



**BURNSIDE**

**Veterans Way, Klondike Park Road  
Geometric Improvements and  
Watermain Looping  
Municipal Class  
Environmental Assessment, Schedule B  
Project File Report (PFR)**

**The Town of Wasaga Beach**

**R.J. Burnside & Associates Limited  
3 Ronell Crescent  
Collingwood ON L9Y 4J6 CANADA**

**July 3, 2018  
300031855.0000**

Veterans Way, Klondike Park Road Geometric Improvements and Watermain Looping  
July 3, 2018

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### R.J. Burnside & Associates Limited

Report Prepared By:



Deanna De Forest  
Environmental Assessment Coordinator  
DDF:lw

Report Reviewed By:



Paul Hausler  
Senior Project Manager  
DDF:lw



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## Executive Summary

R.J. Burnside & Associates Limited (Burnside) was retained by The Town of Wasaga Beach (Town) to complete a Municipal Class Environmental Assessment (EA). The Town initiated the EA to consider alternatives to potential transportation improvements that address traffic volume and road geometrics in the area of Veterans Way and Klondike Road (study area).

The planning of improvements was carried out in accordance with the Schedule 'B' requirements (Phases 1 to 2) of the Municipal Engineers Association Municipal Class Environmental Assessment document (October 2000, as amended in 2007, 2011 and 2015), which is approved under the Ontario Environmental Assessment Act.

In Phase 2 of the Class EA, three alternative solutions were considered for road improvements and five alternative solutions were considered for intersection improvements. Road improvement alternatives included 1) Do Nothing; 2) Reduced Posted Speed; or 3) Realignment of Curves. The alternatives considered for intersection improvements included 1) Do Nothing; 2) All-way Stop Control; 3) Signalization; 4) Realignment; 5) Roundabout; or some combination of alternatives.

The alternatives were evaluated against the natural, social, economic and technical environments. It was determined that a combination of the realignment of curves, for road improvements, and realignment for intersection improvements, was preferred.

A key component of the study included consultation with interested stakeholders, considered broadly to include government and non-government agencies, Aboriginal Communities, property owners, and the general public. Consultation with stakeholders included a Notice of Commencement and Notice of Completion. In addition, a Public Information Centre (PIC) was held to present the project and obtain input from interested stakeholders. A Notice of Completion will be published in the local newspapers and mailed to stakeholders and agencies that have interest in the project. As per the requirements of the Municipal Class EA, this Project File Report (PFR) is available for public review and comment for a period of 30 calendar days following the publication of the Notice of Completion.

The Notice of Completion will provide the dates, times and locations where the PFR can be reviewed, and names and addresses of people to whom they can send their comments.

If concerns arise regarding this project which cannot be resolved in discussion with the Town, a person or party may request that the Minister of the Environment make an Order for the project to comply with Part II of the Environmental Assessment Act (referred to as a Part II Order), which addresses Individual Environmental Assessments. Requests must be received by the Minister within 30 calendar days of the first publication of the Notice of Completion.

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## 1.0 Introduction

R.J. Burnside & Associates Limited (Burnside) was retained by The Town of Wasaga Beach (Town) to complete a Municipal Class Environmental Assessment (EA).

Watermain looping on Veterans Way (formerly Powerline Road) and Klondike Park Road is required to facilitate planned water system upgrades. Additionally, traffic volumes on Klondike Park Road and Veterans Way are expected to increase as the Town develops. As such, the Town initiated the EA to consider potential transportation improvements that address traffic volume and road geometrics in the area.

The existing conditions, evaluation of alternatives and the public consultation efforts, are presented in this Project File Report (PFR) for a Schedule 'B' Municipal Class EA.

## 2.0 Problem / Opportunity Identification

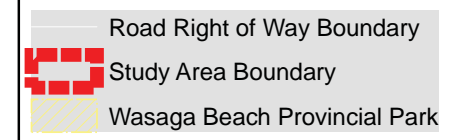
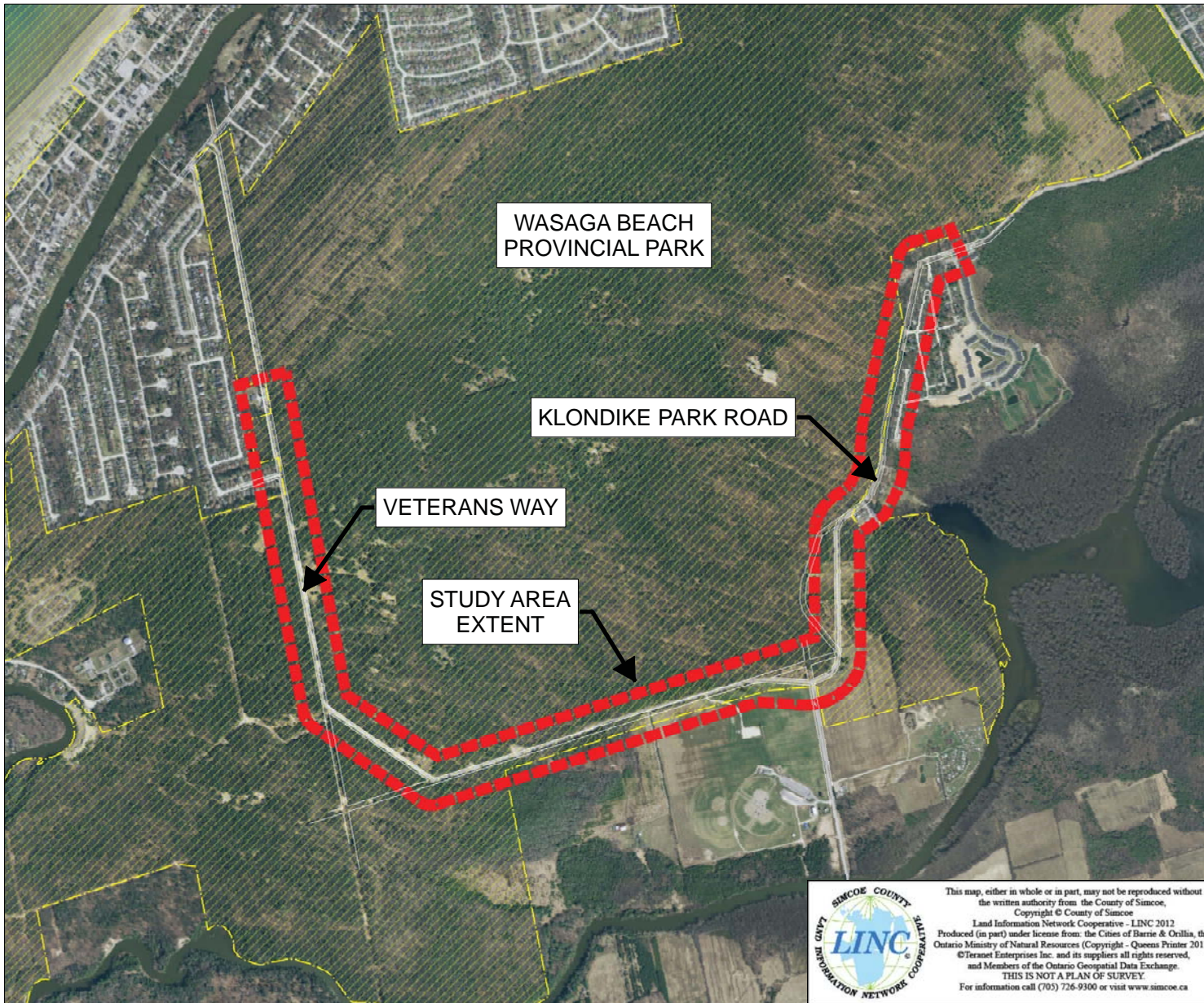
The Problem/Opportunity Statement has been defined as follows:

*As part of watermain looping and road reconstruction efforts, The Town of Wasaga Beach ("The Town") has identified an opportunity to meet projected increases in traffic volume and improve horizontal and vertical road alignment and intersection geometrics of Veterans Way and Klondike Park Road.*

Based on the descriptions provided in the Municipal Engineering Association ("MEA") Guide for Municipal Class EAs (2000, as amended in 2007, 2011 & 2015) for municipal road projects activities, the alternatives being considered and the estimated cost limit for the project (< \$2.4 million), it was determined that a Schedule 'B' Municipal Class EA with a PFR was appropriate for the undertaking of this investigation.

## 3.0 Existing Conditions

The Study Area includes the corridor along Veterans Way and Klondike Park Road from south of the intersection of Fernbrook Drive and Veterans Way to the intersection of Klondike Park Road and Shaw Street (Figure 1). Adjacent properties include residential properties, and provincially owned land, managed by Ministry of Natural Resources and Forestry (MNR) as the Wasaga Beach Provincial Park.

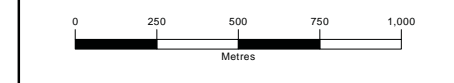


Sources:  
 1. Ministry of Natural Resources, © Queen's Printer for Ontario  
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Datum: North American 1983		
Coord. System: NAD 1983 UTM Zone 17N		
Projection: Transverse Mercator		
Central Meridian: 81°0'0.00"W		
False Easting: 500,000m	False Northing: 0m	
Rotation: 0	Scale Factor: 0.99960	



Client  
**TOWN OF WASAGA BEACH**

Figure Title  
**VETERANS WAY & KLONDIKE  
 ROADS IMPROVEMENTS EA**  
 STUDY AREA

Drawn	Checked	Date	Figure No.
HN	DDF	2016/05/24	1
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### 3.1 Technical Environment

The following background reports were reviewed for information relative to the study area:

- Town of Wasaga Beach – 2012 Transportation Study Update (TSU 2012) report completed in January 2013 by Ainley Group.
- Town of Wasaga Beach –2017 Transportation Study Update (TSU 2017)– AADT being 3,000 + vehicles on all approaches.

The TSU 2012 and the TSU 2017 includes information on three relevant road segments for this exercise for both 2006 and 2012. Information provided is Annual Average Daily Traffic (AADT) and Summer Weekend Daily Traffic (SWEDT), and is provided in Table 1 Road Section Traffic Volumes. As Wasaga Beach is an established summer tourism location, summer weekend traffic was considered an important metric for traffic analysis in the municipality.

Klondike Park Road south of the intersection of Klondike Park Road and Veterans Way is a collector road that connects to Highway 26, and therefore can be a route used for travel to/from Wasaga Beach.

**Table 1 Road Section Traffic Volumes**

Road Section Description	2006		2012				Annualized Growth Rate	
	AADT	SWEDT	AADT	SWEDT	AADT	SWEDT	AADT	SWEDT
Powerline Road: River Road. W. - Klondike Park Road	1,300	1,850	1,125	1,275	1575	1575	6.96%	4.32%
Klondike Park Road: Powerline Road - Golf Course Road	1,400	2,175	1,800	2,400	2675	3425	8.25%	7.37%
Klondike Park Road: Powerline Road - Sport's Park	1,875	3,125	2,175	2,850	3125	3600	7.52%	4.78%

The TSU 2012 notes that Powerline Road (Veterans Way) has a number of sub-standard vertical curves and horizontal curves for a design speed of 70 km/h or 60 km/h (corresponding to a posted speed of 50 km/h on the road), and that geometric improvements had been identified in the 10 year Capital Works Forecast and were currently under design at the time of the report. The TSU 2017 notes a significant growth of traffic volumes on both Veterans Way and Klondike Park Road on the volumes observed in the 2012 Study.

Burnside completed a review of the existing geometric conditions of Veterans Way from River Road West to Klondike Park Road using topographical survey data of the existing



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conditions and the information included in the TSU 2012 and TSU 2017 reports and noted that significant geometric improvements were required with respect to vertical and horizontal curves and to the Veterans Way Klondike Park Road intersection.

### **3.2 Natural Environment**

Burnside completed a review of available information, policies and plans including natural features, habitat data, significant environmental features (e.g., woodlands, wetlands, significant flora and fauna) and environmentally sensitive areas within the study area. An aquatic habitat survey was not completed as part of the scope of work due to the lack of watercourse crossing within the study area corridor. Information available from the Nottawasaga Valley Conservation Authority (NVCA), MNRF and supporting information contained within the following background reports was reviewed for information relative to the study area:

- Dune Outlier Study NVCA, 2005.
- Background Review and Landscape Model, NVCA, 2005.
- South Bank Study, NVCA, 2005.
- Eastern Hog-nosed Snake Discussion Paper, NVCA 2005.
- Detailed Life Science Inventory, Wasaga Beach Provincial Park, North-South Environmental Inc., 2005.

In addition, Burnside and sub-consultants completed several site visits to characterize the natural environment. A detailed discussion of the background review and site visit reporting is available in the Natural Heritage Studies Summary (NHSS) located in Appendix A, and summarized in the following sections.

#### **3.2.1 Geology**

A review of available mapping by the Ontario Geological Survey was undertaken to characterize the general surficial and bedrock geology of the area.

Surficial Geology within the study area consists of Glaciolacustrine deposits of sand, gravelly sand and gravel, near shore and beach deposits. Bedrock geology within the study area consists of Middle Ordovician, consisting of limestone, dolostone, shale, arkose, sandstone, of the Ottawa Gp.; Simcoe Gp.; Shadow Lake Formation.

#### **3.2.2 Topography, Hydrology and Stormwater**

The topography of the study area is undulating with an elevation range from approximately 188 to 200 metres above sea level (masl). Surface water at the Site is inferred to flow overland and is infiltrated into the ground surface. Area ground water is inferred to flow to the northwest, toward the Nottawasaga Bay, located approximately 1.75 km to the northwest of the study area.

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### 3.2.3 Vegetation Communities

A review of secondary source information, including previously completed studies for the Wasaga Beach Provincial Park, identified sensitive vegetation communities including Tall Grass Woodland, Tall Grass Prairie, Open Bluff and Old Growth. Provincially Endangered and Rare plant species were also identified within the park.

A condition assessment of vegetative species which may be directly impacted by the proposed alternatives was completed for those areas within 25 m of the limits of the proposed alternatives. The scope of the assessment included:

- Three season inventory of seasonally evident vascular plant species.
- Delineation of natural communities according to the Ecological Land Classification system for Southern Ontario (Lee et al. 1998), where possible, within the study area.
- Documentation of incidental observations of Species at Risk plants and assessment of SAR habitat potential (e.g., Hill's Thistle)

A total of seven vegetation communities were investigated that are immediately adjacent to the existing ROW, listed below. A description of the vegetation communities is provided within the NHSS in Appendix A. The location of the vegetation communities within the study area are illustrated on Figure 2 of the NHSS in Appendix A.

- Mixed Forest / Coniferous Forest / Mixed Swamp (FOM/FOC/SWM)
- Dry – Fresh White Pine – Red Pine Coniferous Forest (FOC1-2)
- Dry – Fresh White Pine – Hardwood Mixed Forest (FOM2)
- Dry – Fresh White Pine – Oak Mixed Forest (FOM2-1)
- Dry Tallgrass Prairie (TPO1)
- Dry Tallgrass Prairie / Mineral Cultural Meadow (TPO1/CUM1)
- Fresh – Moist White Cedar – Sugar Maple Mixed Forest (FOD7-2) / Red Maple – Conifer Organic Mixed Swamp (SWM5-1)

Vegetation in the right-of-way (ROW) is predominantly limited to manicured turfgrass and early successional native and non-native grasses and forbs such as Smooth Brome (*Bromus inermis*), Wild Carrot (*Daucus carota*) and Poison Ivy (*Toxicodendron rydbergii*). Ditches with wetter conditions are occupied by Spotted Jewelweed (*Impatiens capensis*), Narrow-leaved Cattail (*Typha angustifolia*) and Purple Loosestrife (*Lythrum salicaria*).

The remaining lands within the study area are characterized as manicured turf (sportsfields south of Veterans Way Road and Town facilities on the west side), cash crop agriculture (southeast corner of study area) and residential properties (at the northeast corner and on the west side). These locations represent little ecological sensitivity.

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### **Sensitive Vegetation**

Based on a comparison with the NHIC Ontario Vascular Plant List, all plant species observed are ranked, where available, as Apparently Secure or Secure (S4-S5), being uncommon, but not rare, to widespread, common and abundant in Ontario with the exception of Carolina Puccoon (*Lithospermum carolinense*), which is ranked as S3, Vulnerable in the Province. Carolina Puccoon was observed during the spring site visit, located in several locations along the right-of-way on sandy soil in open or forest edge areas.

No sensitive vegetation communities were observed within the study area with the exception of Dry Tallgrass Prairie, identified by NHIC (Ontario Plant Community List, no date) as S1: Critically Imperiled. SAR plants were not identified during the investigation.

#### **3.2.4 Bats**

A site reconnaissance was conducted on May 6, 2016 was conducted to identify candidate bat maternity roosting habitat along the grading easement limits and areas of potential property acquisition or exchange considered under the alternatives proposed for the Municipal Class EA. Details of the findings are presented within the NHSS in Appendix A.

Eleven trees were identified as having potential candidate bat maternity roosting features. According to the ELC surveys conducted in the study area in 2005 and 2015, four of the six ELC communities that are known to be suitable for bat maternity roosting habitat are present.

Older forest stands that typically feature increased snag availability for roosting and foraging under a relatively closed canopy and mature large-diameter trees with >25 cm DBH are considered to be key features of significant bat maternity roosting habitat sites for Northern Myotis and Tri-colored Bat species.

However, the majority of the vegetation communities present within the study area are considered young to mid-aged (i.e., comprised mainly of 10-24 cm diameter at breast height (DBH) trees). Trees with a DBH > 25 cm, are not typical within the study area.

#### **3.2.5 Reptiles**

A review of secondary source information, including previously completed studies for the Wasaga Beach Provincial Park, identified the presence of SAR reptiles in the greater study area. Two Provincially Threatened and four Special Concern reptile species were identified as having the potential to be located within the study area and are listed in Table 3 within the NHSS in Appendix A. These species include Eastern Hog-nosed



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Snake, Eastern Milksnake (de-listed), Eastern Ribbon Snake, Blanding's Turtle, Snapping Turtle and Five-lined Skink.

An early spring survey (May 6, 2015) following snow melt was conducted to search for evidence of turtles and snakes within the study area limits and assess whether suitable habitat is present within the study area limits for SAR reptiles. Details of the findings are presented within the NHSS in Appendix A

No snakes or turtles were observed within the study area during Burnside's early spring survey. The potential footprint of the alternatives solutions does not include habitat for SAR snakes, including Hognose snake concentration areas identified in previous studies for the Wasaga Beach Provincial Park, however, a previous study notes the entire park should be considered habitat for Hognose Snake. Preferred habitat for turtles is considered to be in open water wetlands, coastal wetlands and the rivers such as the Nottawasaga River. However, these types of habitat are not located within the study area limits.

### **3.2.6 Breeding Birds**

A review of secondary source information, including previously completed studies for the Wasaga Beach Provincial Park, identified the presence of SAR birds in the greater study area.

North South Environmental (NSE) was retained by R.J. Burnside & Associates Limited to complete breeding bird surveys along Veterans Way and Klondike Park Roads in Wasaga Beach. A copy of the NSE report is presented within the NHSS in Appendix A.

Three breeding bird/Species at Risk (SAR) surveys were completed between May 24 and July 10, based on Ontario Breeding Bird Atlas protocols (2001), MNRF protocols and the Canadian Wildlife Service protocols. Surveys were conducted as point count surveys along the road side. Surveys were focused on obtaining evidence for breeding and determining the approximate number of territories in each habitat.

A total of 55 bird species were documented from the study area. All bird species documented from the study area are listed in Table 4 of the NSE report found within the NHSS in Appendix A.

The birds documented from the study area were forest, wetland, and/or open habitat dependent. Many of the species are common and widespread in Ontario in small to large patches of habitat.

Five bird species of provincial significance were noted on the site; all five have federal and provincial status under the federal Species at Risk Act, and Endangered Species Act, respectively. These species include Canada Warbler, Common Nighthawk, Eastern

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Whip-poor-will, Eastern Wood-pewee, and Wood Thrush. In addition, seventeen species documented from the study area are considered area sensitive in Ontario. Only one introduced species was documented: European Starling.

### **3.2.7 Incidental Wildlife and Habitat Observations**

Four species of mammal and nine species of bird were incidentally observed during the natural heritage investigations completed outside of the breeding bird surveys. None of the species have status under Species at Risk Ontario (SARO) or the Species at Risk Act (SARA). Two species of bird, Pine Warbler and Ovenbird, are noted as MNRF Area Sensitive Species.

### **3.2.8 Species of Conservation Concern (Rare and Special Concern Species)**

Species of Conservation Concern include those listed as Special Concern (“SC”) under the provincial Endangered Species Act or Federal Species at Risk Act and rare species with Provincial (or Subnational) “S ranks” of S1 to S3. Rank S1 is considered extremely rare in Ontario, S2 is considered very rare in Ontario, S3 is considered rare to uncommon in the province. Provincial (or Subnational) ‘S ranks’ are used by the NHIC to set protection priorities for rare species and natural communities. These ranks are not legal designations though indicate a level of regard due to rarity.

The following species of Conservation Concern were observed within the Study Area during the field studies completed in 2015:

- Carolina Gromwell (Carolina Puccoon) (*Lithospermum caroliniense*), S3.
- Canada Warbler (*Cardellina pusilla*), S4B, G5, Provincially Special Concern.
- Common Nighthawk (*Chordeiles minor*), S4B, G5, Provincially Special Concern.
- Eastern Wood-pewee (*Contopus virens*), S4B, Provincially Special Concern.
- Wood Thrush (*Hylocichla mustelina*) S4B, Provincially Special Concern.
- Red Headed Woodpecker (*Melanerpes erythrocephalus*), SB4, Provincially Special Concern.

### **3.2.9 Threatened and Endangered Species**

Designation of species under the Federal Species At Risk Act protect those threatened and endangered species on federally-owned lands and waterways. Outside of federally owned lands, provincial Endangered Species Act protections apply.

The following Threatened species were observed during the field studies completed in 2015 to be located within the Study Area:

- Eastern Whip-poor-will (*Caprimulgus vociferous*), S4B, G5, Provincially Threatened.

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As a provincially Threatened species, Whip-poor-will and its habitat are protected by the Endangered Species Act, 2007 in Ontario.

Activities in general habitat can continue as long as the function of these areas for the species is maintained and individuals of the species are not killed, harmed, or harassed.

### **3.3 Social Environment**

#### **3.3.1 Policy and Planning**

A review of existing planning and policy data was conducted to obtain secondary source information relevant to the natural and social environment within the Study Area and to provide an overview of existing policy framework in the study area. Sources reviewed included:

- Planning Act and Provincial Policy Statement (PPS).
- The Town of Wasaga Beach Official Plan (Adopted September 9, 2003, Approved by County of Simcoe June 22, 2004, Office Consolidation September 6, 2013).
- Simcoe County Official Plan (Consolidated 2007, approved December 2016).
- NVCA Regulation- Ontario Regulation 172/06, Nottawasaga Valley Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses.
- Endangered Species Act, 2007.
- Clean Water Act -Source Water Protection.

##### **3.3.1.1 Planning Act**

The Provincial Policy Statement (PPS) provides general policies on land use patterns, resources, and public health and safety that guide development across Ontario (PPS, 2005). Section 2.1 of the PPS provides guidance on the protection of natural heritage features.

The definition of development under the PPS does not include “activities that create or maintain infrastructure authorized under an environmental assessment process” (PPS 2005). As such, intersection improvements are not subject to the Provincial Policy Statement and do not require approval under the *Planning Act*. Solutions for intersection improvements and the protection of natural heritage features are evaluated under the Municipal Class Environmental Assessment process.

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### **3.3.1.2 The Town of Wasaga Beach Official Plan, Consolidated: September 6, 2013 Land Use**

Schedule A Plans A3 and A5 identify the land use in the study area as primarily open space, with residential areas along Klondike Park Road. Open Space areas are designated for active and passive recreational and conservation uses. In addition, such uses as agriculture, nursery gardening, community gardens, forestry and cemeteries are permitted.

Both Natural Hazard and Natural Heritage System Category 1 areas are located within the vicinity of Jack's Lake, to the east of the Study Area.

#### **Transportation**

Veterans Way and Klondike are identified as collector roads on Schedule B of the Official Plan. Per the Official Plan, collector roads shall be designed primarily to facilitate traffic movements within and between community areas and from points of origin to the arterial system.

The following policies shall apply to collector roads:

- a) Collector roads shall be reasonably continuous, however, continuity over long distances should generally be avoided to discourage through traffic.
- b) Collector roads shall be designed so as to be easily distinguished from arterial and local roads using such devices including pavement widths, boulevard design, and designated bicycle lanes, if feasible.
- c) The width of collector road right-of-ways shall generally be between 20 m and 26 m.

#### **Municipal Service**

As illustrated on Schedule C, Water service is currently extended from the north end of Veterans Way to south of the intersection of Veterans Way and Fernbrook Drive on the west side of the study corridor, and water service is also extended to the Country Meadows Retirement Community and adjacent residential area at the east end of the Study Area corridor. Planned water system upgrades require that these two areas of water service be looped together.

There is currently no sewer servicing along the Study Area corridor.

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## Natural Heritage

The Study Area is bounded by Natural Heritage System Category 1 and 2 lands, including the Wasaga Dunes, Wasaga Beach Provincial Park, Wasaga Backlands Park Reserve to the north and southwest, and the Jack's Lake Wetland Complex, located to the east of the Study Area, as identified on Schedule D of the Official Plan.

Natural Heritage System – Category 1 lands may primarily be characterized as natural areas of high environmental quality and significance and/or sensitivity. Natural Heritage System – Category 2 lands may be characterized as areas of lesser environmental significance and/or sensitivity, although areas of high environmental quality may also be present.

The natural state of these areas is intended to be preserved and protected. Permitted uses on lands designated “Natural Heritage System - Category 1” as shown on Schedule “A” include existing agricultural uses, forestry, passive outdoor recreation, public works/uses, scientific research and education and wildlife management activities compatible with the conservation and preservation of the natural flora and fauna. Public Works and uses are permitted. Development and site alteration in lands delineated Natural Heritage System – Category 2 lands may be permitted if it can be demonstrated, to the satisfaction of the Municipality in consultation with the applicable commenting agencies and approving authorities, that negative impacts on the ecological features or functions of the components of the natural heritage system will not occur.

## Well head Protection Areas and Vulnerable Aquifer Areas

A Municipal Well is located on west side of Veterans Way, north of Fernbrook Drive just north of the Study Area. The Study Area is within well head protection zone in area of high aquifer vulnerability (restricted high risk land use, road improvements not subject to restriction), as illustrated on Schedule G.

- Approximately 33% of the Study Area (along Veterans Way) is located within the Well head protection Area B, which is a 2 year capture zone.
- Approximately 50% of the Study Area (along Veterans Way Road) is located within the Well head protection Area C, which is a 2-10 year capture zone.
- Approximately 80% of the Study Area (along Veterans Way and Klondike Park Road, including the intersection) is located within the Well head protection Area D, which is a 10-25 year capture zone.

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### **3.3.1.3 The County of Simcoe Official Plan, Consolidated: 2007, Final Approval: December 2016**

#### **Land Use Designations**

Land use in the study area is identified as Greenland on the Schedule 5.1 of the Simcoe County Official Plan.

The Simcoe County Official Plan Section 3.8.12 states that local municipal official plans shall contain policies and mapping that implement the County's Greenlands and natural heritage policies. Section 3.8.19 of the County Official Plan notes Infrastructure authorized under an environmental assessment process may be permitted within the Greenlands designation or on adjacent lands.

The objectives of the designation are:

- To protect and restore the natural character, form, function, and connectivity of the natural heritage system of the County of Simcoe, and to sustain the natural heritage features and areas and ecological functions of the Greenlands designation and local natural heritage systems for future generations.
- To promote biodiversity and ecological integrity within the County's natural heritage features and areas and the Greenlands designation.
- To improve the quality, connectivity and amount of woodlands and wetlands cover across the County.
- To ensure that species and communities of conservation concern can continue to flourish and evolve throughout the County.
- To contribute to the protection, improvement, and restoration of the quality and quantity of surface water and ground water and the function of sensitive surface water features and sensitive ground water features within the County.
- To ensure that the Greenlands designation complements and supports the natural heritage systems established in provincial plans and is linked with the natural heritage systems of adjacent jurisdictions, and to require local municipalities to identify and protect natural features and ecological functions that in turn complement and support the Greenlands.
- To ensure that the location, scale, and form of development respect and support the protection of the County's natural heritage system.
- To provide opportunities for natural heritage enjoyment and appreciation and for recreational and tourism uses in keeping with the Greenlands objectives, that foster healthy and liveable communities and enhance the sense of place and quality of life that characterize the County.

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### **Evaluated Wetlands**

Evaluated wetlands are not located within the Study Area, based on Schedule 5.2.2. A provincially Significant Wetland (Jack's Lake Wetland Complex) is located to the east of Klondike Park Road.

### **Areas of Natural and Scientific Interest (ANSI)**

The Study Area is bounded by the Wasaga Beach Provincial Park and the Wasaga Dunes, identified as Provincial ANSIs located to the north and southwest, and the Jack's Lake Wetland Complex Regional ANSI, located to the east of Klondike Park Road as illustrated on Schedule 5.2.3. Development and site alteration are not permitted in an ANSI, or on adjacent lands within 120 m, unless it can be demonstrated that there will be no negative impact on their features and functions.

### **Wellhead Protection Areas, Areas of Aquifer Vulnerability**

The northwest portion of the Study Area is identified on Schedule 5.2.4 as a Wellhead Protection Area. The study area is located within an area of high aquifer vulnerability, and an area of significant ground water recharge, as illustrated on Schedule 5.2.5 and Schedule 5.2.6 respectively.

Wellhead protection areas and areas of significant groundwater recharge are identified in the Wasaga Beach official plans with associated policies and provisions.

Aquifer vulnerability refers to an aquifer's susceptibility to contamination of the water quality, based on the thickness and permeability of overlying layers.

### **Nottawasaga Valley Conservation Authority (NVCA)**

Ontario Regulation 172/06, Nottawasaga Valley Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses prohibits development or alteration within the jurisdiction of the NVCA in regulated areas without the permission of the authority. The NVCA regulated area generally includes the east-west orientation of Veterans Way in the southern part of the study area, as well as Klondike Park Road, from the intersection of Veterans Way and Klondike Park Road to south of Watson Avenue.

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#### **3.3.1.4 Endangered Species Act (Provincial)**

Under the Provincial Endangered Species Act, 2007, Section 9(1):

No person shall, (a) kill, harm, harass, capture or take a living member of a species that is listed on the Species at Risk in Ontario list as an extirpated, endangered or threatened species.

Furthermore, according to Section 10(1):

No person shall damage or destroy the habitat of:

- a) a species that is listed on the Species at Risk in Ontario List as an endangered or threatened species; or
- b) a species that is listed on the Species at Risk in Ontario List as an extirpated species, if the species is prescribed by the regulations for the purpose of this clause.

#### **3.3.1.5 Clean Water Act-Source Water Protection**

As a result of the *Clean Water Act*, communities in Ontario are required to develop source protection plans in order to protect their municipal sources of drinking water. These plans identify risks to local drinking water sources and develop strategies to reduce or eliminate these risks. (<http://conservationontario.ca/conservation-authorities/source-water-protection/> accessed January 2018).

A review of the MOECC Source Water Protection Information Atlas indicates the Town of Wasaga Beach obtains its municipal drinking water from two municipal well sites. The study area is located within a wellhead protection area. The size of a wellhead protection area is determined by how quickly water travels underground to the well, measured in years. The study area is located within a well head protection area with a groundwater travel time including 2-year time of travel, 5-year time of travel and 25-year time of travel. The study area is also located within a groundwater vulnerable area for one of the municipal wells. Additionally, the study area is located within a Significant Groundwater Recharge Area. A recharge area is considered significant when it helps maintain the water level in an aquifer that supplies a community with drinking water (South Georgian Bay Lake Simcoe Source Protection Region)



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### **3.3.2 Cultural Environment**

#### **Archaeological**

A Stage 1 and Stage 2 Archaeological Study was completed for the study area by Amick Consultants Limited, presented in Appendix A. Per the Stage 1 Archaeological Study, the project area potentially impacted by the proposed undertaking was identified as an area of archaeological potential. As a result of the property inspection component of the Stage 1 Archaeological Study, the areas of existing pavement, gravel shoulders, and steep slope were found to be areas of no archaeological potential; consequently no further archaeological assessment of these areas is required. Stage 2 assessment of the remainder study area was recommended in the form of high intensity test pit survey at a 5 m interval between transects. As a result of the Stage 2 Archaeological Assessment, no archaeological resources were encountered.

#### **Cultural Heritage**

A Cultural Heritage Evaluation Report was completed for the study area by Amick Consultants Limited and is presented in Appendix A. Amick completed a Cultural Heritage Resources Assessment of lands potentially affected by the proposed undertaking to identify cultural heritage resources including built heritage resources and cultural heritage landscapes.

Per the report, as the proposed improvements are to be restricted to the existing road allowance and existing sight lines and cultural landscape features will not be directly impacted, this will represent a very minimal impact to the heritage integrity of the roughly 8 km route of the proposed undertaking. The proposed improvements will represent a significant enhancement to local community safety. Given these considerations, it has been determined that mitigation of impacts to heritage values is not necessary for the proposed undertaking.

## **4.0 Coordination with Provincial Agencies**

Klondike Park Road and Veterans Way road improvements may require the disposition of land from the Wasaga Beach Provincial Park and, as such, require the completion of the MNRF and Infrastructure Ontario Environmental Assessment processes, as the lands of the Wasaga Beach Provincial Park are owned by the Ministry of Infrastructure and managed by MNRF. Elements of the MCEA process and supporting studies will be utilized by the Provincial Agencies to satisfy environmental due diligence and stakeholder consultation.

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#### **4.1 MNRF Environmental Assessment Process**

Conceptual drawings of possible design alternatives for road improvements were provided to MNRF in August 2014 for their initial assessment. As a result of the proposed boundary changes, the MNRF identified that the project falls under the MNRF Provincial Class EA for Provincial Parks and Conservation Reserves (PPRC), ID 7 (Acquire land through an exchange), ID 9 (Dispose of land through an exchange), and ID 3 (Minor amendment to a boundary by regulation). These three ID components will be screened by MNRF together as one undertaking. Additionally, MNRF has noted concerns related to the potential impacts to Species at Risk (SAR) and their habitat, and the potential introduction of invasive species. Based on the initial assessment, the MNRF screened the project to a Category B of the Provincial Class EA PPCR.

Ontario Parks will complete the Provincial Class EA under the Class EA PPCR (and associated land use planning and regulation amendment). However, as this is a proponent driven project, the expectation of MNRF is that the proponent will provide the necessary information to complete these processes, specifically natural heritage studies intended to confirm the presence and assess the impact to the habitat of identified SAR as a result of the proposed project activities.

#### **4.2 Infrastructure Ontario Public Works Class Environmental Assessment**

Infrastructure Ontario (IO) has identified the disposition of land requires the completion of the IO Public Works Class EA process including key elements that need to be completed by the proponent to satisfy IO environmental due diligence for the disposition of land including:

1. Completion of IO's Class EA, which includes Stakeholder consultation, completion of the Class EA (C and D record) and posting on IO's website for 30 days.
2. A Stage 1 Archaeological Assessment and, if required, Stage 2 Archaeological Assessment.
3. A Phase One Environmental Site Assessment.

Additionally, IO Land Transactions require the Procedure for Obtaining Transfers of Interest for Infrastructure Projects (Municipal) and the Infrastructure Application Form to be completed for acquiring property rights over Ministry of Infrastructure lands.

### **5.0 Identification of Alternative Solutions**

As per the Problem/Opportunity statement in Section 2.0, there is the opportunity to meet projected increases in traffic volume and improve horizontal and vertical road alignment and intersection geometrics of Veterans Way and Klondike Park Road. The

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alternative solutions for road alignment and alternative solutions for intersection improvements were each evaluated using distinct criteria. The study evaluated alternatives with consideration for the natural, cultural, technical and economic environment. The evaluation table is presented in Appendix B.

## **5.1 Road Improvements**

Alternative solutions are considered for improvements to the horizontal and vertical road alignment and include:

1. Do Nothing
2. Reduced Posted Speed
3. Realignment of Curves

or some combination of alternatives.

## **5.2 Intersection Improvements**

Alternative solutions are considered for intersection geometrics of Veterans Way and Klondike Park Road and include:

1. Do Nothing
2. All-way Stop Control
3. Signalization
4. Realignment
5. Roundabout

or some combination of alternatives.

## **6.0 Summary of Public Consultation**

The Schedule B Class EA requirements include two mandatory public points of contact during the EA process. A Notice of Commencement, inviting public input on the project, was published on the Town of Wasaga Beach Community page of the Wasaga Sun for publication in two issues; July 9, and July 16, 2015 and posted on the Town's website July 9 to August 7, 2015. A Notice of Completion will be published on the Town of Wasaga Beach Community page in two editions of the Wasaga Sun and posted on the Town's website at the conclusion of the Study.

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The notices were mailed or emailed to agencies, utilities, Indigenous communities, local residents who live within the Study Area, and other stakeholders that may have an interest in the Project. Follow-up phone calls were placed with Indigenous communities on the contact list following the Notice of Commencement to confirm level of interest in the Project, and if the communities had any concerns or questions about the Project. A record of the agencies, organizations and Indigenous communities circulated on Project Notices during the Study, and a summary of comments received is provided in Appendix C.

Copies of correspondence received are presented in Appendix C.

An additional point of public consultation was conducted as a Public Information Centre (PIC) held on Tuesday, July 12, 2016. Details of the date, time, location and purpose of the PIC were published in the Wasaga Sun on June 30, 2016 and on July 7, 2016. Notification of the PIC was posted on the Town of Wasaga Beach website and mailed or emailed to regulatory agencies, municipalities, Indigenous communities, and local residents who live within the study area.

A PIC summary report, including the Notice of PIC, presentation material and comments received is presented in Appendix C. Comments received following the PIC were noted and a response provided where appropriate.

The comments received throughout the EA were incorporated into the evaluation of the alternatives.

A Notice of Completion will be published and mailed to in the same, at the conclusion of the EA study.

## **7.0 Preferred Alternative Solution**

Based on the evaluation of the alternatives, the comments received from stakeholders, agencies and interested parties, as well as the available municipal capital budget, it was determined that the realignment of curves and the realignment of the intersection of Klondike Park Road and Veterans Way were the preferred alternatives.

The following improvements are included under the preferred solution:

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### **Realignment of Curves**

- Alignment of Veterans Way curves would be softened.
- Includes land exchange with Wasaga Beach Provincial Park for lands outside the existing road allowance.
- Alignment of Klondike Park Road would be adjusted within the existing road allowance.
- Road reconstruction and wildlife crossing.
- Estimate 25 year Lifecycle Cost: \$3,750,000.

### **Realignment of Klondike Park Road and Veterans Way Intersection**

- Realign Klondike Park Road to facilitate uninterrupted traffic flow to the east and realign Veterans Way to intersect Klondike Park Road at a stop sign controlled “T” Intersection.
- Includes land exchange with Wasaga Beach Provincial Park for lands outside the existing road allowance.
- Estimate 25 year Lifecycle Cost: \$900,000.



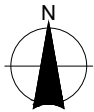


Figure Title

**VETERANS WAY & KLONDIKE PARK ROAD  
PHASE 1**

PREFERRED ALTERNATIVE

Client

**TOWN OF WASAGA BEACH**

Drawn

C.T./J.S.

Checked

P.R.H./T.I.

Date

Scale

N.T.S.

Project No.

300031855

Figure No.

**FIG. 2**



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## **8.0 Impacts**

### **Impacts to the Technical Environment**

From a technical perspective, the preferred alternatives provide for existing and future traffic control needs including efficient intersection operation, improved sightline distances and improved capacity.

Realignment of the intersection is considered in lieu of the significantly higher cost roundabout alternative based on current technical considerations including traffic operations, collision considerations and significant growth of traffic volumes on both Veterans Way and Klondike Park Road (approximately 100% increase from the volumes observed in the 2012 Study – AADT being 3,000+ vehicles on all approaches.

Storm water management for the preferred alternative will maintain and/or improve upon the existing conveyance networks of storm water which will include the collection of road drainage in a combination of road crossing culverts, overland flow and infiltration and swales/ditches in the study area.

The implementation of the preferred alternative will require construction activities within within an NVCA Regulated Area, wellhead protection area and groundwater vulnerable area for one of the municipal wells. Additionally, the study area is located within a Significant Groundwater Recharge Area. During detailed design, quality and quantity control requirements will be assessed. A permit will be required from NVCA.

### **Impacts to the Economic Environment**

The preferred alternatives represent a moderate capital cost for construction and installation, operation and maintenance. The preferred road improvement alternative may incur moderate costs for the realigning the curves, road reconstruction and wildlife crossing, but the cost is considered offset by redundant costs for watermain looping. The preferred intersection improvement alternative may incur moderate costs for the construction of the realigned of the intersection. The cost for land acquisition for the preferred alternatives is considered offset by the potential for land exchange of municipal lands for those lands required from the Wasaga Beach Provincial Park.

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### **Impacts to Social Environment**

From a community perspective, the preferred alternatives provide for improved traffic operations for roads and at intersection and lowers the potential for conflicts. The preferred intersection alternative is consistent with other traffic controls in the greater area. Extending the paved shoulders on Veterans Way provides for improved pedestrian and cyclist connections and enhanced access to the open space natural and recreational areas in the study area.

Nuisance impacts such as restricted route access during construction are anticipated to be limited with the implementation of mitigation measures such as detours. Additional nuisance impacts, such as visual impacts and noise impacts from the construction, are anticipated to be temporary.

### **Impacts to Cultural Environment**

The assessment of the effects of the proposed undertaking to the cultural heritage landscape of the study area determined cultural landscape features will not be directly impacted and the improvements will represent a very minimal impact to the heritage integrity of the study area. The proposed improvements will represent a significant enhancement to local community safety. Given these considerations, it has been determined that mitigation of impacts to heritage values is not necessary for the proposed undertaking.

As a result of the Stage 1 Archaeological Assessment, the project area potentially impacted by the proposed undertaking was identified as an area of archaeological potential and subject to a Stage 2 Archaeological Assessment. The result of the Stage 2 Archaeological Assessment indicated no archaeological resources were encountered and recommended that the proposed undertaking is clear of any archaeological concern and no further archaeological assessment of the study area was warranted.

### **Impacts to the Natural Environment**

Impacts to natural features are anticipated with grading and asphalt application with the possibility of limited vegetation removal in select areas. Improvements are anticipated to be located primarily within the existing right-of-way with some edge encroachment into adjacent lands including impact to wooded areas with potential impact to rare species, Species of Special Concern, SAR and associated habitat.

### ***Vegetation***

The implementation of the preferred alternatives is anticipated to impact vegetation communities and select trees within the identified grading areas and the areas of realignment of curves and intersection improvements including:



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- Dry Fresh White Pine-Hardwood Mixed Forest Ecosite (FOM2).
- Dry-Fresh White Pine-Oak Mixed Forest (FOM2-1).
- Dry Tallgrass Prairie / Mineral Cultural Meadow (TPO1/CUM1).
- Fresh-Moist White Cedar- Sugar Maple Mixed Forest /Red Maple Coniferous.
- Organic Mixed Swamp (FOD7-2/SWM5-1).
- Sports Field.
- Agricultural Field.

These communities are considered to be common and secure in Ontario with the exception of the Tallgrass Prairie community. Some impact is anticipated within sensitive Tallgrass Prairie vegetation communities as grading is proposed within the right-of-way adjacent to this area with minor encroachment into the edge of the community. The specific impact to vegetation will depend on the determination of the final new road alignments within this area.

### ***Breeding Birds***

Several breeding bird species have the potential to be located within the general study area. Many receive protection nationally under the Migratory Birds Convention Act. The “incidental take” of migratory bird nests or the disturbance, destruction or taking of the nest of a migratory bird are prohibited under section 6 of the Migratory Bird Regulations under the authority of the Migratory Birds Convention Act, 1994. Nests contents (eggs and young) are protected by virtue of the Migratory Birds Convention Act (MBCA) which has implications on development activities that might occur during the breeding season (Canadian Wildlife Service, July 2012).

Secondary source information recorded area-sensitive bird species in the greater area. Area sensitive species were also observed in the study area during the breeding bird survey completed for the study area in 2015, including seventeen forest area species as well as wetland and open area species (Appendix A). These species require large tracts of habitat.

The estimated footprint of the preferred alternative is not anticipated to significantly impact the habitat of breeding birds and area sensitive bird species with the implementation of avoidance measures, including minimizing the footprint of construction and timing of construction for the removal of vegetation. The relatively limited amount of vegetation to be removed is not expected to have a significant impact on the available overall habitat within the greater area for area sensitive species.

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### ***Species of Conservation Concern***

Bird and plant Species of Conservation Concern have been screened as having potential to be present within the vicinity of the study area:

Although species provincially listed as rare or Special Concern do not receive legal protection under the provincial Endangered Species Act, 2007 or the federal Species at Risk Act, they may receive protection from some agencies, such as provincial and national parks or other acts such as the Migratory Birds Convention Act, Ontario Fish and Wildlife Conservation Act, which prohibits the killing, capturing injuring, harassment and trapping of specially protected species. The preferred alternatives are not anticipated to impact Special Concern Species with the implementation of avoidance measures, including minimizing the footprint of construction and timing of construction for the removal of vegetation.

Direct impact to Carolina Puccoon is not anticipated as the observed locations are considered to be outside of potential grading areas associated with the preferred alternative.

### ***Species at Risk (SAR)***

Threatened and Endangered bat, reptile and bird species have been screened to have the potential to be located within the Study Area:

#### ***Candidate Bat Maternity Roosting Habitat***

While some features may be present that are considered suitable for bat maternity roosting habitat, such as ELC communities and large diameter trees with cavities/loose bark, overall the study area is considered to have low potential for candidate roosting habitat. Some of the key features of sites considered "significant" for roosting bats are absent from the study area, including mature forest habitat with a relatively high snag density. The study area is mainly restricted to the existing ROW limits of the roadway, or just beyond the ROW limits. Grading activities may require the removal of two out of 11 identified candidate bat maternity roosting trees. Trees identified as "candidate" roosting habitat were typically single-standing large diameter trees in an otherwise young to mid-aged forested habitat. The vegetation removals will involve minor, edge encroachments into existing vegetation.

#### ***Reptiles***

Secondary source information recorded SAR snakes and turtles in the greater area. The estimated footprint of the preferred alternative is not anticipated to significantly impact the habitat of SAR reptiles with the implementation of avoidance measures including minimizing the footprint of construction, exclusion of the construction area and timing of construction for the removal of vegetation. Habitat of snakes and/or turtles is not

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anticipated to be directly impacted by the preferred alternative given the limited minor, edge encroachments into existing vegetation and limited impact over existing conditions. Preferred habitat to support SAR reptiles is considered to be located outside of the footprint of the preferred alternative.

### *Birds*

As a provincially Threatened species, Whip-poor-will and its habitat are protected by the Endangered Species Act, 2007 in Ontario.

The MNRF General Habitat Description for the Eastern Whip-poor-will identifies acceptable activities in Eastern Whip-poor-will habitat. Activities that are considered to be generally compatible include; hiking and non-motorized vehicle use of existing recreational trails, normal use of existing roadways including access roads and small-scale selective removal of individual trees.

Activities in general habitat can continue as long as the function of these areas for the species is maintained and individuals of the species are not killed, harmed, or harassed. Activities associated with the preferred alternatives are considered to be generally compatible and not anticipated to impact the habitat of Eastern Whip-poor-will. Direct impact to Whip-poor-will are not anticipated with avoidance measures, including minimizing the footprint of construction and timing of construction for the removal of vegetation.

## **9.0 Mitigation**

The construction activities associated with alternative solutions for the road improvements are anticipated to have limited impact on natural features within the study area with the implementation of avoidance and mitigation measures. Protection measures (e.g., fencing) are recommended to minimize impact to adjacent vegetation communities including sensitive Tallgrass Prairie and the potential for SAR species to occur beyond the existing right-of-way. Additionally, it is anticipated that direct impact to SAR can be avoided through minimizing the footprint of construction and the timing of certain project activities (i.e., outside of the active season) as well as the provision of specialized wildlife crossing(s) (i.e., culvert underpass).

The following measures and design approach should be implemented in order to mitigate negative impacts of the proposed project on the environmental features of the study area. It is also recommended that the following mitigation and monitoring measures be included within the detailed design process and reporting, and within the special provisions section of the tender documents, as applicable. All design and construction reports and plans will be based on a best management approach that centres on the prevention of impacts, protection of the existing environment and opportunities for rehabilitation and enhancement of the impacted areas.

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## **Surface Water / Hydrology, Soils and Sedimentation**

### ***Impact***

Temporary earthworks associated with construction activities

### ***Effect***

- A. Potential for sediments to enter area watercourses as a result of the following project activities:
  - a) site clearing
  - b) stockpiling
  - c) excavation
  - d) construction
- B. Potential for localized water quality impacts as a result of spills.

### ***Mitigation***

- A. The footprint of the disturbed area will be minimized as much as possible.

The watercourses and the associated regulated areas are under the jurisdiction of NVCA. The NVCA is to be contacted prior to the planning of construction activities within the regulated areas of the study area.

An erosion and sediment control plan will be developed. Implementation of the erosion and sediment control measures will conform to recognized standard specifications such as Ontario Provincial Standards Specification (OPSS).

- Any stockpiled material will be stored at a safe distance from the watercourse to ensure that no deleterious substances enter the water.
- Sediment and erosion control measures (silt curtains, silt fence) will be installed and will be maintained during the work phase and until the site has been stabilized. Control measures should be inspected regularly to ensure they are functioning and are maintained as required. If control measures are not functioning properly, no further work will occur until the problem is resolved.
- Any temporary mitigation measures will be installed prior to the commencement of any site clearing, grubbing, excavation, filling or grading works and will be maintained on a regular basis, prior to and after runoff events.

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- B. All equipment fueling and maintenance will be done at a safe distance from the watercourses to ensure that no deleterious substances enter the waterways. No equipment or fuel storage shall be permitted in the NVCA regulated area or in any flood plain area.
- The contractor will be required to develop spill prevention and contingency plans for the project.
  - Personnel will be trained in how to apply the contingency plans and the plans will be reviewed to strengthen their effectiveness and ensure continuous improvement. Spills will be immediately contained and cleaned up in accordance with provincial regulatory requirements and the contingency plan. A hydrocarbon spill response kit will be on site at all times during the work. Spills will be reported to the Ontario Spills Action Center at 1-800-268-6060.
  - All waste generated during construction must be disposed of in accordance with MOECC requirements.
  - The above mitigation measure will be implemented for any construction activity and will have to be identified and implemented in order to secure relevant agency permits.

## **Groundwater**

### ***Impact***

Temporary earthworks and potential dewatering associated with construction

### ***Effect***

- A. Potential for localized groundwater quality impacts as a result of spills during construction.
- B. Potential for localized groundwater quantity impacts as a result of dewatering.

### ***Mitigation***

- A. Refueling of equipment and fuel storage should be conducted in designated areas with spill protection.
- B. As part of detailed design, the completion of a hydrogeological study will be considered depending on the nature of the construction, the sensitivity of adjacent wells and permit requirements.

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## **Vegetation, Wildlife / Terrestrial and Aquatic Habitat**

### ***Impact***

Removal of vegetation and select trees, minor edge encroachments into existing vegetation as a result of grading, construction of realigned curves of Veterans Way and the Veterans Way Klondike Park intersection improvements

### ***Effect***

- A. Potential impact to rare plant communities (Tallgrass Prairie/ Cultural Meadow/Carolina Puccoon)
- B. Potential to impact the habitat of breeding bird species as a result of vegetation removal.
- C. Potential to impact to low potential bat maternity roosting habitat as a result of possible vegetation removal.
- D. Potential for indirect impacts to reptiles (e.g. Eastern Hognose Snake) as a result of improved road conditions within species general habitat.

### ***Mitigation***

- A. Minimize disturbance to existing vegetation by limiting the extent of construction footprint limits, as much as possible.

Impacts to rare plant communities should be avoided, where possible. Protective measures (e.g. silt fence) are recommended when adjacent construction is occurring to prevent access, stockpile and storage within the Tallgrass Prairie Community

- B. Construction activities with the potential to destroy migratory birds, nests and eggs, such as vegetation clearing, should not take place during the general breeding season, generally considered to be from April 30 to August 1.
- C. Impacts to candidate bat maternity roosting trees should be avoided, where possible. Tree removal, if necessary, should be completed outside of the active maternity season, considered to be from spring to end of July (COSEWIC, 2013)
- D. Earthworks and vegetation removal activities related to the construction of the preferred alternative should be completed outside of the active season for identified Special Concern and Threatened reptile species, inclusively considered to be from spring (April) to mid-October.
  - Temporary silt fence barriers are to be installed to exclude reptiles, specifically Eastern Hognose Snake, from the earthworks and vegetation removal activities related to the construction of the preferred alternative. The extent, design height

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and location of silt fence barriers within the construction area is to be established in consultation with the MNRF.

- Wildlife crossing(s) designed for reptiles, including Hognose Snake, should be installed at strategic locations to enhance connectivity of habitat. The wildlife crossing is anticipated to consist of a culvert underpass and associated fencing. The location(s) of the underpass as well as the details of the design of the underpass, such as the diameter and substrate type within the underpass, are to be established in consultation with the MNRF.
- Should SAR reptiles be encountered at any time during the project, the MNRF District Office shall be contacted for advice on how to proceed.

### **Noise / Vibration / Air Quality / Access**

#### ***Impact***

Possible temporary nuisance impacts, such as noise and air quality, during construction.

Some temporary disruption to the use and access of private property may occur during construction.

#### ***Effect***

- A. Temporary nuisance noise during construction activities.
- B. Increased dust in air from construction activities.
- C. Road closures and/or detours.

#### ***Mitigation***

- A. Noise control measures, such as adhering to the Town's Noise By-law 2016-97 and the use of appropriate machinery with mufflers will be implemented where required. All equipment with internal combustion engines should be in good repair, equipped with emission controls as applicable and operated within regulatory requirements.
- B. Dust generation will be monitored during construction. Both surface wetting using water (to protect water quality), street sweeping and mud mats will be employed as necessary.
- C. Notification will be given to residents of the upcoming temporary access restriction advising them of temporary detours around construction in addition to on-site construction and detour signs.

Every reasonable effort will be employed to minimize this temporary restriction.

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## **Human Health and Safety**

### ***Impact***

Construction activities involving heavy equipment and increased traffic.

### ***Effect***

A. Potential safety hazard

### ***Mitigation***

A. The contractor will be required to implement a Health and Safety Plan (OHSA 1990) and a traffic control plan.

## **10.0 Staging of Works for the Preferred Alternatives**

The construction of the various improvements identified in the Preferred Alternatives can be implemented in stages, as approvals and available funding allow. The implementation of the realignment of curves on Veterans Way is contingent on the completion of the realignment of the intersection of Klondike Park Road and Veterans Way.

It is expected that coordination and land acquisition or exchange details and agreements will be formulated between the agency land owners/managers and the municipality as part of the detailed designs for the project.



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## 11.0 Conclusions

As per the requirements of the Municipal Class EA, this Project File is available for public review and comment for a period of 30 calendar days following the publication of the Notice of Completion.

If concerns arise regarding this project which cannot be resolved in discussion with the Town, a person or party may request that the Minister of the Environment make an Order for the project to comply with Part II of the *Environmental Assessment Act* (referred to as a Part II Order), which addresses individual environmental Assessments. Part II Order requests may be submitted using a standard form available on the Provincial Forms Repository website (<http://www.forms.ssb.gov.on.ca/>). It can be found by searching either "Part II Order" or "012-2206E" (the form ID number) on the Repository's main page. Requests must be received by the Minister within 30 calendar days of the first publication of the Notice of Completion. A copy of the completed form for Part II Order Request should also be sent the Director, Environmental Approvals Branch and to the Town of Wasaga Beach project team within 30 calendar days of the first publication of the Notice of Completion.

If the Minister does not receive a request for a Part II Order within the 30 calendar days, then the project will move forward to detailed design, approvals process and subsequent implementation of the preferred alternative.

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Ontario Regulation 172/06, Nottawasaga Valley Conservation Authority: Regulation of  
Development, Interference with Wetlands and Alterations to Shorelines and  
Watercourses

South Georgian Bay Lake Simcoe Source Protection Region, Approved Source  
Protection Plan, approved January 26, 2015, Effective July 1, 2015, Ammended May14,  
2015.

The County of Simcoe Official Plan, Consolidated: 2007, Final Approval: December  
2016

The Town of Wasaga Beach Official Plan, Consolidated: September 6, 2013



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[ THE DIFFERENCE IS OUR PEOPLE ]



## Appendix A

### Existing Conditions





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## **Natural Heritage Studies Summary**

**Powerline Road Klondike Park Road  
Improvements and Watermain  
Looping Municipal Class EA**

**The Town of Wasaga Beach**

**R.J. Burnside & Associates Limited  
128 Wellington Street West Suite 301  
Barrie ON L4N 8J6 CANADA**

**February 2016  
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		Initial Submission to MNR Parks

### R.J. Burnside & Associates Limited

#### Report Prepared By:



Deanna DeForest  
Environmental Assessment and Regulatory Coordinator  
DD:sr

#### Report Reviewed By:



Kevin Butt, B.Sc. (Env). Eco. Rest. Cert.  
Certified Arborist & Terrestrial Ecologist  
KB:sr

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## **Disclaimer**

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## **1.0 Introduction**

R.J. Burnside & Associates Limited (Burnside) was retained by The Town of Wasaga Beach to complete a Municipal Class Environmental Assessment for the Powerline Road (renamed Veterans Way) and Klondike Park Road Improvements and Watermain Looping in Wasaga Beach. A component of the EA includes the characterization of the environment within the study area, the characterization of the natural environment is included herein. The study area includes the existing Veterans Way and Klondike Park Road right-of-way in select locations of proposed road improvement alternatives within the corridor as well as a distance of approximately 25 m from the limits of the proposed alternatives (Figure 1).

## **2.0 Background**

The road improvements may require the disposition of land from the Wasaga Beach Provincial Park and, as such, require the coordination of the project with the Ministry of Natural Resources and Forestry's (MNRF) Environmental Assessment process.

Conceptual drawings of possible design alternatives for road improvements were provided to MNRF in August 2014 for their initial assessment. As a result of the proposed boundary changes, the MNRF has identified that the project falls under the MNRF Provincial Class EA for Provincial Parks and Conservation Reserves (PPCR), ID 7 (Acquire land through an exchange), ID 9 (Dispose of land through an exchange), and ID 3 (Minor amendment to a boundary by regulation). These three ID components will be screened by MNRF together as one undertaking. Additionally, MNRF has noted concerns related to the potential impacts to Species at Risk (SAR) and their habitat, and the potential introduction of invasive species. Based on the initial assessment, the MNRF has screened the project to a Category B of the Provincial Class EA PPCR.

Ontario Parks will complete the Provincial Class EA under the Class EA PPCR (and associated land use planning and regulation amendment). However, as this is a proponent driven project, the expectation of MNRF is that the proponent will provide the necessary information to complete these processes (see Section 3.4.2 of the Class EA PPCR), specifically natural heritage studies intended to confirm the presence and assess the impact to the habitat of identified SAR as a result of the proposed project activities.

## **3.0 Scope of Work**

The scope of work for Natural Heritage studies was developed in consultation with MNRF Parks in support of the MNRF Class EA PPCR process in an effort to confirm the presence of habitat of identified SAR and assess the potential impact as a result of the



proposed project. The scope of field study was developed with consideration of the available of existing information regarding the natural heritage features in the study area.

A review of existing data was conducted in the development of the scope of work to obtain secondary source information relating to the Study Area. Sources reviewed included:

- Aerial photography.
- Natural heritage GIS data layers made public by Land Information Ontario (“LIO”).
- Ontario Breeding Bird Atlas (Square 17NK72).
- Town of Wasaga Beach Natural Heritage System, Nottawasaga Valley Conservation Authority, 2005.
- Detailed Life Sciences Inventory of Wasaga Beach Provincial Park, North-South Environmental Inc., 2005.

The scope of work included habitat assessment for SAR, including bat and reptile habitat, as well as vegetation community classification and vegetation inventories, breeding bird surveys and incidental wildlife observations. An aquatic habitat survey was not completed as part of the scope of work due to the lack of watercourse crossing within the study area corridor. Field investigations were conducted between April and November of 2015, as described in **Table 1**.

**Table 1: Summary of Field Study Methodology and Weather Conditions**

Study	Timing and Methodology	Observer	Date	Time	Weather Conditions		
					Precipitation/ Cloud Cover	Avg. Temp.	Wind <sup>1</sup>
Wildlife - Bats	Early Spring habitat assessment	H. Maciver	May 6, 2015	1000-1445	None, 0% cloud cover	17-21 C	1-3
Wildlife - Snakes/ Turtles	Early Spring habitat assessment  Incidental observation of basking and/or hibernation emergence of snakes	H. Maciver	May 6, 2015	1000-1445	None, 0% cloud cover	17-21 C	1-3
Plant Inventory	Spring inventory	D. De Forest	June 17, 26, 2015,	0900-1100	None, 30% cloud cover	18 C	2-4
Plant Inventory	Summer inventory/ELC	K. Butt	July 29, 2015	0830-1400	None, 0% cloud cover	23 C	1-3
Plant Inventory	Fall inventory	K. Butt	September 28, 2015	1500-1700	None, 50% cloud cover	19 C	1-3
Wildlife - Breeding Birds	Three standard breeding bird surveys (between May 24 and July 10); two nocturnal surveys for Eastern Whip-poor-will, if potential habitat may be impacted (June)	S. Pielt, S. North-South Environmental  Point count surveys completed based on the Ontario Breeding Bird Atlas (OBBA)	May 29, June 18, July 3, 2015  Nocturnal survey: May 28 and June 24, 2015				

**The Town of Wasaga Beach**

Powerline Road Klondike Park Road Improvements and Watermain Looping Municipal Class EA  
Natural Heritage Studies Summary  
February 2016

Study	Timing and	Observer	Date	Time	Weather Conditions		
		Guide for Participants. MNRF Survey Protocols					
Incidental Mammal Observations	Recorded during all natural heritage surveys	-	-	-	-	-	-

<sup>1</sup> Beaufort Wind Scale: 1 = calm, smoke rises vertically (0-2 km/hr); 2 = light air movement, smoke drifts (3-5); 3 = gentle breeze, wind felt on face; leaves rustle (6-11); 4 = moderate breeze, small branches moving, raises dust & loose paper (20-30); 5 = fresh breeze, small trees begin to sway (31-39); 6 = strong breeze, large branches in motion (40-50)

## 4.0 Candidate Bat Maternity Roosting Habitat

Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) are three species of bats which have recently been listed as Endangered both provincially and/or federally. This ranking is due to a rapidly invasive fungus called white-nose syndrome that originated in Europe and that thrives in caves and mines where both of these species of bats hibernate. While hibernacula for these species is not present in the Study Area (i.e., no caves or mines), there is growing concern over protecting bat maternity colonies and roosting habitat (designated by the MNRF as Significant Wildlife Habitat for these species).

The MNRF has produced a guidance document titled *Bat and Bat Habitats: Guidelines for Wind Power Projects* (July 2011). This provides the most current guidance relating to surveying for bat maternity colonies. Additional guidance is often provided by individual MNRF District Offices as supplemental information to this document, particularly when dealing with developments other than wind farms. However, both the 2011 guidance document and supplemental information from the MNRF (2015) assumes that the project is removing significant portions of woodland/wetland habitat, and does not address implications for edge removal of these habitats or the impact of edge removals (if any) on bat maternity colonies. It should also be noted that the survey guidance documents focus on identifying the most *high quality potential maternity roost habitats*. While Little Brown Bat typically choose maternity roosts in anthropogenic structures, according to MNRF and Environment Canada (2015), key features of significant bat maternity roosting habitat sites for Northern Myotis and Tri-colored Bat species, and to a lesser extent Little Brown Myotis, include:

- Deciduous Forest (FOD), Mixedwood Forest (FOM), Coniferous Forest (FOC), Deciduous Swamp (SWD), Mixedwood Swamp (SWM) and Coniferous Swamp (SWC) communities.
- Older forest stands that typically feature increased snag availability for roosting and foraging under a relatively closed canopy and mature large-diameter trees with  $\geq 25$  cm Dia. at Breast Height (DBH).
- Cavities with small entrances/crevices or loose bark.
- Cavities in tall tree snags of live trees that exhibit early to mid-stages of decay.

### 4.1 Methodology

An early spring site reconnaissance was conducted to identify candidate bat maternity roosting habitat along the grading easement limits and areas of potential property acquisition or exchange considered under the alternatives proposed for the Municipal Class EA. Search effort included observations within 25 m of the limits of the footprint of the proposed alternatives (Figure 1).

A high-level scoped review of potential high quality bat maternity roost habitat within the Study Area was conducted through a desktop survey using aerial photography interpretation

combined with the results of the ELC surveys carried out during the 2005 and 2015 field investigations (i.e., identifying FOD, FOM, FOC, SWD, SWM and SWC communities within the study area).

An early spring survey was conducted on May 6, 2015 following snow melt but prior to leaf-out conditions to allow for an assessment of trees which may be suitable for roosting bats. Trees with > 25 cm DBH with suitable cavities/snags found within the study area were recorded and photographed (Appendix A).

## 4.2 Results

Eleven trees were identified as having potential candidate bat maternity roosting features. These trees are listed in Table 2 below and shown on Figure 2.

**Table 2: Candidate Bat Maternity Roosting Survey Results – May 6, 2015**

Tree ID	UTM	Easting	Northing	Comments
T1	17 T	576955	492616	Large birch tree, multiple stems, flaking bark, cavity; located just beyond ROW
T2	17 T	576968	4926157	Very large oak tree with snags, flaking bark, cavities; located just beyond ROW
T3	17 T	576997	4925922	Large oak tree, some snags, lots of flaking bark near top, no cavities observed; located just beyond ROW
T4	17 T	577436	4925608	Large oak tree with suitable snags, cavities, flaking bark; well away from ROW
T5	17 T	577484	4925608	Very large oak tree with some snags but lacks noticeable cavities; well away from ROW
T6	17 T	577474	4925588	Large oak tree with some snags but lacks noticeable cavities; located just beyond ROW
T7	17 T	577342	4925600	3 large oak trees on slope; some snags, peeling bark, cavities present; just beyond ROW but may be within grading limits
T8	17 T	577356	4925572	
T9	17 T	577356	4925572	
T10	17 T	577419	4925542	Large oak tree with snags, cavities; located just south of ROW
T11	17 T	577843	4925687	Tree with multiple stems with flaking bark; lacks noticeable cavities

According to the ELC surveys conducted in the study area in 2005 and 2015, four of the six ELC communities that are known to be suitable for bat maternity roosting habitat are present: FOM,

FOC, FOD, and SWM. However, the majority of the vegetation communities present within the study area are considered young to mid-aged (i.e., comprised mainly of 10-24 cm DBH trees). Trees with a larger DBH, such as those identified in Table 2, are not typical within the study area.

## 5.0 Reptiles

A review of secondary source information, including previously completed studies for the Wasaga Beach Provincial Park identified the presence of SAR reptiles in the greater study area. Those SAR species with the potential to be located in the study area are identified in Table 3.

**Table 3: SAR Reptiles**

		PROVINCIAL	GLOBAL	PROVINCIAL	FEDERAL
COMMON NAME	SCIENTIFIC NAME	SRANK <sup>1</sup>	GRANK <sup>2</sup>	SARO (Endangered Species Act, 2007) <sup>3</sup>	SARA (Species at Risk Act) <sup>4</sup>
Eastern Hog-nosed Snake	<i>Heterodon platirhinos</i>	S3	G5	Threatened	Threatened
Eastern Milksnake	<i>Lampropeltis Triangulum</i>	S3	G5	Special Concern	Special Concern
Eastern Ribbon Snake		S3	G5	Special Concern	Special Concern
Blanding’s Turtle	<i>Emydoidea blandingii</i>	S3	G4	Threatened	Threatened
Snapping Turtle	<i>Chelydra serpentine</i>	S3	G5	Special Concern	Special Concern
Five-lined Skink	<i>Plestiodon fasciatus</i>	S3	G5T3	Special Concern	Endangered

**<sup>1</sup>S-Ranks (provincial)**

Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks, but consider only those factors within the political boundaries of Ontario (Please refer to: <http://explorer.natureserve.org/nsranks.htm>)

SX — Presumed Extirpated - Species or community is believed to be extirpated from the province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

SH — Possibly Extirpated (Historical) - Species or community occurred historically in the province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20–40 years. A species or community could become SH without such a 20-40 year delay if the only known occurrences in a province were destroyed or if it had been extensively and unsuccessfully looked for. The SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.

S1 — Critically Imperiled - Critically imperiled in the province or state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the province.

S2 — Imperiled - Imperiled in the province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the province.

S3 — Vulnerable - Vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. S4 — Apparently Secure - Uncommon but not rare; some cause for long-term concern due to declines or other factors.

S5 — Secure - Common, widespread, and abundant in the province.

SNR — Unranked - Province conservation status not yet assessed.

SU — Unrankable - Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

SNA — Not Applicable - A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

S#S# — Range Rank - A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).

S#? – Inexact or Uncertain - Denotes inexact or uncertain numeric rank.

## <sup>2</sup>Global Conservation Status Definitions

NatureServe global conservation status ranks (G-ranks). These ranks reflect an assessment of the condition of the species or ecological community across its entire range. Where indicated, definitions differ for species and ecological communities.

NatureServe Global Conservation Status Ranks

GX Presumed Extinct (species)— Not located despite intensive searches and virtually no likelihood of rediscovery.

Eliminated (ecological communities)—Eliminated throughout its range, with no restoration potential due to extinction of dominant or characteristic species.

GH Possibly Extinct (species)— Missing; known from only historical occurrences but still some hope of rediscovery.

Presumed Eliminated— (Historic, ecological communities)-Presumed eliminated throughout its range, with no or virtually no likelihood that it will be rediscovered, but with the potential for restoration, for example, American Chestnut (Forest).

G1 Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2 Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3 Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors

G4 Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5- Secure—Common; widespread and abundant

G#G# Range Rank—A numeric range rank (e.g., G2G3) is used to indicate the range of uncertainty in the status of a species or community. Ranges cannot skip more than one rank (e.g., GU should be used rather than G1G4).

## <sup>3</sup>SARO Endangered Species Act, 2007

(provincial status from <http://www.ontario.ca/environment-and-energy/how-species-risk-are-listed#section-3>)

The provincial review process is implemented by the MNR's Committee on the Status of Species at Risk in Ontario (COSSARO).

Extinct - A species that no longer exists anywhere.

Extirpated (EXT) - Lives somewhere in the world, and at one time lived in the wild in Ontario, but no longer lives in the wild in Ontario.

Endangered (END) - Lives in the wild in Ontario but is facing imminent extinction or extirpation.

Threatened (THR) - Lives in the wild in Ontario, is not endangered, but is likely to become endangered if steps are not taken to address factors threatening it.

Special concern (SC) - Lives in the wild in Ontario, is not endangered or threatened, but may become threatened or endangered due to a combination of biological characteristics and identified threats.

Not at Risk (NAR) - A species that has been evaluated and found to be not at risk.

Data Deficient (DD) - A species for which there is insufficient information for a provincial status recommendation.

## <sup>4</sup>SARA Federal Species at Risk Act Status and Schedule (includes COSEWIC Status)

The Act establishes Schedule 1, as the official list of wildlife species at risk. It classifies those species as being either Extirpated, Endangered, Threatened, or Special Concern. Once listed, the measures to protect and recover a listed wildlife species are implemented.

Extinct - A wildlife species that no longer exists.

Extirpated (EXT) - A wildlife species that no longer exists in the wild in Canada, but exists elsewhere.

Endangered (END) - A wildlife species facing imminent extirpation or extinction.

Threatened (THR) - A wildlife species that is likely to become an endangered if nothing is done to reverse the factors leading to its extirpation or extinction.

Special Concern (SC) - A wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.

Data Deficient (DD) - A category that applies when the available information is insufficient (a) to resolve a wildlife species' eligibility for assessment or (b) to permit an assessment of the wildlife species' risk of extinction.

Not At Risk (NAR) - A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.

## 5.1 Methodology

An early spring survey was proposed to search for evidence of turtles and snakes within the study area limits and assess whether suitable habitat is present within the study area limits for SAR reptiles. This survey was conducted on May 6, 2015 following snow melt. The weather was ideal for surveying for reptile hibernation emergence. Air temperature was between 17°- 21°C. Winds were light and skies were clear (see Table 1).

The early spring timing of this survey was chosen to target snakes that may be emerging from hibernation and basking along the roadside or seeking refuge under suitable cover material, or turtles that may be migrating from hibernation habitat to summer habitat. Previous studies conducted for the presence of SAR reptiles in Wasaga Beach Provincial Park indicated that the study area limits fall within close proximity to two Eastern Hog-nosed Snake concentrations (NSE, 2005; NVCA, 2005). One is located west of Veterans Way on the west end of the study area and the second is located at the east end of the study area limits on the west side of Klondike Park Road.

Visual surveys for snakes and turtles were conducted by surveying Veterans Way and Klondike Road by foot and car looking for evidence of snakes either on the road or along the shoulder of the road. Visual surveys were also conducted by walking transects within the vegetated communities adjacent to the road, up to 25 m from the study area limits. Where observed, woody debris or cover material in the study area limits was lifted and checked for potential reptiles seeking refuge.

All roadside shoulders and roads were surveyed for potential basking reptiles or reptiles crossing the road. In addition, visual surveys of potential wetlands delineated on MNRF mapping (see Figure 2) that are shown adjacent to the road within the study area limits were surveyed for potential basking turtles.

## 5.2 Results

No snakes or turtles were observed within the study area during Burnside's early spring survey. Preferred habitat for turtles is considered to be located in open water wetlands, coastal wetlands and the Nottawasaga River located beyond the study area limits.



## 6.0 Breeding Birds

North South Environmental (NSE) was retained by R.J. Burnside & Associates Limited to complete breeding bird surveys along Veterans Way and Klondike Park Roads in Wasaga Beach, as part of the Municipal Class Environmental Assessment for road improvements. A copy of the NSE report is presented in Appendix B.

A review of secondary source information, including previously completed studies for the Wasaga Beach Provincial Park identified the presence of SAR birds in the greater study area identified in Table 4.

**Table 4: SAR Bird Species**

COMMON NAME	SCIENTIFIC NAME	PROVINCIAL	GLOBAL	PROVINCIAL	FEDERAL	PROVINCIAL
		SRANK <sup>1</sup>	GRANK	SARO (Endangered Species Act, 2007) <sup>2</sup>	SARA (Species at Risk Act) <sup>3</sup>	MNR Area Sensitive Species <sup>5</sup>
Canada Warbler	<i>Cardellina pusilla</i>	S4B	G5	Special Concern	Threatened	yes
Common Nighthawk	<i>Chordeiles minor</i>	S4B	G5	Special Concern	Threatened	no
Eastern Wood-pewee	<i>Contopus virens</i>	S4B	G5	Special Concern	No Status	no
Wood Thrush	<i>Hylocichla mustelina</i>	S4B	G5	Special Concern	No Status	no
Red Headed Woodpecker	<i>Melanerpes erythrocephalus</i>	SB4	G5	Special Concern	Threatened	no
Eastern Whip-poor-will	<i>Caprimulgus vociferous</i>	S4B	G5	Threatened	Threatened	yes
Least Bittern	<i>Ixobrychus exilis</i>	S4B	G5	Threatened	Threatened	yes
Piping Plover	<i>Charadrius melodus</i>	S1B	G3	Endangered	Endangered	no
Black Tern	<i>Chlidonias niger</i>	S3BSZN	G4	Special Concern	No Status	yes

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Threatened (THR) - Lives in the wild in Ontario, is not endangered, but is likely to become endangered if steps are not taken to address factors threatening it.

Special concern (SC) - Lives in the wild in Ontario, is not endangered or threatened, but may become threatened or endangered due to a combination of biological characteristics and identified threats.

Not at Risk (NAR) - A species that has been evaluated and found to be not at risk.

Data Deficient (DD) - A species for which there is insufficient information for a provincial status recommendation.

### <sup>4</sup>SARA Federal Species at Risk Act Status and Schedule (includes COSEWIC Status)

The Act establishes Schedule 1, as the official list of wildlife species at risk. It classifies those species as being either Extirpated, Endangered, Threatened, or Special Concern. Once listed, the measures to protect and recover a listed wildlife species are implemented.

Extinct - A wildlife species that no longer exists.

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Threatened (THR) - A wildlife species that is likely to become an endangered if nothing is done to reverse the factors leading to its extirpation or extinction.

Special Concern (SC) - A wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.

Data Deficient (DD) - A category that applies when the available information is insufficient (a) to resolve a wildlife species' eligibility for assessment or (b) to permit an assessment of the wildlife species' risk of extinction.

Not At Risk (NAR) - A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.

## 6.1 Methodology

Three breeding bird/Species at Risk (SAR) surveys were completed between May 24 and July 10, based on Ontario Breeding Bird Atlas protocols (2001): on May 29, June 18, and July 3, 2015.

Breeding bird protocols split breeding bird surveys into two periods for the purposes of estimating abundance, as well as collecting breeding evidence: earlier (May 24 to June 17) and later (June 13 to July 10). One visit was timed to fall within the earlier time window, and one visit was timed to fall within the later time window, and one visit in between. The visits allow collection of breeding evidence for both earlier and later breeding birds. MNRF protocols for surveys of SAR include one additional visit.

All survey point areas were visited during the early morning between 0500 and 0930, in fair weather with little wind, as recommended by the Canadian Wildlife Service protocols. Surveys were focused on obtaining evidence for breeding and determining the approximate number of territories in each habitat.

Two additional evening bird surveys were completed to specifically focus on crepuscular/nocturnal SAR Whip-poor-will and Common Nighthawk. These surveys were completed on bright moonlit nights, after sunset, during the period leading up to the full moon in late May and late June. Surveys were conducted on May 28 and June 24, 2015.

Early morning breeding bird surveys and evening crepuscular/nocturnal surveys were conducted as point count surveys along the road side. Point count locations are provided in the attached NSE report.

## 6.2 Results

A total of 55 bird species were documented from the study area. All bird species documented from the study area are listed in Table 2 of the NSE report in Appendix B.

The birds documented from the study area were forest, wetland, and/or open habitat dependent. Many of the species are common and widespread in Ontario in small to large patches of habitat. However, five bird species of provincial significance were noted on the site; all have federal and provincial status under the federal Species at Risk Act, and Endangered Species Act, respectively. These species include Canada Warbler, Common Nighthawk, Eastern Whip-poor-will, Eastern Wood-pewee, and Wood Thrush. In addition, seventeen species documented from the study area are considered area sensitive in Ontario. Only one introduced species was documented: European Starling.

The locations of SAR birds are marked on Figure 2 as well as presented within the NSE report appended to this report.

## 7.0 Vegetation Communities

A review of secondary source information, including previously completed studies for the Wasaga Beach Provincial Park, identified sensitive vegetation communities including Tall Grass Woodland, Tall Grass Prairie, Open Bluff and Old Growth. Provincially Significant plant species were also identified, as listed in Table 5.

**Table 5: Provincially Significant Plant Species**

COMMON NAME	SCIENTIFIC NAME	PROVINCIAL	GLOBAL	PROVINCIAL	FEDERAL
		SRANK <sup>1</sup>	GRANK	SARO (Endangered Species Act, 2007) <sup>2</sup>	SARA (Species at Risk Act) <sup>3</sup>
Butternut	<i>Juglans cinerea</i>	S3	G4	Endangered	Endangered
Carolina Gromwell (Carolina Puccoon)	<i>Lithospermum carolinense</i>	S3	G4G5	No Status	No Status
Giant Pinedrops (Woodland Pinedrops)	<i>Pterospora andromedea</i>	S2	G5	No Status	No Status
Hill's Thistle	<i>Cirsium hillii</i>	S3	G3	Threatened	Threatened
Houghton's Cyperus (Houghton's Flatsedge/Houghton's Umbrella-sedge)	<i>Cyperus houghtonii</i>	S3	G4?		No Status
Pitcher Thistle	<i>Cirsium pitcher</i>	S2	G3	Threatened	Endangered
Rams Head lady's Slipper	<i>Cypripedium arietinum</i>	S3	G3	No Status	No Status
Schweinitz's Sedge	<i>Carex schweinitzii</i>	S3	G3G4	No Status	No Status
Spotted Wintergreen	<i>Chimaphila maculate</i>	S1	G5	Endangered	Endangered

### <sup>1</sup>S-Ranks (provincial)

Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks, but consider only those factors within the political boundaries of Ontario (Please refer to: <http://explorer.natureserve.org/nsranks.htm>)

SX — Presumed Extirpated - Species or community is believed to be extirpated from the province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

SH — Possibly Extirpated (Historical) - Species or community occurred historically in the province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20–40 years. A species or community could become SH without such a 20-40 year delay if the only known occurrences in a province were destroyed or if it had been extensively and unsuccessfully looked for. The SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.

S1 — Critically Imperiled - Critically imperiled in the province or state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the province.

S2 — Imperiled - Imperiled in the province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the province.

S3 — Vulnerable - Vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. S4 — Apparently Secure - Uncommon but not rare; some cause for long-term concern due to declines or other factors.

S5 — Secure - Common, widespread, and abundant in the province.

SNR — Unranked - Province conservation status not yet assessed.

SU — Unrankable - Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

SNA — Not Applicable - A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

S#S# — Range Rank - A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).

S#? — Inexact or Uncertain - Denotes inexact or uncertain numeric rank.

### <sup>2</sup>Global Conservation Status Definitions

NatureServe global conservation status ranks (G-ranks). These ranks reflect an assessment of the condition of the species or ecological community across its entire range. Where indicated, definitions differ for species and ecological communities.

NatureServe Global Conservation Status Ranks

GX Presumed Extinct (species)— Not located despite intensive searches and virtually no likelihood of rediscovery.

Eliminated (ecological communities)—Eliminated throughout its range, with no restoration potential due to extinction of dominant or characteristic species.

GH Possibly Extinct (species)— Missing; known from only historical occurrences but still some hope of rediscovery.

Presumed Eliminated— (Historic, ecological communities)-Presumed eliminated throughout its range, with no or virtually no likelihood that it will be rediscovered, but with the potential for restoration, for example, American Chestnut (Forest).

G1 Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2 Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3 Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors

G4 Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5- Secure—Common; widespread and abundant

G#G# Range Rank—A numeric range rank (e.g., G2G3) is used to indicate the range of uncertainty in the status of a species or community. Ranges cannot skip more than one rank (e.g., GU should be used rather than G1G4).

### <sup>3</sup>SARO Endangered Species Act, 2007

(provincial status from <http://www.ontario.ca/environment-and-energy/how-species-risk-are-listed#section-3>)

The provincial review process is implemented by the MNR's Committee on the Status of Species at Risk in Ontario (COSSARO).

Extinct - A species that no longer exists anywhere.

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Data Deficient (DD) - A species for which there is insufficient information for a provincial status recommendation.

### <sup>4</sup>SARA Federal Species at Risk Act Status and Schedule (includes COSEWIC Status)

The Act establishes Schedule 1, as the official list of wildlife species at risk. It classifies those species as being either Extirpated, Endangered, Threatened, or Special Concern. Once listed, the measures to protect and recover a listed wildlife species are implemented.

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Special Concern (SC) - A wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.

Data Deficient (DD) - A category that applies when the available information is insufficient (a) to resolve a wildlife species' eligibility for assessment or (b) to permit an assessment of the wildlife species' risk of extinction.

Not At Risk (NAR) - A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.

## 7.1 Methodology

Burnside completed site visits to the study area from publically accessible locations on June 17, June 26, July 29 and September 28, 2015. During the site visits, a condition assessment of vascular plant species was completed for those areas within 25 m from the limits of the proposed design alternatives which may be indirectly impacted by the alternatives.

Vegetation communities were identified according to the Ecological Land Classification (ELC) system for Southern Ontario (Lee et al. 1998) based on preliminary air photo delineation followed by field confirmation to comprehensively characterize the natural heritage features in the study area. These communities were assessed using the mapping completed by NSE for the Wasaga Beach Provincial Park Life Science Inventory, 2005, as a reference. ELC community mapping was completed as a three season (spring, summer, fall) assessment, coincidental with a vegetation inventory. The vegetation inventory is provided in Appendix C.

The scope of the inventory included:

- Delineation of natural communities according to the Ecological Land Classification system, where possible, within the study area based on previously completed classifications, updated with field observations.
- Three season inventory of seasonally evident vascular plant species.
- Documentation of incidental observations of Species at Risk plants and assessment of SAR habitat potential (e.g., Hill's Thistle).

## 7.2 Results

A total of 7 vegetation communities were investigated that are immediately adjacent to the existing ROW. .

The vegetation communities within the project area are observed as follows:

- Mixed Forest / Coniferous Forest / Mixed Swamp (FOM/FOC/SWM).
- Dry – Fresh White Pine – Red Pine Coniferous Forest (FOC1-2).
- Dry – Fresh White Pine – Hardwood Mixed Forest (FOM2).
- Dry – Fresh White Pine – Oak Mixed Forest (FOM2-1).
- Dry Tallgrass Prairie (TPO1).
- Dry Tallgrass Prairie / Mineral Cultural Meadow (TPO1/CUM1).
- Fresh – Moist White Cedar – Sugar Maple Mixed Forest (FOD7-2) / Red Maple – Conifer Organic Mixed Swamp (SWM5-1).

These communities are described in Table 6 and illustrated on Figure 2.

**Table 6: Vegetation Communities**

ELC Code	Vegetation Type	Comments
<b>FOM/ FOC/ SWM</b>	<b>Mixed Forest / Coniferous Forest / Mixed Swamp</b>	This community is found at the north end of Veterans Way, on both sides of the road. It is a complex of three community types with varying vegetation cover based on the rolling topography, allowing for dry and wetland communities to be intermixed. Drier areas are dominated by Eastern White Pine ( <i>Pinus strobus</i> ), Red Maple ( <i>Acer rubrum</i> ) and White Ash ( <i>Fraxinus americana</i> ) with groundcovers of Wild Sarsaparilla ( <i>Aralia nudicalis</i> ), Bracken ( <i>Pteridium aquilinum</i> ) and White Lettuce ( <i>Prenanthes alba</i> ). Wetter swamp areas are dominated by Eastern White Cedar ( <i>Thuja occidentalis</i> ), White Birch ( <i>Betula papyrifera</i> ) and Silver Maple ( <i>Acer saccharinum</i> ) with sparse groundcovers of Sensitive Fern ( <i>Onoclea sensibilis</i> ), Northern Bugleweed ( <i>Lycopus uniflorus</i> ) and Marsh Fern ( <i>Thelypteris palustris</i> ). Wetland does not extend into the existing road ROW.
<b>FOC1-2</b>	<b>Dry White Pine - Red Pine Coniferous Forest Type</b>	This community is located at the southwest limit of the site, on the west side of Veterans Way. White Pine and Red Pine are equally dominant in the canopy with lesser associates of Red Oak and Trembling Aspen. Subcanopy and understory layers are sparse (<10% total coverage) with Bearberry ( <i>Arctostaphylos uva-ursi</i> ), Western Poison-ivy ( <i>Toxicodendron rydbergii</i> ) and Chokecherry ( <i>Prunus virginiana</i> ssp. <i>virginiana</i> ).
<b>FOM2</b>	<b>Dry – Fresh White Pine – Hardwood Mixed Forest Ecosite</b>	This is a small vegetation community located on the east side of Klondike Road, immediately north of the prairie / meadow community. Vegetation at the edge of this community, adjacent to the road is immature and represented by predominantly by Trembling Aspen and Green Ash with lesser associates of Sugar Maple and Eastern White Cedar. The groundlayer is dominated by meadow vegetation at the edge such as Canada Goldenrod, due to the immature canopy and exposure to the road.

ELC Code	Vegetation Type	Comments
<b>FOM2-1</b>	<b>Dry – Fresh White Pine – Oak Mixed Forest</b>	<p>This community type represents the greatest area that interfaces with the roadside under review. The composition appears to vary based on the topography. On the west and south limits of the project area, the topography is rolling with the steepest slopes found at the south limit of the project area along Veterans Way as it runs east / west. Eastern White Pine, Red Oak (<i>Quercus rubra</i>) and Red Maple are the dominant canopy trees throughout this community type and the canopies of many of the mature individuals extend over the road in some locations. Groundcovers vary in density but generally do not represent a greater coverage than 25%. Dominant groundcover species are Bracken and Wild Sarsaparilla. Along the east limit of the project area, along Klondike Park Road, the topography is generally flat and representation by Red Oak is significantly less. White Pine, Red Pine and White Birch represent a greater amount of the canopy. Bracken is the dominant groundcover through this portion of the community.</p>



ELC Code	Vegetation Type	Comments
<b>TPO1</b>	<b>Dry Tallgrass Prairie</b>	<p>This community was originally mapped as Dry Tallgrass Woodland and has reduced in size significantly since the North-South field investigations illustrated on the 2005 mapping. The White Pine – Oak Mixed Forest is colonizing additional lands than previously mapped, likely due to the absence of prescribed burns in the prairie required to maintain the open canopy (&lt;60% canopy closure) to support the tallgrass groundcover. The remnants of these features have very little tree cover (&lt;10% canopy closure) and are more open than a woodland defined as 35 to 60% canopy closure. These communities are found in isolated pockets in the following 4 locations:</p> <ul style="list-style-type: none"> <li>• West side of Veterans Way, approximately 210 metres south of Fernbrook Drive.</li> <li>• West side of Veterans Way, approximately 380 metres south of Fernbrook Drive.</li> <li>• East side of Veterans Way, approximately 925 metres south of Fernbrook Drive.</li> </ul> <p>Little Bluestem (<i>Andropogon scoparius</i>) is the dominant species in this community type with lesser associates of Butterfly Milkweed (<i>Asclepias tuberosa</i>), Canada Wild Rye (<i>Elymus canadensis</i>) and Indian Grass (<i>Sorghastrum nutans</i>). Invasion is occurring in these communities by the following non-native plants: Common Mullein (<i>Verbascum thapsus ssp. thapsus</i>), Spotted Knapweed (<i>Centaurea stoebe ssp. micranthos</i>) and White Sweet-clover (<i>Melilotus albus</i>).</p>

ELC Code	Vegetation Type	Comments
<b>TPO1/C UM1</b>	<b>Dry Tallgrass Prairie / Mineral Cultural Meadow</b>	<p>These community complexes are found on the east and west side of Klondike Park Road at the southeast limit of the study. The community has been reduced on the east side as crop agriculture has replaced more than 50% of the originally mapped extents. Indian Grass is the dominant prairie species identified through these features with minor representation by Little Bluestem, Switchgrass (<i>Panicum cf. virgatum</i>) and Butterfly Milkweed. The meadow vegetation includes New England Aster (<i>Symphotrichum novae-angliae</i>), Black-eyed Susan (<i>Rudbeckia hirta</i>) and Wild Bergamot (<i>Monarda fistulosa</i>). Lack of prescribed burning of these areas is resulting in significant colonization by Eastern White Cedar. Non-native groundcovers such as Birdsfoot Trefoil (<i>Lotus corniculatus</i>) and Wild Carrot are also found throughout. Indian grass extends southward from a portion of this community immediately adjacent to the gravel shoulder and extends westward along the north side of Veterans Way.</p> <p>An additional location is found at the south end of the project site, east and west of the driveway at 950 Veterans Way. White Cedar is colonizing lands to the west of the driveway that contain remnants of an Indian Grass dominated prairie. Lands east of the driveway that contain Indian Grass are adjacent to mowed turf and a hedgerow</p>

ELC Code	Vegetation Type	Comments
<b>FOD7-2</b> <b>SWM5-1</b>	<b>Fresh – Moist White Cedar – Sugar Maple Mixed Forest with inclusion of Red Maple – Conifer Organic Mixed Swamp</b>	This community is found south of Veterans way as it runs east-west near the southwest corner of the study area. The trees are predominantly young / mid-aged (10 – 24cm DBH) with occasional representation of trees 25 - 50cm. White Cedar is the dominant tree cover creating dense (>60%) coverage within the subcanopy level (10-20m tall), whereas Sugar Maple, Red Maple and Balsam Poplar occupy a sparse (10-25%) canopy layer. Groundlayer vegetation is very sparse with approximately 1-10% total coverage. Slopes are very steep through this community as they lead down to the swamp inclusion (SWM5-1). The inclusion is characterized as having organic soils with Red Maple and Balsam Fir ( <i>Abies balsamea</i> ). Groundlayer vegetation is sparse through this portion of the community as well, with occasional pockets of Cinnamon Fern ( <i>Osmundastrum cinnamomeum</i> ), horsetail ( <i>Equisetum</i> sp.) and sedges. The slope leading down from the road is very steep, with signs of erosion and Coltsfoot ( <i>Tussilago farfara</i> ) colonizing some of the disturbed soils.

**Right-of-Way Vegetation**

Vegetation in the ROW is predominantly limited to manicured turfgrass and early successional native and non-native grasses and forbs such as Smooth Brome (*Bromus inermis*), Wild Carrot (*Daucus carota*) and Poison Ivy (*Toxicodendron rydbergii*). Ditches with wetter conditions are occupied by Spotted Jewelweed (*Impatiens capensis*), Narrow-leaved Cattail (*Typha angustifolia*) and Purple Loosestrife (*Lythrum salicaria*).

**Remaining Lands**

The remaining lands are characterized as manicured turf (sportsfields south of Veterans Way Road and Town facilities on the west side), cash crop agriculture (southeast corner of study area) and residential properties (at the northeast corner and on the west side). These locations represent little ecological sensitivity.

The inventory of seasonally evident vascular plant species completed for the study area is presented in Appendix C. Based on a comparison with the NHIC Ontario Vascular Plant List, all plant species observed are ranked, where available, as Apparently Secure or Secure (S4-S5), being uncommon, but not rare, to widespread, common and abundant in Ontario with the exception of Carolina Puccoon (*Lithospermum caroliniense*), which is ranked as S3, Vulnerable in the Province. Carolina Puccoon was observed during the spring site visit, located in several locations along the right-of-way on sandy soil in open or forest edge areas. The approximate location of Carolina Puccoon observations are illustrated on Figure 2.

No sensitive vegetation communities were observed within the study area with the exception of Dry Tallgrass Prairie, identified by NHIC (Ontario Plant Community List, no date) as S1: Critically Imperiled. SAR plants were not identified during the investigation. .

## **8.0 Incidental Wildlife and Habitat Observations**

The following wildlife species were noted within the study area by Burnside ecologists over the course of the 2015 surveys.

Table 7: Incidental Wildlife Observations

		PROVINCIAL	GLOBAL	PROVINCIAL	FEDERAL	PROVINCIAL
COMMON NAME	SCIENTIFIC NAME	SRANK <sup>1</sup>	GRANK	SARO (Endangered Species Act, 2007) <sup>2</sup>	SARA (Species at Risk Act) <sup>3</sup>	MNR Area Sensitive Species
<b>Mammals</b>						
Eastern Grey Squirrel	<i>Sciurus carolinensis</i>	S5	G5	No Status	No Status	
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	S5	G5	No Status	No Status	
White-tailed Deer	<i>Odocoileus virginianus</i>	S5	G5	No Status	No Status	
Eastern Chipmunk	<i>Tamias striatus</i>	S5	G5	No Status	No Status	
					No Status	
<b>Avifauna</b>					No Status	
Pine Warbler	<i>Dendroica pinus</i>	S5B	G5	No Status	No Status	Yes
American Robin	<i>Turdus migratorius</i>	S5B	G5	No Status	No Status	
American Goldfinch	<i>Carduelis tristis</i>	S5B	G5	No Status	No Status	
Ovenbird	<i>Seiurus aurocapillus</i>	S4B	G5	No Status	No Status	Yes
Brown Thrasher	<i>Toxostoma rufum</i>	S4B	G5	No Status	No Status	
Chipping Sparrow	<i>Spizella passerina</i>	S5B	G5	No Status	No Status	
Black-capped Chickadee	<i>Poecile atricapillus</i>	S5	G5	No Status	No Status	
Yellow-rumped Warbler	<i>Setophaga coronata</i>	S5B	G5	No Status	No Status	
Blue Jay	<i>Cyanocitta cristata</i>	S5	G5	No Status	No Status	

**<sup>1</sup>S-Ranks (provincial)**

Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks, but consider only those factors within the political boundaries of Ontario (Please refer to: <http://explorer.natureserve.org/nsranks.htm>)

SX — Presumed Extirpated - Species or community is believed to be extirpated from the province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

SH — Possibly Extirpated (Historical) - Species or community occurred historically in the province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20–40 years. A species or community could become SH without such a 20–40 year delay if the only known occurrences in a province were destroyed or if it had been extensively and unsuccessfully looked for. The SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.

S1 — Critically Imperiled - Critically imperiled in the province or state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the province.

S2 — Imperiled - Imperiled in the province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the province.

S3 — Vulnerable - Vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. S4 — Apparently Secure - Uncommon but not rare; some cause for long-term concern due to declines or other factors.

S5 — Secure - Common, widespread, and abundant in the province.

SNR — Unranked - Province conservation status not yet assessed.

SU — Unrankable - Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

SNA — Not Applicable - A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

S#S# — Range Rank - A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).

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#### <sup>2</sup>Global Conservation Status Definitions

NatureServe global conservation status ranks (G-ranks). These ranks reflect an assessment of the condition of the species or ecological community across its entire range. Where indicated, definitions differ for species and ecological communities.

NatureServe Global Conservation Status Ranks

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GH Possibly Extinct (species)— Missing; known from only historical occurrences but still some hope of rediscovery.

Presumed Eliminated— (Historic, ecological communities)-Presumed eliminated throughout its range, with no or virtually no likelihood that it will be rediscovered, but with the potential for restoration, for example, American Chestnut (Forest).

G1 Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

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G3 Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors

G4 Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5 Secure—Common; widespread and abundant

G#G# Range Rank—A numeric range rank (e.g., G2G3) is used to indicate the range of uncertainty in the status of a species or community. Ranges cannot skip more than one rank (e.g., GU should be used rather than G1G4).

#### <sup>3</sup>SARO Endangered Species Act, 2007

(provincial status from <http://www.ontario.ca/environment-and-energy/how-species-risk-are-listed#section-3>)

The provincial review process is implemented by the MNR's Committee on the Status of Species at Risk in Ontario (COSSARO).

Extinct - A species that no longer exists anywhere.

Extirpated (EXT) - Lives somewhere in the world, and at one time lived in the wild in Ontario, but no longer lives in the wild in Ontario.

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Threatened (THR) - Lives in the wild in Ontario, is not endangered, but is likely to become endangered if steps are not taken to address factors threatening it.

Special concern (SC) - Lives in the wild in Ontario, is not endangered or threatened, but may become threatened or endangered due to a combination of biological characteristics and identified threats.

Not at Risk (NAR) - A species that has been evaluated and found to be not at risk.

Data Deficient (DD) - A species for which there is insufficient information for a provincial status recommendation.

#### <sup>4</sup>SARA Federal Species at Risk Act Status and Schedule (includes COSEWIC Status)

The Act establishes Schedule 1, as the official list of wildlife species at risk. It classifies those species as being either Extirpated, Endangered, Threatened, or Special Concern.

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Extinct - A wildlife species that no longer exists.

Extirpated (EXT) - A wildlife species that no longer exists in the wild in Canada, but exists elsewhere.

Endangered (END) - A wildlife species facing imminent extirpation or extinction.

Threatened (THR) - A wildlife species that is likely to become an endangered if nothing is done to reverse the factors leading to its extirpation or extinction.

Special Concern (SC) - A wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.

Data Deficient (DD) - A category that applies when the available information is insufficient (a) to resolve a wildlife species' eligibility for assessment or (b) to permit an assessment of the wildlife species' risk of extinction.

Not At Risk (NAR) - A wildlife species that has been evaluated and found to be not at risk of extinction given the current

## 9.0 Impacts and Mitigation

Project activities associated with the alternative solutions are anticipated to include grading and asphalt application with the possibility of limited vegetation removal in select areas, located primarily within the existing right-of-way with some edge encroachment into adjacent lands.

The following measures and design approach should be implemented in order to mitigate potential negative impacts of the alternatives solutions on the natural environmental features of the study area. It is also recommended that the following mitigation measures be included with those mitigation measures developed for the Municipal Class EA reporting document and detailed design process and reporting, and within the special provisions section of the tender documents, as applicable.

### Potential Bat Maternity Roosting

Grading activities may require the removal of 2 out of 11 identified candidate bat maternity roosting trees, identified as T8,T9 (Figure 2). While some features may be present that are considered suitable for bat maternity roosting habitat, such as ELC communities and large diameter trees with cavities/loose bark, overall the study area is considered to have low potential for candidate roosting habitat. The study area is mainly restricted to the existing ROW limits of the roadway, or just beyond the ROW limits. All of the vegetation removals will involve minor, edge encroachments into existing vegetation. Some of the key features of sites considered “significant” for roosting bats are absent from the study area, including mature forest habitat with a relatively high snag density. Trees identified as “candidate” roosting habitat were typically single-standing large diameter trees in an otherwise young to mid-aged forested habitat.

#### *Impact*

- Impact to low potential bat maternity roosting habitat as a result of possible vegetation removal.

#### *Mitigation*

- Minimize disturbance to existing vegetation by limiting the extent of construction footprint limits, as reasonable. Impacts to candidate bat maternity roosting trees should be avoided, where possible.
- Tree removal, if necessary, should be completed outside of the active maternity season, considered to be from spring to end of July (COSEWIC, 2013).

### Reptiles

Habitat of snakes and/or turtles is not anticipated to be directly impacted by the alternative solutions given the potential for minor, edge encroachments into existing vegetation and limited impact over existing conditions. No snakes or turtles were observed within the study area during Burnside’s early spring survey. The potential



footprint of the alternatives solutions does not include Hognose snake concentration areas identified in previous studies for the Wasaga Beach Provincial Park, however, the NSE study notes the entire park should be considered habitat for Hognose Snake.

Preferred habitat for turtles is considered to be located in open water wetlands, coastal wetlands and the Nottawasaga River located beyond the study area limits.

### *Impact*

Potential for indirect impacts to reptiles (e.g., Eastern Hognose Snake) as a result of improved road conditions within species general habitat.

### *Mitigation*

- To the extent possible and practical, earthworks and vegetation removal activities related to the construction of the preferred alternative should be completed outside of the active season for identified Special Concern and Threatened reptile species (April to October). The active season for Eastern Hognose Snake is generally considered to be from May to October (COSEWIC, 2008), the active season for Milk Snake is considered to be mid-spring to October (Fisher, et. al, 2007). The active period for Five-lined Skink is considered to be April to mid-October (Fisher, et.al, 2007). The active period for Easter Ribbon Snake is considered to be spring to late summer (Fisher, et.al, 2007).
- Temporary silt fence barriers are to be installed at strategic locations to exclude reptiles, specifically Eastern Hognose Snake, from the earthworks and vegetation removal activities related to the construction of the preferred alternative. The extent, design height and location of silt fence barriers within the construction area is to be established in consultation with the MNRF.
- Wildlife crossing(s) designed for reptiles, including Hognose Snake, should be installed at strategic locations to enhance connectivity of habitat. The wildlife crossing is anticipated to consist of a culvert underpass and associated fencing. The location(s) of the underpass as well as the details of the design of the underpass, such as the diameter and substrate type within the underpass, are to be established in consultation with the MNRF.
- Should Hognose Snake be encountered at any time during the project, construction activities should be halted to ensure the snake is not harmed. The MNRF shall be contacted for advice on how to proceed.

### **Breeding Birds**

Several breeding bird species have the potential to be located within the study area. Many receive protection nationally under the Migratory Birds Convention Act. The “incidental take” of migratory bird nests or the disturbance, destruction or taking of the

nest of a migratory bird are prohibited under Section 6 of the Migratory Bird Regulations under the authority of the Migratory Birds Convention Act, 1994. Nests contents (eggs and young) are protected by virtue of the Migratory Birds Convention Act (MBCA) which has implications on development activities that might occur during the breeding season (Canadian Wildlife Service, July 2012).

Secondary source information recorded area-sensitive bird species in the greater area (Appendix A). Area sensitive species were also observed in the study area during the breeding bird survey completed for the study area in 2015, including seventeen forest area species as well as wetland and open area species (Appendix B). These species require large tracts of habitat.

The estimated footprint of the alternative solutions is not anticipated to significantly impact the habitat of area sensitive bird species as the relatively limited amount of vegetation to be removed is not expected to have a significant impact on the available overall habitat within the greater area for these species.

#### *Impact*

- Impact to the habitat of breeding bird species as a result of vegetation removal.

#### *Mitigation*

- Minimize disturbance to existing vegetation by limiting the extent of construction footprint limits, as reasonable
- Construction activities with the potential to destroy migratory birds, nests and eggs, such as vegetation clearing, should not take place during the core breeding season, generally considered to be from April 26 to July 31 unless it can be determined there will be no contravention under the Migratory Birds Convention Act.

### **Vegetation Communities**

Based on the proposed work areas associated with the alternative solutions, vegetation and select trees will be impacted within the identified grading areas within the areas of possible property transfer and may include limited encroachment in to ELC communities identified as follows:

- Dry Fresh White Pine-Hardwood Mixed Forest Ecosite (FOM2).
- Dry-Fresh White Pine-Oak Mixed Forest (FOM2-1).
- Dry Tallgrass Prairie / Mineral Cultural Meadow (TPO1/CUM1).
- Fresh-Moist White Cedar- Sugar Maple Mixed Forest /Red Maple Coniferous Organic Mixed Swamp (FOD7-2/SWM5-1).
- Sports Field.
- Agricultural Field.

These communities are considered to be common and secure in Ontario with the exception of the Tallgrass Prairie community. Some impact is anticipated within sensitive Tallgrass Prairie vegetation communities as grading is proposed within the right-of-way adjacent to this area with minor encroachment into the edge of the community.

#### *Impact*

- Removal of vegetation as a result of grading, minor, edge encroachments into existing vegetation
- Potential impact to rare plant communities

#### *Mitigation*

- The footprint of the disturbed area will be minimized as much as possible. Impacts to rare plant communities (Tallgrass Prairie/ Cultural Meadow) should be avoided where possible.
- Disturbed areas will be stabilized and re-vegetated with an appropriate seed mix upon project completion and restored to a pre-disturbed state where practical. An appropriate seed mix will be selected based on consultation with the MNRF Parks. Topsoil, located where grading (cut) will occur, shall be stripped and stockpiled separately. This material will be used for fill and/or restoration to facilitate natural regeneration of native species.
- Protective measures (e.g., silt fence) are recommended when adjacent construction is occurring to prevent access, stockpile and storage within the prairie communities
- An erosion and sediment control plan will be developed. Implementation of the erosion and sediment control measures will conform to recognized standard specifications such as Ontario Provincial Standards Specification (OPSS).

## **SAR**

### Species of Conservation Concern

The following species of Provincial Conservation Concern were observed during the field studies completed by in 2015 to be located within the Study Area:

- Carolina Gromwell (Carolina Puccoon) (*Lithospermum caroliniense*), S3, G4G5.
- Canada Warbler (*Cardellina pusilla*), S4B, G5, Provincially Special Concern.
- Common Nighthawk (*Chordeiles minor*), S4B, G5, Provincially Special Concern.
- Eastern Wood-pewee (*Contopus virens*), S4B, Provincially Special Concern.
- Wood Thrush (*Hylocichla mustelina*) S4B, Provincially Special Concern.
- Red Headed Woodpecker (*Melanerpes erythrocephalus*), SB4, Provincially Special Concern.

Although species provincially listed as rare or Special Concern do not receive legal protection under the provincial Endangered Species Act, 2007 or the federal Species at Risk Act, they may receive protection from some agencies, such as provincial and national parks or other acts such as the Migratory Birds Convention Act, Ontario Fish and Wildlife Conservation Act, which prohibits the killing, capturing, injuring, harassment and trapping of specially protected species.

The alternative solutions are not anticipated to impact Special Concern bird species with the implementation of avoidance measures outlined in the previous section discussing breeding birds, including minimizing the footprint of construction and timing of construction for the removal of vegetation.

Direct impact to Carolina Puccoon is not anticipated as the observed locations are considered to be outside of potential grading areas associated with the alternative solutions. As a best management practice, removal of Carolina Puccoon and impact to the soil immediately surrounding the plant should be avoided, where possible, should Carolina Puccoon be encountered within the footprint of future works.

#### Threatened and Endangered Species

The following Threatened species were observed during the field studies completed by in 2015 to be located within the Study Area:

- Eastern Whip-poor-will (*Caprimulgus vociferous*), S4B, G5, Provincially Threatened.

As a provincially Threatened species, Whip-poor-will and its habitat are protected by the Endangered Species Act, 2007 in Ontario.

The Whip-poor-will is usually found in areas with a mix of open and forested areas, such as savannahs, open woodlands or openings in more mature, deciduous, coniferous and mixed forests. It forages in these open areas and uses forested areas for roosting (resting and sleeping) and nesting (MNR, <https://www.ontario.ca/page/eastern-whip-poor-will>). The Whip-poor-will is most active at dusk and at early dawn when it is out foraging for flying insects, its only source of food. Whip-poor-wills avoid heavily forested areas, heavily farmed areas, and human settlements (Nature Canada, <http://naturecanada.ca/what-we-do/naturevoice/endangered-species/know-our-species/whip-poor-will/>).

The MNR General Habitat Description for the Eastern Whip-poor-will identifies acceptable activities in Eastern Whip-poor-will habitat. Activities that are considered to be generally compatible include; hiking and non-motorized vehicle use of existing recreational trails, normal use of existing roadways including access roads and small-scale selective removal of individual trees.

Activities in general habitat can continue as long as the function of these areas for the species is maintained and individuals of the species are not killed, harmed, or harassed. Activities associated with the alternatives solutions are considered to be generally compatible and not anticipated to impact the habitat of Eastern Whip-poor-will. Direct impact to Whip-poor-will are not anticipated with avoidance measures, including minimizing the footprint of construction and timing of construction for the removal of vegetation.

## **10.0 Conclusion**

The construction activities associated with alternative solutions for the road improvements are anticipated to have limited impact on natural features within the study area with the implementation of avoidance and mitigation measures. Protection measures (e.g., fencing) are recommended to minimize impact to adjacent vegetation communities including sensitive Tallgrass Prairie and the potential for SAR species to occur beyond the existing right-of-way. Topsoil, located where grading (cut) will occur, shall be removed and stockpiled separately. This material will be used for restoration in fill areas to the extent possible to facilitate natural regeneration of native species. Additionally, it is anticipated that direct impact to SAR can be avoided through minimizing the footprint of construction and the timing of certain project activities (i.e., outside of the active season) as well as the provision of specialized wildlife crossing(s) (i.e., culvert underpass).

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## Figures





- Road Right of Way Boundary
- Veterans Way Property**
- C-PROPERTY GIVE BACK
- C-PROPERTY GRADING EASEMENT
- C-PROPERTY REQUIRED
- Alignment Options (Roundabout)**
- 50km Design Alt 1
- 60km Design Alt 1
- 70km Design Alt 1
- C-ROAD-EP
- Study Area Boundary
- Wasaga Beach Provincial Park

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Datum: North American 1983		 Grid North
Coord. System: NAD 1983 UTM Zone 17N		
Projection: Transverse Mercator		
Central Meridian: 81°0'0.00"W		
False Easting: 500,000m	False Northing: 0m	
Rotation: 0	Scale Factor: 0.99960	 Metres



Client

**TOWN OF WASAGA BEACH**

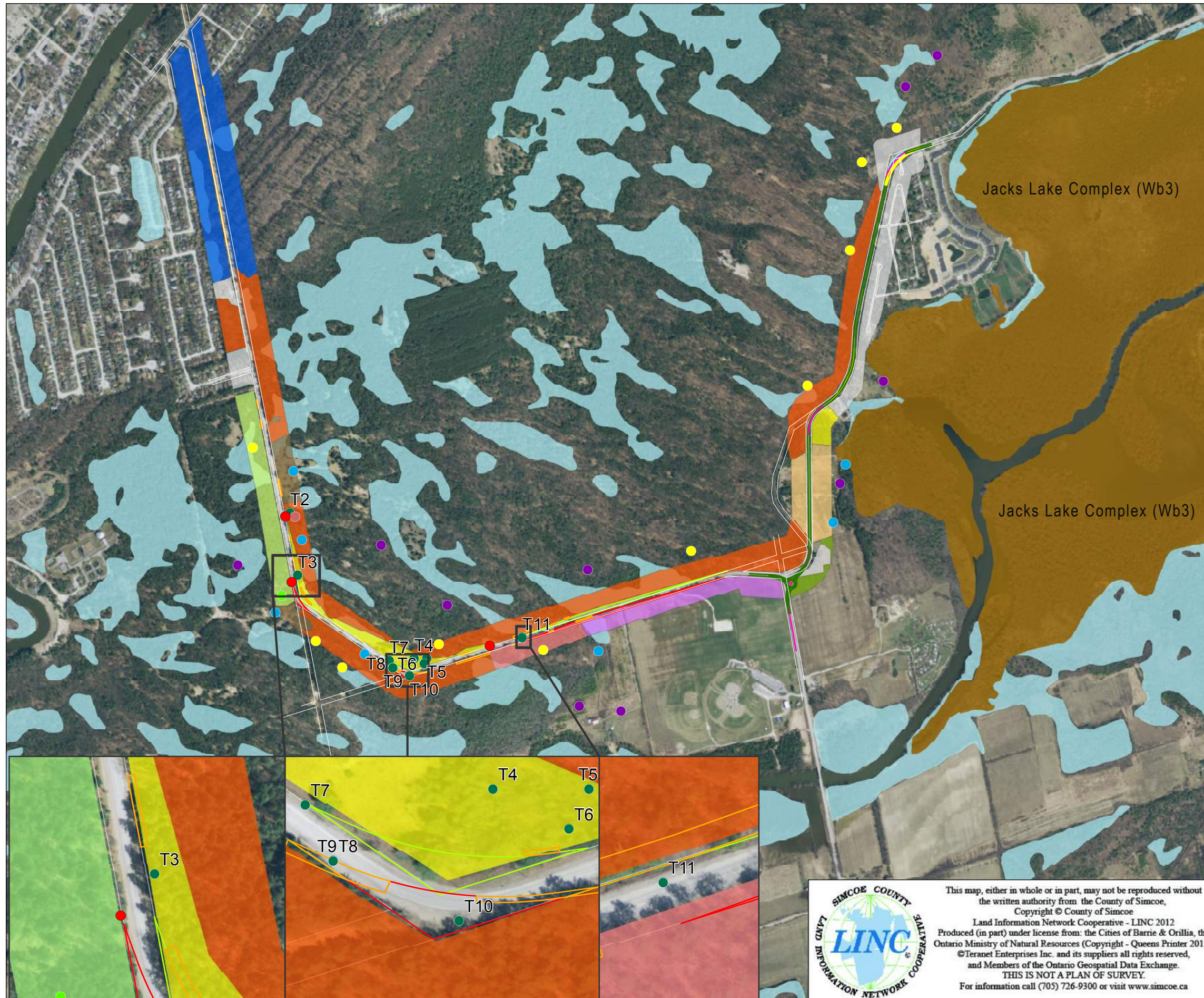
Figure Title

**VETERANS WAY & KLONDIKE  
ROADS IMPROVEMENTS EA  
STUDY AREA**

Drawn	Checked	Date	Figure No. <b>1</b>
HN	DDF	2016/02/16	
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- Candidate Bat Maternity Roosting Trees (RJB, 2015)
- Carolina Puccoon (RJB, 2015)
- SAR Bird Locations (NSE, 2015)**
- Canada Warbler
- Common Nighthawk
- Eastern Wood-pewee
- Eastern Whip-poor-will
- Wood Thrush
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- FOD7-2/SWM5-1 - Fresh - Moist White Cedar - Sugar Maple Mixed Forest / Red Maple - Coniferous Organic Mixed Swamp
- FOM/FOC/SWM - Mixed Forest / Coniferous Forest / Mixed Swamp
- FOM2 - Dry - Fresh White Pine - Hardwood Mixed Forest Ecosite
- FOM2-1 - Dry - Fresh White Pine - Oak Mixed Forest
- Agricultural Field
- Sports Field
- Residential
- MNR Wetland Mapping**
- Evaluated-Provincial
- Non-Evaluated

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Metres



Client

TOWN OF WASAGA BEACH

Figure Title

VETERANS WAY & KLONDIKE  
ROADS IMPROVEMENTS EA

Drawn	Checked	Date	Figure No.  <b>2</b>
HN	DDF	2016/02/16	
Scale	Project No.		
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## Appendix A

### Candidate BMRT



Photos – Candidate Bat Maternity Roosting Trees



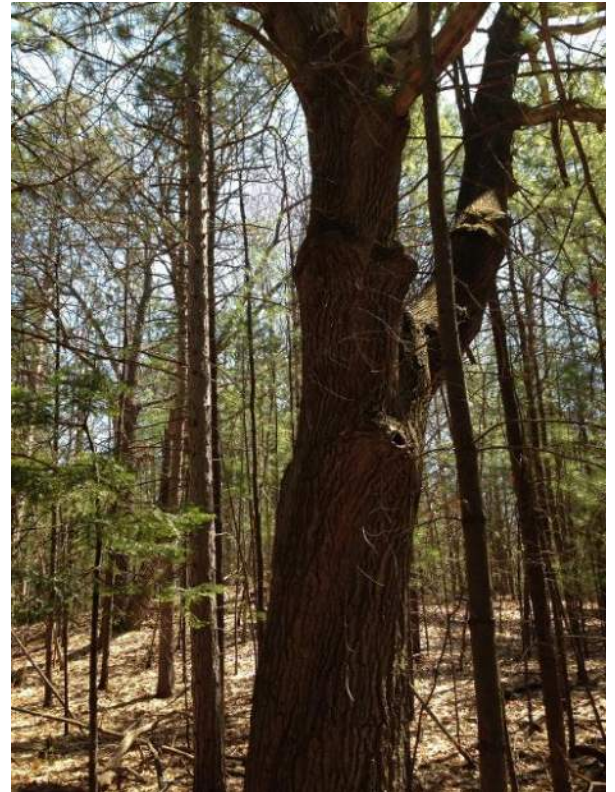
Photograph 1 – T1



Photograph 2 – T2



Photograph 3 – T3



Photograph 4 – T4



Photos – Candidate Bat Maternity Roosting Trees



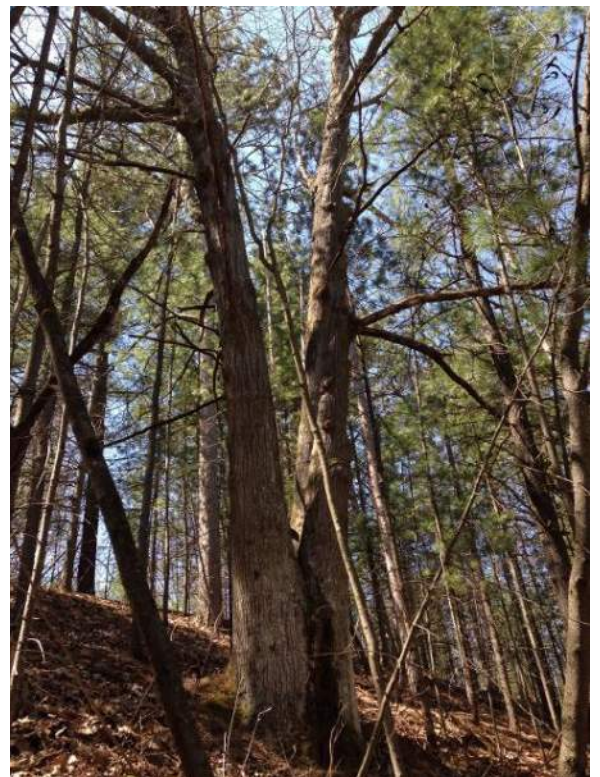
Photograph 5 – T5



Photograph 6 – T6



Photograph 7 – T7



Photograph 8 – T8



Photos – Candidate Bat Maternity Roosting Trees



Photograph 9 – T9



Photograph 10 – T10



Photograph 11 – T11



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## Appendix B

### Breeding Bird Survey



# Powerline and Klondike Roads Improvements Bird Survey

Prepared for R.J. Burnside

August 2015

North-South Environmental Inc.



35 Crawford Crescent, Suite U5  
P.O. Box 518  
Campbellville, Ontario  
L0P 1B0

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## 1.0 Introduction

NSE was retained by R.J. Burnside to complete breeding bird surveys along Power Line and Klondike Roads, in Wasaga Beach, as part of an Environmental Assessment for improvement of the road by straightening some of the most severe bends.

## 2.0 Methods

Three breeding bird/Species at Risk surveys were completed between May 24 and July 10, based on Ontario Breeding Bird Atlas protocols (2001): on May 29, June 18, and July 3, 2015. Breeding bird protocols split breeding bird surveys into two periods for the purposes of estimating abundance, as well as collecting breeding evidence: earlier (May 24 to June 17) and later (June 13 to July 10). One visit was timed to fall within the earlier time window, and one visit was timed to fall within the later time window, and one visit in between. The visits allow collection of breeding evidence for both earlier and later breeding birds. MNR protocols for surveys of Species at Risk include one additional visit. All areas of the site were visited during the early morning between 0500 and 0930, in fair weather with little wind, as recommended by the Canadian Wildlife Service protocols. Surveys were focused on obtaining evidence for breeding and determining the approximate number of territories in each habitat.

Two additional evening bird surveys were completed to specifically focus on crepuscular Species at Risk: Whip-poor-will and Common Nighthawk. These surveys were completed on a bright moonlit night, after sunset during the period leading up to the full moon in early and late June. Surveys were conducted on May 28 and June 24, 2014.

Breeding evidence was assessed for all species according to the following protocols developed by Bird Studies Canada (2001):

- **Observed** is defined as a species observed in its breeding season outside its nesting habitat (no evidence of breeding). Presumed migrants are not recorded.
- **Possible** breeding is defined as an observation of any of the following: 1) a species observed in its breeding season in suitable nesting habitat 2) singing male heard, or breeding calls heard, in its breeding season in suitable nesting habitat
- **Probable** breeding is defined as an observation of any of the following: (1) a pair in breeding season in suitable habitat, (2) permanent territory presumed through registration of territorial song on at least two days, a week or more apart, at the same place or (3) courtship or display between a male and a female or two males, including courtship feeding or copulation; visiting probable nest site; agitated behaviour or anxiety calls of an adult; brood patch on an adult female or cloacal protuberance on an adult male; nest building or excavation of a nest hole.

- **Confirmed** breeding is defined as observation of any of the following: (1) a distraction display or injury feigning; (2) used nest or egg shell found (occupied or laid within the period of the study); (3) recently fledged young or downy young, including young incapable of sustained flight; (4) adults entering or leaving nest site in circumstances indicating occupied nest (e.g., adult carrying fecal sac; adult carrying food for young), or (5) nest containing eggs, or nest with young seen or heard.

Early morning breeding bird surveys and late night crepuscular surveys were conducted as point count surveys along the road side. Morning Breeding Bird Surveys were conducted every 250 m along the road, and evening crepuscular surveys were conducted every 500 m. Each point count survey was conducted for a period of 10 minutes. A total of 20 point count stations were developed for the breeding bird surveys and a total of 10 point count stations were developed for the crepuscular surveys (every other breeding bird station). Stations started at the east end of the study area and continued around to the west. UTM coordinates are provided in Table 1 for all bird survey point count locations.

**Table 1. Point count station locations for breeding bird surveys conducted at the Powerline and Klondike Roads study area. Stations with an asterisk (\*) indicate locations of evening crepuscular surveys.**

Station #	Datum	Zone	Easting	Northing
1*	NAD83	17T	579648	4927729
2	NAD83	17T	579445	4927560
3*	NAD83	17T	579228	4927418
4	NAD83	17T	579169	4927171
5*	NAD83	17T	579117	4926917
6	NAD83	17T	579060	4926655
7*	NAD83	17T	578926	4926437
8	NAD83	17T	578930	4926177
9*	NAD83	17T	578867	4925931
10	NAD83	17T	578617	4925925
11*	NAD83	17T	578370	4925854
12	NAD83	17T	578126	4925783
13*	NAD83	17T	577876	4925693
14	NAD83	17T	577635	4925610
15*	NAD83	17T	577386	4925544
16	NAD83	17T	577168	4925689

Station #	Datum	Zone	Easting	Northing
17*	NAD83	17T	576986	4925869
18	NAD83	17T	576939	4926121
19*	NAD83	17T	576892	4926369
20	NAD83	17T	576840	4926615

## 3.0 Results

A total of 55 bird species were documented from the study area. The birds documented from the study area were forest, wetland, and/or open habitat dependant. Many of the species are common and widespread in Ontario in small to large patches of habitat. However, five bird species of provincial significance were noted on the site; all have federal and provincial status under the federal Species at Risk Act, and Endangered Species Act, respectively. These species include Canada Warbler, Common Nighthawk, Eastern Whip-poor-will, Eastern Wood-pewee, and Wood Thrush. In addition, seventeen species documented from the study area are considered area-sensitive in Ontario. Only one introduced species was documented: European Starling. All bird species documented from the study area are listed in Table 2 (page 7). The locations of SAR are marked on a figure, appended to this report.

### 3.1 Species at Risk

**Canada Warbler** is considered Threatened in Canada, and a species of Special Concern in Ontario. It breeds in a range of deciduous and coniferous, usually wet forest types, all with a well-developed, dense shrub layer. This species was documented singing from wet forest habitat at one point count station during only one survey. Since it was calling from suitable breeding habitat, it is considered a possible breeder within the study area.

**Common Nighthawk** is considered a Threatened in Canada, and a species of Special Concern in Ontario. This species typically inhabits open areas with little to no ground vegetation, such as logged areas, forest clearings, and rock barrens. However, they will also nest in anthropogenic-influenced areas including cultivated fields, orchards, urban parks, and along gravel roads and railways. This species was documented from a forest clearing at one evening point count station. Due to the presence of a singing male in suitable breeding habitat, it is possible that is species is breeding within the study area.

**Eastern Whip-poor-will** is considered a Threatened species in Canada and Ontario. It inhabits areas with a mix of open and forested areas such as savannahs, open woodlands, or openings in more mature, deciduous, coniferous, and mixed forests. The open areas are used for foraging and forested areas are used for roosting and nesting.

This species was widespread throughout the study area, with an estimated ten males documented (this species was heard from all point count locations, though some of these observations came from the same bird as the call can be heard for hundreds of metres). It is probable that this species is breeding within the study area due to the documentation of singing and counter-singing of competing males in suitable breeding habitat during both evening surveys.

**Eastern Wood-pewee** is considered a species of Special Concern in Canada and Ontario. It nests in small and large woodlands throughout southern Ontario, and is still common and widespread in Ontario but is experiencing significant declines, possibly because of declines in the wintering habitat. It also nests in woodlands but is found in a wider range of habitats than the other species discussed here, as it can use younger woodlands for breeding. This species was documented from over half of the point count locations, with an estimated number of 11 males (present at 11 of the 20 stations). It is probable that this species is breeding within the study area because singing males were documented from the same survey locations in suitable breeding habitat on more than one occasion.

**Wood Thrush** is considered Threatened in Canada, and a species of Special Concern in Ontario. This bird inhabits mature deciduous and mixed forests with well-developed undergrowth. Sugar Maple (*Acer saccharum*) and American Beech (*Fagus grandifolia*) are preferred for nesting. This species was documented occasionally throughout the study area (with seven males documented from seven point count stations). It is probable that Wood Thrush are breeding within the study area due to the presence of suitable breeding habitat as well as the documentation of a singing male from the same area on more than one occasion.

## 3.2 Area-sensitive Species

Seventeen species on the site are considered forest area-sensitive species (Table 2). The vast majority of these area-sensitive species are inhabit mature forests; deciduous, coniferous, or mixed. Area-sensitive species documented from the site not preferring forested habitat are typically documented from wetlands (e.g. Sandhill Crane, Alder Flycatcher), open meadows (e.g. Savannah Sparrow), or successional habitat (e.g. American Redstart).

## 4.0 Impact of Road Works

The SAR and area-sensitive species documented within the study area were generally documented greater than 50 m away from the existing road. As such, the proposed road improvements are unlikely to negatively impact the habitat and breeding success of significant species within the study area.

## 5.0 Recommendations

The following recommendations are suggested to reduce the impact of the proposed road works on the success of breeding birds within the study area:

- Conduct road works outside of the breeding bird season (May 25-July 10) to prevent disruption of breeding activities.
- Minimize the amount of tree removal because many of the species within the study area are forest-dependant, and area-sensitive, including significant species; therefore, significant tree removal may negatively impact the habitat of these birds.

**Table 2. Birds documented from the Wasaga Klondyke Roads study area.**

\* indicates an introduced species

\*\* indicates an area-sensitive species

Scientific Name	Common Name	Rarity Status				Station Location																					
		G Rank	S Rank	COSEWIC /ESA	Breeding Evidence	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
<i>Branta canadensis</i>	Canada Goose	G5	S5		O	x		x										x									
<i>Cathartes aura</i>	Turkey Vulture	G5	S5B		O					x			x														
<i>Buteo jamaicensis</i>	Red-tailed Hawk	G5	S5		PO															x							
** <i>Grus canadensis</i>	Sandhill Crane	G5	S5B		PR						x	x	x	x	x												
<i>Charadrius vociferus</i>	Killdeer	G5	S5B,S5N		PO									x	x												
<i>Scolopax minor</i>	American Woodcock	G5	S4B		PO	x	x						x	x													
<i>Larus delawarensis</i>	Ring-billed Gull	G5	S5B,S4N		O	x		x						x	x	x	x					x			x	x	x
<i>Zenaida macroura</i>	Mourning Dove	G5	S5		PR	x	x	x	x	x			x				x							x	x		x
** <i>Strix varia</i>	Barred Owl	G5	S5		PO									x								x			x		
<i>Chordeiles minor</i>	Common Nighthawk	G5	S4B	THR/SC	PO																				x		
** <i>Antrostomus vociferus</i>	Eastern Whip-poor-will	G5	S4B	THR/THR	PR	x		x		x		x		x			x		x		x			x			x
<i>Picoides pubescens</i>	Downy Woodpecker	G5	S5		PR			x																			x
<i>Colaptes auratus</i>	Northern Flicker	G5	S4B		PO			x		x																	x
<i>Contopus virens</i>	Eastern Wood-pewee	G5	S4B	SC/SC	PR		x	x	x	x	x			x	x					x	x			x			x
** <i>Empidonax alnorum</i>	Alder Flycatcher	G5	S5B		PO																						x
<i>Sayornis phoebe</i>	Eastern Phoebe	G5	S5B		PO			x																			

Scientific Name	Common Name	Rarity Status				Station Location																					
		G Rank	S Rank	COSEWIC /ESA	Breeding Evidence	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
<i>Tyrannus tyrannus</i>	Eastern Kingbird	G5	S4B		PR	x							x		x	x											
<i>Myiarchus crinitus</i>	Great Crested Flycatcher	G5	S4B		PR				x	x	x	x	x						x		x			x			
<i>Vireo gilvus</i>	Warbling Vireo	G5	S5B		PO							x															
<i>Vireo olivaceus</i>	Red-eyed Vireo	G5	S5B		PR		x		x	x	x	x	x		x		x	x	x	x	x	x	x	x	x	x	x
<i>Cyanocitta cristata</i>	Blue Jay	G5	S5		PR	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
<i>Corvus brachyrhynchos</i>	American Crow	G5	S5B		PR	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x	x	x	x	x
<i>Poecile atricapillus</i>	Black-capped Chickadee	G5	S5		PR	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
** <i>Sitta canadensis</i>	Red-breasted Nuthatch	G5	S5		PO																x				x		
** <i>Sitta carolinensis</i>	White-breasted Nuthatch	G5	S5		PR	x			x				x		x										x	x	
<i>Troglodytes aedon</i>	House Wren	G5	S5B		PO	x															x						
** <i>Troglodytes hiemalis</i>	Winter Wren	G5	S5B		PO						x																
** <i>Catharus fuscescens</i>	Veery	G5	S4B		PO						x																
<i>Hylocichla mustelina</i>	Wood Thrush	G5	S4B	THR/SC	PR								x	x			x				x	x	x	x			
<i>Turdus migratorius</i>	American Robin	G5	S5B		PR	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
<i>Dumetella carolinensis</i>	Gray Catbird	G5	S4B		PR											x	x										
* <i>Sturnus vulgaris</i>	European Starling	G5	SNA		PO			x						x													
<i>Bombycilla cedrorum</i>	Cedar Waxwing	G5	S5B		PR				x			x	x	x	x	x	x	x	x	x		x	x	x	x	x	
<i>Oreothlypis ruficapilla</i>	Nashville Warbler	G5	S5B		PR	x																			x	x	

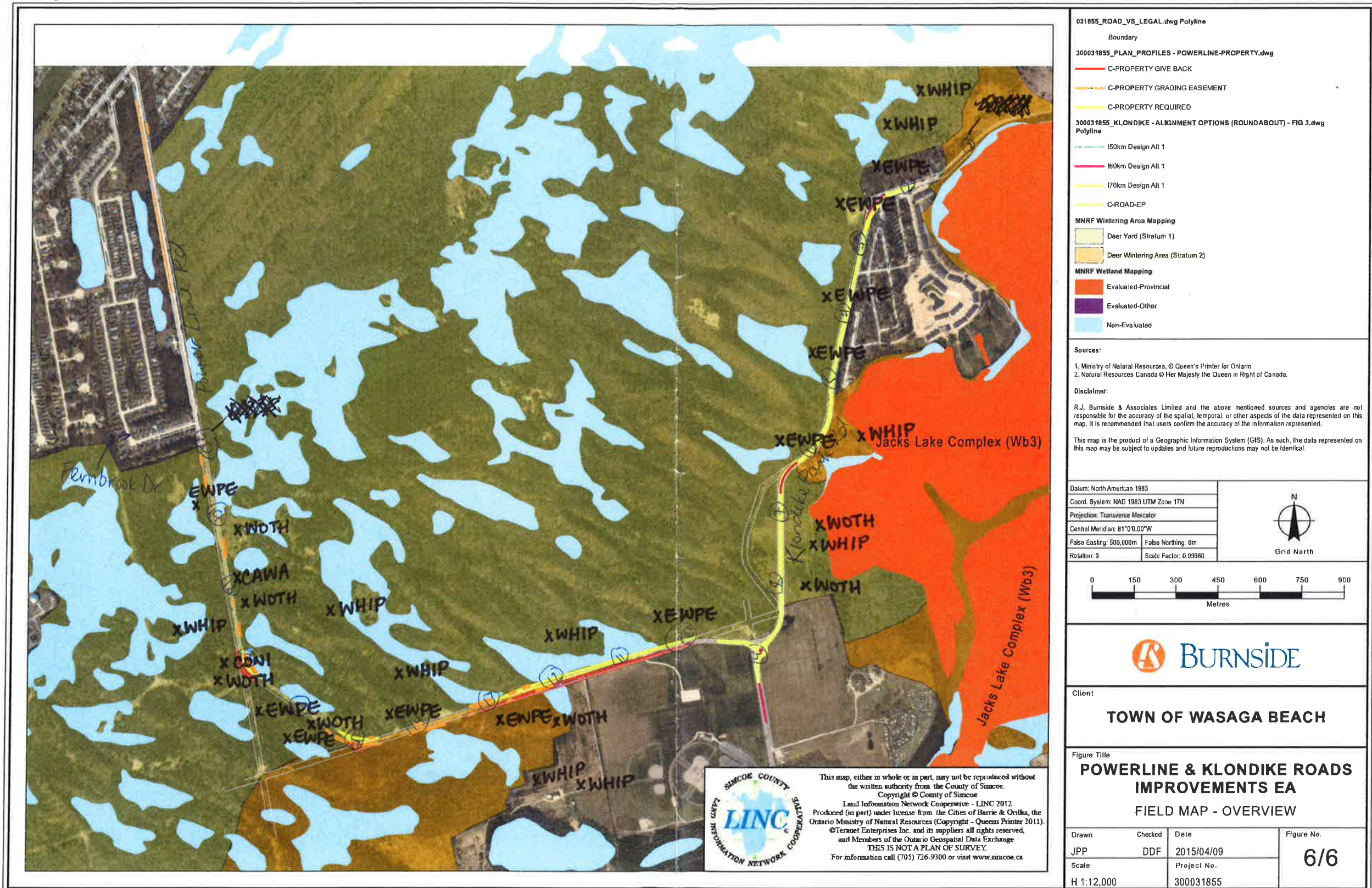
Scientific Name	Common Name	Rarity Status				Station Location																				
		G Rank	S Rank	COSEWIC /ESA	Breeding Evidence	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
<i>Setophaga petechia</i>	Yellow Warbler	G5	S5B		PO	x						x					x									x
** <i>Setophaga magnolia</i>	Magnolia Warbler	G5	S5B		PO												x									
** <i>Setophaga virens</i>	Black-throated Green Warbler	G5	S5B		PR						x	x	x				x		x							
** <i>Setophaga pinus</i>	Pine Warbler	G5	S5B		PR		x	x	x	x	x	x						x	x	x	x	x	x	x	x	x
** <i>Mniotilta varia</i>	Black-and-white Warbler	G5	S5B		PR	x								x	x		x	x								
** <i>Setophaga ruticilla</i>	American Redstart	G5	S5B		PO												x									
** <i>Seiurus aurocapillus</i>	Ovenbird	G5	S4B		PR	x	x	x	x	x	x	x	x				x	x	x	x	x	x	x	x	x	x
<i>Parkesia noveboracensis</i>	Northern Waterthrush	G5	S5B		PO	x															x					
<i>Geothlypis trichas</i>	Common Yellowthroat	G5	S5B		PR	x					x	x	x	x	x	x	x									
** <i>Cardellina canadensis</i>	Canada Warbler	G5	S4B	THR/SC	PO																			x		
** <i>Piranga olivacea</i>	Scarlet Tanager	G5	S4B		PR										x		x	x					x			x
<i>Spizella passerina</i>	Chipping Sparrow	G5	S5B		PR	x	x	x	x	x	x	x	x	x	x	x				x	x			x	x	x
<i>Spizella pusilla</i>	Field Sparrow	G5	S4B		PO	x																				
** <i>Passerculus sandwichensis</i>	Savannah Sparrow	G5	S4B		PR									x	x	x										
<i>Melospiza melodia</i>	Song Sparrow	G5	S5B		PR	x					x	x	x	x	x	x	x									
<i>Melospiza georgiana</i>	Swamp Sparrow	G5	S5B		PO											x										
<i>Cardinalis cardinalis</i>	Northern Cardinal	G5	S5		PR		x					x	x													



Scientific Name	Common Name	Rarity Status				Station Location																					
		G Rank	S Rank	COSEWIC /ESA	Breeding Evidence	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
<i>Passerina cyanea</i>	Indigo Bunting	G5	S4B		PR								x	x	x			x									
<i>Agelaius phoeniceus</i>	Red-winged Blackbird	G5	S4		PO						x				x												
<i>Quiscalus quiscula</i>	Common Grackle	G5	S5B		PO								x														
<i>Carduelis tristis</i>	American Goldfinch	G5	S5B		PR	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x



# Species At Risk Bird Locations



**LEGEND:**  
CAWA = Canada Warbler  
CONI = Common Nighthawk  
EWPE = Eastern Wood-pewee  
WHIP = Eastern Whip-poor-will  
WOTH = Wood Thrush

File Path: L:\Project\300031855 (Powerline Klondike)\031855 Field Map 6 Overview.mxd Print Date: 2015/04/09 Time: 08:46 AM



BURNSIDE

[ THE DIFFERENCE IS OUR PEOPLE ]

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## Appendix C

### Vegetation Inventory



Appendix B: Vascular Plant Species List

Project: 300031855 Klondike Park Road

Botanical Name	Common Name	G-Rank	S-Rank	Vegetation Communities						
				FOM/FOC/SWM	FOM2-1	FOC1-2	FOM7-2	FOM2	TPO1	TPO1/CUM1
<i>Abies balsamea</i>	Balsam Fir	G5	S5	*	*		*			
<i>Acer rubrum</i>	Red Maple	G5	S5	*			*			
<i>Acer saccharinum</i>	Silver Maple	G5	S5	*						
<i>Acer saccharum ssp. saccharum</i>	Sugar Maple	G5T5	S5					*		
<i>Achillea millefolium ssp. millefolium</i>	Common Yarrow	G5T5?	SNA							*
<i>Alnus incana</i>	Speckled Alder	G5	S5		*					
<i>Anemone virginiana var. virginiana</i>	Thimbleweed	G5	S5						*	
<i>Apocynum cf. androsaemifolium ssp. androsaemifolium</i>	Spreading Dogbane	G5	S5	*						
<i>Aquilegia canadensis</i>	Wild Columbine	G5	S5				*			
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	G5	S5	*	*	*				
<i>Arctostaphylos uva-ursi</i>	Bearberry	G5	S5			*				
<i>Artemisia cf. campestris ssp. caudata</i>	Beach Wormwood	G5	S4S5						*	
<i>Asclepias tuberosa</i>	Butterfly Milkweed	G5	S4		*				*	*
<i>Betula papyrifera</i>	White Birch	G5	S5	*	*		*			
<i>Carex deweyana</i>	Dewey's Sedge	G5	S5	*						
<i>Carex intumescens</i>	Bladder Sedge	G5	S5	*						
<i>Carex trisperma</i>	Three-seeded Sedge	G5	S5		*					
<i>Carex tuckermanii</i>	Tuckerman's Sedge	G4	S4				*			
<i>Carex vulpinoidia</i>	Fox Sedge	G5	S5							*
<i>Centaurea maculosa</i>	Spotted Knapweed	G?	SE5						*	
<i>Chrysanthemum leucanthemum</i>	Ox-eye Daisy	G?	SE5						*	
<i>Cirsium arvense</i>	Creeping Thistle	GNR	SNA							*
<i>Comptonia peregrina</i>	Sweet Fern	G5	S5						*	
<i>Conyza canadensis</i>	Horseweed	G5	S5						*	
<i>Cornus alternifolia</i>	Alternate-leaf Dogwood	G5	S5	*						
<i>Cornus rugosa</i>	Rough-leaved Dogwood	G5	S5	*						
<i>Cornus stolonifera</i>	Red-osier Dogwood	G5	S5							*
<i>Cypripedium parviflorum var. makasin</i>	Small Yellow Lady's Slipper	G5T	S4S5		*					

Appendix B: Vascular Plant Species List

Project: 300031855 Klondike Park Road

Botanical Name	Common Name	G-Rank	S-Rank	Vegetation Communities						
				FOM/FOC/SWM	FOM2-1	FOC1-2	FOM7-2	FOM2	TPO1	TPO1/CUM1
<i>Daucus carota</i>	Wild Carrot	G?	SE5							*
<i>Diervilla lonicera</i>	Bush Honeysuckle	G5	S5		*		*			
<i>Elymus hystrix</i>	Bottlebrush Grass	G5	S5	*						
<i>Elymus canadensis</i>	Canada Wild Rye	G5	S4S5						*	
<i>Epipactis helleborine</i>	Helleborine	GNR	SNA	*			*			
<i>Equisetum arvense</i>	Field Horsetail	G5	S5	*			*			
<i>Eupatorium maculatum ssp. maculatum</i>	Spotted Joe-pye-weed	G5	S5	*						
<i>Eurybia macrophylla</i>	Large-leaf Wood-aster	G5	S5	*	*					
<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	G5	S5							*
<i>Fragaria virginiana ssp. virginiana</i>	Common Strawberry	G5	SU	*						
<i>Fraxinus americana</i>	White Ash	G5	S5	*						
<i>Fraxinus nigra</i>	Black Ash	G5	S5				*			
<i>Fraxinus pennsylvanica</i>	Green Ash	G5	S5		*		*	*		
<i>Geranium maculatum</i>	Wild Geranium	G5	S5							*
<i>Glyceria striata</i>	Fowl Manna Grass	G5	S5				*			
<i>Hemerocallis fulva</i>	Daylily	GNA	SNA		*					
<i>Hypericum perforatum</i>	St. John's Wort	GNR	SNA						*	
<i>Iris versicolor</i>	Blue Flag Iris	G5	S5		*					
<i>Juniperus virginiana</i>	Eastern Red Cedar	G5	S5			*			*	*
<i>Lithospermum caroliniense</i>	Carolina Puccoon	G4G5	S3		*					
<i>Lotus corniculatus</i>	Birdsfoot Trefoil	G?	SE5							*
<i>Lycopus uniflorus</i>	Northern Water-horehound	G5	S5	*						
<i>Lysimachia thyrsoiflora</i>	Tufted Loosestrife	G5	S5	*						
<i>Maianthemum racemosum ssp. racemosum</i>	False Solomon's Seal	G5	S5		*					
<i>Maianthemum canadense</i>	Canada Mayflower	G5	S5	*	*					
<i>Melilotus alba</i>	White Sweet-clover	G5	SE5		*	*			*	
<i>Milium effusum</i>	Wood Millet	G5	S4S5	*						

Appendix B: Vascular Plant Species List

Project: 300031855 Klondike Park Road

Botanical Name	Common Name	G-Rank	S-Rank	Vegetation Communities						
				FOM/FOC/SWM	FOM2-1	FOC1-2	FOM7-2	FOM2	TPO1	TPO1/CUM1
<i>Mimulus ringens</i>	Square-stemmed Monkey-flower	G5	S5	*						
<i>Mitchella repens</i>	Partridge Berry	G5	S5	*						
<i>Monarda fistulosa</i>	Wild Bergamot	G5	S5							*
<i>Onoclea sensibilis</i>	Sensitive Fern	G5	S5	*						*
<i>Osmunda regalis</i>	Royal Fern	G5	S5		*					
<i>Panicum virgatum</i>	Switchgrass	G5	S4						*	*
<i>Parthenocissus inserta</i>	Thicket Creeper	G5	S5							*
<i>Parthenocissus quinquefolia</i>	Virginia Creeper	G5	S4?		*					
<i>Phalaris arundinacea</i>	Reed Canary Grass	G5	S5	*						
<i>Phleum pratense</i>	Timothy	G?	SE5							*
<i>Phragmites australis</i>	Common Reed	G5	S5	*						
<i>Pinus resinosa</i>	Red Pine	G5	S5	*	*	*			*	
<i>Pinus strobus</i>	Eastern White Pine	G5	S5	*	*	*			*	*
<i>Podophyllum peltatum</i>	May apple	G5	S5		*					
<i>Populus balsamifera</i>	Balsam Poplar	G5	S5	*			*		*	*
<i>Populus grandidentata</i>	Large-toothed Aspen	G5	S5		*				*	
<i>Populus tremuloides</i>	Trembling Aspen	G5	S5	*	*	*		*		
<i>Prenanthes alba</i>	White Lettuce	G5	S5	*						
<i>Prunus virginiana ssp. virginiana</i>	Choke Cherry	G5	S5	*	*	*				
<i>Pteridium aquilinum var. latiusculum</i>	Eastern Bracken Fern	G5	S5	*	*	*		*		*
<i>Quercus rubra</i>	Red Oak	G5	S5	*	*	*	*			
<i>Ranunculus sp.</i>	Buttercup sp.	G5	S4		*					
<i>Rhus radicans ssp. rydbergii</i>	Western Poison-ivy	G5	S5	*	*	*	*			*
<i>Rosa blanda</i>	Smooth Wild Rose	G5	S5		*					
<i>Rubus hispidus</i>	Swamp Dewberry	G5	S4S5	*						
<i>Rubus idaeus ssp. melanolasius</i>	Wild Red Raspberry	G5	S5	*	*					
<i>Rudbeckia hirta</i>	Black-eyed Susan	G5	S5							*
<i>Salix bebbiana</i>	Bebb's Willow	G5	S5	*						

Appendix B: Vascular Plant Species List

Project: 300031855 Klondike Park Road

Botanical Name	Common Name	G-Rank	S-Rank	Vegetation Communities						
				FOM/FOC/SWM	FOM2-1	FOC1-2	FOM7-2	FOM2	TPO1	TPO1/CUM1
<i>Salix eriocephala</i>	Woolly-headed Willow	G5	S5							*
<i>Schizachyrium scoparium</i>	Little Bluestem	G5	S4						*	*
<i>Scirpus atrovirens</i>	Black Bulrush	G5?	S5	*						
<i>Shepherdia canadensis</i>	Buffalo Berry	G5	S5		*					
<i>Silene vulgaris</i>	Bladder Campion	GNR	SNA		*					
<i>Solidago canadensis</i>	Canada Goldenrod	G5	S5					*		*
<i>Solidago nemoralis ssp. nemoralis</i>	Gray Goldenrod	G5	S5							*
<i>Solidago sp.</i>	Goldenrod sp.	-	-		*					
<i>Sorghastrum nutans</i>	Indian Grass	G5	S4						*	*
<i>Symphyotrichum cf. urophyllum</i>	Arrow-leaf Aster	G4	S4							*
<i>Symphyotrichum novae-angliae</i>	New England Aster	G5	S5							*
<i>Taxus sp.</i>	Yew sp.	-	-		*					
<i>Thelypteris palustris var. pubescens</i>	Marsh Fern	G5	S5	*						
<i>Thuja occidentalis</i>	Eastern White Cedar	G5	S5	*	*		*	*		*
<i>Tilia americana</i>	Basswood	G5	S5		*					
<i>Tragopogon pratensis ssp. pratensis</i>	Meadow Goat's-beard	G?	SE5						*	
<i>Trillium grandiflorum</i>	Trillium	N5	S5		*					
<i>Tussilago farfara</i>	Coltsfoot	G?	SE5				*	*		
<i>Ulmus americana</i>	White Elm	G5?	S5					*		
<i>Vaccinium angustifolium</i>	Low-sweet Blueberry	G5	S5		*					
<i>Verbascum thapsus</i>	Common Mullein	G?	SE5		*					
<i>Viburnum trilobum</i>	Highbush Cranberry	GNR	S5	*						
<i>Vitis riparia</i>	Riverbank Grape	G5	S5	*			*	*		*

## Appendix B: Vascular Plant Species List

Project: 300031855 Klondike Park Road

### **<sup>1</sup>S-Ranks (provincial)**

Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks, but consider only those factors within the political boundaries of Ontario (Please refer to: <http://explorer.natureserve.org/nsranks.htm>)

**SX — Presumed Extirpated** - Species or community is believed to be extirpated from the province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

**SH — Possibly Extirpated (Historical)** - Species or community occurred historically in the province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20–40 years. A species or community could become SH without such a 20-40 year delay if the only known occurrences in a province were destroyed or if it had been extensively and unsuccessfully looked for. The SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.

**S1 — Critically Imperiled** - Critically imperiled in the province or state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the province.

**S2 — Imperiled** - Imperiled in the province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the province.

**S3 — Vulnerable** - Vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

**S4 — Apparently Secure** - Uncommon but not rare; some cause for long-term concern due to declines or other factors.

**S5 — Secure** - Common, widespread, and abundant in the province.

**SNR — Unranked** - Province conservation status not yet assessed.

**SU — Unrankable** - Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

**SNA — Not Applicable** - A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

**S#S# — Range Rank** - A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).

**S#? — Inexact or Uncertain** - Denotes inexact or uncertain numeric rank.

### **G- Ranks -(Global Conservation Status Definitions)**

Listed below are definitions for interpreting NatureServe global conservation status ranks (G-ranks). These ranks reflect an assessment of the condition of the species or ecological community across its entire range. Where indicated, definitions differ for species and ecological communities.



Appendix B: Vascular Plant Species List

Project: 300031855 Klondike Park Road

NatureServe Global Conservation Status Ranks

**Basic Ranks**

<b>Rank</b>	<b>Definition</b>
	<b>Presumed Extinct</b> (species)— Not located despite intensive searches and virtually no likelihood of rediscovery.
<b>GX -</b>	<b>Eliminated</b> (ecological communities)—Eliminated throughout its range, with no restoration potential due to extinction of dominant or characteristic species.
	<b>Possibly Extinct</b> (species)— Missing; known from only historical occurrences but still some hope of rediscovery.
<b>GH</b>	<b>Presumed Eliminated</b> — (Historic, ecological communities)-Presumed eliminated throughout its range, with no or virtually no likelihood that it will be rediscovered, but with the potential for restoration, for example, American Chestnut (Forest).
<b>G1</b>	<b>Critically Imperiled</b> —At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
<b>G2</b>	<b>Imperiled</b> —At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
<b>G3</b>	<b>Vulnerable</b> —At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
<b>G4</b>	<b>Apparently Secure</b> —Uncommon but not rare; some cause for long-term concern due to declines or other factors.
<b>G5</b>	<b>Secure</b> —Common; widespread and abundant.

**Variant Ranks**

<b>Rank</b>	<b>Definition</b>
<b>G#G#</b>	<b>Range Rank</b> —A numeric range rank (e.g., G2G3) is used to indicate the range of uncertainty in the status of a species or community. Ranges cannot skip more than one rank (e.g., GU should be used rather than G1G4).
<b>GU</b>	<b>Unrankable</b> —Currently unrankable due to lack of information or due to substantially conflicting information about status or trends. Whenever possible, the most likely rank is assigned and the question mark qualifier is added (e.g., G2?) to express uncertainty, or a range rank (e.g., G2G3) is used to delineate the limits (range) of uncertainty.
<b>GNR</b>	<b>Unranked</b> —Global rank not yet assessed.
<b>GNA</b>	<b>Not Applicable</b> —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

**Rank Qualifiers**

<b>Rank</b>	<b>Definition</b>
<b>?</b>	<b>Inexact Numeric Rank</b> —Denotes inexact numeric rank (e.g., G2?)
<b>Q</b>	<b>Questionable taxonomy</b> —Taxonomic distinctiveness of this entity at the current level is questionable; resolution of this uncertainty may result in change from a species
<b>C</b>	<b>Captive or Cultivated Only</b> —At present extant only in captivity or cultivation, or as a reintroduced population not yet established.



## 1.0 PROJECT REPORT COVER PAGE

### LICENSEE INFORMATION:

Licensee: Marilyn E. Cornies BA CAHP  
Archaeology Licence: P038  
Contact Information: Southwestern District Office  
760 Walker Street  
London, ON N5Z 1J4  
Phone: (519) 432-4435 Fax: (519) 432-6697  
Email: [mcornies@amick.ca](mailto:mcornies@amick.ca)  
www.amick.ca

### PROJECT INFORMATION:

AMICK Project Number: 12066-L  
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Investigation Type: Stage 1 Archaeological Background Study  
Project Name: Power Line Road  
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Town of Wasaga Beach, County of Simcoe

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## **2.0 EXECUTIVE SUMMARY**

This report describes the results of the 2012 Stage 1 Archaeological Background Study of Power Line Road from South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe, conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P038 issued to Marilyn Cornies by the Minister of Tourism and Culture for the Province of Ontario. This assessment was undertaken as a requirement under the Environmental Assessment Act (RSO 1990b) in order to support a Municipal Class EA as part of the pre-submission process. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011), the Ontario Heritage Act (RSO 1990a), and the Ontario Heritage Amendment Act (SO 2005).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1 Archaeological Background Study of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological work on 07 November 2012. A detailed photo reconnaissance of the study area was conducted on 18 November 2012. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism, Culture and Sport (MTCS) on behalf of the government and citizens of Ontario.

As a result of the Stage 1 Archaeological Background Study, the project area potentially impacted by the proposed undertaking has been identified as an area of archaeological potential. Stage 2 assessment of the study area is recommended in the form of high intensity test pit survey at a 5m interval between transects. As a result of the property inspection component of the Stage 1 Archaeological Background Study, the areas of existing pavement, gravel shoulders, and steep slope were found to be areas of no archaeological potential; consequently no further archaeological assessment of these areas is required.

No cultural heritage features of any description were observed within any portion of the study area or within visual range of the study area such that the proposed undertaking could potentially impact possible heritage features. Likewise, there are no areas within the study area with potential for archaeological resources associated with possible cultural heritage features such as buildings, or other structures such as bridges.

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#### **4.0 PROJECT PERSONNEL**

##### **CONSULTING ARCHAEOLOGIST**

Marilyn Cornies (MTC Professional Archaeologist Licence #P038)

##### **PROJECT ARCHAEOLOGIST**

Marilyn Cornies (MTC Professional Archaeologist Licence #P038)

##### **PROJECT ADMINISTRATION**

Melissa Milne

##### **FIELD ASSISTANTS**

Michael Henry (MTC Professional Archaeologist Licence #P058)

##### **REPORT PREPARATION**

Michael Henry (MTC Professional Archaeologist Licence #P058)

##### **DRAUGHTING**

Phil Rice (MTC Avocational Archaeologist Licence #A304)

##### **PHOTOGRAPHY**

Michael Henry (MTC Professional Archaeologist Licence #P058)



## **5.0 PROJECT BACKGROUND**

### **5.1 DEVELOPMENT CONTEXT**

This report describes the results of the 2012 Stage 1 Archaeological Background Study of Power Line Road from South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe, conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P038 issued to Marilyn Cornies by the Minister of Tourism and Culture for the Province of Ontario. This assessment was undertaken as a requirement under the Environmental Assessment Act (RSO 1990b) in order to support a Municipal Class EA as part of the pre-submission process. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011), the Ontario Heritage Act (RSO 1990a), and the Ontario Heritage Amendment Act (SO 2005).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1 Archaeological Background Study of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological work on 07 November 2012. A detailed photo reconnaissance of the study area was conducted on 18 November 2012. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism, Culture and Sport (MTCS) on behalf of the government and citizens of Ontario.

### **5.2 HISTORICAL CONTEXT**

As part of the present study, background research was conducted in order to determine the archaeological potential of the proposed project area.

*“A Stage 1 background study provides the consulting archaeologist and Ministry report reviewer with information about the known and potential cultural heritage resources within a particular study area, prior to the start of the field assessment.”* (OMCzCR 1993)

The evaluation of potential is further elaborated Section 1.3 of the Standards and Guidelines for Consultant Archaeologist (2011) prepared by the Ontario Ministry of Tourism and Culture:

*“The Stage 1 background study (and, where undertaken, property inspection) leads to an evaluation of the property’s archaeological potential. If the evaluation indicates that there is archaeological potential anywhere on the property, the next step is a Stage 2 assessment.”* (MTC 2011: 17)



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Features or characteristics that indicate archaeological potential where found anywhere on the property include:

“ - *previously identified archaeological sites*

- *water sources (It is important to distinguish types of water and shoreline, and to distinguish natural from artificial water sources, as these features affect site locations and types to varying degrees.):*
  - *primary water sources (lakes, rivers, streams, creeks)*
  - *secondary water sources (intermittent streams and creeks, springs, marshes, swamps)*
  - *features indicating past water sources (e.g., glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches)*
  - *accessible or inaccessible shoreline (e.g., high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh)*
- *elevated topography (e.g., eskers, drumlins, large knolls, plateaux)*
- *pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground*
- *distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.*
- *resource areas, including:*
  - *food or medicinal plants (e.g., migratory routes, spawning areas, prairie)*
  - *scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert)*
  - *early Euro-Canadian industry (e.g., fur trade, logging, prospecting, mining)*
- *areas of early Euro-Canadian settlement. These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.*
- *Early historical transportation routes (e.g., trails, passes, roads, railways, portage routes)*
- *property listed on a municipal register or designated under the Ontario Heritage Act that is a federal, provincial or municipal historic landmark or site*
- *property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations”*

(MTC 2011: 17-18)

The evaluation of potential does not indicate that sites are present within areas affected by proposed development. Evaluation of potential considers the possibility for as yet undocumented sites to be found in areas that have not been subject to systematic archaeological investigation in the past. Potential for archaeological resources is used to determine if physical assessment of a property or portions of a property is required.

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*“Archaeological resources not previously documented may also be present in the affected area. If the alternative areas being considered, or the preferred alternative selected, exhibit either high or medium potential for the discovery of archaeological remains an archaeological assessment will be required.”*

(MCC & MOE 1992: 6-7)

*“The Stage 1 background study (and, where undertaken, property inspection) leads to an evaluation of the property’s archaeological potential. If the evaluation indicates that there is archaeological potential anywhere on the property, the next step is a Stage 2 assessment.”*

(MTC 2011: 17)

In addition, the collected data is also used to determine if any archaeological resources had been formerly documented within or in close proximity to the study area and if these same resources might be subject to impacts from the proposed undertaking. This data was also collected in order to establish the significance of any resources that might be encountered during the conduct of the present study. The requisite archaeological sites data was collected from the Programs and Services Branch, Culture Programs Unit, MTCS and the corporate research library of AMICK Consultants Limited

### **5.2.1 CURRENT CONDITIONS**

The present use of the study area is as an asphalt surfaced two-lane road with largely unimproved road allowance at grade with the surrounding lands. In some areas along the route there are deep drainage ditches and in other areas the roadway is an artificial elevation above the surrounding landscape. However, for most of the route where improvements are proposed, there are no developed shoulders, pedestrian walkways, curbs or drainage ditches. A plan of the study area is included within this report as Figure 3.

### **5.2.2 GENERAL HISTORICAL OUTLINE**

In the seventeenth century Simcoe County was home to the Huron. With the arrival of French priests and Jesuits, missions were established near Georgian Bay. After the destruction of the missions by the Iroquois and the British, Algonquin speaking peoples occupied the area. After the war of 1812, the government began to invest in the military defences of Upper Canada, through the extension of Simcoe’s Yonge Street from Lake Simcoe to Penetanguishene on Georgian Bay (Garbutt, 2010).

The study area is situated in former Flos Township. By 1847 settlement within the western portion of Flos Township began, this area included Elmvale, Fergusonvale, Phelpston and westward until the Nottawasaga River. One of the first settlers within this area was James Harvey from Northern Ireland, whom later brought his son as well. Settlement within this area continued to be slow, due to the living conditions and vast amount of work required to clear and to drain the land in order to settle here. As a result of the North Simcoe Branch Railway in 1879, settlement increased and has continued upwardly since then (Hunter 2010).

Very near to the study area, similar issues with early settlement occurred in Nottawasaga Township. Thomas Kelly first surveyed the Township of Nottawasaga in 1832 and in 1833 by Chas. Rankin. By 1834 settlers had already begun to take up land within the Township's borders. H.C. Yong was appointed the local immigrant agent in 1834, and by this time there was already 3 settlements, Duntroon which was settled by the Highland Scotch, a Irish Catholic settlement on the forth line and a small German settlement close to Batteau. The first settlers in the area began to settle in the Sunnidale area, however due to poor conditions due to marshy characteristics of the area within 2 years the settlers moved west. The major settlements within the township are Duntroon, Stayner, Collingwood, Nottawa, Creemore and Batteau (Hunter 2010).

Figure 2 illustrates the location of the study area and environs as of 1881. None of the original rural lots through which this roadway passes are shown to belong to anyone. No structures are shown along the modern roadway route or in close proximity to it. The area generally shows very little settlement. Accordingly, it has been determined that there is low potential for archaeological deposits related to early Euro-Canadian settlement within the study area.

However, it must be borne in mind that inclusion of names of property owners and depictions of structures within properties were sold by subscription. While information included within these maps may provide information about occupation of the property at a specific point in time, the absence of such information does not indicate that the property was not occupied.

### **5.2.3 SUMMARY OF HISTORICAL CONTEXT**

The brief overview of documentary evidence readily available indicates that the study area is situated within an area that was poorly populated until late in the nineteenth century and as such has low potential for sites relating to early Euro-Canadian settlement in the region.

### 5.3 ARCHAEOLOGICAL CONTEXT

**TABLE 1 CULTURAL CHRONOLOGY FOR SOUTH-CENTRAL ONTARIO**

Period	Group	Date Range	Traits	
Palaeo-Indian	Fluted Point	9500-8500 B.C.	Big game hunters.	
	Hi-Lo	8500-7500 B.C.	Small nomadic groups.	
Archaic	Early	8000-6000 B.C.	Hunter-gatherers.	
	Middle	Laurentian	6000-200 B.C.	Territorial divisions arise.
	Late	Lamoka	2500-1700 B.C.	Ground stone tools appear.
		Broadpoint	1800-1400 B.C.	
		Crawford Knoll	1500-500 B.C.	
		Glacial Kame	c.a. 1000 B.C.	Elaborate burial practices.
Woodland	Early	Meadowood	1000-400 B.C.	Introduction of pottery.
		Red Ochre	1000-500 B.C.	
	Middle	Point Peninsula	400 B.C.-500 A.D.	Long distance trade.
		Princess Point	500-800 A.D.	Horticulture.
	Late	Pickering	800-1300 A.D.	Villages and agriculture.
		Uren	1300-1350 A.D.	Larger villages.
		Middleport	1300-1400 A.D.	
	Huron	1400-1650 A.D.	Warfare	
Historic	Early	Odawa, Ojibwa	1700-1875 A.D.	Social displacement.
	Late	Euro-Canadian	1785 A.D.+	European settlement.

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The Archaeological Sites Database administered by the Ministry of Tourism, Culture and Sport (MTCS) indicates that there are eleven (11) previously registered archaeological sites within 1 kilometre of the study area. However, it must be noted that this is based on the assumption of the accuracy of information compiled from numerous researchers using different methodologies over many years. AMICK Consultants Limited assumes no responsibility for the accuracy of site descriptions, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database administered by MTCS. In addition, it must also be noted that a lack of formerly documented sites does not indicate that there are no sites present as the documentation of any archaeological site is contingent upon prior research having been conducted within the study area.

To our current knowledge no archaeological assessments have been conducted within 50 metres of the study area. AMICK Consultants Limited assumes no responsibility for the accuracy of previous assessments, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database administered by MTCS. In addition, it must also be noted that the lack of formerly documented previous assessments does not indicate that no assessments have been conducted.

### **5.3.1 FIRST NATIONS REGISTERED ARCHAEOLOGICAL SITES**

A summary of registered and/or known archaeological sites within a 1-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MTCS. As a result it was determined that ten (10) archaeological sites relating directly to First Nations habitation/activity had been formally documented within the immediate vicinity of the study area. The sites are briefly described below:

**TABLE 2 FIRST NATIONS SITES WITHIN 1KM**

<b>Site Name</b>	<b>Borden #</b>	<b>Site Type</b>	<b>Cultural Affiliation</b>
Schoonertown	BcHa-18	Campsite	Middle-Late Woodland (Saugeen)
Gordon	BcHa-22	Campsite	Indeterminate
Nottawasaga Rapids	BcHa-24	Findspot	Indeterminate
Fiddler's Dream	BcHa-25	Indeterminate	Indeterminate
Oxbow	BcHa-33	Findspot	Late Woodland
Klondike Park	BcHa-36	Campsite	Middle-Late Woodland (Saugeen)
Racetrack	BcHa-37	Campsite	Middle-Late Woodland (Saugeen)
Jack Lake	BcHa-38	Indeterminate	Indeterminate
Portage	BcHa-39	Campsite	Late Woodland (Iroquoian)
Blueberry Field 2	BcHa-46	Campsite	Indeterminate

One site, Klondike Park (BcHa-39) is within 200 metres of the north end of the study area. The remainder are well beyond 500 metres distance from any portion of the study area. The proximity of one site to the study area, establishes potential for First Nations archaeological sites within the project area.

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The distance to water criteria used to establish potential for archaeological sites suggests a low potential for First Nations occupation and land use in the area in the past. There are no documented possible sources of potable water closer than 400 metres distance from the study area.

### **5.3.2 EURO-CANADIAN REGISTERED ARCHAEOLOGICAL SITES**

A summary of registered and/or known archaeological sites within a 1-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MTCS. As a result it was determined that one (1) archaeological site relating directly to Euro-Canadian habitation/activity had been formally documented within the immediate vicinity of the study area. This site is briefly described below:

**TABLE 3 EURO-CANADIAN SITES WITHIN 1KM**

<b>Site Name</b>	<b>Borden #</b>	<b>Site Type</b>	<b>Cultural Affiliation</b>
Schoonertown	BcHa-18	Naval Depot	Euro-Canadian

### **5.3.3 LOCATION AND CURRENT CONDITIONS**

This report describes the results of the 2012 Stage 1 Archaeological Background Study of Power Line Road from South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe, conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P038 issued to Marilyn Cornies by the Minister of Tourism and Culture for the Province of Ontario. This assessment was undertaken as a requirement under the Environmental Assessment Act (RSO 1990b) in order to support a Municipal Class EA as part of the pre-submission process. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011), the Ontario Heritage Act (RSO 1990a), and the Ontario Heritage Amendment Act (SO 2005).

The present use of the study area is as an asphalt surfaced two-lane road with largely unimproved road allowance at grade with the surrounding lands. In some areas along the route there are deep drainage ditches and in other areas the roadway is an artificial elevation above the surrounding landscape. However, for most of the route where improvements are proposed, there are no developed shoulders, pedestrian walkways, curbs or drainage ditches. A plan of the study area is included within this report as Figure 3.

### **5.3.4 PHYSIOGRAPHIC REGION**

The study area is situated within the Simcoe Lowlands physiographic region. For the most part, at one time, this restricted basin was part of the floor of Lake Algonquin, and its surface beds are deposits of deltaic and lacustrine origin, and not glacial outwash. As a small basin shut in by the Edenvale Moraine, the Minesing flats represent an annex of the Nipissing lake



plains. Although the study area lies on the north side of the Minesing flats, noticeable properties such as calcareous clays and overlying sands comprising the soils are similar (Chapman and Putnam, 1984: 177-182).

### **5.3.5 SURFACE WATER**

Sources of potable water, access to waterborne transportation routes, and resources associated with watersheds are each considered, both individually and collectively to be the highest criteria for determination of the potential of any location to support extended human activity, land use, or occupation. Accordingly, proximity to water is regarded as the primary indicator of archaeological site potential. The Standards and Guidelines for Consultant Archaeologists stipulates that undisturbed lands within 300 metres of a water source are considered to have archaeological potential (MTC 2011: 21).

The Nottawasaga River is roughly 400 metres from the study area at its nearest point. We have not found mapping at a sufficient detail to show any water within close proximity to the study area. However, the study area is situated in an area known of numerous wet areas at the surface.

### **5.3.6 CURRENT PROPERTY CONDITIONS CONTEXT**

Current characteristics encountered within an archaeological research study area determine if physical assessment of specific portions of the study area will be necessary and in what manner a Stage 2 Property Assessment should be conducted, if necessary. Conventional assessment methodologies include pedestrian survey on ploughable lands and test pit methodology within areas that cannot be ploughed. For the purpose of determining where physical assessment is necessary and feasible, general categories of current landscape conditions have been established as archaeological conventions. These include:

#### **5.3.6.1 BUILDINGS AND STRUCTURAL FOOTPRINTS**

A building, in archaeological terms, is a structure that exists currently or has existed in the past in a given location. The footprint of a building is the area of the building formed by the perimeter of the foundation. Although the interior area of building foundations would often be subject to physical assessment when the foundation may represent a potentially significant historic archaeological site, the footprints of existing structures are not typically assessed. Existing structures commonly encountered during archaeological assessments are often residential-associated buildings (houses, garages, sheds), and/or component buildings of farm complexes (barns, silos, greenhouses). In many cases, even though the disturbance to the land may be relatively shallow and archaeological resources may be situated below the disturbed layer (e.g. a concrete garage pad), there is no practical means of assessing the area beneath the disturbed layer. However, if there were evidence to suggest that there are likely archaeological resources situated beneath the disturbance, alternative methodologies may be recommended to study such areas.



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The study area contains no buildings or structural footprints.

### **5.3.6.2 DISTURBANCE**

Areas that have been subjected to extensive and deep land alteration that has severely damaged the integrity of archaeological resources are known as land disturbances. Examples of land disturbances are areas of “past quarrying, major landscaping, recent built and industrial uses, sewage and infrastructure development, etc.” (MCL 2005: 15), as well as driveways made of either gravel or concrete, in-ground pools, and wells or cisterns. Utility lines are conduits that provide services such as water, natural gas, hydro, communications, sewage, and others. Areas containing below ground utilities are considered areas of disturbance, and are excluded from Stage 2 Physical Assessment. Disturbed areas are excluded from Stage 2 Physical Assessment due to no or low archaeological potential or because they are not assessable using conventional methodology.

The study area does contain previous disturbances. The existing surface of the road constitutes an area of disturbance that cannot be assessed using conventional methodology. In addition, segments of the study area have aggregate shoulders, which cannot be assessed using conventional methodology. A number of slopes have been cut to allow for a level roadway. Archaeological potential has been removed from these areas. In other areas, fill material has been employed to artificially elevate the roadway. These areas have no archaeological potential. In some portions of the study area, drainage ditches have been excavated adjacent to the shoulder of the existing road. These drainage excavations are not sufficient to have completely removed archaeological potential, but are sufficient to remove many types of archaeological deposits.

### **5.3.6.3 LOW-LYING AND WET AREAS**

Landscape features that are covered by permanently wet areas, such as marshes, swamps, or bodies of water like streams or lakes, are known as low-lying and wet areas. Low-lying and wet areas are excluded from Stage 2 Physical Assessment due to inaccessibility.

The study area does not contain low-lying and wet areas.

### **5.3.6.4 STEEP SLOPE**

Landscape which slopes at a greater than (>) 20 degree change in elevation, is known as steep slope. Areas of steep slope are considered uninhabitable, and are excluded from Stage 2 Physical Assessment.

The study area does not contain areas of steep slope.

### **5.3.6.5 WOODED AREAS**

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Areas of the property that cannot be ploughed, such as natural forest or woodlot, are known as wooded areas. These wooded areas qualify for Stage 2 Physical Assessment, and are required to be assessed using test pit survey methodology.

The road allowance adjacent to the existing shoulders is largely composed of woodlot.

### **5.3.6.6 PLOUGHABLE AGRICULTURAL LANDS**

Areas of current or former agricultural lands that have been ploughed in the past are considered ploughable agricultural lands. Ploughing these lands regularly moves the soil around, which brings covered artifacts to the surface, easily identifiable during visual inspection. Furthermore, by allowing the ploughed area to weather sufficiently through rainfall washing soil off any artifacts, the visibility of artifacts at the surface of recently worked field areas increases significantly. Pedestrian survey of ploughed agricultural lands is the preferred method of physical assessment because of the greater potential for finding evidence of archaeological resources if present.

The study area contains no ploughable lands.

### **5.3.6.7 LAWN, PASTURE, MEADOW**

Landscape features consisting of former agricultural land covered in low growth, such as lawns, pastures, meadows, shrubbery, and immature trees. These are areas that may be considered too small to warrant ploughing, (i.e. less than one hectare in area), such as yard areas surrounding existing structures, and land-locked open areas that are technically workable by a plough but inaccessible to agricultural machinery. These areas may also include open area within urban contexts that do not allow agricultural tillage within municipal or city limits or the use of urban roadways by agricultural machinery. These areas are required to be assessed using test pit survey methodology.

The study area does contain some areas of lawn. The area surrounding the sports complex and adjacent to the study area consists of lawn. There are small patches of law area adjacent to the study area associated with Klondike Park, and there are lawn areas to either side of the north end of Power Line Road at the intersection of River Road west.

### **5.3.7 SUMMARY**

Background research indicates the vicinity of the study area has potential for archaeological resources of Native origins based on proximity to a registered archaeological site. Background research also suggests low potential for archaeological resources of Euro-Canadian origins based on the generally very late settlement period of the immediate vicinity.

Archaeological potential does not indicate that there are necessarily sites present, but that environmental and historical factors suggest that there may be as yet undocumented

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archaeological sites within lands that have not been subject to systematic archaeological research in the past.

## **6.0 PROPERTY INSPECTION**

A property inspection or field reconnaissance is not required as part of a Stage 1 Archaeological Background Study unless there is reason to believe that portions of the study area may be excluded from physical assessment on the basis of the conditions of the property or portions thereof.

This report confirms that the entirety of the study area was subject to visual inspection, and that the fieldwork was conducted according to the archaeological fieldwork standards and guidelines, including weather and lighting conditions. The property reconnaissance was completed in ideal conditions under overcast skies on 18 November 2012. The temperature at the time of the reconnaissance was 9°C. The locations from which photographs were taken and the directions toward which the camera was aimed for each photograph are illustrated in Figures 4 & 5 of this report. Upon completion of the field reconnaissance of the study area, it was determined that most areas potentially impacted by the proposed undertaking would require Stage 2 archaeological assessment.

### **6.1 PHOTO RECONNAISSANCE**

A detailed examination and photo documentation was carried out on the study area in order to document the existing conditions of the study area to facilitate Stage 2 assessment. All areas of the study area were visually inspected and photographed. The locations from which photographs were taken and the directions toward which the camera was aimed for each photograph are illustrated in Figures 4 & 5 of this report.

### **6.2 FIELD WORK WEATHER CONDITIONS**

The property reconnaissance was completed in ideal conditions under overcast skies on 18 November 2012. The temperature at the time of the reconnaissance was 9°C. Weather conditions were appropriate for the conduct of archaeological fieldwork.

### **6.3 Archaeological Fieldwork Documentation**

The documentation produced during the field investigation conducted in support of this report includes: one sketch map, one page of photo log, one page of field notes, and 57 digital photographs.

## **7.0 ANALYSIS AND CONCLUSIONS**

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1 Archaeological Background Study of lands potentially affected by the proposed undertaking

and was granted permission to carry out archaeological work on 07 November 2012. A detailed photo reconnaissance of the study area was conducted on 18 November 2012. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism, Culture and Sport (MTCS) on behalf of the government and citizens of Ontario.

Section 7.7.3 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 132) outlines the requirements of the Analysis and Conclusions component of a Stage 1 Background Study.

- 1) *“Identify and describe areas of archaeological potential within the project area.*
- 2) *Identify and describe areas that have been subject to extensive and deep land alterations. Describe the nature of alterations (e.g., development or other activity) that have severely damaged the integrity of archaeological resources and have removed archaeological potential.”*

## **7.1 CHARACTERISTICS INDICATING ARCHAEOLOGICAL POTENTIAL**

Section 1.3.1 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics that indicate archaeological potential (MTC 2011: 17-18). Factors that indicate archaeological potential are features of the local landscape and environment that may have attracted people to either occupy the land or to conduct activities within the study area. One or more of these characteristics found to apply to a study area would necessitate a Stage 2 Property Assessment to determine if archaeological resources are present. These characteristics are listed below together with considerations derived from the conduct of this study.

### ***1) Previously Identified Archaeological Sites***

*Previously documented archaeological sites related to First Nations activity and occupations have been documented in the vicinity of the study area. However, only one is within 200 metres and the remainder area all more than 500 metres distance.*

### ***2) Water Sources***

*Primary water sources are describes as including lakes, rivers streams and creeks. Close proximity to primary water sources (300 metres) indicates that people had access to readily available sources of potable water and routes of waterborne trade and communication should the study area have been used or occupied in the past.*

There are no identified primary water sources within 300 metres of the study area.

*Secondary water sources are described as including intermittent streams and creeks, springs, marshes, and swamps. Close proximity (300 metres) to secondary water sources indicates that people had access to readily available sources of potable*

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*water, at least on a seasonal basis, and in some cases seasonal access to routes of waterborne trade and communication should the study area have been used or occupied in the past.*

There are no identified secondary water sources within 300 metres of the study area.

3) Features Indicating Past Water Sources

*Features indicating past water resources are described as including glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, and cobble beaches. Close proximity (300 metres) to features indicating past water sources indicates that people had access to readily available sources of potable water, at least on a seasonal basis, and in some cases seasonal access to routes of waterborne trade and communication should the study area have been used or occupied in the past.*

There are no identified features indicating past water sources within 300 metres of the study area.

4) Accessible or Inaccessible Shoreline

This form of landscape feature would include high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.

There are no shorelines within 300 metres of the study area.

5) Elevated Topography

Features of elevated topography that indicate archaeological potential include eskers, drumlins, large knolls, and plateaux.

There are numerous knolls and hilltops with elevated topography within the study area.

6) Pockets of Well-drained Sandy Soil

Pockets of sandy soil are considered to be especially important near areas of heavy soil or rocky ground.

The topsoil throughout the study area is very dark brown sand. This is typical for most of Simcoe County and does not suggest a heightened potential for archaeological resources in this instance.

7) Distinctive Land Formations

These are landscape features that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.

There are no identified distinctive land formations within the study area.

8) Resource Areas

Resource areas that indicate archaeological potential include food or medicinal plants (e.g., migratory routes, spawning areas, and prairie), scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert) and resources of importance to early Euro-Canadian industry (e.g., logging, prospecting, and mining).

There are no identified resource areas within the study area.

9) Areas of Early Euro-Canadian Settlement

These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, and farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.

The study area is situated within an area settled late in the 19<sup>th</sup> century.

10) Early Historical Transportation Routes

This includes evidence of trails, passes, roads, railways, portage routes.

The study area is not situated in close proximity to any identified early transportation routes.

11) Heritage Property

Property listed on a municipal register or designated under the *Ontario Heritage Act* or is a federal, provincial or municipal historic landmark or site.

There are no listed or designated heritage buildings or properties that form a part of the study area.

12) Documented Historical or Archaeological Sites

This includes property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations. These are properties which have not necessarily been formally recognized or for which there is additional evidence identifying possible archaeological resources associated with historic properties in addition to the rationale for formal recognition.

There are no documented heritage features, or historic sites, or archaeological sites, in addition to the registered sites already noted, within the study area.



## **7.2 CHARACTERISTICS INDICATING REMOVAL OF ARCHAEOLOGICAL POTENTIAL**

Section 1.3.2 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics which indicate no archaeological potential or for which archaeological potential has been removed (MTC 2011: 18-19). These characteristics are listed below together with considerations derived from the conduct of this study.

The introduction of Section 1.3.2 (MTC 2011: 18) notes that “*Archaeological potential can be determined not to be present for either the entire property or a part(s) of it when the area under consideration has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. This is commonly referred to as ‘disturbed’ or ‘disturbance’, and may include:*”

1) Quarrying

There is no evidence to suggest that quarrying operations were ever carried out within the study area.

2) Major Landscaping Involving Grading Below Topsoil

Unless there is evidence to suggest the presence of buried archaeological deposits, such deeply disturbed areas are considered to have lost their archaeological potential. Properties that do not have a long history of Euro-Canadian occupation can have archaeological potential removed through extensive landscape alterations that penetrate below the topsoil layer. This is because most archaeological sites originate at grade with relatively shallow associated excavations into the soil. First Nations sites and early historic sites are vulnerable to extensive damage and complete removal due to landscape modification activities. In urban contexts where a lengthy history of occupation has occurred, properties may have deeply buried archaeological deposits covered over and sealed through redevelopment activities that do not include the deep excavation of the entire property for subsequent uses. Buildings are often erected directly over older foundations preserving archaeological deposits associated with the earlier occupation.

There is no evidence to suggest that major landscaping operations involving grading below topsoil were ever carried out within the study area.

3) Building Footprints

Typically, the construction of buildings involves the deep excavation of foundations, footings and cellars that often obliterate archaeological deposits situated close to the surface.

There are no buildings within the study area.

4) Sewage and Infrastructure Development

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Installation of sewer lines and other below ground services associated with infrastructure development often involves deep excavation that can remove archaeological potential.

Although the study area includes an existing roadway, there is no evidence to suggest that below ground services of any kind have resulted in impacts to any significant portion of the study area.

*“Activities such as agricultural cultivation, gardening, minor grading and landscaping do not necessarily affect archaeological potential.”*

(MTC 2011: 18)

*“Archaeological potential is not removed where there is documented potential for deeply buried intact archaeological resources beneath land alterations, or where it cannot be clearly demonstrated through background research and property inspection that there has been complete and intensive disturbance of an area. Where complete disturbance cannot be demonstrated in Stage 1, it will be necessary to undertake Stage 2 assessment.”*

(MTC 2011: 18)

Table 4 below summarizes the evaluation criteria of the Ministry of Tourism and Culture together with the results of the Stage 1 Background Study for the proposed undertaking. Based on the criteria, the property is deemed to have archaeological potential on the basis of proximity to a known archaeological site and the presence of elevated topography within the study area.

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**TABLE 4 EVALUATION OF ARCHAEOLOGICAL POTENTIAL**

FEATURE OF ARCHAEOLOGICAL POTENTIAL		YES	NO	N/A	COMMENT
1	Known archaeological sites within 300m	<b>Y</b>			If Yes, potential determined
<b>PHYSICAL FEATURES</b>					
2	Is there water on or near the property?		<b>N</b>		If Yes, what kind of water?
2a	Primary water source within 300 m. (lakeshore, river, large creek, etc.)		<b>N</b>		If Yes, potential determined
2b	Secondary water source within 300 m. (stream, spring, marsh, swamp, etc.)		<b>N</b>		If Yes, potential determined
2c	Past water source within 300 m. (beach ridge, river bed, relic creek, etc.)		<b>N</b>		If Yes, potential determined
2d	Accessible or Inaccessible shoreline within 300 m. (high bluffs, marsh, swamp, sand bar, etc.)		<b>N</b>		If Yes, potential determined
3	Elevated topography (knolls, drumlins, eskers, plateaus, etc.)	<b>Y</b>			If Yes, and Yes for any of 4-9, potential determined
4	Pockets of sandy soil in a clay or rocky area		<b>N</b>		If Yes and Yes for any of 3, 5-9, potential determined
5	Distinctive land formations (mounds, caverns, waterfalls, peninsulas, etc.)		<b>N</b>		If Yes and Yes for any of 3-4, 6-9, potential determined
<b>HISTORIC/PREHISTORIC USE FEATURES</b>					
6	Associated with food or scarce resource harvest areas (traditional fishing locations, agricultural/berry extraction areas, etc.)		<b>N</b>		If Yes, and Yes for any of 3-5, 7-9, potential determined.
7	Early Euro-Canadian settlement area within 300 m.		<b>N</b>		If Yes, and Yes for any of 3-6, 8-9, potential determined
8	Historic Transportation route within 100 m. (historic road, trail, portage, rail corridors, etc.)		<b>N</b>		If Yes, and Yes for any 3-7 or 9, potential determined
9	Contains property designated and/or listed under the Ontario Heritage Act (municipal heritage committee, municipal register, etc.)		<b>N</b>		If Yes and, Yes to any of 3-8, potential determined
<b>APPLICATION-SPECIFIC INFORMATION</b>					
10	Local knowledge (local heritage organizations, First Nations, etc.)		<b>N</b>		If Yes, potential determined
11	Recent disturbance not including agricultural cultivation (post-1960-confirmed extensive and intensive including industrial sites, aggregate areas, etc.)		<b>N</b>		If Yes, no potential or low potential in affected part (s) of the study area.

If **YES** to any of 1, 2a-c, or 10 Archaeological Potential is **confirmed**

If **YES** to 2 or more of 3-9, Archaeological Potential is **confirmed**

If **YES** to 11 or No to 1-10 Low Archaeological Potential is **confirmed** for at least a portion of the study area.

### **7.3 STAGE 1 RESULTS**

As a result of the Stage 1 portion of the study it was determined that the study area has archaeological potential on the basis of proximity to a known archaeological site and the presence of elevated topography within the study area.

### **8.0 RECOMMENDATIONS**

#### **8.1 STAGE 1 RECOMMENDATIONS**

Under Section 7.7.4 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 133) the recommendations to be made as a result of a Stage 1 Background Study are described.

- 1) *Make recommendations regarding the potential for the property, as follows:*
  - a. *if some or all of the property has archaeological potential, identify areas recommended for further assessment (Stage 2) and areas not recommended for further assessment. Any exemptions from further assessment must be consistent with the archaeological fieldwork standards and guidelines.*
  - b. *if no part of the property has archaeological potential, recommend that the property does not require further archaeological assessment.*
- 2) *Recommend appropriate Stage 2 assessment strategies.*

The study area has been identified as an area of archaeological potential.

As a result of the Stage 1 Archaeological Background Study, the project area potentially impacted by the proposed undertaking has been identified as an area of archaeological potential. Stage 2 assessment of the study area is recommended in the form of high intensity test pit survey at a 5m interval between transects. As a result of the property inspection component of the Stage 1 Archaeological Background Study, the areas of existing pavement, gravel shoulders, and steep slope were found to be areas of no archaeological potential; consequently no further archaeological assessment of these areas is required.

No cultural heritage features of any description were observed within any portion of the study area or within visual range of the study area such that the proposed undertaking could potentially impact possible heritage features. Likewise, there are no areas within the study area with potential for archaeological resources associated with possible cultural heritage features such as buildings, or other structures such as bridges.

## **9.0 ADVICE ON COMPLIANCE WITH LEGISLATION**

While not part of the archaeological record, this report must include the following standard advisory statements for the benefit of the proponent and the approval authority in the land use planning and development process:

- a. This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c. 0.18. The report is reviewed to ensure that it complies with the standards and guidelines issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism and Culture, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.*
- b. It is an offence under Sections 48 and 69 of the Ontario Heritage Act for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the Ontario Heritage Act.*
- c. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.*
- d. The Cemeteries Act, R.S.O. 1990, c. C.4 and the Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.*
- e. Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage Act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.*

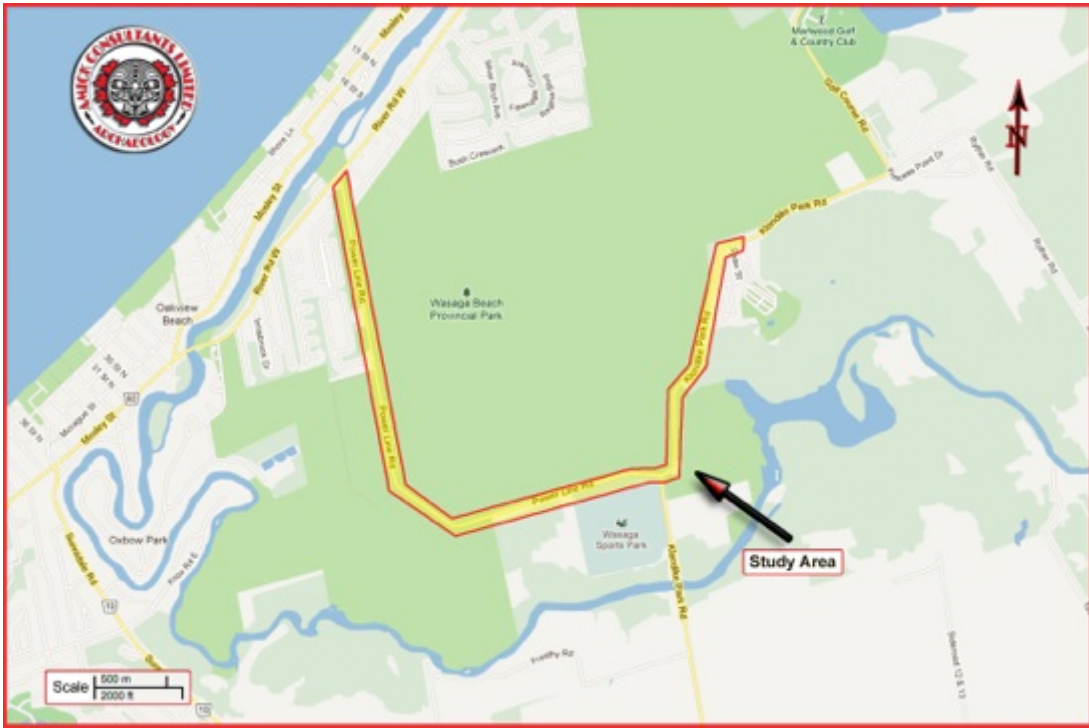
## **10.0 BIBLIOGRAPHY AND SOURCES**

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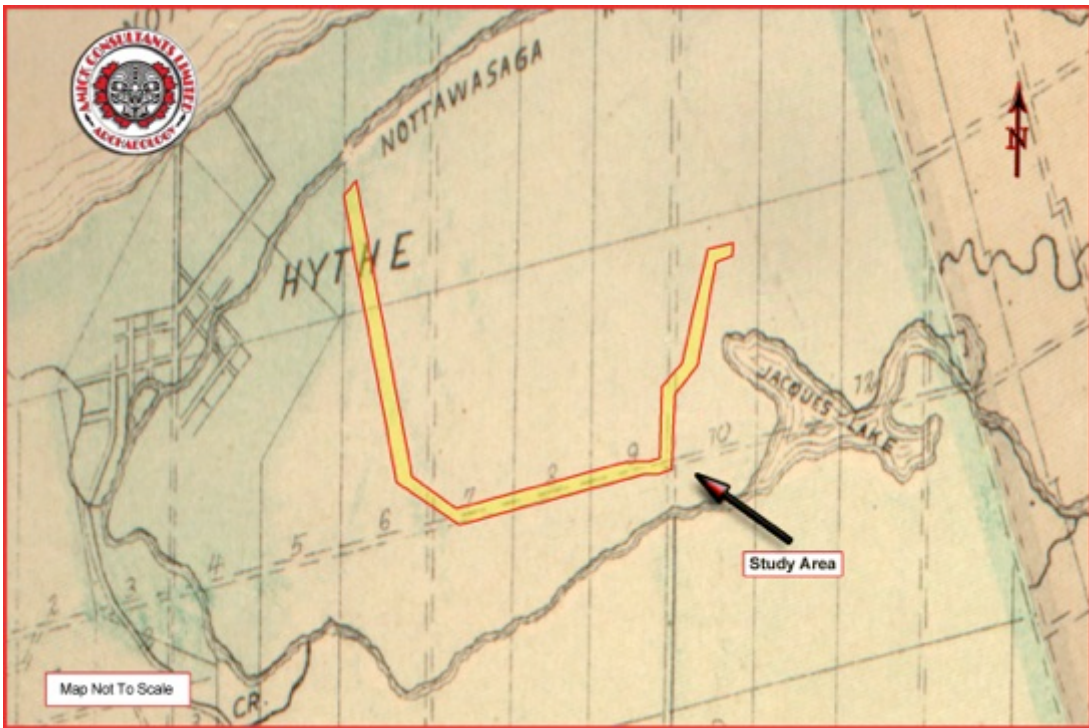


*2012 Stage 1 Archaeological Background Study of Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #12139-L/MTCS File #P038-453-2012)*

**11.0 MAPS**



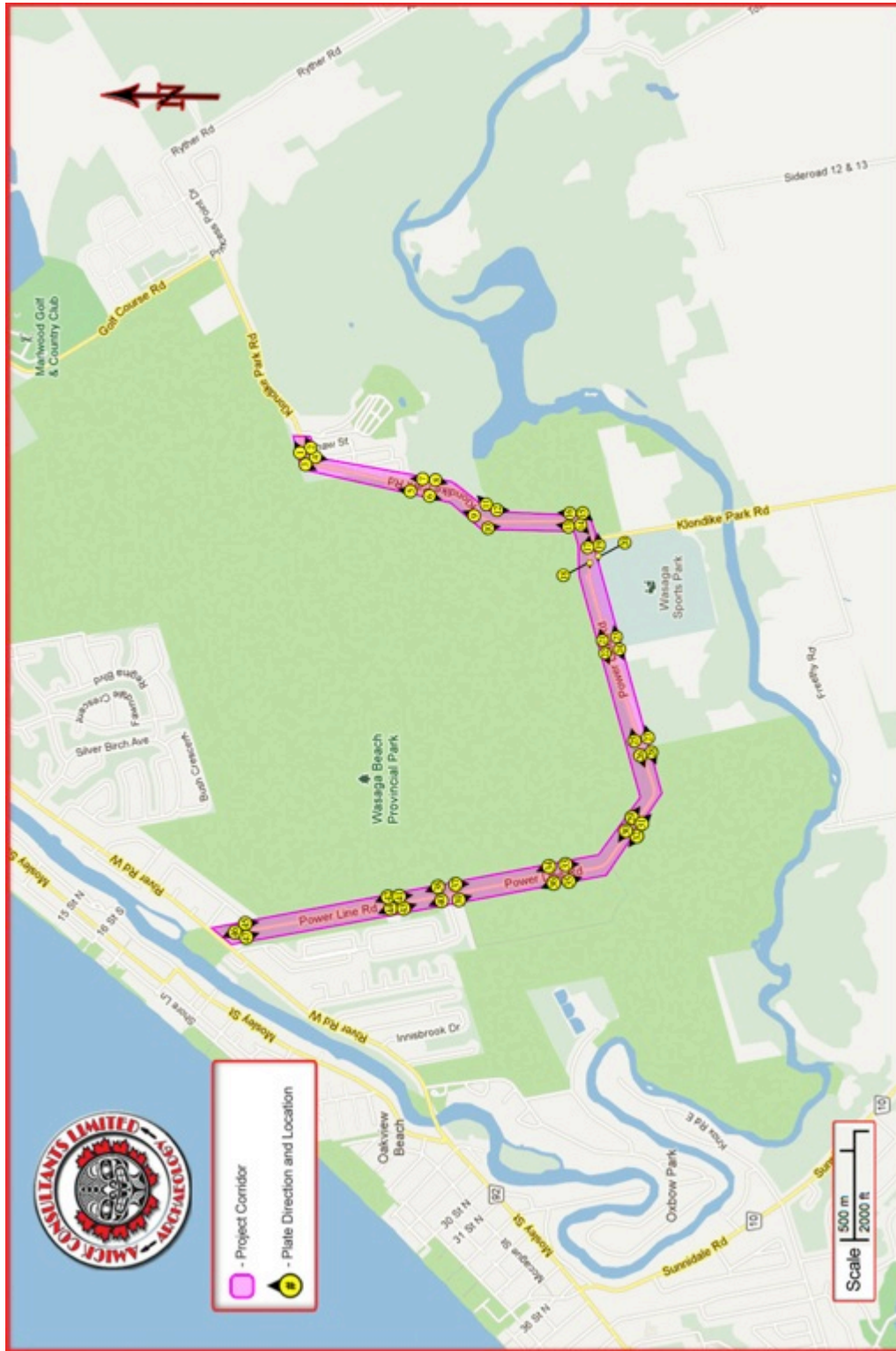
**Figure 1** Location of the Study Area (Google Maps 2011)



**Figure 2** Segment of Historic Atlas Map for the Township of Nottawasaga (Belden 1881)



**2012 Stage 1 Archaeological Background Study of Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #12139-L/MTCS File #P038-453-2012)**



**Figure 3 Map of the Study Area (Google Maps 2011)**

**2012 Stage 1 Archaeological Background Study of Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #12139-L/MTCS File #P038-453-2012)**



**Figure 4 Aerial Photo of the Study Area (Google Earth 2011)**



*2012 Stage 1 Archaeological Background Study of Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #12139-L/MTCS File #P038-453-2012)*

**12.0 IMAGES**



**Plate 1 Shoulder of Klondike Park Rd., facing Northeast**



**Plate 2 Steep Slope along Klondike Park Rd., facing Northeast**



**Plate 3 Shoulder of Klondike Park Rd., facing Southwest**



**Plate 4 Shoulder of Klondike Park Rd., facing Southwest**



**Plate 5 Steep Slope along Klondike Park Rd., facing Northeast**



**Plate 6 Steep Slope along Klondike Park Rd., facing Southwest**

**2012 Stage 1 Archaeological Background Study of Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #12139-L/MTCS File #P038-453-2012)**



**Plate 7 Shoulder of Klondike Park Rd., facing Northeast**



**Plate 8 Shoulder of Klondike Park Rd., facing Southwest**



**Plate 9 Steep Slope along Klondike Park Rd., facing Northeast**



**Plate 10 Steep Slope along Klondike Park Rd., facing South**



**Plate 11 Steep Slope along Klondike Park Rd., facing Northeast**



**Plate 12 Steep Slope along Klondike Park Rd., facing South**



**2012 Stage 1 Archaeological Background Study of Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #12139-L/MTCS File #P038-453-2012)**



**Plate 13 Shoulder of Klondike Park Rd., facing Northeast**



**Plate 14 Steep Slope along Power Line Rd., facing Southwest**



**Plate 15 Shoulder of Power Line Rd., facing Southwest**



**Plate 16 Shoulder of Klondike Park Rd., facing Northeast**



**Plate 17 Steep Slope along Power Line Rd., facing East**



**Plate 18 Steep Slope along Power Line Rd., facing West**

**2012 Stage 1 Archaeological Background Study of Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #12139-L/MTCS File #P038-453-2012)**



**Plate 19 Power Line Rd. and Klondike Park Rd., facing East**



**Plate 20 Shoulder of Power Line Rd., facing West**



**Plate 21 Steep Slope along Power Line Rd., facing Northeast**



**Plate 22 Steep Slope along Power Line Rd., facing Southwest**



**Plate 23 Steep Slope along Power Line Rd., facing Northeast**



**Plate 24 Steep Slope along Power Line Rd., facing Southwest**



*2012 Stage 1 Archaeological Background Study of Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #12139-L/MTCS File #P038-453-2012)*



**Plate 25 Steep Slope along Power Line Rd., facing Northeast**



**Plate 26 Steep Slope along Power Line Rd., facing Southwest**



**Plate 27 Steep Slope along Power Line Rd., facing Northeast**



**Plate 28 Steep Slope along Power Line Rd., facing Southwest**



**Plate 29 Shoulder of Power Line Rd., facing Southeast**



**Plate 30 Shoulder of Power Line Rd., facing Northwest**

*2012 Stage 1 Archaeological Background Study of Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #12139-L/MTCS File #P038-453-2012)*



**Plate 31** Shoulder of Power Line Rd., facing Southeast



**Plate 32** Shoulder of Power Line Rd., facing Northwest



**Plate 33** Shoulder of Power Line Rd., facing South



**Plate 34** Shoulder of Power Line Rd., facing Northwest



**Plate 35** Shoulder of Power Line Rd., facing Southeast



**Plate 36** Shoulder of Power Line Rd., facing Northwest



**2012 Stage 1 Archaeological Background Study of Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #12139-L/MTCS File #P038-453-2012)**



**Plate 37 Shoulder of Power Line Rd., facing South**



**Plate 38 Shoulder of Power Line Rd., facing Northwest**



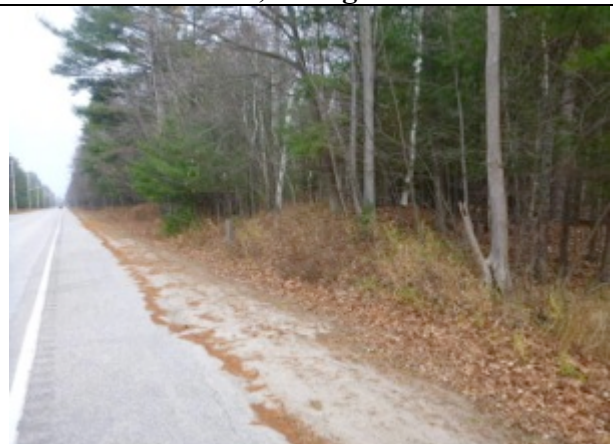
**Plate 39 Shoulder of Power Line Rd., facing Southeast**



**Plate 40 Shoulder of Power Line Rd., facing Northwest**



**Plate 41 Shoulder of Power Line Rd., facing South**



**Plate 42 Shoulder of Power Line Rd., facing Northwest**

**2012 Stage 1 Archaeological Background Study of Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #12139-L/MTCS File #P038-453-2012)**



**Plate 43 Shoulder of Power Line Rd., facing Southeast**



**Plate 44 Shoulder of Power Line Rd. with Gravel Driveway, facing Northwest**



**Plate 45 Drainage Ditch along Power Line Rd., facing South**



**Plate 46 Power Line Rd., facing Northwest**



**Plate 47 Drainage Ditch along Power Line Rd., facing Southeast**





## **1.0 PROJECT REPORT COVER PAGE**

### **LICENSEE INFORMATION:**

Contact Information:

Michael B. Henry CD BA FRAI FRSA  
Managing Partner  
Lakelands District Office  
380 Talbot Street, P.O. Box 29  
Port McNicoll, ON L0K 1R0  
Phone: (705) 534-1546 Fax: (705) 534-7855  
Email: mhenry@amick.ca  
www.amick.ca

Licensee:

Sarah MacKinnon MSc  
P1024

Ontario Archaeology Licence:

### **PROJECT INFORMATION:**

Corporate Project Number:

16014

MTCS Project Number:

P1024-0197-2016

Investigation Type:

Stage 2 Archaeological Assessment

Project Name:

Klondike Park Road and Veterans Way Stage 2

Project Location:

Klondike Park Road and Veterans Way/Power Line Rd,  
Part of Lot 7-11, Concession 15, and Part of Lot 7,  
Concession 16 (Geographic Township of Sunnidale)  
Town of Wasaga Beach, County of Simcoe

### **APPROVAL AUTHORITY INFORMATION:**

File Designation Number:

Not Currently Available

### **REPORTING INFORMATION:**

Site Record/Update Forms:

N/A

Date of Report Filing:

TBD

Type of Report:

**ORIGINAL**

## **2.0 EXECUTIVE SUMMARY**

This report describes the results of the 2016 Stage 2 Archaeological Assessment of Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe, conducted by AMICK Consultants Limited. This study was conducted under Professional Archaeologist License #P1024 issued to Sarah MacKinnon by the Minister of Tourism, Culture and Sport for the Province of Ontario. This assessment was undertaken as a requirement under the Environmental Assessment Act (1990) in order to support a Municipal Class Environmental Assessment (EA) process. In the case of municipal improvements to community infrastructure, the Environmental Assessment Act (RSO 1990c) requires that an archaeological assessment be completed prior to development of the proposed undertaking. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011), the Ontario Heritage Act (RSO 1990a), and the Saugeen Ojibway Nation Archaeological Standards (SON 2011).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological fieldwork. The entirety of the study area was subject to property inspection and photographic documentation concurrently with the Stage 2 Property Assessment on 17 and 18 November, and 7 December, 2016, consisting of high-intensity test pit survey at an interval of five and ten metres between individual test pits and high intensity pedestrian survey at an interval of five metres between individual transects. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism, Culture and Sport (MTCS) on behalf of the government and citizens of Ontario.

As a result of the property Assessment of the study area, no archaeological resources were encountered. Consequently, the following recommendations are made:

- *No further archaeological assessment of the study area is warranted;*
- *The Provincial interest in archaeological resources with respect to the proposed undertaking has been addressed;*
- *The proposed undertaking is clear of any archaeological concern.*



**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**

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### **4.0 PROJECT PERSONNEL**

#### **AMICK CONSULTANTS LIMITED PARTNERS**

Michael Henry (MTCS Professional Archaeologist Licence #P058)

Marilyn Cornies (MTCS Professional Archaeologist Licence #P038)

#### **AMICK CONSULTANTS LIMITED BUSINESS MANAGER & PROJECT COORDINATOR**

Melissa Maclean BBA email [mmaclean@amick.ca](mailto:mmaclean@amick.ca)

#### **PROJECT LICENSEE ARCHAEOLOGIST**

Sarah MacKinnon (MTCS Professional Archaeologist Licence #P1024)

#### **PROJECT FIELD DIRECTORS**

Kayleigh MacKinnon (MTCS Licence #P384)

Sarah MacKinnon (MTCS Professional Archaeologist Licence #P1024)

#### **PROJECT FIELD ASSISTANTS**

Nicole Markel                      Sheba Hasan                      Megan Hadubiuk

#### **PROJECT REPORT PREPARATION**

Melissa Milne                      Elizabeth Grant                      Dylan Morningstar

#### **PROJECT DRAUGHTING**

Dylan Morningstar

#### **PROJECT PHOTOGRAPHY**

Kayleigh MacKinnon (MTCS Professional Archaeologist Licence #P384)

Sarah MacKinnon (MTCS Professional Archaeologist Licence #P1024)

## **5.0 PROJECT BACKGROUND**

### **5.1 DEVELOPMENT CONTEXT**

This report describes the results of the 2016 Stage 2 Archaeological Assessment of Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe, conducted by AMICK Consultants Limited. This study was conducted under Professional Archaeologist License #P1024 issued to Sarah MacKinnon by the Minister of Tourism, Culture and Sport for the Province of Ontario. This assessment was undertaken as a requirement to support a Municipal Environmental Assessment (EA) application as part of the pre-submission process. . In the case of municipal improvements to community infrastructure, the Environmental Assessment Act (RSO 1990c) requires that an archaeological assessment be completed prior to development of the proposed undertaking. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011), the Ontario Heritage Act (RSO 1990a) , and the Saugeen Ojibway Nation Archaeological Standards (SON 2011).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological fieldwork. The entirety of the study area was subject to property inspection and photographic documentation concurrently with the Stage 2 Property Assessment on 17 and 18 November, and 7 December, 2016, consisting of high-intensity test pit survey at an interval of five and ten metres between individual test pits and high intensity pedestrian survey at an interval of five metres between individual transects. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism, Culture and Sport (MTCS) on behalf of the government and citizens of Ontario.

The proposed development of the study area includes the relocation of Veterans Way/Power Line Road and Klondike Park Road. A preliminary plan of the proposed development has been submitted together with this report to MTCS for review and reproduced within this report as Figures 3.1-3.12.

## 5.2 HISTORICAL CONTEXT

As part of the present study, background research was conducted in order to determine the archaeological potential of the proposed project area.

*“A Stage 1 background study provides the consulting archaeologist and Ministry report reviewer with information about the known and potential cultural heritage resources within a particular study area, prior to the start of the field assessment.”* (OMCzCR 1993)

The evaluation of potential is further elaborated Section 1.3 of the Standards and Guidelines for Consultant Archaeologist (2011) prepared by the Ontario Ministry of Tourism and Culture:

*“The Stage 1 background study (and, where undertaken, property inspection) leads to an evaluation of the property’s archaeological potential. If the evaluation indicates that there is archaeological potential anywhere on the property, the next step is a Stage 2 assessment.”* (MTC 2011: 17)

Features or characteristics that indicate archaeological potential when documented within the study area, or within close proximity to the study area (as applicable), include:

- “ - *previously identified archaeological sites*
  - *water sources (It is important to distinguish types of water and shoreline, and to distinguish natural from artificial water sources, as these features affect site locations and types to varying degrees.):*
    - *primary water sources (lakes, rivers, streams, creeks)*
    - *secondary water sources (intermittent streams and creeks, springs, marshes, swamps)*
    - *features indicating past water sources (e.g., glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches)*
    - *accessible or inaccessible shoreline (e.g., high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh)*
  - *elevated topography (e.g., eskers, drumlins, large knolls, plateaux)*
  - *pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground*
  - *distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.*
  - *resource areas, including:*
    - *food or medicinal plants (e.g., migratory routes, spawning areas, prairie)*
    - *scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert)*

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- early Euro-Canadian industry (e.g., fur trade, logging, prospecting, mining)
- areas of early Euro-Canadian settlement. These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.
- Early historical transportation routes (e.g., trails, passes, roads, railways, portage routes)
- property listed on a municipal register or designated under the Ontario Heritage Act that is a federal, provincial or municipal historic landmark or site
- property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations”

(MTC 2011: 17-18)

The evaluation of potential does not indicate that sites are present within areas affected by proposed development. Evaluation of potential considers the possibility for as yet undocumented sites to be found in areas that have not been subject to systematic archaeological investigation in the past. Potential for archaeological resources is used to determine if property assessment of a study area or portions of a study area is required.

*“Archaeological resources not previously documented may also be present in the affected area. If the alternative areas being considered, or the preferred alternative selected, exhibit either high or medium potential for the discovery of archaeological remains an archaeological assessment will be required.”*

(MCC & MOE 1992: 6-7)

*“The Stage 1 background study (and, where undertaken, property inspection) leads to an evaluation of the property’s archaeological potential. If the evaluation indicates that there is archaeological potential anywhere on the property, the next step is a Stage 2 assessment.”*

(MTC 2011: 17)

In addition, archaeological sites data is also used to determine if any archaeological resources had been formerly documented within or in close proximity to the study area and if these same resources might be subject to impacts from the proposed undertaking. This data was also collected in order to establish the relative significance of any resources that might be encountered during the conduct of the present study. For example, the relative rarity of a site can be used to assign an elevated level of significance to a site that is atypical for the immediate vicinity. The requisite archaeological sites data of previously registered archaeological sites was collected from the Programs and Services Branch, Culture Programs Unit, MTCS and the corporate research library of AMICK Consultants Limited. The Stage 1 Background Research methodology also includes a review of the most detailed available topographic maps, historical settlement maps, archaeological management plans (where applicable) and commemorative plaques or monuments. When previous archaeological

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research documents lands to be impacted by the proposed undertaking or archaeological sites within 50 metres of the study area, the reports documenting this earlier work are reviewed for pertinent information. AMICK Consultants Limited will often modify this basic methodology based on professional judgment to include additional research (such as, local historical works or documents and knowledgeable informants).

### **5.2.1 CURRENT CONDITIONS**

The present use of the study area is as an actively used road. The study area is roughly 10 hectares in area and 6 kilometres in length that consists of 9 hectares of test pit surveying and 1 hectare of pedestrian surveying. The study area consists mostly of a 5 metre wide corridor along Veterans Way/Power Line Road and Klondike Park Road. The assessed areas consist mostly of a paved asphalt road with a gravel shoulder averaging a width of 1 metre. There are areas of steep slope throughout the study area averaging a width of 2 metres adjacent to the gravel shoulder. An area adjacent to the intersection of Veterans Way/Power Line Road and Klondike Park Road is a ploughed field. The study area is bounded on the north, east, and south by woodland, and on the west by existing residential development. The study area encompasses the intersection of Veterans Way/Power Line Road and Klondike Park Road and extends west along Veterans Way/Power Line Road until approximately 375 metres north of Fernbrook Drive. A plan of the study area is included within this report as Figures 31-3.12. Current conditions encountered during the Stage 2 Property Assessment are illustrated in Figures 4.1-4.4 & 5.1-5.3.

### **5.2.2 GENERAL HISTORICAL OUTLINE**

In the seventeenth century Simcoe County was home to the Huron. With the arrival of French priests and Jesuits, missions were established near Georgian Bay. After the destruction of the missions by the Iroquois and the British, Algonquin speaking peoples occupied the area. After the war of 1812, the government began to invest in the military defences of Upper Canada, through the extension of Simcoe's Yonge Street from Lake Simcoe to Penetanguishene on Georgian Bay (Garbutt 2010).

Wasaga's unsuitable sandy soil contributed to the late settlement of the area. The lack of suitable farming land made it unattractive to settlers. Though unsuitable for farming, the Wasaga Beach area had an abundance of trees. Beginning in the late 1830s and throughout the rest of the 19<sup>th</sup> century, the logging industry played an important role in the development of the area.

In the early 20<sup>th</sup> century families began to vacation in the area. During the Second World War, while stationed at CFB Borden, servicemen and women from across Canada visited Wasaga's amusement park. They made Wasaga Beach known across the country. After the war, Wasaga Beach continued to be a popular place for cottages and day trips. The location was originally referred to as "*the northern border of Flos Sunnidale and Nottawasaga Townships*". The first municipal reference occurred when a designation of Local



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Improvement District emerged in 1947. In 1949, Wasaga Beach progressed to the status of a Police Village in the Township of Sunnidale, and the Police Village graduated to Incorporated Village status in 1951. The incorporation of the Town of Wasaga Beach became effective January 1, 1974. The permanent population stood at 4,034, a dramatic increase from 1965, when only 500 people called Wasaga Beach home. Today, 17,000 full time residents and 16,000 seasonal and part time residents reside at Wasaga Beach (Wikipedia 2010).

Figure 2 is a facsimile segment of the Township of Toronto map reproduced from The Illustrated Historical Atlas of the County of Simcoe (Walker & Miles 1881). Figure 2 illustrates the location of the study area and environs as of 1881. The study area is not shown to belong to anyone and no structures are shown to be within the study area.

It must be borne in mind that inclusion of names of property owners and depictions of structures within properties on these maps were sold by subscription. While information included within these maps may provide information about occupation of the property at a specific point in time, the absence of such information does not indicate that the property was not occupied.

### **5.2.3 SUMMARY OF HISTORICAL CONTEXT**

The brief overview of documentary evidence readily available indicates that the study area is situated within an area that was close to the historic transportation routes and as such has potential for sites relating to early Euro-Canadian settlement in the region. Background research indicates the property has potential for significant archaeological resources of Native origins based on proximity to a natural source of potable water in the past.

## **5.3 ARCHAEOLOGICAL CONTEXT**

The Archaeological Sites Database administered by the Ministry of Tourism, Culture and Sport (MTCS) indicates that there are twenty-six (26) previously documented sites within 1 kilometre of the study area. However, it must be noted that this is based on the assumption of the accuracy of information compiled from numerous researchers using different methodologies over many years. AMICK Consultants Limited assumes no responsibility for the accuracy of site descriptions, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database administered by MTCS. In addition, it must also be noted that a lack of formerly documented sites does not indicate that there are no sites present as the documentation of any archaeological site is contingent upon prior research having been conducted within the study area.

On the basis of information supplied by MTCS, no archaeological assessments have been conducted within 50 metres of the study area. AMICK Consultants Limited assumes no responsibility for the accuracy of previous assessments, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database

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administered by MTCS. In addition, it must also be noted that the lack of formerly documented previous assessments does not indicate that no assessments have been conducted.

Background research shows that one (1) previous study has taken place within 50m of the study area. For further information see:

AMICK Consultants Limited. (2013). *Stage 1 Archaeological Background Study Power Line Road from south of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe.* Port McNicoll, Ontario (AMICK File #12066/MTCS File #P1024-0158-2016). Archaeological License Report on File With the Ministry of Tourism, Culture and Sport, Toronto, Ontario.

Data contained in previous archaeological reports in close proximity to the study area that is relevant to Stage 1 Background Study is defined within the Standards and Guidelines for Consultant Archaeologists in Section 7.5.8 Standard 4 as follows:

***“Provide descriptions of previous archaeological fieldwork carried out within the limits of, or immediately adjacent to the project area, as documented by all available reports that include archaeological fieldwork carried out on the lands to be impacted by this project, or where reports document archaeological sites immediately adjacent (i.e., within 50 m) to those lands.”***

(MTCS 2011: 126 Emphasis Added)

In accordance with data supplied by MTCS for the purposes of completing this study, there is one previous reports detailing, “*archaeological fieldwork carried out on the lands to be impacted by this project*”, but no previous reports document known archaeological sites within 50 metres of the study area.

The Standards and Guidelines for Consultant Archaeologists stipulates that the necessity to summarize the results of previous archaeological assessment reports, or to cite MTCS File Numbers in references to other archaeological reports, is reserved for reports that are directly relevant to the fieldwork and recommendations for the study area (S & Gs 7.5.7, Standard 2, MTC 2011: 125). This is further refined and elaborated upon in Section 7.5.8, Standards 4 & 5, MTC 2011:

***“4. Provide descriptions of previous archaeological fieldwork carried out within the limits of, or immediately adjacent to the project area, as documented by all available reports that include archaeological fieldwork carried out on the lands to be impacted by this project, or where reports document archaeological sites immediately adjacent (i.e., within 50m) to those lands.”***

***“5. If previous findings and recommendations are relevant to the current stage of work, provide the following:***

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- a. *a brief summary of previous findings and recommendations*
  - b. *documentation of any differences in the current work from the previously recommended work*
  - c. *rationale for the differences from the previously recommended work”*
- (Emphasis Added)**

The previous AMICK (2013) Stage 1 Background Study covers the same study area as the current report. The study consists of a visual inspection of the entire study area and states that, “there are no areas within the study area with potential for archaeological resources associated with possible cultural heritage features such as buildings, or other structures such as bridges” (AMICK 2013: 23). However, the report concludes that, “most areas potentially impacted by the proposed undertaking would require Stage 2 archaeological assessment,” to ensure the study area has been cleared of any archaeological concern (AMICK 2013: 16).

### 5.3.1 FIRST NATIONS REGISTERED SITES

A summary of registered and/or known archaeological sites within a 1-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MTCS. As a result it was determined that twenty-three (23) archaeological sites relating directly to First Nations habitation/activity had been formally registered within the immediate vicinity of the study area. Two (2) of these sites (BcHa-18 & BcHa-32) are multi-component sites listed as both First Nations and Euro-Canadian sites. All previously registered First Nations sites are briefly described below in Table 1:

**TABLE 1 FIRST NATIONS SITES WITHIN 1KM**

<b>Site Name</b>	<b>Borden #</b>	<b>Site Type</b>	<b>Cultural Affiliation</b>
Fisherman	BcHa-6	Indeterminate	Late Woodland, Middle Woodland
Pebble Ridge	BcHa-7	Indeterminate	Other
Schoonertown	BcHa-18	Indeterminate	Post-Contact, Late Woodland, Middle Woodland
Dune Burial	BcHa-19	Indeterminate	Other
Wasaga Beach 2	BcHa-20	Indeterminate	Middle Woodland
Woodland Ridge	BcHa-21	Indeterminate	Other
Gordon	BcHa-22	Indeterminate	Other
Blueberry Field	BcHa-23	Indeterminate	Middle Woodland
Hitching Post	BcHa-27	Indeterminate	Middle Woodland
Cooke	BcHa-28	Indeterminate	Other
Jacques Rousseau	BcHa-32	Indeterminate	Post-Contact, Middle Woodland
Oxbow	BcHa-33	Indeterminate	Late Woodland
Lamont Creek	BcHa-35	Indeterminate	Late Woodland
Klondike Park	BcHa-36	Indeterminate	Middle Woodland
Racetrack	BcHa-37	Indeterminate	Middle Woodland
Jack Lake	BcHa-38	Indeterminate	Other

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Portage	BcHa-39	Indeterminate	Late Woodland
Second Dune Burial	BcHa-40	Indeterminate	Middle Woodland
Blueberry Field 2	BcHa-46	Indeterminate	Indeterminate
Island View Crescent	BcHa-49	Indeterminate	Middle Woodland
Oak-Lea	BcHa-51	Indeterminate	Middle Woodland
Woodland Trail	BcHa-54	Indeterminate	Middle Woodland
Fern Oaks	BcHa-56	Indeterminate	Late Woodland
Burials Median	BcHa-57	Indeterminate	Middle Woodland
Martin	BcHa-58	Indeterminate	Middle Woodland

None of the above noted archaeological sites are situated within 300 metres of the study area. Therefore, they have no impact on determinations of archaeological potential with respect to the archaeological assessment of the proposed undertaking.

The distance to water criteria used to establish potential for archaeological sites suggests potential for First Nations occupation and land use in the area in the past. This consideration establishes archaeological potential within the study area.

Table 2 illustrates the chronological development of cultures within southern Ontario prior to the arrival of European cultures to the area at the beginning of the 17<sup>th</sup> century. This general cultural outline is based on archaeological data and represents a synthesis and summary of research over a long period of time. It is necessarily generalizing and is not necessarily representative of the point of view of all researchers or stakeholders. It is offered here as a rough guideline and outline to illustrate the relationships of broad cultural groups and time periods.

**TABLE 2      CULTURAL CHRONOLOGY FOR SOUTHERN ONTARIO**

<b>Years ago</b>	<b>Period</b>	<b>Southern Ontario</b>
250	Terminal Woodland	Ontario and St. Lawrence Iroquois Cultures
1000 2000	Initial Woodland	Princess Point, Saugeen, Point Peninsula, and Meadowood Cultures
3000 4000 5000 6000	Archaic	Laurentian Culture
7000 8000 9000 10000 11000	Palaeo-Indian	Plano and Clovis Cultures
		(Wright 1972)

### 5.3.2 EURO-CANADIAN REGISTERED SITES

A summary of registered and/or known archaeological sites within a 1-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MTCS. As a result it was determined that one (1) archaeological site relating directly to Euro-Canadian habitation/activity had been formally registered within the immediate vicinity of the study area. Two (2) of these sites (BcHa-18 & BcHa-32) are multi-component sites listed as both First Nations and Euro-Canadian sites. All previously registered Euro-Canadian sites are briefly described below in Table 2:

**TABLE 3 EURO-CANADIAN SITES WITHIN 1KM**

<b>Site Name</b>	<b>Borden #</b>	<b>Site Type</b>	<b>Cultural Affiliation</b>
Schoonertown	BcHa-18	Indeterminate	Post-Contact, Late Woodland, Middle Woodland
Canal	BcHa-29	Indeterminate	Post-Contact
Jacques Rousseau	BcHa-32	Indeterminate	Post-Contact, Middle Woodland

None of the above noted archaeological sites are situated within 300 metres of the study area. Therefore, they have no impact on determinations of archaeological potential with respect to the archaeological assessment of the proposed undertaking.

### 5.3.3 LOCATION AND CURRENT CONDITIONS

The study area is described as Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe. This assessment was undertaken as a requirement under the Planning Act (RSO 1990b) and the Provincial Policy Statement (2014) in order to support a Municipal Environmental Assessment (EA) application as part of the pre-submission process. In the case of municipal improvements to community infrastructure, the Environmental Assessment Act (RSO 1990c) requires that an archaeological assessment be completed prior to development of the proposed undertaking.

The present use of the study area is as an actively used road. The study area is roughly 10 hectares in area and 6 kilometres in length that consists of 9 hectares of test pit surveying and 1 hectare of pedestrian surveying. The study area consists mostly of a 5 metre wide corridor along Veterans Way/Power Line Road and Klondike Park Road. The assessed areas consist mostly of a paved asphalt road with a gravel shoulder averaging a width of 1 metre. There are areas of steep slope throughout the study area averaging a width of 2 metres adjacent to the gravel shoulder. An area adjacent to the intersection of Veterans Way/Power Line Road and Klondike Park Road is a ploughed field. The study area is bounded on the north, east, and south by woodland, and on the west by existing residential development. The study area encompasses the intersection of Veterans Way/Power Line Road and Klondike Park Road and extends west along Veterans Way/Power Line Road until approximately 375 metres



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north of Fernbrook Drive. A plan of the study area is included within this report as Figures 3.1-3.12. Current conditions encountered during the Stage 1-2 Property Assessment are illustrated in Figures 4.1-4.4 & 5.1-5.3.

#### **5.3.4 PHYSIOGRAPHIC REGION**

The study area is situated within the Simcoe Lowlands physiographic region. For the most part, at one time, this restricted basin was part of the floor of glacial Lake Algonquin, and its surface beds are deposits of deltaic and lacustrine origin, and not glacial outwash. As a small basin shut in by the Edenvale Moraine, the Minesing flats represent an annex of the glacial Lake Nipissing plains. (Chapman and Putnam 1984: 177-182).

#### **5.3.5 SURFACE WATER**

Sources of potable water, access to waterborne transportation routes, and resources associated with watersheds are each considered, both individually and collectively to be the highest criteria for determination of the potential of any location to support extended human activity, land use, or occupation. Accordingly, proximity to water is regarded as the primary indicator of archaeological site potential. The Standards and Guidelines for Consultant Archaeologists stipulates that undisturbed lands within 300 metres of a water source are considered to have archaeological potential (MTC 2011: 21).

The study area contains no sources of potable water, access to waterborne transportation routes, or resources associated with watersheds.

#### **5.3.6 CURRENT PROPERTY CONDITIONS CONTEXT**

Current characteristics encountered within an archaeological research study area determine if property Assessment of specific portions of the study area will be necessary and in what manner a Stage 2 Property Assessment should be conducted, if necessary. Conventional assessment methodologies include pedestrian survey on ploughable lands and test pit methodology within areas that cannot be ploughed. For the purpose of determining where property Assessment is necessary and feasible, general categories of current landscape conditions have been established as archaeological conventions. These include:

##### **5.3.6.1 BUILDINGS AND STRUCTURAL FOOTPRINTS**

A building, in archaeological terms, is a structure that exists currently or has existed in the past in a given location. The footprint of a building is the area of the building formed by the perimeter of the foundation. Although the interior area of building foundations would often be subject to property Assessment when the foundation may represent a potentially significant historic archaeological site, the footprints of existing structures are not typically assessed. Existing structures commonly encountered during archaeological assessments are often residential-associated buildings (houses, garages, sheds), and/or component buildings

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of farm complexes (barns, silos, greenhouses). In many cases, even though the disturbance to the land may be relatively shallow and archaeological resources may be situated below the disturbed layer (e.g. a concrete garage pad), there is no practical means of assessing the area beneath the disturbed layer. However, if there were evidence to suggest that there are likely archaeological resources situated beneath the disturbance, alternative methodologies may be recommended to study such areas.

The study area contains no buildings or structural footprints.

### **5.3.6.2 DISTURBANCE**

Areas that have been subjected to extensive and deep land alteration that has severely damaged the integrity of archaeological resources are known as land disturbances. Examples of land disturbances are areas of “past quarrying, major landscaping, recent built and industrial uses, sewage and infrastructure development, etc.” (MCL 2005: 15), as well as driveways made of gravel or asphalt or concrete, in-ground pools, and wells or cisterns. Surfaces paved with interlocking brick, concrete, asphalt, gravel and other surfaces meant to support heavy loads or to be long wearing hard surfaces in high traffic areas, must be prepared by the excavation and removal of topsoil, grading, and the addition of aggregate material to ensure appropriate engineering values for the supporting matrix and also to ensure that the installations shed water to avoid flooding or moisture damage. All hard surfaced areas are prepared in this fashion and therefore have no or low archaeological potential. Major utility lines are conduits that provide services such as water, natural gas, hydro, communications, sewage, and others. These major installations should not be confused with minor below ground service installations not considered to represent significant disturbances removing archaeological potential, such as services leading to individual structures which tend to be comparatively very shallow and vary narrow corridors. Areas containing substantial and deeply buried services or clusters of below ground utilities are considered areas of disturbance, and may be excluded from Stage 2 Property Assessment. Disturbed areas are excluded from Stage 2 Property Assessment due to no or low archaeological potential and often because they are also not viable to assess using conventional methodology.

*“Earthwork is one of the major works involved in road construction. This process includes excavation, material removal, filling, compaction, and construction. Moisture content is controlled, and compaction is done according to standard design procedures. Normally, rock explosion at the road bed is not encouraged. While filling a depression to reach the road level, **the original bed is flattened after the removal of the topsoil.** The fill layer is distributed and compacted to the designed specifications. This procedure is repeated until the compaction desired is reached. **The fill material should not contain organic elements, and possess a low index of plasticity.** Fill material can include gravel and decomposed rocks of a particular size, but should not consist of huge clay lumps. Sand clay can be used. The area is considered to be adequately compacted when the roller movement does not create a*

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***noticeable deformation. The road surface finish is reliant on the economic aspects, and the estimated usage.” [Emphasis Added]***

(Goel 2013)

The supporting matrix of a hard paved surface cannot contain organic material which is subject to significant compression, decay and moisture retention. Topsoil has no engineering value and must be removed in any construction application where the surface finish at grade requires underlying support.

Installation of sewer lines and other below ground services associated with infrastructure development often involves deep excavation that can remove archaeological potential. This consideration does not apply to relatively minor below ground services that connect structures and facilities to services that support their operation and use. Major servicing corridors will be situated within adjacent road allowances with only minor, narrow and relatively shallow underground services entering into the study area to connect existing structures to servicing mainlines. The relatively minor, narrow and shallow services buried within a residential property do not require such extensive ground disturbance to remove or minimize archaeological potential within affected areas.

The study area consists of mostly disturbed soil adjacent to the gravel shoulder. The disturbed soil seems to be a result of the initial road construction and is present throughout approximately 60% of the study area.

### **5.3.6.3 LOW-LYING AND WET AREAS**

Landscape features that are covered by permanently wet areas, such as marshes, swamps, or bodies of water like streams or lakes, are known as low-lying and wet areas. Low-lying and wet areas are excluded from Stage 2 Property Assessment due to inaccessibility.

The study area does not contain low-lying and wet areas.

### **5.3.6.4 STEEP SLOPE**

Landscape which slopes at a greater than (>) 20 degree change in elevation, is known as steep slope. Areas of steep slope are considered uninhabitable, and are excluded from Stage 2 Property Assessment.

Although some portions of the study area that were subject to test pit survey may qualify as steep slope under the Standards and Guideline for Consultant Archaeologists (MTC 2011), AMICK Consultants Limited corporate policy is that slopes are to be test pit surveyed on any occasion where it is safe to do so. This exceeds the requirements of the Standards and Guidelines and offers greater surety of total coverage of viable assessment areas. Slopes are not assessed because steep slopes are interpreted to have low potential, not due to viability to assess, except in cases where the slope is severe enough to become a safety concern for

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archaeological field crews. In such cases, the Occupational Health and Safety Act takes precedence as indicated in the introduction to the Standards and Guidelines. Assessment of slopes, except where safety concerns arise, eliminates the invariably subjective interpretation of what might constitute a steep slope in the field. This is done to minimize delays due to conflicts in such interpretations and to increase the efficiency of review.

The study area contains areas of steep slope approximately 1160 metres west of the intersection of Veterans Way/Power Line Road and Klondike Park Road. The area of slope is on the outer edge of the south side of the road and is approximately 2% of the study area. Areas of slope are excluded from Stage 2 property assessment because there is very low potential for archaeological resources to be found in these areas.

#### **5.3.6.5 WOODED AREAS**

Areas of the property that cannot be ploughed, such as natural forest or woodlot, are known as wooded areas. These wooded areas qualify for Stage 2 Property Assessment, and are required to be assessed using test pit survey methodology.

The study area contains wooded areas adjacent to the gravel shoulder of the road along the entirety of both roads that are within the study area. However, an area extending approximately 110 metres west and 80 metres east of the intersection of Veterans Way/Power Line Road and Klondike Park Road on the south side of the road is not wooded.

#### **5.3.6.6 PLOUGHABLE AGRICULTURAL LANDS**

Areas of current or former agricultural lands that have been ploughed in the past are considered ploughable agricultural lands. Ploughing these lands regularly turns the soil, which in turn brings previously buried artifacts to the surface, which are then easily identified during visual inspection. Furthermore, by allowing the ploughed area to weather sufficiently through rainfall, soil is washed off of exposed artifacts at the surface and the visibility of artifacts at the surface of recently worked field areas is enhanced markedly. Pedestrian survey of ploughed agricultural lands is the preferred method of physical assessment because of the greater potential for finding evidence of archaeological resources if present.

The study area contains areas of ploughable agricultural land which were worked and allowed to weather for the purposes of the completion of the Stage 2 Property Assessment. The ploughed area is located adjacent to the east of the intersection of Veterans Way/Power Line Road and Klondike Park Road. The area of ploughable agricultural land is approximately 7% of the study area.

#### **5.3.6.7 LAWN, PASTURE, MEADOW**

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Landscape features consisting of former agricultural land covered in low growth, such as lawns, pastures, meadows, shrubbery, and immature trees. These are areas that may be considered too small to warrant ploughing, (i.e. less than one hectare in area), such as yard areas surrounding existing structures, and land-locked open areas that are technically workable by a plough but inaccessible to agricultural machinery. These areas may also include open area within urban contexts that do not allow agricultural tillage within municipal or city limits or the use of urban roadways by agricultural machinery. These areas are required to be assessed using test pit survey methodology.

The study area does not contain any areas of lawn, pasture or meadow.

### **5.3.7 SUMMARY**

Background research indicates the vicinity of the study area has potential for archaeological resources of Native origins based on proximity to a source of potable water in the past.

Current conditions within the study area indicate that some areas of the property may have no or low archaeological potential and do not require Stage 2 Property Assessment or should be excluded from Stage 2 Property Assessment. A significant proportion of the study area does exhibit archaeological potential and therefore a Stage 2 Property Assessment is required.

Archaeological potential does not indicate that there are necessarily sites present, but that environmental and historical factors suggest that there may be as yet undocumented archaeological sites within lands that have not been subject to systematic archaeological research in the past.

## **6.0 FIELD WORK METHODS AND WEATHER CONDITIONS**

This report confirms that the study area was subject to Stage 2 Property Assessment by test pit methodology on and that the fieldwork was conducted according to the archaeological fieldwork standards and guidelines, including weather and lighting conditions. Weather conditions were appropriate for the necessary fieldwork required to complete the Stage 2 Property Assessment and to create the documentation appropriate to this study. The locations from which photographs were taken and the directions toward which the camera was aimed for each photograph are illustrated in Figures 4.2-4.4 & 5.1-5.3 of this report. Upon completion of the property inspection of the study area, it was determined that select areas would require Stage 2 archaeological assessment consisting of test pit survey methodology.

### **6.1 PEDESTRIAN SURVEY**

In accordance with the Standards and Guidelines for Consultant Archaeologists, pedestrian survey is required for all portions of the study area that are ploughable or can be subject to cultivation. This is the preferred method to utilize while conducting an assessment. This



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report confirms that the conduct of pedestrian survey within the study area conformed to the following standards:

1. *Actively or recently cultivated agricultural land must be subject to pedestrian survey.*  
[All actively or recently cultivated agricultural land was subject to pedestrian survey]
2. *Land to be surveyed must be recently ploughed. Use of chisel ploughs is not acceptable. In heavy clay soils ensure furrows are disked after ploughing to break them up further.*  
[All land was recently ploughed]
3. *Land to be surveyed must be weathered by one heavy rainfall or several light rains to improve visibility of archaeological resources.*  
[All land was weathered by rainfall]
4. *Provide direction to the contractor undertaking the ploughing to plough deep enough to provide total topsoil exposure, but not deeper than previous ploughing.*  
[Direction was given to the contractor undertaking the ploughing to plough deep enough to provide total topsoil exposure, but not deeper than previous ploughing]
5. *At least 80 % of the ploughed ground surface must be visible. If surface visibility is below 80% (e.g. due to crop stubble, weeds, young crop growth), ensure the land is re-ploughed before surveying.*  
[Roughly 90% of the ploughed field surface was exposed and visible]
6. *Space survey transects at maximum intervals of 5m (20 survey transects per hectare)*  
[All transects were conducted at an interval of 5m between individual transects]
7. *When archaeological resources are found, decrease survey transects to 1m intervals over a minimum of a 20m radius around the find to determine whether it is an isolated find or part of a larger scatter. Continue working outward at this interval until full extent of the surface scatter has been defined.*  
[Not Applicable – No archaeological resources were encountered]
8. *Collect all formal artifact types and diagnostic categories. For 19<sup>th</sup> century archaeological sites, collect all refined ceramic sherds (or, for larger sites collect a sufficient sample to form the basis for dating).*  
[Not Applicable – No archaeological resources were encountered]

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9. *Based on professional judgment, strike a balance between gathering enough artifacts to document the archaeological site and leaving enough in place to relocate the site if it is necessary to conduct further assessment.*

[Not Applicable – No archaeological resources were encountered]

(MTC 2011: 30-31)

The Guidelines contained within Section 2.1.1 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 30) allow some variation in the conduct of pedestrian survey depending upon conditions, as follows:

1. *For orchards, vineyards or comparable situations where the open space to be ploughed between plants measures more than 5 m, strip-ploughing is an acceptable alternative to full ploughing.*
2. *When appropriate based on crop conditions, (e.g. corn fields where herbicides have prevented weed growth, young winter wheat without weed growth between the rows), survey transects at intervals of less than 5 m may be used to achieve the minimum 80% visibility.*

[The study area does not contain an existing orchard or vineyard.]

[All survey transects were conducted at an interval of 5 m between individual transects.]

(MTC 2011: 30)

## **6.2 TEST PIT SURVEY**

In accordance with the Standards and Guidelines for Consultant Archaeologists, test pit survey is required to be undertaken for those portions of the study area where deep prior disturbance had not occurred prior to assessment or which were accessible to survey. Test pit survey is only used in areas that cannot be subject to ploughing or cultivation. This report confirms that the conduct of test pit survey within the study area conformed to the following standards:

1. *Test pit survey only on terrain where ploughing is not possible or viable, as in the following examples:*

- a. *wooded areas*

[All wooded areas were test pit surveyed at an interval of 5 m between individual test pits]

- b. *pasture with high rock content*

[Not Applicable - The study area does not contain any pastures with high rock content]

- c. *abandoned farmland with heavy brush and weed growth*

[Not Applicable - The study area does not contain any abandoned farmland with heavy brush and weed growth]

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*d. orchards and vineyards that cannot be strip ploughed (planted in rows 5 m apart or less), gardens, parkland or lawns, any of which will remain in use for several years after the survey*

[Not Applicable - The study area does not contain any of the above-mentioned circumstances]

*e. properties where existing landscaping or infrastructure would be damaged. The presence of such obstacles must be documented in sufficient detail to demonstrate that ploughing or cultivation is not viable.*

[The study area is to be maintained as a road therefore ploughing would damage or destroy the asphalt features associated with its current use. All areas where existing landscaping or infrastructure would be damaged were test pit surveyed at an interval of 5 or 10 metres between individual test pits depending on the degree of disturbance in the soil.]

*f. narrow (10 m or less) linear survey corridors (e.g., water or gas pipelines, road widening). This includes situations where there are planned impacts 10 m or less beyond the previously impacted limits on both sides of an existing linear corridor (e.g., two linear survey corridors on either side of an existing roadway). Where at the time of fieldwork the lands within the linear corridor meet the standards as stated under the above section on pedestrian survey land preparation, pedestrian survey must be carried out. Space test pits at maximum intervals of 5 m (400 test pits per hectare) in areas less than 300 m from any feature of archaeological potential.*

[All narrow linear survey corridors meeting the standards as stated under the above section were test pit surveyed at an interval of 5m between individual test pits]

- 2. Space test pits at maximum intervals of 5 m (400 test pits per hectare) in areas less than 300 m from any feature of archaeological potential.*

[All test pits were spaced at an interval of 5m between individual test pits]

- 3. Space test pits at maximum intervals of 10 m (100 test pits per hectare) in areas more than 300 m from any feature of archaeological potential.*

[The entirety of the test pitted areas of the study area were assessed using high intensity test pit methodology at an interval of 5 metres between individual test pits]

- 4. Test pit to within 1 m of built structures (both intact and ruins), or until test pits show evidence of recent ground disturbance.*

[Not Applicable]

- 5. Ensure that test pits are at least 30 cm in diameter.*

[All test pits were at least 30 cm in diameter]

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6. *Excavate each test pit, by hand, into the first 5 cm of subsoil and examine the pit for stratigraphy, cultural features, or evidence of fill.*

[Regardless of the interval between individual test pits, all test pits were excavated by hand into the first 5 cm of subsoil where possible and examined for stratigraphy, cultural features, or evidence of fill. In areas where topsoil was not present, test pits were excavated to a minimum of 30cm in depth to ensure that suspected subsoils, if present, were not layers of fill or waterborne materials overlying buried topsoil. If these areas consisted of fill soils, test pits were also excavated a minimum of 30 cm below grade in order to ensure disturbance extended below even deep topsoil layers such as those encountered in agricultural fields to ensure that the depth of disturbance was sufficient to remove archaeological potential in most contexts. Where other evidence indicates locations of potentially significant archaeological sites that may include cultural deposits below fill soils, alternative strategies to explore beneath the fill layers found in some areas may be necessary to complete the Stage 2 Property Assessment. In such cases, further Stage 2 Property Assessment may be recommended following completion of the property survey under conventional methodologies.]

7. *Screen soil through mesh no greater than 6 mm.*  
[All soil was screened through mesh no greater than 6 mm]
8. *Collect all artifacts according to their associated test pit.*  
[Not Applicable - No archaeological resources were encountered]
9. *Backfill all test pits unless instructed not to by the landowner.*  
[All test pits were backfilled]

(MTC 2011: 31-32)

*“A combination of property inspection and test pitting may be used when initial Stage 2 results determine that all or part of the project area may in fact be disturbed. The Stage 2 survey may then consists of a detailed inspection (equivalent to Stage 1), combined with test pitting.”*

1. *If it was not done as part of Stage 1, inspect and document the disturbed areas according to the standards described for Stage 1 property inspections.*  
[The disturbed areas of the study area were inspected and documented as per the standards described for Stage 1 property inspections. Apparent areas of disturbance where Stage 2 Property Assessment survey was not viable were mapped and documented photographically but excluded from the Stage 2 survey. Surfaces paved with interlocking brick, concrete, asphalt, gravel and other surfaces meant to support heavy loads or to be long wearing hard surfaces in high traffic areas, must be prepared by the excavation and removal of topsoil, grading, and the

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addition of aggregate material to ensure appropriate engineering values for the supporting matrix and also to ensure that the installations shed water to avoid flooding or moisture damage. All hard surfaced areas are prepared in this fashion and therefore have no or low archaeological potential. Major utility lines are conduits that provide services such as water, natural gas, hydro, communications, sewage, and others. These major installations should not be confused with minor below ground service installations not considered to represent significant disturbances removing archaeological potential, such as services leading to individual structures which tend to be comparatively very shallow and vary narrow corridors. Areas containing substantial and deeply buried services or clusters of below ground utilities are considered areas of disturbance, and may be excluded from Stage 2 Property Assessment. Disturbed areas are excluded from Stage 2 Property Assessment due to no or low archaeological potential and often because they are also not viable to assess using conventional methodology.

Areas of suspected disturbance where test pit survey was viable were shovel tested as described below. Areas where soil has been removed were examined using pedestrian survey methodology. Areas that were not viable to assess include the paved asphalt road and the gravel shoulder adjacent to the road. Areas that did not require assessment were delineated by the client and indicated on the maps included with this report.

- 2. Place Stage 2 test pits throughout the disturbed areas according to professional judgment (and where physically viable) as to confirm that these areas have been completely disturbed.*

[An area of suspected disturbance was identified during the property inspection conducted concurrently with the Stage 2 Property Assessment. This area consists of an area identified as soil disturbance from the construction of the road. Test pits were excavated every 10 metres across the entirety of the disturbed portion of the study area. The excavated soil and the profiles of these test pits were examined to determine if each represented an area of disturbance. If test pits in such areas consisted of fill soils or lacked any stratigraphy overlying apparent subsoil, test pits were excavated a minimum of 30 cm below grade in order to ensure disturbance extended below even deep topsoil layers such as those encountered in agricultural fields to ensure that the depth of disturbance was sufficient to remove archaeological potential in most contexts. Any such areas deemed to have low potential for archaeological resources. Once the extent and limits of the disturbances were identified, standard test pit survey at a 5-metre interval between test pits was resumed.]

(MTC 2011: 38)

The areas to be assessed within the study area were only those noted by the client that were to be acquired for the road relocation and impacted by earthworks as a part of the proposed development. The client highlighted the areas to be assessed in green and yellow on the preliminary development maps (Figures 3.1-12).



Approximately 3% of the study area consisted of lawn area that was test pit surveyed at an interval of 5 metres between individual test pits. Approximately 6% of the study area consisted of a wooded area that was test pit surveyed at an interval of 5 metres between individual test pits. Approximately 7% of the study area consisted of disturbed soil that was test pit surveyed at an interval of 10 metres between individual test pits to confirm disturbance. Approximately % of the study area was a ploughed field that was pedestrian surveyed at an interval of 5 metres between individual transects. Approximately 60% of the study area was not assessable due to a paved asphalt road and a disturbed gravel shoulder. Approximately 2% of the study area was steeply sloped and not viable to assess. Approximately 15% of the study area was not required by the client to assess as these areas were to be excluded from the proposed areas of construction.

## **7.0 RECORD OF FINDS**

Section 7.8.2 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 137-138) outlines the requirements of the Record of Finds component of a Stage 2 report:

1. *For all archaeological resources and sites that are identified in Stage 2, provide the following:*
  - a. *a general description of the types of artifacts and features that were identified*
  - b. *a general description of the area within which artifacts and features were identified, including the spatial extent of the area and any relative variations in density*
  - c. *a catalogue and description of all artifacts retained*
  - d. *a description of the artifacts and features left in the field (nature of material, frequency, other notable traits).*
2. *Provide an inventory of the documentary record generated in the field (e.g. photographs, maps, field notes).*
3. *Submit information detailing exact site locations on the property separately from the project report, as specified in section 7.6. Information on exact site locations includes the following:*
  - a. *table of GPS readings for locations of all archaeological sites*
  - b. *maps showing detailed site location information.*

## **7.1 ARCHAEOLOGICAL RESOURCES**

No archaeological resources of any description were encountered anywhere within the study area.

## **7.2 ARCHAEOLOGICAL FIELDWORK DOCUMENTATION**

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The documentation produced during the field investigation conducted in support of this report includes: 12 sketch maps, 2 pages of photo log, 4 pages of field notes, and 59 digital photographs.

## **8.0 ANALYSIS AND CONCLUSIONS**

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological fieldwork. The entirety of the study area was subject to property inspection and photographic documentation concurrently with the Stage 2 Property Assessment on 17 and 18 November, and 7 December, 2016 consisting of high-intensity test pit survey at an interval of five and ten metres between individual test pits and high intensity pedestrian survey at an interval of five metres between individual transects. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism, Culture and Sport (MTCS) on behalf of the government and citizens of Ontario.

Section 7.7.3 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 132) outlines the requirements of the Analysis and Conclusions component of a Stage 1 Background Study.

- 1) *“Identify and describe areas of archaeological potential within the project area.*
- 2) *Identify and describe areas that have been subject to extensive and deep land alterations. Describe the nature of alterations (e.g., development or other activity) that have severely damaged the integrity of archaeological resources and have removed archaeological potential.”*

## **8.1 CHARACTERISTICS INDICATING ARCHAEOLOGICAL POTENTIAL**

Section 1.3.1 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics that indicate archaeological potential (MTC 2011: 17-18). Factors that indicate archaeological potential are features of the local landscape and environment that may have attracted people to either occupy the land or to conduct activities within the study area. One or more of these characteristics found to apply to a study area would necessitate a Stage 2 Property Assessment to determine if archaeological resources are present. These characteristics are listed below together with considerations derived from the conduct of this study.

- 1) *Previously Identified Archaeological Sites*  
Previously registered archaeological sites have not been documented within 300 metres of the study area.

2) Water Sources

Primary water sources are described as including lakes, rivers streams and creeks. Close proximity to primary water sources (300 metres) indicates that people had access to readily available sources of potable water and routes of waterborne trade and communication should the study area have been used or occupied in the past.

There are no identified primary water sources within 300 metres of the study area.

Secondary water sources are described as including intermittent streams and creeks, springs, marshes, and swamps. Close proximity (300 metres) to secondary water sources indicates that people had access to readily available sources of potable water, at least on a seasonal basis, and in some cases seasonal access to routes of waterborne trade and communication should the study area have been used or occupied in the past.

There are no identified secondary water sources within 300 metres of the study area.

3) Features Indicating Past Water Sources

Features indicating past water resources are described as including glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, and cobble beaches. Close proximity (300 metres) to features indicating past water sources indicates that people had access to readily available sources of potable water, at least on a seasonal basis, and in some cases seasonal access to routes of waterborne trade and communication should the study area have been used or occupied in the past.

There are no identified features indicating past water sources within 300 metres of the study area.

4) Accessible or Inaccessible Shoreline

This form of landscape feature would include high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.

There are no shorelines within 300 metres of the study area.

5) Elevated Topography

Features of elevated topography that indicate archaeological potential include eskers, drumlins, large knolls, and plateaux.

There are no identified features of elevated topography within the study area.

6) Pockets of Well-drained Sandy Soil

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Pockets of sandy soil are considered to be especially important near areas of heavy soil or rocky ground.

The soil throughout the study area is medium brown sand, which is consistent with the wider area surrounding the property. Therefore, the presence of this soil has no impact on potential within the study area, as the wider area is not known for clay soils or exposed bedrock.

7) *Distinctive Land Formations*

These are landscape features that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.

There are no identified distinctive land formations within the study area.

8) *Resource Areas*

Resource areas that indicate archaeological potential include food or medicinal plants (e.g., migratory routes, spawning areas, and prairie), scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert) and resources of importance to early Euro-Canadian industry (e.g., logging, prospecting, and mining).

There are no identified resource areas within the study area.

9) *Areas of Early Euro-Canadian Settlement*

These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, and farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.

The study area is not situated in close proximity to a historic community identified on the historic atlas map.

10) *Early Historical Transportation Routes*

This includes evidence of trails, passes, roads, railways, portage routes.

The study area is not situated within 100 metres of any early settlement roads that appears on the Historic Atlas Map of 1881. However, a road depicted on the Historic Atlas Map that corresponds to the current Klondike Park Road is shown to end approximately 700 metres south of the study area.

11) *Heritage Property*

Property listed on a municipal register or designated under the *Ontario Heritage Act* or is a federal, provincial or municipal historic landmark or site.

There are no listed or designated heritage buildings or properties that form a part of the study area. There are no listed or designated heritage buildings or properties that are adjacent to the study area.

12) Documented Historical or Archaeological Sites

This includes property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations. These are properties which have not necessarily been formally recognized or for which there is additional evidence identifying possible archaeological resources associated with historic properties in addition to the rationale for formal recognition.

There are no known heritage features, or known historic sites, or known archaeological sites within the study area in addition to those formally documented with the appropriate agencies or previously noted under a different criterion.

## **8.2 CHARACTERISTICS INDICATING REMOVAL OF ARCHAEOLOGICAL POTENTIAL**

Section 1.3.2 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics which indicate no archaeological potential or for which archaeological potential has been removed (MTC 2011: 18-19). These characteristics are listed below together with considerations derived from the conduct of this study.

The introduction of Section 1.3.2 (MTC 2011: 18) notes that “*Archaeological potential can be determined not to be present for either the entire property or a part(s) of it when the area under consideration has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. This is commonly referred to as ‘disturbed’ or ‘disturbance’, and may include:”*

1) Quarrying

There is no evidence to suggest that quarrying operations were ever carried out within the study area.

2) Major Landscaping Involving Grading Below Topsoil

Unless there is evidence to suggest the presence of buried archaeological deposits, such deeply disturbed areas are considered to have lost their archaeological potential. Properties that do not have a long history of Euro-Canadian occupation can have archaeological potential removed through extensive landscape alterations that penetrate below the topsoil layer. This is because most archaeological sites originate at grade with relatively shallow associated excavations into the soil. First Nations sites and early historic sites are vulnerable to extensive damage and complete removal due to landscape modification activities. In urban contexts where a lengthy history of occupation has occurred, properties may have deeply buried archaeological deposits covered over and sealed through redevelopment activities that do not include the deep

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excavation of the entire property for subsequent uses. Buildings are often erected directly over older foundations preserving archaeological deposits associated with the earlier occupation.

There is evidence to suggest that major landscaping operations involving grading below topsoil were ever carried out within the study area. Surfaces paved with interlocking brick, concrete, asphalt, gravel and other surfaces meant to support heavy loads or to be long wearing hard surfaces in high traffic areas, must be prepared by the excavation and removal of topsoil, grading, and the addition of aggregate material to ensure appropriate engineering values for the supporting matrix and also to ensure that the installations shed water to avoid flooding or moisture damage. All hard surfaced areas are prepared in this fashion and therefore have no or low archaeological potential. Disturbed areas are excluded from Stage 2 Property Assessment due to no or low archaeological potential and often because they are also not viable to assess using conventional methodology.

3) *Building Footprints*

Typically, the construction of buildings involves the deep excavation of foundations, footings and cellars that often obliterate archaeological deposits situated close to the surface.

There are no buildings within the study area.

4) *Sewage and Infrastructure Development*

Installation of sewer lines and other below ground services associated with infrastructure development often involves deep excavation that can remove archaeological potential.

There is no evidence to suggest that substantial below ground services of any kind have resulted in significant impacts to any significant portion of the study area. Major utility lines are conduits that provide services such as water, natural gas, hydro, communications, sewage, and others. These major installations should not be confused with minor below ground service installations not considered to represent significant disturbances removing archaeological potential, such as services leading to individual structures which tend to be comparatively very shallow and vary narrow corridors. Areas containing substantial and deeply buried services or clusters of below ground utilities are considered areas of disturbance, and may be excluded from Stage 2 Property Assessment.

*“Activities such as agricultural cultivation, gardening, minor grading and landscaping do not necessarily affect archaeological potential.”*

(MTC 2011: 18)



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*“Archaeological potential is not removed where there is documented potential for deeply buried intact archaeological resources beneath land alterations, or where it cannot be clearly demonstrated through background research and property inspection that there has been complete and intensive disturbance of an area. Where complete disturbance cannot be demonstrated in Stage 1, it will be necessary to undertake Stage 2 assessment.”*

(MTC 2011: 18)

Table 4 below summarizes the evaluation criteria of the Ministry of Tourism and Culture together with the results of the Stage 1 Background Study for the proposed undertaking. Based on the criteria, the property is deemed to have low archaeological potential on the basis that recent disturbances in the form of road construction are present.

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**TABLE 4 EVALUATION OF ARCHAEOLOGICAL POTENTIAL**

FEATURE OF ARCHAEOLOGICAL POTENTIAL		YES	NO	N/A	COMMENT
1	Known archaeological sites within 300m		<b>N</b>		If Yes, potential determined
<b>PHYSICAL FEATURES</b>					
2	Is there water on or near the property?		<b>N</b>		If Yes, what kind of water?
2a	Primary water source within 300 m. (lakeshore, river, large creek, etc.)		<b>N</b>		If Yes, potential determined
2b	Secondary water source within 300 m. (stream, spring, marsh, swamp, etc.)		<b>N</b>		If Yes, potential determined
2c	Past water source within 300 m. (beach ridge, river bed, relic creek, etc.)		<b>N</b>		If Yes, potential determined
2d	Accessible or Inaccessible shoreline within 300 m. (high bluffs, marsh, swamp, sand bar, etc.)		<b>N</b>		If Yes, potential determined
3	Elevated topography (knolls, drumlins, eskers, plateaus, etc.)		<b>N</b>		If Yes, and Yes for any of 4-9, potential determined
4	Pockets of sandy soil in a clay or rocky area		<b>N</b>		If Yes and Yes for any of 3, 5-9, potential determined
5	Distinctive land formations (mounds, caverns, waterfalls, peninsulas, etc.)		<b>N</b>		If Yes and Yes for any of 3-4, 6-9, potential determined
<b>HISTORIC/PREHISTORIC USE FEATURES</b>					
6	Associated with food or scarce resource harvest areas (traditional fishing locations, agricultural/berry extraction areas, etc.)		<b>N</b>		If Yes, and Yes for any of 3-5, 7-9, potential determined.
7	Early Euro-Canadian settlement area within 300 m.		<b>N</b>		If Yes, and Yes for any of 3-6, 8-9, potential determined
8	Historic Transportation route within 100 m. (historic road, trail, portage, rail corridors, etc.)		<b>N</b>		If Yes, and Yes for any 3-7 or 9, potential determined
9	Contains property designated and/or listed under the Ontario Heritage Act (municipal heritage committee, municipal register, etc.)		<b>N</b>		If Yes and, Yes to any of 3-8, potential determined
<b>APPLICATION-SPECIFIC INFORMATION</b>					
10	Local knowledge (local heritage organizations, First Nations, etc.)		<b>N</b>		If Yes, potential determined
11	Recent disturbance not including agricultural cultivation (post-1960-confirmed extensive and intensive including industrial sites, aggregate areas, etc.)	<b>Y</b>			If Yes, no potential or low potential in affected part (s) of the study area.

If **YES** to any of 1, 2a-c, or 10 Archaeological Potential is **confirmed**

If **YES** to 2 or more of 3-9, Archaeological Potential is **confirmed**

If **YES** to 11 or No to 1-10 Low Archaeological Potential is **confirmed** for at least a portion of the study area.

### **8.3 STAGE 1 ANALYSIS AND CONCLUSIONS**

As a result of the Stage 1 portion of the study it was determined that the study area has low archaeological potential on the basis that recent disturbances from the construction of the roads are present.

### **8.4 STAGE 2 ANALYSIS AND CONCLUSIONS**

Section 7.8.3 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 138-139) outlines the requirements of the Analysis and Conclusions component of a Stage 2 Property Assessment.

1. *Summarize all finding from the Stage 2 survey, or state that no archaeological sites were identified.*
2. *For each archaeological site, provide the following analysis and conclusions:*
  - a. *A preliminary determination, to the degree possible, of the age and cultural affiliation of any archaeological sites identified.*
  - b. *A comparison against the criteria in 2 Stage 2: Property Assessment to determine whether further assessment is required*
  - c. *A preliminary determination regarding whether any archaeological sites identified in Stage 2 show evidence of a high level cultural heritage value or interest and will thus require Stage 4 mitigation.*

No archaeological sites or resources were found during the Stage 2 survey of the study area.

## **9.0 RECOMMENDATIONS**

### **9.1 STAGE 1 RECOMMENDATIONS**

Under Section 7.7.4 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 133) the recommendations to be made as a result of a Stage 1 Background Study are described.

- 1) *Make recommendations regarding the potential for the property, as follows:*
  - a. *if some or all of the property has archaeological potential, identify areas recommended for further assessment (Stage 2) and areas not recommended for further assessment. Any exemptions from further assessment must be consistent with the archaeological fieldwork standards and guidelines.*
  - b. *if no part of the property has archaeological potential, recommend that the property does not require further archaeological assessment.*
- 2) *Recommend appropriate Stage 2 assessment strategies.*

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The study area has been identified as an area of low archaeological potential.

The study area is roughly 10 hectares in size consists of mostly a paved asphalt road, woodlot, and a ploughed field. Most of the study area that was test pit surveyed was disturbed due to the construction of the road. The study area also contains an area of steep slope, which is located centrally on the south side of Veterans Way/Power Line Road. The paved asphalt and gravel shoulder were determined to have low or no potential and therefore it is recommended that there is no further archaeological concern for these areas. Portions of the study area excluded from these noted areas of low potential, were determined to have potential and Stage 2 assessment was therefore conducted using a combination of pedestrian and test pit survey methodologies in accordance with the Standards governing the use of each method.

All portions of the property that could be ploughed were ploughed in advance of the assessment and were well weathered. The pedestrian survey was completed on all ploughed lands at an interval of 5 metres in between individual transects. Any areas that could not be ploughed were subject to assessment using the test pit methodology. Test pits were dug at a fixed interval of 5 and 10 metres across the surface area. Test pits measured a minimum of 30 centimeters in diameter and were dug at least 5 centimeters into the subsoil beneath the topsoil layer. All excavated earth was screened through 6 mm wire mesh to ensure that any artifacts contained within the soil matrix are recovered. All test pits were back filled and restored as much as was reasonably possible to the level of the surrounding grade.

## **9.2 STAGE 2 RECOMMENDATIONS**

Under Section 7.8.4 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 139) the recommendations to be made as a result of a Stage 2 Property Assessment are described.

- 1) *For each archaeological site, provide a statement of the following:
  - a. Borden number or other identifying number
  - b. Whether or not it is of further cultural heritage value or interest
  - c. Where it is of further cultural heritage value or interest, appropriate Stage 3 assessment strategies*
- 2) *Make recommendations only regarding archaeological matters. Recommendations regarding built heritage or cultural heritage landscapes should not be included.*
- 3) *If the Stage 2 survey did not identify any archaeological sites requiring further assessment or mitigation of impacts, recommend that no further archaeological assessment of the property be required.*

As a result of the property Assessment of the study area, no archaeological resources were encountered. Consequently, the following recommendations are made:

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- *No further archaeological assessment of the study area is warranted;*
- *The Provincial interest in archaeological resources with respect to the proposed undertaking has been addressed;*
- *The proposed undertaking is clear of any archaeological concern.*

## **10.0 ADVICE ON COMPLIANCE WITH LEGISLATION**

While not part of the archaeological record, this report must include the following standard advisory statements for the benefit of the proponent and the approval authority in the land use planning and development process:

- a. This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c. 0.18. The report is reviewed to ensure that it complies with the standards and guidelines issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism and Culture, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.*
- b. It is an offence under Sections 48 and 69 of the Ontario Heritage Act for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the Ontario Heritage Act.*
- c. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.*
- d. The Cemeteries Act, R.S.O. 1990, c. C.4 and the Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.*
- e. Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage Act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.*



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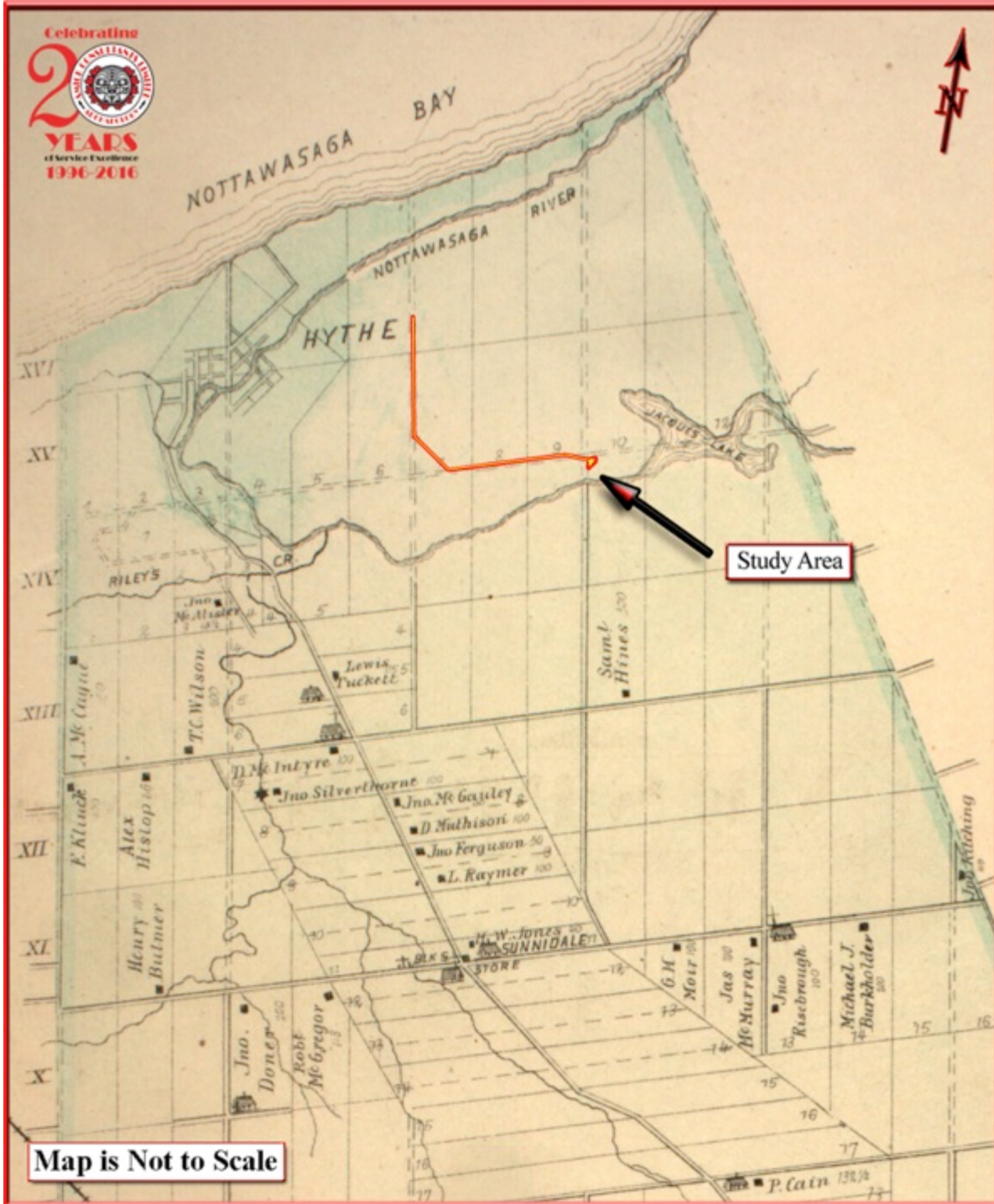
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**12.0 MAPS**



**FIGURE 1 LOCATION OF THE STUDY AREA (GOOGLE MAPS 2012)**

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**FIGURE 2 FACSIMILE SEGMENT OF THE HISTORIC ATLAS MAP OF THE TOWNSHIP OF SUNNIDALE (Walker & Miles 1881)**

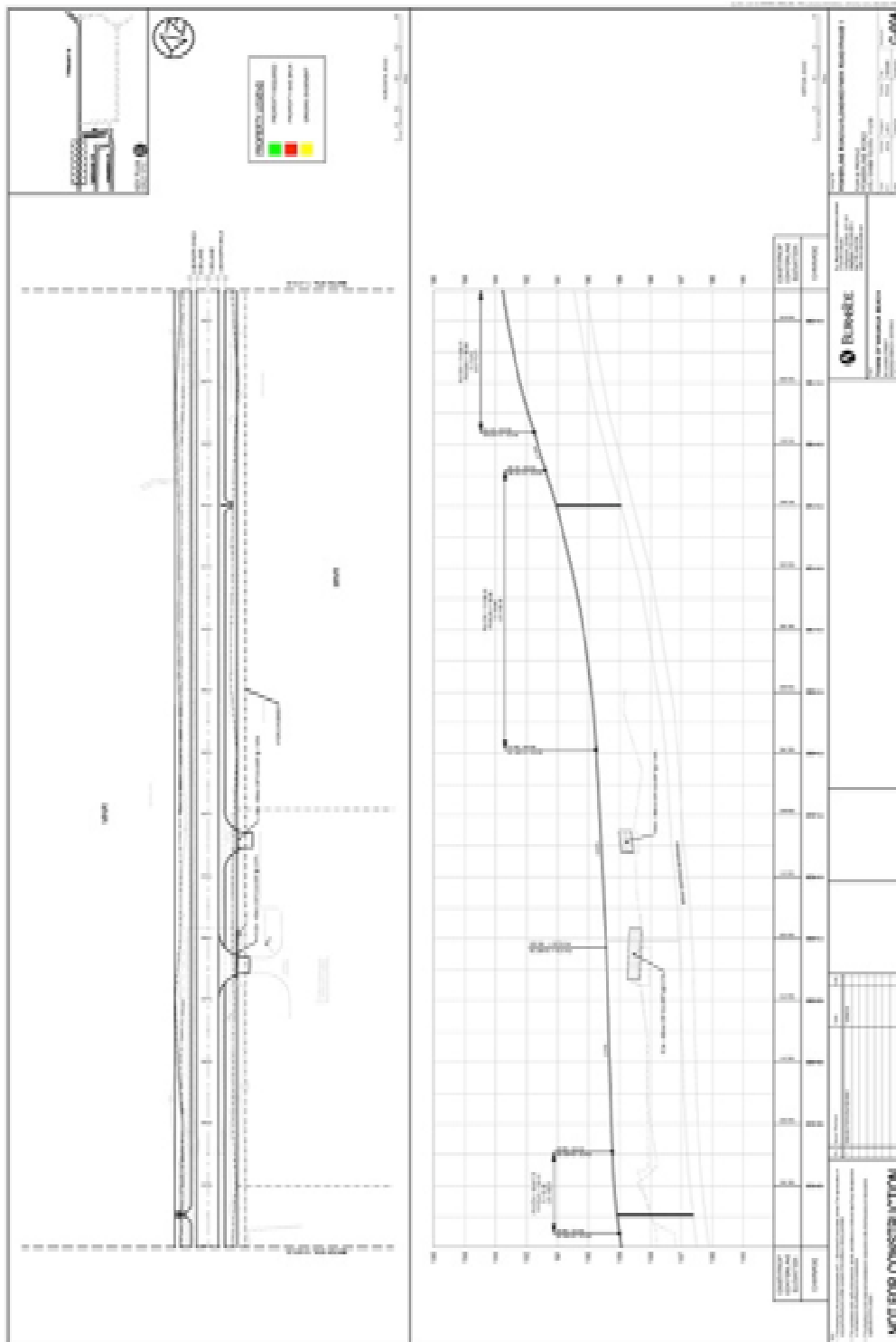


*2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)*



**FIGURE 3.1 PLAN OF SURVEY (BASED ON R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

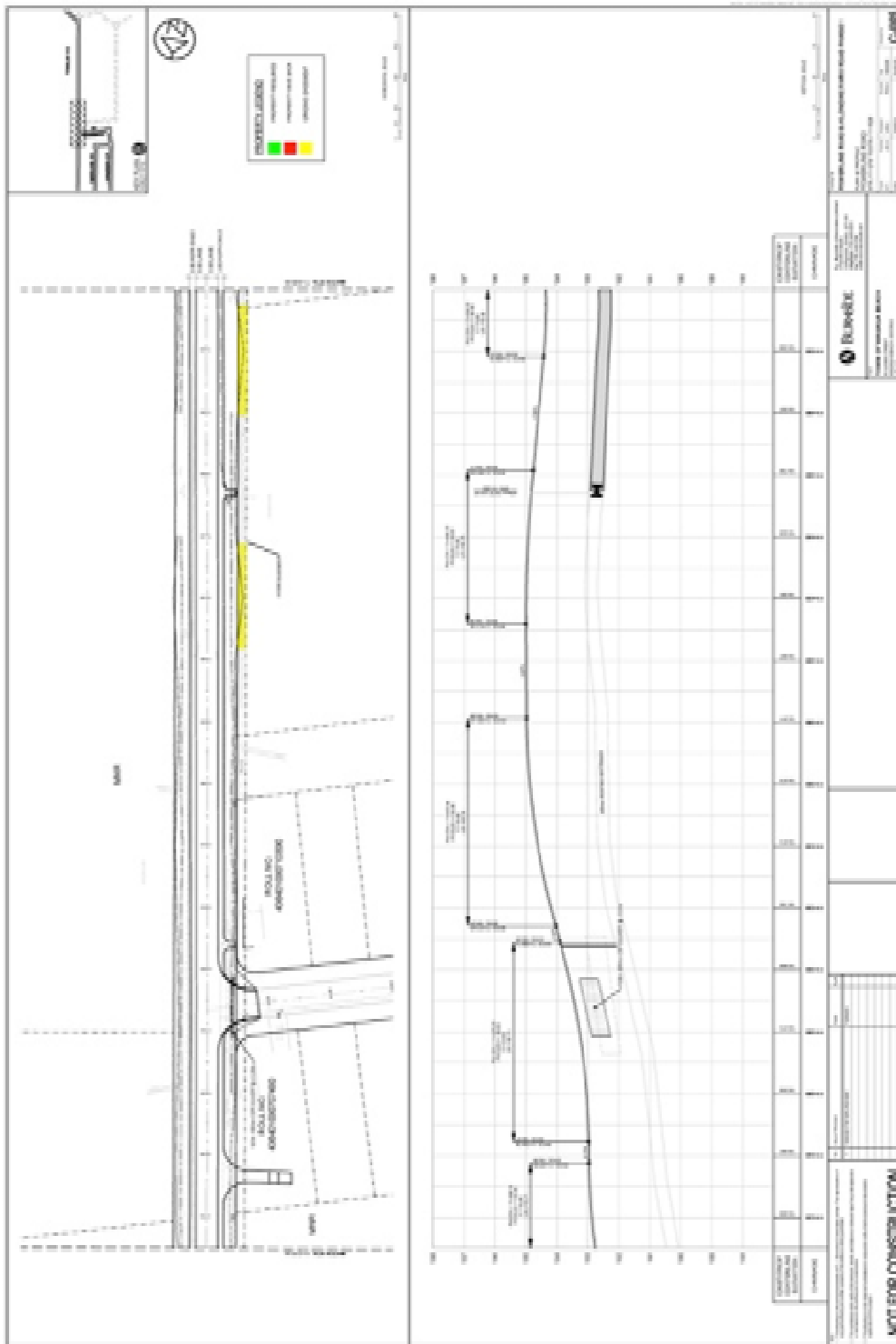
**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



**FIGURE 3.2 PLAN OF SURVEY (R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

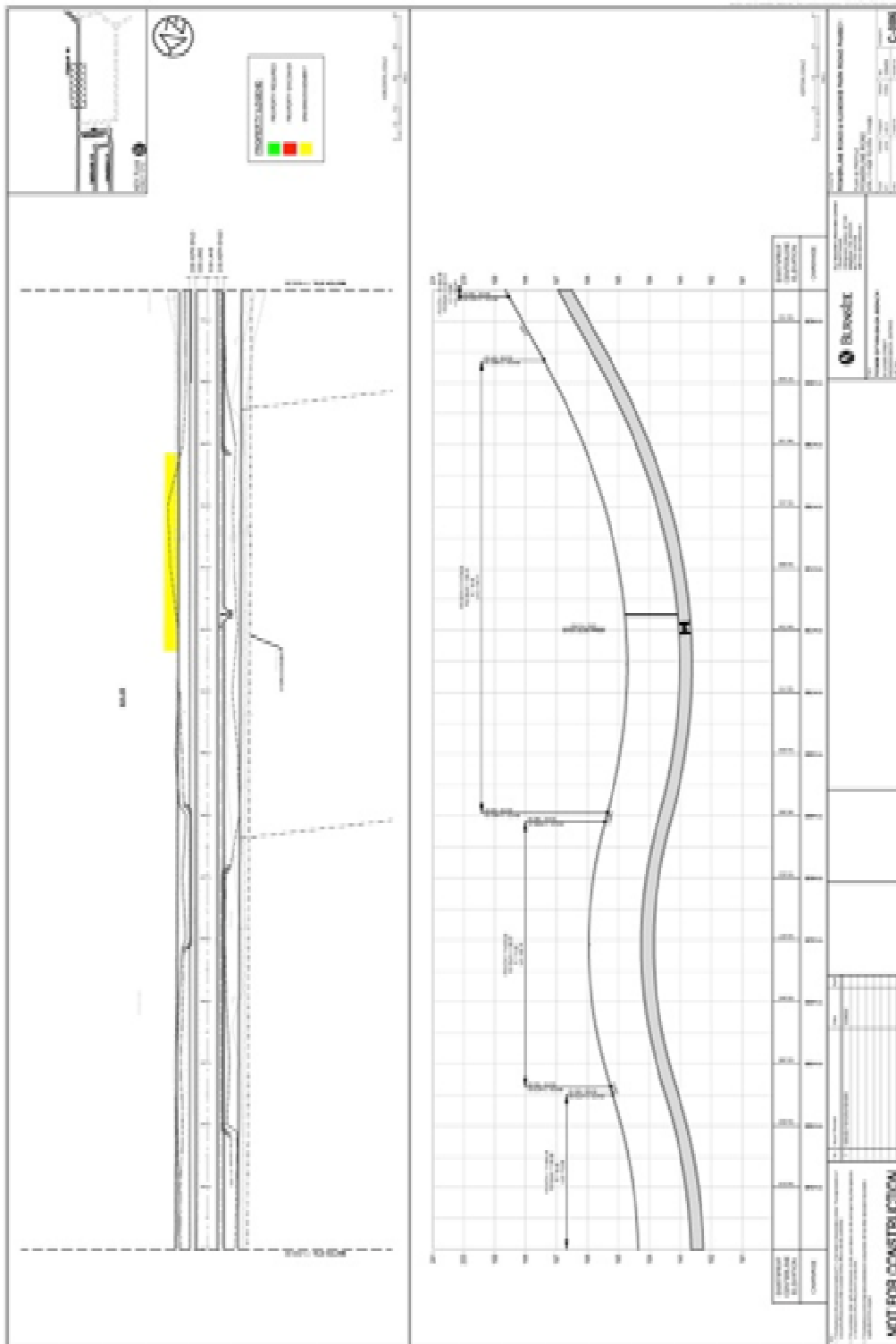


**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



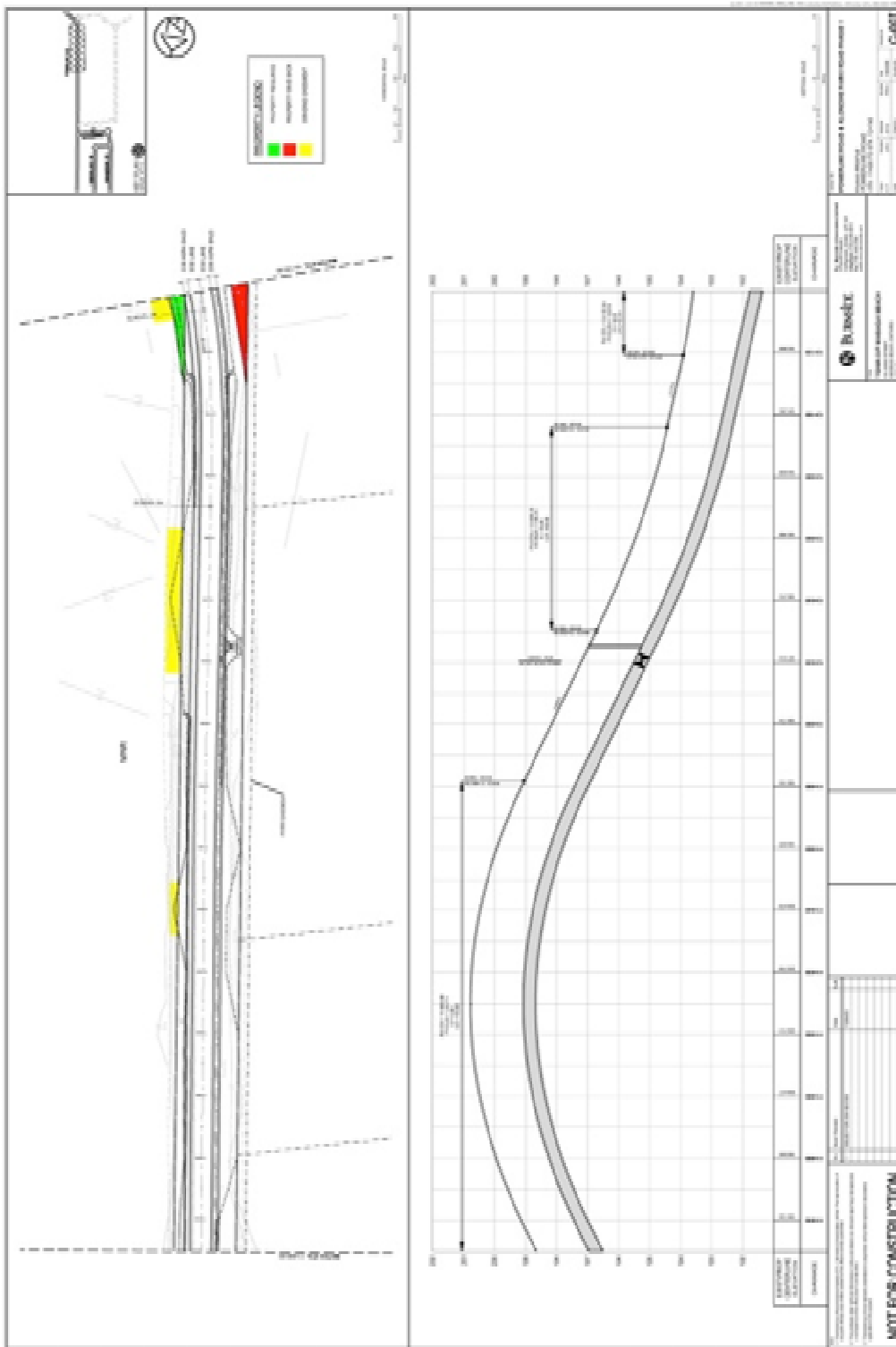
**FIGURE 3.3 PLAN OF SURVEY (R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



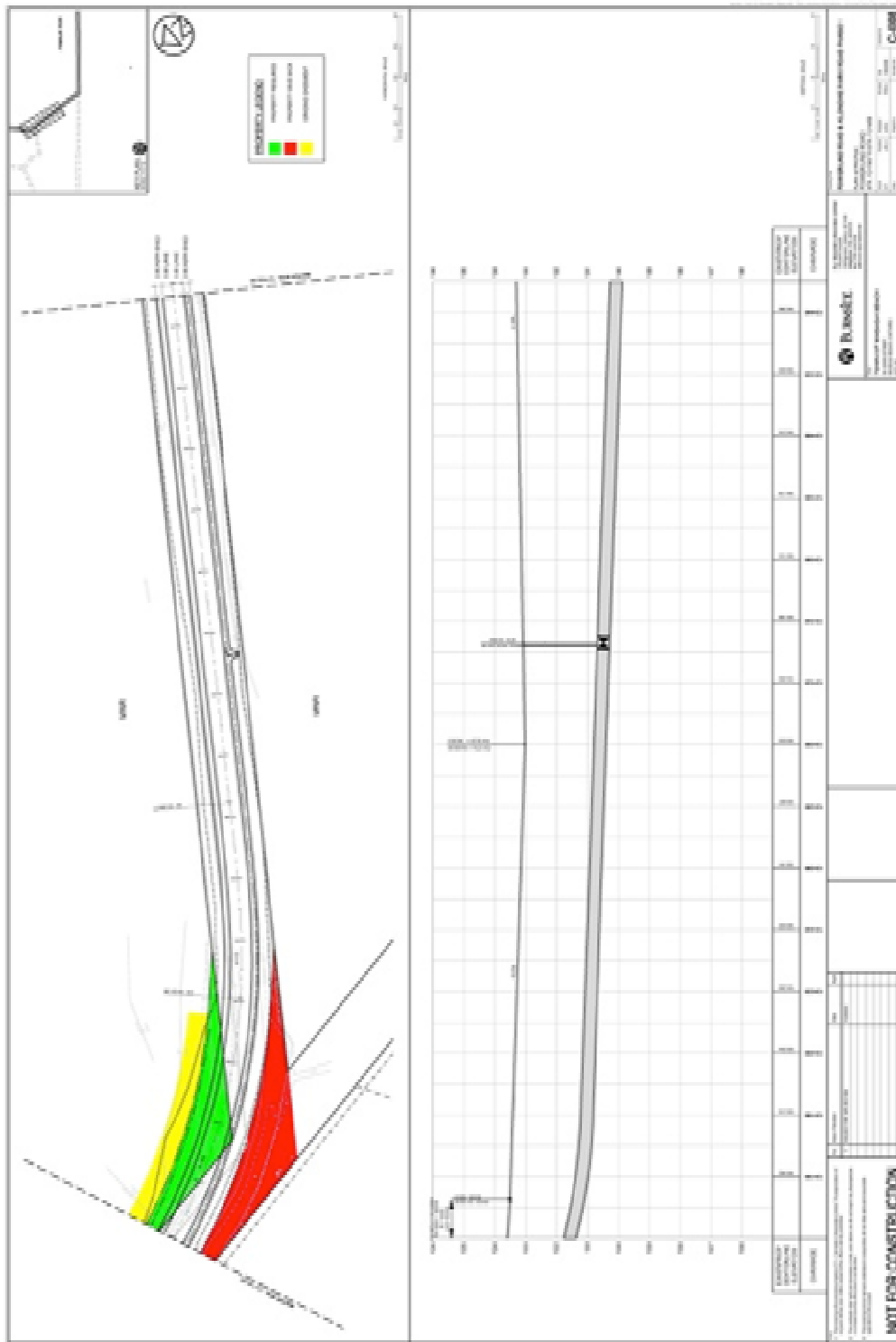
**FIGURE 3.4 PLAN OF SURVEY (R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



**FIGURE 3.5 PLAN OF SURVEY (R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



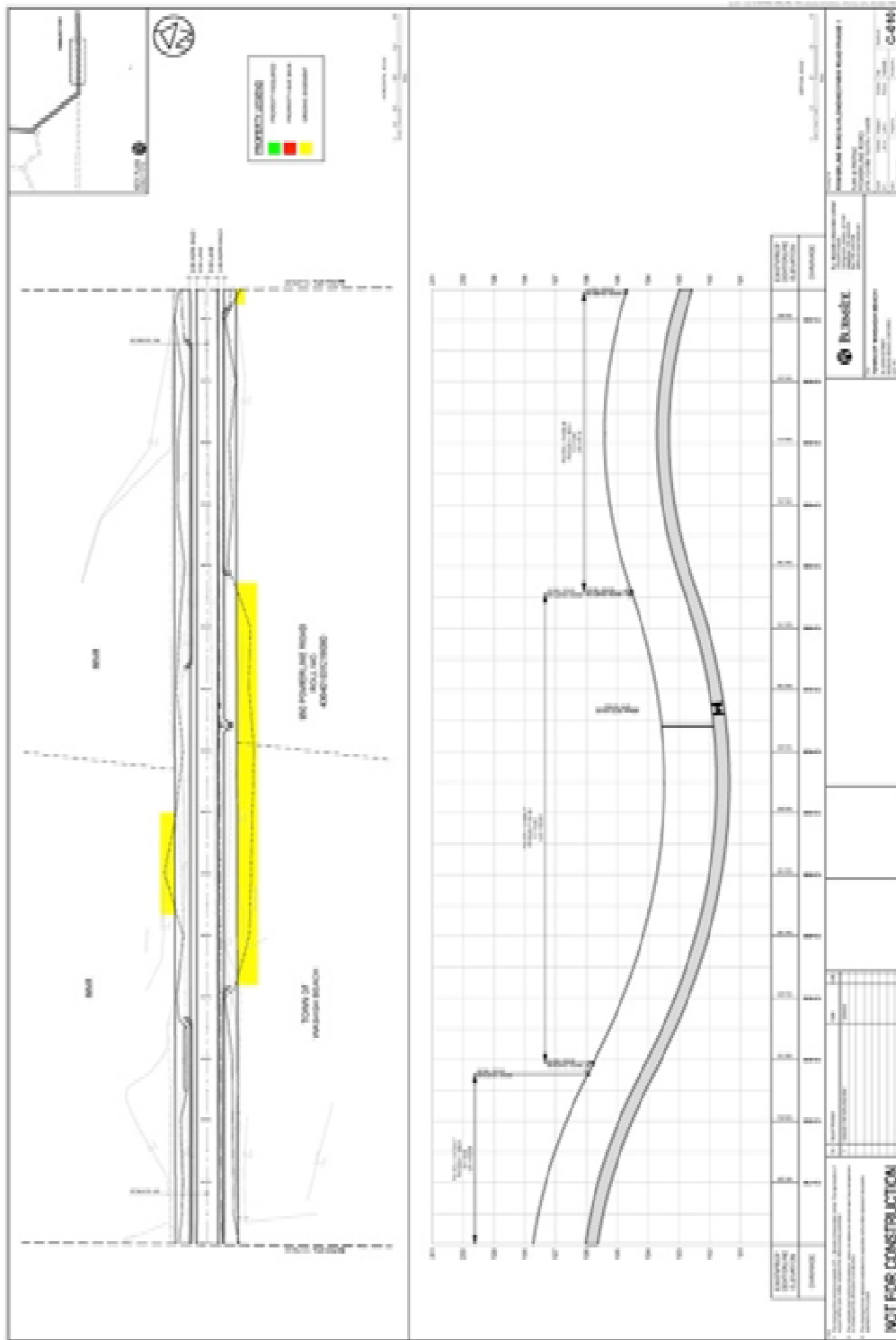
**FIGURE 3.6 PLAN OF SURVEY (R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



**FIGURE 3.7 PLAN OF SURVEY (R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

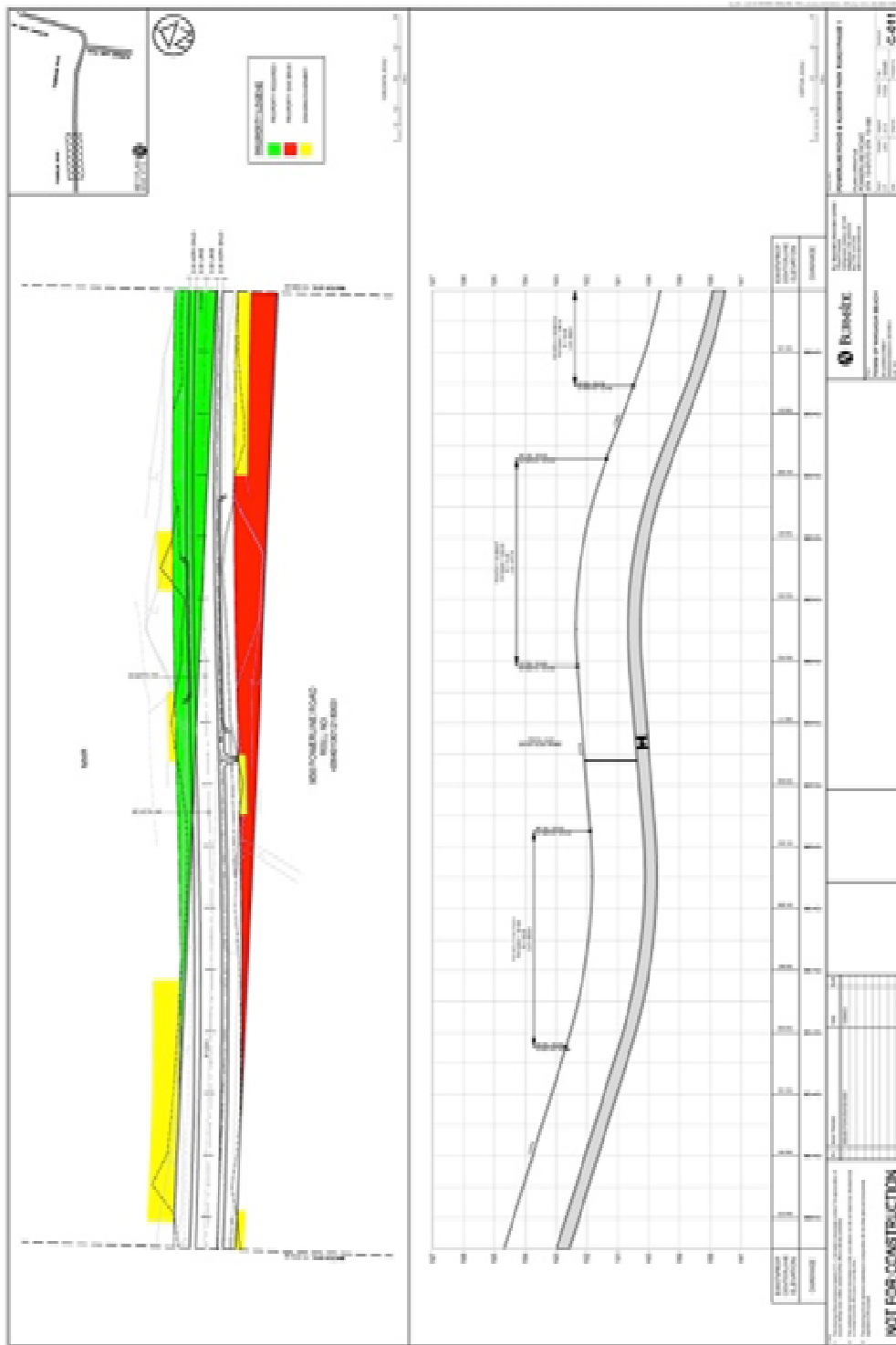
**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



**FIGURE 3.8 PLAN OF SURVEY (R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

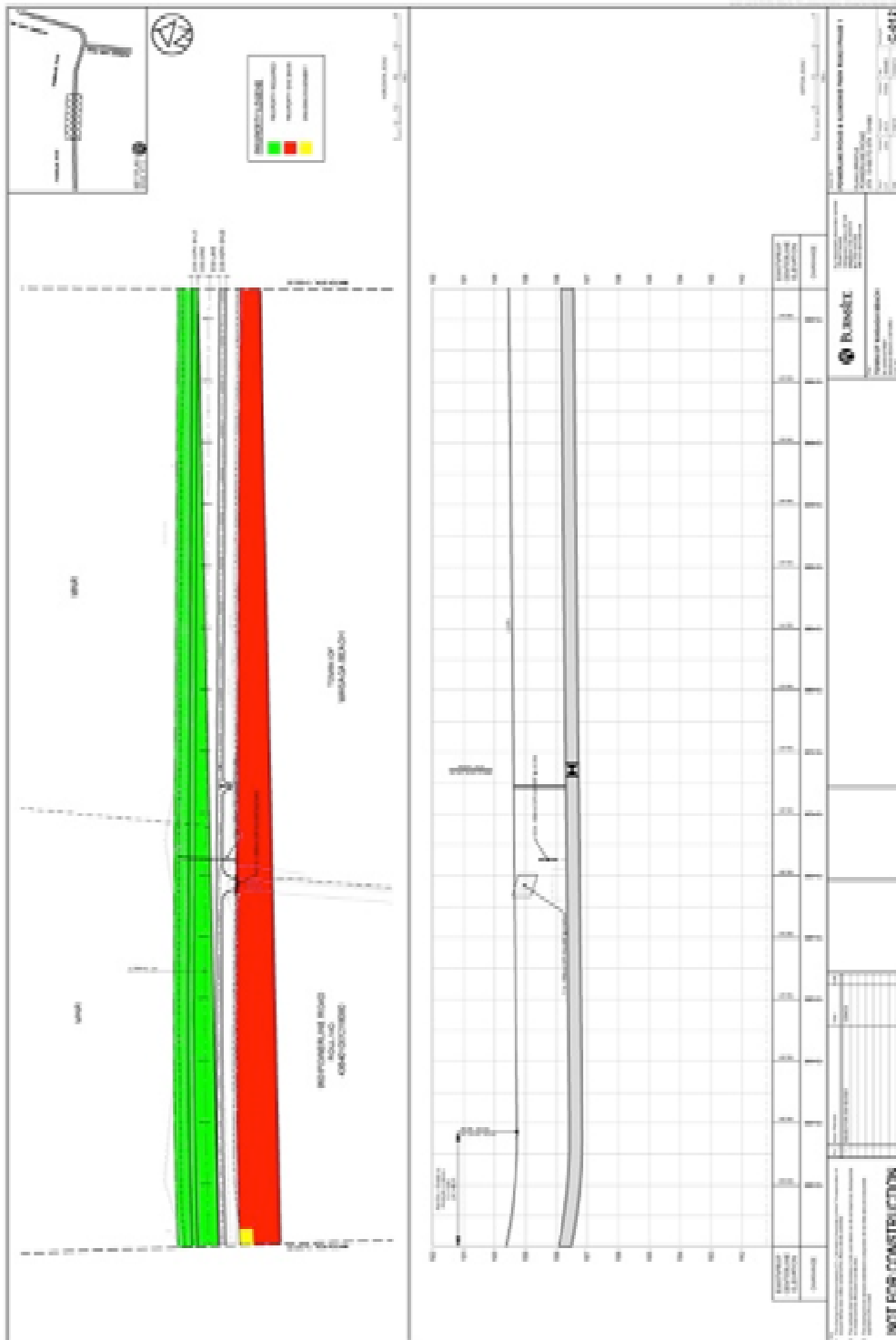


**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



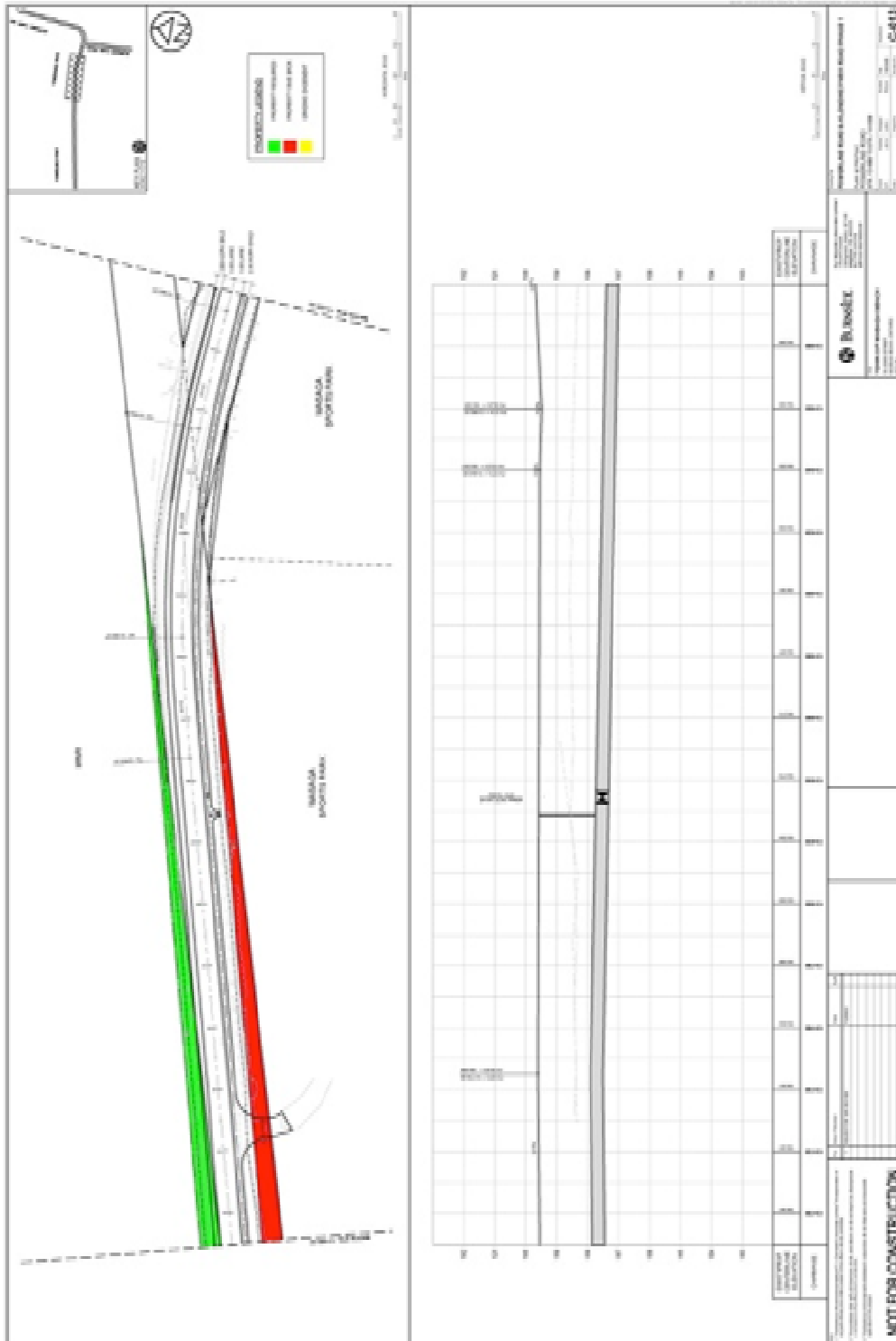
**FIGURE 3.9 PLAN OF SURVEY (R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



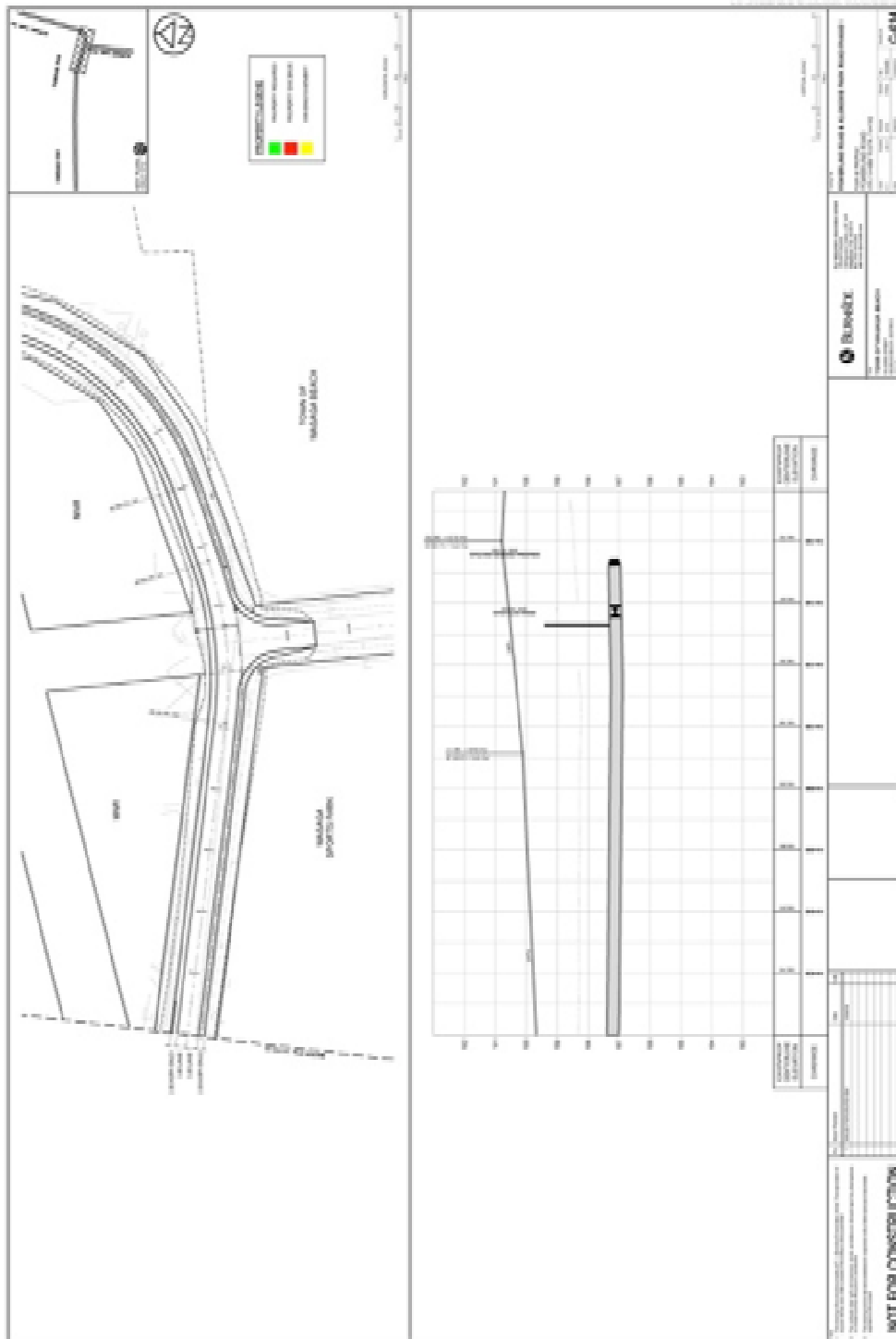
**FIGURE 3.10 PLAN OF SURVEY (R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



**FIGURE 3.11 PLAN OF SURVEY (R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



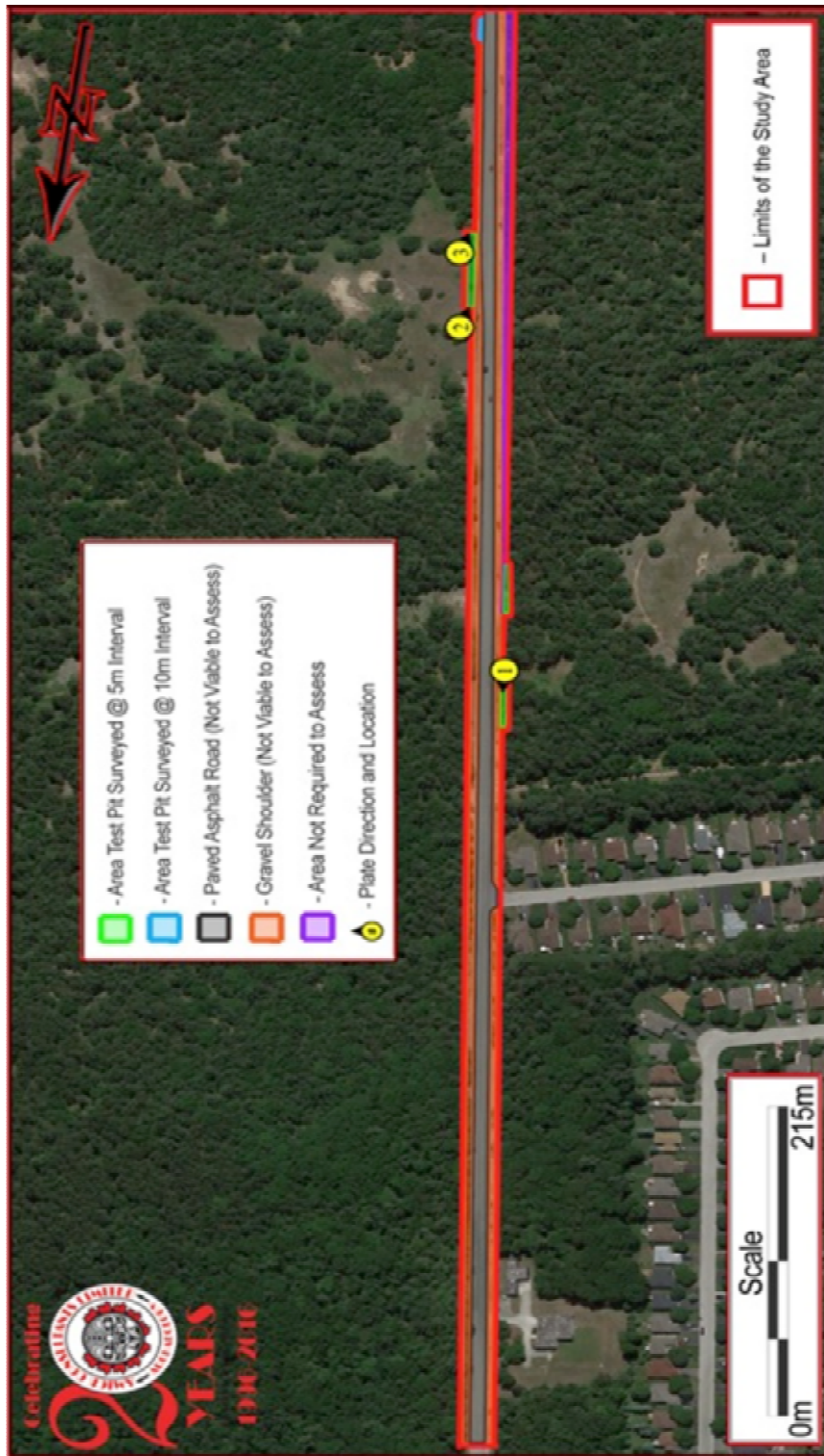
**FIGURE 3.12 PLAN OF SURVEY (R. J. BURNSIDE & ASSOCIATES LTD., 2013)**

*2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)*



**FIGURE 4.1 AERIAL PHOTO OF THE STUDY AREA (GOOGLE EARTH 2011)**

**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



**FIGURE 4.2 AERIAL PHOTO OF THE STUDY AREA (GOOGLE EARTH 2011)**



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**FIGURE 4.3 AERIAL PHOTO OF THE STUDY AREA (GOOGLE EARTH 2011)**

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FIGURE 4.4 AERIAL PHOTO OF THE STUDY AREA (GOOGLE EARTH 2011)

**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



**FIGURE 5.1 DETAILED PLAN OF THE STUDY AREA**

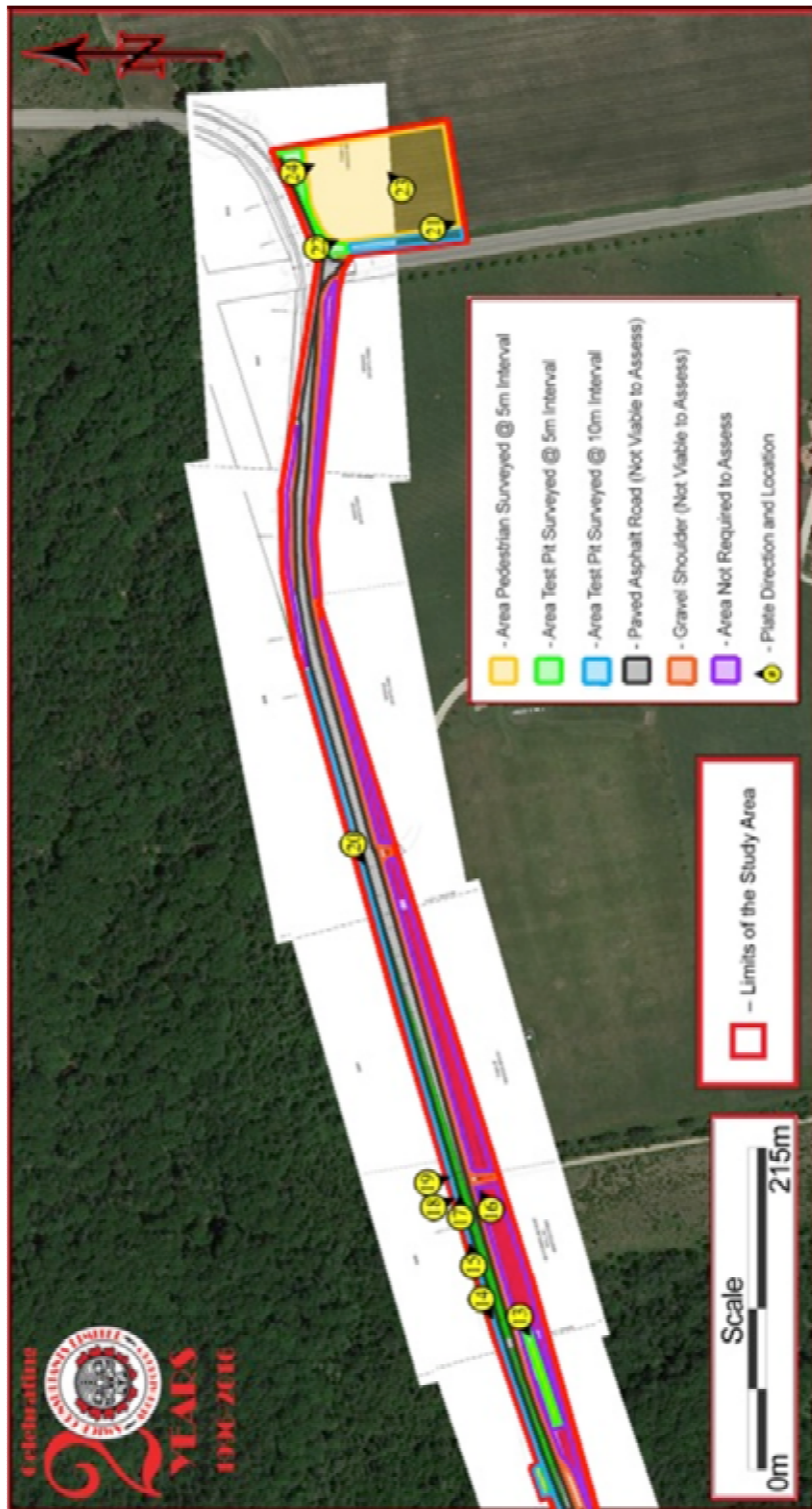


*2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)*



**FIGURE 5.2 DETAILED PLAN OF THE STUDY AREA**

**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



**FIGURE 5.3 DETAILED PLAN OF THE STUDY AREA**



*2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)*

**13.0 IMAGES**



**PLATE 1 TEST PIT SURVEY CONDITIONS**



**PLATE 2 TEST PIT SURVEY CONDITIONS AND STEEP SLOPE**



**PLATE 3 TEST PIT SURVEY CONDITIONS**



**PLATE 4 TEST PIT IN PROGRESS**



**PLATE 5 TEST PIT SURVEY CONDITIONS**



**PLATE 6 GRAVEL SHOULDER**



**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



**PLATE 7 PAVED ASPHALT ROAD**



**PLATE 8 TEST PIT SURVEY CONDITIONS – DISTURBED SOIL**



**PLATE 9 DISTURBED SOIL**



**PLATE 10 STEEP SLOPE**



**PLATE 11 TEST PIT SURVEY CONDITIONS**



**PLATE 12 TEST PIT SURVEY CONDITIONS**



**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



**PLATE 13 TEST PIT SURVEY CONDITIONS**



**PLATE 14 TEST PIT SURVEY CONDITIONS**



**PLATE 15 DISTURBED SOIL**



**PLATE 16 HYDRO CONDUIT**



**PLATE 17 DISTURBED SOIL**



**PLATE 18 DISTURBED TEST PIT IN PROGRESS**



**2016 Stage 2 Archaeological Assessment of the Proposed Improvements to Klondike Park Road and Veterans Way/Power Line Road, Part of Lot 7-11, Concession 15, and Part of Lot 7, Concession 16 (Geographic Township of Sunnidale) Town of Wasaga Beach, County of Simcoe (AMICK File #16014/MTCS File #P1024-0197-2016)**



**PLATE 19 GRAVEL GROUND CONDITIONS**



**PLATE 20 TEST PIT SURVEY CONDITIONS**



**PLATE 21 PEDESTRIAN SURVEY CONDITIONS**



**PLATE 22 PEDESTRIAN SURVEY CONDITIONS**



**PLATE 23 CREW @ WORK**



**PLATE 24 PEDESTRIAN SURVEY CONDITIONS**



## **Cultural Heritage Evaluation Report (CHER)**

**Proposed Roadway Improvements to Powerline Road  
South of River Road West to Klondike Park Road and continuing along  
Klondike Park Road north to Shaw Street,  
Town of Wasaga Beach, County of Simcoe**

**Prepared For:**

**R.J. Burnside & Associates Limited  
128 Wellington Street West, Suite 301  
Barrie, Ontario L4N 8J6  
tel: 705.797.2047 x777  
fax: 705.797.2037**

**Prepared By:**

**AMICK Consultants Limited**  
Lakelands District Office  
380 Talbot Street, P.O. Box 29  
Port McNicoll, ON L0K 1R0  
Phone: (705) 534-1546 Fax: (705) 534-7855  
Email: mhenry@amick.ca  
www.amick.ca

**Corporate Project Number 14592-P**

**11 September 2015**

## **EXECUTIVE SUMMARY**

This report describes the results of the 2014 Cultural Heritage Evaluation of the Proposed Roadway Improvements to Power Line Road from South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe conducted by AMICK Consultants Limited. Michael Henry, partner of AMICK Consultants Limited, conducted this study. This investigation was undertaken as a component study of the Class Environmental Assessment (E.A.) process under the Environmental Assessment Act (R.S.O. 1990) for approval from the Ministry of the Environment (MOE). This report will also address whether there are protected heritage properties abutting the project location, which might be directly or indirectly impacted by the proposed undertaking.

AMICK Consultants Limited was engaged by the proponent to undertake a Cultural Heritage Resources Assessment of lands potentially affected by the proposed undertaking and was granted permission to enter the property for the purposes of completing necessary fieldwork on 15 July 2015. The study area was subject to reconnaissance and photographic documentation on 06 August 2015.

The cultural heritage evaluation of the proposed undertaking was conducted in order to identify cultural heritage resources including built heritage resources and cultural heritage landscapes. The anticipated development impacts to cultural heritage landscapes and built heritage resources are displacement and disruption. Displacement occurs when cultural heritage features are removed as part of the development of the proposed undertaking. Disruption, or indirect impact, occurs through the introduction of physical, visual, audible or atmospheric elements that are not consistent with the setting or the character of the cultural heritage features.

The present use of the study area is as an asphalt surfaced two-lane road with largely unimproved road allowance at grade with the surrounding lands. In some areas along the route there are deep drainage ditches and in other areas the roadway is an artificial elevation above the surrounding landscape. However, for most of the route where improvements are proposed, there are no developed shoulders, pedestrian walkways, curbs or drainage ditches. A plan of the study area is included within this report as Figure 2. The proposed improvements to the existing road allowance include upgraded roadway geometry and traffic site lines. However, as this work is to be restricted to the existing road allowance and existing sight lines and cultural landscape features will not be directly impacted, this will represent a very minimal impact to the heritage integrity of the roughly 8 km route of the proposed undertaking. The proposed improvements will represent a significant enhancement to local community safety. Given these considerations, it has been determined that mitigation of impacts to heritage values is not necessary for the proposed undertaking.



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*Cultural Heritage Evaluation Report (CHER) of Proposed Roadway Improvements to Powerline Road South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #14592-P)*

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## **PROJECT PERSONNEL**

### **Project Manager**

Michael Henry CD BA FRAI FRSA (MTCS Professional Archaeologist Licence# P058)

### **Project Administrator**

Melissa Maclean BBA

### **Report Preparation**

Michael Henry

### **Draughting**

Kayleigh MacKinnon MSc (MTCS Professional Archaeologist Licence# P384)

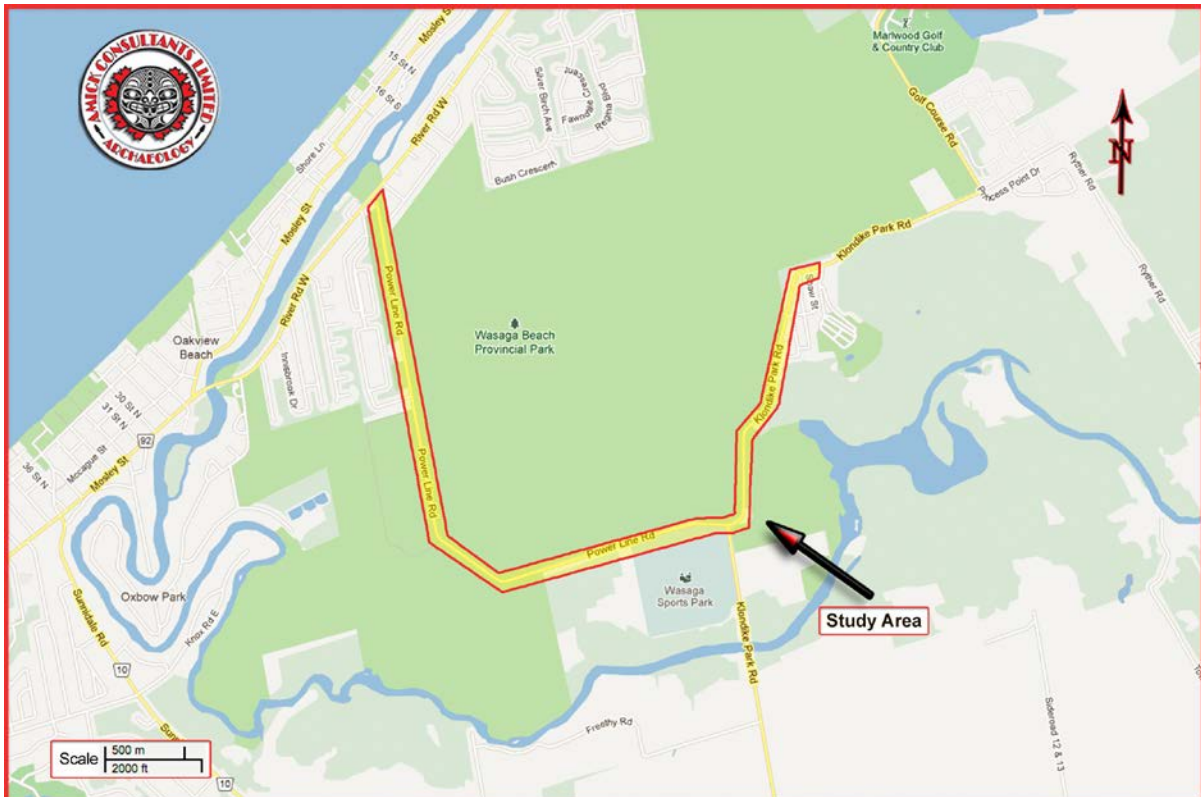
### **Photography**

Michael Henry CD BA (MTCS Professional Archaeologist Licence# P058)

## 1.0 INTRODUCTION

This report describes the results of the 2014 Cultural Heritage Evaluation of the Proposed Roadway Improvements to Power Line Road from South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe conducted by AMICK Consultants Limited. Michael Henry, partner of AMICK Consultants Limited, conducted this study. This investigation was undertaken as a component study of the Class Environmental Assessment (E.A.) process under the Environmental Assessment Act (R.S.O. 1990) for approval from the Ministry of the Environment (MOE). This report will also address whether there are protected heritage properties abutting the project location, which might be directly or indirectly impacted by the proposed undertaking.

AMICK Consultants Limited was engaged by the proponent to undertake a Cultural Heritage Resources Assessment of lands potentially affected by the proposed undertaking and was granted permission to enter the property for the purposes of completing necessary fieldwork on 30 April 2014. The study area was subject to reconnaissance and photographic documentation on 26 May 2014.



**Figure 1 Location of the Study Area**

## **1.1 Project Description**

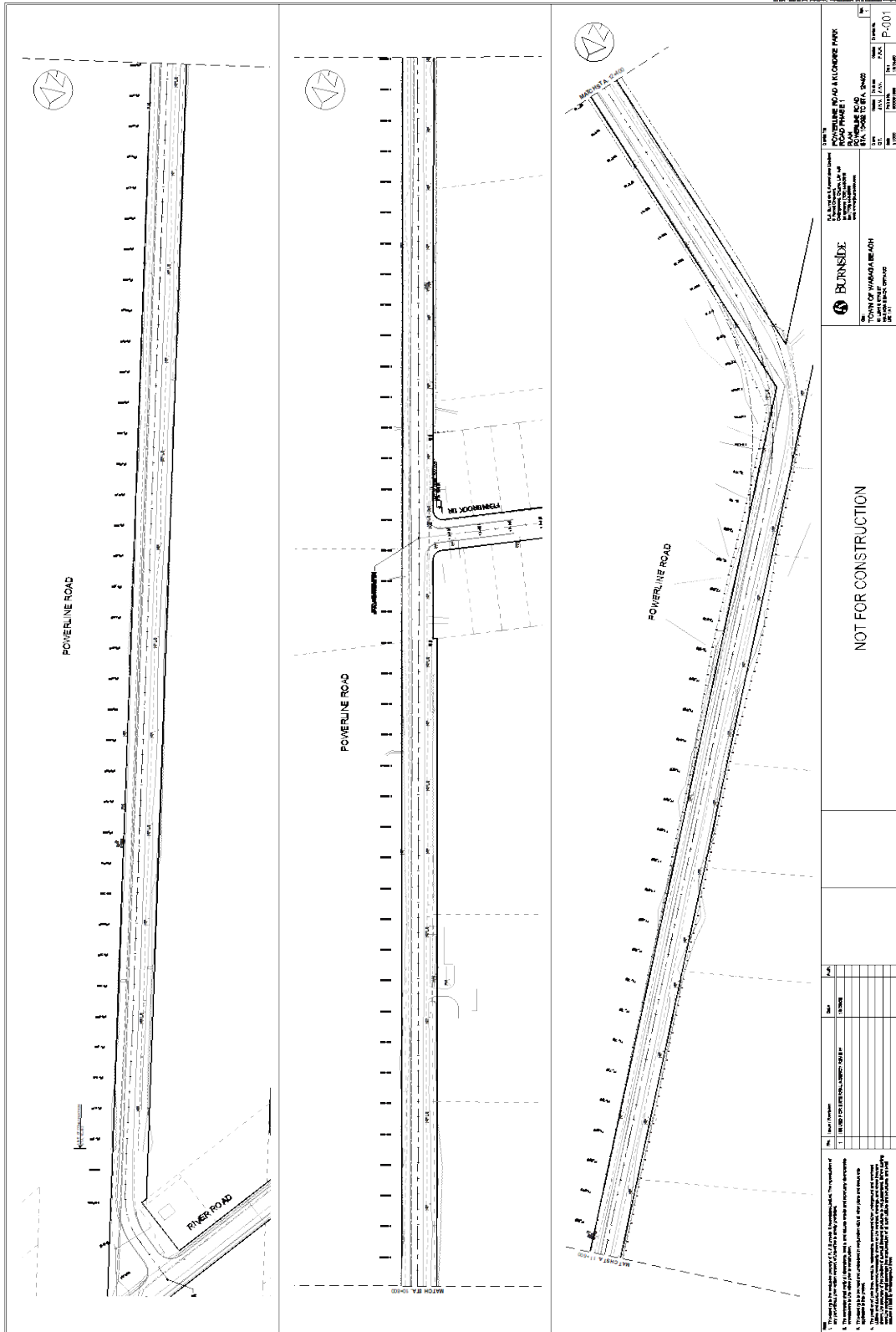
The Town of Wasaga Beach in Simcoe County is planning improvements to Power Line Road from South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street. As illustrated within the diagram below, this will include corrections and improvements to the existing route of the roadway in order to improve road geometry and traffic sight lines. This will represent significant improvements to local roadway safety and more efficient traffic flows.

A Cultural Heritage Evaluation Report (CHER) was deemed a necessary component of the Municipal Class EA to ensure that adverse impacts to potentially significant cultural heritage features are identified and addressed as part of the overall project.

The likely locations of direct development impacts associated with the proposed undertaking are illustrated below in Figures 2a & b, which are facsimiles of the project plans prepared by R. J. Burnside & Associates Limited (RJB 2011).

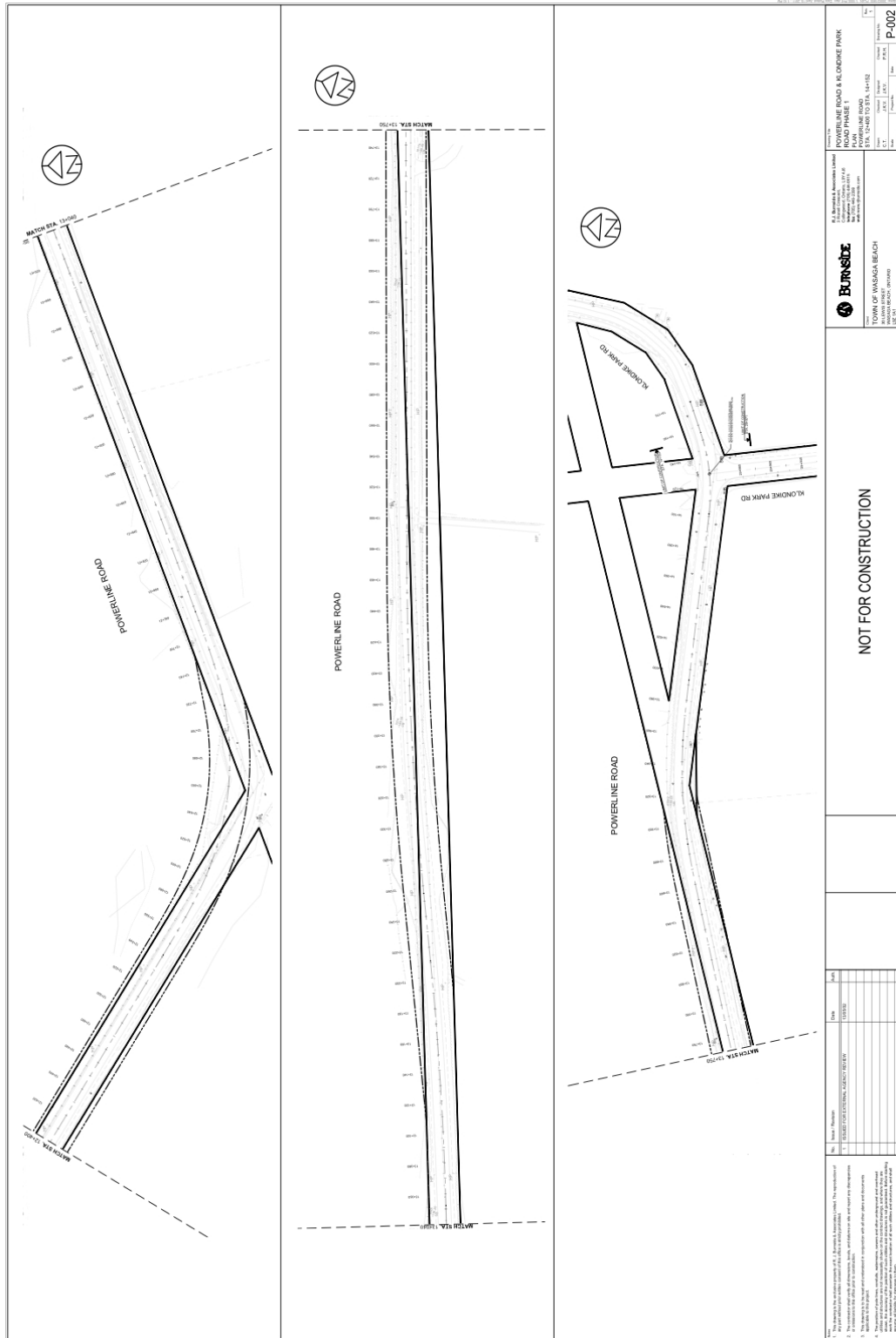


**Cultural Heritage Evaluation Report (CHER) of Proposed Roadway Improvements to Powerline Road South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #14592-P)**



**Figure 2a Proposed Plan – Page 1 (RJB 2011)**

**Cultural Heritage Evaluation Report (CHER) of Proposed Roadway Improvements to Powerline Road South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #14592-P)**



**Figure 2b Proposed Plan – Page 2 (RJB 2011)**

## **2.0 REGULATORY CONTEXT**

### **2.1 Environmental Assessment Act**

Ontario's Environmental Assessment Act (R.S.O. 1990) requires an environmental assessment of any major public sector undertaking that has the potential for significant environmental effects. This includes public roads, transit, wastewater and stormwater installations. Environmental assessments determine the ecological, cultural, economic and social impact of the project. Environmental assessment is a key part of the planning process and must be completed before decisions are made to proceed on a project. The Environmental Assessment Act also establishes a "Class Environmental Assessment" process to streamline the planning of municipal projects — including some road, water, and sewage and storm water projects.

### **2.2 Planning Act**

The Planning Act (R.S.O. 1990) and the Provincial Policy Statement (P.P.S. 2005) also address heritage resources from the perspective of the provincial interest. Section 2 of the Planning Act provides a list of matters of provincial interest. Planning authorities regulated under the Planning Act must have regard for matters of provincial interest in the conduct of their responsibilities.

*“The Minister, the council of a municipality, a local board, a planning board and the Municipal Board, in carrying out their responsibilities under this Act, shall have regard to, among other matters, matters of provincial interest such as,...*

*... (d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest;”*

(Planning Act R.S.O. 1990, Part 1, s. 2)

### **2.3 Provincial Policy Statement**

The current Provincial Policy Statement (PPS 2014) provides direction on provincial expectations with respect to how provisions under the Planning Act are interpreted and implemented. This Provincial Policy Statement was issued under Section 3 of the Planning Act (R.S.O. 1990) and came into effect on April 30, 2014. It replaces the Provincial Policy Statement of 2005.

*“The Provincial Policy Statement provides policy direction on matters of provincial interest related to land use planning and development. As a key part of Ontario’s policy-led planning system, the Provincial Policy Statement sets the policy foundation for regulating the development and use of land.”*

(P.P.S. 2014: 1)

*“In respect of the exercise of any authority that affects a planning matter, Section 3 of the Planning Act requires that decisions affecting planning matters ‘shall be consistent with’ policy statements issued under the Act.”*

(P.P.S. 2014: 1)

Part V: Policies (P.P.S. 2014) provides direction for the appropriate management of resources of provincial interest. Section 2 of Part V entitled Wise Use and Management of Resources includes sub-Section 2.6 Cultural Heritage and Archaeology.

*“2.6 Cultural Heritage and Archaeology*

*2.6.1 Significant built heritage resources and significant cultural heritage landscapes shall be conserved.*

*2.6.2 Development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.*

*2.6.3 Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.*

*2.6.4 Planning authorities should consider and promote archaeological management plans and cultural plans in conserving cultural heritage and archaeological resources.*

*2.6.5 Planning authorities shall consider the interests of Aboriginal communities in conserving cultural heritage and archaeological resources.”*

(P.P.S. 2014: 29)

Part V, Section 6 of the PPS includes an alphabetical listing of definitions for the terms employed in the PPS. The following are of particular relevance to the cultural heritage evaluation undertaken in support of the proposed undertaking:

*“**Built heritage resource:** means a building, structure, monument, installation or any manufactured remnant that contributes to a property’s cultural heritage value or interest as identified by a community, including an Aboriginal community. Built heritage resources are generally located on property that has been designated under Parts IV or V of the Ontario Heritage Act, or included on local, provincial and/or federal registers.”* (P.P.S. 2014: 39)

*“**Conserved:** means the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained under the Ontario Heritage Act. This may be achieved by the implementation of*

*recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment. Mitigative measures and/or alternative development approaches can be included in these plans and assessments.” (P.P.S. 2014: 40)*

*“**Cultural heritage landscape:** means a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Aboriginal community. The area may involve features such as structures, spaces, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. Examples may include, but are not limited to, heritage conservation districts designated under the Ontario Heritage Act; villages, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, trailways, viewsheds, natural areas and industrial complexes of heritage significance; and areas recognized by federal or international designation authorities (e.g. a National Historic Site or District designation, or a UNESCO World Heritage Site).” (P.P.S. 2014: 40)*

*“**Heritage attributes:** means the principal features or elements that contribute to a protected heritage property’s cultural heritage value or interest, and may include the property’s built or manufactured elements, as well as natural landforms, vegetation, water features, and its visual setting (including significant views or vistas to or from a protected heritage property).” (P.P.S. 2014: 43)*

*“**Protected heritage property:** means property designated under Parts IV, V or VI of the Ontario Heritage Act; property subject to a heritage conservation easement under Parts II or IV of the Ontario Heritage Act; property identified by the Province and prescribed public bodies as provincial heritage property under the Standards and Guidelines for Conservation of Provincial Heritage Properties; property protected under federal legislation, and UNESCO World Heritage Sites.” (P.P.S. 2014: 47)*

*“**Significant:** means...e) in regard to cultural heritage and archaeology, resources that have been determined to have cultural heritage value or interest for the important contribution they make to our understanding of the history of a place, an event, or a people.” (P.P.S. 2014: 49)*

HERITAGE RESOURCES IN THE LAND USE PLANNING PROCESS: *Cultural Heritage and Archaeology Policies of the Ontario Provincial Policy Statement, 2005* published in 2006 by the Ontario Ministry of Culture (now the Ministry of Tourism, Culture and Sport), provides further details on the policies of the Ministry of Tourism, Culture and Sport (MTCS) who are mandated to regulate the provincial interest with respect to heritage under the Ontario Heritage Act (R.S.O. 1990) and the Ontario Heritage Amendment Act (S.O. 2005).

This document largely reviews the information discussed previously with respect to the provincial interest in heritage matters. However, additional information is provided with



respect to forms of cultural heritage landscapes. Three types of cultural heritage landscapes are defined:

*“There are generally three main types of cultural heritage landscapes. The following are taken from the Operational Guidelines adopted by the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Committee in 1992, and are widely accepted as the three primary landscape types:*

- **Designed landscapes:** those which have been intentionally designed e.g. a planned garden or in a more urban setting, a downtown square.*
- **Evolved landscapes:** those which have evolved through the use by people and whose activities have directly shaped the landscape or area. This can include a ‘continuing’ landscape where human activities and uses are still on-going or evolving e.g. residential neighbourhood or mainstreet; or in a ‘relict’ landscape, where even though an evolutionary process may have come to an end, the landscape remains historically significant e.g. an abandoned mine site or settlement area.*
- **Associative landscapes:** those with powerful religious, artistic or cultural associations of the natural element, as well as with material cultural evidence e.g. a sacred site within a natural environment or a historic battlefield.*

(MTC 2006: 10)

## **2.4 Heritage Act**

The criteria to define local cultural heritage significance is prescribed in O. Reg. 9/06 made pursuant to section 29(1) (a) of the Ontario Heritage Act. The criteria set forth are reproduced below from sub-Section 2:

*“A property may be designated under section 29 of the Act if it meets one or more of the following criteria for determining whether it is of cultural heritage value or interest:*

- 1. The property has design value or physical value because it,
  - i. is a rare, unique, representative or early example of a style, type, expression, material or construction method,*
  - ii. displays a high degree of craftsmanship or artistic merit, or*
  - iii. demonstrates a high degree of technical or scientific achievement.**
- 2. The property has historical value or associative value because it,
  - i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community,*
  - ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or*
  - iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.**
- 3. The property has contextual value because it,*

- i. is important in defining, maintaining or supporting the character of an area,*
- ii. is physically, functionally, visually or historically linked to its surroundings,*
- or*
- iii. is a landmark.*

(O. Reg. 9/06, s. 1 (2))

## **2.5 Project Context**

In consideration of the above-described definitions of terminology related to heritage conservation, the proposed undertaking has the potential to adversely impact cultural heritage resources through displacement or disruption. Displacement occurs when cultural heritage features are removed as part of the development of the proposed undertaking. Disruption, or indirect impact, occurs through the introduction of physical, visual, audible or atmospheric elements that are not consistent with the setting or the character of the cultural heritage features.

This Cultural Heritage Evaluation Report (CHER) addresses above ground cultural heritage resources. These heritage resources fall into two broad categories: built heritage resources and cultural heritage landscapes. Cultural landscapes are related sets of individual artificial features or modifications to the environment and associated with forms of settlement and land use tied to historically defined time periods and cultural groups. Built heritage features are individual buildings or structures associated with changes over time in architectural design and building technology or with historic patterns of settlement. A third category of cultural heritage resources, archaeological deposits, has been addressed under separate cover specific to the nature of those forms of cultural heritage resource.

## **2.6 Study Area Evaluation**

The purpose of this study is to identify and evaluate cultural heritage resources that may be impacted through proposed land use changes or landscape modifications. Within the HERITAGE RESOURCES IN THE LAND USE PLANNING PROCESS: *Cultural Heritage and Archaeology Policies of the Ontario Provincial Policy Statement, 2005* published in 2006 by the Ontario Ministry of Culture (now MTCS) the means of identifying cultural heritage resources during an evaluation is described:

- ***Historical Research***

*Consulting maps, land records, photographs, publications, primary and other sources.*

- ***Site Survey and Analysis***

*Windshield surveys, intensive surveys, site surveys and analysis of the various features and characteristics which make up the cultural heritage landscape as well as delineation of landscape boundaries.*

- ***Evaluation***

*Applying criteria for evaluating design, history, and context of the entire subject area.*

(MTC 2006: 10)

A heritage feature documented during the course of the evaluation that meets one or more of the criteria noted in Section 2.4 above may require more detailed assessment in order to determine the level of significance and appropriate measures to mitigate potential adverse impacts once the preferred alternative for the proposed undertaking is selected.

The identification of cultural heritage landscapes typically falls within one of a number of conventionally used classifications. It should be noted as well that classes of heritage landscapes could overlap.

**Historic Settlement:** groupings of two or more structures identified with a commonly applied name;

**Historic Agricultural Landscape:** a historically established agricultural land use with defined land use areas such as fields or pastures and often associated with built features such as barns, outbuildings, fences, vehicle lanes, etc.

**Farm Complex:** consisting of at least two buildings including at least a farm house or a barn and often associated with tree lines, lanes, orchards, gardens, wells, silos, various forms of outbuildings, etc.

**Streetscapes:** usually refers to a paved roadway that is bounded on either side by urban density historically rooted development.

**Roadscapes:** are typically rural equivalents to streetscapes that are no more than two lanes in width with associated narrow shoulders, ditches, tree lines, bridges etc. that typify historically developed rural roads.

**Railsapes:** both active and inactive railway lines and railway rights-of-way and associated features such as artificial embankments, cuts, retaining walls, culverts, bridges, etc.

**Waterscapes:** water features that contribute to the overall character of a cultural heritage landscape and may have had a significant impact on the development of historically rooted settlement.

**Cemeteries:** land set aside for the purpose of burying human remains.

### **3.0 HISTORICAL CONTEXT**

This section provides an outline and summary of historic research and identified cultural heritage resources above ground that may be adversely impacted by the proposed undertaking. The proposed improvements to the road network are situated within the area identified by Power Line Road from South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street within the Town of Wasaga Beach.

#### **3.1 General Historical Outline**

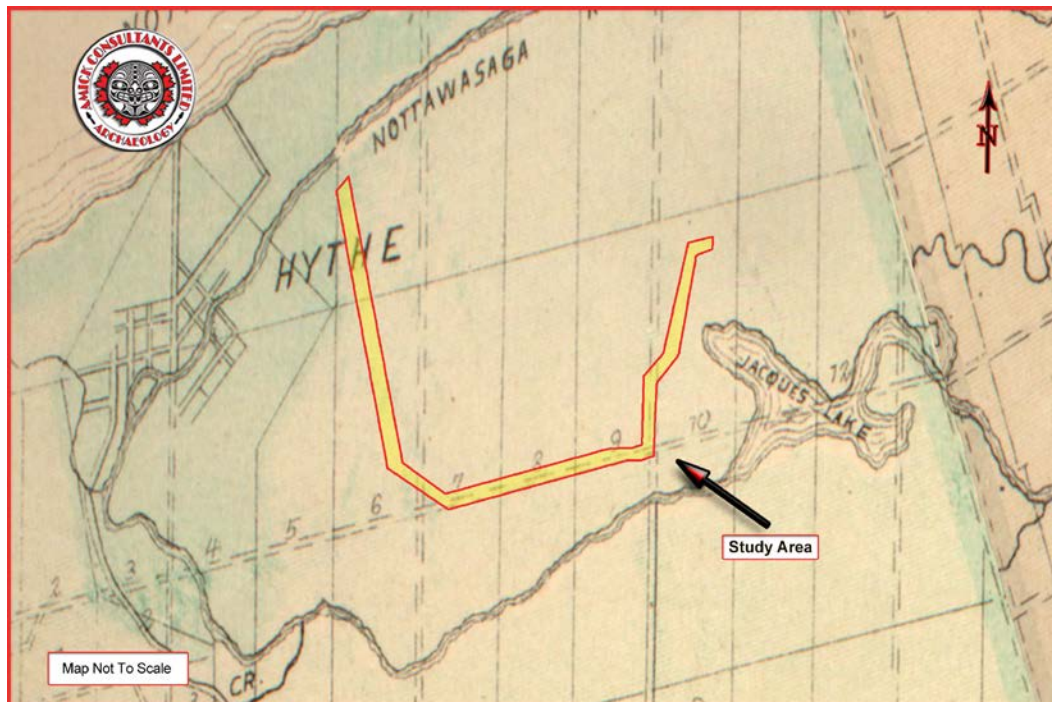
In the seventeenth century Simcoe County was home to the Huron. With the arrival of French priests and Jesuits, missions were established near Georgian Bay. After the destruction of the missions by the Iroquois and the British, Algonquin speaking peoples occupied the area.

After the war of 1812, the government began to invest in the military defences of Upper Canada, through the extension of Simcoe's Yonge Street from Lake Simcoe to Penetanguishene on Georgian Bay (Garbutt, 2010).

The study area is situated in former Flos Township. By 1847 settlement within the western portion of Flos Township began, this area included Elmvale, Fergusonvale, Phelpston and westward until the Nottawasaga River. One of the first settlers within this area was James Harvey from Northern Ireland, whom later brought his son as well. Settlement within this area continued to be slow, due to the living conditions and vast amount of work required to clear and to drain the land in order to settle here. As a result of the North Simcoe Branch Railway in 1879, settlement increased and has continued upwardly since then (Hunter 2010).

Very near to the study area, similar issues with early settlement occurred in Nottawasaga Township. Thomas Kelly first surveyed the Township of Nottawasaga in 1832 and in 1833 by Chas. Rankin. By 1834 settlers had already begun to take up land within the Township's borders. H.C. Yong was appointed the local immigrant agent in 1834, and by this time there was already 3 settlements, Duntroon which was settled by the Highland Scotch, a Irish Catholic settlement on the forth line and a small German settlement close to Batteau. The first settlers in the area began to settle in the Sunnidale area, however due to poor conditions due to marshy characteristics of the area within 2 years the settlers moved west. The major settlements within the township are Duntroon, Stayner, Collingwood, Nottawa, Cremore and Batteau (Hunter 2010).

### 3.2 Historic Maps



**Figure 3 Segment of a Map of Nottawasaga Township 1881 (Belden 1881)**



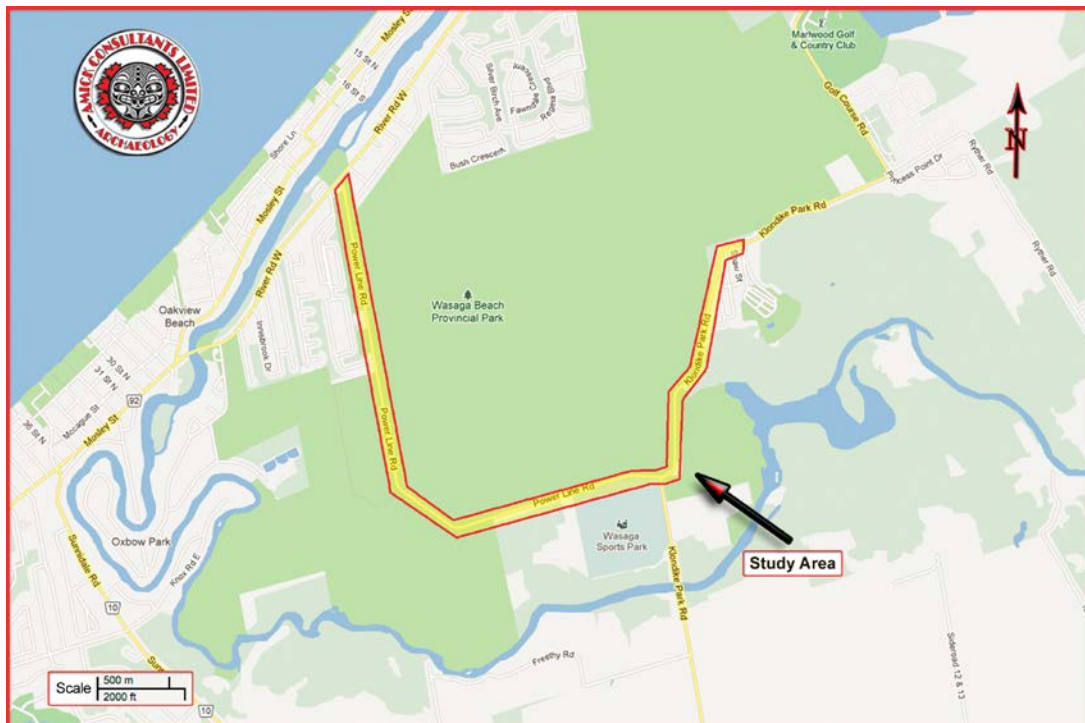
Figure 3 illustrates the location of the study area and environs as of 1881. None of the original rural lots through which this roadway passes are not shown to belong to anyone. No structures are shown along the modern roadway route or in close proximity to it. The area generally shows very little settlement.

However, it must be borne in mind that inclusion of names of property owners and depictions of structures within properties were sold by subscription. While information included within these maps may provide information about occupation of the property at a specific point in time, the absence of such information does not indicate that the property was not occupied.

### 3.3 Summary of Historical Context

The brief overview of documentary evidence readily available indicates that the study area is situated within an area that was poorly populated until late in the nineteenth century and as such has low potential for sites relating to early Euro-Canadian settlement in the region. Figure 3 also demonstrates that the entire route under consideration is of relatively recent construction and does not follow the route of any mapped heritage roadway. Accordingly, it has been determined that there is low potential for significant heritage features related to early settlement of the area to be found anywhere along the route of the proposed undertaking.

### 4.0 GEOGRAPHIC CONTEXT



**Figure 4 Location of the Study Area**



The map of the project location above (Figure 4) shows that none of the protected properties listed in *Appendix G: Protected Properties for which the Minister of Tourism and Culture Has Authority* within the 2011 Protected Properties, Archaeological and Heritage Resources: An Information Bulletin for Applications Addressing the Cultural Heritage Component of Projects Subject to Ontario Regulation 359/09 Renewable Energy Approvals issued by the Ministry of Tourism and Culture are located at the project location as required by subsection 19(3) of O. Reg. 359/09. Although the proposed undertaking is not a Renewable Energy Application and is therefore not subject to O. Reg. 359/09, consideration of the protected properties listed in the above information bulletin is nevertheless appropriate. In addition, discussions with representatives from the Town of Wasaga Beach confirmed that there were no known heritage resources potentially affected by the proposed work program.

#### **4.1 Location and Current Conditions**

The study area is illustrated in Figure 4 (above) and can be described as the Proposed Roadway Improvements to Power Line Road from South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe. This investigation was undertaken as a component study of the Class Environmental Assessment (E.A.) process under the Environmental Assessment Act (R.S.O. 1990) for approval from the Ministry of the Environment (MOE). This report will address whether there are protected heritage properties abutting the project location.

The present uses of the study area include road allowance, and adjacent residential lots and extensive woodlot areas. The study area is roughly 8 km long and approximately 16 hectares (40 acres) in area.

A plan of the study area superimposed on an aerial image is included as Figure 5 below.

#### **4.2 Physiographic Region**

The study area is situated within the Simcoe Lowlands physiographic region. For the most part, at one time, this restricted basin was part of the floor of Lake Algonquin, and its surface beds are deposits of deltaic and lacustrine origin, and not glacial outwash. As a small basin shut in by the Edenvale Moraine, the Minesing flats represent an annex of the Nipissing lake plains. Although the study area lies on the north side of the Minesing flats, noticeable properties such as calcareous clays and overlying sands comprising the soils are similar (Chapman and Putnam, 1984: 177-182).

#### **4.3 Surface Water**

The Nottawasaga River is roughly 400 metres from the study area at its nearest point. We have not found mapping at a sufficient detail to show any water within close proximity to the study area. However, the study area is situated in an area known of numerous wet areas at the surface.

## **5.0 STUDY AREA INSPECTION**

The descriptions of conditions within the study area included within this section were informed by a field reconnaissance carried out on 06 August 2015 and also as a result of a field inspection of the study area completed as part of the Stage 1 Archaeological Background Study completed in 2012. Figure 5 illustrates the current study area conditions with field reconnaissance photograph locations superimposed over an aerial photograph from the Stage 1 Archaeological Background study reconnaissance carried out on 18 November 2012. The Stage 1 Archaeological Background Study has been prepared under separate cover (AMICK 2014). The field reconnaissance photographs referenced in Figure 5 are included at the end of this report.

These descriptive categories have been employed as a heritage based classificatory scheme to document landscape conditions relevant to the cultural heritage evaluation for the study area.

### **5.1 Built Heritage Resources**

The study area is located within a predominantly rural and tree covered area and much of the affected road allowances are adjacent to vacant woodlot. There are scattered individual houses, a sports complex property with extensive playing field areas and a trailer park along the route. The proposed undertaking will have no direct impact on these developed properties or associated structures or yard areas as no modifications require direct construction impacts to any of these properties. No portion of these properties will be altered or damaged as a result of the proposed undertaking. Once the proposed undertaking is built there should be no perceived changes to any adjacent structures through either direct or indirect impacts.

### **5.2 Cultural Heritage Resources**

No features of Cultural Heritage Value or Interest, as outlined by O. Reg. 9/06, were identified in any location anywhere along the route of proposed roadway improvements.



**Figure 5 Aerial Image of Study Area Plan**



## **6.0 HERITAGE IMPACT ASSESSMENT**

The criteria to define local cultural heritage significance is prescribed in Ontario Regulation (O. Reg.) 9/06 made pursuant to section 29(1) (a) of the Ontario Heritage Act. The criteria set forth are reproduced below from sub-Section 2:

*“A property may be designated under section 29 of the Act if it meets one or more of the following criteria for determining whether it is of cultural heritage value or interest:*

- 1. The property has design value or physical value because it,
  - i. is a rare, unique, representative or early example of a style, type, expression, material or construction method,*
  - ii. displays a high degree of craftsmanship or artistic merit, or*
  - iii. demonstrates a high degree of technical or scientific achievement.**
- 2. The property has historical value or associative value because it,
  - i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community,*
  - ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or*
  - iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.**
- 3. The property has contextual value because it,
  - i. is important in defining, maintaining or supporting the character of an area,*
  - ii. is physically, functionally, visually or historically linked to its surroundings,*  
*or*
  - iii. is a landmark.**

(O. Reg. 9/06, s. 1 (2))

The criteria for determination of cultural heritage value or interest suggest that the study area contains no features of potential cultural value or interest.

Background research was conducted using historic sources about the area, historic atlas of the county, and the 2011 Protected Properties, Archaeological and Heritage Resources: An Information Bulletin for Applications Addressing the Cultural Heritage Component of Projects Subject to Ontario Regulation 359/09 Renewable Energy Approvals issued by the Ministry of Tourism and Culture. Although this project does not fall under O. Reg. 359/09, it was considered appropriate to consult this document to ensure that there were no protected properties affected by the proposed undertaking. Full references for all background research can be found in section 8.0 of this report. A property reconnaissance was conducted which included a site visit and visual inspection of the study area. Table 1 below provides a listing of the results of the study.

**Table 1 Potential Cultural Heritage Resources Checklist**

<b>Step 1 - Screening Potential Resources</b>			
<b><i>Built Heritage Resources</i></b>		YES	NO
Does the property contain any built structures, such as:			N
	Residential Structures (e.g. House, apartment building, trap line shelter)		N
	Agricultural (e.g. Barns, outbuildings, silos, windmills)		N
	Industrial (e.g. Factories, complexes)		N
	Engineering Works (e.g. Bridges, roads, water/sewer systems)	Y	
<b><i>Cultural Heritage Landscapes</i></b>		YES	NO
Does the property contain landscapes such as:			
	Burial sites and/or cemeteries		N
	Parks		N
	Quarries or mining operations		N
	Canals		N
	Other human-made alterations to the natural landscape	Y	



<b>Step 2 - Screening for Potential Significance</b>		
<b>A property's heritage significance may be identified through the following</b>	YES	NO
1. Is it designated or adjacent to a property designated under the Ontario Heritage Act?		N
2. Is it listed on the municipal heritage register or provincial register (e.g. Ontario Heritage Bridge List)?		N
3. Is it within or adjacent to a Heritage Conservation District?		N
4. Does it have an Ontario Heritage Trust easement or is it adjacent to such a property?		N
5. Is there a provincial or federal plaque?		N
6. Is it a National Historic Site?		N
7. Does documentation exist to suggest built heritage or cultural heritage landscape potential (e.g. Research studies, heritage impact assessment reports, etc.)		N
8. Was the municipality contacted regarding potential cultural heritage value?		N
9. What are the dates of construction?		
Are the buildings and/or structures over 40 years old?		N
Is it within a Canadian Heritage River watershed?		N
10. Is a renowned architect or builder associated with the property?		N

<p><b>Note: If you answer "yes" to any of the questions in Step 2, a Heritage Impact Assessment is Required.</b></p>
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<b>Step 3 - Screening for Potential Impacts</b>		
	YES	NO
<b>Destruction</b> of any, or part of any, significant heritage attribute or feature		N
<b>Alteration</b> that is not sympathetic, or is incompatible, with the historic fabric or appearance		N
<b>Shadows</b> created that alter the appearance of a heritage attribute or change the visibility of a natural feature or plantings, such as a garden		N
<b>Isolation</b> of a heritage attribute from its surrounding environment, context or a significant relationship		N
<b>Direct or indirect</b> obstruction of significant views or vistas from, within, or to a built and natural feature		N
<b>A change in land use</b> such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open space		N
<b>Land disturbances</b> such as a change in grade that alters soils and drainage patterns that adversely affect an archaeological resource		N

## **7.0 RECOMMENDATIONS**

As illustrated in Table 1 of this report, the criteria for determination of cultural heritage value or interest suggest that the study area contains no features of potential cultural value or interest.

## **8.0 BIBLIOGRAPHY AND SOURCES**

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## 9. STUDY AREA RECONNAISSANCE PHOTOS



**Plate 1** Shoulder of Klondike Park Rd., facing Northeast



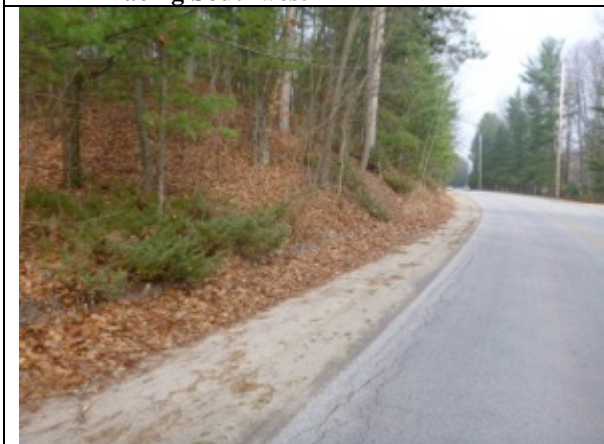
**Plate 2** Steep Slope along Klondike Park Rd., facing Northeast



**Plate 3** Shoulder of Klondike Park Rd., facing Southwest



**Plate 4** Shoulder of Klondike Park Rd., facing Southwest



**Plate 5** Steep Slope along Klondike Park Rd., facing Northeast



**Plate 6** Steep Slope along Klondike Park Rd., facing Southwest



*Cultural Heritage Evaluation Report (CHER) of Proposed Roadway Improvements to Powerline Road South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #14592-P)*



**Plate 7 Shoulder of Klondike Park Rd., facing Northeast**



**Plate 8 Shoulder of Klondike Park Rd., facing Southwest**



**Plate 9 Steep Slope along Klondike Park Rd., facing Northeast**



**Plate 10 Steep Slope along Klondike Park Rd., facing South**



**Plate 11 Steep Slope along Klondike Park Rd., facing Northeast**



**Plate 12 Steep Slope along Klondike Park Rd., facing South**



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**Plate 13** Shoulder of Klondike Park Rd., facing Northeast



**Plate 14** Steep Slope along Power Line Rd., facing Southwest



**Plate 15** Shoulder of Power Line Rd., facing Southwest



**Plate 16** Shoulder of Klondike Park Rd., facing Northeast



**Plate 17** Steep Slope along Power Line Rd., facing East



**Plate 18** Steep Slope along Power Line Rd., facing West

*Cultural Heritage Evaluation Report (CHER) of Proposed Roadway Improvements to Powerline Road South of River Road West to Klondike Park Road and continuing along Klondike Park Road north to Shaw Street, Town of Wasaga Beach, County of Simcoe (AMICK File #14592-P)*



**Plate 19 Power Line Rd. and Klondike Park Rd., facing East**



**Plate 20 Shoulder of Power Line Rd., facing West**



**Plate 21 Steep Slope along Power Line Rd., facing Northeast**



**Plate 22 Steep Slope along Power Line Rd., facing Southwest**



**Plate 23 Steep Slope along Power Line Rd., facing Northeast**



**Plate 24 Steep Slope along Power Line Rd., facing Southwest**



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**Plate 25 Steep Slope along Power Line Rd., facing Northeast**



**Plate 26 Steep Slope along Power Line Rd., facing Southwest**



**Plate 27 Steep Slope along Power Line Rd., facing Northeast**



**Plate 28 Steep Slope along Power Line Rd., facing Southwest**



**Plate 29 Shoulder of Power Line Rd., facing Southeast**



**Plate 30 Shoulder of Power Line Rd., facing Northwest**

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**Plate 31** Shoulder of Power Line Rd.,  
facing Southeast



**Plate 32** Shoulder of Power Line Rd.,  
facing Northwest



**Plate 33** Shoulder of Power Line Rd.,  
facing South



**Plate 34** Shoulder of Power Line Rd.,  
facing Northwest



**Plate 35** Shoulder of Power Line Rd.,  
facing Southeast



**Plate 36** Shoulder of Power Line Rd.,  
facing Northwest



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**Plate 37** Shoulder of Power Line Rd.,  
facing South



**Plate 38** Shoulder of Power Line Rd.,  
facing Northwest



**Plate 39** Shoulder of Power Line Rd.,  
facing Southeast



**Plate 40** Shoulder of Power Line Rd.,  
facing Northwest



**Plate 41** Shoulder of Power Line Rd.,  
facing South



**Plate 42** Shoulder of Power Line Rd.,  
facing Northwest



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**Plate 43** Shoulder of Power Line Rd., facing Southeast



**Plate 44** Shoulder of Power Line Rd. with Gravel Driveway, facing Northwest



**Plate 45** Drainage Ditch along Power Line Rd., facing South



**Plate 46** Power Line Rd., facing Northwest



**Plate 47** Drainage Ditch along Power Line Rd., facing Southeast



BURNSIDE

[ THE DIFFERENCE IS OUR PEOPLE ]

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## Appendix B

### Evaluation of Alternatives

# Veterans Way, Klondike Park Road Geometric Improvements and Watermain Looping - Evaluation of Road Alternatives

CRITERIA FOR EVALUATING ALTERNATIVES		Do Nothing	Reduce Posted Speed	Realignment of Curves
<b>A NATURAL ENVIRONMENT</b>				
1	<b>Terrestrial Vegetation</b>	No impact over existing conditions	No impact over existing conditions	Limited encroachment into vegetation communities considered to be common and secure in Ontario with the exception of Tall-grass Prairie.
	Rating	○	○	●
2	<b>Surface Water and Aquatic Habitat</b>	No impact over existing conditions	No impact over existing conditions	No impact over existing conditions
	Rating	○	○	○
3	<b>Impact to Provincial Park Lands</b>	No impact over existing conditions	No impact over existing conditions	Limited encroachment onto Park lands through grading easement. Property acquisition through land exchange.
	Rating	○	○	●
4	<b>Potential Impact to Wildlife and Habitat</b>	No impact over existing conditions	Moderate improvement to safety of wildlife crossing the roads within the study area.	Limited impact to wildlife through avoidance and timing of construction. Improved road crossing mitigation for species at risk reptiles
	Rating	●	●	○
<b>SUMMARY NATURAL ENVIRONMENT</b>		●	○	●

CRITERIA FOR EVALUATING ALTERNATIVES		Do Nothing	Reduce Posted Speed	Realignment of Curves
<b>B SOCIO-CULTURAL ENVIRONMENT</b>				
1	<b>Conformity to Municipal Land Use, Policies and Planning</b>	Does not accommodate future growth and transportation planning within the Town.	Does not accommodate future growth and transportation planning within the Town.	Accommodates future growth and transportation planning within the Town
	Rating	●	●	○
2	<b>Heritage Resources (archaeological features, built heritage, and cultural heritage landscapes)</b>	No impact over existing	No impact over existing	Potential for some impact
	Rating	○	○	●
3	<b>Nuisance Impacts (noise, traffic, aesthetics, disruption during construction)</b>	No impact over existing	Minor impact on traffic flow, no disruption during construction	Temporary noise and traffic flow impacts anticipated during construction
	Rating	○	●	●
4	<b>Land Acquisition Requirements</b>	None	None	Minor property acquisition through land exchange
	Rating	○	○	●
5	<b>Pedestrian Safety</b>	Not improved	Minor improvements with slower vehicular traffic, if enforced	Improved sightlines for motorists to see pedestrians/hikers
	Rating	●	●	○
6	<b>Cyclist Safety</b>	Not improved	Minor improvements with slower vehicular traffic, if enforced	Improved sightlines for motorists to see cyclists
	Rating	●	●	○
7	<b>Motorist Safety</b>	Not improved	Improved safety with slower vehicular traffic, if enforced	Improved sightlines to view oncoming traffic
	Rating	●	●	○
8	<b>Visibility</b>	Not improved	Not improved	Improved sightlines
	Rating	●	●	○
<b>SUMMARY Rating</b>		●	●	○

CRITERIA FOR EVALUATING ALTERNATIVES		Do Nothing	Reduce Posted Speed	Realignment of Curves
<b>C FINANCIAL FACTORS</b>				
1	<b>Estimated Capital Costs</b>	No impact over existing	Minor costs for signs and installation	Costs for road reconstruction and wildlife crossing, offset by redundant costs for watermain looping
	Rating	○	●	●
2	<b>Estimated Operation and Maintenance Cost</b>	Aged road sections will require increased maintenance	Aged road sections will require increased maintenance	New road sections will require less maintenance
	Rating	●	●	●
3	<b>Property Acquisition Cost</b>	No impact over existing	No impact over existing	Minor property acquisition through land exchange
	Rating	○	○	●
<b>SUMMARY FINANCIAL FACTORS</b>		○	●	●

CRITERIA FOR EVALUATING ALTERNATIVES		Do Nothing	Reduce Posted Speed	Realignment of Curves
<b>D TECHNICAL FACTORS</b>				
1	<b>Addresses traffic control and operation requirements (Level of service, delay, queues)</b>	No	Traffic calming measures improve level of service	Yes
	Rating	●	●	○
2	<b>Traffic Capacity</b>	No impact over existing	Reduced traffic capacity	Improved traffic capacity
	Rating	○	●	○
3	<b>Improves road geometrics to minimum municipal standards</b>	No	No	Yes
	Rating	●	●	○
4	<b>Improves sight distances</b>	No	Yes based on relative speed	Yes
	Rating	●	●	○
<b>SUMMARY TECHNICAL FACTORS</b>		●	●	○

CRITERIA FOR EVALUATING ALTERNATIVES		Do Nothing	Reduce Posted Speed	Realignment of Curves
<b>E PROBLEM STATEMENT</b>				
1	<b>Addresses Problem Statement</b>	No	Yes	Yes
<b>SUMMARY PROBLEM STATEMENT</b>		Not Preferred	Preferred	Preferred

CRITERIA FOR EVALUATING ALTERNATIVES		Do Nothing	Reduce Posted Speed	Realignment of Curves
<b>OVERALL SUMMARY</b>		Not Preferred	Not Preferred	Preferred

## ORDER OF PREFERENCE

- Most Preferred ○
- Moderately Preferred ●
- Somewhat Preferred ●
- Minors Preferred ●
- Least Preferred ●

# Veterans Way, Klondike Park Road Geometric Improvements and Watermain Looping - Evaluation of Intersection Alternatives

CRITERIA FOR EVALUATING ALTERNATIVES		Do Nothing	All-Way Stop	Signalization	Realignment	Roundabout
<b>A NATURAL ENVIRONMENT</b>						
1	<b>Terrestrial Vegetation</b>	No impact above existing conditions	No impact above existing conditions. Implementation within the existing right-of-way.	No impact above existing conditions. Implementation within the existing right-of-way.	Impact to agricultural lands of Wasaga Beach Provincial Park	Impact to agricultural lands of Wasaga Beach Provincial Park
	Rating	○	○	○	○	○
2	<b>Surface Water and Aquatic Habitat</b>	No impact above existing conditions	No impact above existing conditions.	No impact above existing conditions.	No impact above existing conditions	No impact above existing conditions
	Rating	○	○	○	○	○
3	<b>Impact to Provincial Park Lands</b>	None	None	None	Impact to agricultural lands of Wasaga Beach Provincial Park	Impact to agricultural lands of Wasaga Beach Provincial Park
	Rating	○	○	○	○	○
4	<b>Potential Impact to Wildlife and Habitat</b>	None	None	None	Impact to agricultural field	Impact to agricultural field
	Rating	○	○	○	○	○
5	<b>Impact to Climate Change</b>	No impact above existing conditions	Brief idling at the stop sign at all three legs of the intersection.	Idling while waiting for a green light, increases fuel consumption and emissions	Brief idling at the stop sign. Through movement for the majority of traffic.	Moving traffic results in fewer delays reduces fuel consumption and improves air quality by reducing emissions.
	Rating	○	○	○	○	○
<b>SUMMARY NATURAL ENVIRONMENT</b>		○	○	○	○	○
<b>B SOCIO-CULTURAL ENVIRONMENT</b>						
1	<b>Conformity to Municipal Land Use, Policies and Planning</b>	Does not meet future growth within the Town.	Does not improve sub standard sight distances	Yes	Yes	Yes
	Rating	●	○	○	○	○
2	<b>Heritage Resources (archaeological features, built heritage, and cultural heritage landscapes)</b>	No impact over existing conditions	No impact over existing conditions	No impact over existing conditions	Possible impact to potential archaeological resources.	Possible impact to potential archaeological resources.
	Rating	○	○	○	○	○
3	<b>Nuisance Impacts (noise, traffic, aesthetics, disruption during construction)</b>	No impact over existing	Insignificant impacts as a result of installation of traffic signs. No road closure.	Limited impacts as a result of roadside construction and installation of traffic signals. No road closure.	Temporary impacts during construction. Potential road closure and detours	Temporary impacts during construction. Potential road closure and detours
	Rating	○	○	○	○	○
4	<b>Land Acquisition Requirements</b>	No impact over existing	No impact over existing	Some minor property acquisition may be required to accommodate lights.	Property Acquisition required for new intersection footprint.	Property Acquisition required for new roundabout footprint.
	Rating	○	○	○	○	○
5	<b>Pedestrian Safety</b>	Does not improve safety of pedestrian crossing over existing conditions	Improved pedestrian safety. Traffic stops briefly in all directions to allow for pedestrian crossing.	Improved pedestrian safety. Crossing of intersection is controlled by signals. Traffic flow can be stopped to allow for pedestrian crossing.	Does not improve safety of pedestrian crossing above existing conditions. Stop control for one direction of traffic only.	Improved pedestrian safety. Pedestrians only have to cross one direction of traffic at a time.
	Rating	○	○	○	○	○
6	<b>Cyclist Safety</b>	Does not improve safety	Improved safety for cyclists	Improved safety for cyclists	Greatly improved safety for cyclists	Improved safety for cyclists
	Rating	○	○	○	○	○
7	<b>Motorist Safety</b>	Does not improve safety of turning movements.	Does not improve safety of turning movements.	Improved safety of turning movements with signal control.	Significantly improved safety of turning movements.	Improved safety of turning movements. Lower absolute speeds. Allowing more time for drivers to react while reducing crash severity.
	Rating	○	○	○	○	○
8	<b>Visibility</b>	Does not improve visibility.	Does not improve visibility.	Minor increase in visibility due to lights.	Improved sightlines.	Improved safety of sightlines. Vehicles travel in the same direction visually eliminating the possibility of sight angle or head-on collision
	Rating	○	○	○	○	○
<b>SUMMARY SOCIO-CULTURAL ENVIRONMENT</b>		○	○	○	○	○
<b>C FINANCIAL FACTORS</b>						
1	<b>Estimated Capital Costs</b>	None	Insignificant costs	Relatively low capital costs for traffic signals and left-turn lane installation	Relatively low capital cost for road realignment works, including construction	High Capital Costs for construction of roundabout and new intersection alignment
	Rating	○	○	○	○	○
2	<b>Estimated Operation and Maintenance Cost</b>	New road will require minimal maintenance	New road will require minimal maintenance	Maintenance of road and signals	New road will require minimal maintenance	New road will require minimal maintenance
	Rating	○	○	○	○	○
3	<b>Property Acquisition Cost</b>	None	None	Some minor property acquisition may be required.	Property acquisition through land exchange with Wasaga Beach Provincial Park	Property acquisition through land exchange with Wasaga Beach Provincial Park
	Rating	○	○	○	○	○
<b>SUMMARY FINANCIAL FACTORS</b>		○	○	○	○	○
<b>D TECHNICAL FACTORS</b>						
1	<b>Addresses current and short-term traffic control and operation requirements (Level of service, delay, queues)</b>	Good level of service		Slight improvement over existing	Slight improvement over existing	Slight improvement over existing
	Rating	○	○	○	○	○
2	<b>Ability to accommodate potential future traffic increases</b>	Limited ability to accommodate traffic growth	Some ability to accommodate traffic growth	Ability to accommodate potential traffic growth	Some ability to accommodate potential traffic growth. Potential for future signalization allows for additional long-term capacity if required.	Significant capacity available for potential traffic growth
	Rating	○	○	○	○	○
3	<b>Aligns Intersection layout to suit heaviest traffic movements and improves road network continuity</b>	No improvement	No improvement	No improvement	Aligns the Klondike Park Road legs as through movements, which represents the majority of existing traffic	Aligns the Klondike Park Road legs as through movements, which represents the majority of existing traffic
	Rating	○	○	○	○	○
4	<b>Addresses technical safety concerns associated with improved sight distances and turning movements</b>	No improvement	Signs provide protected movement for northbound left-turn movements. Sightlines are still limited around curve to the east.	Signalization provides protected movement for northbound left-turn movements. Added westbound left-turn lane reduces potential for rear-end collisions, however sightlines are still limited around curve to the east.	Realignment provides sufficient sight distances for all movements and reduces the number of turning movements at the intersection	Roundabout alignment provides sufficient sight distances for all movements and reduces the number of conflict points at the intersection
	Rating	○	○	○	○	○
5	<b>Improves intersection geometrics</b>	No improvement - intersection still on curve	No improvement - intersection still on curve	Slight improvement with the addition of westbound left-turn lane	Yes	Yes
	Rating	○	○	○	○	○
<b>SUMMARY TECHNICAL FACTORS</b>		○	○	○	○	○
<b>E PROBLEM STATEMENT</b>						
1	<b>Addresses Problem Statement</b>	No	Yes	Yes	Yes	Yes
	Rating	○	○	○	○	○
<b>SUMMARY PROBLEM STATEMENT</b>		○	○	○	○	○
<b>OVERALL SUMMARY</b>						
<b>OVERALL SUMMARY</b>		○	○	○	○	○

## ORDER OF PREFERENCE

- Most Preferred ○
- Moderately Preferred ○
- Somewhat Preferred ○
- Minors Preferred ○
- Least Preferred ●



BURNSIDE

[ THE DIFFERENCE IS OUR PEOPLE ]

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## Appendix C

### Public Consultation Program





**The Corporation of the Town of Wasaga Beach  
NOTICE OF COMMENCEMENT  
POWERLINE ROAD, KLONDIKE PARK ROAD GEOMETRIC IMPROVEMENTS AND WATERMAIN LOOPING  
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY**

### The Study

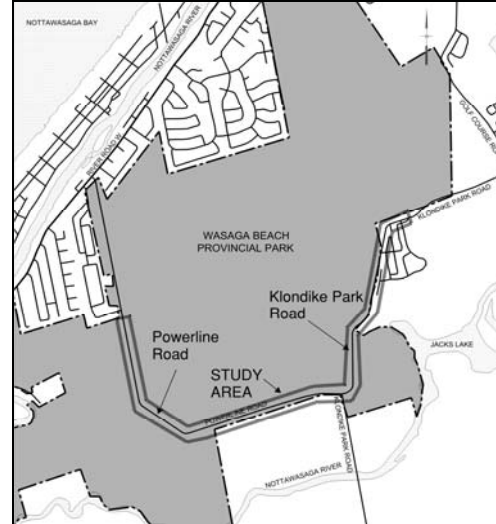
Watermain looping on Powerline Road and Klondike Park Road is required to facilitate planned water system upgrades. Additionally, traffic volumes on Powerline Road and Klondike Park Road are expected to increase as the Town develops.

As part of watermain looping and road reconstruction efforts, The Town of Wasaga Beach ("The Town") has identified an opportunity to meet projected increases in traffic volume and improve horizontal and vertical road alignment and intersection geometrics of Powerline Road and Klondike Park Road.

The Town has initiated a Municipal Class Environmental Assessment (EA) to consider potential transportation improvements that address traffic volume and road geometrics in the area.

Improvements considered include: 1) Do Nothing, 2) Reduce posted speed limit, 3) Realignment of curves, 4) Intersection improvements to Klondike Park Road / Powerline Road intersection which may include realignment, signalization and/or a roundabout, or a combination of solutions.

The approximate Study Area for this project is shown on the Map.



The study will evaluate alternative solutions with consideration for the natural, cultural, technical and economic environment, and determine a preferred solution in consultation with the public and regulatory agencies, including coordination with Ontario Parks, Ministry of Natural Resources and Forestry (MNRF), as some of the alternative solutions may affect lands of the Wasaga Beach Provincial Park.

### The Process

The project is being planned as a Schedule B Municipal Class Environmental Assessment following the process described in the Municipal Engineer's Association Guide for Municipal Class EAs (2000, as amended in 2007 & 2011). Concurrent with the Municipal Class Environmental Assessment process, the Ministry of Natural Resources and Forestry is evaluating the project under the Class Environmental Assessment for Provincial Parks and Conservation Reserves as a separate process.

### Public & Agency Input Invited

Public consultation is important to this study. The Town would like to ensure that anyone interested in this study has the opportunity to get involved and provide input on the project's implementation. As such, the Town is interested in receiving comments on local experience with transportation issues in the study area and the possible solutions. We invite your comments and input on the planning and design of this project. Please provide your comments to us by August 7, 2015.

For further information about this project or to provide comments, or to be added to the mailing list to receive future project notices, please contact one of the following Project Team members:

Mr. Paul Hausler  
Project Manager  
R.J. Burnside & Associates Limited  
3 Ronell Crescent  
Collingwood ON L9Y 4J6  
Telephone: (705) 707-4289  
Fax: (705) 446-2399  
[Paul.Hausler@rjburnside.com](mailto:Paul.Hausler@rjburnside.com)

Mike Latimer, C.E.T.  
Project Coordinator  
Town of Wasaga Beach  
30 Lewis Street  
Wasaga Beach ON L9Z 1A1  
Office: (705) 429-2540 ext. 2342  
Fax: (705) 429-8226  
Cell: (705) 441-4123  
[m.latimer@wasagabeach.com](mailto:m.latimer@wasagabeach.com)

The Town intends to proceed with the planning of this project with consideration of agency and public input. Solution(s) for transportation improvements, as determined through the EA process, will be implemented as warranted and depending on annual capital budget scheduling.

Project and notice information will be made accessible upon request in accordance with the Accessibility Standard for Information and Communication under the *Accessibility for Ontarians with Disabilities Act, 2005*.

Information will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*. All comments will become part of the public record. This Notice first issued on July 9, 2015.



July 9, 2015

**Via: Mail**

«Title» «First\_Name» «Last\_Name»  
«Position»  
«AgencyOrganization»  
«Address\_1»  
«Address\_2»  
«City», «Province»  
«Postal\_Code»

Dear «Title» «Last\_Name»:

**Re: NOTICE OF COMMENCEMENT  
POWERLINE ROAD, KLONDIKE PARK ROAD GEOMETRIC IMPROVEMENTS AND  
WATERMAIN LOOPING  
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY  
Project No.: 300034729.0000**

The Town of Wasaga Beach ("Town") has identified an opportunity to meet projected increases in traffic volume and improve horizontal and vertical road alignment and intersection geometrics of Powerline Road and Klondike Park Road. The Town has initiated a Municipal Class Environmental Assessment (EA) to consider potential transportation improvements that address traffic volume and road geometrics in the area.

Improvements considered include: 1) Do Nothing, 2) Reduce posted speed limit, 3) Realignment of curves, 4) Intersection improvements to Klondike Park Road / Powerline Road intersection which may include realignment, signalization and/or a roundabout, or a combination of solutions. The study will evaluate the alternatives with consideration for the natural, cultural, technical and economic environment. The approximate extent of the Study Area for this project is shown on the Map provided in the attached Notice of Commencement.

The study is being carried out in accordance with the planning and design process for projects as outlined in the Municipal Class Environmental Assessment (October 2000, as amended in 2007 & 2011). A key component of the study will be consultation with stakeholders (public and agencies).

At this stage of the process, the Town is requesting that your organization provide any comments and / or concerns with the proposed project. Specifically, the Town is seeking information on:

- Policies, positions or guidelines implemented or administered by your organization that may affect implementation of the construction and operational phases of the project.
- Background information that is pertinent to the compilation of an environmental inventory of the general area of study.
- Any preliminary comments or concerns that your organization has on the proposed projects.
- Other projects proposed within or near the general area of study.

It is essential to the success of this project that the concerns of your organization, and other stakeholders, are identified early in the planning process, such that the appropriate environmental protection measures are incorporated into the overall project design. Input and comments received from the public and agencies will be incorporated into the planning and design of this project.

Your input and questions are encouraged. To provide the study team with your comments, please contact one of the study team members identified on the attached Notice of Commencement, or for further project information please contact Mr. Paul Hausler, at (705) 797-4289.

Please indicate to us your interest in providing input to this project by responding to our letter by August 7, 2015. All interested stakeholders will be kept up-to-date on project status by means of future mailings.

Your participation in this EA study is much appreciated.

Yours truly,

**R.J. Burnside & Associates Limited**



Deanna De Forest  
EA Coordinator  
DDF:sr

Enclosure(s)      Notice of Commencement  
150706 NoCM Agency Letter 031855  
09/07/2015 12:19 PM



**Fw: Power line / Klondike Study**  
**Paul Hausler** to: Deanna De Forest

07/03/2015 08:03 AM


----- Forwarded by Paul Hausler/RJB on 07/03/2015 08:02 AM -----

From: "Enid" <ep-4jewell@rogers.com>  
To: <paul.hausler@rjburnside.com>,  
Date: 07/02/2015 01:24 PM  
Subject: Power line / Klondike Study

---

A small comment on the idea of reduced speed limit on these roads .  
Several times a week I jog along these roads and I am constantly amazed at the speed of traffic . Also phone use , eating and drinking whilst driving .  
It seems that the time of day for the highest speed is early morning from 6 am to 9 am , and of course late afternoon .  
A lower speed limit of 40 km (enforced) would hopefully make the roads safer for animals , joggers , walkers and cyclists .  
I have unfortunately witnessed fatalities due to speed ( unable to stop in time ) .  
With a small amount of cooperation from the OPP on a regular basis ( weekly speed enforcement ) many hazards could be reduced .  
I trust this comment will be of use .  
Paul Jewell

---

 This email has been checked for viruses by Avast antivirus software . <a href="http://www.avast.com">www.avast.com</a>
---



**Fw: Contact Information**  
**Paul Hausler** to: Deanna De Forest

07/14/2015 11:16 AM

----- Forwarded by Paul Hausler/RJB on 07/14/2015 11:16 AM -----

From: Hollie Nolan <hollie@ramafirstnation.ca>  
To: "Paul.Hausler@rjburnside.com" <Paul.Hausler@rjburnside.com>, "m.latimer@wasagabeach.com" <m.latimer@wasagabeach.com>,  
Cc: Hollie Nolan <hollie@ramafirstnation.ca>  
Date: 07/14/2015 10:39 AM  
Subject: Contact Information

---

Hi Paul & Mike,

Please update the contact information you have for Rama First Nation to Chief Rodney Noganosh .

Thank you,

---

## Hollie Nolan

*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](http://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.



**Klondike Park Road , Powerline Road Geometric Improvements and Watermain Looping, Municipal Class Environmental Assessment**

**Deanna De Forest** to: ccc

07/15/2015 11:19 AM

Cc: Paul Hausler

Hi Halli,

Thanks for your phone call yesterday regarding the Klondike Park Road , Powerline Road EA study. I've attached a map of the study area location with more of a regional view to give some context to the location of the study area.

At this initial stage of the study , we are looking for information, comment or concerns that would help us to characterize the existing conditions in the study area so that the influence of the alternative solutions can be evaluated with respect to the natural, social, economic and technical environment.

With the Notice of Commencement, we have requested any initial comment be provided by August 7, 2015, however, there is opportunity to comment on the project at any time during the course of the EA study. You can provide comment by return email, phone or by contacting the team members identified on the Notice of Commencement.

As the study progresses, your contact information will be maintained on our mailing list to receive future notices related to the study, or additional information as it is requested .

Thanks for your interest in the EA study.

Deanna



study area location.pdf



RE: Klondike Park Road, Powerline Road Geometric Improvements and Watermain Looping, Municipal Class Environmental Assessment

Hali Tabobondung

to:

'Deanna De Forest'

07/15/2015 11:36 AM

Hide Details

From: "Hali Tabobondung" <ccc@wasauksing.ca>

To: "'Deanna De Forest'" <Deanna.DeForest@rjburnside.com>,

1 Attachment



image001.gif

Hi, Deanna!

Thank you for sending us this map, it gives me a better visual of the area proposed. Yes, I would very much appreciate it if Wasauksing First Nation can be kept on your contact/ mailing list for future project updates and feedback as this EA study progresses through each stage. I will keep in touch!

Thank you,

Hali Tabobondung

**From:** Deanna De Forest [<mailto:Deanna.DeForest@rjburnside.com>]

**Sent:** Wednesday, July 15, 2015 11:20 AM

**To:** ccc@wasauksing.ca

**Cc:** Paul Hausler

**Subject:** Klondike Park Road, Powerline Road Geometric Improvements and Watermain Looping, Municipal Class Environmental Assessment

Hi Halli,

Thanks for your phone call yesterday regarding the Klondike Park Road, Powerline Road EA study. I've attached a map of the study area location with more of a regional view to give some context to the location of the study area.

At this initial stage of the study, we are looking for information, comment or concerns that would help us to characterize the existing conditions in the study area so that the influence of the alternative solutions can be evaluated with respect to the natural, social, economic and technical environment.

With the Notice of Commencement, we have requested any initial comment be provided by August 7, 2015, however, there is opportunity to comment on the project at any time during the course of the EA study. You can provide comment by return email, phone or by contacting the team members identified on the Notice of Commencement.

As the study progresses, your contact information will be maintained on our mailing list to receive future notices related to the study, or additional information as it is requested.

Thanks for your interest in the EA study.

Deanna



Deanna De Forest  
Environmental Assessment and Regulatory Coordinator

R.J. Burnside & Associates Limited  
128 Wellington Street West, Suite 301  
Barrie, Ontario L4N 8J6  
[Deanna.DeForest@rjburnside.com](mailto:Deanna.DeForest@rjburnside.com)  
Office: 705-797-2047  
Direct Line: 705-797-4357  
[www.rjburnside.com](http://www.rjburnside.com)

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Thank you.

\*\*\*\*\*

Information from ESET Endpoint Security, version of virus signature database 11944  
(20150715)

The message was checked by ESET Endpoint Security.

<http://www.eset.com>

**Fw: Power line, Klondike park road assessment****Paul Hausler** to: Deanna De Forest

Cc: Ron Kerr

07/20/2015 02:58 PM

----- Forwarded by Paul Hausler/RJB on 07/20/2015 02:58 PM -----

From: Emily Bosman <em\_bosman@yahoo.com>  
To: paul.hausler@rjburnside.com,  
Date: 07/20/2015 01:55 PM  
Subject: Power line, Klondike park road assessment

---

Hello Paul,

I received a letter about possible changes with powerline and Klondike park road. I would like to be kept informed via email address.

Thank you,

Emily Bosman

From: "Zirger, Rosi (MTCS)" <Rosi.Zirger@ontario.ca>  
To: "Deanna.DeForest@rjburnside.com" <Deanna.DeForest@rjburnside.com>,  
Cc: "Mike Latimer (m.latimer@wasagabeach.com)" <m.latimer@wasagabeach.com>  
Date: 07/21/2015 04:01 PM  
Subject: Powerline Road & Klondike Park Road EA

---

The Ministry of Tourism, Culture and Sport (MTCS) received a Notice of Commencement for the project mentioned above. Attached please find MTCS comments and recommendations for this project .

MTCS would be interested in remaining on the circulation list and being informed of the project as it proceeds through the EA process. Please continue to send future notices to Rosi Zirger Heritage Planner at [rosi.zirger@ontario.ca](mailto:rosi.zirger@ontario.ca).

Sincerely

**Rosi Zirger**

Heritage Planner

Ministry of Tourism, Culture & Sport

Culture Division | Programs & Services Branch | Culture Services Unit

401 Bay Street, Suite 1700 Toronto, Ontario M7A 0A7

Tel. 416.314.7159 | Fax 416.314.7175 | E-mail: [rosi.zirger@ontario.ca](mailto:rosi.zirger@ontario.ca)



Powerline Rd-Klondike Park Rd EA-MTCS initial comments July 21,2015.pdf



**Ministry of Tourism,  
Culture and Sport**

Culture Services Unit  
Programs and Services Branch  
401 Bay Street, Suite 1700  
Toronto ON M7A 0A7  
Tel: 416 314-7159  
Fax: 416 212 1802

**Ministère du Tourisme,  
de la Culture et du Sport**

Unité des services culturels  
Direction des programmes et des services  
401, rue Bay, Bureau 1700  
Toronto ON M7A 0A7  
Tél: 416 314-7159  
Télé: 416 212 1802



July 21, 2015 (EMAIL ONLY)

R.J. Burnside & Associates Limited  
3 Ronell Cres  
Collingwood, ON L9Y 4J6  
E: deanna.deforest@rjburnside.com

**RE: MTCS file #: 0003304**  
**Proponent: Town of Wasaga Beach**  
**Subject: Notice of Commencement**  
**Powerline Road, Klondike Park Road Geometric Improvements and**  
**Watermain Looping**  
**Location: Town of Wasaga Beach, Ontario**

---

Dear Ms De Forest

Thank you for sending the Ministry of Tourism, Culture and Sport (MTCS) the Notice of Commencement for this project. MTCS's interest in this EA project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- archaeological resources, including land-based and marine
- built heritage resources, including bridges and monuments and
- cultural heritage landscapes.

**Project Summary**

We understand that the purpose of this EA is to a) facilitate planned upgrades to the water system and b) to consider alternatives for improvements to Powerline Road and Klondike Park Road. This project will follow a Schedule B Municipal Class EA process.

We also understand that these municipally-owned roads are located around the perimeter of Wasaga Beach Provincial Park, and that some alternatives may require the transfer or exchange of provincial park lands. In this regard this project will also be evaluated by MNR under the Class EA for Provincial Parks and Conservation Reserves as a separate process.

Please note that the [Standards and Guidelines for Conservation of Provincial Heritage Properties](#) (S&G), prepared pursuant to Section 25.2 of the *Ontario Heritage Act* (OHA), came into effect on July 1, 2010. All Ontario government ministries and public bodies that are prescribed under Ontario Regulation 157/10 must comply with the S&Gs. They apply to property that is owned or controlled by the Crown in right of Ontario or by a prescribed public body.

**Cultural Heritage Resources Considerations**

Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources.

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Aboriginal communities may have knowledge that can contribute to the

identification of cultural heritage resources, and we suggest that any engagement with Aboriginal communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

### **Archaeological Resources**

We confirm your telephone advice that archaeological assessment(s) will be completed for this EA.

For your information you may refer to the screening criteria in the MTCS [Criteria for Evaluating Archaeological Potential](#) used to determine if an archaeological assessment is needed. MTCS archaeological sites data are available at [archaeologicalsites@ontario.ca](mailto:archaeologicalsites@ontario.ca). Since this EA project area exhibits archaeological potential (i.e. in proximity to known archaeological sites and water courses), archaeological assessment(s) should be undertaken by an archaeologist licenced under the OHA, who is responsible for submitting the report directly to MTCS for review.

### **Built Heritage and Cultural Heritage Landscapes**

The MTCS [Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes](#) should also be completed to help determine whether your EA project may impact cultural heritage resources. The Clerk for Town of Wasaga Beach can provide information on property registered or designated under the *Ontario Heritage Act*. Municipal Heritage Planners can also provide information that will assist you in completing the checklist.

If potential or known heritage resources exist, MTCS recommends that a Heritage Impact Assessment (HIA), prepared by a qualified consultant, should be completed to assess potential project impacts. Our Ministry's [Info Sheet #5: Heritage Impact Assessments and Conservation Plans](#) outlines the scope of HIAs. Please send the HIA to MTCS for review, and make it available to local organizations or individuals who have expressed interest in heritage.

### **Environmental Assessment Reporting**

All technical heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please provide any technical studies to MTCS before issuing a Notice of Completion. If your screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

MTCS would appreciate being kept informed of this project as it proceeds through the EA process. Please contact me for any questions or clarification.

Sincerely,

**Rosi Zirger**  
Heritage Planner  
[rosi.zirger@ontario.ca](mailto:rosi.zirger@ontario.ca)

Copied to: Mike Latimer, Project Coordinator Town of Wasaga Beach

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MTCS makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MTCS be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

Please notify MTCS if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the Ontario Heritage Act and the Standards and Guidelines for Consultant Archaeologists.

If human remains are encountered, all activities must cease immediately and the local police as well as the Cemeteries Regulation Unit of the Ministry of Consumer Services must be contacted. In situations where human remains are associated with archaeological resources, MTCS should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the Ontario Heritage Act.

----- Forwarded by Paul Hausler/RJB on 07/30/2015 09:33 AM -----

From: Barbra Perreault <bperreault@nvca.on.ca>  
To: "paul.hausler@rjburnside.com" <paul.hausler@rjburnside.com>, "m.latimer@wasagabeach.com" <m.latimer@wasagabeach.com>,  
Date: 07/21/2015 03:11 PM  
Subject: Powerline and Klondike Park Roads and Watermain Looping

---

Thank you for consulting with the Nottawasaga Valley Conservation Authority (NVCA) concerning:

**Class Environmental Assessment – Powerline and Klondike Park Roads and Watermain Looping**

It is our understanding that the Town is considering road improvements and watermain looping.

Upon review of the submitted mapping, NVCA regulations staff note the following;

The area is partially regulated for watercourse meander belt in the vicinity of Klondike Road and wetlands and associated buffers along Powerline Road. A permit will most likely be required for any works to these roads. NVCA has no concerns pertaining to the proposed watermain looping, pending details.

NVCA staff will not likely attend the Public Information Centre, however, we respectfully submit the aforementioned for your consideration.

Regards,

Barb Perreault C.E.T., MLEO(C)  
Manager, Regulations and Enforcement  
Nottawasaga Valley Conservation Authority  
8195 8th Line, Utopia, ON, L0M 1T0  
Phone: 705-424-1479 ext. 245  
Fax: 705-424-2115

**website:** [www.nvca.on.ca](http://www.nvca.on.ca) **Twitter:** [@NottawasagaCA](https://twitter.com/NottawasagaCA) **Facebook:** [Nottawasaga Valley CA](https://www.facebook.com/NottawasagaValleyCA)

### **Frequently Asked Questions for the Permit Process**

<http://www.nvca.on.ca/Pages/AboutPermits.aspx>

### **Looking to Make a Permit Application?**

<http://www.nvca.on.ca/Pages/Planning-Forms-and-Fees.aspx>

### **NVCA Planning and Regulations Documents**

<http://www.nvca.on.ca/Pages/PlanningPolicies.aspx>

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*Consider the environment. Please don't print this e-mail unless you really need to.*

**Re: Proposed Environmental Assessment Study**

**In receiving this notice from the Town of Wasaga and Burnside, I find myself questioning the logic and costs behind a study regarding traffic issues along Powerline Road and Klondike. Since I live only four doors down from Powerline, I have to ask what issues? Is it busier? Yes, since the reconstruction of Schooner Town Bridge and more development further down Powerline but nothing that warrants a study for a proposed roundabout. Has there been any traffic congestion? Absolutely not! There is more wildlife traffic to contend with than anything else. Common sense tells you that with over 2000 acres of ministry land abutting this area, there is limited development happening. The main concentration for proposed development according to the Wasaga map online will be along Sunnidale Road which has direct access to Hwy 26. It would be more efficient to do a study for a roundabout in this area not only for future development but to deal with problematic fatal accidents and not in an area where it may affect protected lands.**

**In this letter if further states that along with this study you will be doing geometric improvements and watermain looping, which it would of been nice to explain in laymen's terms why this is necessary and the capital costs that we will incur for this alone. Will this hinder traffic along Powerline and Klondike? That would be more of a concern than a study on future traffic patterns. So in closing, improvements considered should be 1) do nothing and save the taxpayers unnecessary expense. 2) You would also be wise to enforce the speed limit along this stretch than try and reduce it.**

**We must protect our wildlife and environment, it is what makes Wasaga Beach unique and to even think about messing with this would be tragic.**

**Best Regards,  
Laura Smith  
189 Fernbrook Drive  
Wasaga Beach, Ontario  
Luu-luu52@hotmail.com**





August 20, 2015

Laura Smith  
189 Fernbrook Drive  
Wasaga Beach, Ontario  
L9Z 1G9

**Ref: Response to Letter Regarding Proposed Powerline Road and Klondike Park Road Environmental Assessment Study**

Dear Ms. Smith,

Thank you for your letter regarding the Notice of Commencement for Powerline Road, Klondike Park Road Geometric Improvements and Watermain Looping. We also noticed that you published your comments in the "Opinion" section of the August 13, 2015 Wasaga Sun newspaper. Your comments will appear as part of the public record for the project and will be considered in the evaluation and identification of a preferred alternative.

We would like to take this opportunity to explain that geometric roadway improvements are warranted for Powerline Road and Klondike Park Road. The current vertical curves (i.e. hills and valleys) as well as horizontal curves / bends in the road are too narrow / abrupt for the current posted speed limit of 50km/hr under current engineering design standards. Additionally, as the traffic volume increases with the Town's growing population, the current condition becomes more problematic and more likely to be a safety concern for motorists, cyclists and pedestrians. One area in particular is the intersection at Powerline Road and Klondike Park Road because the sharp curve is positioned around the dune preventing sufficient visibility in proximity to the intersection. The safety concern is evidenced by three vehicular accidents that have occurred in this area within the last year (that the Town is aware of) including the fatality of a motorcyclist on the curve by the intersection.

Various types of improvements to the intersection of Powerline Road and Klondike Park Road have been / are being considered. Options for the intersection improvements include a roundabout, but other realignment options and traffic signals are also being considered. In addition, pending outcome of the study and the preferred solution, some of the options can be phased to implement improvements in stages (e.g. the intersection improvements could be constructed independently, etc.).

In addition to the proposed roadway geometric improvements, the Town is planning watermain looping from Powerline Road to Shaw Street. Please note that as the population of the Town continues to grow, so does the demand on the municipal water distribution system. As part of the overall system improvements, the need for looping of the watermain in

this location has been identified as a system improvement requirement since the 2004 Development Charges Background Study. This was further confirmed as a necessity through a water distribution system hydraulic model in 2008 and again in 2015.

In order to account for costs of such “growth related” capital projects, the Development Charges Act, 1997 (as amended) provides a means for municipalities to ensure that “growth pays for growth”. This means that municipal system improvements required to accommodate population growth / development can be recovered by the Town through Development Charges (DC). DC are fees that are applied against any developer / builder applying for a Building Permit. It is noted that the watermain looping along Powerline Road and Klondike Park Road is 100% growth related and as such, the project costs are 100% DC recoverable. Additionally, the roadway improvements are also directly related to traffic volume growth and therefore, the geometric improvements are also 100% DC recoverable. This means that there is actually no impact on taxes for these capital works projects.

In order to avoid duplication of design efforts and disturbance to the area as well as reduce net cost, the two projects (geometric improvements and watermain looping) have been combined into one capital project. The combined project requires the Town to follow the Municipal Class Environmental Assessment process, through which the Town will complete relevant studies and evaluate several options for improvements to address the existing horizontal and vertical alignments of Powerline and Klondike Park Roads. The goal is to improve safety for motorists, cyclists and pedestrians. The Municipal Class Environmental Assessment (EA) process includes public consultation, hence the Notice of Study Commencement that was mailed to you. The EA must also include consideration of the natural, cultural, technical and economic environment, to determine a preferred solution. Given the location of the study area and its potential impact on the natural environment as well as lands associated with the Wasaga Beach Provincial Park, coordination with Ontario Parks, Ministry of Natural Resources and Forestry (MNR), is essential to the project.

We trust that this sufficiently responds to your comments. However, should you have any further questions or comments, please do not hesitate to contact the undersigned at (705) 429-2540 ext. 2307, or [pwengineer@wasagabeach.com](mailto:pwengineer@wasagabeach.com) .

Sincerely,

**TOWN OF WASAGA BEACH**



Mike Pincivero, P.Eng.  
Manager of Engineering Services, RMO/RMI

Cc: Mayor Brian Smith  
George Vadeboncoeur, CAO  
Kevin Lalonde, Director of Public Works  
Paul Hausler, RJ Burnside





FW: KLONDIKE RD & POWERLINE INTERSECTION - POTENTIAL FATAL INT.

Mike Latimer

to:

r.scoffield@distributel.net

08/31/2015 04:06 PM

Cc:

"Deanna De Forest (Deanna.DeForest@rjburnside.com)"

Hide Details

From: Mike Latimer <m.latimer@wasagabeach.com>

To: "r.scoffield@distributel.net" <r.scoffield@distributel.net>,

Cc: "Deanna De Forest (Deanna.DeForest@rjburnside.com)"

<Deanna.DeForest@rjburnside.com>

Good Afternoon Mr. Scoffield,

First off I want to apologize for the delay in responding to you but for some reason your email below did not make it to my inbox.

You are correct we are currently completing an EA study on this section of road and finalizing comments/responses to residents as we speak.

I have copied Ms. Deanna De Forrest on this email from RJ Burnside who are the Towns Engineering Consultants for this project who could elaborate more about the study on this particular section of road.

If you have any more questions or comments please do not hesitate to contact me at any time. Again I apologize for the delay.

Kind Regards,

Mike Latimer, C.E.T.

Project Coordinator

Town of Wasaga Beach  
30 Lewis Street  
Wasaga Beach, Ontario  
L9Z 1A1

Office: (705) 429-2540 ex. 2342

Cell: (705) 443-7800

[m.latimer@wasagabeach.com](mailto:m.latimer@wasagabeach.com)

---

**From:** Brian Smith

**Sent:** August-31-15 3:51 PM

**To:** Mike Latimer

**Subject:** FW: KLONDIKE RD & POWERLINE INTERSECTION - POTENTIAL FATAL INT.

**Lorraine Santo**

Executive Assistant to the Mayor

Town of Wasaga Beach

P: 705-429-3844 ext. 2246

E: [l.santo@wasagabeach.com](mailto:l.santo@wasagabeach.com)

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**From:** r.scofield@distributel.net [<mailto:r.scofield@distributel.net>]

**Sent:** August-11-15 1:08 PM

**To:** Mike Latimer

**Subject:** KLONDIKE RD & POWERLINE INTERSECTION - POTENTIAL FATAL INT.

I have deep concerns about the Power Line / Klondike Rd intersection in regards to line of site & visibility restrictions vs the speed and volume of vehicles on this curve. I understand that a review is under way that could have possible long term impact / solutions associated with this intersection. It appears that the town is aware of the serious and potential fatal health and safety /legal problems since they have mentioned and acknowledged them by simply putting them in there study.

The study is fine but as we know this could take years and people in this town could die while we wait. We need a in-term solution to keep voters safe....this could be as simple and as cheap as a **3 way stop.**

Only **2 signs need to be installed** by the towns trades.

**If it saves one life or serious injury..its worth it .**

**R.SCOFFIELD**

**429-6967**

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Powerline and Klondike Park Road Improvements  
 Hali Tabobondung  
 to:  
 Deanna De Forest  
 08/26/2015 01:01 PM  
 Hide Details  
 From: "Hali Tabobondung" <ccc@wasauksing.ca>  
 To: "Deanna De Forest" <Deanna.DeForest@rjburnside.com>,

2 Attachments



image001.png Burnside & Associates Limited.pdf

Hi, Deanna!

For your records. Please keep Wasauksing First Nation on your mailing list as the project gets underway. We would very much like to stay informed.

Thank you,

Hali Tabobondung

**Hali Tabobondung**

*Community Consultation Coordinator*

Wasauksing First Nation  
 T: (705)746-2531 X. 2248  
 C: (705)988-2204  
 F: (705)746-5984

[ccc@wasauksing.ca](mailto:ccc@wasauksing.ca)  
[www.wasauksing.ca](http://www.wasauksing.ca)



Information from ESET Endpoint Security, version of virus signature database 12154  
 (20150826)

The message was checked by ESET Endpoint Security.

<http://www.eset.com>





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P.O. Box 250  
PARRY SOUND, ONTARIO  
P2A 2X4

PHONE:  
(705) 746-2531  
FAX:  
(705) 746-5984

CHIEF  
Warren Tabobondung

CHIEF COUNCILLOR  
Deborah Pegahmagabow

COUNCILLORS  
Theresa McInnes  
Roberta Judge-Rice-Clements  
Vera Pawis-Tabobondung  
Walter Tabobondung

August 21, 2015

R.J. Burnside & Associates Limited  
ATTN: Deanna De Forest, EA Coordinator  
3 Ronell Crescent  
Collingwood, ON  
L9Y 4J6  
(705) 446-0515  
Email: [deanna.deforest@rjburnside.com](mailto:deanna.deforest@rjburnside.com)

Dear Deanna De Forest,

**Re: Notice of Commencement Powerline Road, Klondike Park Road Geometric Improvements and Watermain Looping, Municipal Class Environmental Assessment Study - Project No.: 300031855.0000**

Thank you for your correspondence dated July 9, 2015 in regards to the above. Wasauksing First Nation does not currently have any concerns and/or comments to submit in response to the municipal Class EA study of the Klondike Park Road geometric improvements and watermain looping. However, we do wish to continue to receive updates on the project status.

This letter does not constitute Wasauksing First Nation's consent or agreement to the above. Should there be any negative residual effects or any impacts to our Aboriginal and/or Treaty Rights and lands or resources within our Traditional Territory, Wasauksing reserves the right to initiate consultation with the Corporation of the Town of Wasaga Beach and R.J. Burnside & Associates Limited, and request that all circulated information and copies of final study reports be forwarded to Wasauksing First Nation at the earliest convenience.

Once again, thank you for extending invitation for engagement to Wasauksing First Nation. Should you have any questions or concerns, please do not hesitate to contact the undersigned by email at [ccc@wasauksing.ca](mailto:ccc@wasauksing.ca) or via telephone (705) 746-2531 ext. 2248.

Sincerely,

Hali Tabobondung  
Community Consultation Coordinator  
Wasauksing First Nation

July 4, 2016

### **Response to EA Notice**

Thank you for providing Infrastructure Ontario (IO) with a copy of your Environmental Assessment Notice. From the information you have provided, it is unclear if you are proposing to use lands under the control of the Minister of Economic Development, Employment and Infrastructure (MIO lands) to support your proposed project.

Prior to MOI consenting to the use of MIO lands, the applicable environmental assessment, duty to consult Aboriginal peoples (if triggered) and heritage obligations will need to be met. In order for MIO to allow you access to MIO lands and to carry out proposed activities, MIO must ensure that provincial requirements and due diligence obligations are satisfied. These requirements are in addition to any such obligations you as the proponent of the project may have.

You as the proponent of the project will be required to work with Infrastructure Ontario (IO) to fulfill MIO's obligations which may include considering the use of any MIO lands as part of your individual environmental assessment. All costs associated with meeting MIO's obligations will be the responsibility of the proponent. Please note that time should be allocated in your project timelines for MIO to ensure that its obligations have been met and to secure any required internal government approvals required to allow for the use of the MIO lands for your proposed project.

In order for MIO and IO to assist you to meet your required project timelines, please recognize that early, direct contact with IO is imperative. The due diligence required prior to the use of MIO lands for your proposed project, may include but may not be limited to the following:

- Procedural aspects of the Provincial Crown's Aboriginal Duty to Consult obligations – see *Instruction Note 1*
- Requirements of the MOI Public Work Class Environmental Assessment – see *Instruction Note 2*
- Requirements of the Ministry of Tourism Culture and Sport (MTCS) Standards and Guidelines for Consultant Archaeologists– see *Instruction Note 3*
- Requirements of the MTCS Standards and Guidelines for the Conservation of Provincial Heritage Properties Consultant Archaeologists – see *Instruction Note 4*

Representatives from IO are available to discuss your proposed project, the potential need for MIO lands and the corresponding provincial requirements and due diligence obligations.

Please review the attached instruction notes which provide greater detail on the due diligence obligations associated with the use of MIO lands for your proposed project. We are providing this information to allow you as the proponent to allocate adequate time and funding into your project schedule and budgets. If your project requires you to study MIO lands, then an agreement is required and all studies undertaken on MIO lands will be considered confidential until approval is received. IO will require electronic copies of all required studies on MIO lands that you undertake.

We strongly encourage you to work with IO as early as possible in your process to identify if any

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MIO lands would be required for your proposed project. Please note that on title MIO control may be identified under the name of MIO or one of its predecessor ministries or agencies which may include but is not limited to variations of the following: Her Majesty the Queen/King, Hydro One, MBS, MEI, MGS, MOI, OLC, ORC, PIR or Ministry of Public Works<sup>1</sup>.

Please provide Rita Kelly with a confirmation in writing of any MIO lands that you propose to use for your proposed project and why the lands are required along with a copy of a title search for the MIO lands.

For more information concerning MIO lands in your study area or the process for acquiring access to or an interest in MIO lands, please contact:

Rita Kelly  
Project Manager  
Land Transactions, Hydro Corridors & Public Works  
Infrastructure Ontario  
1 Dundas St. West, Suite 2000  
Toronto ON  
M5G 2L5  
Tel: (416) 212-4934  
Email: [rita.kelly@infrastructureontario.ca](mailto:rita.kelly@infrastructureontario.ca)

An application package and requirements checklist is attached for your reference. Please note that transfer of an interest in MIO lands to a proponent can take up to one year and there is no certainty that approval will be obtained.

For more information concerning the MOI Public Work Class Environmental Assessment process and due diligence requirements, please contact:

Lisa Myslicki  
Environmental Specialist  
Infrastructure Ontario  
1 Dundas Street West, Suite 2000  
Toronto, ON  
M5G 2L5  
Tel: (416) 212-3768  
Email: [lisa.myslicki@infrastructureontario.ca](mailto:lisa.myslicki@infrastructureontario.ca)

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<sup>1</sup> MBS - Management Board Secretariat; MEI - Ministry of Energy and Infrastructure; MGS - Ministry of Government Services; MOI - Ministry of Infrastructure; OLC - Ontario Lands Corporation; ORC - Ontario Realty Corporation; PIR - Ministry of Public Infrastructure Renewal

---

If MIO lands are not to be impacted by the proposed project, please provide a confirmation in writing to Infrastructure Ontario.

Thank you for the opportunity to provide initial comments on your proposed project.

Sincerely,

**Patrick Grace**  
Director  
Land Transactions, Hydro Corridors & Public Works  
Infrastructure Ontario  
Dundas St. West, Suite 2000  
Toronto, ON, M5G 2L5

## **INSTRUCTION NOTE 1**

### **Provincial Crown's Aboriginal Duty to Consult obligations**

The Crown has a constitutional Duty to Consult (DTC) in certain circumstances and Aboriginal consultation may be required prior to MIO granting access to MIO lands or undertaking other activities. The requirement for Aboriginal consultation may be triggered given Aboriginal or treaty rights, established consultation or notification protocols, government policy and/or program decisions, archaeological potential or results, and/or cultural heritage consultation obligations. The requirement for Aboriginal consultation will be assessed by MIO.

Prior to the use of MIO lands, MIO must first meet any duty to consult obligations that may be triggered by the proposed use of MIO lands. It is incumbent on you to consult with IO as early in the process as possible once you have confirmed that MIO lands would be involved.

MIO will evaluate the potential impact of your proposed project on Aboriginal and treaty rights. MIO may assess that the Crown's Duty to Consult (DTC) requires consultation of Aboriginal communities. Proponents should discuss with IO whether MIO will require consultation to occur and if so, which communities should be consulted.

Where MIO determines that Aboriginal consultation is required, MIO will formally ask you to consult or continue to consult with Aboriginal peoples at the direction of MIO.

On behalf of MIO you will also be required to:

1. Maintain a record and document all notices and engagement activities, including telephone calls and/or meetings;
2. Provide the Ministry updates on these activities as requested; and
3. Notify the Ministry of any issues raised by Aboriginal communities.

If consultation has already occurred, IO strongly encourages you to provide complete Aboriginal consultation documentation to IO as soon as possible. This documentation should include all notices and engagement activities, including telephone calls and/or meetings.

Any duty to consult obligations must be met prior to publically releasing the Notice of Completion for the assessment undertaken under the MOI PW Class EA.



## INSTRUCTION NOTE 2

### **Requirements of the MOI Public Work Class Environmental Assessment**

MIO has an approved Class EA (the Ministry of Infrastructure Public Work Class Environmental Assessment (Public Work Class EA) to assesses undertakings that affect MIO lands including disposing of an interest in land or site development. Details on the Public Work Class EA can be found at:

<http://www.infrastructureontario.ca/Templates/Buildings.aspx?id=2147490336&langtype=1033>

You may be required to work with IO to complete an environmental assessment under the Public Work Class EA for the undertakings related to MIO lands. IO will work with you to ensure that all of the MIO undertakings or activities related to the use of MIO lands are identified, that the appropriate Category of undertaking is used and a monitoring and report back mechanism is established to ensure that MIO's obligations are met.

The completion of another environmental assessment process that assesses the undertakings related to MIO lands may satisfy MIO's obligations under the Public Work Class EA. You will be required to work with IO to determine the most appropriate approach to meeting the Public Work Class EA obligations for undertakings related to MIO lands on a case by case basis.

Where it is decided that the assessment of undertakings related to MIO lands can be assessed as part of the environmental assessment being undertaken by the proponent then it is likely that the following provisions will be required:

- that the environmental assessment documents set out that one process will be relied on by both the proponent and MIO to evaluate their respective undertakings and meet their respective obligations to assess the potential impacts of their undertakings;
- that the proponent's description of the undertaking to be assessed include all of the MIO undertakings related to the use or access to MIO lands (see Glossary of Terms);
- the associated EA Category from the Public Works Class EA be identified and met by the environmental assessment (see Figure 22. Category Listing Matrix and/or Tale 2.1 EA Category Identification Table);
- that the proponent's environmental assessment indicate that MIO would be relying on the proponent's assessment to satisfy MIO's obligations under the *Environment Assessment Act*,
- establish a monitoring and report back mechanism to ensure that any obligations of MIO resulting from the assessment will be met; and

An environmental assessment consultation plan be developed to ensure that all stakeholders required to be consulted regarding the undertakings on the MIO lands are consulted

### **Other Due Diligence Requirements**

There may also be other additional due diligence requirements for the use of MIO lands in the proposed project. These may include:

- Phase One Environmental Site Assessment and follow up
- Stage 1 Archaeological Assessment and follow up

- Survey
- Title Search
- Species at Risk Survey(s)
- Appraisal

INSTRUCTION NOTE 3 – ARCHAEOLOGY - (see also *Instruction Note on Duty to Consult*)

Archaeological sites are recognized and protected under the *Ontario Heritage Act*. Carrying out archaeological fieldwork is a licensed, regulated activity under the 2011 Ministry of Culture Standards and Guidelines for Consulting Archaeologists. Please visit.....

Archaeological due diligence is required for any proposed project on MIO land that could cause significant below ground disturbance such as, new building construction, installation/modification of site services, and installation/maintenance of new pipelines or transmission lines.

You, as the proponent, must engage IO prior to undertaking any archaeological work on MIO lands.

IO has two in-house licensed archaeologists who should be consulted early in the preparatory stages of a proposed project when geographic and site locations are being considered so that the potential for archaeological resources including historic and Aboriginal material (ion Aboriginal villages and burials sites) can be assessed.

To support both the Public Work Class EA and MIO's duty to consult analysis, archaeological assessments are required to determine if there are any significant findings that may be of cultural value or interest to Aboriginal people (e.g., archaeological or burial sites).

Archaeological work can begin before the assessment under the Public Works Class EA begins but the Class EA cannot be completed until the duty to consult that may be triggered regarding archaeological resources are fulfilled.

Depending upon the number or significance of resources found, the duty to consult may be triggered during any of the 4 phases of archaeological work (see below) or anytime during project construction.

The discovery of Aboriginal resources can impact on activities, including project and site plans, timelines and all costs. As the proponent, you are expected to ensure that you project timelines include adequate time and resources to address MIO due diligence obligations, including internal government approvals. All costs associated with meeting MIO's archaeological obligations will be the responsibility of the proponent.

For Archaeological Assessments (Stages 1 through 4), proponents must adhere to the four stage archaeological fieldwork process prescribed by the Ontario Ministry of Tourism, Culture and Sport (MTCS) as per the 2011 Standards and Guidelines for Consultant Archeologists. Not all noted Stages will be necessary for all work. Respondents must follow industry procedures and practices as per the MTCS Standards and Guidelines for Consultant Archeologists 2011 for each Stage of archaeological assessment, all reporting criteria and formatting, and any other license requirements and/or obligations.

- Stage 1 Background Study - Evaluation of Archaeological Potential
  - Archival research and non-intrusive site visit
- Stage 2 Property Assessment

- In-field systematic pedestrian survey or test pitting and reporting
- 
- Stage 3 Site-specific Assessment
  - Limited excavation to determine site significance and size
  - Field works and reporting
- Stage 4 Site mitigation
  - Through either avoidance/protection or excavation Field work 4 to 8 weeks
  - Develop summary report
  - MTCS review – expedited review of summary report 6 weeks
  - Final report
  - Time to develop and implement mitigation measures – negotiation, legal protections, avoidance

IO Contact Information and direction to IO website....

---

## INSTRUCTION NOTE 4 – HERITAGE REQUIREMENTS

### Built Heritage/Cultural Landscapes

Built heritage/cultural landscapes (cultural heritage) are recognized and protected under the Ontario Heritage Act, the regulations to that Act and the 2010 Ministry of Culture Standards and Guidelines for Conservation of Provincial Heritage Properties (S&Gs) Criteria for determining cultural heritage value or interest are set out in O. Reg. 9/06 and 10/06. The S&Gs set out a process for identifying properties of cultural heritage value, and the standards for protection, maintenance, use and disposal of these properties. Please visit.....

Cultural heritage due diligence will be required for any proposed project on MIO land with the potential to impact cultural heritage resources, such as new building construction, installation/modification of site services, landscape modifications and installation/maintenance of new pipelines, transmission lines.

To support MIO's heritage and MOI PW Class EA obligations, proponents will be required to undertake cultural heritage assessments for all projects that require MIO lands. This will help to determine if the MIO lands are of cultural value or interest to the Province and the level of heritage significance. Where a property has heritage value, proponents may be required to develop appropriate conservation measures/plans and heritage management plans.

You, as the proponent, are strongly encouraged engage IO heritage staff as early in your project planning process as possible and in advance of beginning any cultural heritage assessment work. IO staff will be able to provide advice on the S&Gs and will provide any available heritage information for the MIO lands.

Proponents must also follow industry procedures and practices for all components of cultural heritage assessment work, all reporting criteria and formatting, and any other requirements and/or obligations. IO heritage staff can help identify any required reports.

Should MIO lands be identified under the S&Gs as a Provincial Heritage Property (local significance) or a Provincial Heritage Property of Provincial Significance, IO must be engaged to determine next steps.

Please note that if a Provincial Heritage Property of Provincial Significance is to be impacted, it is likely that consent from the Minister, Ontario Minister, Tourism, Culture and Sport (MTCS) will be required prior to access being granted to MIO lands. Minister's consent requires a detailed application and approvals should land dispositions or building demolitions be applied for as part of the proposed project.

As the proponent, you are expected to ensure that your project timelines include adequate time and resources to address MIO's heritage due diligence obligations, including internal government approvals. All costs associated with meeting MIO's heritage obligations are the responsibility of the proponent.

Staff contacts.....



---

**From:** Paul Hausler  
**Sent:** Monday, July 04, 2016 3:28 PM  
**To:** Deanna De Forest  
**Cc:** Steve Gendron  
**Subject:** FW: Power Line Rd and Klondike

---

**From:** Enid [<mailto:ep-4jewell@rogers.com>]  
**Sent:** Monday, July 04, 2016 2:36 PM  
**To:** Paul Hausler  
**Subject:** Power Line Rd and Klondike

Speed of traffic along these roads is horrendous .  
It is through a Provincial Park and traffic should be slowed ( 30 km max ) and also reduced in volume .  
Otherwise what's the point of a Provincial Park ?  
Not to reduce the danger is wrong , and if nothing is done then the Provincial Park may as well become  
another housing estate !!!  
Paul Jewell



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---

**From:** Enid <ep-4jewell@rogers.com>  
**Sent:** Wednesday, July 13, 2016 12:22 PM  
**To:** Deanna De Forest  
**Subject:** Re: Power Line Rd and Klondike

Thanks for your reply , and I would add that I have witnessed animals killed and injured on Klondike / Power Line Road when out jogging .

One was a beautiful Labrador dog killed by a “speeding” driver on Klondike Road . What if that had been a child running out ?

Thanks

Paul

**From:** [Deanna De Forest](#)  
**Sent:** Wednesday, July 13, 2016 11:39 AM  
**To:** [ep-4jewell@rogers.com](mailto:ep-4jewell@rogers.com)  
**Cc:** [Paul Hausler](#) ; [Mike Latimer](#)  
**Subject:** RE: Power Line Rd and Klondike

Hello Mr. Jewell,

Thank you for your interest in the Klondike Park Road Veterans Way Improvements Municipal Class EA. Your comments of July 2, 2015 and July 4, 2016 are noted and will appear as part of the public record for the project.

Deanna De Forest  
EA Coordinator



Deanna De Forest

R.J. Burnside & Associates  
128 Wellington Street West, Suite 301  
Barrie, Ontario L4N 8J6  
[Deanna.DeForest@rjburnside.com](mailto:Deanna.DeForest@rjburnside.com)  
Office:  
Direct Line: 705-797-4357  
[www.rjburnside.com](http://www.rjburnside.com)

---

**From:** Enid [<mailto:ep-4jewell@rogers.com>]  
**Sent:** Monday, July 04, 2016 2:36 PM

**To:** Paul Hausler  
**Subject:** Power Line Rd and Klondike

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Paul Jewell



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## Deanna De Forest

---

**From:** Deanna De Forest  
**Sent:** Wednesday, May 17, 2017 2:47 PM  
**To:** d.ritchie@saugeenobjibwaynation.ca  
**Cc:** Paul Hausler  
**Subject:** FW: Klondike Park Road Veterans Way EA- Archaeological Stage 2 Assessment  
**Attachments:** 16014 Stage 2 Archaeological Assessment Report (MH Edits).pdf

Hi Doran,

Please find attached, for your information, a copy of the Stage 2 Archaeological Assessment completed for the Klondike Park Veterans Way Improvements Municipal Class EA in Wasaga Beach.

Should you have any comments, please feel free to contact me by phone or email.

Best regards,  
Deanna

---

**From:** Deanna De Forest  
**Sent:** Monday, November 07, 2016 11:31 AM  
**To:** 'd.ritchie@saugeenobjibwaynation.ca'  
**Cc:** Paul Hausler  
**Subject:** FW: Klondike Park Road Veterans Way EA- Archaeological Stage 2 Assessment

Hi Doran,

I'm hoping you might be able to forward to me any comments following the review of the Stage 1 Archaeological Assessment completed for the Klondike Park Road, Veterans Way corridor in Wasaga Beach, and if there are any recommendations specific to the Stage 2 work to be completed by AMICK. AMICK will be completing the Stage 2 field work mid to end of this week (Nov 7-11). I understand from our last phone conversation, that a field crew from SON is not required to participate in the Stage 2 field work. For this site, do you have any specific requirements with respect to Stage 2 protocol or field work strategy to be incorporated beyond the use of MTCS 2011 Standards and Guidelines protocol?

Thanks Doran, I look forward to hearing from you. I can be reached by email or phone at 705-797-4357 if you would like to discuss further.

Deanna

---

**From:** Deanna De Forest  
**Sent:** Tuesday, October 25, 2016 1:52 PM  
**To:** 'd.ritchie@saugeenobjibwaynation.ca'  
**Subject:** Klondike Park Road Veterans Way EA- Archaeological Stage 2 Assessment

Hi Doran,

Following our phone call this afternoon, I understand that Dr. Fitzgerald will soon be providing comments on the Stage 1 Archaeological Assessment completed for Klondike Park Road and Veterans Way EA, and that he will provide the comments to me directly (via email?), likely for mid next week. It is anticipated that the comments will be high level and no significant issues are anticipated.

As such, based on our discussion, SON does not require a field crew to participate in field work for the Stage 2 Archaeological work and that it would be appropriate for me to proceed with scheduling AMICK to complete the Stage 2

Archaeological Assessment without a field crew from SON, keeping in mind, Dr. Fitzgerald may provide recommendations next week which may be specific to the Stage 2 work to be completed by AMICK.

I appreciate your confirmation or clarification of the above,  
Good to speak with you,  
Deanna



---

**From:** Deanna De Forest  
**Sent:** Thursday, July 14, 2016 1:03 PM  
**To:** d.ritchie@saugeenojibwaynation.ca  
**Cc:** Paul Hausler; Mike Latimer  
**Subject:** Public Information Centre, Klondike Park Road Veterans Way Improvements, Municipal Class Environmental Assessment  
**Attachments:** Klondike Park Road - Veterans Way PIC - 300032855.pdf.link.txt; Stage 1 Arch12066-L FINAL 15 May 2013.pdf.link.txt; ThruMessageData.html

Hi Doran,

The Town of Wasaga Beach is completing a Municipal Class Environmental Assessment (EA) to consider road and intersection improvements for Veterans Way and Klondike Park Road in the Town of Wasaga Beach. A Notice of Commencement introducing the study was mailed to you in July 2015. More recently, I trust that you received the Notice of Public Information Centre via mail. The Public Information Centre was held on Tuesday July 12, 2016. I have attached a copy of the presentation materials for your information.

The preliminary preferred alternative solutions are presented in the Public Information Centre (PIC) materials.

The preliminary preferred alternative solution for intersection improvements is Realignment, which is to realign and reconfigure the intersection of Klondike Park Road and Veterans Way to provide straight through traffic for Klondike Park Road and provide a stop sign to Veterans Way, with potential for future dedicated right turn lane channelization for southbound traffic.

The preliminary preferred alternative solution for road improvements is the Realignment of Curves, which includes the realignment and softening of Veterans Way curves as well as land exchange with Wasaga Beach Provincial Park for lands outside the existing road allowance. The alignment of Klondike Park Road would be adjusted within the existing road allowance.

I have also included a copy of the Stage 1 Archaeological Assessment completed for the project, attached for your information. The Stage 1 Archaeological Assessment makes recommendations for a Stage 2 Archaeological Assessment. The timing of the Stage 2 Archeological Assessment will be subject to Provincial and Municipal coordination as well as the level of interest and involvement expressed by the Saugeen Ojibway Nation.

The Town of Wasaga Beach would like to ensure that anyone interested in this study is aware of the opportunity to review project material and provide comment. If you would like additional information concerning this project, or would like to provide comments, or wish to arrange to discuss the project further, I can be reached by phone or email.

Regards,  
Deanna De Forest



August 8, 2016

**Via: Delivered**

Chad Williams  
2041 Klondike Park Road  
Wasaga Beach ON L9Z 2W9

Dear Mr. Williams:

**Re: Notice of Public Information Centre  
Veterans Way, Klondike Park Road Geometric Improvements and Watermain  
Looping Municipal Class Environmental Assessment Study  
Project No 300031855.0000**

Please find enclosed a Notice of Public Information Centre, related presentation materials and cover letter for the Municipal Class Environmental Assessment of the proposed road and intersection improvements for Veterans Way and Klondike Park Road in the Town of Wasaga Beach.

The information enclosed was mailed to you on June 27, 2016, in advance of the Public Information Centre, held on July 12, 2016, however, it was recently returned to us by Canada Post as unclaimed.

Representatives of the Town of Wasaga Beach and R.J. Burnside & Associates Limited are available to discuss any questions or concerns you may have following your review of the material.

Your comments are welcomed at any time during the EA process. For this stage of the process, your comments are encouraged by August 19, 2016, following which we will be incorporating the comments received from the public, agencies and Indigenous communities into the evaluation of the alternative solutions.

Yours truly,

**R.J. Burnside & Associates Limited**

Deanna De Forest

EA Coordinator  
DD:sr

Enclosure(s)

## Deanna De Forest

---

**From:** Deanna De Forest  
**Sent:** Monday, February 06, 2017 10:45 AM  
**To:** melanievincent21@yahoo.ca  
**Cc:** Paul Hausler; Mike Latimer; Mike Pincivero  
**Subject:** Municipal Class Environmental Assessment, Wasaga Beach, ON  
**Attachments:** 170131 Letter to Huron Wendat 031855.pdf.link.txt; ThruMessageData.html

Dear Grand Chief Konrad Sioui,

I'm writing to notify you of a Municipal Class Environmental Assessment being completed to evaluate intersection and road improvement alternatives for Klondike Park Road and Veteran's Way in Wasaga Beach, Ontario.

Please see the attached letter for additional details. Project information, including the Notice of Commencement, a public meeting summary report, and Stage 1 Archaeological Assessment, is also attached. A copy of the letter and project information has also been sent to you via mail delivery.

Your feedback regarding any interest that you may have on this project and how your community would like to be engaged is appreciated.

I look forward to hearing from you.

Regards,  
Deanna De Forest



January 31, 2017

Via: Mail and email ([melanievincent21@yahoo.ca](mailto:melanievincent21@yahoo.ca))

Grand Chief Konrad H. Sioui  
Nation Huronne-Wendat  
255, place Chef Michel Laveau,  
Wendake Québec G0A 4V0

Dear Grand Chief Sioui:

**Re: NOTICE OF PROJECT/REQUEST FOR INPUT  
POWERLINE ROAD, KLONDIKE PARK ROAD GEOMETRIC IMPROVEMENTS AND  
WATERMAIN LOOPING, WASAGA BEACH, ON  
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY  
Project No.: 300034729.0000**

The Town of Wasaga Beach ("Town") has identified an opportunity to improve road and intersection alignment of Powerline Road and Klondike Park Road to meet projected increases in traffic volume. The Town has initiated a Municipal Class Environmental Assessment (EA) to consider potential transportation improvements that address traffic volume and road geometrics in the area.

The approximate extent of the Study Area for this project is shown on the Map provided in the attached Notice of Commencement.

A Notice of Commencement for the project was first issued in July, 2015, and a Public Information Centre was held at the Wasaga Beach RecPlex on July 12, 2016. As part of the characterization of the environment, a Stage 1 Archaeological Assessment was completed in 2013, conducted in compliance with the Ontario Ministry of Tourism and Culture (MTC) 2011 Standards and Guidelines for Consultant Archaeologists. Fieldwork for a recommended Stage 2 Archaeological Assessment was completed within the study area in the fall of 2016. The Stage 2 Archaeological Assessment was also conducted in compliance with the MTC 2011 Standards and Guidelines. In addition, the Stage 2 Assessment was conducted to voluntarily comply with the Saugeen Ojibway Nation 2010 document entitled, "*Conducting Archaeology within the Traditional Territory of the Saugeen Ojibway Nation: Process and Standards for Approval Authorities, Development Proponents and Consultant Archaeologists.*" No artifacts were identified as a result of the field assessments.

Through experience on other projects in the area, we have learned that the project may be located within the Huron Wendat Nation ancestral lands in Ontario, as such, the Huron Wendat may have an interest in the Klondike Park Road project. For your information, please find enclosed a copy of the Notice of Commencement, the Public Information materials, and a copy

of the Stage 1 Archaeological Assessment. The reporting for the Stage 2 Archaeological Assessment is pending at this time.

At this stage of the process, Burnside is requesting on behalf of the Town, that your community provide any comments and / or concerns with the proposed project. Specifically, we are seeking input on:

- Any preliminary comments or concerns that your community has on the proposed project.
- The level of interest in the project from the community for further engagement.
- The best methods to communicate with your community.

We are making contact at this point so comments from your community can be addressed and incorporated into the overall project design. Input and comments received from Indigenous communities, the public and agencies will be incorporated into the planning, design and reporting for this project.

Your input and questions are encouraged. To provide the study team with your comments, please contact one of the study team members identified on the attached Notice of Commencement, or for further project information please contact Ms. Deanna De Forest, at (705) 797-4357 or [deanna.deforest@rjburnside.com](mailto:deanna.deforest@rjburnside.com).

Please indicate to us your interest in providing input to this project, as well as any questions or comments you may have. You will be kept up-to-date on project status by means of future mailings, unless you indicate otherwise.

Your participation in this EA study is much appreciated.

Yours truly,

**R.J. Burnside & Associates Limited**



Deanna De Forest  
EA Coordinator  
DDF:sr

Enclosure(s)      Notice of Commencement  
PIC Boards  
Stage 1 Archaeological Assessment



## Deanna De Forest

---

**From:** Deanna De Forest  
**Sent:** Wednesday, May 17, 2017 2:33 PM  
**To:** 'Maxime Picard'  
**Cc:** Paul Hausler  
**Subject:** RE: Powerline Road, Klondike Park Road Study Area  
**Attachments:** 16014 Stage 2 Archaeological Assessment Report (MH Edits).pdf

Hello Maxime,

The reporting for the Stage 2 Archaeological Assessment for the Klondike Park Road and Veterans Way Improvements Municipal Class EA, in Wasaga Beach, ON, has been completed. I have attached a copy of the report for your information.

Should you have any comments, please feel free to contact me by phone or email.

Best regards,

Deanna

---

**From:** Maxime Picard [mailto:[maxime.picard@cnhw.qc.ca](mailto:maxime.picard@cnhw.qc.ca)]  
**Sent:** Thursday, February 23, 2017 1:54 PM  
**To:** Deanna De Forest  
**Subject:** RE: Powerline Road, Klondike Park Road Study Area

Well received.

Thanks Deanna



**NATION HURONNE-WENDAT**  
**Bureau du Nionwentsïo**

**Maxime Picard, B. Sc. A.**  
Coordonnateur de projets - Ontario  
255, Place Chef Michel-Laveau  
Wendake (Qc) G0A 4V0  
Téléphone : 418-843-3767 # 2105  
Courriel : [maxime.picard@cnhw.qc.ca](mailto:maxime.picard@cnhw.qc.ca)



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---

**De :** Deanna De Forest [mailto:[Deanna.DeForest@rjburnside.com](mailto:Deanna.DeForest@rjburnside.com)]

**Envoyé :** 23 février 2017 11:22

**À :** Maxime Picard

**Cc :** Paul Hausler

**Objet :** RE: Powerline Road, Klondike Park Road Study Area

Hello Maxime,

Thank you for your comments. They will appear as part of the public record for the Municipal Class Environmental Assessment.

I will send you a copy of the report for the Stage 2 Archaeological Assessment, completed in 2016, for your information once it is available.

Regards,  
Deanna

**Deanna De Forest**

R.J. Burnside & Associates | [www.rjburnside.com](http://www.rjburnside.com)  
Office: 800-265-9662 Direct: 705-797-4357

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---

**From:** Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]  
**Sent:** Wednesday, February 15, 2017 11:06 AM  
**To:** Deanna De Forest  
**Subject:** RE: Powerline Road, Klondike Park Road Study Area

Thanks Deanna,

As the Huron-Wendat Nation has some archaeological sites near of the study area we insist to stay informed about any upcoming assessment as well as in any monitoring opportunity.

Best regards,

Maxime



**NATION HURONNE-WENDAT**  
**Bureau du Nionwentsïo**

**Maxime Picard, B. Sc. A.**

Coordonnateur de projets - Ontario

255, Place Chef Michel-Laveau

Wendake (Qc) G0A 4V0

Téléphone : 418-843-3767 # 2105

Courriel : maxime.picard@cnhw.qc.ca



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**De :** Deanna De Forest [<mailto:Deanna.DeForest@rjburnside.com>]

**Envoyé :** 15 février 2017 10:40

**À :** [maxime.picard@cnhw.qc.ca](mailto:maxime.picard@cnhw.qc.ca)

**Objet :** FW: Powerline Road, Klondike Park Road Study Area

**This email includes secure access to files:**

[Access Secured R.J. Burnside Files Here](#) - Expires Saturday 18 Mar 2017 03:59 AM (UTC)

\* If the link above does not work, copy the following URL to a web browser:

<https://files.rjburnside.com/Desktop/Distro/Open/025P766HLXC>

Good Morning Ms Picard,

Thank you for your reply.

Please find attached the shape files as well as a PDF version which illustrates the approximate study area for the Klondike Park Road and Veterans Way Municipal Class EA, Wasaga Beach.

I look forward to receiving your feedback.

Regards,

Deanna De Forest

**Deanna De Forest**

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**From:** Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]

**Sent:** Wednesday, February 15, 2017 10:00 AM

**To:** Deanna De Forest

**Subject:** TR: Powerline Road, Klondike Park Road



**NATION HURONNE-WENDAT**  
**Bureau du Nionwentsïo**

**Maxime Picard, B. Sc. A.**

Coordonnateur de projets - Ontario

255, Place Chef Michel-Laveau

Wendake (Qc) G0A 4V0

Téléphone : 418-843-3767 # 2105

Courriel : maxime.picard@cnhw.qc.ca



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**De :** Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]

**Envoyé :** 15 février 2017 09:41

**À :** 'deanna.deforest@rjburnside.com'

**Objet :** Powerline Road, Klondike Park Road

Good morning Ms. Deforest,

First of all thanks for your letter on the Powerline and Klondike Park Road Project.

Before providing you any feedback on the project the Huron-Wendat Nation would like to have access to the shapefiles of the study zone.

Could you please provide us this information ?

Best regards,

Maxime Picard



**NATION HURONNE-WENDAT**  
**Bureau du Nionwentsïo**

**Maxime Picard, B. Sc. A.**

Coordonnateur de projets - Ontario

255, Place Chef Michel-Laveau

Wendake (Qc) G0A 4V0

Téléphone : 418-843-3767 # 2105

Courriel : maxime.picard@cnhw.qc.ca



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**Other message recipients:**

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**To:** [maxime.picard@cnhw.qc.ca](mailto:maxime.picard@cnhw.qc.ca)

**Cc:** [Paul.Hausler@rjburnside.com](mailto:Paul.Hausler@rjburnside.com)

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**BURNSIDE**

**Public Information Centre Summary  
Report**

**Veterans Way and Klondike Park Road  
Geometric Improvements and  
Watermain Looping Municipal Class  
Environmental Assessment**

**The Corporation of the Town of  
Wasaga Beach**

**R.J. Burnside & Associates Limited  
128 Wellington Street West Suite 301  
Barrie ON L4N 8J6 CANADA**

**August 25, 2016  
300031855**

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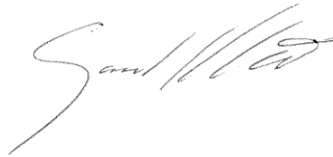
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## Record of Revisions

Revision	Date	Description
	August 25, 2016	Initial Submission to The Town of Wasaga Beach
1	August 30, 2016	Final Submission to The Town of Wasaga Beach

## R.J. Burnside & Associates Limited

Report Prepared By:



Sarah Robbins  
Environmental Technologist  
SR:sr

Report Reviewed By:



Deanna De Forest, B.Sc.  
Environmental Assessment and Regulatory Coordinator  
DD:sr

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- Appendix C Comment Sheets

## **Disclaimer**

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## **1.0 Introduction and Background**

The Corporation of the Town of Wasaga Beach (the Town) has initiated a Municipal Class Environmental Assessment (EA) to consider improvements to Klondike Park Road and Veterans Way, located in the Town of Wasaga Beach. The Town has identified an opportunity to meet projected increases in traffic volumes and improve horizontal and vertical road alignments and intersection geometrics of Veterans Way and Klondike Park Road. Alternative solutions include: 1) Do Nothing, 2) Reduce Posted Speed, and 3) Realignment of Curves. For intersection geometrics of Veterans Way and Klondike Park Road, alternatives include: 1) Do Nothing, 2) All-way Stop Control, 3) Signalization, 4) Realignment, and 5) Roundabout.

The planning of the proposed improvements is being carried out in accordance with the Schedule 'B' Class EA requirements of the Municipal Engineers Association Municipal Class Environmental Assessment document (October 2000, as amended in 2007 and 2011), which is approved under the *Ontario Environmental Assessment Act*. Concurrent with the Municipal Class Environmental Assessment process, the Ministry of Natural Resources and Forestry is evaluating the project under the Class Environmental Assessment for Provincial Parks and Conservation Reserves as a separate process as some of the alternative solutions may affect lands of the Wasaga Beach Provincial Park.

A key component of the study includes consultation with interested stakeholders. This report documents the Public Information Centre (PIC), held on Tuesday, July 12, 2016 and summarizes the notification process, the information presented and the comments received during and after the PIC.

## **2.0 Method of Notification**

Details of the date, time, location and purpose of the PIC were published in the Wasaga Sun on June 30, 2016 and on July 7, 2016. A copy of the advertisement is provided in Appendix A.

Notification of the PIC was posted on the Town of Wasaga Beach website and mailed to regulatory agencies, municipalities, Indigenous communities, and local residents who live within the study area.

## **3.0 Public Meeting Format**

The PIC was arranged as a "drop-in" style session where representatives from the study team were available to answer questions and discuss the project with interested members of the public. Attendees were greeted upon arrival, encouraged to sign-in, and



offered a comment form to provide comments on the project and alternative solutions. A total of 12 people attended the PIC excluding the project team members.

The open house began at 7:00 p.m. Display boards were placed around the room and representatives from the project team answered various questions and discussed the project with the attendees.

The display boards covered the following topics:

- Welcome.
- PIC Purpose.
- Study Area.
- Municipal Class EA Process.
- Problem/Opportunity Statement.
- Background.
- Existing Environment Conditions (Technical, Natural, Social/Cultural).
- Alternative Solutions.
- Financial Environment.
- Evaluation of Alternatives.
- Preliminary Preferred Alternative.
- Potential Impacts and Mitigations.
- Next Steps.
- Information on how to participate.

A copy of the display boards is provided in Appendix B.

Participants were requested to provide input to the process by completing the available comment forms. If individuals wished to take the comment forms home to fill out later, they were encouraged to return their comments either via email or to the mailing address provided, by August 12, 2016.

#### **4.0 Participation Levels and Summary of Comments Received**

This section and following Table (Table 4-1) provides an overview of the feedback received from participants at the PIC and following the PIC. Written comments were received from six stakeholders and one agency and one Indigenous community during the comment period following the PIC. These comments are presented in Appendix C.

Key issues addressed within the written comments relate to:

- Request for PIC material.
- Safe use of roads.

Table 4-1:

ID CODE	COMMENT	RESPONSE (Burnside)
A	Preferred realignment of curves and signalization of Veterans Way/Klondike Park Road intersection	Comment noted.
B	Prefers realignment of curves and realignment of Veterans Way/Klondike Park Road intersection, assuming the road is realigned. Commented the presentation of materials was helpful and cleared up a lot of questions	Comment noted.
C	Noted preference for realignment of curves and realignment of intersection of Veterans Way and Klondike Park Road. Does not want a roundabout. Noted hundreds of seniors travel through the study area from Park Place. Safety of seniors and children is crucial. Requested no excess speeds and stops.	Comment noted.
D	Noted preference for realignment of curves and signalization at the Veterans Way and Klondike Park Road intersection.	Comment noted.
E	Noted preference for reduced posted speed and a roundabout at the intersection of Veterans Way and Klondike Park Road.	Comment noted.
F	Comment received via mail July 21, 2016 – Noted preference for realignment of curves and realignment of the Veterans Way Klondike Park Road intersection as the most viable	Comment noted.

ID CODE	COMMENT	RESPONSE (Burnside)
	and cost effective solution.	
Rosi Zirger, Ministry of Tourism, Culture and Sport	Comment received August 5, 2016 – Noted the Ministry’s interest in the conservation of cultural heritage resources. Requesting electronic copy of weblink to the PIC panels for review.	Response provided on August 8, 2016 – provided weblink to PIC Boards.
Danielle Baker – Wasauksing First Nation	Comment received July 28, 2016 – Noted no current concerns or comments to submit. Requested to continue to receive information and a copy of the completed Municipal Class Environmental Assessment Study.	Comment noted.

## 5.0 Next Steps

Comments and concerns received at the PIC will be reviewed for incorporation into the evaluation of a preferred alternative and the Project File Report (PFR). Next steps include:

- Selection of a preferred alternative solution.
- Issue of Notice of Completion and PFR.
- Input from the public and interested agencies.

A PFR will be available for public review and comment at the completion of this study. A Notice of Completion will be issued following the completion of the PFR. The PFR will be available for public review for a minimum 30-day review period.



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## Appendix A

### Newspaper Advertisement







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**Appendix B**

**Display Boards**

Appendix B

**GEOMETRIC IMPROVEMENTS AND WATERMAIN LOOPING  
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT  
Veterans Way (previously Powerline Road) and Klondike Park Road  
Wasaga Beach**

**Public Information Centre**

**Welcome**

Please sign in



Take a  
comment sheet



Staff are here  
for your  
questions,  
comments or  
concerns



Complete the  
comment sheet.  
Public input is  
an important  
part of the  
Class EA  
process

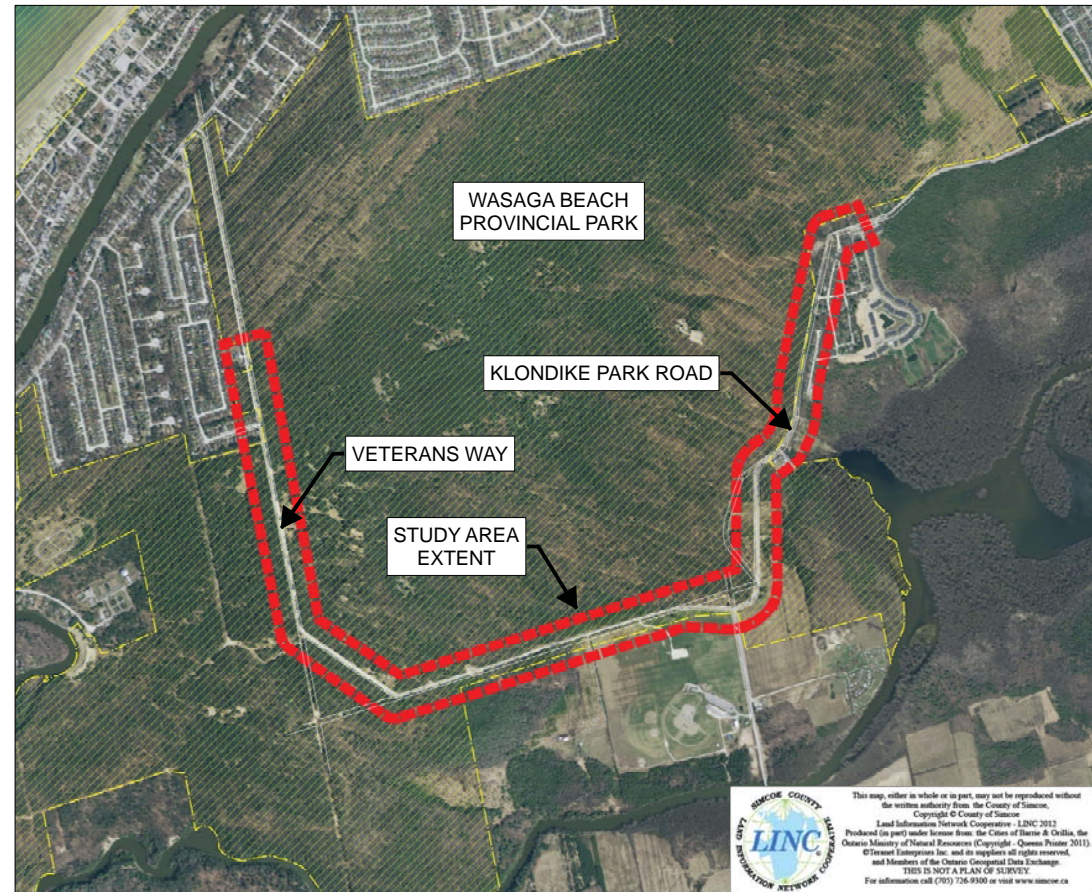
## Project Purpose:

The purpose of this EA is to review Alternative Solutions to consider potential transportation improvements that address traffic volume and road geometrics of Veterans Way and Klondike Park Road as part of watermain looping and road reconstruction efforts.

## Purpose of this PIC is to:

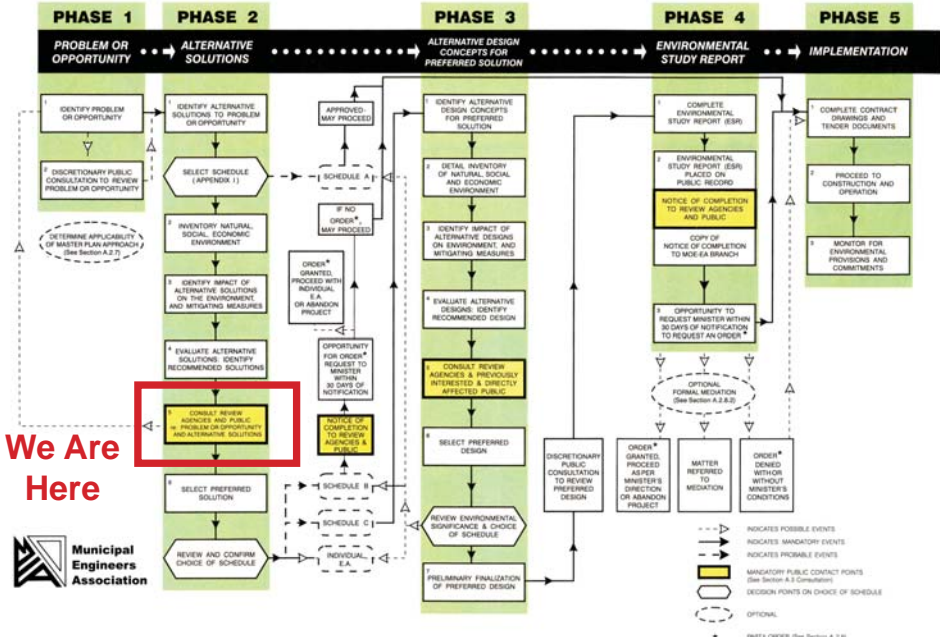
- Provide a summary of the project
- Present an evaluation of the various alternative solutions based on physical, natural, social, cultural/heritage and economic environment factors
- Obtain public input on the alternative solutions

## Project Study Area



# Municipal Class EA Process

This project is being considered as a Schedule 'B' Project (Phases 1 to 2), as defined in the Municipal Engineers Association Class EA document



# Problem / Opportunity Statement:

As part of watermain looping and road reconstruction efforts, The Town of Wasaga Beach ("The Town") has identified an opportunity to meet projected increases in traffic volume and improve horizontal and vertical road alignment and intersection geometrics of Veterans Way and Klondike Park Road

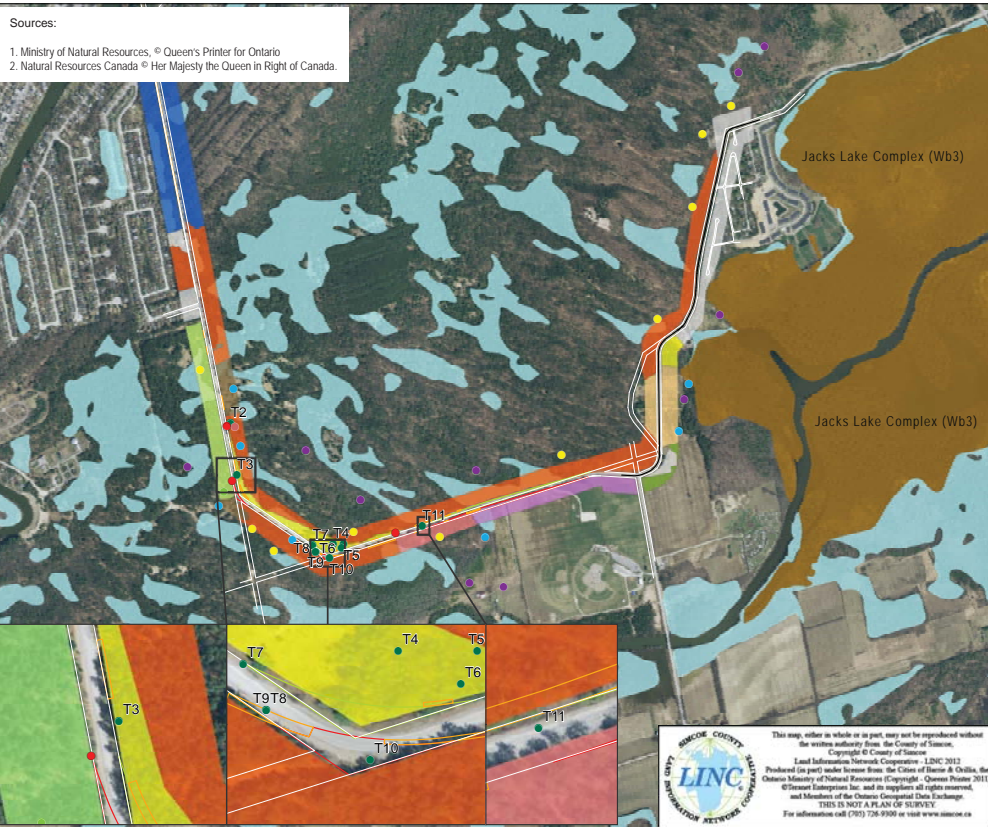




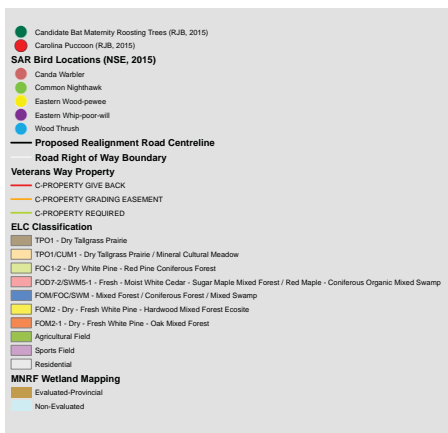
## Background

- The road improvements may require property disposition or an exchange of land with the Wasaga Beach Provincial Park resulting in proposed boundary changes to the Wasaga Beach Provincial Park
- Proposed boundary changes to the Provincial Park require coordination of the project with the Ministry of Natural Resources and Forestry's (MNR) Environmental Assessment process.
- The MNR has identified that the project falls under the MNR Provincial Class EA for Provincial Parks and Conservation Reserves (PPCR), initial screening to a Category B.
- Additionally, MNR has noted concerns related to the potential impacts to Species at Risk (SAR) and their habitat, and the potential introduction of invasive species .
- Ontario Parks will complete the Provincial Class EA under the Class EA PPCR (and associated land use planning and regulation amendment) with the expectation that the Town of Wasaga Beach will provide the necessary information to complete the processes.
- Natural heritage studies have been completed within the study area to provide the necessary information in support of the Provincial Class EA PPCR. The natural heritage studies were developed with the intention to confirm the presence and assess the impact to the habitat of identified Species At Risk as a result of the proposed project activities. The studies completed include:
  - habitat assessment for Species At Risk, including bat and reptile habitat,
  - vegetation community classification and vegetation inventories,
  - breeding bird surveys and incidental wildlife observations.





## Legend



## Bats

Eleven trees were identified as having potential candidate bat maternity roosting features, however, some of the key features of sites considered “significant” for roosting bats are absent from the study area, including mature forest habitat with a relatively high snag density. Overall the study area is considered to have low potential for candidate roosting habitat. Grading activities may require the removal of 2 out of 11 identified candidate bat maternity roosting trees, identified as T8, T9.

## Reptiles

No snakes or turtles were observed within the study area during early spring survey. Preferred habitat for turtles and Species at Risk snakes is considered to be beyond the potential footprint of the alternative solutions.

## Birds

Several breeding bird species have the potential to be located within the study area including Species at Risk birds as well as area sensitive species of forest, wetland and open habitat, species which require large tracts of habitat.

## Vegetation Communities

A total of 7 vegetation communities were identified that are immediately adjacent to the existing road allowance.

Sensitive vegetation community of Dry Tallgrass Prairie, identified by NHIC (Ontario Plant Community List, no date) as S1: Critically Imperiled, was observed adjacent to the road allowance in one location on Veteran’s Way and on Klondike Park Road within the study area.

The majority of plant species observed are considered as being uncommon, but not rare, to widespread, common and abundant in Ontario.

Carolina Puccoon (*Lithospermum caroliniense*), which is ranked as S3, Vulnerable in the Province was observed during the spring site visit, located in several locations along the right of way on sandy soil in open or forest edge areas.

Species At Risk plants were not observed during field investigations.

- The existing horizontal and vertical alignments of Veterans Way and Klondike Park Road are below industry standards for the posted speed.
- The intersection at Klondike Park Road and Veterans Way has only one stop sign controlling northbound traffic on Klondike Park Road.
- Sight distances throughout the road corridors are deficient around curves and over hills.
- Surface water drainage during major storm events and snow melt occurrences within the road allowance needs improvement.
- Pedestrian and cyclists currently only have one paved lane along the northbound traffic lane of Veterans Way and are similarly affected by the existing road geometrics. No other pedestrian or bicycle facilities currently exist along either road corridor.
- Parking areas and road crossing facilities for users of the nature trails adjacent to the road corridor currently are poorly defined as there are no warning signs or formal parking areas.
- Traffic volumes and patterns are expected to change as summer destination facilities, residential areas and surrounding transportation routes are developed and improved.



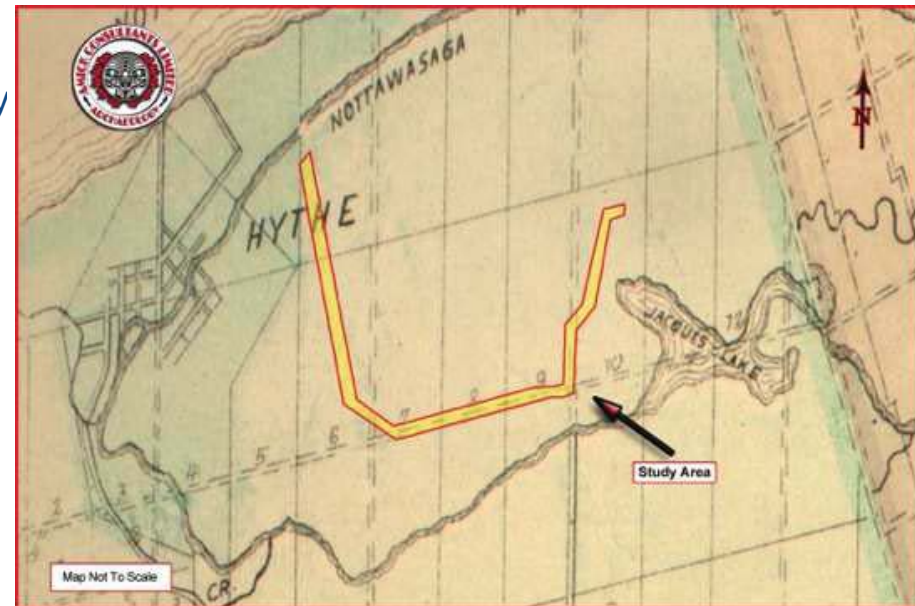


AMICK Consultants Limited completed a Stage 1 Archaeological Background Study of lands within the Study Area

The Stage 1 Archaeological Background Study identified Archaeological Potential within select areas of the study area

A Stage 2 assessment of the study area is recommended for select areas of the study area in the form of high intensity test pit survey at a 5m interval between transects.

The study area contains no features of potential cultural value or interest that may be directly impacted by the project



Segment of Historic Atlas Map for the Township of Nottawasaga  
(Belden 1881)

AMICK Stage 1 Archaeological Assessment Report



AMICK Stage 1 Archaeological Assessment Report

## Road Improvements

Alternative solutions are considered for improvements to the horizontal and vertical road alignment and include:

- Do Nothing
- Reduced Posted Speed
- Realignment of Curves



## Intersection Improvements

Alternative solutions are considered for intersection geometrics of Veterans Way and Klondike Park Road and include:

- Do Nothing
- All-way Stop Control
- Signalization
- Realignment
- Roundabout





## Do Nothing



- Road surfaces would be repaved upon completion of the installation of the watermain.
- Watermain looping would be completed without improvements to the horizontal and vertical road alignment

## Realignment of Curves

- Alignment of Veterans Way curves would be softened.
- Includes land exchange with Wasaga Beach Provincial Park for lands outside the existing right-of-way

## Reduce Posted Speed

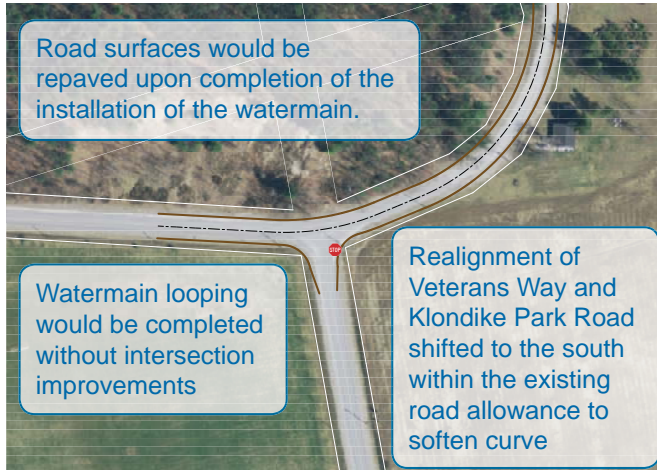


- Posted speeds would be adjusted based on speed capacity of the existing curves

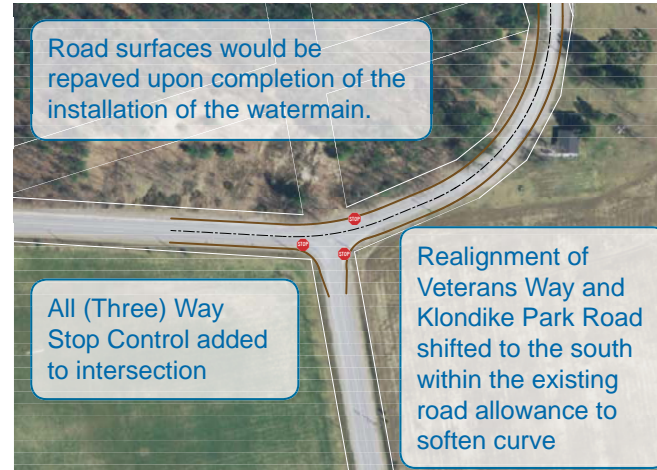




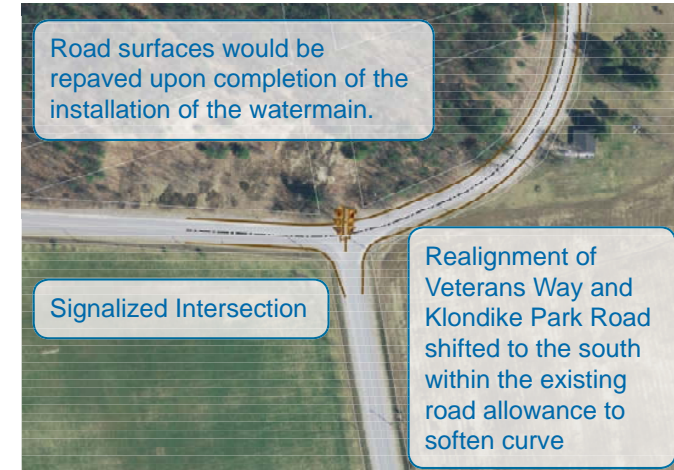
## Do Nothing



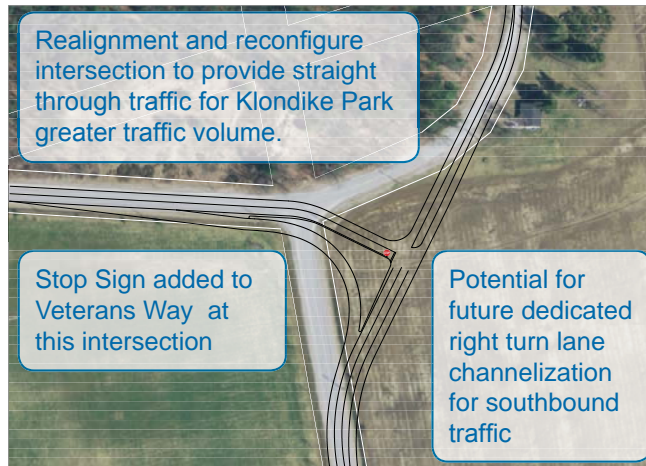
## All Way Stop



## Signalization



## Realignment



## Roundabout



## Preliminary Cost Estimate

### Road Improvements

Do Nothing	Reduce Posted Speed	Realignment of Curves
\$0	\$10,000	\$1,800,000

### Intersection Improvements

Do Nothing	All Way Stop	Signalization	Realignment	Roundabout
\$0	\$7,500	\$200,000	\$200,000	\$800,000

**ORDER OF PREFERENCE**

- Most Preferred ○
- Moderately Preferred ◐
- Somewhat Preferred ◑
- Minorarily Preferred ◒
- Least Preferred ●

A	NATURAL ENVIRONMENT	Do Nothing	Reduce Posted Speed	Realignment of Curves
	Terrestrial Vegetation	○	○	◑
	Surface Water and Aquatic Habitat	○	○	○
	Impact to Provincial Park Lands	○	○	◑
	Potential Impact to Wildlife and Habitat	●	◑	○
	<b>SUMMARY NATURAL ENVIRONMENT</b>	●	○	◑

B	SOCIO-CULTURAL ENVIRONMENT	Do Nothing	Reduce Posted Speed	Realignment of Curves
	Conformity to Municipal Land Use, Policies and Planning	●	●	○
	Heritage Resources (archaeological features, built heritage, and cultural heritage landscapes)	○	○	◑
	Nuisance Impacts (noise, traffic, aesthetics, disruption during construction)	○	◑	◑
	Land Acquisition Requirements	○	○	◑
	Pedestrian Safety	●	◑	○
	Cyclist Safety	●	◑	○
	Motorist Safety	●	◑	○
	Visibility	●	●	○
	<b>SUMMARY SOCIO-CULTURAL ENVIRONMENT</b>	●	◑	○

CRITERIA FOR EVALUATING ALTERNATIVES		Do Nothing	Reduce Posted Speed	Realignment of Curves
C	<b>FINANCIAL FACTORS</b>			
	Estimated Capital Costs	○	◑	◑
	Estimated Operation and Maintenance Cost	●	●	◑
	Property Acquisition Cost	○	○	◑
	<b>SUMMARY FINANCIAL FACTORS</b>	○	◑	●

D	TECHNICAL FACTORS	Do Nothing	Reduce Posted Speed	Realignment of Curves
	Addresses traffic control and operation requirements (Level of service, delay, queues)	●	◑	○
	Traffic Capacity	◑	●	○
	Improves road geometrics to minimum municipal standards	●	●	○
	Improves sight distances	●	◑	○
	<b>SUMMARY TECHNICAL FACTORS</b>	●	●	○

E	PROBLEM STATEMENT	Do Nothing	Reduce Posted Speed	Realignment of Curves
	Addresses Problem Statement	No	Yes	Yes
	<b>SUMMARY PROBLEM STATEMENT</b>	<b>Not Preferred</b>	<b>Preferred</b>	<b>Preferred</b>

	Do Nothing	Reduce Posted Speed	Realignment of Curves
<b>OVERALL SUMMARY</b>	<b>Not Preferred</b>	<b>Not Preferred</b>	<b>Preferred</b>

# Evaluation of Alternatives – Intersection Improvements

**ORDER OF PREFERENCE**

- Most Preferred ○
- Moderately Preferred ◐
- Somewhat Preferred ◑
- Minorly Preferred ◒
- Least Preferred ●

A NATURAL ENVIRONMENT	Do Nothing	All-Way Stop	Signalization	Realignment	Roundabout
Terrestrial Vegetation	○	○	○	◐	◐
Surface Water and Aquatic Habitat	○	○	○	○	○
Impact to Provincial Park Lands	○	○	○	◐	◐
Potential Impact to Wildlife and Habitat	○	○	○	◑	◑
Impact to Climate Change	◒	●	●	◑	○
<b>SUMMARY NATURAL ENVIRONMENT</b>	○	◑	◑	●	◑

B SOCIO-CULTURAL ENVIRONMENT	Do Nothing	All-Way Stop	Signalization	Realignment	Roundabout
Conformity to Municipal Land Use, Policies and Planning	●	◑	○	○	○
Heritage Resources (archaeological features, built heritage, and cultural heritage landscapes)	○	○	○	◑	◑
Nuisance Impacts (noise, traffic, aesthetics, disruption during construction)	○	○	◑	◐	◐
Land Acquisition Requirements	○	○	◑	◐	◐
Pedestrian Safety	●	◑	◑	◑	◑
Cyclist Safety	●	◑	◑	○	◑
Motorist Safety	●	●	◑	◑	○
Visibility	●	●	◑	○	○
<b>SUMMARY SOCIO-CULTURAL ENVIRONMENT</b>	●	◑	○	○	○

C FINANCIAL FACTORS	Do Nothing	All-Way Stop	Signalization	Realignment	Roundabout
Estimated Capital Costs	○	○	◑	◑	●
Estimated Operation and Maintenance Cost	○	○	◑	○	○
Property Acquisition Cost	○	○	◑	◑	◑
<b>SUMMARY FINANCIAL FACTORS</b>	○	○	◑	◑	●

D TECHNICAL FACTORS	Do Nothing	All-Way Stop	Signalization	Realignment	Roundabout
Addresses current and short-term traffic control and operation requirements (Level of service, delay, queues)	◑	◑	○	○	○
Ability to accommodate potential future traffic increases	●	◑	◑	○	○
Aligns intersection layout to suit heaviest traffic movements and improves road network continuity	●	●	●	○	○
Addresses technical safety concerns associated with improved sight distances and turning movements	●	◑	◑	○	○
Improves intersection geometrics	●	●	◑	○	○
<b>SUMMARY TECHNICAL FACTORS</b>	●	●	◑	○	○

E PROBLEM STATEMENT	Do Nothing	All-Way Stop	Signalization	Realignment	Roundabout
Addresses Problem Statement	No	Yes	Yes	Yes	Yes
<b>SUMMARY PROBLEM STATEMENT</b>	<b>Not Preferred</b>	<b>Preferred</b>	<b>Preferred</b>	<b>Preferred</b>	<b>Preferred</b>

OVERALL SUMMARY	Do Nothing	All-Way Stop	Signalization	Realignment	Roundabout
	<b>Not Preferred</b>	<b>Not Preferred</b>	<b>Not Preferred</b>	<b>Preferred</b>	<b>Not Preferred</b>



## Intersection Improvements - Realignment



- Realign and reconfigure intersection to provide straight through traffic for Klondike Park Road
- Stop sign to Veterans Way, potential for future dedicated right turn lane channelization for southbound traffic

## Road Improvements - Realignment of Curves



- Alignment of Veterans Way curves would be softened. Includes land exchange with Wasaga Beach Provincial Park for lands outside the existing road allowance
- Alignment of Klondike Park Road would be adjusted within the existing road allowance



Potential Impact	Mitigation
<p>Surface water, wetland and groundwater quality from sedimentation or spills during construction</p>	<p>The footprint of the disturbed area to be minimized as much as possible.</p> <p>Develop an Erosion and Sediment Control Plan, Spill Prevention and Contingency Plan for construction and operational phases of the project, including training for on-site workers</p> <p>Equipment fueling and maintenance completed off-site.</p> <p>Prepare a geotechnical investigation and report, as part of the detailed design to outline groundwater conditions at the site and provide recommendations for dewatering and MOECC permit requirements.</p>
<p>Archaeological, cultural heritage impacts</p>	<p>Complete a Stage 2 archaeological assessment for areas of potential earthworks within Study Area to determine if there are any archaeological resources.</p> <p>No impacts to cultural heritage are anticipated.</p>
<p>Potential safety hazard from construction activities</p>	<p>The contractor will be required to implement a Health and Safety Plan (OHSA 1990).</p>

# Potential Impacts and Mitigation

Potential Impact	Mitigation
<p>Loss of vegetation/habitat loss, impact to species at risk</p>	<p>Limiting the extent of construction footprint limits as much as possible.</p> <p>Stabilize and re-vegetate disturbed areas and restore to a pre-disturbed state where feasible.</p> <p>Avoid Impacts to rare plant communities (Tallgrass Prairie/ Cultural Meadow) where possible.</p> <p>Implement protective measures (e.g., silt fence) to prevent access, stockpile and storage within the prairie communities</p> <p>Avoid the removal of low potential candidate bat maternity roosting trees where possible.</p> <p>Complete removals , where necessary, outside of the active bat maternity season.</p> <p>Develop an erosion and sediment control plan</p> <p>Limit construction activities with the potential to destroy migratory birds nests and eggs, to the period outside of the core breeding bird season.</p> <p>Complete earthworks and vegetation removal activities outside of the active season for identified Special Concern and Threatened reptile species to the extent possible. Install temporary silt fence barriers at strategic locations to exclude reptiles.</p> <p>Wildlife crossing(s) designed for reptiles should be installed at strategic locations</p> <p>Should species at risk be encountered at any time during the project, the MNRF District Office shall be contacted for advice on how to proceed.</p>
<p>Temporary nuisance noise during construction activities. Access, Increased dust in air from construction activities.</p>	<p>Implement noise control measures, where required.</p> <p>Vehicles / machinery and equipment should be in good repair, equipped with emission controls, as applicable, and operated within regulatory requirements.</p> <p>If required, dust control measures may include the wetting of surfaces using a non-chloride based compound to protect water quality.</p>

- Review public, stakeholder and Agency comments generated from the PIC. (please submit all comments August 12, 2016);
- Prepare a PIC Summary Report including comments and responses, as applicable, to be available on the Town website following the PIC comment period.
- Select a preferred alternative.
- Present the preferred alternative to Town Council for approval in Fall 2016. Those who want to be kept informed of this process will be advised when this will be considered by council;
- Issue Notice of Study Completion and provide Project File Report for final public review and comment – Fall 2016; and
- Detailed Design and Construction – Currently proposed for 2018 (as identified in capital budget, subject to change).

## Help Shape Decisions made in this Study

You can provide your comments by completing a comment sheet and placing it in the comment box, or you may take it home and return it at a later date. Please submit your comments to the project contacts below by August 12, 2016. If you would like more information or if you have any questions or concerns please contact:

Mr. Paul Hausler  
Project Manager  
R.J. Burnside & Associates Limited  
3 Ronell Crescent  
Collingwood ON L9Y 4J6  
Telephone: (705) 707-4289  
Fax: (705) 446-2399  
[Paul.Hausler@rjburnside.com](mailto:Paul.Hausler@rjburnside.com)

Mike Latimer, C.E.T.  
Project Coordinator  
Town of Wasaga Beach  
30 Lewis Street  
Wasaga Beach ON L9Z 1A1  
Office: (705) 429-2540 ext. 2342  
Fax: (705) 429-8226  
Cell: (705) 441-4123  
[m.latimer@wasagabeach.com](mailto:m.latimer@wasagabeach.com)

Information will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*. All comments will become part of the public record.



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## Appendix C

### Comment Sheets



The Corporation of the Town of Wasaga Beach  
Public Information Centre

Veterans Way, Klondike Park Road Geometric Improvements and  
Watermain Looping Municipal Class Environmental Assessment Study

**PUBLIC COMMENT SHEET**

<b>Public Information Centre</b>  Date: Tuesday, July 12, 2016 Time: 7pm to 9pm Place: Wasaga Beach RecPlex, Oakview Room, 1724 Mosley St, Wasaga Beach, ON L9Z 1Z7	Your Name: _____ Address: _____ _____ Postal Code: _____ Telephone: _____ Email: _____
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The Town of Wasaga Beach has initiated a Schedule B Municipal Class Environmental Assessment (“EA”) to consider alternative solutions for improvements to the horizontal and vertical road alignment and for the intersection alignment of Veterans Way (formerly Powerline Road) and Klondike Park Road.

**Problem/Opportunity Statement:** Watermain looping on Veterans Way and Klondike Park Road is required to facilitate planned water system upgrades. As part of watermain looping and road reconstruction efforts, the Town of Wasaga Beach has identified an opportunity to meet projected increases in traffic volume and improve horizontal and vertical road alignment and intersection alignment of Veterans Way and Klondike Park Road.

R.J. Burnside & Associates Limited has been retained by the Town of Wasaga Beach to evaluate the various alternatives. This questionnaire provides you with an opportunity to comment on this study and indicate your concerns and preferences. Your views are important to us.

- Which of the following Alternatives do you feel best addresses the road realignment and intersection improvements to generate the greatest positive impact? Please rank the following Road Alignment Alternatives from 1 to 3 with 1 being the most preferred. For the Intersection Improvement Alternatives, please rank the Alternatives from 1 to 5 with 1 being the most preferred.**

**Alternative Solutions:**

**Road Alignment:**

- [3] Do Nothing,
- [2] Reduced Posted Speed, and
- [1] Realignment of Curves, and

**Intersection of Veterans Way and Klondike Park Road:**

- [5] Do Nothing,
- [3] All-way Stop Control,
- [1] Signalization,
- [2] Realignment, and
- [4] Roundabout.

The Town of Wasaga Beach and R.J. Burnside & Associates Limited thank you for your participation in the Veterans Way Klondike Park Road Improvements Class Environmental Assessment (EA) Study. Personal information on this form may be used for future contact in relation to this study. Information will be collected and maintained to meet the requirements of the Environmental Assessment Act for the purpose of creating a record that will be available to the general public as described in Section 37 of the Freedom of Information and Protection of Privacy Act. All comments and personal information such as name, address, telephone number and property location will become part of the public record. Project and notice information will be made accessible upon request in accordance with the Accessibility Standard for Information and Communication under the Accessibility for Ontarians with Disabilities Act, 2005.







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B

The Corporation of the Town of Wasaga Beach  
Public Information Centre

Veterans Way, Klondike Park Road Geometric Improvements and  
Watermain Looping Municipal Class Environmental Assessment Study

**PUBLIC COMMENT SHEET**

<b>Public Information Centre</b>  Date: Tuesday, July 12, 2016 Time: 7pm to 9pm Place: Wasaga Beach RecPlex, Oakview Room, 1724 Mosley St, Wasaga Beach, ON L9Z 1Z7	Your Name: _____ Address: _____ _____ Postal Code: _____ Telephone: _____ Email: _____
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The Town of Wasaga Beach has initiated a Schedule B Municipal Class Environmental Assessment (“EA”) to consider alternative solutions for improvements to the horizontal and vertical road alignment and for the intersection alignment of Veterans Way (formerly Powerline Road) and Klondike Park Road.

**Problem/Opportunity Statement:** Watermain looping on Veterans Way and Klondike Park Road is required to facilitate planned water system upgrades. As part of watermain looping and road reconstruction efforts, the Town of Wasaga Beach has identified an opportunity to meet projected increases in traffic volume and improve horizontal and vertical road alignment and intersection alignment of Veterans Way and Klondike Park Road.

R.J. Burnside & Associates Limited has been retained by the Town of Wasaga Beach to evaluate the various alternatives. This questionnaire provides you with an opportunity to comment on this study and indicate your concerns and preferences. Your views are important to us.

- Which of the following Alternatives do you feel best addresses the road realignment and intersection improvements to generate the greatest positive impact? Please rank the following Road Alignment Alternatives from 1 to 3 with 1 being the most preferred. For the Intersection Improvement Alternatives, please rank the Alternatives from 1 to 5 with 1 being the most preferred.

**Alternative Solutions:**

**Road Alignment:**

- [3] Do Nothing,
- [2] Reduced Posted Speed, and
- [1] Realignment of Curves, and

**Intersection of Veterans Way and Klondike Park Road:**

- [2] Do Nothing,
- [4] All-way Stop Control,
- [3] Signalization,
- [1] Realignment, and
- [5] Roundabout.

ASSUMES  
ROAD CURVES  
REALIGNED.

The Town of Wasaga Beach and R.J. Burnside & Associates Limited thank you for your participation in the Veterans Way Klondike Park Road Improvements Class Environmental Assessment (EA) Study. Personal information on this form may be used for future contact in relation to this study. Information will be collected and maintained to meet the requirements of the Environmental Assessment Act for the purpose of creating a record that will be available to the general public as described in Section 37 of the Freedom of Information and Protection of Privacy Act. All comments and personal information such as name, address, telephone number and property location will become part of the public record. Project and notice information will be made accessible upon request in accordance with the Accessibility Standard for Information and Communication under the Accessibility for Ontarians with Disabilities Act, 2005.





The Corporation of the Town of Wasaga Beach  
 Public Information Centre  
 Veterans Way, Klondike Park Road Geometric Improvements and  
 Watermain Looping Municipal Class Environmental Assessment Study

2. Comments/Questions/Suggestions:

GREAT PRESENTATION!!

REALLY HELPFUL PERSONEL (BURNSIDE).

CLEARUP UP LOTS OF QUESTIONS.

THANK YOU.

Please complete the comment sheet and deposit it in the "Comment Sheet" box or complete it at home and return it via email to [deanna.deforest@rjburnside.com](mailto:deanna.deforest@rjburnside.com), or mail or fax your completed sheet to one of the contacts below. Your comments are welcomed at any time during the EA process. For this stage of the process, your comments are encouraged by August 12, 2016

Mr. Paul Hausler  
 Project Manager  
 R.J. Burnside & Associates Limited  
 3 Ronell Crescent  
 Collingwood ON L9Y 4J6  
 Telephone: (705) 707-4289  
 Fax: (705) 446-2399  
[Paul.Hausler@rjburnside.com](mailto:Paul.Hausler@rjburnside.com)

Mike Latimer, C.E.T.  
 Project Coordinator  
 Town of Wasaga Beach  
 30 Lewis Street  
 Wasaga Beach ON L9Z 1A1  
 Office: (705) 429-2540 ext. 2342  
 Fax: (705) 429-8226  
 Cell: (705) 441-4123  
[m.latimer@wasagabeach.com](mailto:m.latimer@wasagabeach.com)

The Town of Wasaga Beach and R.J. Burnside & Associates Limited thank you for your participation in the Veterans Way Klondike Park Road Improvements Class Environmental Assessment (EA) Study. Personal information on this form may be used for future contact in relation to this study. Information will be collected and maintained to meet the requirements of the Environmental Assessment Act for the purpose of creating a record that will be available to the general public as described in Section 37 of the Freedom of Information and Protection of Privacy Act. All comments and personal information such as name, address, telephone number and property location will become part of the public record. Project and notice information will be made accessible upon request in accordance with the Accessibility Standard for Information and Communication under the *Accessibility for Ontarians with Disabilities Act, 2005*.



BURNSIDE

C

The Corporation of the Town of Wasaga Beach  
Public Information Centre

Veterans Way, Klondike Park Road Geometric Improvements and  
Watermain Looping Municipal Class Environmental Assessment Study

**PUBLIC COMMENT SHEET**

<b>Public Information Centre</b>  Date: Tuesday, July 12, 2016 Time: 7pm to 9pm Place: Wasaga Beach RecPlex, Oakview Room, 1724 Mosley St, Wasaga Beach, ON L9Z 1Z7	Your Name: _____ Address: _____ _____ Postal Code: _____ Telephone: _____ Email: _____
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**Alternative Solutions:**

**Road Alignment:**

- Do Nothing,
- Reduced Posted Speed, and
- Realignment of Curves, and

**Intersection of Veterans Way and Klondike Park Road:**

- Do Nothing,
- All-way Stop Control,
- Signalization,
- Realignment, and
- Roundabout.

The Town of Wasaga Beach and R.J. Burnside & Associates Limited thank you for your participation in the Veterans Way Klondike Park Road Improvements Class Environmental Assessment (EA) Study. Personal information on this form may be used for future contact in relation to this study. Information will be collected and maintained to meet the requirements of the Environmental Assessment Act for the purpose of creating a record that will be available to the general public as described in Section 37 of the Freedom of Information and Protection of Privacy Act. All comments and personal information such as name, address, telephone number and property location will become part of the public record. Project and notice information will be made accessible upon request in accordance with the Accessibility Standard for Information and Communication under the Accessibility for Ontarians with Disabilities Act, 2005.





The Corporation of the Town of Wasaga Beach  
Public Information Centre  
Veterans Way, Klondike Park Road Geometric Improvements and  
Watermain Looping Municipal Class Environmental Assessment Study

2. Comments/Questions/Suggestions:

no Roundabout  
Hundreds of Seniors use those Rds  
from PARK PLACE

no Roundabout  
safety of Seniors and children  
is critical. no excess speeds and  
stops please

Please complete the comment sheet and deposit it in the "Comment Sheet" box or complete it at home and return it via email to [deanna.deforest@rjburnside.com](mailto:deanna.deforest@rjburnside.com), or mail or fax your completed sheet to one of the contacts below. Your comments are welcomed at any time during the EA process. For this stage of the process, your comments are encouraged by August 12, 2016

Mr. Paul Hausler  
Project Manager  
R.J. Burnside & Associates Limited  
3 Ronell Crescent  
Collingwood ON L9Y 4J6  
Telephone: (705) 707-4289  
Fax: (705) 446-2399  
[Paul.Hausler@rjburnside.com](mailto:Paul.Hausler@rjburnside.com)

Mike Latimer, C.E.T.  
Project Coordinator  
Town of Wasaga Beach  
30 Lewis Street  
Wasaga Beach ON L9Z 1A1  
Office: (705) 429-2540 ext. 2342  
Fax: (705) 429-8226  
Cell: (705) 441-4123  
[m.latimer@wasagabeach.com](mailto:m.latimer@wasagabeach.com)

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The Corporation of the Town of Wasaga Beach  
Public Information Centre

Veterans Way, Klondike Park Road Geometric Improvements and  
Watermain Looping Municipal Class Environmental Assessment Study

**PUBLIC COMMENT SHEET**

<b>Public Information Centre</b>	Your Name: _____	_____
Date: Tuesday, July 12, 2016	Address: _____	_____
Time: 7pm to 9pm	_____	_____
Place: Wasaga Beach RecPlex, Oakview Room, 1724 Mosley St, Wasaga Beach, ON L9Z 1Z7	Postal Code: _____	_____
	Telephone: _____	_____
	Email: _____	_____

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**Alternative Solutions:**

**Road Alignment:**

- Do Nothing,
- Reduced Posted Speed, and
- Realignment of Curves, and

**Intersection of Veterans Way and Klondike Park Road:**

- Do Nothing, *TO ROAD*
- All-way Stop Control,
- Signalization, *C INTERSECTION*
- Realignment, and
- Roundabout.

The Town of Wasaga Beach and R.J. Burnside & Associates Limited thank you for your participation in the Veterans Way Klondike Park Road Improvements Class Environmental Assessment (EA) Study. Personal information on this form may be used for future contact in relation to this study. Information will be collected and maintained to meet the requirements of the Environmental Assessment Act for the purpose of creating a record that will be available to the general public as described in Section 37 of the Freedom of Information and Protection of Privacy Act. All comments and personal information such as name, address, telephone number and property location will become part of the public record. Project and notice information will be made accessible upon request in accordance with the Accessibility Standard for Information and Communication under the Accessibility for Ontarians with Disabilities Act, 2005.







The Corporation of the Town of Wasaga Beach  
Public Information Centre

Veterans Way, Klondike Park Road Geometric Improvements and  
Watermain Looping Municipal Class Environmental Assessment Study

**PUBLIC COMMENT SHEET**

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**Alternative Solutions:**

**Road Alignment:**

- 2 [ ] Do Nothing,
- 1 [X] Reduced Posted Speed, and
- 3 [ ] Realignment of Curves, and

**Intersection of Veterans Way and Klondike Park Road:**

- 3 [ ] Do Nothing,
- 4 [ ] All-way Stop Control,
- 5 [ ] Signalization,
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- 1 [X] Roundabout.

The Town of Wasaga Beach and R.J. Burnside & Associates Limited thank you for your participation in the Veterans Way Klondike Park Road Improvements Class Environmental Assessment (EA) Study. Personal information on this form may be used for future contact in relation to this study. Information will be collected and maintained to meet the requirements of the Environmental Assessment Act for the purpose of creating a record that will be available to the general public as described in Section 37 of the Freedom of Information and Protection of Privacy Act. All comments and personal information such as name, address, telephone number and property location will become part of the public record. Project and notice information will be made accessible upon request in accordance with the Accessibility Standard for Information and Communication under the Accessibility for Ontarians with Disabilities Act, 2005.



## Deanna De Forest

---

**From:** Mike Latimer <m.latimer@wasagabeach.com>  
**Sent:** Tuesday, August 02, 2016 1:16 PM  
**To:** Paul Hausler; Deanna De Forest  
**Subject:** Klondike Park/Veterans EA Comment Sheet  
**Attachments:** 20160802131145.pdf

Good Afternoon Paul / Deanna,

Please see attached a comment sheet from the PIC.

Kind Regards,

Mike Latimer, C.E.T.  
Project Coordinator

Town of Wasaga Beach  
30 Lewis Street  
Wasaga Beach, Ontario  
L9Z 1A1

Office: (705) 429-2540 ex. 2342  
Cell: (705) 443-7800  
[m.latimer@wasagabeach.com](mailto:m.latimer@wasagabeach.com)



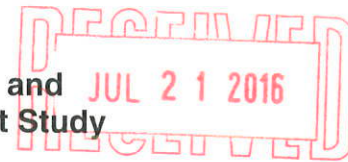


BURNSIDE

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The Corporation of the Town of Wasaga Beach  
Public Information Centre

Veterans Way, Klondike Park Road Geometric Improvements and  
Watermain Looping Municipal Class Environmental Assessment Study



**PUBLIC COMMENT SHEET**

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- Realignment of Curves, and

**Intersection of Veterans Way and Klondike Park Road:**

- Do Nothing,
- All-way Stop Control,
- Signalization,
- Realignment, and
- Roundabout.

The Town of Wasaga Beach and R.J. Burnside & Associates Limited thank you for your participation in the Veterans Way Klondike Park Road Improvements Class Environmental Assessment (EA) Study. Personal information on this form may be used for future contact in relation to this study. Information will be collected and maintained to meet the requirements of the Environmental Assessment Act for the purpose of creating a record that will be available to the general public as described in Section 37 of the Freedom of Information and Protection of Privacy Act. All comments and personal information such as name, address, telephone number and property location will become part of the public record. Project and notice information will be made accessible upon request in accordance with the Accessibility Standard for Information and Communication under the Accessibility for Ontarians with Disabilities Act, 2005.



## Deanna De Forest

---

**From:** Mike Latimer <m.latimer@wasagabeach.com>  
**Sent:** Thursday, July 28, 2016 3:05 PM  
**To:** Paul Hausler; Deanna De Forest  
**Subject:** FW: Notice of PIC and MCEA Study  
**Attachments:** WFN Response - No Concerns Notice of PIC and MCEA Study 16-07-28.pdf

FYI. see attached.

Kind Regards,

Mike Latimer, C.E.T.  
Project Coordinator

Town of Wasaga Beach  
30 Lewis Street  
Wasaga Beach, Ontario  
L9Z 1A1

Office: (705) 429-2540 ex. 2342  
Cell: (705) 443-7800  
[m.latimer@wasagabeach.com](mailto:m.latimer@wasagabeach.com)

---

**From:** Daniella Baker [<mailto:ccc@wasauksing.ca>]  
**Sent:** July-28-16 3:00 PM  
**To:** Mike Latimer  
**Cc:** [paul.hausler@rjburnside.com](mailto:paul.hausler@rjburnside.com); Jennifer Predie  
**Subject:** Notice of PIC and MCEA Study

Good afternoon Mike,

Please find attached a letter from Wasauksing First Nation requesting to continue receiving information and a copy of the completed Municipal Class Environmental Assessment Study.

Should you have any questions, please do not hesitate to contact me at the information provided below.

Sincerely,

### Daniella Baker

*Community Consultation Coordinator*

Wasauksing First Nation  
T: (705)746-2531 Ext. 2248  
C: (705)988-2204  
F: (705)746-5984  
[ccc@wasauksing.ca](mailto:ccc@wasauksing.ca)  
[www.wasauksing.ca](http://www.wasauksing.ca)







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P.O. Box 250  
PARRY SOUND, ONTARIO  
P2A 2X4

PHONE:  
(705) 746-2531  
FAX:  
(705) 746-5984

CHIEF  
Warren Tabobondung

CHIEF COUNCILLOR  
Theresa McInnes

COUNCILLORS  
Roberta Judge-Rice-Clements  
Vera Pawis-Tabobondung  
Walter Tabobondung

July 28, 2016

Mr. Mike Latimer, C.E.T., Project Coordinator  
Town of Wasaga Beach  
30 Lewis Street  
Wasaga Beach, ON  
L9Z 1A1

Dear Mr. Latimer,

**RE: Notice of Public Information Centre - Veteran's Way, Klondike Park Road Geometric Improvements and Watermain Looping Municipal Class Environmental Assessment Study**

Thank you for your notice issued on June 30, 2016 in regards to the above. Wasauksing First Nation does not currently have any concerns and/or comments to submit in response to the notification and we wish to receive a copy of the completed Municipal Class Environmental Assessment Study for consideration of the alternative solutions for improvements to the horizontal and vertical road alignment.

This letter does not constitute Wasauksing First Nation's consent or agreement to the above and should there be any negative residual effects or any impacts to our Aboriginal and/or Treaty Rights and lands or resources within our Wasauksing-Anishinaabe Territory, Wasauksing reserves the right to initiate consultation with the Town of Wasaga Beach and to seek accommodation and mitigation measures.

Once again, thank you for engaging with Wasauksing First Nation and should you have any questions or require any further information, please do not hesitate to contact me via email [ccc@wasauksing.ca](mailto:ccc@wasauksing.ca) or telephone (705) 746-2531 ext. 2248.

Respectfully,

Daniella Baker  
Community Consultation Coordinator



## Deanna De Forest

---

**From:** Steve Gendron  
**Sent:** Monday, August 08, 2016 5:34 PM  
**To:** Rosi.Zirger@ontario.ca  
**Cc:** m.latimer@wasagabeach.com; Paul Hausler; Deanna De Forest  
**Subject:** RE: Veterans Way, Klondike Pard Road Improvements EA

Hello Ms. Zirger,

As per your request, below, please find a link to the PIC boards.

<http://www.wasagabeach.com/Studies/Klondike> Park Public Information Centre Boards.pdf



Steve Gendron, P.Eng  
Process Engineer

R.J. Burnside & Associates Limited  
128 Wellington Street West, Suite 301  
Barrie, Ontario L4N 8J6  
[Steve.Gendron@rjburnside.com](mailto:Steve.Gendron@rjburnside.com)  
Office: 705-797-2047  
Direct Line: 705-797-4297  
[www.rjburnside.com](http://www.rjburnside.com)

---

**From:** Paul Hausler  
**Sent:** Monday, August 08, 2016 2:27 PM  
**To:** Deanna De Forest; Steve Gendron  
**Subject:** FW: Veterans Way, Klondike Pard Road Improvements EA

FYI Below

---

**From:** Zirger, Rosi (MTCS) [<mailto:Rosi.Zirger@ontario.ca>]  
**Sent:** Friday, August 05, 2016 10:30 AM  
**To:** Paul Hausler  
**Cc:** Mike Latimer ([m.latimer@wasagabeach.com](mailto:m.latimer@wasagabeach.com))  
**Subject:** Veterans Way, Klondike Pard Road Improvements EA

Good Morning

The Ministry of Tourism, Culture and Sport (MTCS) received a Notice of PIC for the project mentioned above. As part of the Class Environmental Assessment process, the MTCS has an interest in the conservation of cultural heritage resources including archaeological resources, built heritage resources, and cultural heritage landscapes.

Would you please send me an electronic copy or weblink to the PIC panels for review?

Thank you in advance

**Rosi Zirger**

**Heritage Planner**

Ministry of Tourism, Culture & Sport

Culture Division | Programs & Services Branch | Heritage Programs

401 Bay Street, Suite 1700 Toronto, Ontario M7A 0A7

Tel. 416.314.7159 | Fax 416.314.7175 | E-mail: [rosi.zirger@ontario.ca](mailto:rosi.zirger@ontario.ca)

\*\*\*\* CONFIDENTIALITY NOTICE \*\*\*\*

This electronic transmission and any accompanying attachments may contain privileged or confidential information intended only for the use of the individual or organization named above.

Any distribution, copying or action taken in reliance on the contents of this communication by anyone other than the intended recipient(s) is STRICTLY PROHIBITED.

If you have received this communication in error please notify the sender at the above email address and delete this email immediately.

Thank you.

\*\*\*\*\*

Project Contact List  
 Klondike Park Road Veterans Way Intersection Improvements Municipal Class EA  
 300031855

Agency/Organization	Title	First Name	Last Name	Position	Address 1	Address 2	City	Postal Code	Email	Telephone	Fax	Comments Received	Response Given
Canada Post - Central Region (Ontario)	Sir	/Madam			4567 Dixie Road		Mississauga	L4W 1S2					
Environment Canada - Ontario Region	Mr.	Rob	Dobos	Manager, Environmental Assessment Section	867 Lakeshore Road, 5th Floor, Office L509	P.O. Box 5050	Burlington	L7S 1A16	rob.dobos@canada.ca	(905) 336-4953	(905) 336-8901		
Hydro One Inc.	Mr.	Tony	Ierullo	Manager	483 Bay Street	North Tower, 14th Floor	Toronto	M5G 2P5	ierullo@HydroOne.com	(416) 345-5213	(416) 345-5395		
Hydro One Networks Inc.	Mr.	Walter	Kloostra	Manager, Transmission Lines Sustainment Investment Planning	483 Bay Street	North Tower, 15th Floor	Toronto	M5G 2P5	w.d.kloostra@hydroone.com	(416) 345-5114	(416) 345-5443		
Infrastructure Ontario		Alex	Lye	Environmental Specialist	1 Dundas Street, West, Suite 2000		Toronto	M5G 1Z3	alex.lye@infrastructure.ca	413-327-2755			
Infrastructure Ontario	Mr.	Keith	Noronha	Environmental Management, Team Assistant					Keith.Noronha@infrastructureontario.ca	(416) 327-2755		letter received via email July 4, 2016 from Lisa Myslicki. Noted it was unclear if proposed project impacted lands under the control of MIO lands. Outlined the proponents obligations should the project affect MIO lands. Requested confirmation of impact of MIO lands. Aug 11, email from Lisa Myslicki- provided IO check list used to evaluate alternative processes. September 1, 2016. email from Lisa Myslicki outlining the steps required to satisfy the IO Class EA	July 5, 2016. DD Called Lisa Myslicki to discuss potential impact of MIO lands. August 11, 2016 Follow up conference call with IO and MNRF in an effort to coordinate similar requirements of IO Public Works Class EA and MNRF PPCR Class EA. August 30, 2016 conference call with MNRF and IO, Town of Wasaga Beach to determine requirements for coordination of Provincial EAs. Sept 2, 2016 email inquiry re timing of submission of Duty to Consult supporting documentation
Ministry of Infrastructure - Ontario Growth Secretariat, Growth Policy, Planning and Analysis Branch	Mr.	Andrea	Roberts	Manager Growth Policy	777 Bay Street	4th Floor, Suite 425	Toronto	M5G 2E5	andrea.roberts@ontario.ca	647-283-0208	(416) 325-7403		

Project Contact List  
 Klondike Park Road Veterans Way Intersection Improvements Municipal Class EA  
 300031855

Agency/Organization	Title	First Name	Last Name	Position	Address 1	Address 2	City	Postal Code	Email	Telephone	Fax	Comments Received	Response Given
Ministry of Infrastructure - Ontario Growth Secretariat, Growth Policy, Planning and Analysis Branch	Mr.	Andrew	Theoharis	Manager (A), Growth Policy	777 Bay Street	4th Floor, Suite 425	Toronto	M5G 2E5	andrew.theoharis@ontario.ca	(416) 325-5794	(416) 325-7403		
Ministry of Natural Resources and Forestry- Midhurst (Huron) (Southern Region)	Mr.	Ken	Mott	District Planner	2284 Nursery Road		Midhurst	L9X 1N8	ken.mott@ontario.ca	District Office: (705) 725-7500; (705) 725-7546	(705) 725-7584		
Ministry of Natural Resources and Forestry - Ontario Parks- Southwest Zone		Meghan	Pomeroy		451 Arrowhead Park Road		Hunstville	P1H 2J4	meghan.pomeroy@ontario.ca	705-789-7136	705-789-5944	Oct 3, 2014 email outlining steps to coordinate the MCEA with MNRF PP requirements. Jan 27, 2016 email from M.Pomeroy with result of preliminary screening and next steps for PPCR Class EA and MNRF ecologist information and preliminary scope of work for ecological work. April 17, 2017 email agreed with approach to scope of work for ecological studies.	Oct 29, 2014 email follow up to phone conversation to summary understanding that the MNRF will complete the screening for the Provincial Park Class EA as it relates to the MCEA project. April 7, 2015 email with proposed scope of work for ecological studies.
Ministry of the Environment and Climate Change - Central Region	Ms.	Chunmei	Liu	Environmental Resource Planner and Environmental Assessment Coordinator	5775 Yonge Street	9th Floor	North York, Toronto	M2M 4J1	chunmei.liu@ontario.ca; dan.delakis@ontario.ca; dorothy.moszynski@ontario.ca	1-800-810-8048; (416) 326-6700	(416) 325-6345		
Ministry of Tourism, Culture and Sport Culture Services Unit, Programs and Services Branch	Ms.	Rosi	Zirger	Heritage Planner- Central Ontario	401 Bay Street	Suite 1700	Toronto	M7A 0A7	rosi.zirger@ontario.ca	(416) 314-7159	(416) 314-7175	These roads are located around Wasaga Beach Provincial Park, some alternatives may require the transfer/exchange of provincial park lands and evaluation by MNRF as a separate process. Recommend contact with Aboriginal communities about known or potential cultural heritage resources that are of value to these communities, as well as Municipal Heritage Committees, historical societies and other local heritage organizations. We confirm your telephone advice that archaeological assessment(s) will be completed for this EA. Since this EA project area exhibits archaeological potential assessment(s) should be undertaken by an archaeologist licensed under the OHA. The MTCS Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes should also be completed. The Clerk and Municipal Heritage Planners can provide information that will assist you in completing the checklist. If potential or known heritage resources exist, MTCS recommends that a Heritage Impact Assessment (HIA), should be completed and sent (along with any additional technical studies) to the MTCS for review before issuing a Notice of Completion. If no known or potential cultural heritage resources, or impacts to these resources, are identified, please include the completed checklists and supporting documentation in the EA report or file. MTCS would appreciate being kept informed of this project as it proceeds through the EA process. 08052016 via email. MTCS requested a copy of the PIC presentation materials or weblink.	08082016 via email Burnside (SG) provided a link to the location of the PIC materials on the Town website.
Ministry of Transportation- Central Region	Mr.	Jason	White	Manager (Acting)- Engineering Office	159 Sir William Hearst Ave.	Bldg. D 5th Floor	Toronto	M3M 0B7	jason.white@ontario.ca	(416) 235-5575	(416) 325-8070		
Ontario Provincial Police- Operations Policy and Strategic Planning Bureau	Ms.	Paula	Brown		777 Memorial Avenue	1st Floor	Orillia	L3V 7V3	Paula.Brown@ontario.ca	(705) 329-6903			
Simcoe County	Mr.	Mark	Aitken	Chief Administrative Officer	1110 Highway 26		Midhurst	L0L 1X0					
Beausoleil First Nation	Chief	A. Dan	Monague		1 Ogema Street		Christian Island	L0K1C0	info@chimnissing.ca	(705) 247-2051	(705) 247-2239	Left voicemail on Aug. 4, 2015 at 2:45pm.	

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Agency/Organization	Title	First Name	Last Name	Position	Address 1	Address 2	City	Postal Code	Email	Telephone	Fax	Comments Received	Response Given
Chippewas of Georgina Island	Ms.	Janice	Taylor	Band Manager	R.R #2	P.O. Box N13	Sutton West	L0E 1R0		(705) 437-1337	(705) 437-4597	Called on Aug. 4 , 2015 at 2:50pm. No comments will be provided.	
Chippewas of Georgina Island	Chief	Donna	Big Canoe	Chief	R.R #2	P.O. Box N13	Sutton West	L0E 1R0	NA	705-437-1337	705-437-4597		
Chippewas of Mnjikaning First Nation (Rama)	Chief	Rodney	Noganosh		5884 Rama Road	Suite 200	Rama	L0K 1T0	chief@ramafirstnation.ca	1-866-854-2121; 705-325-3611	(705) 325-0879	comment via email July 14, 2015. noted update to contact information to Chief Rodney Noganosh	updated July 23, 2015
Mississaugas of Scugog Island First Nation	Chief	Kelly	LaRocca	Contact Administrator	R.R. #5	22521 Island Road	Port Perry	L9L 1B6		(905) 985-3337	(905) 985-8828	Left voicemail on Aug. 4 , 2015 at 2:55pm.	
Moose Deer Point First Nation	Chief	Jason	Fisher	Chief	3719 Twelve Mile Bay Road	P.O. Box 119	MacTier	P0C 1H0	chief@moosedeerpoint.com	(705) 375-5209		Left voicemail on Aug. 4, 2015 at 2:57pm.	
Nation Huronne-Wendat	Grand Chief	Konrad	Sioui		255, place Chef Michel Laveau		Wendake	G0A 4V0	melanievincent21@yahoo.ca maxime.picard@cnhw.qc.ca	Cell / SMS: (418) 580-4442		Added to list in January 2017, E-Mail 02/15/17 letter issued with NOCm, PIC boards, Stage 1 Arch and status update. Email_02/15/17 Maxime Piccard. Requested shape file of study area to provide comment. Email_02/15/17 Huron-Wendat Nation has some archaeological sites near of the study area we insist to stay informed about any upcoming assessment as well as in any monitoring opportunity.	Email_05172017_to M. Picard, for information,providing a copy of the Stage 2 AA completed E_mail 02/15/17 provided shape file of study area. Email_02/25/17 reply noting copy of the Stage 2 will be provided once available.
Six Nations of the Grand River	Ms.	Dawn	LaForme	Consultation Supervisor					dlaforme@sixnations.ca	519-445-2201			
Six Nations of the Grand River	Chief	Ava	Hill	Chief		P.O. Box 5000	Ohsweken	NOA 1M0		(519) 445-2201		Left voicemail on Aug. 4, 2015 at 3:00pm.	
Williams Treaty First Nations	Ms.	Karry	Sandy-Mackenzie	Claims Coordinator	8 Creswick Court		Barrie	L4M 2S7	inquiries@williamstreatiesfirstnations.ca; k.a.sandy-mckenzie@rogers.com				
Chippewas of Nawash First Nation	Chief	Greg	Nadjiwon	Chief	#135 Lakeshore Blvd.		Neyaashiinigiing	N0H 2T0	chiefsdesk@nawash.ca	519-534-1689 Admin Office			
Wahta Mohawks	Chief	Philip	Franks		2664 Muskoka Rd #38	P.O. Box 260	Bala	P0C 1A0	philip.franks@wahtamohawkcouncil.ca			Called on Aug. 4, 2015 at 3:05pm. Notice of Commencement was forwarded to someone who will provide comments.	
Wasauksing First Nation	Chief	Warren	Tabobondung			P.O. Box 250	Parry Sound	P2A 2X4	cca@wasauksin.ca			received phone call July 14, 2015 from Hali Tobondung, Community Consultation Coordinator. Inquired about the location of the study in a regional context. Interested in the natural heritage evaluation component of the study and would like to be kept informed on the progress of the project. Noted that would not be able to provide comment by Aug 7, as stated in the NOCm. Provided letter response via email Aug 21, 2015. Noted that Wasauksing First Nation did not have any specific comments on the study at this time, but would like to be kept informed of the study. Email July 28, 2016 in response to receipt of Notice of PIC, Community Consultation Coordinator Daniella Baker noted the community does not currently have any concerns or comments but would like to receive a copy of the completed MCEA study.	following phone conversation, provided a regional map including the study area via email July 15, 2015. Noted in the email that her contact information would be maintained on our mailing list to receive future updates on the project and that there was an opportunity to comment at any time during the EA process.



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Saugeen Ojibway Nation	Mr.	Doran	Ritchie	Land Use Planning	25 Maadookii Subdivision		Neyaashiinigiing	N0H 2T0	d.ritchie@saugeenojibwaynation.ca			Left voicemail on Aug. 4, 2015 at 3:10pm. Left voicemail on July 4, 2016 1:30pm. July 14, 2016 via email sent copy of PIC materials as well as copy of Stage 1 Archaeology report for information and opportunity to comment on the project. August 24, 2016. Phone call to Doran to confirm receipt of PIC materials and Stage 1. re-emailed information package. Sept 7, 2016 email to Doran to inquire if SON has any comments following review of the Stage 1 and project materials. Oct 5, 2016 email to inquire if SON has any comments following review of the Stage 1 AA and project materials. Noted we would like to schedule the recommended Stage 2 before snow fall. Left voicemail on Oct 14, 2016 at 11:00am. Called Oct. 17, 10:30 am and spoke with Doran to inquire if SON had any comments following review of Stage 1 AA. Oct. 25, 2016, phone conversation with Doran Ritchie from DD with follow up email to inquire about comments following review of Stage 1 AA. Email Nov 7, 2016. DD to Doran Ritchie. Inquiring about comments following review of Stage 1 AA and any additional recommendations for Archaeological protocol and field work strategy beyond MTCS Standards and Guidelines. August 24, 2016 via Phone. DD to Doran Ritchie. Called to confirm receipt of PIC materials and Stage 1 Archeological Assessment and to invite comment on the project and level of interest SON may have. Doran confirmed he had received email but had not had a chance to review. Requested the materials be resent. PIC material and Stage 1 Archeological Assessment forwarded August 24, 2016. Doran remarked SON would review the Stage 1 report and provide comments in the near future. Oct 17, 2016 call Doran noted the Stage 1 report has not yet been reviewed by their sub-consultant but that he would follow up to provide comment by the end of the week. Oct 25, 2016 phone conversation. Doran noted comments on review of Stage 1 Archaeology are expected first week of November. Comments were expected to be high level with no significant issues anticipated. Noted it would be appropriate to schedule the Stage 2 AA, Noted SON does not require a field crew to participate in Stage 2 field work. Noted recommendations specific to the Stage 2 work may be provided following review of Stage 1.	Email_05172017_to D. Ritchie for information, providing a copy of the Stage 2 AA completed
Saugeen First Nation	Chief	Lester	Anoquot						lester.anoquot@saugeen.org; cc: band.admin@saugeen.org	519-797-2781	519-797-2978		
Georgian Bay Métis Council	Mr.	David	Dusome	President	355 Cranston Cres.		Midland	L4R 4K3		(705) 526-6335			
Métis Nation of Ontario		Jesse	Fieldwebster	Consultation Assessment Coordinator	255 Cranston Crescent	P.O. Box 4	Midland	L4R 4K6	consultations@metisnation.org	705-526-6335 ext. 220	705-526-7537		
Métis Nation of Ontario	Mr.	Alder	Barty	Consultation Assessment Coordinator Lands, Resources & Consultation	355 Cranston Crescent,	P.O. Box A,	Midland	L4R 4K6	Jesse Fieldwebster			Called on Aug. 4, 2015 at 3:12pm. Notice of Commencement has been forwarded and comments may be provided.	
Métis Nation of Ontario				Métis Consultation Unit	500 Old Patrick Street	Unit D	Ottawa	K1N 9G4					

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Bell Canada	Ms.	Wendy	Lefebvre	Design Manager, Access Network	5115 Creekbank Road West	3rd Floor	Mississauga	L4W 5R1	wendy.lefebvre@bell.ca	(905) 219-4558	(416) 701-6489		
Bell Canada	Mr.	Scott	Moon	Implementation Department	5115 Creekbank Road	3rd Floor, West Tower	Mississauga	L4W 5R1	scott.moon@bell.ca	(905) 219-4558	(416) 701-6489		
Bell Canada, Municipal Operations Centre	Mr.	John	Lachapelle		100 Borough Drive	Floor 5 Blue	Scarborough	M1P 4WZ					
Enbridge Gas Distribution Inc.	Mr.	Vince	Cina	Supervisor, Planning and Design	500 Consumers Road		North York	M2J 1P8					
Enbridge Pipelines Ltd.	Ms.	Ann	Newman	Crossing Co-ordinator	801 Upper Canada Drive	P.O. Box 128	Sarnia	N7T 7H8					
Wasaga Distribution Inc.				Manager	950 River Road West		Wasaga Beach	L9Z 1A2					
MTS – Allstream	Ms.	Christine	Anderson		50 Worcester Road		Etobicoke	M9M 5X2	Christine.anderson@mtsallstream.com	(416) 649-7527			
Rogers Communications	Ms.	Marian	Wright	Planning Coordinator	3573 Wolfedale Road		Mississauga	L5C 3T6	Marion.Wright@rci.rogers.com	(905) 897-3914; (888) 764-3771			
Nottawasaga Valley Conservation Authority	Ms.	Barb	Perreault	Manager, Regulations and Enforcement	8195 Line 8		Utopia	L0M 1T0	bperreault@nvca.on.ca	(705) 424-1479 ext 245	(705) 424-2115	NOCm - The area is partially regulated for watercourse meander belt in the vicinity of Klondike Road and wetlands and associated buffers along Powerline Road. A permit will most likely be required for any works to these roads. NVCA has no concerns pertaining to the proposed watermain looping, pending details.	
Wasaga Beach Fire Department		Michael	McWilliam	Fire Chief	30 Lewis Street		Wasaga Beach	L9Z 1A1					
Huron West OPP Detachment				Chief of Police	1000 River Road West	P.O. Box 140	Wasaga Beach	L9Z 1A2					
Simcoe County District School Board				Planner	1170 Highway 26		Midhurst	L0L 1X0					
Simcoe Muskoka Catholic District School Board	Mr.	Glenn	Clarke	Plant and Planning Department	97 Ferndale Drive		Barrie	L4N 9V5		705-722-6942	705-722-4979		
The Beach 97.7 FM				Manager	9937 Highway 26		Collingwood	L9Y 3Z3					
stakeholder comment 1	Paul Jewell	Paul	Jewell						ep-4jewell@rogers.com			provided comment via email July 2, 2015.suggested a lower enforced speed limit of 40km/hr may make it safer for animals and pedestrians. Comment via email July 4, 2016. suggested speed of traffic should be reduced to 30km/h as the road travels through a Provincial Park. Suggested volume of traffic should be reduced.	comment noted and acknowledged July 13, 2016
stakeholder comment 2	Emily Bosman	Emily	Bosman						em_bosman@yahoo.com			received email July 20, 2015 requesting to be kept informed of project notices via email	comment noted

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stakeholder comment 3		Laura	Smith						Luu-luu52@hotmail.com			received comment via email July 30, 2015 from Ms Laura Smith, forwarded from Town. Questioned the need for a traffic study and the warrants for a round-about. Does not feel there is any traffic congestion on Powerline Road and Klondike Park Road.Suggested Sunnidale Road which accesses Hwy 26 would be a more appropriate location for a round about.Concerned that the current study will impact protected lands. Inquired about the need and cost of watermain looping and its impact on the movement of traffic along Powerline and Klondike Park Road, stating that would be more of a concern than a study on future traffic patterns. Noted a preference for Do Nothing and to enforce the existing speed limit. Noted a concern for the protection of wildlife as a unique feature in Wasaga Beach.	noted watermain looping is part of planned water system upgrades. At present the watermain on Klondike Park Road dead ends near Shaw Street. As water is only available from one direction, noted several benefits to residents with the looping of the watermain, including reliability, pressure and quality. Response described the watermain work. Noted roads will require reconstruction following the watermain construction, and the Town has taken this opportunity to consider possible improvements to these roads for existing use and in anticipation of increased traffic volumes in the future. Described the possible road improvements and intersection improvements being evaluated under the MCEA process. Noted coordination with Ontario Parks, Ministry of Natural Resources and Forestry (MNRF), is essential to the project.
stakeholder comment 4	R. Scoffield	R.	Scoffield						r.scoffield@distributel.net			via email to town Aug 11, 2015. Noted deep concern with intersection of Klondike Park Rd and Powerline Rd. regarding sight line, speed and volume of vehicles. Suggested an interim solution of three way stop.	response provided by Town aug 31, 2015, acknowledging comment and provided contact information for further project details
stakeholder comment 5	Kyle Rafuse											New property owner, contacted following hand delivery of PIC information package after the package was returned to sender.Aug 08, 2016. Provided verbal comment to staff delivering information package. Noted concern that they would lose a large piece of property without compensation. Aug 10, 2016 RJB received phone call from property owner who requested a meeting to discuss concerns and question regarding the alternative solutions.	Aug 25, 2016 Town met with property owner at Town offices. Issues discussed include speed limit, construction timing and land value determination.

No Further Correspondence