminary design alternatives are site specific design solutions to implement the recommended planning solution. The following sections describe the consideration of interchange alternatives in two steps. The initial step (also described in the Town of Innisfil TMP) is an assessment of interchange locations and this is followed by a detailed assessment of preliminary design alternatives for the preferred interchange location. The assessment of interchange locations will be presented at POH No. 1 and should no member of the public object to the study recommendations then only preliminary design alternatives at the preferred interchange location will be carried forward.

7.3.1 Coarse Screening of Interchange Location Preliminary Design Alternatives

The Town of Innisfil TMP has reviewed and evaluated three alternatives for transportation improvements (new interchange on Highway 400) – at 4th Line, 5th Line or 6th Line (Preliminary Design Alternatives/ Alternative Methods of Carrying Out the Undertaking). These alternatives are based on the evaluation of the Planning Solutions for Alcona Growth (Alternative 5 - New Infrastructure) and a comment received

on the addition of the 4th Line interchange location.

MTO typically require a minimum distance of 2-3 km between interchanges in urban areas and 10 km in rural areas. A 6th Line interchange would be approximately 2.7 km from Innisfil Beach Road and 1.7 km from the 400 southbound OnRoute service centre. A 5th Line interchange is 4.1 km from Innisfil Beach Road but conflicts with the current OnRoute service centre. A 4th Line interchange location is 5.4 km from the Innisfil Beach Road interchange and 4.2 km from Highway 89 but 1 km from the current OnRoute service centre. The interchange spacing provided with a 6th Line interchange is similar to the spacing provided between Innisfil Beach Road and the proposed interchange at McKay Road / 10th Line in the City of Barrie. Based on interchange spacing from a Regional perspective an interchange on the 6th Line would be preferred.

From a local transportation perspective, the introduction of an interchange on the 4th or 5th Line will be farther from the development areas and have greater travel distances to reach the freeway network. An interchange on the 5th Line would create localized congestion on 20th Sideroad between 6th Line and 5th Line. Yonge Street will be approaching capacity between 7th Line and 4th Line. The 6th Line interchange location would alleviate the capacity issues on 20th Sideroad and Yonge Street. From a

local transportation network perspective, an interchange on the 6th Line would be preferred.

The 6th Line interchange may have a greater environmental impact than 5th Line with respect to the Natural Heritage System (NHS). The environmental effects and possible mitigation should be measured as part of further detailed investigations. The 5th Line interchange has impacts to the built environment (OnRoute service centre).

Beyond 2031, an interchange at 4th or 6th Line would provide greater flexibility

with respect to the provision of another new Highway 400 interchange within Innisfil, north of Highway 89. An interchange could be provided at 4th Line or 3rd Line if the 6th Line interchange is preferred and a future interchange at 6th line could be provided if an interchange at 4th Line is preferred while a 5th Line interchange would limit future interchange locations to 3rd Line.

Table 2 illustrates the interchange location evaluation summary. The 6th Line interchange location is recommended.

Table 2: 5th Line versus 6th Line Interchange Evaluation Summary			
Criteria	4th Line Interchange	5th Line Interchange	6th Line Interchange
Flexibility for Future Interchange Spacing	✓	×	✓
Address Capacity issues Innisfil Beach Rd	×	×	✓
Network-Wide Traffic Benefits	-	-	✓
Supports Future Growth Areas	×	-	✓
Environmental Impacts	-	-	-
Constructability and Cost	-	-	-
Current Population	-	-	✓
Future Population	-	-	✓
Interchange Spacing	-	✓	-
Distance from Travel Centre	×	×	-
Recommendation	×	×	✓

Legend:	Good ✓	Fair -	Poor ×
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7.3.2 Interchange Preliminary Design Alternatives

effect to the Highway 400 pavement elevation at the interchange location.

Interchange Alternatives

Interchange preliminary design alternatives for the interchange will include but not be limited to the following configurations (and combinations):

- Parclo A;
- Parclo B;
- Parclo AB;
- Diamond; and,
- Diamond/Roundabouts.

See **Figure 8** for the illustration of the alternative interchange types.

Structural Alternatives

Structural alternatives for the Highway 400 bridge spanning the 6th Line will include but not be limited to the following structure types:

- Rigid frame
- Concrete deck on prestressed concrete girders
- Concrete deck on steel girders
- Post-tensioned concrete deck

Structural arrangements for the Highway 400 bridge spanning the 6th Line will consider the following:

- Single span
- Two span
- Three span

The structural review of the bridge will consider superstructure depth and the

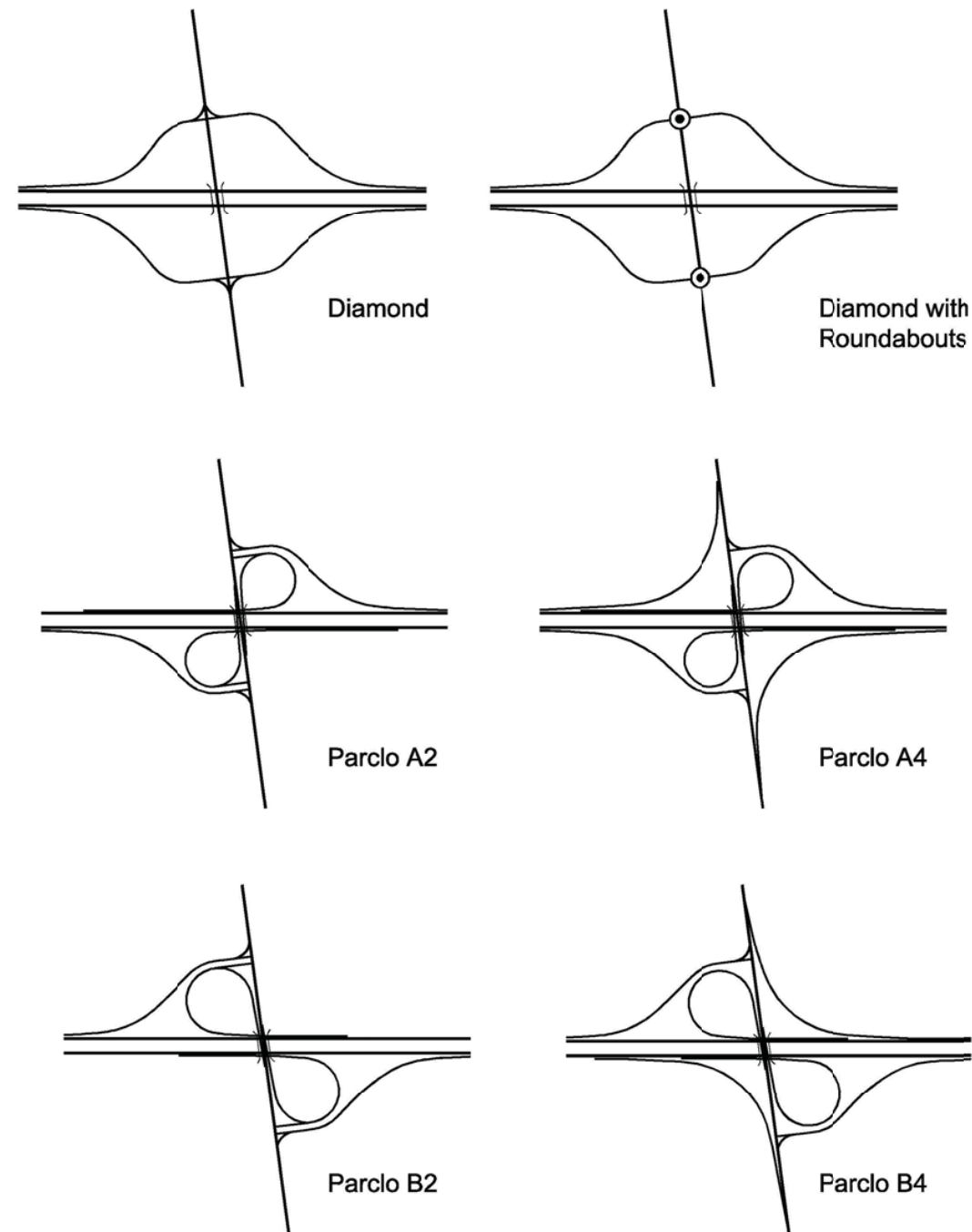


Figure 8: Alternative Interchange Types

8.0 Recommended Solution

Based on the analysis presented in the TMP, the Town's preference is for an interchange at 6th Line by 2031.

The analysis completed and outlined in the TMP satisfies Phases 1 and 2 of this Class EA process. As such, an interchange at Highway 400 and the 6th Line will be carried forward to this Class EA as the preferred solution.

9.0 Preliminary Design Considerations

Key design considerations will include:

- Liaise with MTO to coordinate the number of spans and bridge types for the new overpasses with the future Highway 400 cross section and future 4-lane 6th Line
- Development of a staging plan for the implementation of the interchange to accommodate future 6th Line cross section (2-lane arterial with speed change lanes and/or future 4-lane arterial)
- Accommodate ultimate widening of Highway 400 to a 10-lane freeway
- Access management and the potential for the removal of driveways within the influence of the interchange ramp terminals
- Crest curves on 6th Line that have poor stopping sight distances at ramp terminals (**Photo 1**)



Photo 1: Vertical Curves on 6th Line

- The existing overpass structure has a substandard 4.3 m clearance and Highway 400 may be required to be raised to accommodate drainage.
- The existing overpass structure on 6th Line will require additional span to accommodate active modes of

transportation (pedestrians and cyclists on 6th Line, **Photo 2**)



Photo 2: Current Overpass Structure

- ONroute Service Centre on Highway 400 at 5th Line and consideration of freeway widening
- Traffic to the east on 6th Line from development of approximately 1,800 homes
- Accommodating movement of farm equipment
- Impacts to active farms and farmland surrounding interchange area
- Innisfil Creek, a tributary of the Nottawasaga River
- Potential impacts to fish habitat
- Water quality and quality of increased stormwater
- Potential to integrate with overall stormwater management plan
- Accommodating expansion areas of development plan

10.0 List of References

Reference 1: Transportation Master Plan (Town of Innisfil)

Reference 2: Official Plan (Town of Innisfil)

Appendix A: Glossary of Terms

• AADT	Annual Average Daily Traffic – the average 24-hour, two-way traffic per day for the period from January 1st to December 31st.
• Advisory Committee	The Advisory Committee will include the Town and Consultant. It will act as the decision-making body for the study recommendations.
• Alignment	The vertical and horizontal position of a road.
• Alternative	Well-defined and distinct course of action that fulfils a given set of requirements. The EA Act distinguishes between alternatives to the undertaking and alternative methods of carrying out the undertaking.
• Alternative Planning Solutions	Alternative ways of solving problems or meeting demand (Alternatives to the Undertaking).
• Alternative Design Concepts	Alternative ways of solving a documented transportation deficiency or taking advantage of an opportunity. (Alternative methods of carrying out the undertaking).
• Alternative Project	Alternative Planning Solution, see above.
• ANSI	Area of Natural or Scientific Interest
• Berm	Earth landform used to screen areas.
• BMP	Best management practice.
• Bump-Up	The act of requesting that an environmental assessment initiated as a class EA be required to follow the individual EA process. The change is a result of a decision by the proponent or by the Minister of Environment to require that an individual environmental assessment be conducted.
• Bypass	A form of realignment in which the route is intended to go around a particular feature or collection of features.
• Canadian Environmental Assessment Act (CEAA)	The CEAA applies to projects for which the federal government holds decision-making authority. It is legislation that identifies the responsibilities and procedures for the environmental assessment.

• Class Environmental Assessment Document	An individual environmental report documenting a planning process which is formally submitted under the EA Act. Once the Class EA document is approved, projects covered by the class can be implemented without having to seek further approvals under the EA Act provided the Class EA process is followed.
• Class Environmental Assessment Process	A planning process established for a group of projects in order to ensure compliance with the Environmental Assessment (EA) Act. The EA Act, in Section 13 makes provision for the establishment of Class Environmental Assessments.
• Compensation	The replacement of natural habitat lost through implementation of a project, where implementation techniques and other measures could not alleviate the effects.
• Consortium	A group of businesses or organizations allied to take on a project.
• Corridor	A band of variable width between two locations. In transportation studies a corridor is a defined area where a new or improved transportation facility might be located.
• Criterion	Explicit feature or consideration used for comparison of alternatives.
• Cumulative Effects Assessment	Cumulative Effects Assessment assesses the interaction and combination of the residual environmental effects of the project during its construction and operational phases on measures to prevent or lessen the predicted impacts with the same environmental effects from other past, present, and reasonably foreseeable future projects and activities.
• Decibel (dB)	A logarithmic unit of measure used for expressing level of sound.
• dBA	'A' weighted sound level; the human ear cannot hear the very high and the very low sound frequencies as well as the mid-frequencies of sound, and hence the predicted sound levels, measured in dBA, are a reasonable accurate approximation of sound levels heard by the human ear.

• Detail Design	The final stage in the design process in which the engineering and environmental components of preliminary design are refined and details concerning, for example, property, drainage, utility relocations and quantity estimate requirements are prepared, and contract documents and drawings are produced.
• DFO	Department of Fisheries and Oceans.
• EA	Environmental Assessment
• EA Act	Ontario Environmental Assessment Act (as amended by S.O. 1996 C.27), RSO 1980.
• Environment	<ul style="list-style-type: none"> • Air, land or water, • Plant and animal life, including human life, • The social, economic and cultural conditions that influence the life of humans or a community, • Any building structure, machine or other device or thing made by humans, • Any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from human activities, or • Any part or combination of the foregoing and the interrelationships between any two or more of them, in or of Ontario.
• Environmental Effect	A change in the existing conditions of the environment which may have either beneficial (positive) or detrimental (negative) effects.
• Environmentally Sensitive Areas (ESA's)	Those areas identified by any agency or level of government which contain natural features, ecological functions or cultural, historical or visual amenities which are susceptible to disturbance from human activities and which warrant protection.
• Equivalent Sound Level (Leq)	The level of a continuous sound having the same energy as a fluctuating sound in a given time period. In this report Leq refers to 24-hour, 16 or 18-hour averages.
• ESR	Environmental Study Report. The final documentation for Schedule C project, defining the project, consultation process, preferred solution and mitigation measures.
• Evaluation	The outcome of a process that appraises the advantages and disadvantages of alternatives.

• Evaluation Process	The process involving the identification of criteria, rating of predicted impacts, assignment of weights to criteria, and aggregation of weights, rates and criteria to produce an ordering of alternatives.
• External Agencies	Include Federal departments and agencies, Provincial ministries and agencies, conservation authorities, municipalities, Crown corporations or other agencies other than MTO.
• General Arrangement	Structural plan of the bridge and proposed works including elevations and cross-sectional views of the bridge.
• Factor	A category of sub-factors.
• HADD	Harmful Alteration, Disturbance or Destruction of fish habitat.
• Individual Environmental Assessment	An environmental Assessment requiring the submission of a document for approval by the Minister, pursuant to the EA Act and which is neither exempt from the EA Act nor covered by a Class EA approval.
• LSRCA	Lake Simcoe Region Conservation Authority
• Mitigating Measure	A measure that is incorporated into a project to reduce, eliminate or ameliorate detrimental environmental effects.
• Mitigation	Taking actions that either remove or alleviate to some degree the negative impacts associated with the implementation of alternatives.
• MNRF	Ministry of Natural Resources and Forestry.
• MOECC	Ministry of the Environment and Climate Change.
• MTCS	Ministry of Culture, Tourism and Sport.
• MTO	Ministry of Transportation Ontario.
• Noise Attenuation	A mitigation measure used to lessen the intensity of the noise level (dBA) where the noise level is increased in a noise sensitive area greater than 5 dBA 10 years after completion.
• NSA	Noise Sensitive Area is a noise sensitive land use, which has an outdoor living area associated with the residential unit.
• NVCA	Nottawasaga Valley Conservation Authority
• OLA	Outdoor Living Area is the part of an outdoor amenity area provided for the quiet enjoyment of the outdoor environment.
• PIC	Public Information Centre (see POH).

• Planning Alternatives	Planning alternatives are “alternative methods” under the EA Act. Identification of significant transportation engineering opportunities while protecting significant environmental features as much as possible.
• Planning Solutions	That part of the planning and design process where alternatives to the undertaking and alternative routes are identified and assessed. Also described as “Alternative Project” under the federal EA Act.
• POH	Public Open House (see PIC).
• Prime Agricultural Areas	Prime agricultural areas as defined in municipal official plans and other government policy sources.
• Project	A specific undertaking planned and implemented in accordance with the Class EA including all those activities necessary to solve a specific problem.
• Project File	The final product of a Schedule B project. This is a completion of all data/reports produced for the project.
• Proponent	A person or agency that carries or proposes to carry out an undertaking, or is the owner or person having charge, management, or control of an undertaking.
• Public	Includes the general public, interest groups, associates, community groups, and individuals, including property owners.
• Realignment	Replacement or upgrading of an existing roadway on a new or revised alignment.
• Recommended Plan	That part of the planning and design process, during which various alternative solutions are examined and evaluated including consideration of environmental effects and mitigation; the recommended design solution is then developed in sufficient detail to ensure that the horizontal and vertical controls are physically compatible with the proposed site, that the requirements of lands and rights-of-way are satisfactorily identified, and that the basic design criteria or features to be contained in the design, have been fully recognized and documented in sufficient graphic detail to ensure their feasibility.
• Route Alternatives	Location alternatives within a corridor.
• SADT	Summer Average Daily Traffic – the average 24-hour, two-way traffic for the period from July 1 st to August 31 st including weekends.
• Screening	Process of eliminating alternatives from further consideration, which do not meet minimum conditions or categorical requirements.

• Sub-factor	A single criterion used for the evaluation. Each sub-factor is grouped under one of the factors.
• TMP	Transportation Master Plan
• TESR	Transportation Environmental Study Report
• Traceability	Characteristics of an evaluation process which enables its development and implementation to be followed with ease.
• Undertaking	In keeping with the definition of the Environmental Assessment Act, a project or activity subject to an Environmental Assessment.

Appendix B

Record of Consultation



Innisfil

2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1
705.436.3710

Office Hours:
Monday to Friday
8:30am to 4:30pm

Community Bulletin



APRIL 1, 2016

Upcoming Council Meetings

Wednesday, April 6, 2016

- 7:15 p.m. - Regular Council Meeting

Wednesday, April 20, 2016

- 5:30 p.m. - Special Council Meeting - Our Place Workshop Policy Recommendations
- 7:15 p.m. - Regular Council Meeting

Upcoming Board/Committee Meetings

Farmers' Market Committee - Closed Session
April 12, 2016 at 10 a.m., Town Hall Meeting Room 2

Accessibility Advisory Committee
April 12, 2016 at 1 p.m., Town Hall Community Room A

Heritage Committee Meeting
April 14, 2016 at 7 p.m., Town Hall Community Rooms B & C

BWG/Innisfil Police Services Board Meeting
April 18, 2016 at 7 p.m., BWG Library, Zima Room

Library Board Meeting
April 18, 2016 at 7 p.m., Lakeshore Branch

Health Committee Meeting
April 21, 2016 at 1:30 p.m., Town Hall Community Rooms B & C

Meetings subject to change. Please visit the Town's website to view the most updated listing.

Employment Opportunities

- Innisfil Public Library - Customer Experience Ambassador - 5-Month Contract - Part-Time (closes April 2, 2016 at 5 p.m.)

Please visit the Employment & Volunteering section at the Innisfil Public Library's website at www.innisfil.library.on.ca.

Volunteers: Come & Be Celebrated!



Community Volunteers Thank You BBQ

Saturday, April 16, 12:00 - 2:00 pm
Mayor's Thank you at 12:30 pm
Stroud-Innisfil Community Centre at
7883 Yonge Street, Innisfil ON

Please RSVP by April 8, 2016
inquiry@innisfil.ca or 705-436-3710
Volunteers, family and friends welcome!

6th Line Notice

NOTICE OF STUDY COMMENCEMENT 6th Line Interchange Municipal Class Environmental Assessment

The Town of Innisfil has initiated a Class Environmental Assessment (EA) for a proposed interchange at 6th Line and Highway 400. The 6th Line Interchange project is being planned as Schedule C project under the Municipal Class Environmental Assessment (2007) process, as amended in 2011 and 2015. The EA Study will confirm project need and justification, document existing environmental conditions, examine alternatives and define the interchange design.



The EA will review the Town's Transportation Master Plan to confirm it satisfies Phases 1 and 2 of the Municipal Class EA for a Schedule C study, and will complete Phases 3 and 4 of the Class EA for the proposed interchange. The Municipal Class EA will engage the public in determining a recommended plan for improvements.

A draft Study Design is available on the Town of Innisfil web site www.innisfil.ca/. The Study Design describes the project scope, study approach, need and justification of the study, study process and preliminary design criteria.

The first Public Open House (POH) meeting will be scheduled for this project in the late spring. A POH notice will be published at that time. Persons wishing to be included on the study mailing list should contact the Study Consultant below. Notices and updates will be posted on the Town of Innisfil web site www.innisfil.ca/.

There is an opportunity at any time during the EA process for interested persons to provide comments. Any comments received pertaining to the study will be collected under the Environmental Assessment Act and, with the exception of personal information, will become part of the public record.

For more information, to provide comments or if you wish to be placed on the study's mailing list, please contact:

Jessica Jenkins
Project Manager
Town Of Innisfil
2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1
Tel: 705-436-3710 ext. 3224
Toll Free: 1-888-436-3710
jjenkins@innisfil.ca

Steve Taylor, P. Eng.
Consultant Project Manager
BT Engineering
586 Eglinton Avenue East
Toronto, Ontario M4P 1P2
Tel: 1 (519) 672-2222
Fax: 1 (613) 280-1305
Toll Free: 1-855-228-4813
steven.taylor@bteng.ca

Thank You to Our Residents

Thank You
We would like to thank Innisfil residents and property owners for their patience during the recent ice-storm and power outages. A full-scale clean-up of the town has started and is expected to take several weeks to complete. The Town appreciates residents helping with the town-wide clean-up efforts by neatly and safely placing branches and other tree-related debris to the side of the road, out of the way of traffic.

Beat The Permit Rush

Permit Palooza & Christmas for Kids BBQ
Thursday, May 5, 5-8pm &
Saturday May 7, 9am-1pm at Town Hall
Located at 2101 Innisfil Beach Road, Innisfil ON

Register Your Kids Today

Summer Day Camps
Limited spots still available for:
Discovery Camp Ages 4-5, Trip Zone Ages 6-12,
Sports Camp Ages 6-12,
Adventure Camp Ages 8-12
Don't let the kids get the mid-summer blues, Register today!
To register call 705-436-3710.

Special Brush Collection

A Simcoe County special brush collection will start on Monday April 4th, as resources permit. Place brush curbside by Monday April 4th for service as soon as possible. Brush must be cut into manageable lengths (maximum 2 m long and individual branches not to exceed 12 cm diameter). Brush should be bundled and tied in manageable packages (maximum 20 kgs. per bundle). Large branches or trees will not be collected but may be cut into firewood and left out for re-use as firewood by others. Residents may also self-haul brush to County waste management facilities at no charge.

Food Waste Collection

Spoiled foods as a result of extended power outages may be placed out for collection on the regular collection day in the green bin. Excessive quantities can be contained in compostable bags and in alternate containers marked clearly and set out beside the green bin so that collectors can see that it is intended to be collected with the organics. All packaging must be removed from food waste in order for it to be collected.



Innisfil

2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1
705.436.3710

Office Hours:
Monday to Friday
8:30am to 4:30pm

Community Bulletin



APRIL 8, 2016

Upcoming Council Meetings

Wednesday, April 20, 2016

- 5:30 p.m. - Special Council Meeting - Our Place Workshop Policy Recommendations
- 7:15 p.m. - Regular Council Meeting

Wednesday, May 11, 2016 (Note date change)

- 7:15 p.m. - Regular Council Meeting

Wednesday, May 18, 2016

- 7:15 p.m. - Regular Council Meeting

Upcoming Board/Committee Meetings

Farmers' Market Committee - Closed Session
April 12, 2016 at 10 a.m., Town Hall Meeting Room 2

Accessibility Advisory Committee
April 12, 2016 at 1 p.m., Town Hall Community Room A

Heritage Committee Meeting
April 14, 2016 at 7 p.m., Town Hall Community Rooms B & C

BWG/Innisfil Police Services Board Meeting
April 18, 2016 at 7 p.m., BWG Library, Zima Room

Library Board Meeting
April 18, 2016 at 7 p.m., Lakeshore Branch

Health Committee Meeting
April 21, 2016 at 1:30 p.m., Town Hall Community Rooms B & C

Meetings subject to change. Please visit the Town's website to view the most updated listing.

Volunteers: Please RSVP and Join Us!



Community Volunteers Thank You BBQ

Saturday, April 16, 12:00 - 2:00 pm
Mayor's Thank you at 12:30 pm
Stroud-Innisfil Community Centre at
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Please RSVP by April 8, 2016
inquiry@innisfil.ca or 705-436-3710
Volunteers, family and friends welcome!

Nominate A Clean-Up Hero Today



6th Line Notice

NOTICE OF STUDY COMMENCEMENT 6th Line Interchange Municipal Class Environmental Assessment

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The 6th Line Interchange project is being planned as Schedule C project under the Municipal Class Environmental Assessment (2007) process, as amended in 2011 and 2015. The EA Study will confirm project need and justification, document existing environmental conditions, examine alternatives and define the interchange design.



The EA will review the Town's Transportation Master Plan to confirm it satisfies Phases 1 and 2 of the Municipal Class EA for a Schedule C study, and will complete Phases 3 and 4 of the Class EA for the proposed interchange. The Municipal Class EA will engage the public in determining a recommended plan for improvements.

A draft Study Design is available on the Town of Innisfil web site www.innisfil.ca/. The Study Design describes the project scope, study approach, need and justification of the study, study process and preliminary design criteria.

The first Public Open House (POH) meeting will be scheduled for this project in the late spring. A POH notice will be published at that time. Persons wishing to be included on the study mailing list should contact the Study Consultant below. Notices and updates will be posted on the Town of Innisfil web site www.innisfil.ca/.

There is an opportunity at any time during the EA process for interested persons to provide comments. Any comments received pertaining to the study will be collected under the Environmental Assessment Act and, with the exception of personal information, will become part of the public record.

For more information, to provide comments or if you wish to be placed on the study's mailing list, please contact:

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Project Manager
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Permit Palooza & Christmas for Kids BBQ
Thursday, May 5, 5-8pm &
Saturday May 7, 9am-1pm at Town Hall
Located at 2101 Innisfil Beach Road, Innisfil ON
Join us! Visit innisfil.ca for forms & info.

Upcoming Tax Payment Date

Property Tax Bill Reminder
Second Installment due Thurs., April 28. Got questions? Call 705-436-3710

Go Paperless - Sign Up Today

Want to receive an e-mail when your property tax bill is ready? Sign up for e-bill today and get your first notification in May. Go to www.innisfil.ca

Register Now for Early Bird Rates!

MAYOR'S GOLF TOURNAMENT
WEDNESDAY JUNE 22, 2016
EARLY BIRD NOW AVAILABLE
SPONSORSHIP OPPORTUNITIES
705-436-3740 EXT. 1412
JSHERMETO@INNISFIL.CA

View this page at innisfil.ca or innisfilexaminer.ca

View this page at innisfil.ca or innisfilexaminer.ca

Upcoming Council Meetings

- Wednesday, May 25, 2016**
- 6:30 p.m. - Special Council Meeting – InnServices Shareholders
- Wednesday, June 1, 2016**
- 6:30 p.m. - Planning Public Meeting – Abandel Group Zoning By-Law Amendment
 - 7:15 p.m. - Regular Council Meeting

Upcoming Board/Committee Meetings

- Economic Development Advisory Committee**
June 2, 2016 at 1 p.m., Town Hall Community Rooms B & C
- Heritage Committee Meeting**
June 9, 2016 at 7 p.m., Town Hall Community Rooms B & C
- Accessibility Advisory Committee**
June 14, 2016 at 1 p.m., Town Hall Community Room A
- Meetings subject to change. Please visit the Town's website to view the most updated listing.

Victoria Day Weekend Hours

	Town Offices	Town Arenas	Public Library Branches
Sat. May 21, 2016	Closed	Open	Lakeshore Branch: 10 a.m. – 5 p.m.
Sun. May 22, 2016	Closed	Open	Closed
Victoria Day Mon. May 23, 2016	Closed	Closed	Closed

Essential Roads, Water and Wastewater services will be provided. For Town service emergencies call South Simcoe Police at 705-436-2141.

Employment Opportunities

- Engineering Technologist, Development Engineering, 3 Year Contract (closes May 22.) Please visit Employment Opportunities on the Town's website for more details.

Join Us For Our Grand Opening Ceremony!

Fire Station #4 Grand Opening

23 King Street N., Cookstown

Saturday, May 28, 2016 • 2:00 to 4:00 pm
Official Remarks at 2:30 pm

Explore The Fire Station • Meet Your Firefighters
Learn About Fire Safety • Light Refreshments



NOTICE OF PUBLIC OPEN HOUSE NO. 1

6th Line Interchange Municipal Class Environmental Assessment



The Town of Innisfil has initiated a Class Environmental Assessment (EA) for a proposed interchange at 6th Line and Highway 400.

The 6th Line Interchange project is being planned as Schedule C project under the Municipal Class Environmental Assessment (2007) process, as amended in 2011 and 2015. The EA Study will confirm project need and justification, document existing environmental conditions, examine alternatives and define the interchange design.

The EA will review the Town's Transportation Master Plan to confirm it satisfies Phases 1 and 2 of the Municipal Class EA for a Schedule C study, and will complete Phases 3 and 4 of the Class EA for the proposed interchange. The Municipal Class EA will engage the public in determining a recommended plan for improvements.

A draft Study Design is available on the Town of Innisfil website www.innisfil.ca/6th-line-interchange-ea. The Study Design describes the project scope, study approach, need and justification of the study, study process and preliminary design criteria.

Information on the project will be presented on display boards and Study Team Members will be available to answer questions and receive comments at the first Public Open House (POH) meeting to be held as follows:

Tuesday, June 7, 2016
Town Hall Community Rooms
2101 Innisfil Beach Road, Innisfil, Ontario
4:00 pm – 7:00 pm

There is an opportunity at any time during the EA process for interested persons to provide comments. Any comments received pertaining to the study will be collected under the *Environmental Assessment Act* and, with the exception of personal information (*Freedom of Information and Protection of Privacy Act*) will become part of the public record.

For more information, to provide comments or if you wish to be placed on the study's mailing list, please contact:

Jessica Jenkins, P. Eng.
Project Manager
Town Of Innisfil
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Toll Free: 1-855-228-4813
steven.taylor@bteng.ca

Maintenance Flushing Notice



To Water Consumers within the Goldcrest Water System

Please be advised that operational staff will be performing scheduled maintenance flushing of the water mains in your area during the period of:

May 25 to 27, 2016

Between the hours of 8:00 AM and 4:30 PM. It is not anticipated that flushing will be performed after 4:30 PM but unforeseen situations may arise that might alter this time.

During this flushing your water may be discolored for a short period of time. We would recommend that you refrain from water consumption activities (ie: laundry during this period).

You may also experience reduced water pressure.

We would also recommend that you run your cold water to waste for a couple of minutes to flush out any iron precipitation which may have accumulated within your water service line after flushing.

We apologize for any inconvenience this may cause.

Stay Active This Summer



Sell Your Sweets



← More Community Bulletin Notice Inside Back Page

Upcoming Council Meetings

- Wednesday, June 1, 2016**
- 6:30 p.m. - Planning Public Meeting – Abandel Group Zoning By-Law Amendment
 - 7:15 p.m. - Regular Council Meeting
- Wednesday, June 15, 2016**
- 4:30 p.m. - Special Council Meeting – Parks & Recreation Master Plan Workshop
 - 6:00 p.m. – Public Meeting – Economic Development Community Improvement Plan
 - 7:15 p.m. - Regular Council Meeting

Upcoming Board/Committee Meetings

- Economic Development Advisory Committee**
June 8, 2016 at 1 p.m., Town Hall Community Rooms B & C
- Heritage Committee Meeting**
June 9, 2016 at 7 p.m., Town Hall Community Rooms B & C
- Accessibility Advisory Committee**
June 14, 2016 at 1 p.m., Town Hall Community Room A
- Health Committee Meeting**
June 16, 2016 at 1:30 p.m., Town Hall Community Rooms B & C
- Committee of Adjustment**
June 16, 2016 at 6:30 p.m., Town Hall Council Chambers
- BWG/Innisfil Police Services Board Meeting**
June 20, 2016 at 7 p.m., BWG Library, Zima Room
- Library Board Meeting**
June 20, 2016 at 7 p.m., Lakeshore Branch
- Meetings subject to change. Please visit the Town's website to view the most updated listing.

Come On Out This Saturday

Fire Station #4 Grand Opening

23 King Street N., Cookstown
Saturday, May 28, 2016 • 2:00 to 4:00 pm
Official Remarks at 2:30 pm

Explore The Fire Station • Meet Your Firefighters
Learn About Fire Safety • Light Refreshments



NOTICE OF PUBLIC OPEN HOUSE NO. 1

6th Line Interchange Municipal Class Environmental Assessment



The Town of Innisfil has initiated a Class Environmental Assessment (EA) for a proposed interchange at 6th Line and Highway 400.

The 6th Line Interchange project is being planned as Schedule C project under the Municipal Class Environmental Assessment (2007) process, as amended in 2011 and 2015. The EA Study will confirm project need and justification, document existing environmental conditions, examine alternatives and define the interchange design.

The EA will review the Town's Transportation Master Plan to confirm it satisfies Phases 1 and 2 of the Municipal Class EA for a Schedule C study, and will complete Phases 3 and 4 of the Class EA for the proposed interchange. The Municipal Class EA will engage the public in determining a recommended plan for improvements.

A draft Study Design is available on the Town of Innisfil website www.innisfil.ca/6th-line-interchange-ea. The Study Design describes the project scope, study approach, need and justification of the study, study process and preliminary design criteria.

Information on the project will be presented on display boards and Study Team Members will be available to answer questions and receive comments at the first Public Open House (POH) meeting to be held as follows:

Tuesday, June 7, 2016
Town Hall Community Rooms
2101 Innisfil Beach Road, Innisfil, Ontario
4:00 pm – 7:00 pm

There is an opportunity at any time during the EA process for interested persons to provide comments. Any comments received pertaining to the study will be collected under the *Environmental Assessment Act* and, with the exception of personal information (*Freedom of Information and Protection of Privacy Act*) will become part of the public record.

For more information, to provide comments or if you wish to be placed on the study's mailing list, please contact:

Jessica Jenkins, P. Eng.
Project Manager
Town Of Innisfil
2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1
Tel: 705-436-3710 ext. 3224
Toll Free: 1-888-436-3710
jjenkins@innisfil.ca

Steve Taylor, P. Eng.
Consultant Project Manager
BT Engineering
586 Eglinton Avenue East
Toronto, Ontario M4P 1P2
Tel: 1 (416) 488-5353
Toll Free: 1-855-228-4813
steven.taylor@bteng.ca

Notice Of Public Meeting

(Planning Act, R.S.O 1990, c. P.13, as amended, s. 17 and s. 28)
ECONOMIC DEVELOPMENT COMMUNITY IMPROVEMENT PLAN (EDCIP)

The Town of Innisfil will hold a public meeting on **June 15, 2016 at 6:00 P.M. in the Council Chambers located at the Town Hall at 2101 Innisfil Beach Road.** The purpose of the Public Meeting is for Staff to provide an overview and to obtain public comments on the Town's proposed 'Economic Development Community Improvement Plan' (EDCIP)

What is a Community Improvement Plan (CIP)?

A CIP is a tool that allows the Town to establish various programs and actions that stimulate investment, foster community pride and enhance physical, environmental, social, or economic conditions within identified Community Improvement Project Areas.

THE PURPOSE of the EDCIP is to improve the economic base of the Town of Innisfil and accelerate local job growth and community development. The effect of the proposed plan, once adopted, will allow the Town to provide financial incentives to private land owners for the development and renewal of commercial and industrial lands within the Town's borders. Specifically, the EDCIP is proposing a number of incentives such as a Development Charge Abatement Program and Tax Increment Equivalent Grant.

The proposed EDCIP identifies all lands in Innisfil as a Community Improvement Project Area. However, the EDCIP specifies that any available financial incentives will be subject to the Community Improvement 'Sub Area' in which the land is located. For example, to stimulate local job growth, a greater range of incentives are being proposed for the Innisfil Heights Employment Sub Area.

ANY PERSON may attend the Public Meeting and make oral submissions either in support of or in opposition to the proposed Community Improvement Plan. If a person or public body does not make oral submissions at the public meeting or make written submissions to the Town before the proposed Community Improvement Plan is adopted, the person or public body is not entitled to appeal the Town's decision to the Ontario Municipal Board.

Please also note that Council may approve the proposed Community Improvement Plan on the same evening.

IF YOU WISH to be notified of the adoption of the proposed Community Improvement Plan, you must make a written request to the Clerk of the Town of Innisfil at 2101 Innisfil Beach Road, Innisfil, Ontario L9S 1A1.

ADDITIONAL INFORMATION regarding the proposed Community Improvement Plan will be available after June 8, 2016 on the Town's website at www.innisfil.ca and on weekdays between 8:30 a.m. and 4:30 p.m. at the Town's Customer Service Department.

DATED AT THE TOWN OF INNISFIL THIS
25th DAY OF MAY, 2016
LEE PARKIN, CLERK
TOWN OF INNISFIL
2101 INNISFIL BEACH ROAD
INNISFIL, ONTARIO, L9S 1A1

Upcoming Council Meetings

Wednesday, November 30, 2016

• 6:00 p.m. – Special Council InnServices Shareholders Meeting & Budget Presentation

Wednesday, December 7, 2016

• 6:00 p.m. – Public Planning Meetings

Wednesday, December 14, 2016

• 6:00 p.m. – Regular Council Meeting – Comments on the proposed 2017-2018 Budget welcome

Upcoming Board/Committee Meetings

Innisfil Public Library Board

November 21, 2016 at 7 p.m., Lakeshore Library & Idea Lab

Economic Development Advisory Committee

November 29, 2016 at 1:30 p.m.,
Town Hall Community Rooms B&C

Committee of Adjustment

December 8, 2016 at 6:30 p.m., Town Hall Council Chambers

Heritage Committee

December 8, 2016 at 7 p.m.,
Town Hall Community Rooms B & C

Accessibility Advisory Committee

December 13, 2016 at 1 p.m., Town Hall Community Room A

Meetings subject to change. Please visit the Town's website to view the most updated listing.

Tree Lighting Event

Everyone is invited!

Friday, December 2nd at Alcona Fire Station # 1 (780 Innisfil Beach Road). Tree Lighting Night begins at 6:30 pm with the countdown at 7:00. Hot chocolate, coffee, timbits, hot apple cider and pizza will be served. Santa Claus will arrive by fire truck for children big and small. Children are encouraged to bring their letters to Santa.

Saturday, December 3rd at Stroud Fire Station # 3 (2394 Victoria St.) Tree Lighting Night will begin at 7pm. Hot chocolate, coffee, apple cider, timbits, pizza, subs, wings, french fries and candy canes for the kids. Santa Clause will arrive by fire truck for children big and small.

Celebrating 8 Years!

Innisfil Recreational Complex's



Public Meeting Notice

6th Line Interchange Municipal Class Environmental Assessment



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The 6th Line Interchange project is being planned as a Schedule C project under the Municipal Class Environmental Assessment (2007), as amended in 2011 and 2015. The EA Study has confirmed project need and justification, documented existing environmental conditions, examined alternatives and determined the Recommended Plan for the proposed interchange.

The EA has reviewed the Town's Transportation Master Plan to confirm it satisfies Phases 1 and 2 of the Municipal Class EA for a Schedule C study, and will complete Phases 3 and 4 of the Class EA for the proposed interchange. The EA will engage

the public in determining a recommended plan for improvements.

The final Study Design is available on the Town of Innisfil's web site www.innisfil.ca/. The Study Design describes the project scope, study approach, need and justification of the study, study process and preliminary design criteria.

Information on the project and Recommended Plan will be presented on display boards and Study Team Members will be available to answer questions and receive comments at the second Public Open House (POH) meeting to be held as follows:

Tuesday December 6, 2016
Town Hall Community Rooms
2101 Innisfil Beach Road, Innisfil, Ontario
4:00 pm – 7:00 pm

There is an opportunity at any time during the EA process for interested persons to provide comments. Any comments received pertaining to the study will be collected under the Environmental Assessment Act and, with the exception of personal information (Freedom of Information and Protection of Privacy Act) will become part of the public record.

For more information, to provide comments or if you wish to be placed on the study's mailing list, please contact:

Jessica Jenkins, P. Eng.
Project Manager
Town Of Innisfil
2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1
Tel: 705-436-3710 ext. 3224
Toll Free: 1-888-436-3710
Email: jjenkins@innisfil.ca

Steve Taylor, P. Eng.
Consultant Project Manager
BT Engineering
586 Eglinton Avenue East
Toronto, Ontario M4P 1P2
Tel: 1 (416) 488-5353
Toll Free: 1-855-228-4813
Email: steve.taylor@bteng.ca

Public Meeting Notice #2

6th Line Interchange Municipal Class Environmental Assessment

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Consultant Project Manager
BT Engineering
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Toronto, Ontario M4P 1P2
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Lighting Up Our Community

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Thank You For Your Comments



Holiday Event



Upcoming Council Meetings

Wednesday, December 7, 2016 – Public Planning Meetings

- 6:00 p.m. – Meleki Zoning By-Law Amendment
- 6:15 p.m. – 1326 Innisfil Beach Road Official Plan Amendment & Zoning By-Law Amendment
- 6:30 p.m. – Stroud Centreville Official Plan Amendment & Zoning By-Law Amendment
- 7:00 p.m. – Royal Oak Estates Phase 2 Official Plan Amendment (Cookstown)

Wednesday, December 14, 2016

- 6:00 p.m. – Regular Council Meeting

Upcoming Board/Committee Meetings

Committee of Adjustment
December 8, 2016 at 6:30 p.m., Town Hall Council Chambers

Heritage Committee
December 8, 2016 at 7 p.m., Town Hall Community Rooms B & C

Library Board
December 12, 2016 at 7 p.m., Lakeshore Branch, 967 Innisfil Beach Road

Police Services Board
December 12, 2016 at 7 p.m., Town Hall Community Rooms B & C

Accessibility Advisory Committee
December 13, 2016 at 1 p.m., Town Hall Community Room A

Meetings subject to change. Please visit the Town's website to view the most updated listing.

Public Open House

6th Line Interchange Municipal Class Environmental Assessment

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 2101 Innisfil Beach Road, Innisfil, Ontario
 4:00 pm – 7:00 pm

Free Workshops

HOUR OF CODE

In just an hour, anybody can learn the basics of computer science.

During Computer Science Education Week, December 5-11, Hour of Code™ events are hosted around the globe.

Join in at the Innisfil IdeaLAB & Library!

LEGO Robotics Family Coding Raspberry Pi 101

Learn more at www.innisfilidealab.ca/hour-code
705-431-7410

Public Notice

THE CORPORATION OF THE TOWN OF INNISFIL

PUBLIC NOTICE

NOTICE OF INTENT TO DISPOSE OF SURPLUS REAL ESTATE

TAKE NOTICE that the Council of The Corporation of the Town of Innisfil will, pursuant to Section 270(1), as applicable, of the *Municipal Act, 2001, S.O. 2001*, Chapter 25, as amended, consider to declare the following land as surplus:

Part North ½ Lot 21, Concession 3, Part Lot 3 E/S William Street, Plan 24, Part of John St., Plan 24, designated as Part 2 on Reference Plan 51R-15190 (PIN: 58056-0014 LT), Town of Innisfil, County of Simcoe, municipally known as 885 Hofland Street, Innisfil

and is now offering it for sale by way of listing with a real estate agent.

The proposed by-law will come before Council for consideration at its regular meeting to be held in the Council Chambers at 2101 Innisfil Beach Road, Innisfil, Ontario, on the 14th day of December, 2016, at the hour of 7:15 o'clock in the evening. Written comments may be provided to the Clerk of the Town at the address below.

Clerk
 The Corporation of the Town of Innisfil
 2101 Innisfil Beach Road
 Innisfil, ON L9S 1A1
 Telephone: 705-436-3710

Lighting Up Our Community

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Got a Parking Ticket?

Scrooge the Ticket!

Nov. 20 - Dec. 9

Donate children's toys,
 giftcards or nonperishable food
 instead of paying your parking fine!

*Donation must be equal to or greater than fine.
 Receipt must be presented.

Visit www.innisfil.ca for details!



Stay Active This Winter



Santa Claus is Coming to Town



Enjoy a holly jolly Christmas storyline and a visit with Santa Claus!

Innisfil IdeaLAB & Library
 Hosted by the Friends of the Library

Cookstown Branch: Saturday, December 3, 10:15am (20 Church St.)
 Stroud Branch: Saturday, December 3, 10:30am (7883 Yonge St.)
 Lakeshore Branch: Saturday, December 10, 10:30am (967 Innisfil Beach Rd.)

Help Shape Our Parks, Programs & Trails



Thank you for your comments!

On January 25, 2017, Council will consider approval of the Parks and Recreation and Trails Master Plans. You can view the plans at www.innisfil.ca/activeinnisfil

Comments can be sent to activeinnisfil@innisfil.ca or call 705-436-3710.

The Corporation of the Town of Innisfil 6th Line Interchange Environmental Assessment POH No. 1 Summary Report



Table of Contents

1.0	Introduction	2
2.0	Public and Agency Consultation	4
2.1	<i>Newspaper Notice</i>	4
2.2	<i>Agency Contacts</i>	4
2.3	<i>First Nations</i>	5
3.0	PIC Comments	5
3.1	<i>Summary of Comments</i>	5

List of Figures

Figure 1:	Project Location	2
Figure 2:	Study Area	3

Appendices

Appendix A	Newspaper Notice
Appendix B	PIC Display Boards
Appendix C	Comment Sheets

July 7, 2016

1.0 INTRODUCTION

The Town of Innisfil initiated this Class Environmental Assessment (EA) in February of 2016 to plan for a new interchange on Highway 400 at the 6th Line. This interchange has been identified in the Town’s Official Plan (OP) and Transportation Master Plan (TMP). This current Study will review the previous analysis for the interchange identified in the TMP, validate those conclusions (which should satisfy Phases 1 and 2 of the Municipal Class EA) and then undertake Phases 3 and 4 of the Municipal Class EA for a proposed interchange at 6th Line and Highway 400.

This EA Study will complete all phases of the Municipal Class EA by establishing the need and justification for the project, considering all alternatives and proactively involving the public in defining a recommended plan for improvements.

This assignment is following the approved Planning and Design process of the “Municipal Class Environmental Assessment”, as amended in 2015, for a Schedule C project. This is a self-assessment process that includes mandatory public consultation.

This Study is being completed as a Schedule C undertaking, based on the range of anticipated effects (i.e. minor environmental impacts) and capital cost of the roadway.

At the completion of the Schedule C project, an Environmental Study Report (ESR) will be prepared for a 30-day public review.

The project location is shown in **Figure 1** and the study area is shown in **Figure 2**.



Figure 1: Project Location

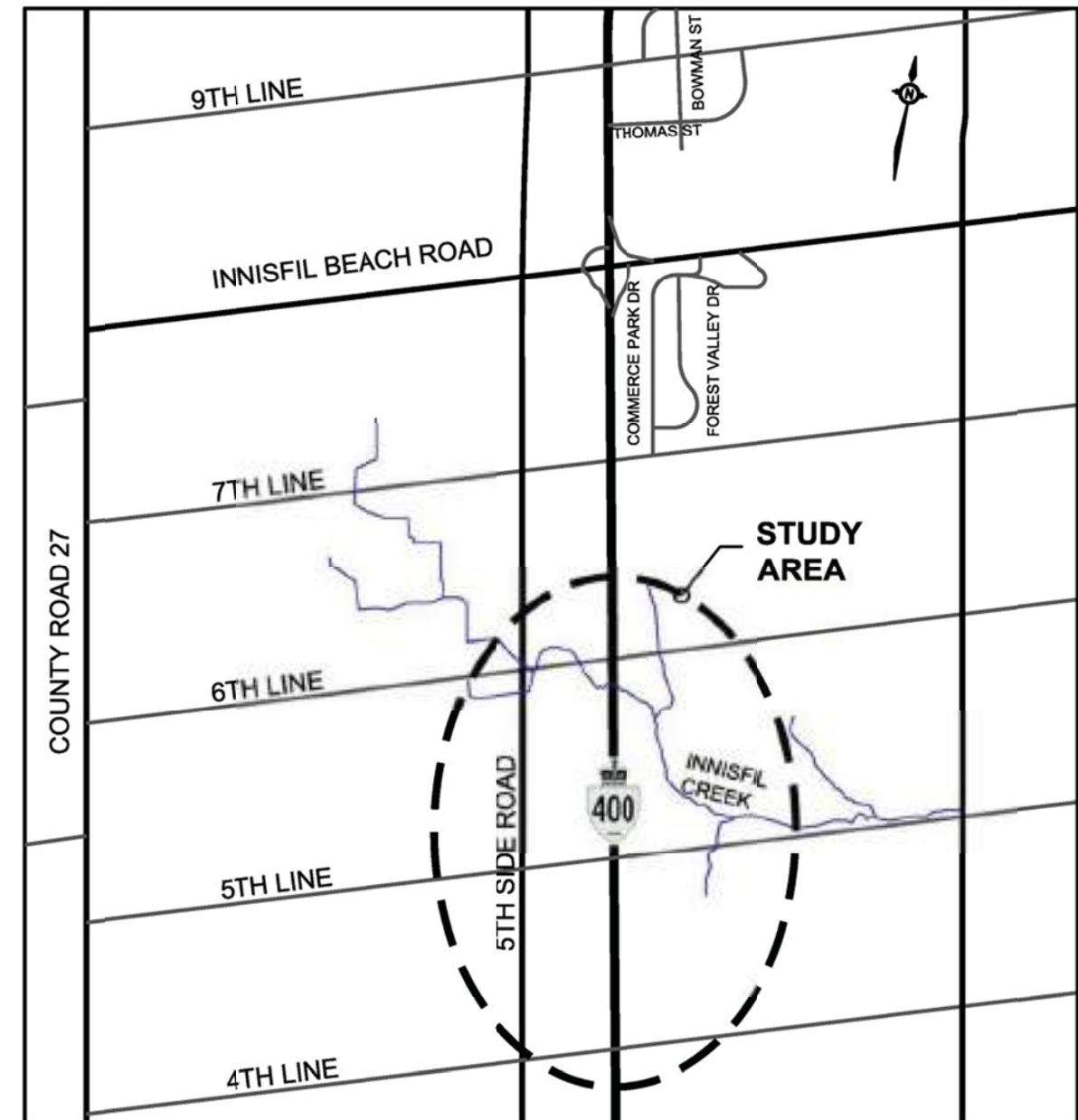


Figure 2: Study Area

The first Public Open House (POH) for this project was held on:

Tuesday, June 7, 2016
at
Town Hall
2101 Innisfil Beach Road
Innisfil, ON
4:00 – 7:00 pm

The Public Information Centre included presenting the following:

- EA Process
- Need and Justification
- Environmental Inventories
- Improvement (Interchange Alternatives)

Town of Innisfil and consultant representatives were available to respond to any inquiries.

All members of the public and interest groups were invited to the first Public Open House to view the presentation material and to discuss the project with the Town and consultant representatives.

Twenty-three (23) people registered at the Public Open House. Each person was encouraged to provide a written response to any issues or concerns.

2.0 PUBLIC AND AGENCY CONSULTATION

One of the key aspects of the project is to provide the public, interested parties, affected agencies and municipalities with the opportunity for input. In order to

ensure this objective is met, a public and agency notification program was undertaken. The program includes a number of communication mechanisms, discussed in the following sections. A Study Design was released for public review and a comment was received requesting that 4th Line be reviewed as an interchange location.

2.1 Newspaper Notice

Notice of the first POH was placed in The Innisfil Examiner on April 1, 2016 and April 8, 2016.

The newspaper notice is found in **Appendix A.**

2.2 Agency Contacts

The following agencies were invited to attend the POH:

- Simcoe County District School Board
- Simcoe Muskoka Catholic District School Board
- Simcoe Muskoka District Health Unit
- Town of Innisfil Fire Services
- Simcoe County Police Services
- Simcoe County Paramedic Services
- County of Simcoe
- Lake Simcoe Region Conservation Authority
- Metrolinx
- Ministry of Transportation
- Ministry of the Environment and Climate Change
- Ministry of Aboriginal Affairs
- Ministry of Natural Resources and Forestry
- Environment Canada

- Canada Pacific Railway
- Transport Canada
- Nottawasaga Valley Conservation Authority
- Ministry of Aboriginal Affairs
- Cookstown and District Chamber of Commerce
- The Greater Innisfil Chamber of Commerce
- Gilmore & Gilmore Professional Corporation
- Bayview Beach Ratepayers Association
- Innisfil District Association
- Alcona Beach Club Inc.
- Degrassi Cove Association
- Innisfil Creek Golf Course
- Patson Holdings Ltd.
- Belpark Homes
- Cookshill Developments
- Cortel Group
- Celeste Phillips Planning Inc.
- PGC Group of Companies
- Lormel Homes / Bellaire Properties Inc.
- Enbridge Gas
- Bell Canada
- Rogers Communications
- Goderich-Exeter Railway
- Hydro One Networks Inc.

Notification of the Public Open House was communicated to all affected residents, local municipalities, external agencies and interested groups.

2.3 First Nations

Individual letters were sent to the First Nations within the vicinity of the Study Area, inviting them to attend the meeting. Letters were sent to the following First Nations:

- Six Nations of the Grand River
- Six Nations Haudenosaunee Confederacy Council
- Chippewas of Georgina Island
- Beausoleil First Nation (Christian Island)
- Chippewas of Rama First Nation
- Alderville First Nation
- Hiawatha First Nation
- Curve Lake First Nation
- Moose Deer Point First Nation
- Mississauga of Scugog First Nation
- Wahta Mohawks (Mohawks of Gibson)
- Georgian Bay Métis Council
- Métis Nation of Ontario

3.0 PIC COMMENTS

Display panels/boards were set up around the perimeter of the room, to be viewed at leisure. A copy of the POH No. 1 presentation boards is provided in **Appendix B.**

Three (3) comment sheets were received at the PIC. Two (2) emails were received during the subsequent 2-week comment period. Copies of the comments, excluding personal information, are provided in **Appendix C.** The results of the comments and discussions are summarized in the following sections.

3.1 Summary of Comments

The results of the comments received and discussions held at the POH No. 1 are summarized below in **Table 1.** The comments have been summarized by general subject matter.

Comments raised by the public include:



- In favour of leaving the road open during construction.
- Concern for the ravine south of the 6th Line.
- Concern for the cold-water creek that crosses the 6th Line at Highway 400.
- One resident expressed a preference for a 4th Line interchange location and requested that a cost/performance analysis be completed as part of the interchange screening analysis.
- There is a former schoolhouse recognized locally on the Municipal Registry that is located on the edge of the Study Area that should be noted in the EA documentation.
- General support for considering Highway 400 underpass alternatives.

Comment	Number of Respondents	Comment Sheet Reference No.
In favour of not moving the existing roadway	1	1
In favour of leaving the road open during construction	1	1
6th Line should stay on the existing profile	1	1
Concern for the ravine south of the 6th Line	1	3
Concern for the creek (cold-water creek spawning area) that flows under Highway 400	1	3
Preference for an interchange at 4th Line	1	3
Would like to see a cost-benefit comparison between the 4th Line and the 6th Line locations	1	3
Former schoolhouse on the line of the Study Area is on the Municipal Registry	1	4
Preference for Parclo A2 if the 6th Line location is selected (least impact to their property)	1	5
Pine tree plantation in SW quadrant of 6th Line and Highway 400	1	5

4.0 CONCLUSIONS

The POH No. 1 conclusions were:

- Costing analysis should be considered to support the recommendation of the 6th Line as the preferred interchange location.
- The alternative of a Highway 400 underpass (6th Line going over



- the freeway) should be carried forward as a cost effective solution.
- Support for considering a realignment of the 6th Line northerly to allow the road to remain open during construction and minimizing impacts to existing houses and the natural environment along Innisfil Creek.
- Support for alternatives that reduce the footprint of the interchange (roundabouts or Parclo A2 designs).



APPENDICES

Appendix A Newspaper Notice

Upcoming Council Meetings

- Wednesday, May 25, 2016**
- 6:30 p.m. - Special Council Meeting – InnServices Shareholders
- Wednesday, June 1, 2016**
- 6:30 p.m. - Planning Public Meeting – Abandel Group Zoning By-Law Amendment
 - 7:15 p.m. - Regular Council Meeting

Upcoming Board/Committee Meetings

- Economic Development Advisory Committee**
June 2, 2016 at 1 p.m., Town Hall Community Rooms B & C
- Heritage Committee Meeting**
June 9, 2016 at 7 p.m., Town Hall Community Rooms B & C
- Accessibility Advisory Committee**
June 14, 2016 at 1 p.m., Town Hall Community Room A
- Meetings subject to change. Please visit the Town's website to view the most updated listing.

Victoria Day Weekend Hours

	Town Offices	Town Arenas	Public Library Branches
Sat. May 21, 2016	Closed	Open	Lakeshore Branch: 10 a.m. – 5 p.m.
Sun. May 22, 2016	Closed	Open	Closed
Victoria Day Mon. May 23, 2016	Closed	Closed	Closed

Essential Roads, Water and Wastewater services will be provided. For Town service emergencies call South Simcoe Police at 705-436-2141.

Employment Opportunities

- Engineering Technologist, Development Engineering, 3 Year Contract (closes May 22.) Please visit Employment Opportunities on the Town's website for more details.

Join Us For Our Grand Opening Ceremony!

Fire Station #4 Grand Opening

23 King Street N., Cookstown

Saturday, May 28, 2016 • 2:00 to 4:00 pm
Official Remarks at 2:30 pm

Explore The Fire Station • Meet Your Firefighters
Learn About Fire Safety • Light Refreshments



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Toll Free: 1-855-228-4813
steven.taylor@bteng.ca

Maintenance Flushing Notice



To Water Consumers within the Goldcrest Water System

Please be advised that operational staff will be performing scheduled maintenance flushing of the water mains in your area during the period of:

May 25 to 27, 2016

Between the hours of 8:00 AM and 4:30 PM. It is not anticipated that flushing will be performed after 4:30 PM but unforeseen situations may arise that might alter this time.

During this flushing your water may be discolored for a short period of time. We would recommend that you refrain from water consumption activities (ie: laundry during this period).

You may also experience reduced water pressure.

We would also recommend that you run your cold water to waste for a couple of minutes to flush out any iron precipitation which may have accumulated within your water service line after flushing.

We apologize for any inconvenience this may cause.

Stay Active This Summer



Sell Your Sweets



← More Community Bulletin Notice Inside Back Page

Upcoming Council Meetings

- Wednesday, June 1, 2016**
- 6:30 p.m. - Planning Public Meeting – Abandel Group Zoning By-Law Amendment
 - 7:15 p.m. - Regular Council Meeting
- Wednesday, June 15, 2016**
- 4:30 p.m. - Special Council Meeting – Parks & Recreation Master Plan Workshop
 - 6:00 p.m. – Public Meeting – Economic Development Community Improvement Plan
 - 7:15 p.m. - Regular Council Meeting

Upcoming Board/Committee Meetings

- Economic Development Advisory Committee**
June 8, 2016 at 1 p.m., Town Hall Community Rooms B & C
- Heritage Committee Meeting**
June 9, 2016 at 7 p.m., Town Hall Community Rooms B & C
- Accessibility Advisory Committee**
June 14, 2016 at 1 p.m., Town Hall Community Room A
- Health Committee Meeting**
June 16, 2016 at 1:30 p.m., Town Hall Community Rooms B & C
- Committee of Adjustment**
June 16, 2016 at 6:30 p.m., Town Hall Council Chambers
- BWG/Innisfil Police Services Board Meeting**
June 20, 2016 at 7 p.m., BWG Library, Zima Room
- Library Board Meeting**
June 20, 2016 at 7 p.m., Lakeshore Branch
- Meetings subject to change. Please visit the Town's website to view the most updated listing.

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Explore The Fire Station • Meet Your Firefighters
Learn About Fire Safety • Light Refreshments



NOTICE OF PUBLIC OPEN HOUSE NO. 1

6th Line Interchange Municipal Class Environmental Assessment



The Town of Innisfil has initiated a Class Environmental Assessment (EA) for a proposed interchange at 6th Line and Highway 400.

The 6th Line Interchange project is being planned as Schedule C project under the Municipal Class Environmental Assessment (2007) process, as amended in 2011 and 2015. The EA Study will confirm project need and justification, document existing environmental conditions, examine alternatives and define the interchange design.

The EA will review the Town's Transportation Master Plan to confirm it satisfies Phases 1 and 2 of the Municipal Class EA for a Schedule C study, and will complete Phases 3 and 4 of the Class EA for the proposed interchange. The Municipal Class EA will engage the public in determining a recommended plan for improvements.

A draft Study Design is available on the Town of Innisfil website www.innisfil.ca/6th-line-interchange-ea. The Study Design describes the project scope, study approach, need and justification of the study, study process and preliminary design criteria.

Information on the project will be presented on display boards and Study Team Members will be available to answer questions and receive comments at the first Public Open House (POH) meeting to be held as follows:

Tuesday, June 7, 2016
Town Hall Community Rooms
2101 Innisfil Beach Road, Innisfil, Ontario
4:00 pm – 7:00 pm

There is an opportunity at any time during the EA process for interested persons to provide comments. Any comments received pertaining to the study will be collected under the *Environmental Assessment Act* and, with the exception of personal information (*Freedom of Information and Protection of Privacy Act*) will become part of the public record.

For more information, to provide comments or if you wish to be placed on the study's mailing list, please contact:

Jessica Jenkins, P. Eng.
Project Manager
Town Of Innisfil
2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1
Tel: 705-436-3710 ext. 3224
Toll Free: 1-888-436-3710
jjenkins@innisfil.ca

Steve Taylor, P. Eng.
Consultant Project Manager
BT Engineering
586 Eglinton Avenue East
Toronto, Ontario M4P 1P2
Tel: 1 (416) 488-5353
Toll Free: 1-855-228-4813
steven.taylor@bteng.ca

Notice Of Public Meeting

(Planning Act, R.S.O 1990, c. P.13, as amended, s. 17 and s. 28)
ECONOMIC DEVELOPMENT COMMUNITY IMPROVEMENT PLAN (EDCIP)

The Town of Innisfil will hold a public meeting on **June 15, 2016 at 6:00 P.M. in the Council Chambers located at the Town Hall at 2101 Innisfil Beach Road.** The purpose of the Public Meeting is for Staff to provide an overview and to obtain public comments on the Town's proposed 'Economic Development Community Improvement Plan' (EDCIP)

What is a Community Improvement Plan (CIP)?

A CIP is a tool that allows the Town to establish various programs and actions that stimulate investment, foster community pride and enhance physical, environmental, social, or economic conditions within identified Community Improvement Project Areas.

THE PURPOSE of the EDCIP is to improve the economic base of the Town of Innisfil and accelerate local job growth and community development. The effect of the proposed plan, once adopted, will allow the Town to provide financial incentives to private land owners for the development and renewal of commercial and industrial lands within the Town's borders. Specifically, the EDCIP is proposing a number of incentives such as a Development Charge Abatement Program and Tax Increment Equivalent Grant.

The proposed EDCIP identifies all lands in Innisfil as a Community Improvement Project Area. However, the EDCIP specifies that any available financial incentives will be subject to the Community Improvement 'Sub Area' in which the land is located. For example, to stimulate local job growth, a greater range of incentives are being proposed for the Innisfil Heights Employment Sub Area.

ANY PERSON may attend the Public Meeting and make oral submissions either in support of or in opposition to the proposed Community Improvement Plan. If a person or public body does not make oral submissions at the public meeting or make written submissions to the Town before the proposed Community Improvement Plan is adopted, the person or public body is not entitled to appeal the Town's decision to the Ontario Municipal Board.

Please also note that Council may approve the proposed Community Improvement Plan on the same evening.

IF YOU WISH to be notified of the adoption of the proposed Community Improvement Plan, you must make a written request to the Clerk of the Town of Innisfil at 2101 Innisfil Beach Road, Innisfil, Ontario L9S 1A1.

ADDITIONAL INFORMATION regarding the proposed Community Improvement Plan will be available after June 8, 2016 on the Town's website at www.innisfil.ca and on weekdays between 8:30 a.m. and 4:30 p.m. at the Town's Customer Service Department.

DATED AT THE TOWN OF INNISFIL THIS
25th DAY OF MAY, 2016
LEE PARKIN, CLERK
TOWN OF INNISFIL
2101 INNISFIL BEACH ROAD
INNISFIL, ONTARIO, L9S 1A1



2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1
705.436.3710
Office Hours:
Monday to Friday
8:30am to 4:30pm

Community Bulletin

Follow us on
@townofinnisfil
Like us on
Town of Innisfil

MAY 27, 2016

Maintenance Flushing Notice



705-431-8448

To Water Consumers within the Cookstown Water System

Please be advised that operational staff will be performing scheduled maintenance flushing of the watermains in your area during the period of:

May 31 – June 3, 2016

During this flushing your water may be discolored for a short period of time. We would recommend that you refrain from water consumption activities (ie: laundry during this period). We would also recommend that you run your cold water to waste for a couple of minutes to flush out any iron precipitation which may have accumulated within your water service line after flushing. We apologize for any inconvenience this may cause.

Public Info Session 2nd Dwelling Units

**Info Session: June 7, 2016 (6pm)
Want to Have a 2nd Dwelling Unit??
We want to help!**

What are the requirements? How much will it cost?
Is there money to help me build?? YES!!!

Come find out what you need to know!

A second dwelling unit (e.g. basement apartment) is a separate living space that is located on the same property as your house.



Ask questions. Get the facts. We want to help!

Staff will share information and you will be able to ask questions to help plan and build your second dwelling unit.

When and Where?

- **When:** June 7, 2016, 6:00-7:30pm
- **Where:** Town Hall (Council Chambers)
2101 Innisfil Beach Road, Innisfil

For more information, please visit www.innisfil.ca/planning-services and click on the 'Second Dwelling Units' tab or call Customer Service at 705-436-3710.

View this page at innisfilexaminer.ca
or www.innisfilexaminer.ca

Town of Innisfil – 6th Line Interchange
Environmental Assessment Study
Summary Report - Public Open House
No. 1
July 2016



Appendix B
PIC Display Boards



List of Display Boards

Welcome
Introduction
Municipal Class Environmental Assessment (EA) Process
Need and Justification for an Interchange
Alternative Planning Solutions
Candidate Interchange Locations
Existing and Future Development Areas
Assessment of Interchange Location Alternatives
Environmental Inventories – Aquatic Environment
Environmental Inventories – Terrestrial Natural Environment
Environmental Inventories – Cultural Heritage
Technical Studies – Geotechnical (Soils)
Vertical Alignment Alternatives
Alternative A – Highway 400 Overpass
Alternatives B & C – Highway 400 Underpass
Highway 400 Profiles
Interchange Configuration Alternatives
Typical Cross Sections
Evaluation of Alternatives
Preliminary Evaluation Criteria – Long List
Schedule
Resource Table



Town of Innisfil - 6th Line Interchange Environmental Assessment (EA) Study

Welcome

Welcome to the first Public Open House (POH) meeting. Please sign in on the attendance sheet and obtain a comment sheet at the registration desk.

Should you have any questions regarding the presentation materials, background reports or any other aspect of the study, please speak to the Town or Consultant study team members in attendance.

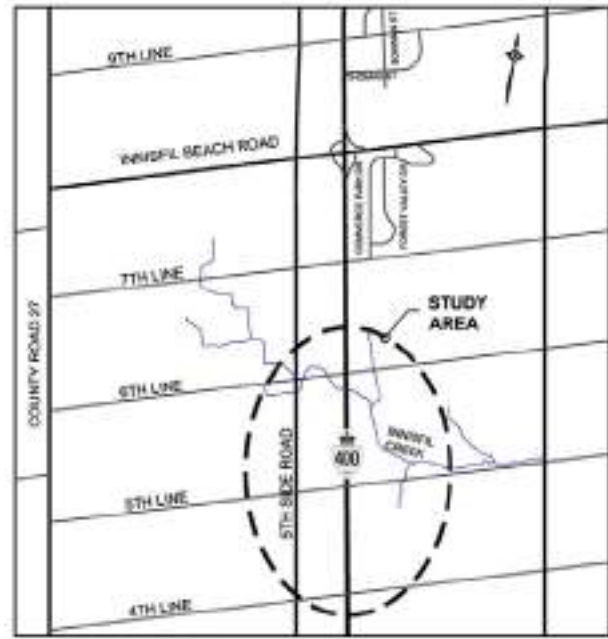
We encourage your input/feedback on the material being presented on the display boards. Please deposit completed comment sheets in the comment box or mail/ fax/ e-mail to the address at the bottom of the form by June 24, 2016.

There is an opportunity at any time during the EA process for interested persons to provide written input. Any comments received will be collected under the *Environmental Assessment Act* and *Freedom of Information and Privacy Act* and, with the exception of personal information, will become part of the public record.

Introduction

The Town of Innisfil is conducting an Environmental Assessment (EA) to plan for a new interchange on Highway 400. The study will assess options for a new interchange in the central area of Simcoe County. This new interchange will provide better access to proposed development areas (Innisfil Heights and Alcona).

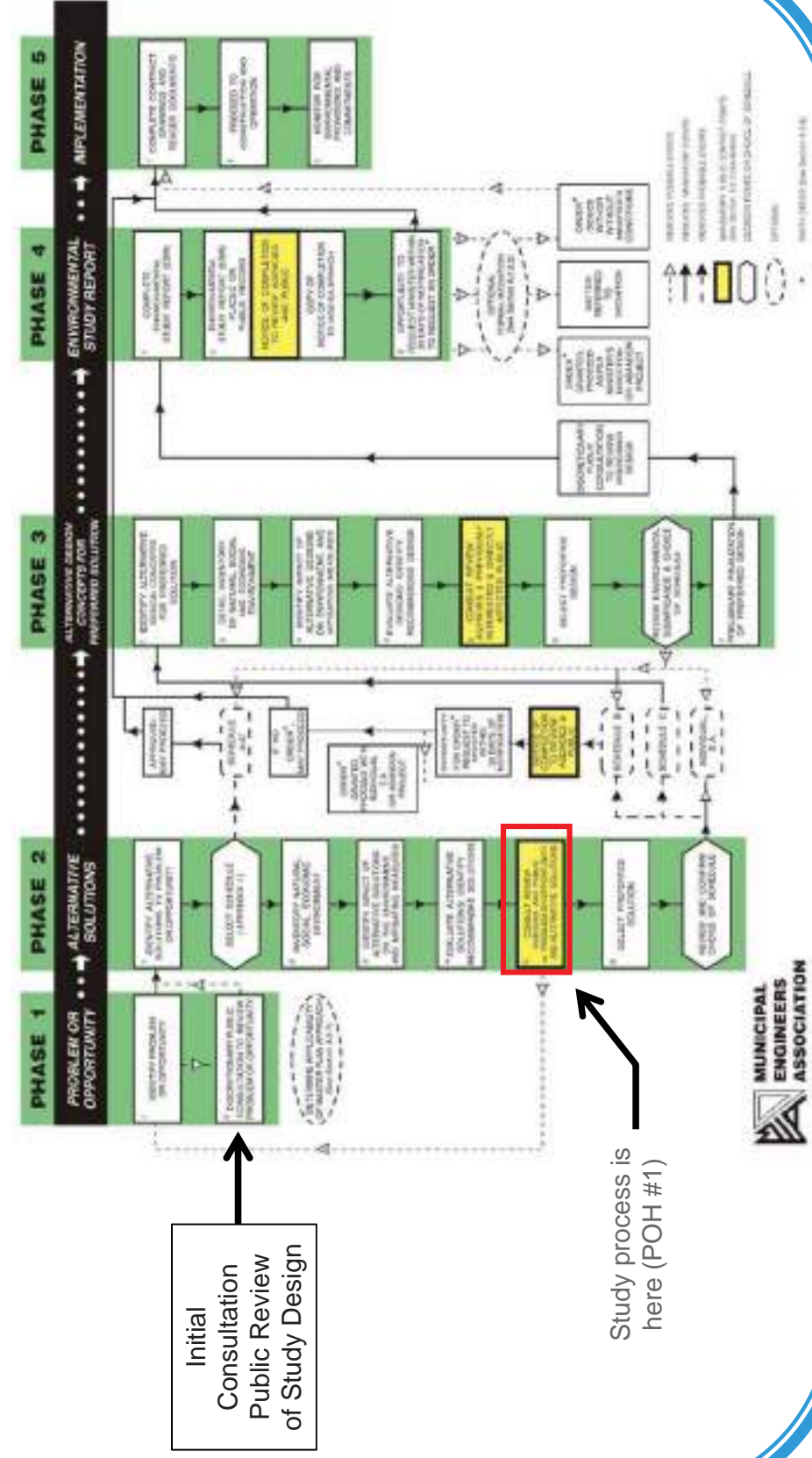
This Study will complete all phases of the Municipal Class EA by establishing the need and justification for the project, considering all alternatives and proactively involving the public in defining a recommended plan for improvements. This Study is being completed as a Municipal Schedule 'C' undertaking, based on the Class definition of the project and the range of anticipated effects. See the following exhibit for a description of the EA process.



Municipal Class Environmental Assessment (EA) Process

This project is being undertaken as a Municipal Schedule C Class EA in accordance with the Municipal Class Environmental Assessment. A copy of this document is available at the Resource Table.

The data and reports produced for the study will be documented in an Environmental Study Report (ESR).



Need and Justification for an Interchange

Current and expected increases in traffic in the County of Simcoe and Town of Innisfil necessitate improvements to the road network for a new interchange on Highway 400.

The Simcoe County Transportation Master Plan (TMP) (2014) identified Innisfil Beach Road will be above capacity by 2031, even with planned roadway improvements.

The Town of Innisfil's Official Plan identified the need for a future interchange on Highway 400. The Innisfil TMP (2013) has also confirmed the need for a new interchange on Highway 400 and recommended it be located at the 6th Line (subject of this EA Study) with improvements to the 6th Line corridor (defined in the 6th Line EA). The TMP identified that an interchange at 6th Line would also address the capacity constraint on Innisfil Beach Road. These background documents are available at the Resource Table.



Alternative Planning Solutions

The Regional Alternative Planning Solutions (defined as Planning Strategies in the Innisfil Transportation Master Plan (TMP)) represent candidate alternatives for meeting the needs of the problem statement of the Town.

The four alternatives include:

- Alternative 1 – The “Do Nothing” Alternative
- Alternative 2 – Business as Usual
- Alternative 3 – Balanced Approach
- Alternative 4 – Aggressive Approach

These alternatives are described in the Innisfil TMP which can be found on the resource table.

Alternatives 3 and 4 were carried forward for further evaluation.

The Alcona Growth Alternative Planning Solutions represent alternatives for meeting the growth in Alcona, including:

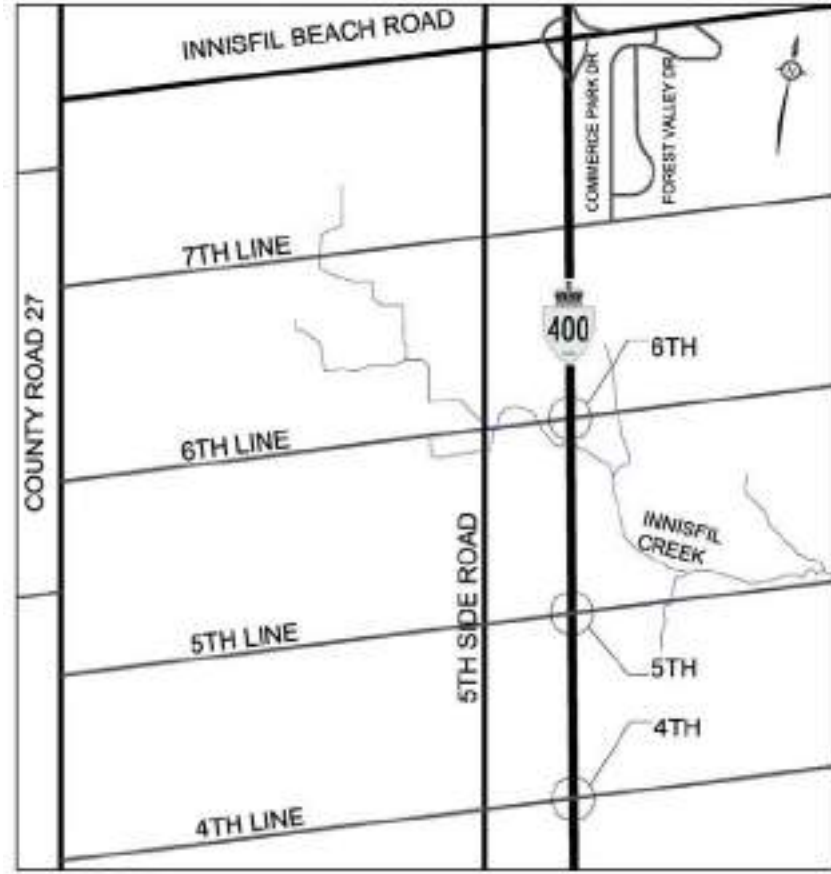
- Alternative 1: “Do Nothing”
- Alternative 2: Restrict Development
- Alternative 3: Transportation Demand Management (TDM)
- Alternative 4: Transportation System Management (TSM)
- Alternative 5: New Infrastructure (Interchange on Highway 400)

Alternative 5 was carried forward for further evaluation (Preliminary Design Alternatives).

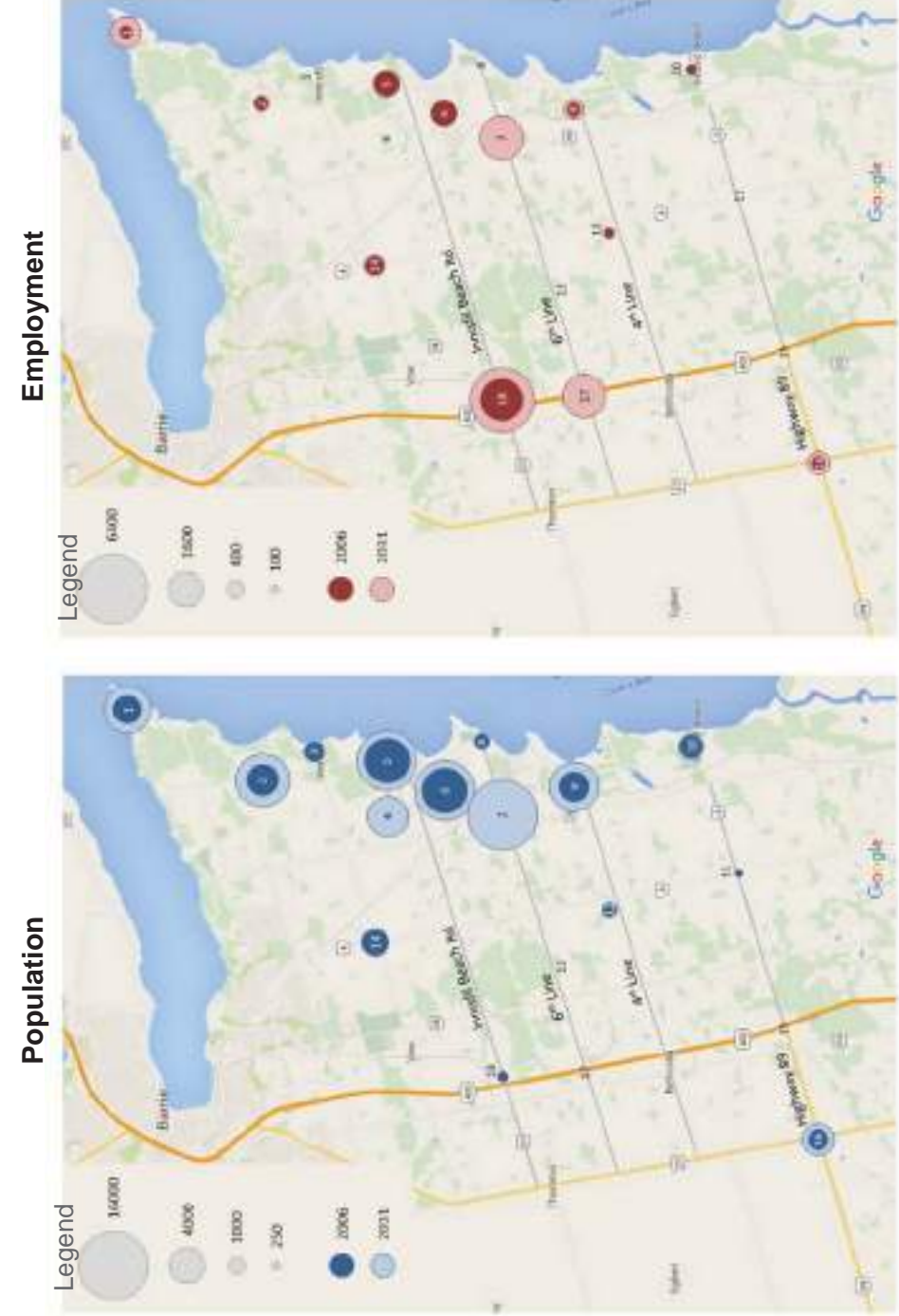
Candidate Interchange Locations

As part of the discretionary consultation illustrated in Phase 1 of the Class EA process exhibit, a Study Design was circulated to agencies and was available for public review. Comments received suggested candidate interchanges should be considered at the 4th Line, 5th Line and 6th Line as potential projects.

As a result of this input, the EA has been expanded to include a screening level analysis comparing these locations. The analysis is included on the resource table and presented on the following exhibits.



Existing and Future Development Areas



Note: The size of the circle diameters reflect the size of the existing (dark circles) and future (light circles) population and employment areas.

Assessment of Interchange Location Alternatives

In response to a comment received on the draft Study Design, the study area was expanded to revisit the interchange location recommended in the TMP and consider three alternative interchange locations: 4th Line, 5th Line and 6th Line. The technical analysis is documented at the Resource Table and summarized as follow:

Criteria	4th Line Interchange	5th Line Interchange	6th Line Interchange
Network Wide Benefit (Addresses Capacity Issue on Innisfil Beach Road)	✘	✘	✔
Supports Future Growth Areas	✘	-	✔
Environmental Impacts	-	-	-
Property Impacts	-	-	-
Constructability and Cost	-	-	-
Proximity to Current Development	✘	-	✔
Proximity to Projected Development	✘	-	✔
Interchange Spacing	✔	✔	-
Proximity Issue with ONroute Travel Centre	✘	✘	-
Recommended to be carried forward	No	No	Yes

Legend: Good / Best ✔ Fair / Equal - Poor / Worst ✘

The preliminary recommendation is to carry forward the 6th Line location for a more detailed assessment of preliminary design alternatives.

Environmental Inventories – Aquatic Environment

Environmental features and characteristics presenting constraints possibly affected by interchange alternatives



Innisfil Creek headwaters (southeast quadrant of 5 Sideroad/ 6th Line)



East tributary of Innisfil Creek (6th Line east of Highway 400)



Lands adjacent to Innisfil Creek north of 6th Line and west of Highway 400



South of 6th Line, a flowing channel extends through a small meadow



Innisfil Creek downstream from 6th Line



Innisfil Creek under Highway 400.

Environmental Inventories – Terrestrial Natural Environment

Environmental features and characteristics presenting constraints possibly affected by interchange alternatives



Landscape north of 6th Line transformed from natural condition.



Regenerating and planted tree cover south of 6th Line.



Wetland forest habitat.



Vegetation along the east tributary of Innisfil Creek.



Woodland extending from a regenerating field into natural (largely wetland) forest.



Agricultural landscape north of 6th Line.

Environmental Inventories – Cultural Heritage

Environmental features and characteristics presenting constraints possibly affected by interchange alternatives



6th Line Bridge as viewed from west

Bridge description

- Constructed in 1949 when this section of Highway 400 was built.
- Example of a simple rigid frame concrete bridge.
- One of several similar bridges in immediate vicinity.

Current heritage status of 6th Line Bridge

- Not listed on Municipal Heritage Register
- Not designated under *Ontario Heritage Act*
- 1 property on municipal registry

Nearby heritage resources

- No listed or designated heritage resources located within study area.
- Former village of Killyleagh plaque located west of 5th Side Road.

Next steps

- Complete preparation of cultural heritage evaluation for interchange.
- Integrate findings into ESR.



6th Line Bridge as viewed from side of Highway 400



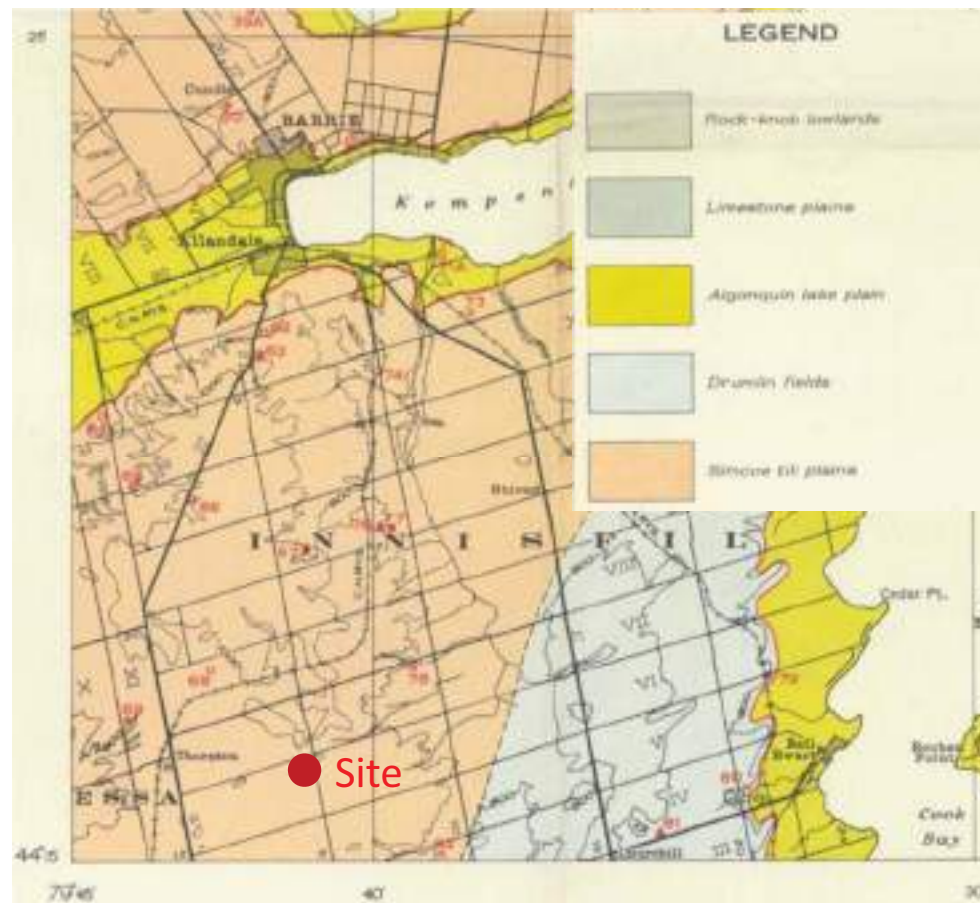
Detail of 6th Line Bridge



Example of surrounding agricultural landscape

Technical Studies – Geotechnical (Soils)

- The existing conditions in the vicinity of the crossing have been summarized in a Geotechnical Desktop Report and are available at the Resource Table.
- The site is located in the drumlinized till plains known as the Innisfil Uplands, part of the Physiographic Region called the Peterborough Drumlin Field.
- The existing conditions indicate equal portions of silt and sand with clay and gravel deposits consistent with till geology.
- Surficial geology is dominated by aged till plains shown below.



Vertical Alignment Alternatives

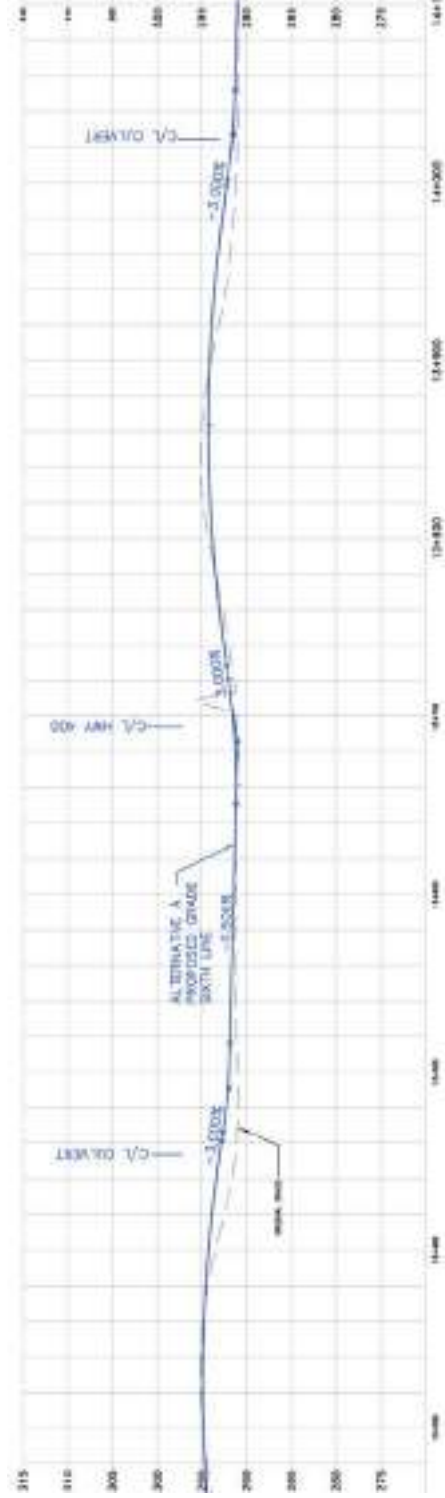
The EA is assessing both Highway 400 Overpass (existing condition with Highway 400 over 6th Line) and Highway 400 Underpass alternatives. The overpass alternative will require a minor grade raise of Highway 400 to accommodate a larger bridge span and the future longer range widening of 6th Line to a 4-lane arterial. The underpass alternative will maintain the existing Highway 400 profile (no change to existing profile).

For the underpass alternative, maintaining the existing alignment of the 6th Line will be considered as well as a potential alignment offset to the north. These alternatives are illustrated on the following exhibits and we welcome comments on the alternatives.

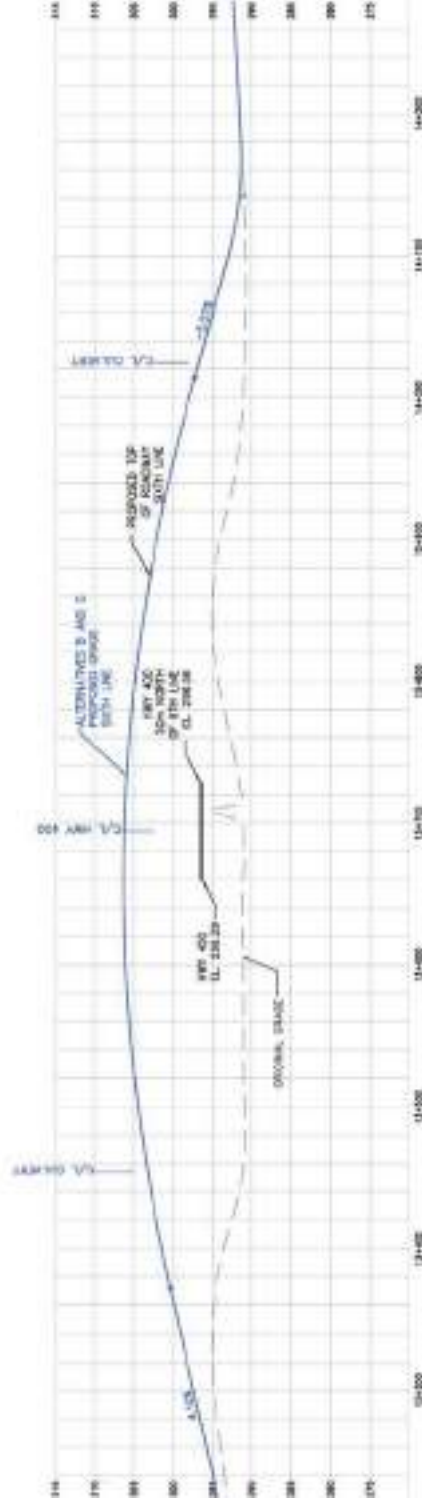
The following exhibits illustrate profiles (vertical elevation of the road and horizontal alignment) for each alternative under consideration.



Alternative A – Highway 400 Overpass



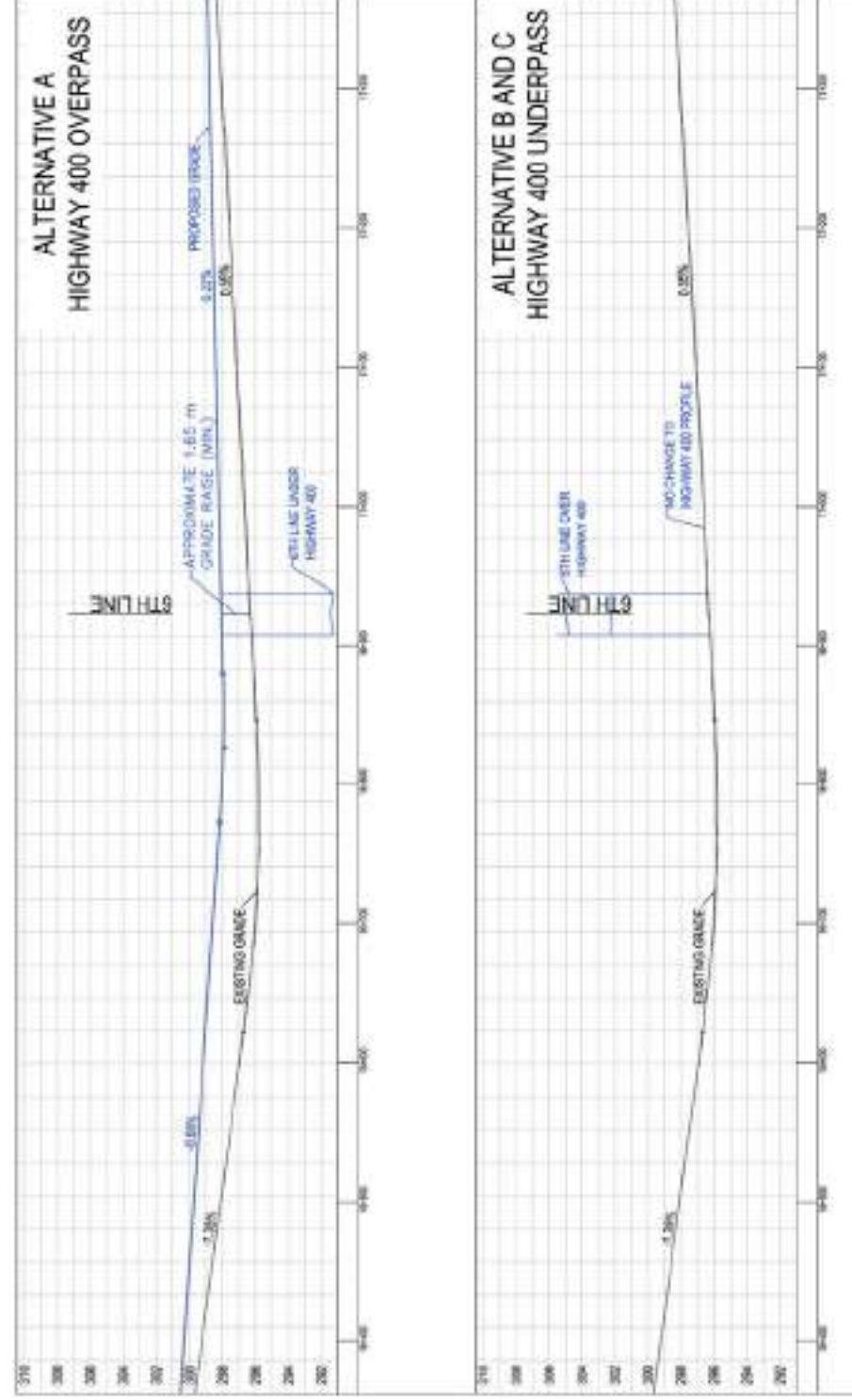
Alternatives B & C – Highway 400 Underpass





Innisfil

Highway 400 Profiles



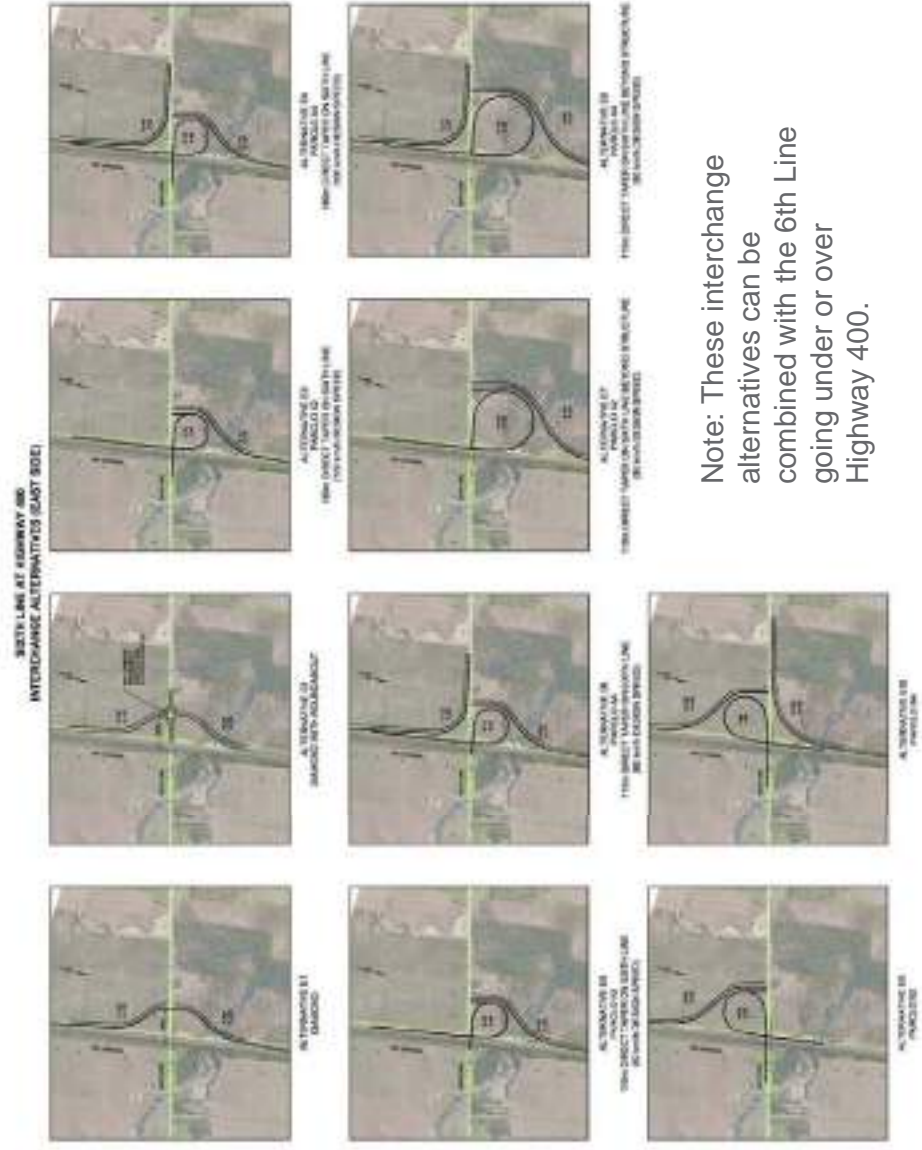
Innisfil

Interchange Configuration Alternatives



Note: These interchange alternatives can be combined with the 6th Line going under or over Highway 400.

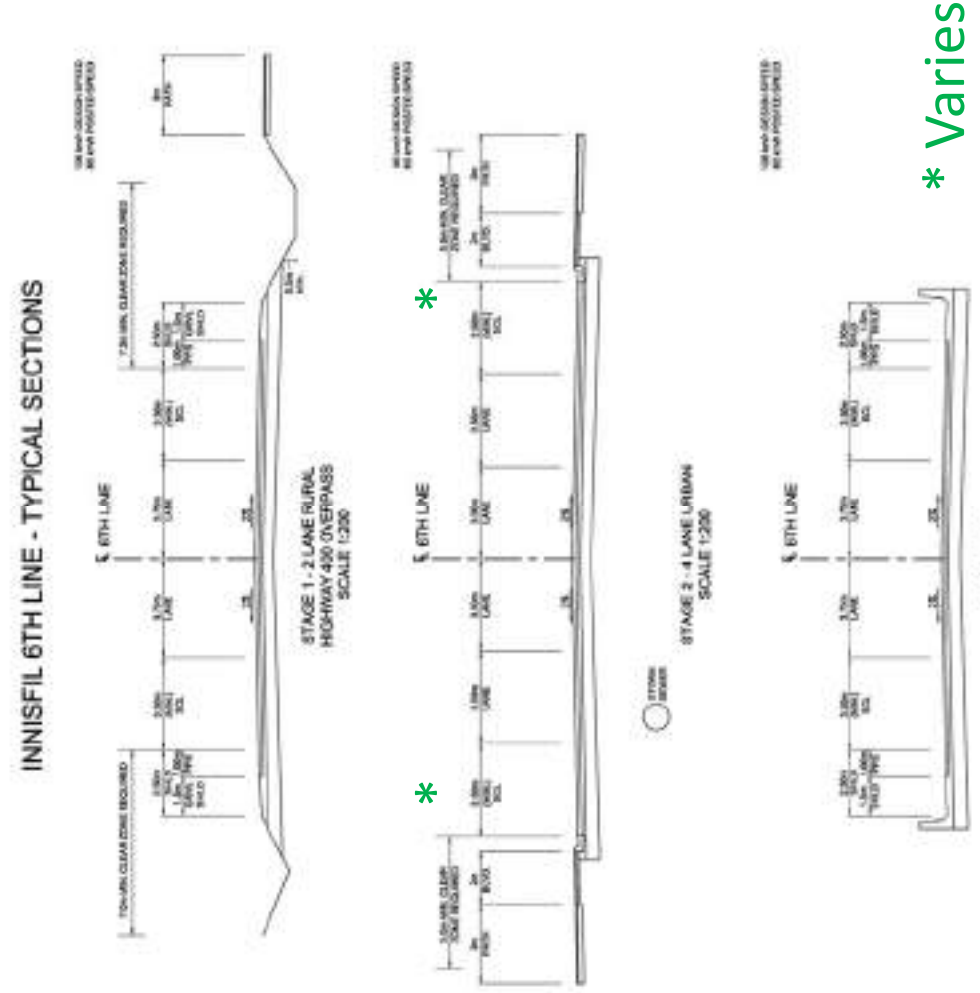
Interchange Configuration Alternatives



Note: These interchange alternatives can be combined with the 6th Line going under or over Highway 400.



Typical Cross Section



Bridge Overpass and Underpass Examples



Highway 400 and Line 11



407 and 400 Southbound



407 and 400 Northbound



Mapleview Drive and 400 in Barrie



407 ETR and Brant Street

Evaluation of Alternatives

The evaluation approach to compare preliminary design alternatives, described as the Multi Attribute Trade-off System (MATS), focuses on the differences between the alternatives and provides a traceable decision-making process. The method uses numerical scores to measure the impact of the alternatives, and allows sensitivity tests to be performed. The evaluation methodology report is available at the resource table.

The initial task in the evaluation is to develop evaluation criteria from which alternatives will be assessed. This process includes the identification of “global” groups of factors followed by the selection of a number of “local” sub-factors under the global groups.

A “preliminary” list of global factors and their corresponding sub-factors proposed for the evaluation of alternatives is shown on the following exhibit. The public is asked to comment on issues that should be considered for the evaluation of alternatives.

For this study a sensitivity test will be undertaken following the evaluation by redistributing the factor weights to show any trade-offs between alternatives.

Preliminary Evaluation Criteria – Long List

The following long list of candidate evaluation criteria (factor groups and sub-factors) is being considered for the assessment of the alternatives:

Transportation	Social and Cultural Environment
Traffic Operations – Delays	Historic Archaeological potential
Highway Safety – Collision Potential	Prehistoric archaeological potential areas impacted
Interchange Design Consistency	Built heritage sites impacts
Collision Potential – Queue on Highway	Cultural landscape features
Highway Safety – Design Consistency	Noise impacts
Arterial Road Safety – Design Consistency	Vibration impacts
Municipal Traffic Operations (Delays)	Community Cohesion
Ramp Safety	Green Spaces Impacted
Travel Time	Excess Materials Management
Fuel Consumption	Water wells impacted
Road User Costs	Lighting and Visual impacts
Movement of Goods	Economic Environment
Pedestrian Safety – Crossing High Speed Ramp	Improved access to local businesses
Pedestrian Safety – Crossing Ramp Terminal	Land Use and Property
Bicycle Safety	Property required (Residential)
Ability to Accommodate Emergency Vehicles	Property required (Industrial)
Safety of Left Turn Access to Residential Driveways	Property required (Commercial)
Movement of Farm Equipment	Property required (Institutional)
Drainage	Number of potentially contaminated sites
Natural Environment	Cost
Air Quality	Capital Cost
Endangered species (SAR)	Future Life Cycle Cost
Cold water fish habitat impacted	Utility Relocation
Cool water fish habitat impacted	
Warm water fish habitat affected	
Water quality – stormwater runoff	
Migratory Bird Nesting Impact/Loss of Existing vegetated areas	
Regionally significant natural areas and habitat	
Contamination	
Snow Drift	

Schedule

Following this meeting we will:

- Review All Comments
- Complete Additional Seasonal Inventories
- Evaluate Alternatives
- Public Open House No. 2
- Review all comments
- Finalize the Recommended Plans
- Prepare the ESR
- Place the Study Completion Notice in the newspaper
- 30-day public review period (Fall 2016 / Winter 2017)
- Environmental Clearance

How Can You Remain Involved in the Study?

- Request that your name/e-mail be added to the mailing list
- Provide a completed comment sheet
- Contact the Town or consultant representatives at any time

Any of our representatives that are present can assist you with the above activities.

Thank you for your participation at tonight's meeting. Your input into this study is valuable and appreciated. Please provide your completed comment form on or before **June 24, 2016**. All information is collected and used in accordance with the *Freedom of Information and Privacy Act*.



Resource Table

Study Design
Aquatic Assessment
Bridge Hydrology and Drainage Report
Cultural Heritage Memo
Municipal Class EA
Town of Innisfil Official Plan
Town of Innisfil Transportation Master Plan
Assessment of Interchange Locations



JUNE 13 2016

TO STEVE TAYLOR

It was good to attend the public meeting and to hear the pros and cons of the proposed interchange location. Although I did raise concerns about the location and I still have those concerns I did not take the opportunity to express a preference on the interchange design. From my standpoint I would prefer the design labeled PACCO A2 as this design would impact access to my property through the existing driveway the least or maybe not at all.

The property on the south west corner of the highway and 674 line is a pine plantation that has never been managed as timber and provides little as a wild life refuge in its present state.

Hilroy

I am writing these concerns from my standpoint but understand there are other and possibly greater forces to deal with. You have a big job to do and I wish you the best in that. Thanks for what you do.

Yours sincerely,

[Redacted Signature]



Comment Sheet

Public Open House (POH) No. 1
Tuesday June 7, 2016

6th Line Interchange
Municipal Class Environmental Assessment

Thank you for attending tonight's public meeting. Please provide your comments on any of the material presented.

Note - Not designated under Provincial Registry
- But it is recognized locally
by being "on the Registry" They
have 60 days to designate.

at the town of
Innisfil

Review by cultural heritage team at town
The former school hall

- Inventory - No further work
- Registry - Not thing of cultural heritage
- Designated

(Please turn over if additional space is required.)

Please complete your comment sheet this evening and place in the comment box provided OR send your completed comment sheet by June 24, 2016 to:

Steve Taylor, P.Eng.
BT Engineering
586 Eglinton Avenue East
Toronto, Ontario M4P 1P2
Tel: 1 (416) 488-5353 Toll Free: 1-855-228-4813 Fax: 416-352-1840
steven.taylor@bteng.ca

Personal information contained on this form is collected under the authority of Section 29(2) of the Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c.M.56 as amended. Any comments received will be collected under the Act and, with the exception of personal information, will become part of the public record.

Name / Organization:

Address

City / Town

Email address

Please check a box if you would like to be added to our mailing list to be informed of the publication of the Project File. mailing address email

Clarify on page 3 "that team were advised"
is this the "town of Innisfil" - It is on
the town.

It is on the list
of the Study Areas



Comment Sheet

Public Open House (POH) No. 1
Tuesday June 7, 2016

6th Line Interchange
Municipal Class Environmental Assessment

Thank you for attending tonight's public meeting. Please provide your comments on any of the material presented.

I AM IN FAVOR OF NOT MOVING THE EXISTING
ROADWAY IN ORDER TO LEAVE THE ROAD
OPEN DURING CONSTRUCTION

The Road SHOULD STAY ON THE EXISTING TRAILER
IF POSSIBLE.

(Please turn over if additional space is required.)

Please complete your comment sheet this evening and place in the comment box provided OR send your completed comment sheet by June 24, 2016 to:

Steve Taylor, P.Eng.
BT Engineering
586 Eglinton Avenue East
Toronto, Ontario M4P 1P2
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Name / Organization:

Address

City / Town

Email address

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Town of Innisfil



Comment Sheet

Public Open House (POH) No. 1
Tuesday June 7, 2016

6th Line Interchange
Municipal Class Environmental Assessment

Thank you for attending tonight's public meeting. Please provide your comments on any of the material presented.

- We feel the information provided was informative*
- We do not believe it is a disadvantage to being acquired*

(Please turn over if additional space is required.)

Please complete your comment sheet this evening and place in the comment box provided OR send your completed comment sheet by **June 24, 2016** to:

Steve Taylor, P.Eng.
 BT Engineering
 586 Eglinton Avenue East
 Toronto, Ontario M4P 1P2
 Tel: 1 (416) 488-5353 Toll Free: 1-855-228-4813 Fax: 416-352-1840
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Name / Organization

Address

City / Town Postal Code

Email address

Please check a box if you would like to be added to our mailing list to be informed of the publication of the Project File. mailing address email

June 7, 2016

To whom it may concern,

Some points to consider that make the 6th Line an adverse location for a future interchange include:

- 1) The topography of the area - there is a substantial ravine (60 feet +/- deep) just south of the 6th Line that would greatly increase the cost of constructing an interchange there, in comparison to the 4th Line where the terrain is fairly level.
- 2) Construction - hindrances would occur because of the creek that flows under Hwy 400 through the above-mentioned ravine. This is a cold-water creek that is a spawning area rainbow and speckled trout and also salmon from Georgian Bay. This area is also part of a larger area under conservation zoning that harbours many species of flora and fauna.
- 3) To have an interchange this close to an existing one (Innisfil Beach Road) seems in my mind to concentrate traffic flow rather than spread it out. It would also slow north and south traffic in Innisfil as traffics lights would have to be installed at the 5th and 10th Sideroads at Hwy 11. During highway emergencies equidistant interchanges would create better accessibility for ambulance, fire, and police services. Thus allowing for less down time on the highway and less traffic tie-ups on townships roads during highway shutdowns.
- 4) Innisfil is currently planning for a future industrial area that would go from the 4th Line to the 9th Line. This area would be better served by an interchange on the south end of that planned area.
- 5) The 4th Line location has a level building site far away from any conservation lands and therefore no wildlife concerns. There are no major creeks or waterways in that immediate area, thereby eliminating that concern as well.

As a taxpayer and a concerned citizen I would like to see a cost and benefit comparison between the 4th Line and the 6th Line locations. Knowing that interchanges have a long life and a high cost successful planning must not only meet today's predicted needs but more importantly focus on long terms goals and needs. Doing so in an efficient and financially responsible manner that least impacts our natural environment, yet allows for smooth and efficient traffic flow not only for our needs now but for future generations as well.

[Redacted signature and contact information]

The Corporation of the Town of Innisfil 6th Line Interchange Environmental Assessment POH No. 2 Summary Report



Table of Contents

1.0	Introduction	1
2.0	Public and Agency Consultation	3
2.1	<i>Individual Property Owner Contacts</i>	3
2.2	<i>Newspaper Notice</i>	3
2.3	<i>Agency Contacts</i>	3
2.4	<i>First Nations</i>	4
3.0	POH Comments	4
3.1	<i>Summary of Comments</i>	4
4.0	Conclusions	5
List of Figures		
	Figure 1: Project Location	1
	Figure 2: Study Area	2
List of Tables		
	Table 1: Summary of Written Comments	5
Appendices		
Appendix A	Newspaper Notice	
Appendix B	POH Display Boards	
Appendix C	POH Comment Sheets	

January 2017

1.0 INTRODUCTION

The Town of Innisfil initiated this Class Environmental Assessment (EA) in February of 2016 to plan for a new interchange on Highway 400 at the 6th Line. This interchange has been identified in the Town's Official Plan (OP) and Transportation Master Plan (TMP). This current Study will review the previous analysis for the interchange identified in the TMP, validate those conclusions (which will satisfy Phases 1 and 2 of the Municipal Class EA) and then undertake Phases 3 and 4 of the Municipal Class EA for a proposed interchange at 6th Line and Highway 400.

This EA Study will establish the need and justification for the project, consider all alternatives and proactively involve the public in defining a recommended plan for improvements.

This assignment is following the approved Planning and Design process of the "Municipal Class Environmental Assessment", as amended in 2015, for a Schedule C project. This is a self-assessment process that includes mandatory public consultation.

This Study is being completed as a Schedule C undertaking, based on the range of anticipated effects (i.e. minor environmental impacts) and capital cost of the roadway.

At the completion of the Schedule C project, an Environmental Study Report (ESR) will be prepared for a 30-day public review.

The project location is shown in **Figure 1** and the study area is shown in **Figure 2**.



Figure 1: Project Location

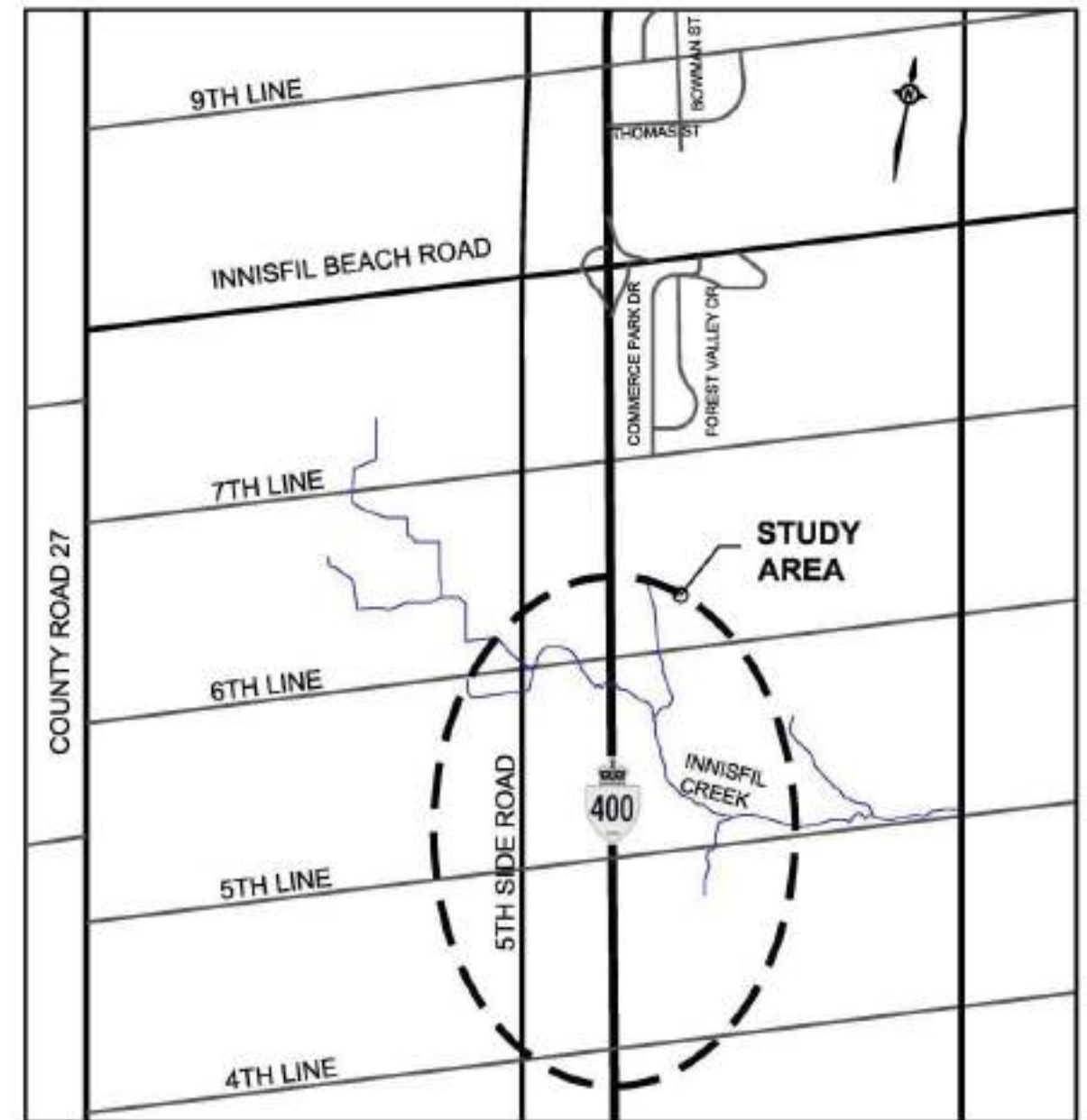


Figure 2: Study Area

The second Public Open House (POH) for this project was held on:

Tuesday, December 6, 2016
at
Town Hall
2101 Innisfil Beach Road
Innisfil, ON
4:00 – 7:00 pm

The POH presented the following:

- Municipal Class EA Process
- Need and Justification
- Environmental Inventories
- Preliminary Design Alternatives
- Recommended Plan
- Next Steps

Town of Innisfil and consultant representatives were available to respond to any inquiries.

All members of the public and interest groups were invited to the second POH to view the presentation material and to discuss the project with the Town and consultant representatives.

Fifteen (15) people registered at the POH. Each person was encouraged to provide a written response to any issues or concerns.

2.0 PUBLIC AND AGENCY CONSULTATION

One of the key aspects of the project is to provide the public, interested parties, affected agencies and municipalities with the opportunity for input. In order to ensure this objective is met, a public and agency notification program was undertaken. The program includes a number of communication mechanisms, discussed in the following sections.

2.1 Individual Property Owner Contacts

Flyers were mailed to all property owners within the study area, inviting them to attend the POH.

2.2 Newspaper Notice

Notice of the second POH was placed in The Innisfil Community Bulletin on November 18, 2016 November 25, 2016 and December 2, 2016.

The newspaper notice is provided in **Appendix A**.

2.3 Agency Contacts

The following agencies were invited to attend the POH:

- Simcoe County District School Board
- Simcoe Muskoka Catholic District School Board
- Simcoe Muskoka District Health Unit
- Town of Innisfil Fire Services
- Simcoe County Police Services
- Simcoe County Paramedic Services
- County of Simcoe
- City of Markham
- Lake Simcoe Region Conservation Authority
- Metrolinx
- Ministry of Transportation
- Ministry of the Environment and Climate Change
- Ministry of Aboriginal Affairs
- Ministry of Natural Resources and Forestry
- Environment Canada
- Canada Pacific Railway
- Transport Canada
- Nottawasaga Valley Conservation Authority
- Cookstown and District Chamber of Commerce
- The Greater Innisfil Chamber of Commerce
- Bayview Beach Ratepayers Association
- Innisfil District Association
- Alcona Beach Club Inc.
- Degrassi Cove Association
- Innisfil Creek Golf Course
- Georgian College
- Patson Holdings Ltd.
- Belpark Homes
- Cookshill Developments
- Cortel Group

- Celeste Phillips Planning Inc.
- PGC Group of Companies
- Gilmore & Gilmore Professional Corporation
- Lormel Homes / Bellaire Properties Inc.
- Enbridge Gas
- Bell Canada
- Rogers Communications
- Goderich-Exeter Railway
- Hydro One Networks Inc.

Notification of the POH was communicated to all affected residents, local municipalities, external agencies and interested groups.

2.4 First Nations

Individual letters were sent to the First Nations within the vicinity of the Study Area, inviting them to attend the meeting. Letters were sent to the following First Nations:

- Six Nations of the Grand River
- Six Nations Haudenosaunee Confederacy Council
- Beausoleil First Nation (Christian Island)
- Chippewas of Rama First Nation
- Alderville First Nation
- Hiawatha First Nation
- Curve Lake First Nation
- Moose Deer Point First Nation
- Mississauga of Scugog First Nation
- Wahta Mohawks (Mohawks of Gibson)
- Georgian Bay Métis Council

3.0 POH COMMENTS

Display panels/boards were set up around the perimeter of the room, to be viewed at leisure. A copy of the POH presentation boards is provided in **Appendix B**.

Zero (0) comment sheets were received at the POH. Two (2) comment sheets were received during the subsequent 2-week comment period. Copies of the comments, excluding personal information, are provided in **Appendix C**. The comments and

discussions are summarized in the following sections.

3.1 Summary of Comments

The results of the comments received and discussions held at the POH No. 2 are summarized below in **Table 1**. The comments have been summarized by general subject matter.

Comments raised by the public include:

- General support for the recommended plan.

Table 1: Summary of Written Comments Public Open House No. 2 December 6, 2016		
Comment	Number of Respondents	Comment Sheet Reference No.
Concern for property acquisition requirements of the proposed roundabout northwest of the proposed interchange	1	2
Concern for property impacts as a result of partial property acquisition (i.e. tile drainage)	2	1, 2
Design consideration of the proposed driveway realignment to reduce the length of the realigned driveway to reduce future maintenance costs and to accommodate future vehicle traffic (i.e. heavy trucks)	2	1, 2

4.0 CONCLUSIONS

The conclusions from POH No. 2 are:

- Concern for impacts of property acquisition northwest of the proposed interchange

Appendix A Newspaper Notice



Upcoming Council Meetings

Wednesday, November 30, 2016

• 6:00 p.m. – Special Council InnServices Shareholders Meeting & Budget Presentation

Wednesday, December 7, 2016

• 6:00 p.m. – Public Planning Meetings

Wednesday, December 14, 2016

• 6:00 p.m. – Regular Council Meeting – Comments on the proposed 2017-2018 Budget welcome

Upcoming Board/Committee Meetings

Innisfil Public Library Board

November 21, 2016 at 7 p.m., Lakeshore Library & Idea Lab

Economic Development Advisory Committee

November 29, 2016 at 1:30 p.m.,
Town Hall Community Rooms B&C

Committee of Adjustment

December 8, 2016 at 6:30 p.m., Town Hall Council Chambers

Heritage Committee

December 8, 2016 at 7 p.m.,
Town Hall Community Rooms B & C

Accessibility Advisory Committee

December 13, 2016 at 1 p.m., Town Hall Community Room A

Meetings subject to change. Please visit the Town's website to view the most updated listing.

Tree Lighting Event

Everyone is invited!

Friday, December 2nd at Alcona Fire Station # 1 (780 Innisfil Beach Road). Tree Lighting Night begins at 6:30 pm with the countdown at 7:00. Hot chocolate, coffee, timbits, hot apple cider and pizza will be served. Santa Claus will arrive by fire truck for children big and small. Children are encouraged to bring their letters to Santa.

Saturday, December 3rd at Stroud Fire Station # 3 (2394 Victoria St.) Tree Lighting Night will begin at 7pm. Hot chocolate, coffee, apple cider, timbits, pizza, subs, wings, french fries and candy canes for the kids. Santa Clause will arrive by fire truck for children big and small.

Celebrating 8 Years!

Innisfil Recreational Complex's



Join us for a day of free fun!
Saturday, November 26, 2016
7315 Yonge Street, Innisfil
FREE Cake & Hot Chocolate
12:30 - 1:50 Free Skate
2:00 - 4:00pm Free Open Swim

Public Meeting Notice

6th Line Interchange Municipal Class Environmental Assessment



The Town of Innisfil has initiated a Class Environmental Assessment (EA) for a proposed interchange at 6th Line and Highway 400.

The 6th Line Interchange project is being planned as a Schedule C project under the Municipal Class Environmental Assessment (2007), as amended in 2011 and 2015. The EA Study has confirmed project need and justification, documented existing environmental conditions, examined alternatives and determined the Recommended Plan for the proposed interchange.

The EA has reviewed the Town's Transportation Master Plan to confirm it satisfies Phases 1 and 2 of the Municipal Class EA for a Schedule C study, and will complete Phases 3 and 4 of the Class EA for the proposed interchange. The EA will engage

the public in determining a recommended plan for improvements.

The final Study Design is available on the Town of Innisfil's web site www.innisfil.ca/. The Study Design describes the project scope, study approach, need and justification of the study, study process and preliminary design criteria.

Information on the project and Recommended Plan will be presented on display boards and Study Team Members will be available to answer questions and receive comments at the second Public Open House (POH) meeting to be held as follows:

Tuesday December 6, 2016
Town Hall Community Rooms
2101 Innisfil Beach Road, Innisfil, Ontario
4:00 pm – 7:00 pm

There is an opportunity at any time during the EA process for interested persons to provide comments. Any comments received pertaining to the study will be collected under the Environmental Assessment Act and, with the exception of personal information (Freedom of Information and Protection of Privacy Act) will become part of the public record.

For more information, to provide comments or if you wish to be placed on the study's mailing list, please contact:

Jessica Jenkins, P. Eng.
Project Manager
Town Of Innisfil
2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1
Tel: 705-436-3710 ext. 3224
Toll Free: 1-888-436-3710
Email: jjenkins@innisfil.ca

Steve Taylor, P. Eng.
Consultant Project Manager
BT Engineering
586 Eglinton Avenue East
Toronto, Ontario M4P 1P2
Tel: 1 (416) 488-5353
Toll Free: 1-855-228-4813
Email: steve.taylor@bteng.ca

Public Meeting Notice #2

6th Line Interchange Municipal Class Environmental Assessment

The Town of Innisfil has initiated a Class Environmental Assessment (EA) for a proposed interchange at 6th Line and Highway 400.

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The EA has reviewed the Town's Transportation Master Plan to confirm it satisfies Phases 1 and 2 of the Municipal Class EA for a Schedule C study, and will complete Phases 3 and 4 of the Class EA for the proposed interchange. The EA will engage the public in determining a recommended plan for improvements.

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Lighting Up Our Community

Tree Lighting Event

Everyone is invited!

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Thank You For Your Comments



Thank you for your comments!
On January 25, 2017, Council will consider approval of the Parks and Recreation and Trails Master Plans. You can view the plans at www.innisfil.ca/activeinnisfil
Comments can be sent to: activeinnisfil@innisfil.ca or call 705-436-3710.

Holiday Event



Innisfil Farmers' Market
Come Find Us Inside!
Now open 3:00 to 8:00 p.m.
Holiday event on Dec. 1st,
Dec. 8th, and Dec. 15th.
Call 705-436-3710 for info.
Innisfil Recreational Complex, 7315 Yonge Street

Upcoming Council Meetings

Wednesday, December 7, 2016 – Public Planning Meetings

- 6:00 p.m. – Meleki Zoning By-Law Amendment
- 6:15 p.m. – 1326 Innisfil Beach Road Official Plan Amendment & Zoning By-Law Amendment
- 6:30 p.m. – Stroud Centreville Official Plan Amendment & Zoning By-Law Amendment
- 7:00 p.m. – Royal Oak Estates Phase 2 Official Plan Amendment (Cookstown)

Wednesday, December 14, 2016

- 6:00 p.m. – Regular Council Meeting

Upcoming Board/Committee Meetings

Committee of Adjustment
December 8, 2016 at 6:30 p.m., Town Hall Council Chambers

Heritage Committee
December 8, 2016 at 7 p.m., Town Hall Community Rooms B & C

Library Board
December 12, 2016 at 7 p.m., Lakeshore Branch, 967 Innisfil Beach Road

Police Services Board
December 12, 2016 at 7 p.m., Town Hall Community Rooms B & C

Accessibility Advisory Committee
December 13, 2016 at 1 p.m., Town Hall Community Room A

Meetings subject to change. Please visit the Town's website to view the most updated listing.

Public Open House

6th Line Interchange Municipal Class Environmental Assessment

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Tuesday December 6, 2016
Town Hall Community Rooms
2101 Innisfil Beach Road, Innisfil, Ontario
4:00 pm – 7:00 pm

Free Workshops

HOUR OF CODE

In just an hour, anybody can learn the basics of computer science.

During Computer Science Education Week, December 5–11, Hour of Code™ events are hosted around the globe.

Join in at the Innisfil IdeaLAB & Library!

LEGO Robotics Family Coding Raspberry Pi 101

Learn more at www.innisfilidealab.ca/hour-code
705-431-7410

Public Notice

THE CORPORATION OF THE TOWN OF INNISFIL

PUBLIC NOTICE

NOTICE OF INTENT TO DISPOSE OF SURPLUS REAL ESTATE

TAKE NOTICE that the Council of The Corporation of the Town of Innisfil will, pursuant to Section 270(1), as applicable, of the *Municipal Act, 2001, S.O. 2001*, Chapter 25, as amended, consider to declare the following land as surplus:

Part North ½ Lot 21, Concession 3, Part Lot 3 E/S William Street, Plan 24, Part of John St., Plan 24, designated as Part 2 on Reference Plan 51R-15190 (PIN: 58056-0014 LT), Town of Innisfil, County of Simcoe, municipally known as 885 Hofland Street, Innisfil

and is now offering it for sale by listing with a real estate agent.

The proposed by-law will come before Council for consideration at its regular meeting to be held in the Council Chambers at 2101 Innisfil Beach Road, Innisfil, Ontario, on the 14th day of December, 2016, at the hour of 7:15 o'clock in the evening. Written comments may be provided to the Clerk of the Town at the address below.

Clerk
The Corporation of the Town of Innisfil
2101 Innisfil Beach Road
Innisfil, ON L9S 1A1
Telephone: 705-436-3710

Lighting Up Our Community

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Got a Parking Ticket?

Scrooge the Ticket!

Nov. 20 - Dec. 9

Donate children's toys,
giftcards or nonperishable food
instead of paying your parking fine!

*Donation must be equal to or greater than fine.
Receipt must be presented.

Visit www.innisfil.ca for details!



Stay Active This Winter



Santa Claus is Coming to Town



Help Shape Our Parks, Programs & Trails



View this page at innisfil.ca or innisfilexaminer.ca

Appendix B POH Display Boards



List of Display Boards

- Welcome
- Introduction
- Municipal Class Environmental Assessment (EA) Process
- Need and Justification for an Interchange
- Alternatives for Evaluation
- Vertical and Horizontal Alignments
- Vertical Alignment Alternatives
- Horizontal Alignment Alternatives
- Interchange Configuration Alternatives
- Evaluation Results
- Refinements to Technically Preferred Alternative
- Recommended Plan
- General Arrangement Drawings
- Typical Cross Section
- Statement of Flexibility
- Traffic Video
- Position and Signalling within a Single Lane Roundabout
- Advantages of a Roundabout
- Roundabout Driving Tips
- Schedule
- Resource Table



Town of Innisfil - 6th Line Interchange Environmental Assessment (EA) Study

Welcome

Welcome to the second Public Open House (POH) meeting. Please sign in on the attendance sheet and obtain a comment sheet at the registration desk.

Should you have any questions regarding the presentation materials, background reports or any other aspect of the study, please speak to the Town or Consultant study team members in attendance.

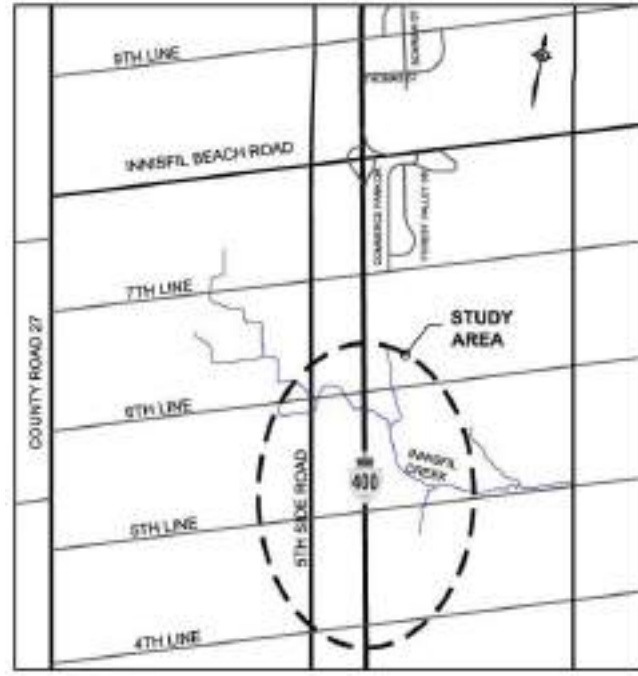
We encourage your input/feedback on the material being presented on the display boards. Please deposit completed comment sheets in the comment box or mail/ e-mail to the address at the bottom of the form by **December 20, 2016**.

There is an opportunity at any time during the EA process for interested persons to provide written input. Any comments received will be collected under the *Environmental Assessment Act* and *Freedom of Information and Protection of Privacy Act* and, with the exception of personal information, will become part of the public record.

Introduction

The Town of Innisfil is conducting an Environmental Assessment (EA) Study to plan for a new interchange on Highway 400. The study is assessing alternatives for a new interchange in the central area of Simcoe County. This new interchange will provide better access to proposed development areas (Innisfil Heights and Alcona).

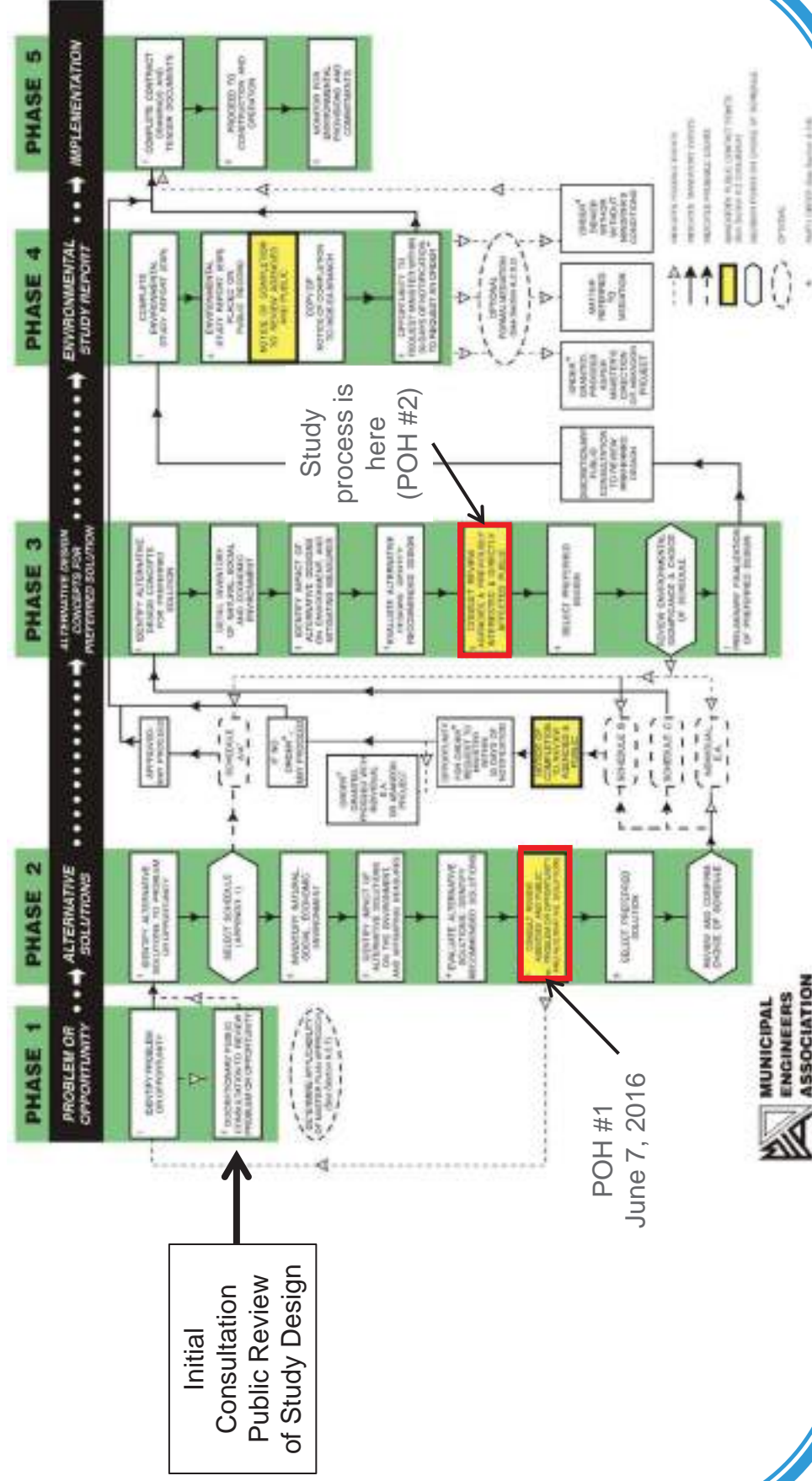
This Study is completing all phases of the Municipal Class EA by establishing the need and justification for the project, considering all alternatives and proactively involving the public in defining a recommended plan for improvements. This Study is being completed as a Municipal Schedule C undertaking, based on the scope of the project and the range of anticipated effects. See the following exhibit for a description of the EA process.



Municipal Class Environmental Assessment (EA) Process

This project is being undertaken as a Municipal Schedule C Class EA in accordance with the Municipal Class Environmental Assessment. A copy of this document is available at the Resource Table.

The data and reports produced for the study will be documented in an Environmental Study Report (ESR).



Need and Justification for an Interchange

Current and expected increases in traffic in the County of Simcoe and Town of Innisfil necessitate improvements to the road network for a new interchange on Highway 400.

The Simcoe County Transportation Master Plan (TMP) (2014) identified that Innisfil Beach Road will be above capacity by 2031, even with planned roadway improvements.

The Town of Innisfil's Official Plan identified the need for a future interchange on Highway 400. The Innisfil TMP (2013) has also confirmed the need for a new interchange on Highway 400 and recommended it be located at 6th Line (subject of this EA Study) along with improvements to the 6th Line corridor (defined in the 6th Line EA). The TMP identified that an interchange at 6th Line would also address the capacity constraint on Innisfil Beach Road. These background documents are available at the Resource Table.



Alternatives for Evaluation

The alternatives will involve a combination of vertical alignment alternatives, horizontal alignment alternatives and interchange configuration alternatives. An example of how these will combine to create an alternative is illustrated below:



Vertical Alignment Alternatives:

- Alternative 1: Highway 400 Overpass
- Alternative 2: Highway 400 Underpass

Horizontal Alignment Alternatives:

- Alternative A: Existing 6th Line Alignment
- Alternative B: 50 m shift north of 6th Line
- Alternative C: 50 m shift south of 6th Line

Interchange Configuration Alternatives:

- Alternative 1: Diamond
- Alternative 2: Diamond with Roundabout
- Alternative 3: Parclo A2 with 180 m direct taper on 6th Line
- Alternative 4: Parclo A4 with 180 m direct taper on 6th Line
- Alternative 5: Parclo A2 with 110 m direct taper on 6th Line
- Alternative 6: Parclo A4 with 110 m direct taper on 6th Line
- Alternative 7: Parclo A2 with 110 m direct taper on 6th Line beyond structure
- Alternative 8: Parclo A4 with 110 m direct taper on 6th Line beyond structure
- Alternative 9: Parclo B2
- Alternative 10: Parclo B4

Alternatives for Evaluation

Below is a list of all possible combinations of alternatives carried forward for this study:

Horizontal / Vertical Alignment	Alternative Number	Interchange Type	Design Speed on 6th Line	Taper on 6th Line
Alternative A1: Current / 6th Line under Highway 400	Alt A1-1	Diamond		
	Alt A1-2	Diamond with Roundabout		
	Alt A1-3	Parclo A2	100 km/h Design Speed	180 m Direct Taper on 6th Line
	Alt A1-4	Parclo A4		
	Alt A1-5	Parclo A2	80 km/h Design Speed	110 m Direct Taper on 6th Line
	Alt A1-6	Parclo A4		
	Alt A1-7	Parclo A2		
	Alt A1-8	Parclo A4		
	Alt A1-9	Parclo B2		
	Alt A1-10	Parclo B4		
Alternative A2: Current / 6th Line over Highway 400	Alt A2-1	Diamond		
	Alt A2-2	Diamond with Roundabout		
	Alt A2-3	Parclo A2	100 km/h Design Speed	180 m Direct Taper on 6th Line
	Alt A2-4	Parclo A4		
	Alt A2-5	Parclo A2	80 km/h Design Speed	110 m Direct Taper on 6th Line
	Alt A2-6	Parclo A4		
	Alt A2-7	Parclo A2		
	Alt A2-8	Parclo A4		
	Alt A2-9	Parclo B2		
	Alt A2-10	Parclo B4		
Alternative B2: Northerly / 6th Line over Highway 400	Alt B2-1	Diamond		
	Alt B2-2	Diamond with Roundabout		
	Alt B2-3	Parclo A2	100 km/h Design Speed	180 m Direct Taper on 6th Line
	Alt B2-4	Parclo A4		
	Alt B2-5	Parclo A2	80 km/h Design Speed	110 m Direct Taper on 6th Line
	Alt B2-6	Parclo A4		
	Alt B2-7	Parclo A2		
	Alt B2-8	Parclo A4		
	Alt B2-9	Parclo B2		
	Alt B2-10	Parclo B4		

Vertical Alignment Alternatives

The EA assessed both Highway 400 Overpass (existing condition with Highway 400 over 6th Line) and Highway 400 Underpass alternatives. The overpass alternative will require a minor grade raise (slope increase) of Highway 400 to accommodate a larger bridge span and the future longer range widening of 6th Line to a 4-lane arterial. The underpass alternative will maintain the existing Highway 400 profile (no change to existing profile).

Horizontal Alignment Alternatives

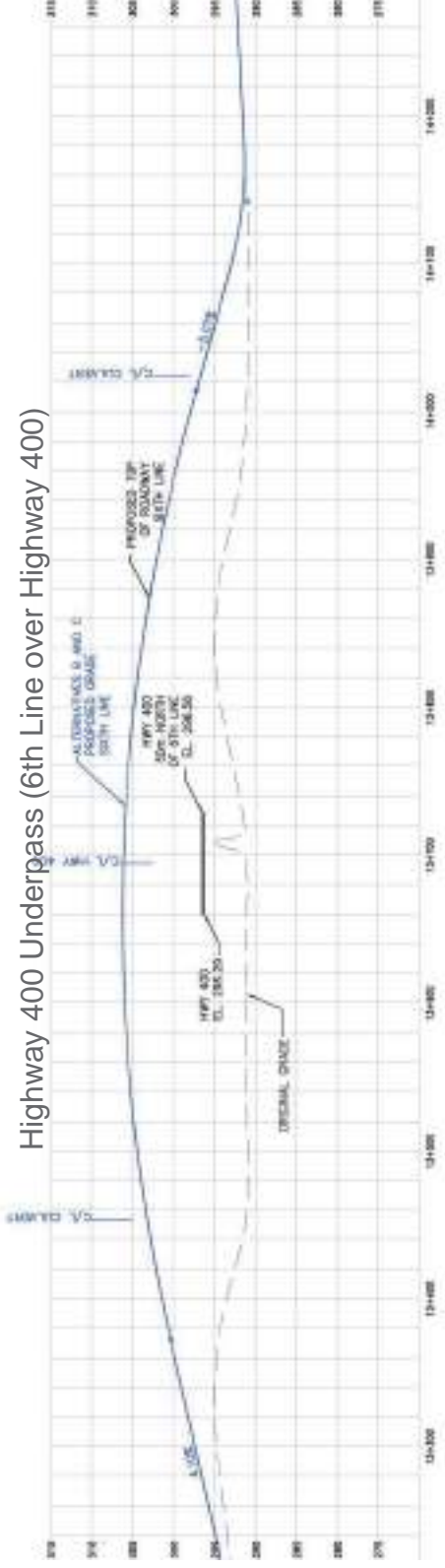
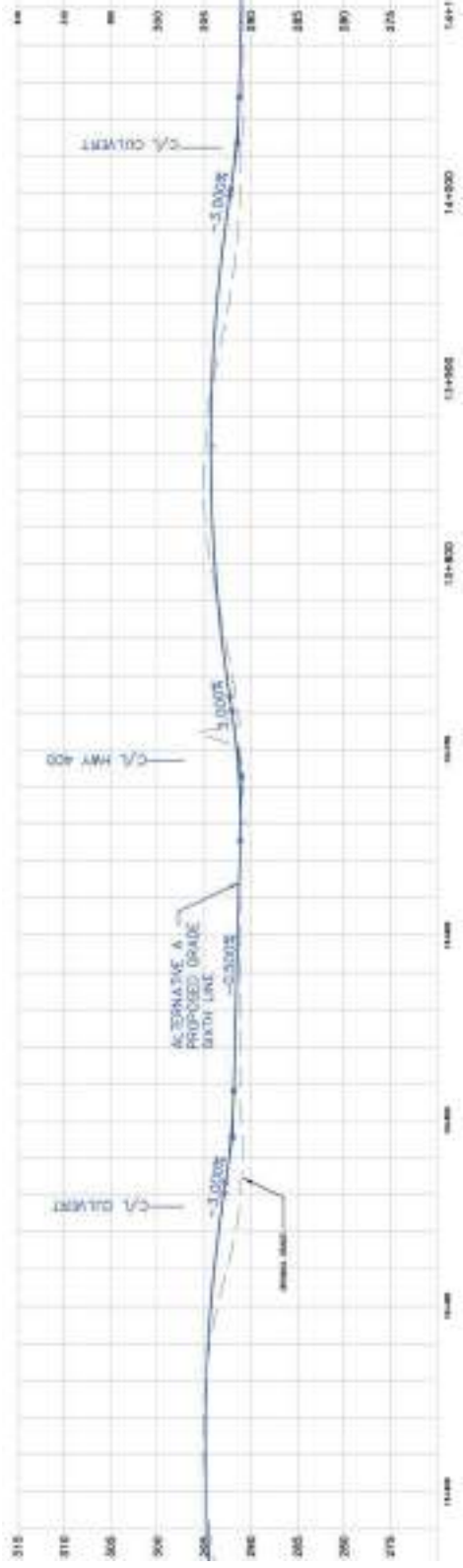
The EA has also reviewed the horizontal alignment of 6th Line. The alternatives are: maintaining the existing alignment; a 50 m roadway shift to the north; and, a 50 m roadway shift to the south. Due to the significant environmental impacts (ravine and woodlot), the 50 m roadway shift to the south was screened out and not carried forward for the evaluation.



Innisfil

Vertical Alignment Alternatives

Highway 400 Overpass (6th Line under Highway 400)



Innisfil

Horizontal Alignment Alternatives

Existing Alignment



North Alignment



South Alignment



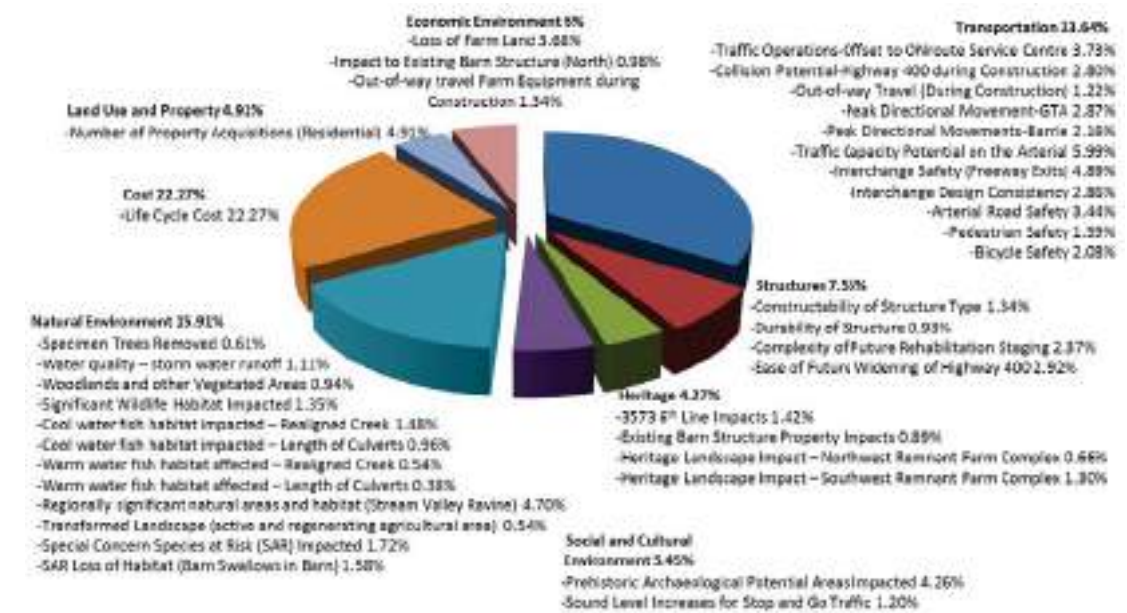


BTE

Evaluation Results

The evaluation approach to compare preliminary design alternatives, described as the Multi Attribute Trade-off System (MATS), is based on the “Weighted Additive Method” which focuses on the differences between the alternatives, addressing the complexity of the base data collected, and providing a traceable decision-making process. In addition, the method allows quick sensitivity tests to be performed because of the matrix configuration of the assessment and the use of numerical scores to measure the impact of the alternatives. The Evaluation Methodology report is available at the resource table.

Evaluation criteria were developed that were used to compare and rank alternatives. The results are illustrated below – Alternative B2-2 (northern alignment over Highway 400 with a diamond roundabout interchange configuration) was rated as the Technically Preferred Alternative.



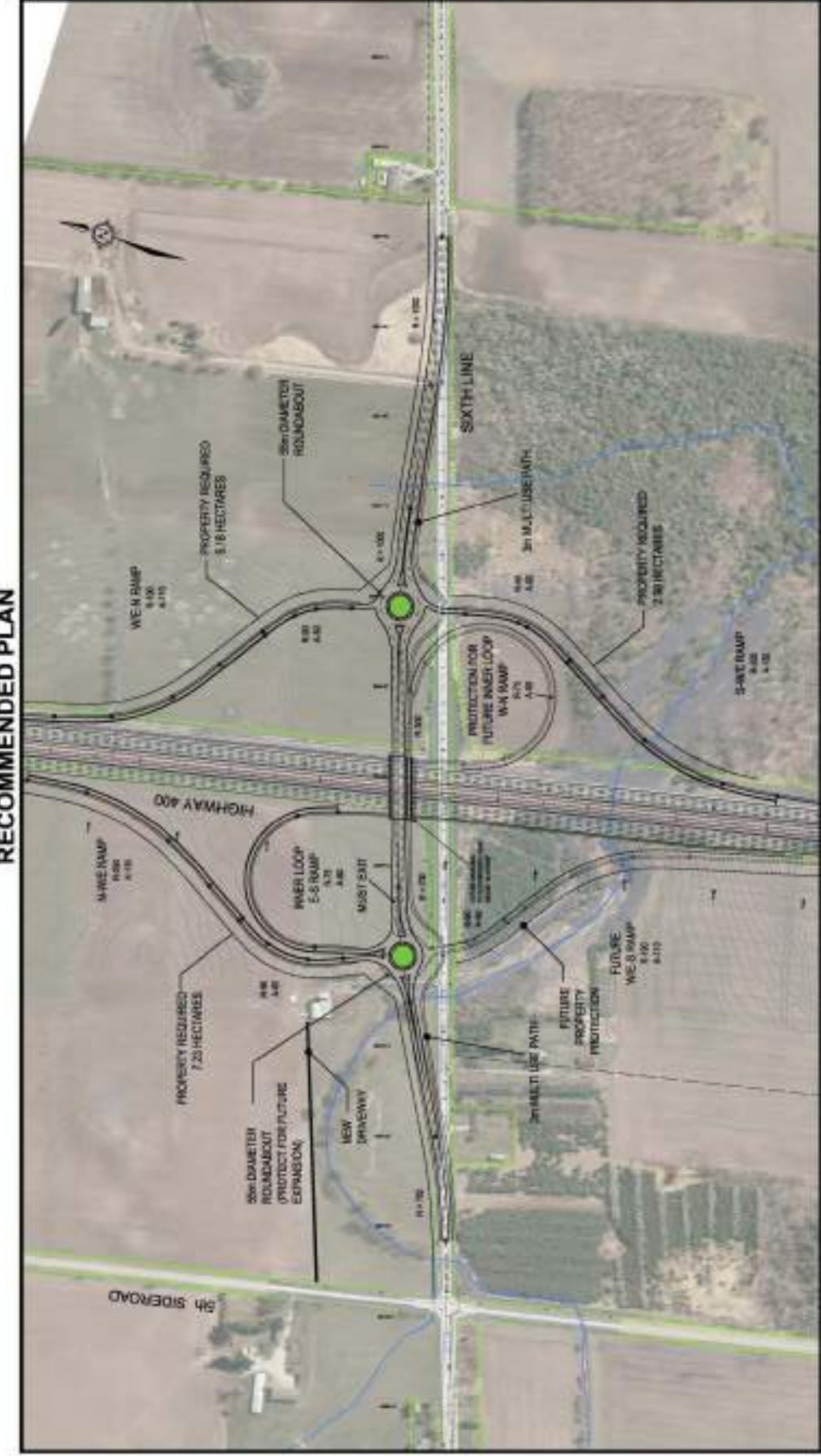
Refinements to Technically Preferred Alternative

Based on the detailed traffic modelling, the Technically Preferred Alternative (TPA) included minor refinements that include:

- Constructing an inner loop in the northwest quadrant to accommodate the peak travel demand;
- Deferring the outer loop ramp in the southwest quadrant to minimize environmental effects but protecting property for long term expansion;
- Protecting for a future inner loop on the east side of the interchange to accommodate future traffic demand or a linkage for a future Barrie Bypass.

The final design is presented as the Recommended Plan.

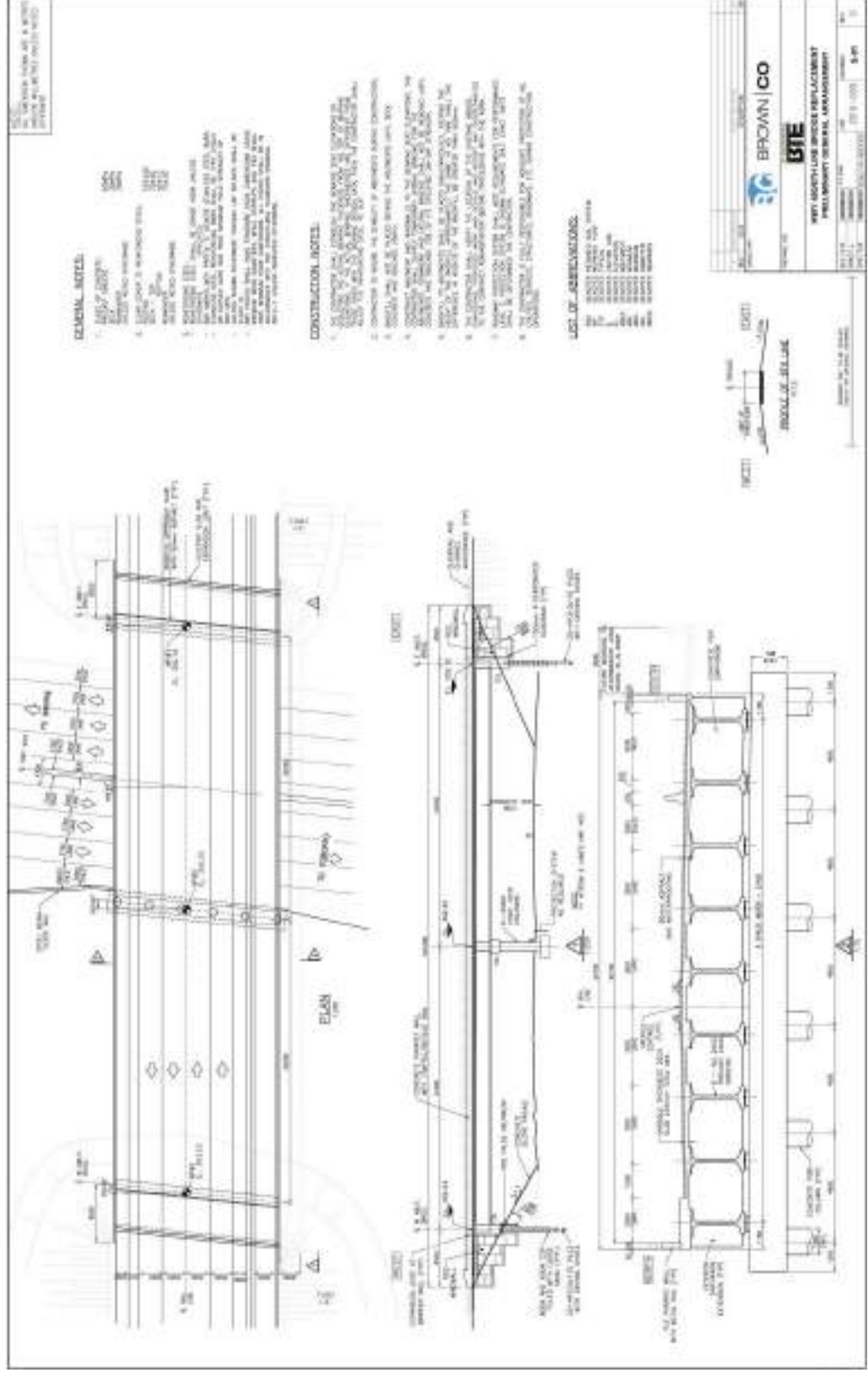
SIXTH LINE AT HIGHWAY 400 RECOMMENDED PLAN





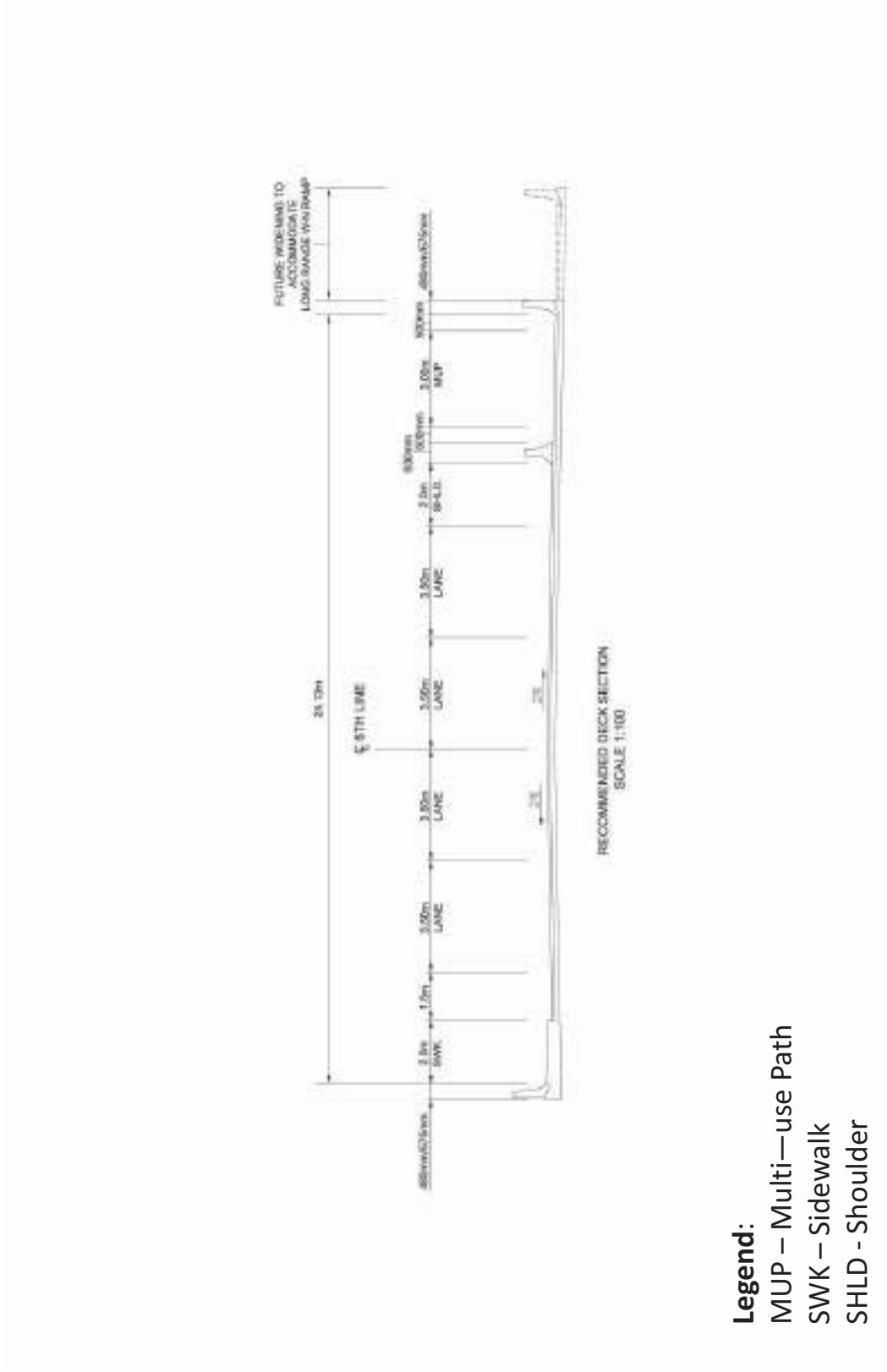
Innisfil

General Arrangement Bridge Drawing



Innisfil

Typical Cross Section



- Legend:**
MUP – Multi—use Path
SWK – Sidewalk
SHLD - Shoulder

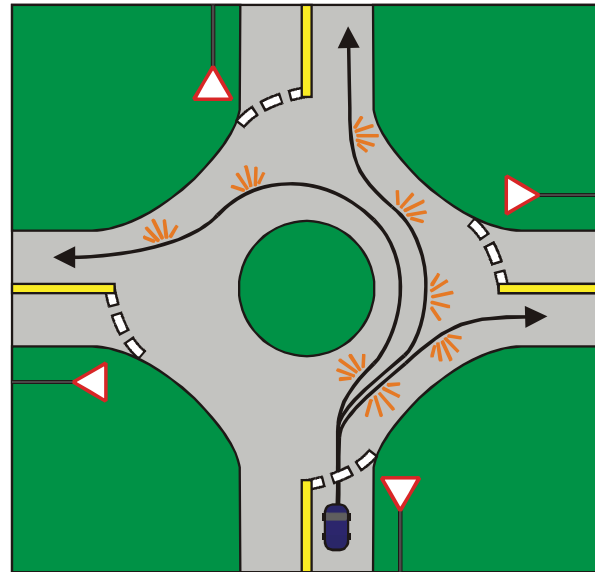
Statement of Flexibility

The Environmental Study Report will document that the design will include the flexibility to include minor modifications that may include:

- Design revisions to the ramp terminal/roundabout designs based on MTO design approvals during the detail design
- Ability to stage the project by building only the grade separation as a first priority project to replace the aging Highway 400/6th Line structure and to accommodate widening of Highway 400 to 10 lanes
- Ability to implement a property protection plan to accommodate an ultimate Parclo A4 interchange design when triggered by future growth

Traffic Video

Position and Signalling within a Single Lane Roundabout



1. Drivers must signal to turn right
2. Drivers must signal to exit the roundabout
3. Drivers must signal to change lanes and should check their rear view mirror and blind spot.
4. When travelling past two or more exits on the roundabout drivers can use a courtesy left hand signal.

Advantages of a Roundabout

Advantages of the roundabout alternative for the intersection include:

- Increased safety with reduced collision severity
- Roundabouts are a traffic calming feature that will slow traffic
- Improves traffic operations with minimal traffic delays
- Establishes a distinctive character
- Roundabout will accommodate pedestrian movements

Roundabout Driving Tips

- ✓ Slow down as you approach the roundabout.
- ✓ View direction signage to plan exit leg of roundabout.
- ✓ Choose the correct entry lane (viewing pavement markings and signage).
- ✓ Watch and yield to pedestrians crossing the roadway when approaching or exiting a roundabout.
- ✓ Traffic in the roundabout has the right-of-way (treat roundabout as a one-way street).
- ✓ Do not stop within roundabout.
- ✓ Give large vehicles extra space to manoeuver.
- ✓ Avoid passing other vehicles in the roundabout.
- ✓ Always signal your exit.



Schedule

Following this meeting we will:

- Review all comments
- Finalize the Recommended Plan
- Prepare the Environmental Study Report
- Place the Study Completion Notice in the newspaper
- 30-day public review period (winter 2017)
- Environmental Clearance

How can you remain involved in the Study?

- Request that your name/e-mail be added to the mailing list
- Provide a completed comment sheet
- Contact the Town or consultant representatives at any time

Any of our representatives that are present can assist you with the above activities.

Thank you for your participation at tonight's meeting. Your input into this study is valued and appreciated. Please provide your completed comment sheet on or before **December 20, 2016**. All information is collected and used in accordance with the *Environmental Assessment Act* and the *Freedom of Information and Protection of Privacy Act*.

Resource Table

Study Design
Aquatic Assessment
Bridge Hydrology and Drainage Report
Cultural Heritage Memo
Municipal Class EA
Town of Innisfil Official Plan
Town of Innisfil Transportation Master Plan
Assessment of Interchange Locations
Traffic Memo
Analysis and Evaluation Report
Land Use Planning Report
Phase I ESA
POH No. 1 Summary Report

MTO Future Approvals

The Ministry of Transportation of Ontario (MTO) will have future approvals for the project including:

- Interchange Project Approval
- Detail Design
- Construction Delivery

These approvals may require minor design refinements which will be covered by the ESR Statement of Flexibility.

Appendix C POH Comment Sheets

MEMORANDUM

TO: _____ **DATE:** December 8, 2016
FROM: _____ **PROJECT #:** 16-006
PROJECT: Town of Innisfil 6th Line Interchange
SUBJECT: Telephone Record – POH 2 Comments

[Redacted] called at 4:09pm on Wednesday December 7, 2016. Steve returned the call Thursday December 8, 2016 at 8am.

The following are notes from the telephone call.

- His primary issue is the new driveway shown at POH is too long and the maintenance (snow ploughing) would be a significant impact to him.
- [Redacted] described his field adjacent to the 6th Line currently used for cattle will change as he expects he will be getting rid of the cows
- Cow pasture now squared off
- When the cattle are gone the field west of creek could then be part of the cultivated field.
- The laneway pavement structure would have to be substantial to carry heavy traffic
- [Redacted] suggested it would need to carry 40 tonne load
- The drainage in the area comes south and could drain to driveway
- There is a dip in the field that would need to be drained
- The length of plowing long driveway is unacceptable
- Steve agreed to review a new driveway concept
- A site meeting was set up for December 12 to review it on site.

December 19, 2016

Jessica Jenkins, P. Eng.
Project Manager
Town Of Innisfil
2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1

Steve Taylor, P. Eng.
Consultant Project Manager
BT Engineering
586 Eglinton Avenue East
Toronto, Ontario M4P 1P2

**RE: Comments on Public Open House No. 2
6th Line Interchange Municipal Class Environmental Assessment
South half of Lot 6, Concession 6**

Dear Jessica & Steve,

Thank you for hosting the recent Public Open House No. 2 (POH) for the 6th Line Interchange Municipal Class Environmental Assessment (EA). I am the owner of the property legally described as the south half of Lot 6, Concession 6 in the Town of Innisfil, which is located at the northwest quadrant of Highway 400 and 6th line. The lands are delineated by the Town as "Economic District Expansion Area" but I am still actively farming the land as a combination beef cattle and cash crop operation. My property is significantly impacted by the concepts presented at the POH.



Figure 1: Property Location

Given the significant encumbrances on both my property ownership and farming operation that may result from the proposed works, I was disappointed that I was not pre-consulted in advance of the POH to review and contribute to the concepts presented, however I appreciate that comments can still be submitted. I also appreciate the time you took to meet with me on

December 12 to provide me with further background and hear my initial concerns. This letter outlines my initial comments on the information presented at the POH.

Property Access

My property is accessed by two entrances along 6th Line that will be impacted by the concepts presented at the POH. The east entrance provides access to the existing barn and is the main access used for large trucks and farm equipment in support of my cash crop and beef cattle operation. The west laneway provides the only ability to access the lands that are bounded on all other sides by the existing watercourse.



Figure 2: Existing Entrances

The preferred concept presented at the POH indicates that the east driveway may no longer be viable once the proposed realignment and overpass configuration of the 6th Line occurs. The POH noted that a new entrance would be provided from 5th Sideroad. The west access was not acknowledged in the POH concepts.

The 5th SR access proposed in the POH is not preferred for the following reasons:

1. It will require additional maintenance due to the increased length and orientation. The current driveway is relatively sheltered and requires minimal effort for snow removal in order to access the barn. The proposed 5th SR access is approximately 2.5 times longer. Its length, east-west orientation, and location adjacent to the open field will require increased snow removal effort to reach the existing barn.
2. Due to the existing watercourse, the 5th SR entrance does not accommodate the area currently accessed by the westerly 6th Line entrance, rendering this area of the property inaccessible.

3. There is currently a farm fence adjacent to the location of the proposed 5th SR access that is required to contain cattle within the pasture lands. However, I have contemplated that at some point I will no longer continue with my beef cattle operation. I would therefore no longer require any lands to be in pasture and would use all the lands for cash crop purposes. Having the lane in the proposed location would render the lands between the laneway and the creek useless as the farm equipment would not be able to crop the small remnant areas. However, if the lands were part of the larger field, it is much more practical to use the entire lands up to the watercourse as productive farmland.
4. A large portion of the farmland north of the proposed 5th SR laneway currently sheet drains to the creek. The laneway would need to be raised above existing elevations to avoid flooding and erosion, and ditching/culverts provided to adequately drain the northern lands. As such, a significant width of currently productive farmland would be lost to facilitate both the laneway and ditch.

Based on the above, I request that the EA revisit the issue of access to my property, including the following:

1. Access to the lands currently accommodated by the westerly 6th Line entrance (i.e. lands south of the creek) must be provided. The existing creek surrounds this parcel of land and the only reasonable location for access is from the 6th Line.
2. The access required per above must be at an adequate location to provide access for future land use that may be contemplated for the property given its delineation by the Town as part of the "Economic District Expansion Area". I request the EA recognize and identify a location along the 6th Line that is adequate for both current farming operations and future potential uses based on that delineation, given the boundary constraint of the existing creek. Since the scope of the EA includes interchange works which are noted as not being required until some date in the future, the same reasoning would apply to consider an ultimate entrance for future use of my property. If accommodation of this ultimate entrance is deemed premature, than I suggest that consideration of an interchange in this location is also premature.
3. Can the easterly access be maintained off 6th Line in the interim condition (i.e. prior to the interchange ramps being constructed)?
4. The EA should acknowledge that the area required for the laneway, additional ditching, etc is considered to be an encumbrance on my lands. Though I would expect to retain ownership of the lands containing any new laneway, the loss of the use of the associated lands for farming purposes is a direct result of the proposed roadworks and would require compensation.
5. The EA should recognize that any new entrance/laneway will need to have sufficient structure (depth of granulars), width, and turning radius to support the large farm equipment and 40+ tonne tractor trailers required for my farming operation.
6. My initial preference for access to the barn is to provide an entrance/laneway from the 6th Line per the sketch below. However, I would also entertain further discussion on compensation for abandonment of the existing barn to allow me to rebuild a structure in a different location to serve my farming operation needs.



Figure 3: Preliminary Preferred Access

Tile Drainage

There are a series of tile drains within the property that are required for adequate drainage of the lands. The EA should acknowledge this and ensure that there are provisions to maintain adequate surface drainage and tile drain outlets for the lands.

6th Line Horizontal & Vertical Alignment

The preferred alternative presented in the POH shifts the 6th Line north which has a significant impact on my land. The information provided to date does not sufficiently justify this shift to the north. I request further information be provided on this assessment, including the detailed cost estimates of the various options considered.

Slide 7 from the POH indicated that if 6th line is left in its current configuration (6th Line under Highway 400) it would require the raising of Highway 400. This seems like a drastic conclusion that would obviously contribute significantly to eliminating this as an option due to the impracticality and expense of raising elevations of the highly travelled roadway. However, the slide does not appear to consider a slight lowering of 6th Line to achieve the same net result. Although I suspect that accommodating storm drainage may typically be a challenge for a lowered roadway crossing, in this case there is a very deep valley in close proximity south of the crossing that can likely accommodate the drainage from this configuration. I request further information on the assessment of this alternative.

Maintaining the current alignment is in line with the recently completed 6th Line EA which recommended widening about the centerline of roadway (see Table A of the 6th Line EA, September 2016). In addition, it is my understanding that the studies undertaken by the Ministry

of Transportation (MTO) to date in regards to the widening of Highway 400 and replacement of structures also contemplated a new structure at the existing alignment of 6th Line. If the cost of replacement of the bridge in its current alignment would primarily be at MTO expense, would it not be more cost effective for the Town to simply pay for the additional width for this structure to accommodate the future lane configuration of 6th Line?

Please provide further details to justify the northern shift. It is my preference that the 6th Line remains in its current alignment to minimize the encumbrance of my lands.

Roundabout

The preferred concept presented in the POH includes provision of a roundabout at the future intersection of the highway ramps and 6th Line. It appears the provision for roundabouts further encumbers my lands by requiring the cloverleaf to extend further north than would otherwise be required. It is my opinion that the information provided to date does not justify this need and is beyond a typical interchange requirement.

The MTO and Town of Bradford West Gwillimbury (BWG) are currently constructing a similar interchange at Highway 400 and the 5th Line BWG. To my knowledge this new interchange does not include roundabouts and I expect that it would experience more traffic volume than is anticipated at the proposed 6th Line interchange. See below for a comparison.



Figure 4: Comparison of Innisfil 6th Line vs BWG 5th Line Dimensions

I request that the requirement for a roundabout be removed from the preferred solution to reduce the amount of property required.

Current vs Ultimate Requirements

It is my understanding that the Town requires the new overpass/underpass in the short term, while the complete interchange is not required until some point in the distant future. It is my opinion that these two components should be separated in the EA so that it is clear what lands are required by the Town at this time for the 6th Line itself, and what can be deferred until such time as the interchange is required.

In addition, it is our understanding that this EA is being completed in consultation with the MTO. The MTO has previously indicated that a portion of my lands may be required for a widening of

Highway 400. To aid in future discussions, I would request that the land requirements be further delineated by what is required from 1) Town in the short term for 6th Line reconstruction, 2) MTO in the short term for Highway 400 widening, and 3) Town in the long term for the future interchange. To be clear, it is my opinion that conveyance of land for the latter item is quite premature at this time.

Conclusion

Thank you for the opportunity to provide comments on the information presented at the POH. I look forward to continued dialogue to address my concerns and would be pleased to meet at your convenience to review your responses prior to finalization of the Environmental Study Report.

Should you have any questions on my comments or wish to contact me further, I can be reached at [REDACTED].

Regards,

[REDACTED]

Appendix C

Select Correspondence



ENGINEERING DEPARTMENT
File Number RDS254

April 4, 2016

[Redacted]
Six Nations Haudenosaunee Confederacy Council
[Redacted]

**Re: Notice of Study Commencement
6th Line Interchange, Town of Innisfil
Municipal Class Environmental Assessment**

Dear [Redacted]



The Town of Innisfil has initiated a Class Environmental Assessment (EA) for a proposed interchange at 6th Line and Highway 400.

The 6th Line Interchange project is being planned as Schedule C project under the Municipal Class Environmental Assessment (2007) process, as amended in 2011 and 2015. The EA Study will confirm project need and justification, document existing environmental conditions, examine alternatives and define the interchange design.

The EA will review the Town's Transportation Master Plan (TMP) to confirm it satisfies Phases 1 and 2 of the Municipal Class EA for a Schedule C study, and will complete Phases 3 and 4 of the Class EA for the proposed interchange. The Municipal Class EA will engage the public in determining a recommended plan for improvements.

A draft Study Design is available on the Town of Innisfil web site www.innisfil.ca/ and is attached. The Study Design describes the project scope, study approach, need and justification of the study, study process and preliminary design criteria.

The first Public Open House (POH) meeting will be scheduled for this project in the late spring. A POH notice will be published at that time. Persons wishing to be included on the study mailing list should contact the Study Consultant below. Notices and updates will be posted on the Town of Innisfil web site www.innisfil.ca/.

There is an opportunity at any time during the EA process for interested persons to provide comments. Any comments received pertaining to the study will be collected under the

Environmental Assessment Act and, with the exception of personal information, will become part of the public record.

For more information, to provide comments, or if you wish to be placed on the study's mailing list, please contact:

Jessica Jenkins, P. Eng.
Project Manager
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2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1
Tel: 705-436-3710 ext. 3224
Toll Free: 1-888-436-3710
jjenkins@innisfil.ca

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BT Engineering
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Fax: 1 (613) 280-1305
Toll Free: 1-855-228-4813
steven.taylor@bteng.ca

Yours truly,

Jessica Jenkins, P. Eng.
Project Manager, Town of Innisfil

Attachment: Draft Study Design Report

cc: Steve Taylor, P.Eng., Consultant Project Manager, BTE



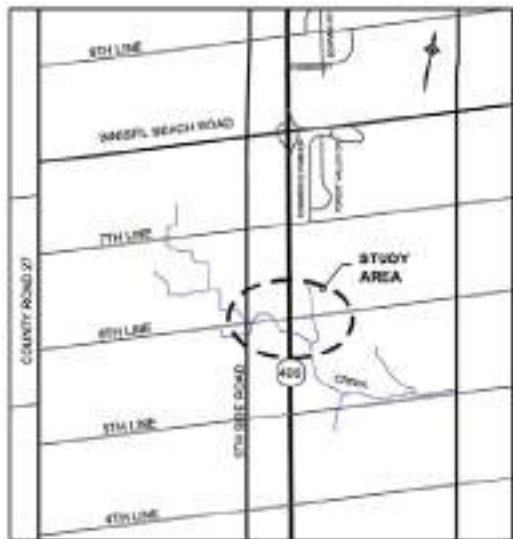
ENGINEERING DEPARTMENT
File Number RDS254

April 4, 2016

[Redacted]
Six Nations Council
[Redacted]

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6th Line Interchange, Town of Innisfil
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ENGINEERING DEPARTMENT
File Number RDS254

May 13, 2016

██████████
Six Nations of the Grand River
██████████

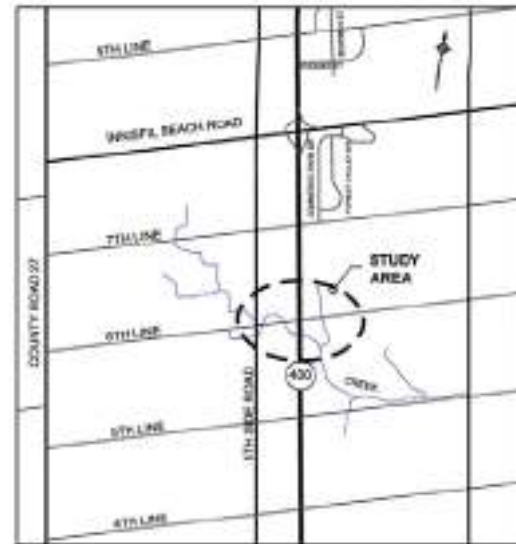
**Re: Notice of Public Open House No. 1
Town of Innisfil
6th Line Interchange Municipal Class Environmental Assessment**

Dear Sir/Madam,

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A draft Study Design is available on the Town of Innisfil web site www.innisfil.ca/6th-line-interchange-ea. The Study Design describes the project scope, study approach, need and justification of the study, study process and preliminary design criteria.

Information on the project will be presented on display boards and Study Team Members will be available to answer questions and receive comments at the first Public Open House (POH) meeting to be held as follows:

**Tuesday, June 7, 2016
Town Hall Community Rooms
2101 Innisfil Beach Road
Innisfil, Ontario
4:00 pm – 7:00 pm**

Town of Innisfil
6th Line Interchange EA
Notice of Public Open House No. 1

The public will have the opportunity to meet with Town of Innisfil staff and their Consultants to discuss details of the project.

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Yours very truly,

Jessica Jenkins, P.Eng.,
Capital Project Manager
Town of Innisfil

cc: Steve Taylor, P.Eng. EA Project Manager, BT Engineering



ENGINEERING DEPARTMENT
File Number RDS254

May 13, 2016

[Redacted]
Lands and Resources Director
[Redacted]

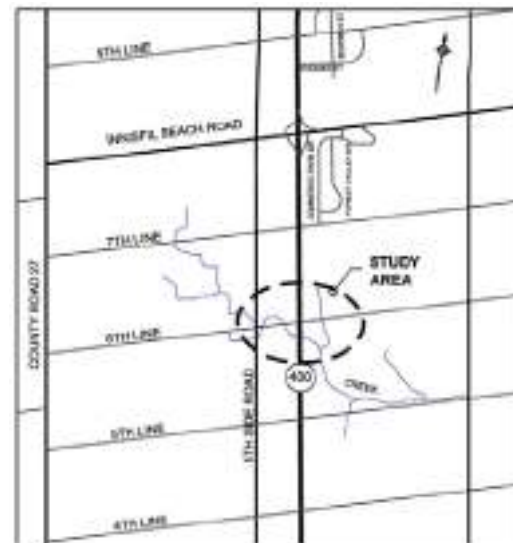
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Jessica Jenkins, P.Eng.,
Capital Project Manager
Town of Innisfil

cc: Steve Taylor, P.Eng. EA Project Manager, BT Engineering



ENGINEERING DEPARTMENT
File Number RDS254

May 13, 2016

[Redacted]
Chippewas of Georgina Island
[Redacted]

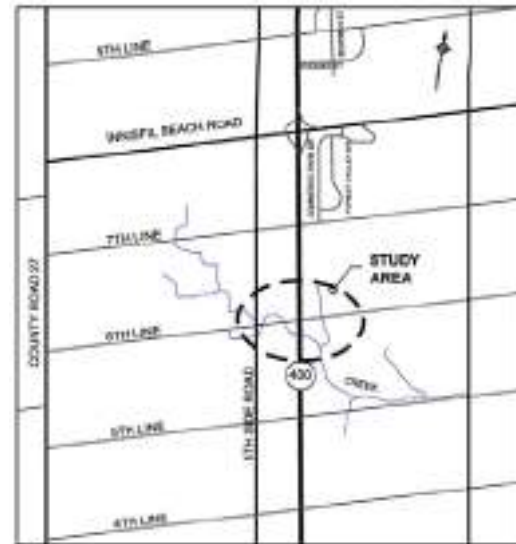
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Yours very truly,

Jessica Jenkins, P.Eng.,
Capital Project Manager
Town of Innisfil

cc: Steve Taylor, P.Eng. EA Project Manager, BT Engineering



ENGINEERING DEPARTMENT
File Number RDS254

November 21, 2016

[Redacted]@cnhw.qc.ca

**Re: Notice of Public Open House No. 2
Town of Innisfil
6th Line Interchange Municipal Class Environmental Assessment**

Dear Sir/Madam,

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Town Hall Community Rooms
2101 Innisfil Beach Road, Innisfil, Ontario
4:00 pm – 7:00 pm**

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Yours very truly,

Jessica Jenkins, P.Eng.,
Capital Project Manager
Town of Innisfil

cc: Steve Taylor, P.Eng. EA Project Manager, BT Engineering



ENGINEERING DEPARTMENT
File Number RDS254

November 21, 2016

██████████
moonrivermetiscouncil@outlook.com

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Town of Innisfil
6th Line Interchange Municipal Class Environmental Assessment**

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Town of Innisfil
6th Line Interchange EA
Notice of Public Open House No. 2

There is an opportunity at any time during the EA process for interested persons to provide comments. Any comments received pertaining to the study will be collected under the *Environmental Assessment Act* and, with the exception of personal information, will become part of the public record.

For more information, or if you wish to be placed on the study's mailing list, please contact:

Jessica Jenkins, P. Eng.
Project Manager
Town Of Innisfil
2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1
Tel: 705-436-3710 ext. 3224
Toll Free: 1-888-436-3710
Email: jjenkins@innisfil.ca

Steve Taylor, P.Eng.
EA Project Manager
BT Engineering Inc.
586 Eglinton Avenue East
Toronto, Ontario M4P 1P2
Tel: 1 (416) 488-5353
Toll Free: 1-855-228-4813
Email: steve.taylor@bteng.ca

Yours very truly,

Jessica Jenkins, P.Eng.,
Capital Project Manager
Town of Innisfil

cc: Steve Taylor, P.Eng. EA Project Manager, BT Engineering



ENGINEERING DEPARTMENT
File Number RDS254

Town of Innisfil
6th Line Interchange EA
Notice of Public Open House No. 2

November 21, 2016

██████████@newcreditfirstnation.com

**Re: Notice of Public Open House No. 2
Town of Innisfil
6th Line Interchange Municipal Class Environmental Assessment**

Dear Sir/Madam,

The Town of Innisfil has initiated a Class Environmental Assessment (EA) for a proposed interchange at 6th Line and Highway 400.

The 6th Line Interchange project is being planned as a Schedule C project under the Municipal Class Environmental Assessment (2007), as amended in 2011 and 2015. The EA Study has confirmed project need and justification, documented existing environmental conditions, examined alternatives and determined the Recommended Plan for the proposed interchange.



The EA has reviewed the Town's Transportation Master Plan to confirm it satisfies Phases 1 and 2 of the Municipal Class EA for a Schedule C study, and will complete Phases 3 and 4 of the Class EA for the proposed interchange. The EA will engage the public in determining a recommended plan for improvements.

The final Study Design is available on the Town of Innisfil's web site www.innisfil.ca/. The Study Design describes the project scope, study approach, need and justification of the study, study process and preliminary design criteria.

Information on the project and Recommended Plan will be presented on display boards and Study Team members will be available to answer questions and receive comments at the second Public Open House (POH) meeting to be held as follows:

**Tuesday December 6, 2016
Town Hall Community Rooms
2101 Innisfil Beach Road, Innisfil, Ontario
4:00 pm – 7:00 pm**

The public will have the opportunity to meet with Town of Innisfil staff and their Consultants to discuss details of the project.

There is an opportunity at any time during the EA process for interested persons to provide comments. Any comments received pertaining to the study will be collected under the *Environmental Assessment Act* and, with the exception of personal information, will become part of the public record.

For more information, or if you wish to be placed on the study's mailing list, please contact:

Jessica Jenkins, P. Eng.
Project Manager
Town Of Innisfil
2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1
Tel: 705-436-3710 ext. 3224
Toll Free: 1-888-436-3710
Email: jjenkins@innisfil.ca

Steve Taylor, P.Eng.
EA Project Manager
BT Engineering Inc.
586 Eglinton Avenue East
Toronto, Ontario M4P 1P2
Tel: 1 (416) 488-5353
Toll Free: 1-855-228-4813
Email: steve.taylor@bteng.ca

Yours very truly,

Jessica Jenkins, P.Eng.,
Capital Project Manager
Town of Innisfil

cc: Steve Taylor, P.Eng. EA Project Manager, BT Engineering



HIAWATHA FIRST NATION
123 Paudash Street
Hiawatha, ON K9J 0E6

Chief: Greg Cowie
Councillor: Kirk Edwards
Councillor: Lorne Paudash
Councillor: Trisha Shearer
Councillor: Art Vowles
Councillor: Katie Wilson

April 18, 2016

Dear Jessica Jenkins:

Thank you for the information you sent to Hiawatha First Nation regarding the notice of study commencement of 6th Line MCEAS which is being proposed within Hiawatha First Nation's Traditional and Treaty Territories. Hiawatha First Nation appreciates that the Town of Innisfil recognizes the importance of First Nations Consultation and that your office is conforming to the requirements within the Duty to Consult Process. The correspondence Hiawatha First Nation has received is not considered meaningful consultation but rather information sharing.

As per the Hiawatha First Nation Consultation Protocol, your proposed project is deemed to have little, if any, impact on Hiawatha First Nation's traditional territory and/or rights. Please keep us apprised of any updates, archaeological findings, and/or of any environmental impacts, should they occur. Hiawatha First Nation requests you contact us if archaeological artifacts are found as we require our trained archaeological liaisons be present at the archaeological sites during the assessments. We also ask that you forward any archaeological reports to Hiawatha First Nation as they are completed. Any maps pertaining to the project should be sent to Hiawatha First Nation in a shape file.

Hiawatha First Nation reserves the right to provide additional comment should further development result in additional potential impact on our traditional territory and rights. Please be aware that while we request to be kept apprised throughout all phases of this project, we may not always have representation at all stakeholders meetings.

Further correspondence may be directed to my attention at the mailing address above or the e-mail address below.

Sincerely,

██████████
Core Consultation Worker
Hiawatha First Nation

██████████@hiawathafn.ca
Tele: ██████████
Fax: ██████████

From: ██████████ [mailto:██████████@ramafirstnation.ca]
Sent: November 29, 2016 3:58 PM
To: jjenkins@innisfil.ca; steve.taylor@bteng.ca
Cc: Chief Rodney Noganosh
Subject: re: Notice of Public Open House No.2 – Town of Innisfil – 6th Line Interchange Municipal Class Environmental Assessment

Dear Jessica & Steve;

Thank you for your letter re: Notice of Public Open House No.2 – Town of Innisfil – 6th Line Interchange Municipal Class Environmental Assessment.

Please be advised that we reviewed your letter. I have shared it with Council and we've forwarded the information to ██████████, Williams Treaties First Nation Process Co-ordinator/Negotiator. ██████████ will review your letter and take the necessary action if required. In the interim, should you wish to contact ██████████ directly, please do so at ██████████

Thank you,

Chief Rodney Noganosh

██████████
Executive Assistant to the Chief, Administration

Chippewas of Rama First Nation

(ph) 705-325-3611,1216

(cell)

(fax) 705-325-0879

(url) www.ramafirstnation.ca

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By submitting your or another individual's personal information to Chippewas of Rama First Nation, its service providers and agents, you agree and confirm your authority from such other individual, to our collection, use and disclosure of such personal information in accordance with our privacy policy.

 Please consider the environment before printing this e-mail.

----- Original message -----

From: [REDACTED] <[REDACTED]@sixnations.ca>

Date: 06-02-2016 2:35 PM (GMT-05:00)

To: Jessica Jenkins <jjenkins@innisfil.ca>

Cc: [REDACTED] <[REDACTED]@sixnations.ca>

Subject: Town of Innisfil - 6th Line Interchange Municipal Class Environmental Assessment

Good Afternoon ... thank you for providing us with the opportunity to comment on the above noted project and for respecting our land rights and interests. At this time, we have no further comment however would like to be kept up to date on this project and we would like the opportunity to view/comment on a digital final report if possible.

Sincerely,

[REDACTED]
Land Use Officer
Lands & Resources
Six Nations Elected Council
[REDACTED]@sixnations.ca
[REDACTED]

Confidentiality Notice: This e-mail, including any attachments, is for the sole use of the intended recipients and may contain private, confidential, and privileged information. Any unauthorized review; use, disclosure or distribution is prohibited. If you are not the intended recipient or this information has been inappropriately forwarded to you, please contact the sender by reply e-mail and destroy all copies of the original.

From: [REDACTED] [mailto:[REDACTED]@lsrca.on.ca]

Sent: Friday, April 15, 2016 8:50 AM

To: 'steven.taylor@bteng.ca'; 'jjenkins@innisfil.ca'

Cc: [REDACTED]

Subject: 6th Line Interchange at Hwy 400 Class EA Notice of Study Commencement

Steve and Jessica: The location of this interchange is outside of the jurisdiction of the LSRCA. Based on our mapping, it appears to be in the NVCA watershed.... [REDACTED]

[REDACTED]

Manager, Engineering

Lake Simcoe Region Conservation Authority

120 Bayview Parkway,

Newmarket, Ontario L3Y 3W3

[REDACTED]

[REDACTED]@LSRCA.on.ca | www.LSRCA.on.ca

Twitter: @LSRCA

Facebook: LakeSimcoeConservation

The information in this message (including attachments) is directed in confidence solely to the person(s) named above and may not be otherwise distributed, copied or disclosed. The message may contain information that is privileged, confidential and exempt from disclosure under the Municipal Freedom of Information and Protection of Privacy Act and by the Personal Information Protection Electronic Documents Act. If you have received this message in error, please notify the sender immediately and delete the message without making a copy. Thank you.

From: [REDACTED]@lehmanplan.ca [mailto:[REDACTED]@lehmanplan.ca]

Sent: Tuesday, July 19, 2016 8:16 AM

To: mike.ulozas@bteng.ca

Cc: [REDACTED]

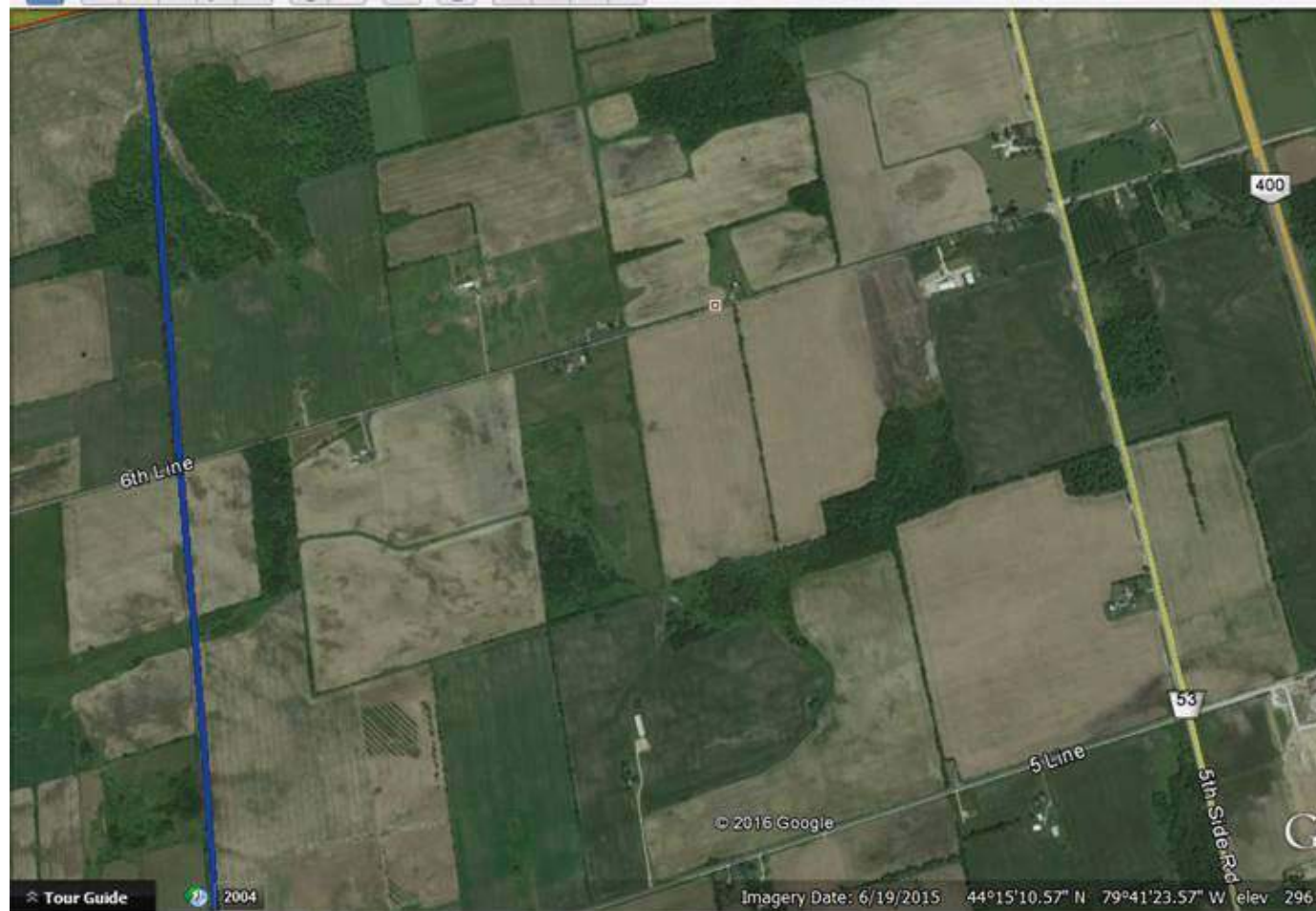
Subject: FW: Region of Halton - Derry Road Project

Good Morning Mike,

TransCanada's pipeline does run parallel to Highway 400, but west of 5th Sideroad, as shown below in blue.

If you require any additional information let me know.

Thank you,



Effective August 1st, my new contact information follows:

██████████,
Planning Coordinator

MHBC Planning, Urban Design & Landscape Architecture
442 Brant Street
Suite 204
Burlington, Ontario
L7R 2G4

Email: ██████████@mhbcplan.com

Phone: ██████████
Fax: ██████████
Toll Free: 1-866-602-0663

From: EnviroOnt [<mailto:EnviroOnt@tc.gc.ca>]
Sent: Tuesday, August 23, 2016 11:26 AM
To: jjenkins@innisfil.ca; steven.taylor@bteng.ca
Subject: Class EA - 6th Line Interchange, Town of Innisfil: NEATS 42769

Hello,

Thank you for your correspondence.

Please note Transport Canada **does not** require receipt of all individual or Class EA related notifications. We are requesting project proponents to self-assess if their project will interact with a federal property **and** require approval and/or authorization under any Acts administered by Transport Canada*.

Under the *Canadian Environmental Assessment Act, 2012*, Transport Canada is required to determine the likelihood of significant adverse environmental effects of projects that will occur on federal property prior to exercising a power, performing a function or duty in relation to that project. The project proponent should review the Directory of Federal Real Property, available at <http://www.tbs-sct.gc.ca/dfrp-rbif/>, to verify if the project will potentially interact with any federal property and/or waterway. The project proponent should also review the list of Acts that Transport Canada administers and assists in administering that may apply to the project, available at: <https://www.tc.gc.ca/eng/acts-regulations/acts.htm>.

If the aforementioned does not apply, the Environmental Assessment program should not be included in any correspondence. If there is a role under the program, correspondence should be forwarded *electronically* to: EnviroOnt@tc.gc.ca.

*Below is a summary of the most common Acts that have applied to projects in an Environmental Assessment context:

- **Navigation Protection Act (NPA)** – the Act applies primarily to works constructed or placed in, on, over, under, through, or across scheduled navigable waters set out under the Act. The Navigation Protection Program administers the NPA through the review and authorization of works affecting scheduled navigable waters. Information about the Program, NPA and approval process is available at: <http://www.tc.gc.ca/eng/programs-621.html>. Enquiries can be directed to NPPONT-PPNONT@tc.gc.ca or by calling (519) 383-1863.
- **Railway Safety Act (RSA)** – the Act provides the regulatory framework for railway safety, security, and some of the environmental impacts of railway operations in Canada. The Rail Safety Program develops and enforces regulations, rules, standards and procedures governing safe railway operations. Additional information about the Program is available at: <https://www.tc.gc.ca/eng/railsafety/menu.htm>. Enquiries can be directed to RailSafety@tc.gc.ca or by calling (613) 998-2985.
- **Transportation of Dangerous Goods Act (TDGA)** – the transportation of dangerous goods by air, marine, rail and road is regulated under the TDGA. Transport Canada, based on risks, develops safety standards and

regulations, provides oversight and gives expert advice on dangerous goods to promote public safety. Additional information about the transportation of dangerous goods is available at: <https://www.tc.gc.ca/eng/tdg/safety-menu.htm>. Enquiries can be directed to TDG-TMDOntario@tc.gc.ca or by calling (416) 973-1868.

- **Aeronautics Act** – Transport Canada has sole jurisdiction over aeronautics, which includes aerodromes and all related buildings or services used for aviation purposes. Aviation safety in Canada is regulated under this Act and the Canadian Aviation Regulations (CARs). Elevated Structures, such as wind turbines and communication towers, would be examples of projects that must be assessed for lighting and marking requirements in accordance with the CARs. Transport Canada also has an interest in projects that have the potential to cause interference between wildlife and aviation activities. One example would be waste facilities, which may attract birds into commercial and recreational flight paths. The *Land Use In The Vicinity of Aerodromes* publication recommends guidelines for and uses in the vicinity of aerodromes, available at: <https://www.tc.gc.ca/eng/civilaviation/publications/tp1247-menu-1418.htm>. Enquires can be directed to CASO-SACO@tc.gc.ca or by calling 1 (800) 305-2059 / (416) 952-0230.

Please advise if additional information is needed.

Thank you,

Environmental Assessment Program | Programme d'évaluation environnementale
Transport Canada, Ontario Region | Transports Canada, Région de l'Ontario
4900 Yonge St., Toronto, ON M2N 6A5 | 4900, rue Yonge, Toronto, ON, M2N 6A5
Email | Courriel: EnviroOnt@tc.gc.ca
Facsimile | télécopieur: (416) 952-0514
Government of Canada | Gouvernement du Canada

From: Mark-Ups [<mailto:Mark-Ups@enbridge.com>]

Sent: Thursday, July 21, 2016 7:31 AM

To: Mike Ulozas

Subject: RE: EGD 12586711 - Study Commencement Notice - 6th Line Interchange EA - General Location

Hello,

Attached is the information you had requested.

Should you require anything further please let me know.

Kind Regards,

██████████

From: Mike Ulozas [mike.ulozas@bteng.ca]

Sent: Monday, July 18, 2016 11:42 AM

To: Mark-Ups; GTA.Markups@rci.rogers.com

Cc: 'Steve Taylor'

Subject: EGD 12586711 - Study Commencement Notice - 6th Line Interchange EA

To whom it may concern:

This email is to distribute a Study Commencement Notice (attached) for the 6th Line Interchange EA project undertaken for the Town of Innisfil.

We are looking for any information for existing and future plants in the project area. If you could please provide a mark-up in both PDF and CAD format that would be ideal.

If you have any further questions please do not hesitate to contact myself.

Regards,

Mike

April 15th, 2016

To whom it may concern,

Thank you for circulating Infrastructure Ontario (IO) on your Notice. Infrastructure Ontario is the strategic manager of the provincial government's real estate with a mandate of maintaining and optimizing value of the portfolio while ensuring real estate decisions reflect public policy objectives of the government.

As you may be aware, *IO is responsible for managing property that is owned by Her Majesty the Queen in Right of Ontario as represented by the Minister of Infrastructure (MOI)*. There is a potential that IO managed lands fall within your study area. As a result, your proposal may impact IO managed properties and/or the activities of tenants present on IO-managed properties. In order to determine if IO property is within your study area, IO requires that the proponent of the project conduct a title search by reviewing parcel register(s) for adjoining lands, to determine the extent of ownership by MOI or its predecessor's ownership (listed below). Please contact IO if any ownership of provincial government lands are known to occur within your study area and are proposed to be impacted. IO managed land can **include within the title but is not limited to** variations of the following: Her Majesty the Queen/King, OLC, ORC, Public Works, Hydro One, PIR, MGS, MBS, MOI, MTO, MNR and MEI*. Please ensure that a copy of your notice is also sent to the ministry/agency on title. As an example, if the study area includes a Provincial Park, then MNR is to also to be circulated notices related to your project.

IO obligates proponents to complete all due diligence for any realty activity on IO managed lands and this should be incorporated into all project timelines.

Potential Negative Impacts to IO Tenants and Lands

General Impacts

Negative environmental impacts associated with the project design and construction, such as the potential for dewatering, dust, noise and vibration impacts, impacts to natural heritage features/habitat and functions, etc should be avoided and/or appropriately mitigated in accordance with applicable regulations best practices as well as Ministry of Natural Resources (MNR) and Ministry of the Environment (MOE) standards. Avoidance and mitigation options that characterize baseline conditions and quantify the potential impacts should be present as part of the EA project file. Details of appropriate mitigation, contingency plans and triggers for implementing contingency plans should also be present.

Impacts to Land holdings

Negative impacts to land holdings, such as the taking of developable parcels of IO managed land or fragmentation of utility or transportation corridors, should be avoided. If the potential for such impacts is present as part of this undertaking, you should contact the undersigned to discuss these issues at the earliest possible stage of your study.

If takings are suggested as part of any alternative, these should be appropriately mapped and quantified within the EA report documentation. In addition, details of appropriate mitigation and or next steps related to compensation for any required takings should be present. IO requests circulation of the draft EA report prior to finalization if potential impacts to IO-managed lands are present as part of this study.

Impacts to Cultural Heritage

Should the proposed activities impact cultural heritage features on IO managed lands, a request to examine cultural heritage features, which can include cultural landscapes, built heritage, and archaeological potential and/or sites, could be required. If the potential for such impacts is present as part of this undertaking, you should contact the undersigned to discuss these issues at the earliest possible stage of your study.

Potential Triggers Related to MOI's Class EA

IO is required to follow the MOI Public Work Class Environmental Assessment Process for (PW Class EA). The PW Class EA applies to a wide range of realty and planning activities including leasing or letting, planning approvals, disposition, granting of easements, demolition and property maintenance/repair. For details on the PW Class EA please visit the Environment and Heritage page of our website found at

<http://www.infrastructureontario.ca/Templates/Buildings.aspx?id=2147490336&langtype=1033>

Please note that completion of any EA process does not provide an approval for MOI's Class EA obligations. Class EA processes are developed and in place to assess undertakings associated with different types of projects. For example, assessing the impacts of disposing of land from the public portfolio is significantly different than assessing the best location for a proposed road.

IO is providing this information so that adequate timelines and project budgets can consider MOI's regulatory requirements associated with a proposed realty activity in support of a project. Some due diligences processes and studies can be streamlined. For example, prior to any disposition of land, at minimum a Phase I Environmental Site Assessment and a Stage I Archaeological Assessment and the MOI Category B Environmental Assessment should be undertaken. Deficiencies in any of these requirements could result in substantial project delays and increased project costs.

In summary, the purchase of MOI-owned/IO-managed lands or disposal of rights and responsibilities (e.g. easement) for IO-managed lands triggers the application of the MOI Class EA. If any of these realty activities affecting IO-managed lands are being proposed as part of any alternative, please contact the Sales, Easements and Acquisitions Group through IO's main line (Phone: 416-327-3937, Toll Free: 1-877-863-9672), and also contact the undersigned at your earliest convenience to discuss next steps.

Specific Comments

Please remove IO from your circulation list, with respect to this project, if MOI owned lands are not anticipated to be impacted. In addition, in the future, please send only **electronic copies of notices** for any projects impacting IO managed lands to:
Keith.Noronha@infrastructureontario.ca

Thank you for the opportunity to provide initial comments on this undertaking. If you have any questions I can be reached at the contacts below.

Sincerely,

██████████
Environmental Advisor, Environmental Management
Infrastructure Ontario
1 Dundas Street West,
Suite 2000, Toronto, Ontario
M5G 2L5
(416) 212-3768

██████████@infrastructureontario.ca

* Below are the acronyms for agencies/ministries listed in the above letter

OLC	Ontario Lands Corporation
ORC	Ontario Realty Corporation
PIR	Public Infrastructure and Renewal
MGS	Ministry of Government Services
MBS	Management Board and Secretariat
MOI	Ministry of Infrastructure
MTO	Ministry of Transportation
MNR	Ministry of Natural Resources
MEI	Ministry of Energy and Infrastructure

Jenny Goodwin

From: Mike Ulozas <mike.ulozas@bteng.ca>
Sent: Monday, July 25, 2016 1:55 PM
To: 'Steve Taylor'; 'Darcie Dillon'
Subject: FW: Sherl - RE: Innisfil 6th Line EA Utility Mark-Ups
Attachments: Innisfil 6th Line Draft UTILITIES Letter Apr 6 2016 MERGED.PDF; 16-006 Town of Innisfil Draft Study Design May 17 QC rev7.pdf; Study Area.pdf

FYI – Jessica was correct. No Hydro One in the area – must all be InnPower.

Mike



Mike Ulozas
Partner
586 Eglinton Avenue East, #212
Toronto, Ont. M4P 1P2
E-Mail: mike.ulozas@bteng.ca
Phone: 416-488-5353
Cell: 343-363-0319
FAX: 1-416-352-1840
www.bteng.ca

From: [REDACTED]@HydroOne.com [mailto:[REDACTED]@HydroOne.com] **On Behalf Of**
Zone5PlanningDept@HydroOne.com
Sent: Monday, July 25, 2016 11:26 AM
To: [Mike.ulozas@bteng.ca](mailto:mike.ulozas@bteng.ca)
Cc: Zone2Scheduling@HydroOne.com
Subject: FW: Sherl - RE: Innisfil 6th Line EA Utility Mark-Ups

Hello,

This isn't under Zone 5's area. Innisfil has their own utility and from the address list below I believe they were sent this email.

Thanks,

[REDACTED]
*Customer Operations Support Rep, Provincial Lines, BA1
Hydro One Networks Inc.*

Tel: [REDACTED]
Fax: [REDACTED]
Email: [REDACTED]@hydroone.com

From: [REDACTED] **On Behalf Of** ZONE 2 SCHEDULING
Sent: Thursday, July 21, 2016 9:36 AM
To: ZONE 5 PLANNING DEPT
Subject: FW: Sherl - RE: Innisfil 6th Line EA Utility Mark-Ups

I believe this request is for Zone 5.

[REDACTED]
LCSC - Planning Dept.
Provincial Lines – DU1
Hydro One Networks Inc.
40 Olympic Dr.
Dundas, ON L9H 7P5
Phone: [REDACTED]
Fax: [REDACTED]
Email: [REDACTED]@hydroone.com
Gen Email: WestCentralZoneScheduling@HydroOne.com

From: Mike Ulozas [mailto:mike.ulozas@bteng.ca]
Sent: Monday, June 27, 2016 2:40 PM
To: ZONE 2 SCHEDULING
Cc: 'Steve Taylor'
Subject: Sherl - RE: Innisfil 6th Line EA Utility Mark-Ups

To whom it may concern:

Just wanted to follow up on this email as I haven't seen anything back yet. Is there a mark-up of current or future infrastructure that can be provided for our planning? I have re-attached the documents referenced in my previous email for review.

Regards,

Mike



Mike Ulozas
Partner
586 Eglinton Avenue East, #212
Toronto, Ont. M4P 1P2
E-Mail: mike.ulozas@bteng.ca
Phone: 416-488-5353
Cell: 343-363-0319
FAX: 1-416-352-1840
www.bteng.ca

From: Mike Ulozas [mailto:mike.ulozas@bteng.ca]
Sent: Tuesday, May 24, 2016 10:33 AM
To: Zone2Scheduling@HydroOne.com; davidt@innpower.ca; sfahey@innservices.com; bell.moc@telecon.ca
Cc: 'Steve Taylor'; 'Darcie Dillon'
Subject: Innisfil 6th Line EA Utility Mark-Ups

All:

This email is a follow up to a Study Commencement Notice distributed to utility companies for the 6th Line Interchange EA project undertaken for the Town of Innisfil. The distributed notice sent April 4th 2016 from our Toronto office is attached.

I am not sure if the letter ever reached you but as read in the notice we are looking for any information for existing and future plants in the project area. If you could please provide a mark-up in both PDF and CAD format that would be ideal.

If you have any further questions please do not hesitate to contact myself.

Regards,

Mike



Mike Ulozas
Partner
586 Eglinton Avenue East, #212
Toronto, Ont. M4P 1P2
E-Mail: mike.ulozas@bteng.ca
Phone: 416-488-5353
Cell: 343-363-0319
FAX: 1-613-280-1305
www.bteng.ca

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December 19, 2016

Jessica Jenkins, P. Eng.
Project Manager
Town Of Innisfil
2101 Innisfil Beach Road
Innisfil, Ontario L9S 1A1

Steve Taylor, P. Eng.
Consultant Project Manager
BT Engineering
586 Eglinton Avenue East
Toronto, Ontario M4P 1P2

**RE: Comments on Public Open House No. 2
6th Line Interchange Municipal Class Environmental Assessment
South half of Lot 6, Concession 6**

Dear Jessica & Steve,

Thank you for hosting the recent Public Open House No. 2 (POH) for the 6th Line Interchange Municipal Class Environmental Assessment (EA). I am the owner of the property legally described as the south half of Lot 6, Concession 6 in the Town of Innisfil, which is located at the northwest quadrant of Highway 400 and 6th line. The lands are delineated by the Town as "Economic District Expansion Area" but I am still actively farming the land as a combination beef cattle and cash crop operation. My property is significantly impacted by the concepts presented at the POH.



Figure 1: Property Location

Given the significant encumbrances on both my property ownership and farming operation that may result from the proposed works, I was disappointed that I was not pre-consulted in advance of the POH to review and contribute to the concepts presented, however I appreciate that comments can still be submitted. I also appreciate the time you took to meet with me on

December 12 to provide me with further background and hear my initial concerns. This letter outlines my initial comments on the information presented at the POH.

Property Access

My property is accessed by two entrances along 6th Line that will be impacted by the concepts presented at the POH. The east entrance provides access to the existing barn and is the main access used for large trucks and farm equipment in support of my cash crop and beef cattle operation. The west laneway provides the only ability to access the lands that are bounded on all other sides by the existing watercourse.



Figure 2: Existing Entrances

The preferred concept presented at the POH indicates that the east driveway may no longer be viable once the proposed realignment and overpass configuration of the 6th Line occurs. The POH noted that a new entrance would be provided from 5th Sideroad. The west access was not acknowledged in the POH concepts.

The 5th SR access proposed in the POH is not preferred for the following reasons:

1. It will require additional maintenance due to the increased length and orientation. The current driveway is relatively sheltered and requires minimal effort for snow removal in order to access the barn. The proposed 5th SR access is approximately 2.5 times longer. Its length, east-west orientation, and location adjacent to the open field will require increased snow removal effort to reach the existing barn.
2. Due to the existing watercourse, the 5th SR entrance does not accommodate the area currently accessed by the westerly 6th Line entrance, rendering this area of the property inaccessible.

3. There is currently a farm fence adjacent to the location of the proposed 5th SR access that is required to contain cattle within the pasture lands. However, I have contemplated that at some point I will no longer continue with my beef cattle operation. I would therefore no longer require any lands to be in pasture and would use all the lands for cash crop purposes. Having the lane in the proposed location would render the lands between the laneway and the creek useless as the farm equipment would not be able to crop the small remnant areas. However, if the lands were part of the larger field, it is much more practical to use the entire lands up to the watercourse as productive farmland.
4. A large portion of the farmland north of the proposed 5th SR laneway currently sheet drains to the creek. The laneway would need to be raised above existing elevations to avoid flooding and erosion, and ditching/culverts provided to adequately drain the northern lands. As such, a significant width of currently productive farmland would be lost to facilitate both the laneway and ditch.

Based on the above, I request that the EA revisit the issue of access to my property, including the following:

1. Access to the lands currently accommodated by the westerly 6th Line entrance (i.e. lands south of the creek) must be provided. The existing creek surrounds this parcel of land and the only reasonable location for access is from the 6th Line.
2. The access required per above must be at an adequate location to provide access for future land use that may be contemplated for the property given its delineation by the Town as part of the "Economic District Expansion Area". I request the EA recognize and identify a location along the 6th Line that is adequate for both current farming operations and future potential uses based on that delineation, given the boundary constraint of the existing creek. Since the scope of the EA includes interchange works which are noted as not being required until some date in the future, the same reasoning would apply to consider an ultimate entrance for future use of my property. If accommodation of this ultimate entrance is deemed premature, than I suggest that consideration of an interchange in this location is also premature.
3. Can the easterly access be maintained off 6th Line in the interim condition (i.e. prior to the interchange ramps being constructed)?
4. The EA should acknowledge that the area required for the laneway, additional ditching, etc is considered to be an encumbrance on my lands. Though I would expect to retain ownership of the lands containing any new laneway, the loss of the use of the associated lands for farming purposes is a direct result of the proposed roadworks and would require compensation.
5. The EA should recognize that any new entrance/laneway will need to have sufficient structure (depth of granulars), width, and turning radius to support the large farm equipment and 40+ tonne tractor trailers required for my farming operation.
6. My initial preference for access to the barn is to provide an entrance/laneway from the 6th Line per the sketch below. However, I would also entertain further discussion on compensation for abandonment of the existing barn to allow me to rebuild a structure in a different location to serve my farming operation needs.



Figure 3: Preliminary Preferred Access

Tile Drainage

There are a series of tile drains within the property that are required for adequate drainage of the lands. The EA should acknowledge this and ensure that there are provisions to maintain adequate surface drainage and tile drain outlets for the lands.

6th Line Horizontal & Vertical Alignment

The preferred alternative presented in the POH shifts the 6th Line north which has a significant impact on my land. The information provided to date does not sufficiently justify this shift to the north. I request further information be provided on this assessment, including the detailed cost estimates of the various options considered.

Slide 7 from the POH indicated that if 6th line is left in its current configuration (6th Line under Highway 400) it would require the raising of Highway 400. This seems like a drastic conclusion that would obviously contribute significantly to eliminating this as an option due to the impracticality and expense of raising elevations of the highly travelled roadway. However, the slide does not appear to consider a slight lowering of 6th Line to achieve the same net result. Although I suspect that accommodating storm drainage may typically be a challenge for a lowered roadway crossing, in this case there is a very deep valley in close proximity south of the crossing that can likely accommodate the drainage from this configuration. I request further information on the assessment of this alternative.

Maintaining the current alignment is in line with the recently completed 6th Line EA which recommended widening about the centerline of roadway (see Table A of the 6th Line EA, September 2016). In addition, it is my understanding that the studies undertaken by the Ministry

of Transportation (MTO) to date in regards to the widening of Highway 400 and replacement of structures also contemplated a new structure at the existing alignment of 6th Line. If the cost of replacement of the bridge in its current alignment would primarily be at MTO expense, would it not be more cost effective for the Town to simply pay for the additional width for this structure to accommodate the future lane configuration of 6th Line?

Please provide further details to justify the northern shift. It is my preference that the 6th Line remains in its current alignment to minimize the encumbrance of my lands.

Roundabout

The preferred concept presented in the POH includes provision of a roundabout at the future intersection of the highway ramps and 6th Line. It appears the provision for roundabouts further encumbers my lands by requiring the cloverleaf to extend further north than would otherwise be required. It is my opinion that the information provided to date does not justify this need and is beyond a typical interchange requirement.

The MTO and Town of Bradford West Gwillimbury (BWG) are currently constructing a similar interchange at Highway 400 and the 5th Line BWG. To my knowledge this new interchange does not include roundabouts and I expect that it would experience more traffic volume than is anticipated at the proposed 6th Line interchange. See below for a comparison.

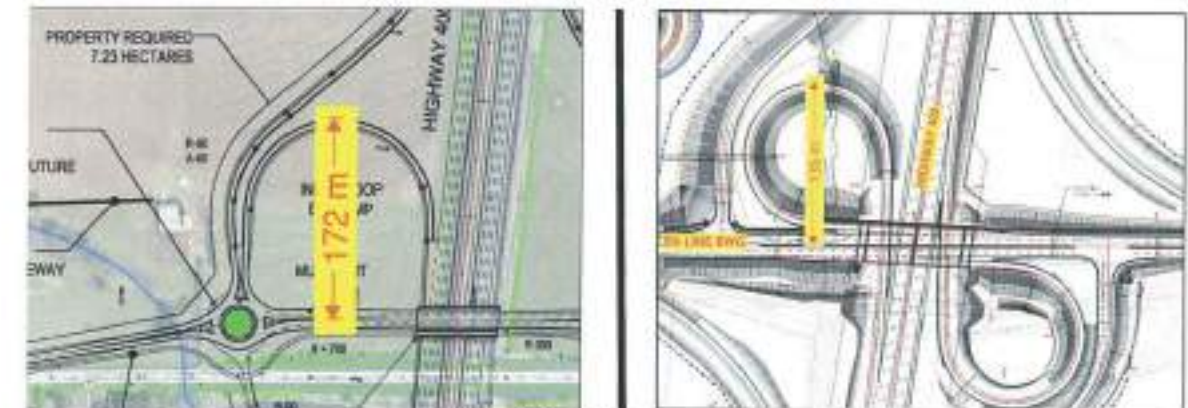


Figure 4: Comparison of Innisfil 6th Line vs BWG 5th Line Dimensions

I request that the requirement for a roundabout be removed from the preferred solution to reduce the amount of property required.

Current vs Ultimate Requirements

It is my understanding that the Town requires the new overpass/underpass in the short term, while the complete interchange is not required until some point in the distant future. It is my opinion that these two components should be separated in the EA so that it is clear what lands are required by the Town at this time for the 6th Line itself, and what can be deferred until such time as the interchange is required.

In addition, it is our understanding that this EA is being completed in consultation with the MTO. The MTO has previously indicated that a portion of my lands may be required for a widening of

Highway 400. To aid in future discussions, I would request that the land requirements be further delineated by what is required from 1) Town in the short term for 6th Line reconstruction, 2) MTO in the short term for Highway 400 widening, and 3) Town in the long term for the future interchange. To be clear, it is my opinion that conveyance of land for the latter item is quite premature at this time.

Conclusion

Thank you for the opportunity to provide comments on the information presented at the POH. I look forward to continued dialogue to address my concerns and would be pleased to meet at your convenience to review your responses prior to finalization of the Environmental Study Report.

Should you have any questions on my comments or wish to contact me further, I can be reached at [REDACTED].

Regards,

[REDACTED]

[REDACTED]

Jenny Goodwin

From: Steve Taylor <steve.taylor@bteng.ca>
Sent: Tuesday, December 6, 2016 11:42 AM
To: [REDACTED]
Cc: [REDACTED]; jjenkins@innisfil.ca; Darcie Dillon
Subject: RE: 6th Line EA

Thanks you [REDACTED] for these comments. They will be included in the record of consultation and shared with MTO as well.

We are having the Public meeting this evening if you have the chance to come out to the Town offices. You will be added to our study mailing list.

Thanks
Steve



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From: [REDACTED] [[mailto:\[REDACTED\]@CIBC.com](mailto:[REDACTED]@CIBC.com)]
Sent: December 6, 2016 9:10 AM
To: jjenkins@innisfil.ca; steve.taylor@bteng.ca
Cc: [REDACTED]
Subject: 6th Line EA

Jessica and Steve: My major concern with upgrades to the 6th Line, is that there is a major deer yard for the local Whitetail deer in the area of Lover's Creek wetland between 10 Sideroad and Hwy 11 / Yonge Street.

My suggestion is that a few wildlife underpasses need to be constructed in the area of the yard to accommodate the movement of wildlife, and reduce the potential of deer/ vehicle collisions. You can confirm the deer yard's presence with the MNR & F Conservation Officers who work this part of South Simcoe. A portion of the roadway may need to be fenced to direct flow to the underpasses, similar to the fencing being added to the Hwy 400 expansion in the Muskokas.

My personal email is [REDACTED] Please put me on your mailing list. [REDACTED]

[REDACTED] Manager, Agriculture, CIBC Commercial Banking
549 Holland Street West | Bradford | ON L3Z 0C1 | T: [REDACTED] | F: [REDACTED] | C: [REDACTED] | [REDACTED]@cibc.com
Named strongest publicly traded bank in North America by Bloomberg Markets

To unsubscribe from future email from CIBC, reply to me, with the subject marked as "Unsubscribe". Please note that it may take up to 10 business days to fulfill your request. You can subscribe again by contacting me using my contact information above. This message, including attachments, is confidential and may be privileged. If you receive this message in error, please notify me by reply email and delete this message. Thank you.

Pour vous désabonner aux futurs courriels de la Banque CIBC, répondez-moi en indiquant « Désabonner » dans la ligne d'objet. Veuillez prendre note que le traitement de votre demande peut prendre jusqu'à 10 jours ouvrables. Vous pourrez vous réabonner en communiquant avec moi au moyen des coordonnées ci-dessus. Ce message, y compris les pièces jointes, est confidentiel et peut contenir de l'information privilégiée. Si vous avez reçu ce message par erreur, veuillez m'en informer en répondant à ce courriel. Merci.