Final

Dominion Street Schedule 'C' Class Environmental Assessment

Phase I & II Summary Report – Identification and Description of the Problem, Existing Conditions & Alternative Solutions

The Corporation of the Town of Caledon

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DOMINION STREET SCHEDULE 'C' CLASS ENVIRONMENTAL ASSESSMENT

PHASE I & II SUMMARY REPORT – IDENTIFICATION AND DESCRIPTION OF THE PROBLEM, EXISTING CONDITIONS & ALTERNATIVE SOLUTIONS

Caledon, Ontario

FINAL

Prepared for the Corporation of the Town of Caledon

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1. Introduction

The Corporation of the Town of Caledon (Town) has initiated Class Environmental Assessments (EA) in accordance with both the Municipal Engineers Association (MEA) Class EA and the Ministry of Natural Resources and Forestry (MNRF) Provincial Parks and Conservation Reserves (PPCR) Class EA guidelines, for the rehabilitation of Dominion Street. Proposed rehabilitation works in the defined study area trigger Schedule 'C' and Category 'C' classifications. As such, the study will be conducted in accordance with the planning and design process for Schedule 'C' projects as outlined in the MEA's "Municipal Class Environmental Assessment" (October 2000, as amended in 2015). The preliminary study area includes a portion of the Forks of the Credit Provincial Park, triggering a Category 'C' assessment as outlined in the MNRF's Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), as approved under the *Ontario Environmental Assessment Act (EA Act)*.

Currently, Dominion Street provides access to private residences located toward the north end of the street. Dominion Street is currently a two-lane rural roadway and the bridge is a single lane egress. The bridge is the only egress point for residents on Dominion Street, serving as an overpass to the Credit River. Therefore, any alternatives that involve significant construction works on Dominion Street and/or the bridge will have to allow passage of vehicles at all times. There is evidence that Dominion Street is currently experiencing road surface slippage in areas where the road is closest to the Credit River.

Unique features for further consideration within the study area include the Forks of the Credit Provincial Park; the Credit River; the bridge connecting Dominion Street; and a segment of a C.P. Railway. The river banks of the Credit River are covered with mature vegetation, which could potentially experience significant impacts, given the potential implementation of traditional erosion protection measures. Built in 1935, the existing bridge connecting Dominion Street is on scenic road within the Belfountain & the Credit Gorge Cultural Heritage Landscape. Therefore, any bridge rehabilitation work must be sensitive to the heritage characteristics of the bridge.

The intent of this study is to investigate alternatives that address feasible bank stabilization and bridge rehabilitation activities, while minimizing potential environmental impacts, in order to improve safety and access based on the current and future utilization of Dominion Street and the bridge. Alternative roadway re-alignments will be considered as part of this study, but are limited given the study area's topographic deviation. In order to protect Dominion Street from further movement, techniques to improve embankment stability will also be investigated through this study.

2. Harmonized Class Environmental Assessment Process

The Dominion Street Class EA study is being pursued through a harmonized Class EA process, which will abide by the process requirements of both the MEA Class EA and the MNRF PPCR Class EA processes. The MNRF PPCR Class EA applies to the potential alternatives to be

addressed and considered, which evaluate the potential for alternative solutions that may require lands within the Forks of Credit Provincial Park.

A detailed description of the method used to harmonize the MEA Class EA and the MNRF PPCR Class EA processes may be found in Appendix A-1. The harmonized process table found in Appendix A-1 outlines the similarities between the two Class EA processes and describes the method for which the harmonized process will be followed. The harmonized Class EA process consists of the following five milestones, which incorporate various phases and steps of both the MEA Class EA and MNRF PPCR Class EA processes. A flowchart of the combined Schedule 'C' and Category 'C' Class EA processes may be found in Appendix A-2.

Milestone 1 Municipal Class EA Phase I + MNRF PPCR Steps 1 & 2

Milestone 2 Municipal Class EA Phase II + MNRF PPCR Step 3

Milestone 3 Municipal Class EA Phase III + MNRF PPCR Step 4

Milestone 4 Municipal Class EA Phase IV + MNRF PPCR Steps 5 & 6

Milestone 5 Municipal Class EA Phase V + MNRF PPCR Step 7

It should be noted that the preliminary study area has required the proponent to consider the MNRF PPCR Class EA, given that a portion of the Forks of Credit Provincial Park may be affected by proposed alternative solutions. After the evaluation of alternative solutions and the selection of the preferred alternative solution, the proponent may not be required to carry out further steps of the MNRF PPCR Class EA process.

2.1 Municipal Class Environmental Assessment Process

2.1.1 Overview of the Municipal Class Environmental Assessment Process

As required under the Ontario Environmental Assessment Act (OEAA), this study will follow the MEA Class EA planning process, as prescribed by the MEA Class EA document (October, 2000 as amended in 2007, 2011 & 2015). The MEA Class EA process allows the Municipality to satisfy the requirements of the OEAA for municipal infrastructure without having to either undertake an Individual EA or request a specific exemption for the project. Municipal projects addressed by the MEA Class EA may be implemented without further approval under the OEAA, provided that the approved MEA Class EA planning process is carried out.

The stated purpose of the OEAA is to provide for the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment, where the broad environment includes the natural, social, cultural, built, and economic environments.

The provisions of the OEAA require municipalities to carry out an EA for public works projects, including those undertaken for municipal roads, water and wastewater systems, and transit ventures that are subject to the Municipal Class Environmental Assessment. As described in the MEA Class EA document, this process is a five phased decision-making framework for the planning and design of municipal infrastructure.

The key principles of the Municipal Class Environmental Assessment process include:

- Consultation with affected parties upon commencement, and throughout the process, of the project
- Consideration of a reasonable range of alternatives, including both the functionally different "alternative solutions" and the "alternative design concepts" of implementing the preferred solution
- Identification and consideration of the effects of each alternative solution and/or method on all aspects of the environment (i.e., natural, cultural, social, economic, etc.)
- Systematic evaluation of all alternative solutions and/or methods in terms of the advantages and disadvantages associated with each to determine the net environmental effects
- Provision of clear and complete documentation of the planning process followed, to ensure transparency and traceability of the decision-making process followed for the project

2.1.2 Project Classifications

The MEA Class EA document classifies projects into four separate categories depending on the potential environmental effects and significance: Schedule A, A+, B, and C undertakings. The level of review associated with each category to satisfy the Municipal Class Environmental Assessment requirements, and thereby achieve compliance with the EA Act, is described below.

Schedule A/A+ This category includes projects that are limited in scale, have minimal environmental impacts and include a number of municipal maintenance and operational activities. These undertakings are approved and may proceed directly to Phase V for implementation without completing the other phases. As part of the 2007 amendments to the MCEA process, the Schedule A+ classification was introduced to supplement the requirements of Schedule A undertakings, which includes projects that are pre-approved; however, the public must be notified prior to project implementation (i.e., Phase V).

Schedule B These projects have the potential for some adverse environmental effects and, therefore, the municipality is required to undertake a screening process (i.e., Phases I and II) involving mandatory contact with the public that are directly affected and relevant agencies to ensure that they are aware of the project and that their concerns are addressed. In addition, it is required that a document must be prepared and submitted for review by the public and review agencies for these undertakings. If there are no outstanding concerns, the municipality may proceed to Phase V for implementation.

Schedule C Projects included under this classification have the potential for significant environmental effects and must proceed under the full planning and documentation procedures specified in the MEA Class EA document (i.e., Phases I to IV). An Environmental Study Report must be prepared and submitted for review by the public and relevant agencies for these undertakings. If there are no outstanding concerns, the municipality may proceed to Phase V for implementation.

2.1.3 Schedule 'C' Class Environmental Assessment Process

Based on review of the MEA Class EA document, we have determined that the proposed undertaking is most appropriately classified as a Schedule 'C' activity. Therefore, Phases I to IV of the MEA Class EA process will be undertaken as follows:

Phase I: Identify the Problem/Opportunity

This phase involves not only identifying the problem/opportunity, but also describing it in sufficient detail to lead to a clear problem/opportunity statement. As part of describing the problem/opportunity, input from review agencies and the public can be solicited.

Phase II: Identify and Evaluate Alternative Solutions to the Problem/Opportunity

This phase involves the following six steps:

- Prepare a general inventory of the existing natural, social and economic environments in which the project is to occur
- Identify all reasonable alternative solutions to the problem/opportunity
- Identify the net positive and negative effects of each alternative solution including mitigation measures
- Evaluate the alternative solutions
- Consult with review agencies and the public to solicit comment and input
- Select or confirm the recommended solution(s)

Phase III: Alternative Design Concepts for the Preferred Solution

Phase III involves the following seven steps:

- Identification of the alternative designs for the preferred solution, including a detailed description of all reasonable design concepts.
- Preparation of a detailed inventory of the natural, social and economic environments, where components of the environment are identified and evaluated in detail.
- Identification of the potential impact of the alternative designs based on the established environmental inventory.
- Evaluation of the alternative designs and identification of recommended design based on identified environmental impacts and mitigation measures.
- Consult with review agencies and the public regarding conclusion of studies and investigations, including preliminary recommended design detail.
- Selection of the preferred design and determine mitigation measures for confirmed environmental impacts.
- Preliminary finalization of the preferred design

Phase IV: Environmental Study Report

Phase IV involves the following three steps:

- Environmental Study Report to be completed in accordance with the general requirements outlined in the MEA Class EA.
- Consult with review agencies and public regarding the completion and review period of the ESR.
- Provide notification of the provision to request a Part II Order.

Following the Completion of Phase IV, documentation of the ESR will be placed on public record for a period of at least 30 calendar days to provide review agencies and the public with an opportunity to review these materials.

During this review period, concerned individuals have an opportunity to request a Part II Order under the OEAA before the project may proceed to implementation. A Part II Order requires that an Individual EA be carried out, documented, and submitted to the Minister of the Environment for review and approval. The decision on whether the project should be subject to a Part II Order rests with the Minister. Once the public review period has expired and there are no outstanding Part II Order requests, the municipality may proceed to the final phase of the planning and design process.

Phase V: Implementation – Completion of 30% Design Drawings for the Preferred Design

Phase V involves completing contract drawings and tender documents, incorporating the recommended solution and mitigating measures identified during the previous phases of the process. Once contracts are awarded, construction and project implementation can take place. Any monitoring programs identified during the MEA Class EA process shall be undertaken to ensure that the environmental provisions and commitments made during the process are fulfilled and effective.

Appendix A-2 provides an overview of the five phases of the MEA Class EA process and indicates the Class EA process followed for this project.

2.2 Ministry of Natural Resources and Forestry Public Parks and Conservation Reserves Class Environmental Assessment Process

2.2.1 Overview of MNRF PPCR Class Environmental Assessment Process

The Class EA process being followed is a harmonized process following both requirements of the MEA Class EA and the MNRF PPCR Class EA processes. The MNRF PPCR Class EA applies to the potential alternatives to be addressed and considered, which evaluate the potential for an alternate solution that may include land within the Forks of Credit Provincial Park.

2.2.2 Project Classifications and Screening

The MNRF PPCR Class EA classifies undertakings into three separate categories in order to address concerns and mitigation for undertakings with the potential for net negative environmental effects and concerns of the public, government agencies and aboriginal communities. The level of

review associated with each category to satisfy the requirements of the MNRF PPCR Class EA, and thereby achieve compliance with the EA Act, is described below.

Category A Projects are minor in routine and of low intensity. These undertaking have the potential for low net negative environmental effects and are of low concern to the public, review agencies and aboriginal communities.

Category B Potential for moderate net environmental effects and concerns of interested parties. These undertakings proceed with appropriate mitigation.

Category C Potential for high net negative effects and concerns of interested parties. Requires detailed information and analysis, and a comprehensive external review process. Project classified as a Category C undertaking require the completion of an ESR.

The first step in the MNRF Class EA for PPCR is to carry out an initial screening process to determine the appropriate project Category. Screening is a common method used to identify potential negative and positive environmental effects associated with projects. Screening is a way to confirm an understanding of potential effects and the need for remedial effort, and to ensure that all aspects have been or will be considered.

As part of the Screening Process undertaken prior to commencing the Class EA, a table identifying the range of potential effects that might be caused by the proposed undertaking as well as those areas requiring further study in order to determine whether or not potential effects might be experienced will be completed.

2.2.3 Category 'C' Class Environmental Assessment Process

Category C projects are perceived to have the potential for medium to high net negative environmental effects and/or public or agency concern. The Category C process under the MNRF PPCR Class EA includes three mandatory points of notification as well as the preparation of an Environmental Study Report (ESR). As such, the more stringent requirement under the PPCR Class EA was followed for the remainder of the Category C process.

The PPCR Class EA Category C process, involves the following seven steps:

Step 1

Scoping – determination of the project evaluation and consultation steps to be completed through the Class EA.

Step 2

Initial Public Notice – mailing to persons and agencies with known or potential interest, and a local newspaper advertisement, with an invitation to comment within 30 days. Where comments are received the proponent will work directly with those affected to try to resolve the concerns as much as possible before deciding whether to pursue other options.

Step 3

Project Evaluation & Preparation of a Draft ESR – carry out the evaluation of the project and any additional consultation and prepare a Draft ESR report.

Step 4

Notice of Opportunity to Inspect the Draft ESR – notify the project mailing list and send the Draft ESR to the MOECC regional office, interested parties and others who request it. Where MNRF determines a high level of interest or that the project was substantially changed during the process, notice will also be provided in a local newspaper advertisement and, depending on the level of public/agency interest and the significance of the project and its potential effects, the MNRF manager may add other consultation events. The deadline for comments is typically 30 days.

Step 5

Completion of the Final ESR – consider agency and public comments in refining the Draft ESR.

Step 6

Notice of Completion, Opportunity to Inspect the Final Environmental Study Report – notify the project mailing list, including all persons/agencies that commented or asked to be notified and provide notice in a local newspaper advertisement, and make Final ESR available and send to interested parties and to others who request it, including MOECC regional office. Where the project is complex or there is a high level of interest additional consultation or newspaper notices may be required by MNRF.

Step 7

Statement of Completion, Implement Project – If no Part II Order requests are received during the 30 day period, or if a request is resolved without elevation of the project to Category D or a requirement for an individual EA by the Minister of the Environment, a "Statement of Completion" will be prepared and the project may proceed.

3. Phase I – Problem & Opportunity

3.1 Location and Description of Key Infrastructure

The area under consideration for this study encompasses a square block, including the Forks of the Credit Road as well as the entirety of Puckering Lane, Dominion Street and the bridge. The study area includes segments of both the Credit River and the Forks of the Credit Provincial Park. Dominion Street extends north westerly from Forks of the Credit Road.

Figure 2.1 provides an overview of the study area, with locations of the Dominion Street, the bridge, Forks of the Credit Provincial Park and the Credit River.

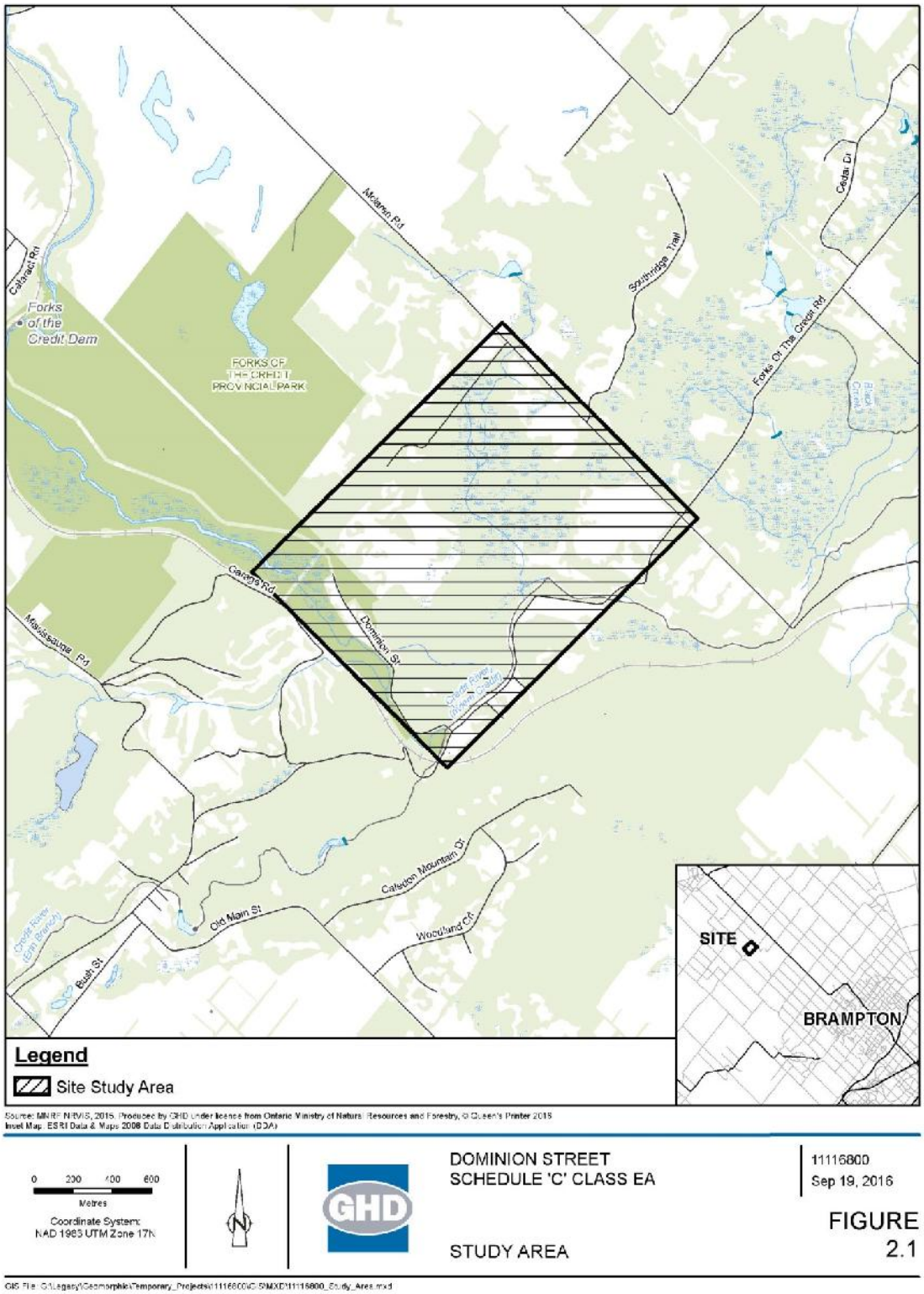

Figure 2.1 Dominion Street Preliminary Site Study Area

3.2 Identification of the Problems and Constraints

The main high-level problems and constraints used in the development of the problem/opportunity statement as it relates to the existing infrastructure of Dominion Street are as follows:

Access – Dominion Street and the bridge is a point-source egress and provides access to private residential dwellings. During potential construction/rehabilitation works of Dominion Street and the bridge, or in the event of a road or bridge closure, local residents would be landlocked. Hence, ensuring the reliability of road access will be a focal point of the study.

Structural Integrity of the bridge – Since the bridge does not fully span the Credit River; the flow of the river is constricted resulting in an increase in flow velocity and scour potential at the bridge abutments and road embankment. Current guidelines would require a bridge in this location to be longer, such that it would span the width of the river, allowing for dry passage on both sides for animal movements. Maintaining the structural integrity of the bridge crossing will be a key component of this EA study.

Road Instability – Dominion Street is currently experiencing road slippage in areas where the road embankment is closest to the river. Based on initial site visits cracking appears to be limited to the western half of the road. This is to be further investigated in proceeding phases of the Class EA study.

Topography and Terrain – Significant deviations in the topography and terrain of the Study Area present significant technical constraints and limitations in the consideration of new alternative alignments for Dominion Street. Mature vegetation removal and excessive cuts to the existing Escarpment may be required to facilitate a maximum grade of 11 percent for a new two-lane rural road. maximum for a low volume rural roadway.

Embankment Protection – Measures to reduce embankment toe erosion may prevent further movement of existing Dominion Street. The river banks of the Credit River are lined with mature vegetation, considered valuable for environmental and aesthetic purposes. Since traditional erosion protection measures could involve extensive impacts to this vegetation, alternative methods will be considered. Potential impacts to this vegetation along the embankment are expected to be of potential concern to the Credit Valley Conservation Authority (CVC), the Ministry of Natural Resources and Forestry (MNRF) and the Department of Fisheries and Oceans (DFO).

Species at Risk – DFO recognizes the segment of the Credit River within the Study Area as having potential for the presence of Redside Dace, a species currently listed as “Special Concern” under the *Species at Risk Act*, and listed as “Endangered” under the *Endangered Species Act*.

Cultural Heritage – Built in 1935, the bridge has been identified by the Town as being of “heritage interest”. The bridge is located on a scenic road within the Belfountain & the Credit Gorge Cultural Heritage Landscape, and is a vital component of the Bruce Trail. Any required rehabilitation work must be sensitive to the bridge’s heritage characteristics.

Forks of the Credit Provincial Park and the Credit River – Unique features within the study area, (and considered obstacles in preparing alternative solutions for this EA) include the Forks of the Credit Provincial Park and segment of the Credit River. There is potential for the development of

alternative solution which would call for additional access to Dominion Street through the Forks of the Credit Provincial Park.

3.3 Problem/Opportunity Statement

Based on the previously identified problems and constraints, the following Problem/Opportunity Statement (as per Phase I of the MEA Class EA process) was developed, and is as follows:

Maintaining the structural integrity of Dominion Street and the bridge is essential to providing access to private residential dwellings located on Dominion Street. The bridge also provides access for emergency and town services. The current condition of Dominion Street and the bridge warrants either significant rehabilitation or replacement. Erosion is evident around the bridge abutments and must be addressed as part of the study. Traditional erosion measures have the potential to threaten existing mature vegetation residing on the embankment. Due to erosion and slope instability, the slumping of Dominion Street has resulted in the reduction of road width, which has proven problematic for vehicular and pedestrian movements. Dominion Street and the bridge are key linkages of the Bruce Trail and should be conserved in order to sustain pedestrian passage in addition to vehicle access while respecting cultural heritage value. The solution to this problem must be financially viable given the number of local residents serviced by Dominion Street and the bridge.

Accordingly, an opportunity exists to remediate the identified issues surrounding the deficiencies associated with existing Dominion Street and the bridge. Access will be improved upon the completion of identified works. The potential rehabilitation provides an opportunity for the enhancement of the Bruce Trail located within the study area along Dominion Street. Cultural heritage resources have the potential to be maintained and rehabilitated for future long-term use.

3.4 Intent of Class EA Study

Given consideration for the identified problem/opportunity, the purpose of this harmonized Class EA is three-fold:

1. To identify and evaluate the levels of risk associated with the river bank and road embankment along Dominion Street.
2. To identify a preferred long-term treatment strategy for existing Dominion Street and the bridge.
3. To identify and evaluate the potential for additional access/service roads connecting to Dominion Street.

The proposed undertaking will respect the natural habitat and species within the Credit River, such as Redside Dace, as well as the cultural heritage component of the existing Dominion Street Bridge.

4. Phase II – Alternative Solutions

As part of the Class EA process, it is necessary to consider alternative solutions to the identified problem, which can be evaluated using criteria developed to establish a preferred solution.

Alternative solutions of the project are functionally different ways of approaching and dealing with a problem or opportunity.

The following alternative solutions have been evaluated as part of the Dominion Street Class EA:

- Alternative 1 – Do Nothing
- Alternative 2 – Re-alignment of Dominion Street
- Alternative 3 – Rehabilitate Existing Dominion Street and Bridge

4.1 Alternative 1 – Do Nothing

The "Do Nothing" alternative is used as a benchmark for the evaluation of additional alternatives.

Description

Rehabilitation or replacement works will not be undertaken. No measures to improve the condition of the bridge and road will be considered; therefore, the bridge and road would remain in its present condition. Identified issues and problems will remain unresolved and current conditions of the bridge and road would continue to deteriorate. If no rehabilitation work is undertaken, the road and bridge would no longer be able to accommodate heavier vehicles, which would require load limit reduction and eventually need to be closed.

4.2 Alternative 2 – Re-alignment of Dominion Street

Description

Alternative 2 would involve moving the road farther from the river in the areas where instability exists. However, a large hill is located on the east side of the road, which makes this solution very difficult given the potential for significant environmental impacts. Re-alignment would require significant mature vegetation removal and significant cuts to the Escarpment. Expropriation of private property would be required in affected areas of the preliminary right-of-way configurations. No measures to improve the condition of the bridge will be considered; therefore, the bridge would remain in its present condition, allowed to deteriorate. As a result, vehicular traffic would not be permitted to access Dominion Street via the bridge. This would require alternative access to be provided. Three variations to Alternative 2 have been generated. Preliminary configurations for alternative solutions 2A, 2B and 2C are available in Appendix B

Alternative 2A – Re-alignment via Puckering Lane

Alternative 2A would require the connection of Dominion Street to Puckering Lane. The connection of west-end Puckering Lane and north-end Dominion Street would require an 11 percent grade given the significant change in elevation, the maximum for a low volume rural roadway.

The estimated surface area potentially impacted from the preliminary configuration of Alternative 2A is approximately 48,000 m^2. An approximate 750 m of additional road would be required to facilitate Alternative 2B. Estimated costs associated with the implementation of Alternative 2A may range from $5,000,000 to $6,000,000. This cost estimate does not include potential expropriation/land acquisition costs associated with the preliminary configuration of Alternative 2A.

Alternative 2B – Re-alignment via Forks of the Credit Road

Alternative 2B would require a connection approximately 240 metres east of the current Forks of the Credit/Dominion Street intersection to connect to the existing laneway located approximately 240 m north of the existing intersection. This new connection would not affect any of the lands of the Forks of the Credit Provincial Park. A road grade falling within the 11 percent maximum appears to be feasible. A new bridge would be required to cross the Credit River. An existing private access road would require to be purchased and reconstructed from Dominion Street to the proposed connection.

The estimated surface area potentially impacted from the preliminary configuration of Alternative 2B is approximately 18,700m^2. An approximate 700m of additional road would be required to facilitate Alternative 2B. Estimated costs associated with the implementation of Alternative 2B may range from $2,000,000 to $3,000,000. This cost estimate does not include potential expropriation/land acquisition costs associated with the preliminary configuration of Alternative 2B.

Alternative 2C – Re-alignment via Forks of the Credit Provincial Park Parking Lot

Alternative 2C would require the northern extension of Dominion Street following the alignment of the existing Bruce Trail, connecting to the Forks of the Credit Provincial Park parking lot. The connection would require significant cuts in excess of 20m for a grade of 11 percent, maximum for a low volume rural roadway.

The estimated surface area potentially impacted from the preliminary configuration of Alternative 2C is approximately 59,000 m^2. An approximate 1700m of additional road would be required to facilitate Alternative 2C. Estimated costs associated with the implementation of Alternative 2C may range from $6,000,000 to $8,000,000. This cost estimate does not include potential expropriation/land acquisition costs associated with the preliminary configuration of Alternative 2C.

4.3 Alternative 3 – Rehabilitate Existing Dominion Street and bridge

Description

This alternative would undertake bank and embankment stabilization works required to safeguard against potential hazards to the public and Town assets. This would involve the rehabilitation of Dominion Street and the Dominion Street Bridge, where a single point access would remain. Two variations to Alternative 3 have been generated.

Alternative 3A – Existing Bridge and Road Rehabilitation

Alternative 3A would require bridge and road rehabilitation which would address some of the scour issues at the existing crossing.

Estimated costs associated with bridge rehabilitation only range from $450,000 to $600,000. This estimate does not include the costs associated with the rehabilitation of the existing road (Dominion Street). Estimated costs for the rehabilitation of the road are to be confirmed upon completion of geotechnical investigations, which will determine the extent of rehabilitation required.

Alternative 3B – New Bridge and Road Rehabilitation

Alternative 3B would require the construction of a new bridge, which would likely be located just east of the existing bridge at a narrower point of the river. Building the bridge off-line would allow existing bridge to remain in service while the new one is built, thereby allowing full time access during construction.

Estimated costs associated with new bridge construction would range from $1,400,000 to $1,800,000. This estimate does not include the costs associated with the rehabilitation of the existing road. Estimated costs for the rehabilitation of the road are to be confirmed upon completion of geotechnical investigations, which will determine the extent of rehabilitation required.

5. Description of the Environment and Existing Conditions – Environment Potentially Affected

With the problem/opportunity defined, the alternative solutions identified to address the problem/opportunity, a description of the preliminary study area was established through a review of secondary information sources, field investigations, an assessment of geomorphic conditions, and detailed hydrologic and hydraulic review. A summary of results and findings of these activities is provided in the following subsections. These findings will form the comparative evaluation criteria of the three (3) alternatives that have been established for further investigation.

The potentially affected environment associated with the alternative solutions is described in further detail in the following subsections as defined in the *EA Act* based on existing information sources and field investigations:

- Natural Environment – includes air, land, water, plant and animal life.
- Built Environment – includes any building or structure or thing made by humans.
- Social Environment – includes the social conditions that influence the life of humans or a community.
- Economic Environment – includes the economic conditions that influence the life of humans or a community.
- Cultural Environment – includes the cultural conditions that influence the life of humans or a community.

The following existing conditions summaries have been developed through the utilization of desktop analysis, secondary source review and observations made through windshield surveys (site visits). Detailed existing condition reports may be found in Appendix C to this report.

5.1 Natural Environment

The Study Area is a predominantly forested natural area with a small amount of residential and transportation land use throughout. There are several significant natural features including Areas of Natural or Scientific Interest (ANSIs) and Provincially Significant Wetlands (PSWs) within the Study

Area. Terrestrial habitats present are diverse and generally intact, and likely provide habitat for interior forest breeding birds and other wildlife species. The primary aquatic feature in the Study Area, the Credit River, provides high quality coldwater habitat for a variety of fish species. MNRF and Natural Heritage Information Centre (NHIC) mapping have identified the potential for a variety of Species at Risk (SAR) within Study Area. Further investigation of potential habitat available within the Study Area will be needed in order to determine the likelihood of presence of SAR.

5.1.1 Significant Natural Features

There are several significant natural features within and adjacent to the Study Area. The Forks of the Credit Provincial Park extends to within the western portion of the Study Area along Dominion Street, and the preliminary Study Area is also within part of the Niagara Escarpment Plan Area. Unevaluated wetlands are present in the northwestern portion and the southern portion of the Study Area, and a provincially significant wetland complex (Credit Forks Wetland Complex) is present to the east. Two ANSIs are located within the Study Area, with the Credit Forks ANSI in the southern portion and the Credit Forks Lowland ANSI in the eastern portion. No deer wintering areas were found to occur within several kilometers of the Study Area boundary.

5.1.2 Terrestrial Environment

Ecological communities represented within the Study Area include coniferous forest, coniferous plantation, mixed plantation, deciduous forest, mixed forest, mixed swamp, and cultural meadow (CVC, 2013). MNRF has identified that the woodlands within the preliminary Study Area are 'significant' according to the criteria established by MNRF. A SAR tree species, Butternut (*Juglans cinerea*), has been identified as having the potential to occur within the preliminary Study Area. The preliminary Study Area is composed of relatively undisturbed forest habitat, roadways, small agricultural farms and single family residential properties. The natural forest habitat across the preliminary Study Area is fairly homogenous and mature in age. The dominant forest types are Fresh-Moist White Cedar Sugar Maple Mixed Forest and Dry-fresh Sugar Maple Deciduous forest. Tree species present include eastern white cedar (*Thuja occidentalis*), sugar maple (*Acer saccharum*), american basswood (*Tilia americana*), American beech (*Fagus grandifolia*), white ash (*Fraxinus americana*), eastern hemlock (*Tsuga canadensis*), white birch (*Betula papyrifera*), European buckthorn (*Rhamnus cathartica*), speckled alder (*Alnus incana*), red-osier dogwood (*Cornus stolonifera*), black cherry (*Prunus serotine*) and eastern white pine (*Pinus strobus*).

5.1.3 Aquatic Environment

The Credit River is the primary aquatic feature within the Study Area. The Credit River is almost 90 kilometers (km) long and meanders southeast from its headwaters in Orangeville, Erin and Mono, through nine municipalities, eventually draining into Lake Ontario at Port Credit, Mississauga (CVC, 2016). Within the Study Area, the Credit River runs north-south approximately parallel to Dominion Street, where it eventually encounters the Credit River Erin Branch to the west, after which it continues in an eastward direction through the Study Area. Several small 1-3 order tributaries of the Credit River (CVC, 2013) also run roughly north-south within the Study Area east of Dominion Street. All watercourse features within and adjacent to the Study Area are shown to have a

coldwater thermal regime. The Study Area encompasses two subwatersheds of the Credit River Watershed, with the divide running north-south in this area, and falling just east of Dominion Street.

5.1.4 Wildlife

Based on atlas results within the preliminary Study Area, 34 species of butterflies, 26 species of reptiles and amphibians and 114 species of breeding birds have been documented as occurring within the greater area surrounding the preliminary Study Area.

5.1.5 Species at Risk

There are several SAR which MNRF have identified as having a known presence within or adjacent to the Study Area. These species are described in greater detail below.

Butternut

Butternut is a provincially and federally endangered tree species which has the potential to occur in the Study Area. It generally occurs on well-drained, rich soils in valleys or on slopes (MNRF, 2016a). MNRF have advised that records of Butternut exist in the vicinity of the Study Area.

Redside Dace

Redside dace is a provincially endangered and federally special concern fish species which has been identified by MNRF and NHIC records as having the potential to occur in the vicinity of the Study Area. Furthermore, review of 2015 DFO Fish and Mussel SAR Mapping shows a portion of the Credit River within the southern portion of the Study Area to be an 'Occupied or Recovery Reach for Redside Dace'. Redside dace are found in pools and slow-moving areas of small streams and headwaters with a gravel bottom, generally in areas with overhanging grasses and shrubs (MNRF, 2016b). Habitat observed within the Credit River up and downstream of the Dominion Street Bridge is not characteristic of redside dace habitat. Redside dace prefer narrower, slower moving watercourses with deep pools; gravel riffles; and overhanging long grasses or shrubs, versus forested riparian areas. Habitat within smaller side tributaries should be assessed once access to private properties is obtained.

Jefferson Salamander

Jefferson salamander is a provincially endangered and federally threatened species which MNRF has identified as having the potential to occur in the Study Area. They live in deciduous forest, and adults live in moist, loose soil, under logs or in leaf litter (MNRF, 2016c).

Chimney Swift

Chimney swift is a provincially and federally threatened species. They are mainly associated with urban and rural areas where there are chimneys available for nesting and resting (Rodewald, 2015). It is possible that there may be buildings with uncapped chimneys in the local Study Area that would provide nesting habitat, and the surrounding areas could be used a foraging habitat.

Canada Warbler

Canada warbler is a provincially special concern and federally threatened species. It breeds in a range of deciduous and coniferous forests, usually wet, with a well- developed, dense shrub layer (MNRF, 2016d).

Little Brown Myotis

The little brown myotis is a provincially and federally endangered species which MNRF has identified as having the potential to occur within the Study Area. During the day they roost in trees and buildings. They often select attics, abandoned buildings and barns for summer colonies where they can raise their young. Little brown bats hibernate in caves or abandoned mines that are humid and remain above freezing (MNRF, 2016e).

Northern Myotis

The northern myotis is a provincially and federally endangered species which MNRF has identified as having the potential to occur within the Study Area. These bats are associated with boreal forests, choosing to roost under loose bark and in the cavities of trees, and they hibernate in caves or abandoned mines (MNRF, 2016f).

Tri-coloured Bat

The tri-coloured bat is a provincially and federally endangered species which MNRF has identified as having the potential to occur within the Study Area. During the summer, this bat is found in a variety of forested habitats. They form day roosts and maternity colonies in older forest and occasionally in barns or other structures, and overwinter in caves (MNRF, 2016g).

American Eel

The american eel is a provincially and federally endangered species which MNRF has identified as having the potential to occur within the Study Area. The american eel can be found in both salt and fresh water, as far in land as Algonquin Park, returning to the Sargasso Sea to spawn (MNRF, 2016h).

5.2 Archaeology & Cultural Heritage Resource Assessment

5.2.1 Archaeological Existing Conditions

The Standards and Guidelines for Consultant Archaeologists (S & G), Section 1.3.1, lists criteria which are indicative of archaeological potential. The study area meets the following criteria which are indicative of archaeological potential:

- Proximity to Euro-Canadian settlements (farmsteads; early industry; villages of Belfountain; Cataract; Brimstone);
- Proximity to historic transportation routes (Credit Valley Railway; Dominion Street; Forks of the Credit Road, McLaren Road, Puckering Lane);
- Proximity to previously registered archaeological sites;

- Proximity to water sources (Credit River);
- Well-drained sandy soils (Caledon and Pontypool sandy loams); and,
- Distinct land formations (Oak Ridges Moraine; Niagara Escarpment)

These criteria are indicative of the study area as having potential for the identification of Euro-Canadian and Indigenous archaeological sites, depending on the degree of disturbance and physical features of the study area.

A Stage 1 Archaeological Assessment (AA) is to be completed, and the results documented in the Environmental Study Report (ESR) and submitted to the Ministry of Culture, Tourism, and Sport (MTCS). A Stage 2 AA may be required, upon recommendation of the Stage 1 AA.

5.2.2 Cultural Heritage Resource Assessment

The results of background historic research and a review of secondary source material, including historic mapping, revealed a study area with Indigenous history dating back thousands of years, and rural/quarry land use history dating back to the nineteenth century. Since the early twentieth century, the area has become a popular recreational destination. The results of preliminary data collection indicate that there are 30 cultural heritage resources within or adjacent to the study area, 19 of which were previously identified as having heritage interest on the Town's Built Heritage Resource Inventory. The remaining 11 cultural heritage resources were identified through historic map and document reviews.

A formal Cultural Heritage Resource Assessment is to be completed, the results documented in the ESR and submitted to the MTCS.

5.3 Geomorphology, Hydrology & Hydraulic Conditions

5.3.1 Geology and Climate

Local surficial geology in the project area is comprised of river deposits (sand and gravel), and glacial river deposits (gravel) typically found in glacial meltwater spillways (Sharpe et al., 1997). Extensive outwash sand and gravel is found along the main branch of the Credit River. Much of this is associated with the present Credit River Valley and the former Credit River Meltwater Channel within the bedrock valley found on the east flank of the Niagara Escarpment. The high relief throughout the reach and the permeable nature of most of the surficial geologic material within the valley indicates that water should easily discharge into much of the river valley (Credit Valley Conservation, 1998).

Soils in the area are made up of loamy tills and outwash deposits of fine sand and outwash gravel. Most of the soils in the spillways areas have high infiltrability and would be expected to produce overland runoff only rarely during very high intensity rain or during runoff episodes when soils are frozen with a high water content.

5.3.2 Geomorphic Environment

The stream within the vicinity of the crossing can be characterized as a well-defined watercourse in a steep, confined valley system between Cataract and the Dominion Street bridge crossing. Within the stream corridor, the surrounding land is primarily forested with a continuous and mature riparian corridor dominated by trees and shrubs. This section of channel reach is moderately entrenched and relatively steep, with a riffle dominated channel and infrequently spaced pools primarily composed of sand to cobble.

Further characterization of the existing fluvial geomorphology of the channel for Phase III of the EA will require additional desktop and field investigations. A historical aerial photographic assessment will be conducted to assess migration and planimetric form adjustment of the watercourse. Based on our initial site reconnaissance, the watercourse planform appears to be relatively stable given the narrow corridor, and it is not expected that the aerial photographic assessment will indicate significant migration rates. The assessment will be important to identify other factors such as channel widening and land use change.

There were multiple geomorphic issues identified within the vicinity of the crossing, as summarized below in Table 5.1:

Table 5-1 Geomorphic Issues

Geomorphic Issue	Photo
Erosion and slumping was observed at the toe of slope along the northwest quadrant at the Dominion Road bridge. Removal of fines from the toe of slope by the watercourse has resulted in slope instability which is threatening the abutments and roadway.	

Geomorphic Issue	Photo
There was evidence of slumping immediately upstream of the bridge on Dominion Road. The slump likely occurred due to removal of toe of slope material by the watercourse. The toes of slope appeared relatively stable suggesting that material removed by the watercourse has been steadily replaced by slumping of the embankment.	
A significant portion of the watercourse banks adjacent to areas of road slippage appear to be stable due to the presence of bedrock, large stone and mature vegetation. In these areas the road slippage is likely driven by slope instability that is not caused by creek processes. It may be possible to limit any bank protection works to a few areas where there is no existing natural toe protection.	
A previous slump is evident were gabion baskets have slid down the slope. The toe of slope appears to be stable due to the presence of dense shrubs. New erosion is evident just upstream of the slumped area at the left side of the photograph.	

Geomorphic Issue	Photo
Road slippage where the watercourse runs close to the road. Any alternative where the road remains in place will require careful integration of geotechnical, geomorphic and aquatic habitat considerations.	
Evidence of toe erosion was observed at several locations where the road was close to the watercourse. The watercourse position appeared to be stable suggesting that the removal of fine bank material was replaced by the slumping banks which in turn resulted in the road slippage.	

5.3.3 Hydrology and Hydraulics

The subwatershed of the Credit River upstream of the Dominion Street Bridge encompasses an area of 40km^2. The main branch of the Credit River traversing the watershed is approximately 12 km long, with an average channel gradient of 4.2 m/km. The dominant characteristics of the watershed include: limited municipal drainage, significant floodplain storage, high percentage of forest cover, the prevalence of high infiltration soils, and the presence of aggregate extraction activities. 40% of the subwatershed is considered a 'natural area' and roughly 21% of the subwatershed is covered by forest. The high infiltrability associated with soil under forest cover restricts the amount of precipitation appearing as runoff for entry to the surface drainage network. In addition, snowmelt in heavily forested areas melts much later than agricultural areas. The delayed snowmelt reduces the potential for flooding and provides additional opportunities for groundwater recharge. The predominance of highly permeable soils results in high recharge rates to groundwater aquifers, and reduced surface water runoff to flow within the subwatershed (Credit Valley Conservation, 1998).

The primary hydraulic concern at the site is that the existing bridge at Dominion Street does not fully span the river. As such, the flow is constricted and results in increased flow velocity and scour potential at the bridge abutments and road embankment. Under current guidelines, a bridge at this location would be longer such that it fully spans the river while allowing for dry passage on both sides for animal movements.

A hydraulic analysis was completed on the Hydrologic Engineering Center River Analysis System (HEC-RAS) hydraulic model, to conduct a one-dimensional steady flow analysis for the 2, 5, 10, 25, 50, 100-year, and Regional Storm (Hurricane Hazel) storm events. The HEC-RAS model was provided by CVC, and provides existing water surface elevations (WSEL's), flows, velocities, and hydraulic parameters for the Credit River from Orangeville to Port Credit.

It should be noted that the current model shows an addition to flow due to the confluence with the West Credit River downstream of the Dominion St Bridge, when in reality the confluence occurs upstream of the bridge. The entirety of this flow is being directed through the current crossing and model values reflect artificially low flow conditions. With these additional flows the bridge would be overtopped at the Regional Flow and would likely overtop at the 100-year flow.

5.4 Geotechnical & Hydrogeological Conditions

The Study Area overlaps the Niagara Escarpment and Oak Ridges Moraine Physiographic Regions as well as the Credit River valley, and is located in a relatively complex geological and hydrogeological setting. Regional studies (CVC Source Protection, 2012) indicate that both the main branch and the west branch of the Credit River flow through deep re-entrant valleys in the Niagara Escarpment, joining at the Forks of the Credit. A substantial thickness of overburden is interpreted near the Forks of the Credit, where two bedrock valleys converge.

Overburden in the area varies in thickness, ranging from less than 1 metre thick along the escarpment and within the stream valley up to more than 80 metres within the valley and on the adjacent upland moraine plateau.

Modern alluvial deposits and glaciofluvial deposits are found within the stream valley, and ice contact stratified drift, till and moraine deposits are primarily encountered on the banks and upland plateaus. Clinton Cataract Group bedrock comprised of limestone, dolostone and sandstone, and Queenston Formation shale bedrock outcrop along the escarpment and locally within the stream valley.

5.4.1 Physiology and Topography

The Credit River valley within the Study Area is primarily within the Niagara Escarpment physiographic region (Chapman and Putnam 1984), which is characterized by a glacial spillway and the escarpment. The valley is situated at the base of the Escarpment and the majority of Dominion Street and the bridge are located in this region. The Credit River is incised into the escarpment at an elevation of approximately 310 mAMSL (Above Mean Sea Level). The escarpment rises approximately 100 metres to an elevation of 410 mAMSL, to the south, whereas to the north glacial overburden deposits generally mask the steep surficial expression of the Escarpment.

5.4.2 Geology

Regional surficial geology mapping of the area indicates that the Credit River valley is underlain by glaciofluvial deposits, sandy deposit, modern alluvial deposits and bedrock, (MNR NRVIS, 2011 - Ontario Geological Survey, 2003).

The surficial geology and general stratigraphic framework within the valley consists of the following deposits:

- Modern alluvial deposits – clay, silt, sand, gravel
- Glaciofluvial deposits; sand, gravel
- Queenston Formation (bedrock) – Shale.

5.4.3 Hydrogeology

Review of the water well record information indicates that the majority of records in this area along Dominion Street and the Forks of the Credit Road near the bridge are for drilled wells (4 to 6-inch) which are completed in both the overburden and bedrock. Out of 30 selected well records 10 wells are completed in the overburden and 20 are completed in shale bedrock. All of the wells are used for domestic purposes.

The hydrostratigraphic framework corresponds to the layered regional stratigraphy, and based on review of the well records these include the following units:

- Aquifer– sand, sand and gravel
- Aquifer /Aquitard – shale bedrock

In general, the hydrostratigraphy can be described as an unconfined sand, and sand and gravel aquifer overlying a shale bedrock aquifer/aquitard. Regional groundwater flow is anticipated to be toward the Credit River Valley and artesian conditions (upward gradients) and may be locally encountered.

5.5 Structural Bridge Conditions

To date, no previous rehabilitation works have been undertaken on the Dominion Street Bridge. Detailed visual inspections were completed by EXP in 2015 and EMSI in 2013 and 2009. The inspection results of the Bridge are summarized as follows:

- The asphalt wearing surface is in good condition.
- The concrete curbs are in poor to fair condition with localized severe spalling along the exterior face, localized severe scaling along the curb face and localized narrow transverse cracks. Previous patching was noted along the curb face.
- The steel vertical bar handrails are in generally good condition with collision damage to one panel. The concrete handrail posts are in fair condition with spalling and cracking. The handrails do not meet current Canadian Highway Bridge Code vehicle collision load requirements.

- The concrete deck soffit is in fair to good condition with severe spalling, delamination and scaling along the exterior edges, adjacent to the abutments and along the centerline of the structure. Exposed reinforcing steel is corroded.
- Deck drainage is accommodated by 4 steel deck drains which outlet flush with the deck soffit.
- The north concrete abutment is in generally good condition with localized light cracking and efflorescence staining below the centerline deck construction joint and below deck drain outlets. The south concrete abutment is in fair condition with extensive light cracking, efflorescence staining and scaling. A stained vertical crack was noted extending from the centerline joint in the bridge deck and inclined to the west to the base of the abutment.
- The northwest concrete retaining wall is in good condition. A gabion retaining wall is provided beyond the northwest concrete retaining wall and is in good condition. The northeast retaining wall consists of precast concrete blocks and boulders and is in generally good condition with minor movements. The southwest retaining wall is in fair condition with localized severe scaling and light cracking. The retaining wall also exhibits two horizontal cold joints. Efflorescence was noted along the joints. The southeast retaining wall is in fair condition with localized severe spalling and light cracking. The retaining wall also exhibits one horizontal cold joint. Efflorescence was noted along the joint.
- The asphalt paved approach roads have minor settlement adjacent to the structure.
- The roadway embankments adjacent to the structure are vegetated. No erosion was noted adjacent to the structure.
- The watercourse is in unobstructed with no evidence of scour. The watercourse is considered navigable.

5.6 Land Use & Social Environment

5.6.1 Regional & Municipal Planning

The Study Area is subject to the Town of Caledon Official Plan and further the Regional Municipality of Peel Official Plan. Zoning within the Town conforms to the Town of Caledon Zoning By-law 2006-50, as amended. However, lands incorporating the Study Area fall entirely within the Niagara Escarpment Plan. Therefore, Zoning By-law 2006-50 does not conform to lands within the Study Area that fall within the Niagara Escarpment Plan, except where site specific zoning is present. The Oak Ridges Moraine within Peel Region also falls within 500 meters of the Study Area.

The Study Area is located within an Environmental Policy Area (EPA). *Section 5.7.3.5.1* of the Caledon Official Plan states that *"New public and private infrastructure will not be permitted in EPA, with the exception of essential infrastructure which may be permitted subject to approval requirements of the Town and other relevant agencies".*

Dominion Street is connected via bridge to a Low Capacity Arteria/ (Forks of the Credit Road). Also, a CP railway runs through (north-south) the Study Area, just west of the Dominion Street.

Surrounding land uses include: Open Space Policy Area, Rural Lands, and the Settlement Area of Belfountain.

5.6.2 Social Environment

Dominion Street is a vital component of the Bruce Trail, providing an active transportation linkage to the Forks of the Credit Provincial Park. The Bruce Trail is also an essential component of the Niagara Escarpment Parks and Open Space System with a long term goal to secure a permanent corridor for the Bruce Trail along its entire length.

The Caledon Ski Club, a commercial/recreational use within the Study Area, is located west of existing Dominion Street, on the west side of the Credit River. The Caledon Ski Club is not anticipated to experience potential impacts as a result of the undertaking based on the alternatives considered.

5.6.3 Niagara Escarpment Plan

The Study Area is located within the Niagara Escarpment Plan Area, subject to regulations under the Niagara Development Control Area. Niagara Escarpment Plan (NEP) designations within the Study Area include "Escarpment Natural Area" and "Escarpment Protection Area". The purpose of the NEP is to *"…provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment, and to ensure only such development occurs as is compatible with that natural environment."* Objectives of the NEP are as follows:

1. *To protect unique ecologic and historic areas;*
2. *To maintain and enhance the quality and character of natural streams and water supplies;*
3. *To provide adequate opportunities for outdoor recreation;*
4. *To maintain and enhance the open landscape character of the Niagara Escarpment in so far as possible, by such means as compatible farming or forestry and by preserving the natural scenery;*
5. *To ensure that all new development is compatible with the purpose of the Plan;*
6. *To provide for adequate public access to the Niagara Escarpment; and*
7. *To support municipalities within the Niagara Escarpment Plan Area in their exercise of the planning functions conferred upon them by the Planning Act.*

The proposed undertaking will be considered with respect to each of the above NEP objectives. A preferred solution to the alternative solutions considered will be evaluated favorably based on minimal potential impacts against the need for infrastructure improvements at Dominion Street.

Escarpment Natural Area Designation

In accordance with the NEP, Escarpment Natural Area designation is defined as, "Escarpment features which are in a relatively natural state and associated stream valleys, wetlands and forests which are relatively undisturbed are included within this designation. These contain important plant and animal habitats and geological features and cultural heritage features and area the most significant natural and scenic areas of the escarpment. The policy aims to maintain these natural areas."

Objectives under the Escarpment Natural Area designation are as follows:

1. To maintain the most natural Escarpment features, stream valleys, wetlands and related significant natural areas and associated cultural heritage features.
2. To encourage compatible recreation, conservation and education activities.
3. To maintain and enhance the landscape quality of the Escarpment features.

Potential impacts will be further explored in the Environmental Study Report (ESR) based on preliminary design concepts of the preferred alternative solution. Potential impacts to NEP Escarpment Natural Area designated lands affecting policy 1.3 of the NEP based on the alternative solutions considered are described as follows:

Alternative 1 – Do Nothing

No improvements to the existing infrastructure will be undertaken. No impacts to natural escarpment features, stream valleys, wetlands, significant natural areas and cultural heritage features will occur. Current infrastructure conditions will continue to deteriorate, potentially impacting access to and routes of the Bruce Trail. Infrastructure conditions will continue to deteriorate affecting the use of the Bruce Trail. No impacts to landscape quality will be experienced.

Alternative 2 – Re-alignment of Dominion Street

Significant impacts to escarpment features, stream valleys, wetlands, significant natural areas and landscape quality are anticipated. Impacts to recreation, conservation and education activities are expected. However, improvements to safety and access of the Bruce Trail are expected.

Alternative 3 – Rehabilitate Existing Dominion Street and bridge

Impacts to escarpment features, stream valleys, wetlands, significant natural areas and landscape quality are anticipated. Impacts to recreation, conservation and education activities are expected to be minimal overall and most significant during rehabilitation works.

Development Criteria – 2.15 Transportation and Utilities

"The objective is to design and locate new and expanded transportation and utility facilities so the least possible change occurs in the environment and the natural and cultural landscape."

Policy provisions under the policy 2.15 of the NEP are as follows:

1. *All new and reconstructed transportation and utility facilities shall be designed and located to minimize the impact on the Escarpment environment and be consistent with the objectives of this Plan.*
2. *New transportation and utility facilities should avoid Escarpment Natural Areas.*

Potential Impacts to NEC protected lands affecting provisions of policy 2.15 of the NEP based on the alternatives solutions considered are described as follows:

Alternative 1 – Do Nothing

No rehabilitation or development of new transportation facilities will be undertaken. No impacts to Escarpment features will occur.

Alternative 2 – Re-alignment of Dominion Street

Alternative 2 will consider provision 1. to policy 2.15 of the NEP, where impacts will be minimized where possible. However, Alternative No. 2 requires the development of new transportation facilities and right-of-ways (ROW) through Escarpment Natural Area designations, which is non-compliant with policy 2.15. Significant impacts to Escarpment Natural Areas are expected due to the development of additions ROWs.

Alternative 3 – Rehabilitate Existing Dominion Street and bridge

Alternative 3 will consider provision 1. to policy 2.15 of the NEP, where impacts will be minimized where possible. Alternative No. 3 considers the rehabilitation of existing infrastructure, minimizing potential impacts to Escarpment Natural Areas.

2.16 Bruce Trail

"The objective is to design and locate uses within the Bruce Trail Corridor in an environmentally sound manner:"

The Bruce Trail Association/Conservancy is responsible for planning, designing, developing, maintaining and managing the Trail Corridor. The NEP considers the security of a continuous route for the Bruce Trail a high priority based on provisions of maintaining the NEP parks and open space system. For this reason, the Bruce Trail Association/Conservation will continue to be consulted as this study progresses to ensure any potential impacts to the trail are appropriately mitigated, dependent on the individual impacts of the alternatives considered.

General provisions under the Section 2.16 of the NEP are as follows:

1. *The Trail shall be designed and located within the corridor so as to:*
    a. *Minimize potential conflicts with adjacent private landowners and surrounding land uses (e.g. agriculture, housing); and*
    b. *Comply with municipal official plans and by-laws (where applicable).*
2. *All uses within the corridor shall be designed to minimize the need for environmental change (e.g. tree removal).*
3. *All Trail activities shall be compatible with the natural and cultural character of the area, avoiding wherever possible the need for major engineering works and site modifications over the long term.*
4. *In locations which are particularly sensitive to foot traffic, or which experience heavy use, periodic reroutes of the Trail may be necessary to allow for natural regeneration and minimize negative environmental impacts.*
5. *All uses within the Trail corridor shall be located and designed, where possible, to avoid steep slopes, wetlands, erosion prone soils and ecologically sensitive areas such as sensitive plant and animal habitats and sensitive areas within Areas of Natural and Scientific Interest.*

Potential Impacts to the Bruce Trail affecting provisions of policy 2.16 of the NEP based on the Alternatives considered are described as follows:

Alternative 1 – Do Nothing

Infrastructure conditions of Dominion Street and the bridge will continue to deteriorate impacting conditions of the Bruce Trail route at this location, eventually rendering the Bruce Trail inoperable at this location, requiring new trail linkages and access points.

Alternative 2 – Re-alignment of Dominion Street

New Bruce Trail linkages and access points will be required. However, Section 2.16.7 identifies locational preferences for Bruce Trail access points to be developed outside Escarpment Natural Areas. Significant impacts to natural and cultural character of the area are expected. Significant disturbances to erosion prone soils and ecological sensitive areas are also expected.

Alternative 3 – Rehabilitate Existing Dominion Street and bridge

Alterations to existing Bruce Trail linkages are expected to be minor, where no new access points will or linkages will be required. Impacts to natural and cultural character of the area may be avoided over the long term.

Each of the above NEP objectives and policy provisions will be considered as part of the next phase of alternatives evaluation process. Moving forward, the alternative solutions considered will be evaluated based on the potential for environmental impacts and disturbances, while considering the need for infrastructure improvements at Dominion Street.

6. MNRF PPCR – Dominion Street Screening Criteria

As part of the Screening Process undertaken prior to commencing the Class EA, a table identifying the range of potential effects that may be anticipated by the proposed Undertaking as well as those areas requiring further study in order to determine whether or not potential effects might be experienced has been completed (see Table 6.1, below).

It should be noted that this step of the Class EA process sets the stage for the analysis and evaluation of the proposed undertaking by predicting which potential net effects may occur even before a recommended method of carrying out the work has been determined. Therefore, Table 5.1 alludes to the EA process determining what the actual net effects will be, once further analysis and evaluation has been completed.

In order to close the loop on the predictive nature that is demonstrated in the initial Screening Criteria Table presented in Table 6.1, (particularly around the potential "unknown" effects), the Project Team will revisit the Screening Criteria Table once the selection of the preferred alternative solution has been confirmed to show how the investigative work completed during the EA has addressed or satisfied the predictions made in the initial Screening Criteria Table. This will allow the Project Team to better convey the potential effects and remove the "unknown" effects. Therefore, Table 6.1 sets the stage for the evaluation of the final known net effects, incorporating the investigations and mitigation measures to be developed during this harmonized Class EA process.

Table 6-1 Dominion Street Screening Criteria

Screening Criteria *"This project may affect …"*	Rating of Potential Net Effect								Comments, Rationale
	-H	-M	-L	Nil	Unk	+L	+M	+H	
• Values for which the provincial park was established					X				It is not currently known whether the proposed project would affect values for which the provincial park was established. This will be explored through the EA.
Natural Environment/Ecological Integrity Considerations									
• Air quality				X					Not expected to be adversely affected. This will be explored through the EA process.
• Water quality or quantity (ground or surface; source water)(e.g., potential for release of contaminants into water)					X				While there is potential for temporary disturbance to water quality and quantity in the vicinity of the proposed project, the degree of potential effects is not currently known. This will be explored through the EA.
• Species at risk, and S1-S3 ranked species, or their habitat			X						While there is potential for disturbance to Redside Dace habitat (NOTE: This can be partially mitigated with appropriate timing of works), the degree of potential effects would depend on a number of factors, to be determined through the EA, such as the location and type of dredging activity, timing, etc.
• Significant earth or life science features (e.g., ANSI, wetlands, important bird areas) or critical landform-vegetation types			X						There is the potential for the proposed project to affect significant earth or life science features. This will be explored through the EA.
• Fish or other aquatic species, communities, or their habitat (including numbers, diversity and movement of resident or			X						While there is potential for disturbance to Redside Dace and other fish species and their habitat (NOTE: This can be partially mitigated with appropriate timing of works), the degree of potential effects would depend on a number of factors, to be determined through the EA, such as the location, timing, etc.

Screening Criteria *"This project may affect …"*	Rating of Potential Net Effect								Comments, Rationale
	-H	-M	-L	Nil	Unk	+L	+M	+H	
migratory species)									
• Land subject to natural or human-made hazards					X				It is not currently known whether the proposed project would affect any land subject to natural or human-made hazards. This will be explored through the EA.
• Recovery of a species under a special management program (e.g., elk restoration)					X				While there is potential for disturbance to Redside Dace habitat (NOTE: This can be partially mitigated with appropriate timing of works), the degree of potential effects would depend on a number of factors, to be determined through the EA, such as the location, timing, etc.
• Ecological integrity					X				It is not currently known whether the proposed project would affect ecological integrity. This will be explored through the EA.
• Terrestrial wildlife (including numbers, diversity and movement of resident or migratory species)					X				While there is potential for disturbance to terrestrial species and their habitat (NOTE: This can be partially mitigated with appropriate timing of works), the degree of potential effects would depend on a number of factors, to be determined through the EA, such as the location, timing, etc.
• Natural vegetation and terrestrial habitat linkages or corridors through fragmentation, alteration and/or critical loss			X						The proposed undertaking would affect natural vegetation and terrestrial habitat linkages or corridors through fragmentation, alteration and/or critical loss. This will be explored through the EA.
• Permafrost				X					Not Applicable.
• Soils and sediment quality (e.g., potential for release of contaminants into soils)					X				While there is potential for disturbance to soils and sediment quality in the vicinity of the proposed project, the degree of the potential effects is not currently known. This will be explored through the EA.
• Drainage or flooding					X				The proposed project would have an effect on drainage; however, the degree of potential effects is not currently known. This will be

Screening Criteria *"This project may affect …"*	Rating of Potential Net Effect								Comments, Rationale
	-H	-M	-L	Nil	Unk	+L	+M	+H	
									explored through the EA.
• Sedimentation or erosion					X				The proposed project would have an effect on sedimentation and erosion; however, the degree of potential effects is not currently known. This will be explored through the EA.
• Release of contaminants in soils, sediments					X				It is not currently known whether the proposed project would affect the release of contaminants in soils, sediments. This will be explored through the EA.
• Natural heritage features and areas (e.g., areas of natural and scientific interest, provincially significant wetlands)					X				It is not currently known whether the proposed project would affect natural heritage features and areas. This will be explored through the EA.
• Other (specify – e.g., cumulative effects, sustainability, etc.)					X				Other potential effects associated with the proposed project are not yet known. These will be explored through the EA
Land Use, Resource Management Considerations									
• Navigation (including obstruct navigation)							X		The proposed project would have a positive effect on navigation. This will be further explored through the EA.
• Lands or waters subject to natural or human-made hazards				X					Not Applicable.
• Other projects within the park (protected area)					X				It is not currently known whether the proposed project would affect other projects within the park. This will be explored through the EA.
• Other projects outside the park (protected area)					X				It is not currently known whether the proposed project would affect other projects outside the park. This will be explored through the EA.
• Traffic patterns or traffic					X				While there is potential for temporary disturbance to traffic patterns or traffic infrastructure within the vicinity of the proposed project, the

Screening Criteria *"This project may affect …"*	Rating of Potential Net Effect								Comments, Rationale
	-H	-M	-L	Nil	Unk	+L	+M	+H	
infrastructure									degree of the potential effects is not currently known. This will be explored through the EA.
• Access to or egress from a protected area					X				There is currently no access of egress through the protected area (provincial park). Potential for access/egress through the protected area will be addressed further in the EA.
• Recreational importance – public or private							X		The proposed project would have a positive effect on recreational importance. Access and safety of the Bruce Trail is expected to be improved. This will be further explored through the EA.
• Or create excessive waste materials				X					Not Applicable.
• Or commit a significant amount of a non-renewable resource (e.g., aggregates, agricultural land)				X					Not Applicable.
• Noise levels				X					Not Applicable.
• Uses, persons or property outside a park or reserve						X			The proposed project would have a positive effect on uses, persons or property outside a park or reserve. This will be further explored through the EA.
• Adjacent or nearby uses, persons or property						X			The proposed project would have a positive effect on adjacent or nearby uses, persons or property by improving access to residential on Dominion Street. This will be further explored through the EA.
• Other (specify)					X				Other potential effects associated with the proposed project are not yet known. These will be explored through the EA

Screening Criteria *"This project may affect …"*	Rating of Potential Net Effect								Comments, Rationale
	-H	-M	-L	Nil	Unk	+L	+M	+H	
Cultural[1] Heritage Resource Considerations									
• Archaeological resources or area of archaeological potential					X				It is not currently known whether the proposed project would affect archaeological resources. This will be explored through the Stage 1 AA and EA.
• Built heritage resources					X				It is not currently known whether the proposed project would affect built heritage resources. This will be explored through the EA.
• Cultural heritage landscapes					X				It is not currently known whether the proposed project would affect cultural heritage resources. This will be explored through the EA based on alternatives evaluation.
• Sacred or traditional use sites					X				It is not currently known whether the proposed project would affect sacred or traditional use sites. This will be explored through the EA.
• Cultural heritage resources – including archaeological sites1, built heritage, and cultural heritage landscapes					X				It is not currently known whether the proposed project would affect cultural heritage resources. This will be explored through the EA.
• Other (specify)									
Social and Economic Considerations									
• Remoteness (access inaccessible areas)						X			The proposed undertaking would have a positive effect toward improving access to trails and residential dwellings on Dominion Street
• Access to trails or							X		The proposed undertaking would have a positive effect toward

[1] Where projects may affect a known or suspected cultural resource, further technical heritage studies may be warranted. Technical studies that may be required include items such as archaeological assessments by licensed archaeologists and built heritage studies by qualified heritage consultants if a significant built heritage structural feature is being affected.
MNRF shall develop a technical guideline, in consultation with the Ministry of Culture, to address how cultural heritage resources should be identified, and how to assess their significance and develop mitigation techniques.

Screening Criteria *"This project may affect …"*	Rating of Potential Net Effect								Comments, Rationale
	-H	-M	-L	Nil	Unk	+L	+M	+H	
inaccessible areas (land or water)									improving safety and access to the Bruce Trail.
• Views or aesthetics					X				The undertaking is not expected to impact views of aesthetics. This will be explored further in the EA.
• Community character, enjoyment of property, or local amenities							X		The proposed project would have a positive effect on community character, enjoyment of property, or local amenities by improving safe access to homes on Dominion Street. This will be further explored through the EA.
• People and institutions				X					Not Applicable.
• Demands on government services or infrastructure					X				It is not currently known whether the proposed project would affect demands on government services or infrastructure. This will be explored through the EA.
• Public health and/or safety							X		The proposed project would have a positive effect on public health and safety by maintaining safe access to homes on Dominion Street and users of the Bruce Trail. This will be further explored through the EA.
• Local, regional or provincial economies or businesses					X				This will be further explored through the EA.
• Tourism values (e.g., resource-based tourist lodge)						X			The proposed project would have a positive effect on tourism values by maintaining safe access by water to homes and the Bruce Trail. This will be further explored through the EA.
• Other (specify)					X				Other potential effects associated with the proposed project are not yet known. These will be explored through the EA.
Aboriginal Considerations									

Screening Criteria *"This project may affect …"*	Rating of Potential Net Effect								Comments, Rationale
	-H	-M	-L	Nil	Unk	+L	+M	+H	
• First Nation reserves or communities				X					Not Applicable.
• Spiritual, ceremonial, or cultural sites					X				It is not currently known whether the proposed project would affect spiritual, ceremonial, or cultural sites. This will be explored through the EA.
• Traditional land or resources uses, or affect economic activities					X				It is not currently known whether the proposed project would affect traditional land or resources uses, or affect economic activities. This will be explored through the EA.
• Aboriginal values					X				It is not currently known whether the proposed project would affect aboriginal values. This will be explored through the EA.
• Established or asserted Aboriginal rights or treaty rights				X					Not Applicable.
• Lands subject to land claims				X					Not Applicable.
• Other (specify)					X				Other potential effects associated with the proposed project are not yet known. These will be explored through the EA

Based on Table 6.1, the potential effects identified above will be carried forward for further investigation and analysis as part of the harmonized Class EA process.

The result of the initial screening process for the Dominion Street Class EA is the assignment to a Category “C” project, in accordance with the MNRF PPCR Class EA process, as described in Section 2.2. This is based on the preliminary Study Area and alternative solutions. The remainder of the MNRF PPCR Class EA process may not be required and is dependent on the confirmation of the alternative solutions. This categorization is still to be confirmed by the MNRF Manager. The undertaking is to proceed as a Category “C”. Once investigations are complete, MNRF is to provide confirmation of category based on their review of the evaluation and recommendation in the ESR.

7. Alternative Solutions Comparative Evaluation

Utilizing the existing conditions analysis, as identified in Section 5 of this report, evaluation criterion was developed used to assess and compare each alternative solution based on the existing conditions explored at this stage of the Class EA process. At this stage in the Class EA process the alternative solutions evaluation is a high-level analysis that identifies potential impacts to the built, social and natural environmental components of the study area through the following rating system:

Good – limited to no potential for negative impacts or disturbance to the study area and/or some improvement to the study area is anticipated.

Moderate – potential for negative impacts or disturbance to a localized area within the study area.

Poor – high potential for negative impacts or disturbance to the broader study area.

The detailed Alternative Solution Comparative Evaluation may be found in Appendix D.

7.1 Development of Preliminary Evaluation Criterion

In order to identify the potential effects of the alternatives on the environment in a traceable, logical, understandable and reproducible manner, a preliminary evaluation criterion was developed based on the problem / opportunity statement, existing environmental conditions and the range of alternatives being considered. The preliminary evaluation criteria is linked to each aspect of the environment (natural, built, social, economic and cultural) as defined in the EA Act because the description of the effects of each alternative on the environment is required by the EA process. In addition, technical and financial criteria were included to account for these aspects associated with the alternatives. In total, the following five criterion categories are proposed:

- Technical Assessment *(Group 1)*
- Natural Environment *(Group 2)*
- Cultural Heritage, Social & Built Environment *(Group 3)*
- Land Use and Niagara Escarpment Plan Compliance *(Group 4)*
- Financial Assessment *(Group 5)*

Table 7-1 Preliminary Evaluation Criteria and Indicators for Dominion Street Alternative Solutions

Category	Evaluation Criteria	Indicators
Technical Assessment	Potential for improved public access	An assessment of the potential for the alignment and proposed works to accommodate and improve public access to Dominion Street and existing recreational features of the study area via vehicular and pedestrian travel.
	Constructability of proposed infrastructure	An assessment of the feasibility to construct the proposed infrastructure based on existing physical environmental conditions of the study area, including existing environmental constraints, such as the variant topography of the study area and the crossing of the Credit River.
	Future maintenance requirements.	Is maintenance of the proposed infrastructure feasible given seasonal constraints and the potential extent of future maintenance required?
	Land or easement requirements	To what extent will easements of land acquisition be required based on the required right-of-way of the proposed infrastructure? Total area of land or properties required?
	Potential effect on general pedestrian, cyclist and vehicle activity	An assessment of the potential effects to pedestrian, cyclist and vehicular transport modes based on the proposed infrastructure characteristics including required slope.
	Potential effect on property access	What is the effect on property access based on the proposed infrastructure under consideration?
Natural Environment	Potential for effects on the terrestrial environment.	Area of temporary or permanent loss of vegetation, woodlots, Environmental Significant Areas, Areas of Natural or Scientific Interest, wetlands and hazard lands.
	Potential for effects on the aquatic environment	Areas of temporary or permanent disturbance to aquatic features based on prosed infrastructure.
	Potential for effects on known habitat for Species at Risk (SAR).	Level of potential associated with temporary or permanent disturbances to habitat and SAR habitat.
	Permits and Approvals requirements	Assessment of regulatory Federal, provincial and municipal approvals required.

	Potential for effects on Area of Natural Scientific Interest (ANSI), Environmentally Significant Areas (ESA), wetlands or hazard lands.	Area of temporary or permanent loss of vegetation, woodlots, Environmental Significant Areas, Areas of Natural or Scientific Interest, wetlands and hazard lands.
	Potential for effects on baseflow and/or groundwater resources.	An assessment of the potential for disturbance to existing baseflow and groundwater resources.
	Potential for effects on surface water resources	An assessment of the potential for disturbance to existing surface water resources.
Cultural Heritage, Built & Social Environment	Potential for disturbing existing residences through temporary and/or permanent effects (i.e. construction noise, dust, traffic disruption, temporary property access disruption, etc)	Number and type of residences and recreational facilities displaced and/or temporarily or permanently disrupted; or future planned land uses affected.
	Potential for disturbing existing recreational facilities/users through temporary and/or permanent effects (i.e. construction noise, dust, traffic disruption, temporary property access disruption, etc)	Number and type of residences and recreational facilities displaced and/or temporarily or permanently disrupted; or future planned land uses affected.
	Potential effect on properties	An assessment of property potentially impacts from permanent or temporary easements and associated effects on property use.
	Potential for effects on archaeological resources	An assessment of archaeological resources and known sites potentially disturbed.
	Potential for effects on cultural/ built heritage resources	Number and type of built heritage resources and cultural heritage landscapes displaced or disrupted.
Land Use & Niagara Escarpment Plan Compliance	Potential to ensure that all new development is compatible with the purpose of the NEP	An assessment with the development objectives of the NEP with respect to applicable NEP designations and proposed infrastructure
	Potential to maintain and enhance the quality and character of natural streams and water supplies	An assessment of the potential impacts to natural streams and water supplies based the proposed infrastructure.
	Potential to provide adequate opportunities for outdoor recreation	Areas of permanent or temporary disruption of public access to the Niagara Escarpment, Bruce Trail and/or the Forks of the Credit Provincial Park.

	Potential to maintain and enhance the open landscape character of the Niagara Escarpment in so far as possible, by such means as compatible farming or forestry and by preserving the natural scenery	Extent of required reformation of the Niagara Escarpment from proposed infrastructure development.
	Compliance with Part One – Land Use Policies of the NEP – Escarpment Natural Area Designation	An assessment of compliance to Part One of the NEP, consistency with goals and policy provisions.
	Compliance with provisions of Policy 2.15 of the NEP – Transportation and Utilities	An assessment of compliance with Policy 2.15 of the NEP.
	Compliance with provisions of Policy 2.16 of the NEP – The Bruce Trail	An assessment of compliance with Policy 2.16 of the NEP.
	Potential to maintain and enhance the natural environment of the Niagara Escarpment	Areas of which may experience improvement or enhancement of the natural environment and integrity of the Niagara Escarpment.
Financial Assessment	Costs associated with property acquisition and/or temporary working easements	Relative difference in cost of property acquisition based on the total area of property required and the number and type of buildings on the properties to be acquired as compared to the other alignments.
	Costs for implementation (i.e., Capital Costs)	Relative difference in capital construction costs associated with the capital investment of the alignment as compared to the other alignments, not including the property acquisition costs.
	Operations and Maintenance Costs	Relative difference in costs associated with the maintenance and operation of the alignment as compared to the other alignments.

7.2 Comparative Evaluation and Identification of the Recommended Alternative Solution

Once finalized, the evaluation criteria will be used to comparatively evaluate the alternative solutions and identify a recommended alternative solution. The recommended alternative solution will be further studied and used to develop alternative design concepts to be further evaluated in proceeding phases of this Class EA study. The detailed comparative Alternative Solutions Evaluation may be found in Appendix D. The following Table 7.2 provides a summary of the detailed Alternative Solutions Evaluation representative of individual evaluation category rankings:

Table 7-2 Alternative Solutions Evaluation Summary Matrix

Assessment Group	Alternative 1	Alternative 2A	Alternative 2B	Alternative 2C	Alternative 3A	Alternative 3B
Group 1	4th	Tied 5th	3rd	Tied 5th	2nd	1st
Group 2	Tied 1st	Tied 3rd	Tied 3rd	4th	Tied 1st	2nd
Group 3	Tied 1st	4th	3rd	5th	Tied 1st	2nd
Group 4	2nd	Tied 4th	Tied 4th	Tied 4th	1st	3rd
Group 5	Tied 2nd	Tied 4th	3rd	Tied 4th	1st	Tied 2nd
Overall Ranking	2nd	5th	4th	6th	1st Recommended	3rd

The recommended alternative solution was determined based on its relative advantages and disadvantages compared to other alternatives considered. With this in mind, all six Alternative Solutions were ranked according to their advantages and disadvantages, as identified in the Alternatives Solution Evaluation Table.

After completion of the alternatives solution evaluation, Alternative 3A has been identified as the recommended alternative solution to present to the public and potentially proceed with Phase III of the Class EA study. This has been confirmed as the preferred alternative solution after completion of the Public Information Centre #1, based on the public input received during this event and correspondence received shortly thereafter. Section 8 of this report describes the Phase I & II consultation activities completed to date.

8. Phase I & II Consultation Summary

Public and external agency consultation is a key component of the Class EA process in Ontario. The Schedule 'C' process under the MEA Class EA and Category 'C' process under the MNRF PPCR Class EA include mandatory points of public notification and engagement.

8.1 Notice of Study Commencement

The Notice of Study Commencement for the Dominion Street Class EA was provided through newspaper publications and direct mailing residents within the Study Area on August 4, 2016. In addition, the notice was posted on the Town's website and social media pages. Notification emails announcing the Notice of Study Commencement were sent to the following identified agencies, Aboriginal communities and various stakeholder groups on August 4, 2016:

- Ministry of the Environment and Climate Change (MOECC)
- Ministry of Aboriginal Affairs
- Ministry of Tourism, Culture and Sport (MTCS)
- Infrastructure Ontario (IO)
- Ministry of Municipal Affairs and Housing (MMAH)
- Ministry of Natural Resources and Forestry (MNRF)
- Ministry of Transportation (MTO)
- Ontario Parks
- Ministry of Education
- Niagara Escarpment Commission (NEC)
- Credit Valley Conservation Authority (CVC)
- Rogers Cable Limited
- Bell Canada
- Enbridge Gas Distribution Incorporated
- Hydro One Networks Inc.
- Peel Region Sanitary and Watermain
- Student Transportation of Peel Region
- CN Rail
- Fisheries and Oceans Canada (DFO)
- Transport Canada
- Ontario Provincial Police (OPP)
- Métis Nation of Ontario (MNO)
- Mississaugas of the New Credit First Nation
- Regional Municipality of Peel (ROP)
- Town of Caledon
- Town of Caledon Fire & Emergency
- Peel District School Board
- Dufferin-Peel Catholic District School Board
- Bruce Trail Conservancy
- TransCanada Trail Ontario

Copies of the *Notice of Study Commencement* may be found in Appendix E.

8.2 Agency Meeting – September 29, 2016

The Phase I & II agency meeting was held on September 29, 2016 at the Town of Caledon Town Hall. In addition to GHD and Town of Caledon staff, agencies in attendance included the Ministry of Natural Resources and Forestry (MNRF), Ontario Parks, the Niagara Escarpment Commission

(NEC) and the Credit Valley Conservation Authority (CVC). The following is a list of individuals in attendance for this agency meeting:

- Town of Caledon (proponent): Ian Todhunter, Ryan Grodecki, Tim Danyliw
- MNRF: Mark Heaton
- Ontario Parks: Alex Meilutis, on behalf of Tim Marchand
- NEC: Nancy Mott
- CVC: Liam Marray, Kaitlyn McGlade
- GHD (consultant): Brian Ruck, Blair Shoniker, Alex Pereira

The intent of this meeting was to provide the agencies in attendance with a brief project understanding and to identify potential issues and/or constraints that may arise as the study progresses. Preliminary alternatives were also discussed with the agencies in attendance.

8.3 Public Information Centre #1

The *Notice of Public Information Centre #1* was published on November 17, 2016 and was distributed via newspaper publications in the Caledon Citizen and Caledon Enterprise, the Town's website and social media webpages, and direct mailings. The Public Information Centre #1 Summary Report may be found in Appendix F.

Public Information Centre #1 (PIC) was held on November 30, 2016. Of the total number of individuals in attendance, 27 participants signed-in and attended the PIC on November 30, 2016. Those in attendance included local residents and landowners; members and representatives of the Bruce Trail; Councilor Doug Beffort; Councilor Barb Shaughnessy; and Mayor Allan Thompson. The PIC followed a drop-in format, with the information illustrated on a set of display panels arranged around the perimeter of the presentation room. Project Team members from the Town and GHD were available to answer questions and solicit comments from attendees, as well as record attendance for the event.

The display materials included information on the following, as described in Table 8.1:

Table 8-1 PIC #1 Display Materials

Station	Description
Purpose of the Public Information Centre	• Purpose and function of the PIC
Site Context	• High-resolution ortho image of the study area • Location of Dominion Street in relation to adjacent roads and the Forks of the Credit Provincial Park.
Class Environmental Assessment Processes	• Descriptions of the MEA and MNRF PPCR Class EA processes • Class EA requirements from the proposed undertaking
Harmonized Class EA Process	• Descriptive comparison of both Class EA requirements.
Current Issues and Constraints	• Identification of current issues, including; access, structural integrity, road instability, cultural heritage, embankment protection, Forks of the Credit Provincial Park and the Credit

Station	Description
	River, and species at risk.
Problem and Opportunity Statement	• The detailed problem and opportunity statements were provided.
Existing Conditions	• Detailed descriptions of exiting conditions for the following environment components were provided: • Natural Environment • Archaeology and Cultural Heritage • Fluvial Geomorphology • Geotechnical & Hydrogeological • Land Use & Social Environment
Alternative Solutions	• Alternative Solutions 1, 2A, 2B, 2C, 3A & 3B were presented. • Each Alternative Solution was described and cost estimates provided.
Alternative Solutions Comparative Evaluation	• Alternative Solutions were evaluated against set criteria. • The recommended Alternative Solution was presented.
Consultation/Next Steps	• Description on the opportunity to comment was provided. • Next Steps of the Class EA processes were discussed.

9. Confirmation of the Recommended Alternative Solution

After given consideration of comments and input received by government agencies and the public during the proceedings of Phases I & II in association with the studied existing environmental conditions of the Study Area and the Alternatives Solution Evaluation, the recommended Alternative Solution to carry forward into Phase III of the Harmonized Class EA process is Alternative 3.

Alternative 3 will be further refined through Alternative Design Concepts and presented to the public for comment prior to the commencement of the Environmental Study Report.

10. Next Steps

Moving forward with Phase II and into Phase III of the Harmonized Schedule ‘C’ Class EA Process, next steps include the following:

- Finalize Alternative Solutions Evaluation – GHD will finalize the established evaluation criteria in accordance with the described existing conditions deemed appropriate for the evaluation of the developed alternatives solutions.
- Detailed Environmental Field Investigations – Building on the review of secondary source information in developing descriptions of the existing environment, detailed environmental field investigations will be undertaken.

- Consultation – Public Information Centre #2 is expected to take place in late winter/early spring. The preferred Alternative Solution and Alternative Design Concepts will be presented prior to the release of the draft Environmental Study Report.
- Detailed Description of the Preferred Alternative – GHD has considered public and agency input prior to the selection of the preferred alternative. The selection of the preferred alternative will also be based on the potential environmental net effects of the alternatives evaluated.
- Alternative Design Concepts – Based on the identified preferred alternative, alternative design concepts will be developed and evaluated in accordance with feasibility constraints and potential net environmental impacts.
- Identification of the Preferred Solution – The preferred solution will be identified upon completion of alternative design concepts and determined based on net environmental impacts and feasibility constraints.
- Draft Environmental Study Report – upon completion of detailed environmental field investigations, final alternatives evaluation, and alternative design concepts, GHD will commence the Draft ESR and issue for public review.
- Confirmation of Project Classification and Screening from MNRF – As previously identified, screening is a common method used to identify potential negative and positive environmental effects associated with projects and is a way to confirm potential effects, the need for remedial effort, and to ensure that all aspects have been or will be considered. Based on the evaluation of alternative solutions and the recommended preferred alternative solution, which is to be further explored in Phase III, the Study Area is to be refined to reflect areas requiring detailed investigation. As a result, provincial parkland will not be disturbed based on the potential works of Alternative 3A, therefore the need to continue with the MNRF PPCR Class EA process may no longer be required. GHD will initiate further discussions with MNRF and Ontario Parks to confirm current project classification and screening and the possibility of being able to opt out the MNRF PPCR Class EA process based on the recommended alternative solution.

11. References

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Appendices

Appendix A-1
Harmonized Class EA Process – Comparison Table

MEA Class EA & MNRF PPCR Class EA – Harmonized Process

Municipal Engineers Association + Provincial Parks & Conservation Reserves

Phase	MEA	Step	PPCR	Notable Procedural Differences	Harmonized Process (Milestones)
SCHEDULE C PLANNING AND DESIGN PROCESS	The Schedule C process is a five phase planning approach, which includes the preparation of an Environmental Study Report and the development of a Public Consultation Plan.	**CATEGORY C PROJECT EVALUATION AND CONSULTATION PROCESS**	The Category C process includes three mandatory consultation events, and the preparation of an Environmental Study Report.	1. Development of a consultation plan. 2. One optional consultation event.	The harmonized process will include a streamlined consultation process, satisfactory to the requirements of both Class EA processes. In addition to all required activities identified to be carried out between both processes, the following Milestones consolidate similar activities.

PROJECT EVALUATION					
Phase I: Identify the problem (deficiency) or opportunity	**Step 1-Identification and description of problem or opportunity** • Municipalities undertake projects in response to identified problems and/or deficiencies. Opportunities may also present themselves during the identification of problems/deficiencies and will be documented to prove that an improvement or change is needed.	***Step 1: Scoping***	MNRF staff review the extent of planning and consultation previously conducted in support of the project (for example, through a land use direction or management planning process). This information is combined with the results of the screening to determine the project evaluation and consultation steps that are remaining and must be completed through this Class EA.	3. Consultation approach is determined in collaboration with MNRF, through the utilization of a land use direction or management planning process.	***Milestone 1*** Consultation approach will be discussed with MNRF prior to issuance of problem/opportunity statement, which will aid in the identification of potential problems or concerns to be addressed. A public and agency mail-out of a Notice of Study Commencement will be issued. Should the Town find it advantageous, an initial public consultation event may be held, which would aid in the identification of potential stressors and areas of concern.
	Step 2-Discretionary Public Consultation • Based on potential public interest and at the discretion of the proponent, it may be advantageous to commence a Phase I public consultation process in order for the public to be involved in defining the problem and formulating a problem statement.	***Step 2: Initial Public Notice for Category C Projects***	Will consist of a mailing to persons and agencies with a known or, what MNRF believes to be, a potential interest, and a local newspaper advertisement, with an invitation to comment within 30 days. The appropriate MOECC regional office will receive a mandatory notice. Note that news releases do not satisfy the notice requirements, that is, an advertisement is required. If the provincial park or conservation reserve is operating or otherwise has managed entry, this notice will also be clearly posted at the office and/or normal (or authorized) entry points.	4. Mail-out vs. discretionary public consultation process.	
Phase II: Identification of Alternative Solutions and Establish Preferred Solution.	**Step 1-Identification of Alternative Solutions to the Problem** • Alternative solutions are determined based on the solutions to the problem identified in Phase I, the first Schedule decision is established. • Given the potential for significant environmental impacts and the nature of the alternative solutions, this undertaking falls under Schedule C classification **Step 2-Physical description of the study area** • General inventories of the natural, social, and economic environments are considered when reviewing potential effects.	***Step 3: Project Evaluation and Preparation of a Draft Environmental Study Report (ESR)***	• A description of what is to be accomplished by the project (the problem, opportunity or issue), and why. • Confirmation of the project category. • Review of the planning already undertaken in support of the project and the matters remaining to be addressed in the project evaluation, based on the relevant approved land use or management direction or other policy document or approvals (per Step 1). • A description of alternatives to the project and alternative methods of carrying out the project, where relevant, including a systematic comparison of alternatives where appropriate (see Appendix 5). • A description of the project study area and the environment affected, including existing land uses and valued ecosystem components and special	5. A Draft ESR is prepared subsequently following alternative solution evaluation and selection of the preferred alternative. 6. Mandatory agency and public consultation (first mandatory PIC).	***Milestone 2*** Both processes include similar activities, which address alternative solution identification and will be executed accordingly. Following the completion of all technical studies and assessments identified to be carried out in Phase I of the MEA Class EA process, a draft ESR will be prepared for initial public and agency review.

MEA Class EA & MNRF PPCR Class EA – Harmonized Process

Municipal Engineers Association + Provincial Parks & Conservation Reserves

PROJECT EVALUATION					
	Step 3-Identify net positive and negative effects of each alternative solution • Includes an identification and description of mitigating measures associated with each alternative with respect to study area characteristics identified in Step 2. **Step 4-Evaluation of alternative solutions** • Based on environmental and other feasibility factors identified in Steps 2 and 3. • Recommended solution is identified as preliminary preference based on a rational evaluation of all available information. **Step 5- Agency and Public Consultation** • First mandatory public consultation event. • Inform interested parties of information gained, including problem/opportunity, environmental considerations addressed, evaluation of alternatives, alternatives considered and impact on environment. **Step 6-Selection/confirmation of the preferred alternative** • Consideration for input and comments received from agencies and the public • Evaluation of the net environmental effects		features that could be affected. • Identification of potential environmental effects of the project and any alternatives, focusing on the potential effects identified in the screening, through consultation, and in available resource inventories. • A description of the project evaluation process conducted, including the rationale for selecting the preferred alternative. • Details of the proposed project, including its location, duration (i.e., one time or recurring), the basic technologies to be used, and the project design. This may include a site plan, where appropriate. • Applicable MNRF policies, procedures, manuals and guidelines (see Appendix 3), other required approvals (see Appendix 7), and their relevance to the project. • The environmental effects of the project and their significance, including discussion of any benefits that may offset negative effects. Assessing the significance of environmental effects is discussed in Appendix 5. • Consideration of the implications of not proceeding with the project (the "no-go alternative"). • Commitments to any proposed mitigation, remedial or enhancement measures. • Consideration of whether monitoring is required, and, if so, commitments to monitoring the project and the future availability of monitoring records.		The first mandatory PIC will be scheduled to discuss aspects of identified alternative solutions.
Phase III: Alternative Design Concepts for the Preferred Solution	**Step 1-Identification of alternative design for the preferred solution** • Detailed description of all reasonable designs identified **Step 2-Preparation of a detailed inventory of the natural, social and economic environments** • Particular components of the environment evaluated are identified in detail. **Step 3-Identification of the potential impact of the alternative designs** • Impact of each alternative design on the environmental inventory is established. • Steps 2 and 3 may require detailed environmental studies to ensure sufficient and appropriate information is available to allow the public to fully understand environmental implications of the project.	***Step 4: Notice of Opportunity to Inspect the Draft Environmental Study Report***	• Individually notify everyone on the current project mailing list. • Send Draft ESR to the appropriate MOECC regional office. • Where MNRF considers that there is a high level of interest or that the project was substantially changed during the process, notice will also be provided in a local newspaper advertisement. • Draft ESR may be sent individually to interested parties and to others who request it. • MNRF manager (the zone manager for a provincial park, or the district manager for a conservation reserve) may add other consultation events • Deadline for comments 30 days - may be extended in situations that are known to be more complex or reduced if level of interest in the project is low.	7. 30-day public review period for Draft ESR. 8. Second mandatory PIC. 9. Inspection of Draft ESR.	***Milestone 3*** Following the completion and submittal of the Draft ESR, a 30-day public comment/review period will commence. A second mandatory PIC will commence to address the results of preliminary studies and investigations. Environmental impacts will be addressed and a recommended design will be presented.

MEA Class EA & MNRF PPCR Class EA – Harmonized Process

Municipal Engineers Association + Provincial Parks & Conservation Reserves

PROJECT EVALUATION					
	Step 4-Evaluation of the alternative designs • Considering all environmental impacts identified in Step 3 and appropriate mitigation measures. • Identification of recommended design **Step 5-Agency and Public Consultation** • Second mandatory consultation event • Availability of results and conclusions from studies and investigations and some preliminary recommended design detail. • Understanding of environmental impacts and clear rationale of recommended design. **Step 6-Selection or Confirmation of the preferred design** • Determined mitigation measures for confirmed environmental impacts. • Proponent is able to review and confirm project status. • If concerns and issues raised by the public cannot be resolved by the Class EA Process, the proponent may choose to undertake an individual environmental assessment process for the project. **Step 7-Preliminary finalization and preferred design** • Selection of design with public assistance. • Proponent may begin design of the project in sufficient detail to outline the project in the ESR. • Finalization of the design should follow Phase 5.				
Phase IV: Environmental Study Report	**Step 1-Completion of the ESR** • ESR to follow the general requirements outlined in the MEA Class EA	***Step 5: Completion of the Final Environmental Study Report***	• Consider agency and public comments in refining the Draft ESR, and in deciding whether to proceed with the project	No significant differences.	***Milestone 4*** Both processes include the submittal of the Final ESR and the distribution of a Notice of Completion. A 30-day public review period will commence. A notification of provision to Part II Order Requests will be issued.
	Step 2-File the ESR • Third mandatory consultation event. • 30-day review period by the public and review agencies. • Notice of Completion of ESR. **Step 3-Provision to Request a Part II Order** • Mandatory requirement to include notification of the provision to request a Part II Order	***Step 6: Notice of Completion, Opportunity to Inspect the Final Environmental Study Report***	• Send notice to everyone on the current project mailing list, which includes all persons and agencies who commented or asked to be notified of further steps in the planning of the project. • Provide notice in a local newspaper advertisement. • Make Final ESR available and may send it to interested parties and to others who request it. • A copy will be sent to the appropriate MOECC regional office. • Where the project is complex or there is a high level of interest, MNRF staff may decide to conduct additional consultation or newspaper notices in	No significant differences.	

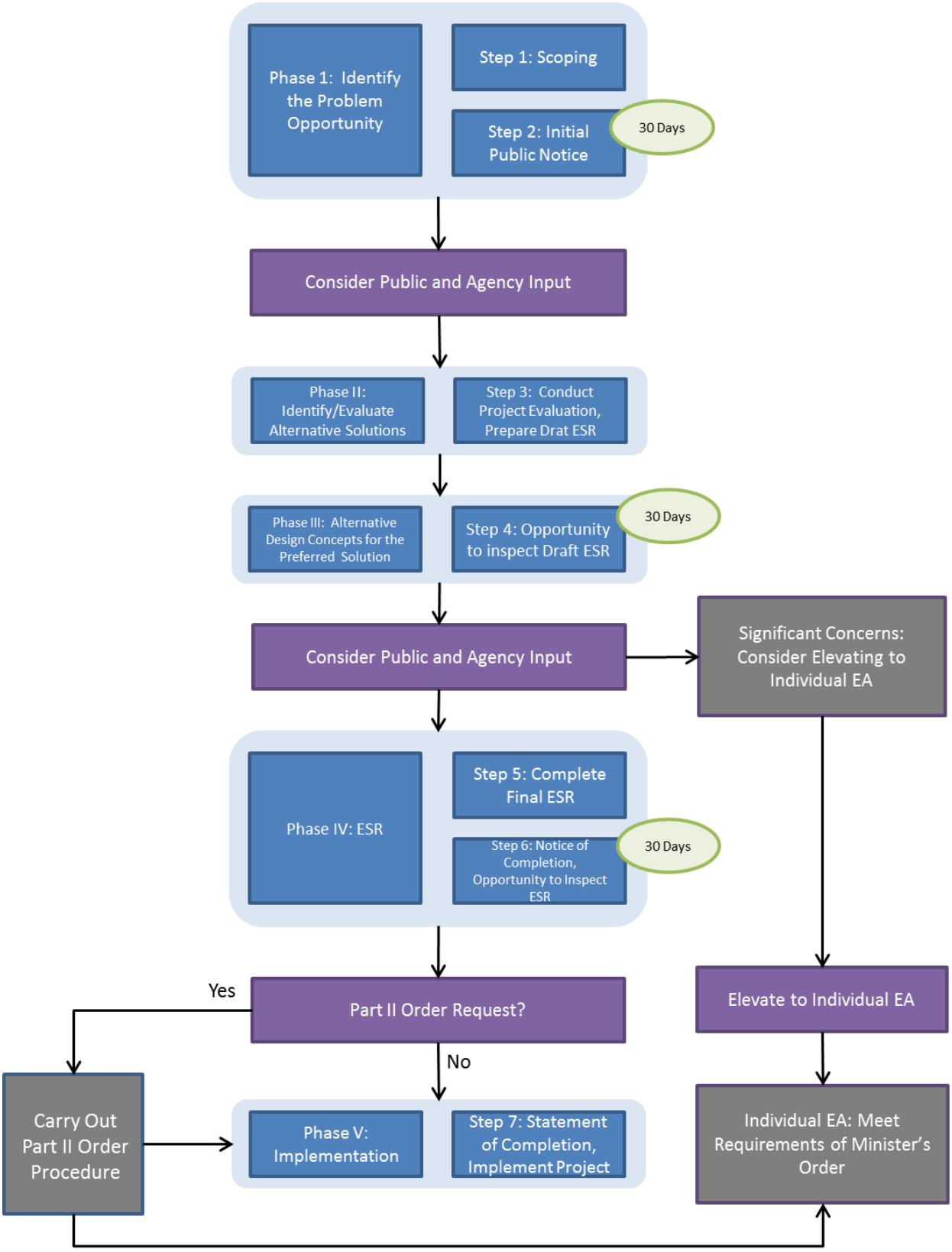
MEA Class EA & MNRF PPCR Class EA – Harmonized Process

Municipal Engineers Association + Provincial Parks & Conservation Reserves

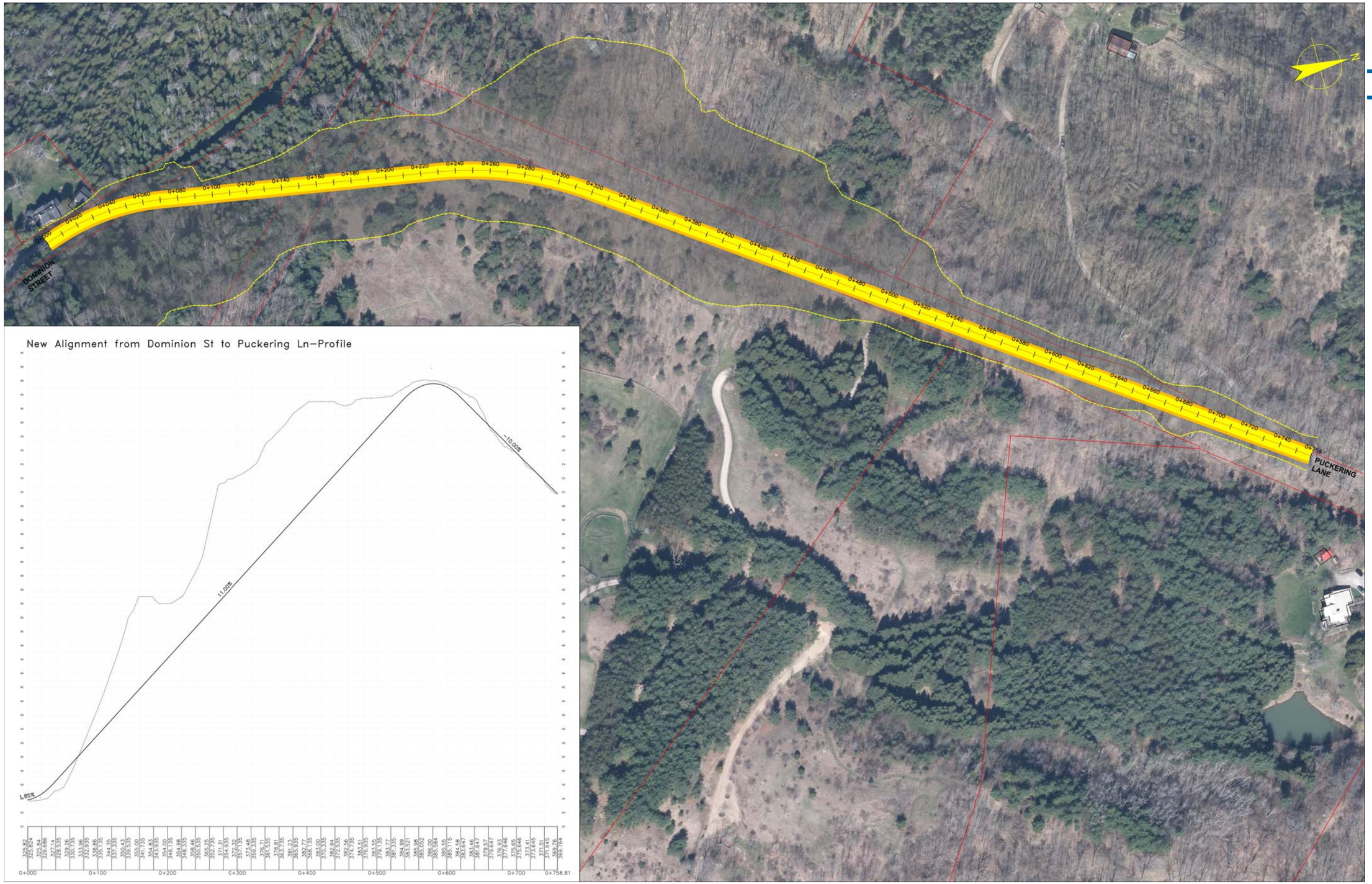
PROJECT EVALUATION					
			connection with the Final ESR. • If changes to the ESR are required at this stage, the procedure in Section 6.8 will be followed. • If a Part II Order request is received, the procedure described in Section 6.6 applies. Note that a 7-day waiting period is suggested in Section 6.6.3, to allow for MOECC notification of a request.		
Phase V: Implementation - Concept Drawing for All Alternatives and 30% Design for Preferred Design	**Step 1-Completion of contract drawing and tender documents** • Issue of tenders after expiration of 30-day ESR review period, if no Part II Order requests are received. **Step 2-Proceeding to Construction and Operation** • Award of contracts and project implementation. • An addendum to the ESR may be necessary if circumstances arise which make it impossible to implement the project as outlined in the ESR. **Step 3-Monitoring for environmental provisions and commitments** • The monitoring program outlined in the ESR shall be undertaken to ensure that the environmental provisions and commitments made in the ESR are fulfilled and are effective.	***Step 7: Statement of Completion, Implement Project***	• If no Part II Order requests are received during the 30-day period, or if a request is resolved without elevation of the project to Category D or a requirement for an individual EA by the Minister of the Environment, the responsible MNRF manager (the zone manager for a provincial park, or the district manager for a conservation reserve) will prepare a "Statement of Completion" and the project may proceed within a period of 5 years (after this time, the provisions of section 6.7 apply) • Statement of Completion will be placed on the project file and will also be sent to the Manager, Planning and Research Section of Ontario Parks and MOECC's Environmental Assessment and Approvals Branch.	10. Statement of Completion issued by MNRF.	***Milestone 5*** A Statement of Completion will be issued by the MNRF upon completion of 30-day public review period. All concept drawings and 30 percent detailed design will be submitted to the Town. Any identified commitments for monitoring will be addressed in the ESR.

Appendix A-2
Harmonized Class EA Process – Flowchart

Harmonized Schedule 'C' Class EA Process



Appendix B
Alternative Solution 2 – Preliminary Configurations



www.ghd.com

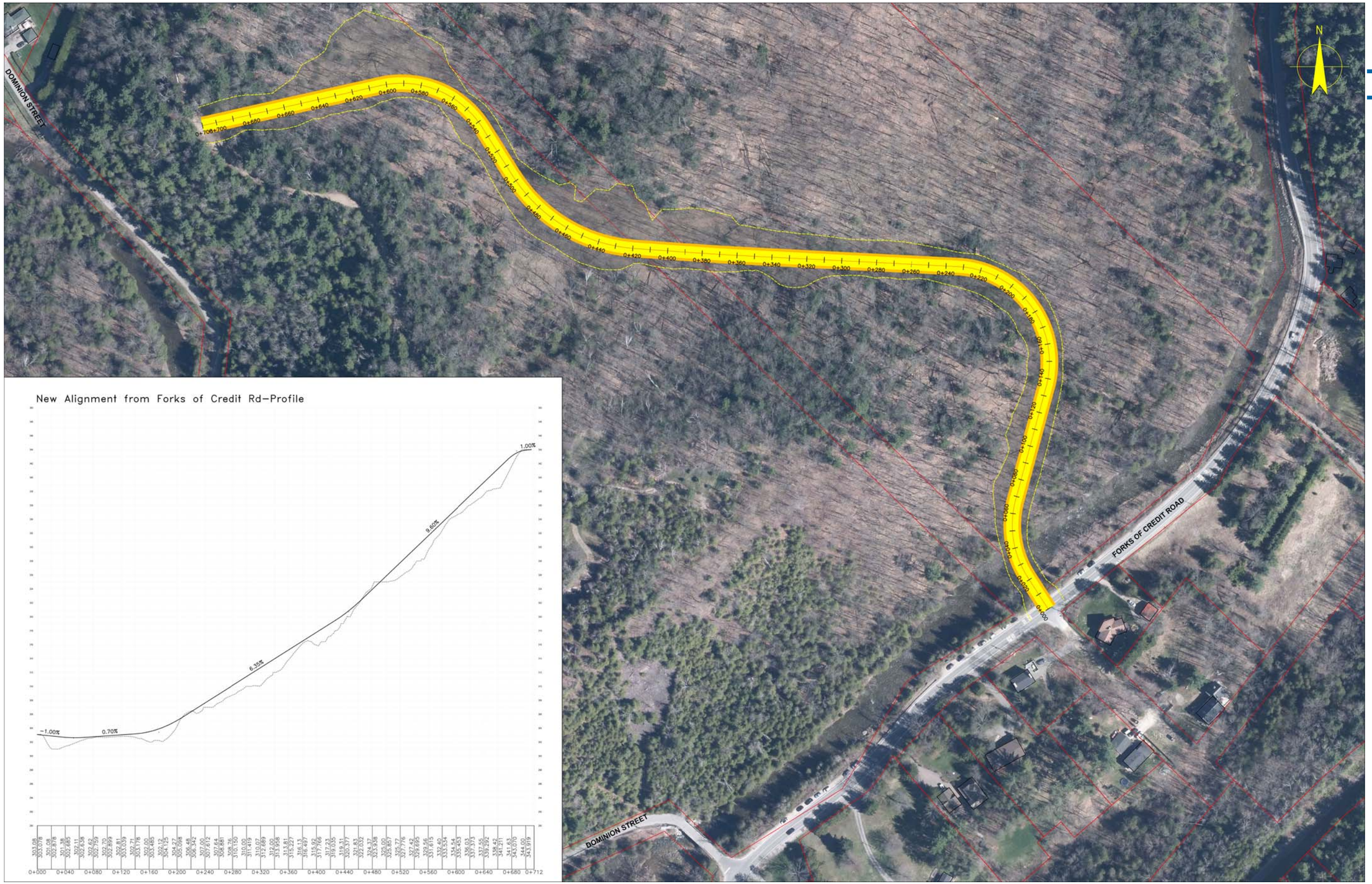
TOWN OF CALEDON
SCHEDULE 'C' CLASS EA FOR DOMINION STREET

0 10 20 30 40 50m
SCALE 1:1000 AT ORIGINAL SIZE

date: OCTOBER 2016
job no: 111168000
drawing: 002

GHD

NEW ALIGNMENT - ALTERNATIVE 2A



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TOWN OF CALEDON
SCHEDULE 'C' CLASS EA FOR DOMINION STREET

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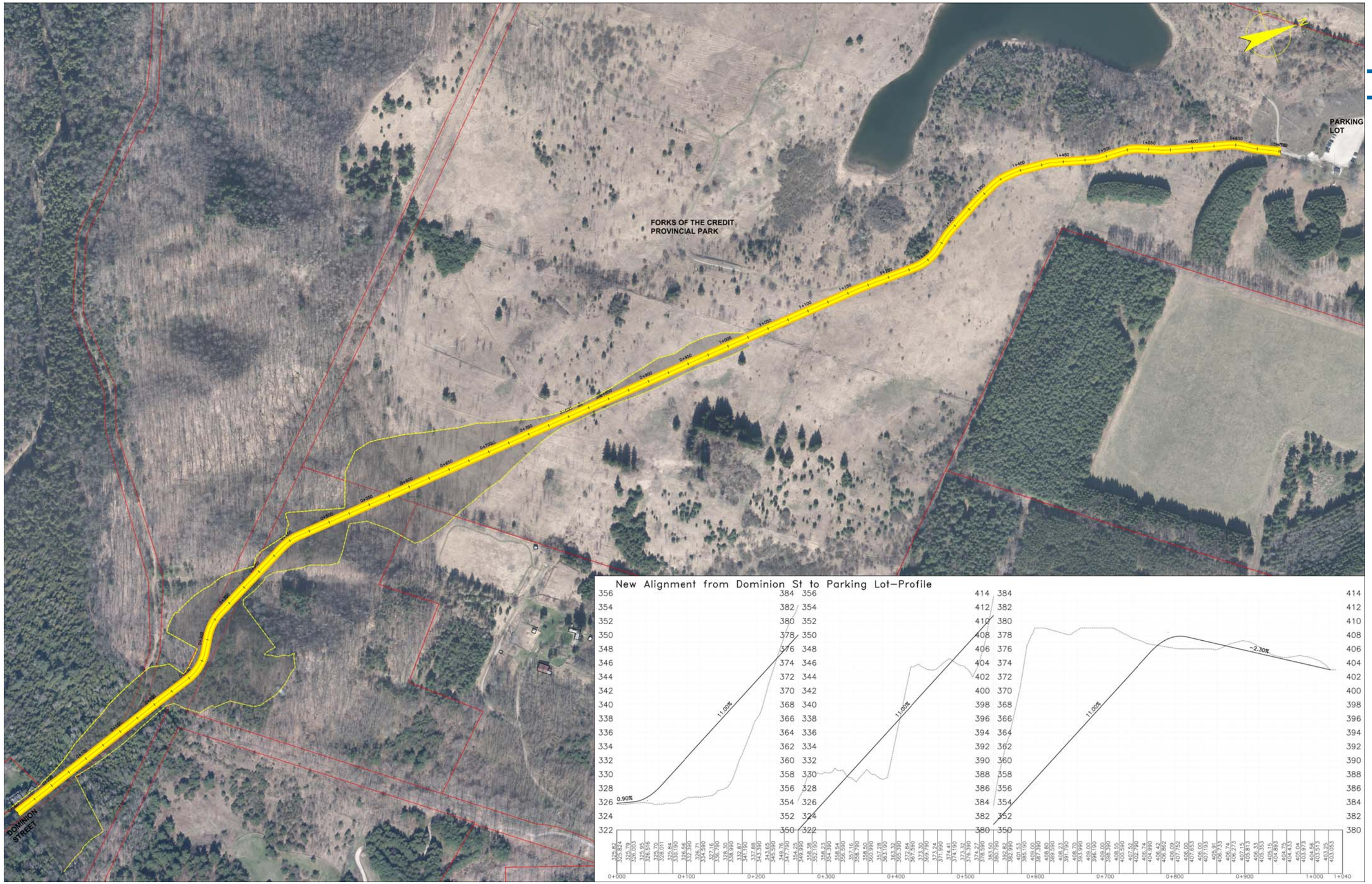
SCALE 1:1000 AT ORIGINAL SIZE

date: OCTOBER 2016
job no: 111168000
drawing: 001

GHD

NEW ALIGNMENT - ALTERNATIVE 2B



www.ghd.com

TOWN OF CALEDON

SCHEDULE 'C' CLASS EA FOR DOMINION STREET

0 20 40 60 80 100m
SCALE 1:2000 AT ORIGINAL SIZE

date: OCTOBER 2016
job no: 111168000
drawing: 003

GHD

NEW ALIGNMENT - ALTERNATIVE 2C

Appendix C-1
Existing Conditions – Natural Environment

Natural Environment – Existing Conditions Report

Schedule ‘C’ Class Environmental Assessment for Dominion Street

The Corporation of the Town of Caledon

GHD | 65 Sunray Street Whitby Ontario L1N 8Y3 Canada

11116800 | 40 | Report No. 2 | January 2017

Table of Contents

Table Index

Appendix Index

1. Introduction

The Corporation of the Town of Caledon (Town) has initiated Class Environmental Assessments (EA) in accordance with both the Municipal Engineers Association (MEA) Class EA document and the Ministry of Natural Resources and Forestry (MNRF) Provincial Parks and Conservation Reserves (PPCR) Class EA guideline, for the rehabilitation of Dominion Street. Proposed rehabilitation works in the defined Study Area trigger a Schedule 'C' classification. As such, the study will be conducted in accordance with the planning and design process for Schedule 'C' projects as outlined in the MEA's "Municipal Class Environmental Assessment" (October 2000, as amended in 2015). The Study Area infringes upon the Forks of the Credit Provincial Park, triggering a Category 'C' assessment as outlined in the MNRF's Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), as approved under the *Ontario Environmental Assessment Act (EA Act)*.

Currently, Dominion Street provides access to 22 private residences located toward the end of the street. Dominion Street is currently a two-lane rural roadway and the Dominion Street Bridge is a single lane egress. The Dominion Street Bridge is the only egress point for residents on Dominion Street, serving as an overpass to the Credit River. Therefore, any alternatives that involve significant construction works on Dominion Street and/or the Dominion Street Bridge will have to allow passage of vehicles at all times. There is evidence that Dominion Street is currently experiencing road surface slippage in areas where the road is closest to the Credit River. This movement is likely due to erosion of the road embankment; however, instability is not expected to be deep seated.

Unique features for further consideration within the Study Area include the Forks of the Credit Provincial Park, the Credit River, the Dominion Street Bridge, and a segment of a C.P. Railway. The river banks of the Credit River are covered with mature vegetation, which could potentially experience significant impacts, given the potential implementation of traditional erosion protection measures. Built in 1935, the existing Dominion Street Bridge is on scenic road with the Belfountain & the Credit Gorge Cultural Heritage Landscape. Therefore, any bridge rehabilitation work must be sensitive to the heritage characteristics of the Dominion Street Bridge.

The intent of this study is to investigate alternatives that address feasible bank stabilization and bridge rehabilitation activities, while minimizing potential environmental impacts, in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge. Alternative roadway re-alignments will be considered as part of this study, but are limited given the Study Area's topographic deviation. In order to protect Dominion Street from further movement, techniques to improve embankment stability will also be investigated in this study.

The *EA Act* requires proponents to describe the existing environment that may be affected, directly or indirectly, by the proposed alternatives to the undertaking. As such, this report characterizes the natural environment existing conditions at the Dominion Street Study Area.

2. Study Area

From a natural environment perspective, the characterization of existing conditions within the Study Area depicted on Figure 2.1 is appropriate at this stage of the Class EA.

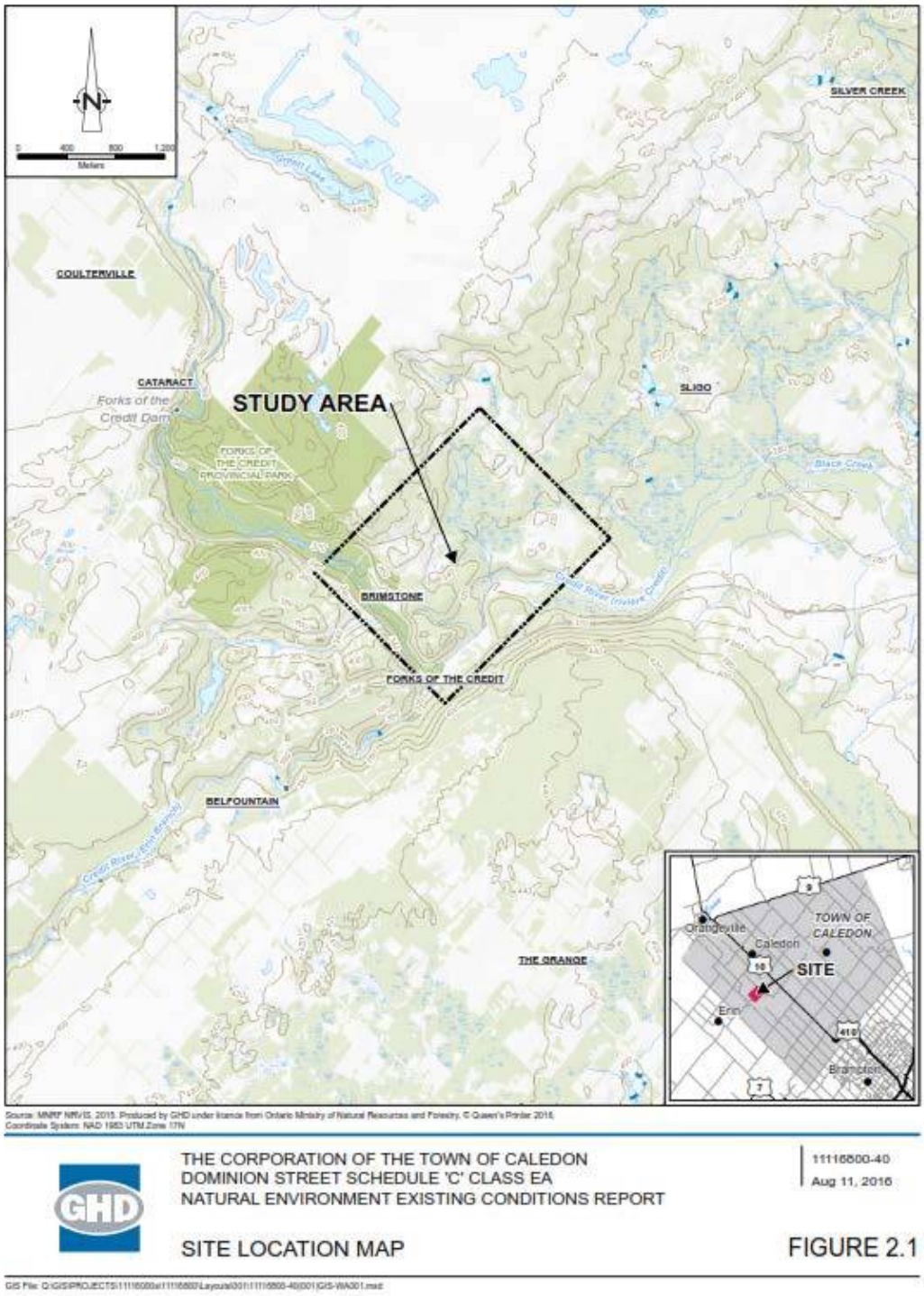


Figure 2. Site Location Map

3. Methodology

Information on the natural environment existing conditions within the Study Area was gathered from a combination of secondary source review, a windshield survey conducted on September 8, 2016, and agency consultation.

3.1 Available Secondary Source Information Collection and Review

Available secondary sources of information were collected and reviewed to determine existing natural environment conditions within the Study Area. The sources reviewed are outlined in Table 3.1.

Table 3.1 Secondary Source Information Reviewed

Source	Information reviewed
Ministry of Natural Resources and Forestry (MNRF)	• Species at Risk (SAR) • Natural Heritage Information Center (NHIC) mapping • Natural Heritage Features data layers from Land Information Ontario
Fisheries and Oceans Canada (DFO)	• Species at Risk Fish and Mussel Maps (2015)
Ontario Breeding Bird Atlas	• Breeding Bird Data for Study Area
Region of Peel Official Plan (Working Office Consolidation October 2014)	• Schedule A – Core Areas of the Greenlands Systems in Peel • Schedule D1 – Oak Ridges Moraine Conservation Plan Area (ORMCPA) Land Use Designations • Figure 2– Selected Areas of Provincial Interest
iNaturalist	• Plant and animal observations in vicinity of Study Area
Ontario Reptile and Amphibian Atlas	• Species records for Study Area
Ontario Butterfly Atlas	• Species records for Study Area
eBird	• Avian species records in vicinity of Study Area
Government of Canada	• The Atlas of Canada- Toporama
Credit Valley Conservation	• Caledon Creek and Credit River Subwatershed Study (Subwatersheds 16 & 18) Phase I: Characterization Report (1998) • Credit River Fisheries Management Plan (2002) • Interim Watershed Characterization Report for the Credit River Watershed (2007) • Landscape Monitoring of Terrestrial Ecosystems in the Credit River Watershed (2013)

3.2 Windshield Survey

A windshield survey was conducted on September 8, 2016, with the purpose of determining prevailing natural environment conditions within the Study Area, and to supplement the results of the secondary source review.

3.3 Agency Consultation

The Aurora District MNRF was consulted on July 15, 2016 to request available natural heritage information, Species at Risk (SAR) records, and relevant wildlife records. A response was received on August 12, 2016, the results of which are detailed in Section 4.7.

4. Characterization of the Existing Environment

4.1 Surrounding Land Use

The Study Area encompasses two main land uses, the majority of which is ‘natural area’, with a small patch of ‘urban area’ related to the houses on Dominion Street (CVC, 1998).

4.2 Topography and Hydrology

The Study Area and surroundings are characterized by an undulating topography. The Credit River runs through the Study Area and is discussed in further detail in Section 4.5. Soil types within the Study Area consist of bottom land, Caledon loam, Farmington loam, and pontypool sandy loam (Figure 4.1).

4.3 Significant Natural Features

There are several significant natural features within and adjacent to the Study Area. Forks of the Credit Provincial Park extends to within the western portion of the Study Area along Dominion Street, and the entire Study Area is also part of the Niagara Escarpment Plan Area. Unevaluated wetlands are present in the northwestern portion and the southern portion of the Study Area, and a provincially significant wetland complex (Credit Forks Wetland Complex) is present to the east. Two Areas of Natural or Scientific Interest (ANSI) are located within the Study Area, with the Credit Forks ANSI in the southern portion and the Credit Forks Lowland ANSI in the eastern portion. Significant Natural Features within and in the vicinity of the Study Area are shown on Figure 4.2. No deer wintering areas were found to occur within several kilometers of the Study Area boundary.

4.4 Terrestrial Environment

Ecological communities represented within the Study Area include coniferous forest, coniferous plantation, mixed plantation, deciduous forest, mixed forest, mixed swamp, and cultural meadow (CVC, 2013). Important ecological characteristics of the Study Area include the high amount of interior forest habitat present, which may provide habitat for a variety of interior forest breeding birds, as well as very diverse vegetation communities (CVC, 2013). MNRF has identified that the woodlands within the Study Area are ‘significant’ according to the criteria established by MNRF. A

SAR tree species, Butternut (*Juglans cinerea*), has been identified as having the potential to occur within the Study Area, and is discussed in greater detail in Section 4.7.

On September 8, 2016, a windshield survey was conducted by GHD staff to assess the terrestrial habitat surrounding the Credit River. The survey included Puckering Lane, Forks of the Credit Road, Dominion Street and McLaren Road. In addition to the windshield survey, the terrestrial habitat was assessed along the portion of the Bruce Trail that is within the Study Area at the northern end of Dominion Street.

The Study Area is composed of relatively undisturbed forest habitat, roadways, small agricultural farms and single family residential properties. The natural forest habitat across the Study Area is fairly homogenous and mature in age. The dominant forest types are Fresh-Moist White Cedar Sugar Maple Mixed Forest and Dry-fresh Sugar Maple Deciduous forest. Tree species present include eastern white cedar (*Thuja occidentalis*), sugar maple (*Acer saccharum*), american basswood (*Tilia americana*), American beech (*Fagus grandifolia*), white ash (*Fraxinus americana*), eastern hemlock (*Tsuga canadensis*), white birch (*Betula papyrifera*), European buckthorn (*Rhamnus cathartica*), speckled alder (*Alnus incana*), red-osier dogwood (*Cornus stolonifera*), black cherry (*Prunus serotine*) and eastern white pine (*Pinus strobus*).

The Bruce Trail is a gravel pathway surrounded by forested habitat. The forest is dominated by eastern white cedar and sugar maple forest with associated American beech, white birch and American basswood. Small pocket wetlands are present in sporadic low lying areas along the trail. The areas immediately adjacent to the trail and where hydro corridors intersect the trail exhibit evidence of disturbance with a community composed of poison ivy (*Toxicodendron radicans*), staghorn sumac (*Rhus typhina*), balsam poplar (*Populus balsamifera*), European buckthorn and viburnums.

Plucket Road is a secondary gravel road that has multiple residential properties in low density on it. The surrounding landscape is a mature sugar maple forest. Other tree species noted include American basswood, white ash, eastern white cedar, eastern hemlock and white birch.

McLaren Road is a maintained paved roadway with residential properties located along the roadway. Eastern white cedar and sugar maple dominate the surrounding landscape and other tree species noted include white ash, American beech and Manitoba maple (*Acer negundo*).

The naturalized area surrounding Dominion Street Bridge is a mature forest community characterized by eastern white cedar, sugar maple and white ash. Other species noted include American beech, American basswood, eastern white pine, eastern hemlock and black cherry. Along the banks of the river, speckled alder, red osier dogwood and red raspberry (*Rubus idaeus*) are present. The understory is sparse except for near the river valley,

Along the Forks of the Credit Road, the tree species are similar to the surrounding habitats with eastern white cedar, American basswood, white ash and eastern hemlock. Other species found include staghorn sumac and planted Norway spruce (*Picea abies*). Private residential properties are sporadically located along the paved roadway

The residential properties located along Dominion Street have manicured lawns with commonly planted tree species and properties backing on to the natural forest habitat.

A Photographic Log is provided as Appendix A.

4.5 Aquatic Environment

The Credit River is the primary aquatic feature within the Study Area. The Credit River is almost 90 kilometers (km) long and meanders southeast from its headwaters in Orangeville, Erin and Mono, through nine municipalities, eventually draining into Lake Ontario at Port Credit, Mississauga (CVC, 2016). Within the Study Area, the Credit River runs north-south approximately parallel to Dominion Street, where it eventually encounters the Credit River Erin Branch to the west, after which it continues in an eastward direction through the Study Area. Several small 1-3 order tributaries of the Credit River (CVC, 2013) also run roughly north-south within the Study Area east of Dominion Street. Aquatic features within the Study Area are shown on Figure 4.3. All watercourse features within and adjacent to the Study Area are shown to have a coldwater thermal regime. The Study Area encompasses two subwatersheds of the Credit River Watershed, with the divide running north-south in this area, and falling just east of Dominion Street.

A subwatershed study published in 1998 titled *Caledon Creek and Credit River Subwatershed Study (Subwatersheds 16 & 18), Phase I: Characterization Report* (CVC, 1998) considered the portion of the Credit River which runs parallel to Dominion Street within the western portion of the Study Area. This area was identified as having a treed riparian corridor. 'Significant' trout redd (trout spawning nests) concentrations were also identified in the River in this area (CVC, 1998). Subwatershed 18, which encompasses this portion of the Credit River, was identified as being extremely healthy and stable, with high aquatic productivity, good water quality, and terrestrial features which were generally intact (CVC, 1998). Benthic invertebrate sampling determined that water quality was excellent in this area, based on the Hilsenhoff Biotic Index (CVC, 1998). Brown Trout (*Salmo trutta*) and Brook Trout (*Salvelinus fontinalis*) were known to occur downstream of Cataract Falls in the Credit River. According to the Credit River Fisheries Management Plan, a total of 46 species of fish were detected in the Credit River Watershed during 1999 sampling conducted by MNRF, and are shown in Table 4.1 (CVC, 2002). Species identified at Aquatic Resource Area (ARA) Survey Locations (Figure 4.3) in 2012 on the Credit River Erin Branch are also shown on Table 4.1. Redside Dace (*Clinostomus elongatus*), a SAR fish species, is identified as having the potential to occur within the Study Area, and is discussed in greater detail in Section 4.7.

On September 8, 2016, a cursory windshield survey of aquatic habitat was conducted by GHD staff. Habitat within the main tributary of the Credit River flowing through the Study Area was visually observed. Access to smaller tributaries on private properties was not approved at this time.

The Dominion Street Bridge is a single lane bridge crossing the Credit River at a 90° angle. Large boulders, concrete blocks and gabion supported the streambanks on both banks, upstream and downstream of the bridge. Pipes located near the top of the embankment on the right bank, both upstream and downstream of the bridge were noted. There were no signs of erosion evident below the pipe outfalls due to the armouring around the bridge.

Downstream of the Dominion Street Bridge, the Credit River flowed parallel to the Forks of the Credit Road. There was a narrow vegetated buffer between the river and road embankment, with several short paths down to the river for fishing access. Eastern white cedar dominated forest provided continuous cover along both streambanks, as well as moderate overhanging in-stream

cover. The flow through this reach was relatively fast with substrate dominated by unembedded cobble. Scattered boulders, gravel and minor amounts of sand were also noted. The reach appeared to provide what would be considered ideal trout and/or Atlantic salmon habitat, for all age classes.

Directly upstream of the Dominion Street Bridge was a confluence between two branches of the Credit River; the Erin Branch and the tributary that follows parallel to Dominion Street. An area of shallow rapids was noted immediately upstream of the bridge, with stronger flows coming from the Dominion Street tributary. A deeper run was situated to the right-of-centre of the channel under the bridge; finer sediment and slower flows were noted towards the left bank under the bridge. Minor erosion was noted on the right slope, upstream of the bridge. Vegetation and forest cover was less dense in the 10 – 15 m upstream of the bridge. Cedar-deciduous forest surrounded both branches of the Credit upstream of the confluence.

The Dominion Street branch of the Credit River was also observed upstream of the bridge. The watercourse was approximately 14 m wide with strong flows and substrate similar to that noted downstream of Dominion Street Bridge. Both streambanks were vegetated and dominated by cedar forest. In-stream woody debris and overhanging tree branches provided beneficial cover for fish. The canopy above the watercourse provided approximately 30-50% overhead cover through the observed reach.

Overall, the section of the Credit River within the study reach appeared to provide ideal trout and Atlantic salmon habitat. Spawning, rearing and deeper resting pools were all present, providing habitat for a variety of age classes and life stages.

A Photographic Log is provided as Appendix A.

4.6 Wildlife

A desktop review consisting of examination of online database and atlas data was conducted to determine the potential for wildlife presence within the Study Area. The results of this search are provided as Appendix B. Note that results from collected atlas data are generally reported at a relatively large scale (10km^2). Although they encompass an area well beyond the Study Area, they help to give an indication of species which may be present within the Study Area where suitable habitat exists. Atlas results for square 17NJ85 are reported herein, as this square encompasses the vast majority of the Study Area. The tip of the northwestern corner of the Study Area falls under square 17NJ75, the results of which are not reported. Based on atlas results for square 17NJ85, 34 species of butterflies, 26 species of reptiles and amphibians and 114 species of breeding birds have been documented as occurring within the greater area surrounding the Study Area.

No species specific surveys for wildlife were conducted at this stage of the project. Habitat present in the Study Area may be valuable to wildlife species due to the size, connectivity and undisturbed nature of the mature forest habitat that is present within the Study Area.

4.7 Species at Risk

No SAR specific surveys were conducted at this point in the project. Further investigation of potential habitat available within the Study Area will be needed in order to determine the likelihood of presence of SAR.

NHIC Rare Occurrences are shown on Figure 4.4. Several SAR have been identified by the MNRF or NHIC mapping as having the potential to occur within the Study Area, and are listed in Table 4.2 below. Note that this table only addresses federally or provincially listed species, but does not consider species which have been determined to be extirpated from the province.

Table 4.1 Species at Risk Summary

Species		Conservation Status		Further investigation required for determination of potential habitat?
Common Name	Scientific Name	SARO	SARA	
Birds				
Chimney Swift	Chaetura pelagica	Threatened	Threatened	Yes
Canada Warbler	Cardellina Canadensis	Special Concern	Threatened	Yes
Mammals				
Little Brown Myotis	Myotis lucifugus	Endangered	Endangered	Yes
Northern Myotis	Myotis septentrionalis	Endangered	Endangered	Yes
Tri-coloured Bat	Perimyotis subflavus	Endangered	Endangered	Yes
Reptiles and Amphibians				
Milksnake	Lampropeltis triangulum	Special Concern	Special Concern	Yes
Eastern Ribbonsnake	Thamnophis sauritus	Special Concern	Special Concern	Yes
Jefferson Salamander	Ambystoma jeffersonianum	Endangered	Threatened	Yes
Plants				
Hart's-tongue Fern	Asplenium scolopendrium	Special Concern	Special Concern	Yes

Species		Conservation Status		Further investigation required for determination of potential habitat?
Common Name	Scientific Name	SARO	SARA	
Hill's Pondweed	Potamogeton hillii	Special Concern	Special Concern	No, habitat is likely not available within Study Area
Butternut	Juglans cinerea	Endangered	Endangered	Yes
Fish				
Redside Dace	Clinostomus elongatus	Endangered	Special Concern	Yes
Northern Brook Lamprey	Ichthyomyzon fossor	Special Concern	Special Concern	Yes

There are several SAR which MNRF have identified as having a known presence within or adjacent to the Study Area. These species are described in greater detail below.

Butternut

Butternut is a provincially and federally endangered tree species which has the potential to occur in the Study Area. It generally occurs on well-drained, rich soils in valleys or on slopes (MNRF, 2016a). MNRF have advised that records of Butternut exist in the vicinity of the Study Area.

Redside Dace

Redside dace is a provincially endangered and federally special concern fish species which has been identified by MNRF and NHIC records as having the potential to occur in the vicinity of the Study Area. Furthermore, review of 2015 DFO Fish and Mussel SAR Mapping shows a portion of the Credit River within the southern portion of the Study Area to be an 'Occupied or Recovery Reach for Redside Dace'. Redside dace are found in pools and slow-moving areas of small streams and headwaters with a gravel bottom, generally in areas with overhanging grasses and shrubs (MNRF, 2016b). Habitat observed within the Credit River up and downstream of the Dominion Street Bridge is not characteristic of redside dace habitat. Redside dace prefer narrower, slower moving watercourses with deep pools; gravel riffles; and overhanging long grasses or shrubs, versus forested riparian areas. Habitat within smaller side tributaries should be assessed once access to private properties is obtained.

Jefferson Salamander

Jefferson salamander is a provincially endangered and federally threatened species which MNRF has identified as having the potential to occur in the Study Area. They live in deciduous forest, and adults live in moist, loose soil, under logs or in leaf litter (MNRF, 2016c).

Chimney Swift

Chimney swift is a provincially and federally threatened species. They are mainly associated with urban and rural areas where there are chimneys available for nesting and resting (Rodewald, 2015). It is possible that there may be buildings with uncapped chimneys in the local Study Area that would provide nesting habitat, and the surrounding areas could be used a foraging habitat.

Canada Warbler

Canada warbler is a provincially special concern and federally threatened species. It breeds in a range of deciduous and coniferous forests, usually wet, with a well- developed, dense shrub layer (MNRF, 2016d).

Little Brown Myotis

The little brown myotis is a provincially and federally endangered species which MNRF has identified as having the potential to occur within the Study Area. During the day they roost in trees and buildings. They often select attics, abandoned buildings and barns for summer colonies where they can raise their young. Little brown bats hibernate in caves or abandoned mines that are humid and remain above freezing (MNRF, 2016e).

Northern Myotis

The northern myotis is a provincially and federally endangered species which MNRF has identified as having the potential to occur within the Study Area. These bats are associated with boreal forests, choosing to roost under loose bark and in the cavities of trees, and they hibernate in caves or abandoned mines (MNRF, 2016f).

Tri-coloured Bat

The tri-coloured bat is a provincially and federally endangered species which MNRF has identified as having the potential to occur within the Study Area. During the summer, this bat is found in a variety of forested habitats. They form day roosts and maternity colonies in older forest and occasionally in barns or other structures, and overwinter in caves (MNRF, 2016g).

5. Summary

The Study Area is a predominantly forested natural area with a small amount of residential and transportation land use throughout. There are several significant natural features including ANSIs and PSWs within the Study Area. Terrestrial habitats present are diverse and generally intact, and likely provide habitat for interior forest breeding birds and other wildlife species. The primary aquatic feature in the Study Area, the Credit River, provides high quality coldwater habitat for a variety of fish species. MNRF and NHIC mapping have identified the potential for a variety of SAR within Study Area. Further investigation of potential habitat available within the Study Area will be needed in order to determine the likelihood of presence of SAR.

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Appendices

Appendix A
Photographic Log

Photo 1 - View of Dominion Street Bridge facing upstream

Photo 2 - View from Dominion Street Bridge facing upstream right bank

Site Photographs

Photo 3 - View from Dominion Street Bridge facing upstream left bank

Photo 4 - View from Dominion Street Bridge facing downstream left bank

Site Photographs

Photo 5 - View of Credit River facing downstream from Dominion Street Bridge

Photo 6 - View of riparian buffer between Credit River and Forks of the Credit Road; downstream of Dominion Street

Site Photographs

Photo 7 - View of the confluence between the Erin Branch (photo left) and the branch parallel to Dominion Street (photo right) of the Credit River

Photo 8 - View of the Dominion Street Branch of the Credit River, upstream of Dominion Street Bridge

Site Photographs

Photo 9 - Bruce Trail Looking North

Photo 10 - Bruce Trail looking South

Site Photographs

Photo 11 - Dominion Street Residential Area Looking South

Photo 12 - Dominion Street Residential Area Looking North

Photo 13 - Dominion Street near Dominion Street bridge

Photo 14 - Dominion Street Bridge

Site Photographs

Photo 15 - Puckering Road

Photo 16 - Puckering Road

Photo 17 - McLaren Road looking North

Photo 18 - McLaren Road Looking South

Appendix B
Wildlife Species Records

Species list of adult observations in taxonomic order for square 17NJ85

All species

Number of rows of data displayed below: 34.

Species #	Common Name	Scientific Name	# of Records	Earliest in Year	Latest in Year	Earliest Year	Latest Year
5	Northern Cloudywing	Thorybes pylades	3	Jun 5	Jun 21	1981	2009
7	Dreamy Duskywing	Erynnis icelus	1	Jun 11	Jun 11	1981	1981
21	Arctic Skipper	Carterocephalus palaemon	1	Jun 11	Jun 11	1981	1981
30	Peck's Skipper	Polites peckius	1	Jun 25	Jun 25	1981	1981
31	Tawny-edged Skipper	Polites themistocles	2	Jun 11	Jun 29	1958	1981
33	Long Dash Skipper	Polites mystic	2	Jun 25	Jun 29	1968	1981
40	Hobomok Skipper	Poanes hobomok	4	Jun 1	Jun 25	1981	1981
47	Dun Skipper	Euphyes vestris	1	Jul 3	Jul 3	1981	1981
58	Eastern Tiger Swallowtail	Papilio glaucus	1	Jul 29	Jul 29	2015	2015
63	Mustard White	Pieris oleracea	9	May 25	Jul 1	1896	1989
65	Cabbage White	Pieris rapae	2	Jul 29	Aug 11	1991	2015
88	Acadian Hairstreak	Satyrium acadica	1	Jul 27	Jul 27	2001	2001
89	Coral Hairstreak	Satyrium titus	2	Jul 1	Jul 3	1896	1981
91	Banded Hairstreak	Satyrium calanus	2	Jul 14	Jul 16	1981	1981
93	Striped Hairstreak	Satyrium liparops	1	Jul 31	Jul 31	1981	1981
109	Northern Spring Azure	Celastrina lucia	2	Jun 1	Jun 11	1981	1981
110	Summer Azure	Celastrina neglecta	2	Jul 3	Jul 29	1981	2015
112	Silvery Blue	Glaucopsyche lygdamus	1	Jun 21	Jun 21	2009	2009
119	Great Spangled Fritillary	Speyeria cybele	1	Jul 1	Jul 1	1896	1896
133	Northern Crescent	Phyciodes cocyta	5	Jun 23	Jul 16	1968	1981
134	Tawny Crescent	Phyciodes batesii	3	Jun 25	Jul 3	1968	1981
136	Question Mark	Polygonia interrogationis	2	Jun 25	Jun 27	1981	1981
137	Eastern Comma	Polygonia comma	2	Jul 1	Jul 1	1896	1896
141	Gray Comma	Polygonia progne	3	Jul 1	Jul 3	1896	1981

143	Mourning Cloak	Nymphalis antiopa	1	Jul 31	Jul 31	1981	1981
144	Milbert's Tortoiseshell	Aglais milberti	1	Aug 14	Aug 14	1940	1940
145	American Lady	Vanessa virginiensis	3	May 3	Jul 3	1970	1981
147	Red Admiral	Vanessa atalanta	5	Jun 1	Jul 16	1981	2010
149	White Admiral	Limenitis arthemis arthemis	1	Jun 23	Jun 23	1981	1981
150	Red-spotted Purple	Limenitis arthemis astyanax	4	Jun 21	Jun 25	1981	2009
157	Little Wood-Satyr	Megisto cymela	2	Jun 11	Jun 23	1981	1981
158	Common Ringlet	Coenonympha tullia	5	Jun 1	Jun 23	1981	2009
159	Common Wood-Nymph	Cercyonis pegala	2	Jul 1	Aug 11	1896	1991
167	Monarch	Danaus plexippus	1	Jul 29	Jul 29	2015	2015

Species list in taxonomic order for square 17NJ85

Number of rows of data displayed below: 26

Species #	Common Name	# of Records	Earliest in Year	Latest in Year	Earliest Year	Latest Year
0	Jefferson/Blue-spotted Salamander Complex	3	May 9	Jul 9	1971	1990
0	Jefferson/Blue-spotted Salamander Hybrid	1	Jul 9	Jul 9	1989	1989
4	Midland Painted Turtle	6	Jun 16	Sep 3	1971	2014
6	Snapping Turtle	9	May 21	Sep 30	1971	2014
12	Dekay's Brownsnake	1			1971	1971
14	Eastern Gartersnake	4	Mar 27	Aug 26	1929	2012
19	Milksnake	4	May 28	Jun 15	1971	1991
20	Eastern Ribbonsnake	2			1971	1971
21	Ring-necked Snake	2	Oct 9	Oct 9	1971	2013
22	Northern Watersnake	1			1971	1971
24	Red-bellied Snake	2	Sep 24	Sep 24	1971	1986
26	Smooth Greensnake	1			1971	1971
33	Eastern Newt	4	May 24	Jul 19	1931	1989
34	Eastern Red-backed Salamander	7	Apr 20	Jul 9	1930	1989
39	Mudpuppy	1			1971	1971
43	Spotted Salamander	1			1971	1971
44	American Bullfrog	3	Jun 10	Jul 2	1971	2000
45	American Toad	6	Apr 20	Jul 9	1971	2009
48	Gray Treefrog	22	Apr 16	Aug 1	1971	2012
49	Green Frog	14	May 25	Sep 25	1932	2012
50	Mink Frog	1	Jul 8	Jul 8	2002	2002

52	Northern Leopard Frog	12	Apr 16	Oct 4	1931	2009
53	Pickerel Frog	3	Oct 9	Oct 9	1932	1971
54	Spring Peeper	64	Mar 20	Oct 13	1932	2014
55	Western Chorus Frog	7	Apr 20	Apr 22	1971	1971
56	Wood Frog	41	Apr 16	Oct 1	1931	2012

Ontario Nature home page | Main atlas page

Square Summary (17NJ85)

#species (1st atlas)				#species (2nd atlas)				#hours		#pc done	
poss	prob	conf	total	poss	prob	conf	total	1st	2nd	road	offrd
16	23	37	76	24	36	51	111	58	67	27	37

Region summary (#10: Halton-Peel-Dufferin)

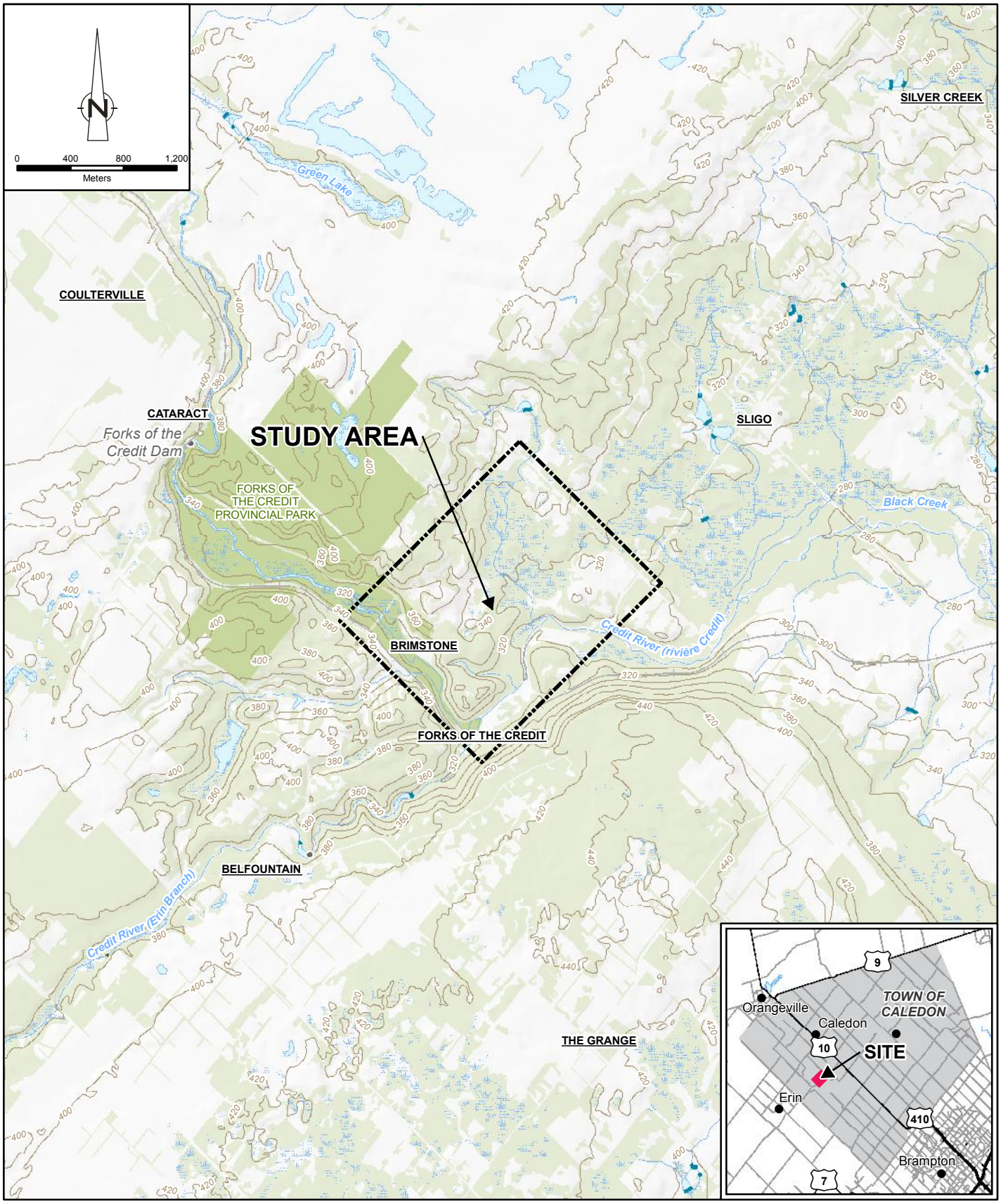
#squares	#sq with data		#species		#pc done	target #pc
	1st	2nd	1st	2nd		
38	38	38	160	177	1681	950

Target number of point counts in this square: 22 road side, 3 off road (2 in deciduous forest, 1 in mixed forest). Please try to ensure that each off-road station is located such that the entire 100m radius circle is within the prescribed habitat.

SPECIES	Code 1st	Code 2nd	% 1st	% 2nd	SPECIES	Code 1st	Code 2nd	% 1st	% 2nd	SPECIES	Code 1st	Code 2nd	% 1st	% 2nd
Canada Goose		FY	94	100	Broad-winged Hawk		P	47	57	Chimney Swift			71	71
Wood Duck	FY	FY	78	89	Red-tailed Hawk	NE	CF	100	100	Ruby-thr Hummingbird		P	89	89
Gadwall ‡			2	7	American Kestrel	S	H	100	92	Belted Kingfisher	T	T	100	100
American Wigeon ‡			2	7	Merlin ‡		H	0	2	Red-headed Woodpecker †			76	26
American Black Duck			31	28	Virginia Rail	T	S	52	71	Red-bell Woodpecker ‡			5	36
Mallard	P	FY	100	97	Sora		T	57	57	Yellow-bellied Sapsucker	FY		57	55
Blue-winged Teal		H	81	34	Common Moorhen		P	7	23	Downy Woodpecker	S	CF	100	100
Northern Shoveler ‡			2	5	American Coot			13	15	Hairy Woodpecker	FY	FY	97	100
Northern Pintail			7	2	Coot/Moorhen			0	0	Northern Flicker	FY	P	100	100
Green-winged Teal			0	10	Killdeer	FY	NE	100	100	Pileated Woodpecker	AE	P	81	97
Hooded Merganser			18	42	Rock Dove	H	NY	100	100	Olive-sided Flycatcher ‡			2	0
Common Merganser ‡			5	5	Spotted Sandpiper		H	97	84	Eastern Wood-Pewee	T	T	100	100
Ring-necked Pheasant			28	21	Upland Sandpiper			71	39	Alder Flycatcher		T	65	86
Ruffed Grouse	H	H	89	78	Common Snipe			55	65	Willow Flycatcher		S	68	86
Wild Turkey		H	7	68	American Woodcock	FY	D	84	92	Least Flycatcher	P	T	92	97
Northern Bobwhite †			2	2	Wilson's Phalarope †			5	2	Eastern Phoebe		CF	94	97
Pied-billed Grebe		S	10	36	Herring Gull §			15	2	Gr Crested Flycatcher	H	CF	100	100
American Bittern			31	23	Black Tern † §			2	2	Eastern Kingbird	A	CF	100	100
Least Bittern †			7	15	Mourning Dove	CF	NE	100	100	Yellow-throated Vireo			23	31
Great Blue Heron §		H	73	65	Yellow-billed Cuckoo	T		28	52	Blue-headed Vireo ‡			2	42
Green Heron §	H	FY	97	86	Black/Yell-billed Cuckoo		S	0	34	Warbling Vireo	FY	CF	100	100
Yellow-crn N.-Heron †			2	0	Black-billed Cuckoo	CF	S	71	86	Red-eyed Vireo	T	T	100	100
Turkey Vulture	H	P	73	89	Eastern Screech-Owl		T	60	97	Blue Jay	FY	FY	100	100
Osprey ‡			2	13	Great Horned Owl	NE	H	92	76	American Crow	H	CF	100	100
Northern Harrier	H		86	81	Barred Owl ‡			2	13	Horned Lark	FY	S	97	92
Sharp-shinned Hawk		CF	44	76	Long-eared Owl			13	10	Purple Martin		H	42	34
Cooper's Hawk		FY	21	68	North Saw-whet Owl			10	7	Tree Swallow	AE	NY	94	100
Northern Goshawk			18	34	Common Nighthawk			42	31	North Rgh-wing Swallow	AE	D	100	84
Red-should Hawk †			15	23	Whip-poor-will			23	10	Bank Swallow §	AE	H	97	76

next page >>

Appendix C
Figures and Tables



Source: MNRF NRVIS, 2015. Produced by GHD under licence from Ontario Ministry of Natural Resources and Forestry, © Queen's Printer 2016.
Coordinate System: NAD 1983 UTM Zone 17N

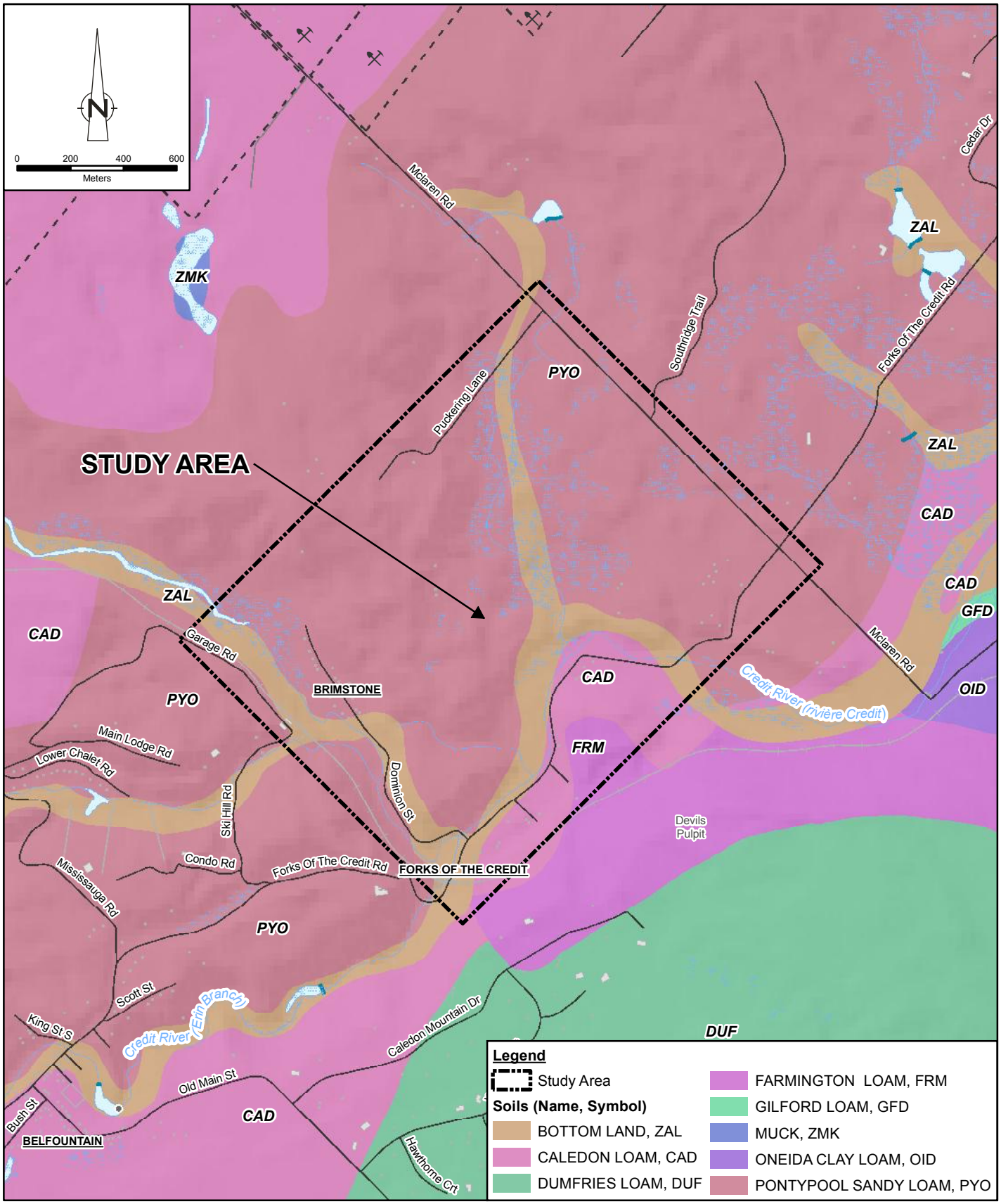
THE CORPORATION OF THE TOWN OF CALEDON
DOMINION STREET SCHEDULE 'C' CLASS EA
NATURAL ENVIRONMENT EXISTING CONDITIONS REPORT

11116800-40
Aug 11, 2016

SITE LOCATION MAP

FIGURE 2.1

GIS File: Q:\GIS\PROJECTS\11116000s\11116800\Layouts\001\11116800-40(001)GIS-WA001.mxd



Source: MNRF NRVIS, 2015. Produced by GHD under licence from Ontario Ministry of Natural Resources and Forestry, © Queen's Printer 2016.
Coordinate System: NAD 1983 UTM Zone 17N

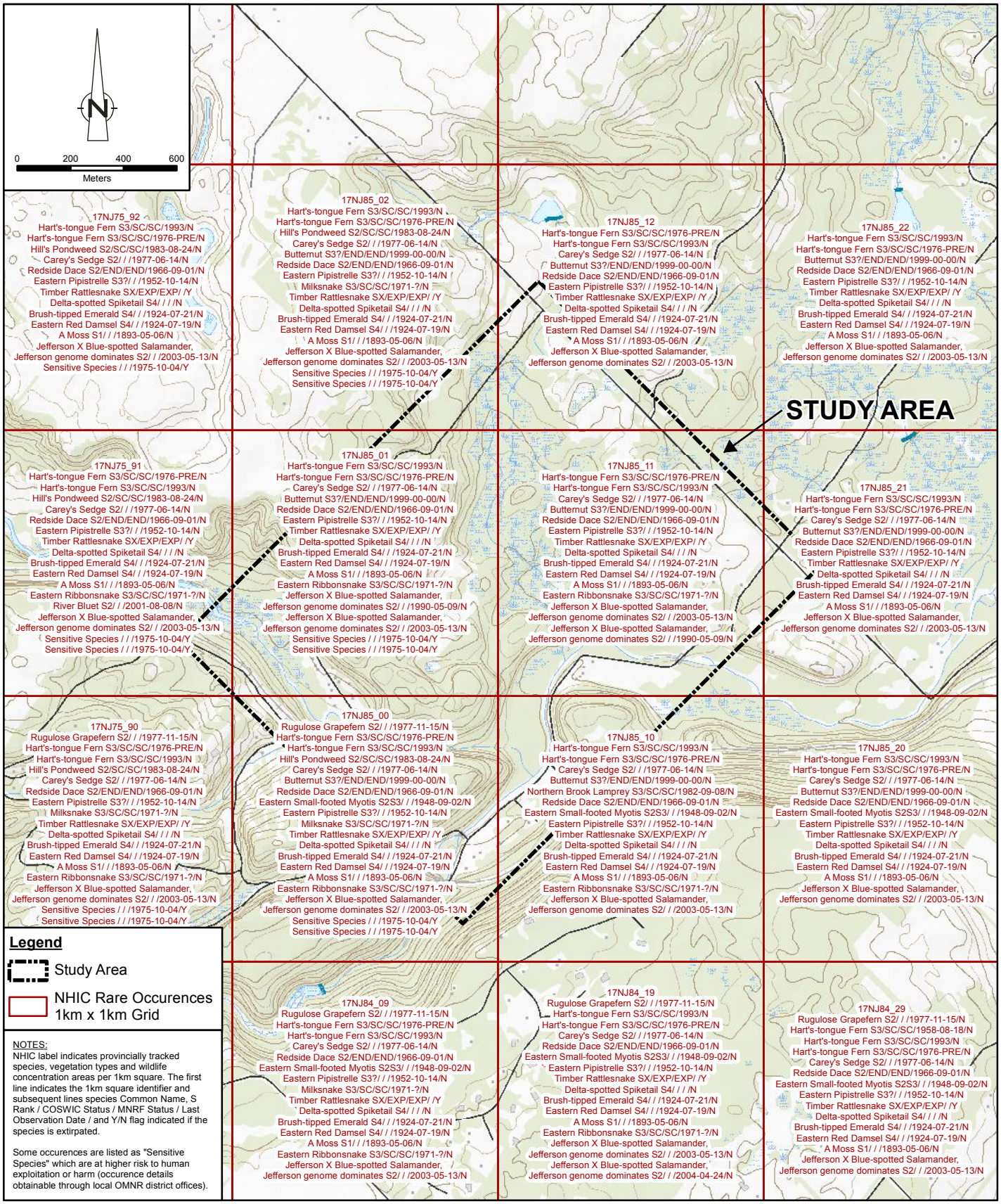
THE CORPORATION OF THE TOWN OF CALEDON
DOMINION STREET SCHEDULE 'C' CLASS EA
NATURAL ENVIRONMENT EXISTING CONDITIONS REPORT

11116800-40
Aug 11, 2016

SOIL TYPE

FIGURE 4.1

GIS File: Q:\GIS\PROJECTS\11116000s\11116800\Layouts\001\11116800-40(001)GIS-WA002.mxd



Source: MNRF NRVIS, 2015. Produced by GHD under licence from Ontario Ministry of Natural Resources and Forestry, © Queen's Printer 2016. NHIC Rare Occurences - updated 2012/02/29.
Coordinate System: NAD 1983 UTM Zone 17N

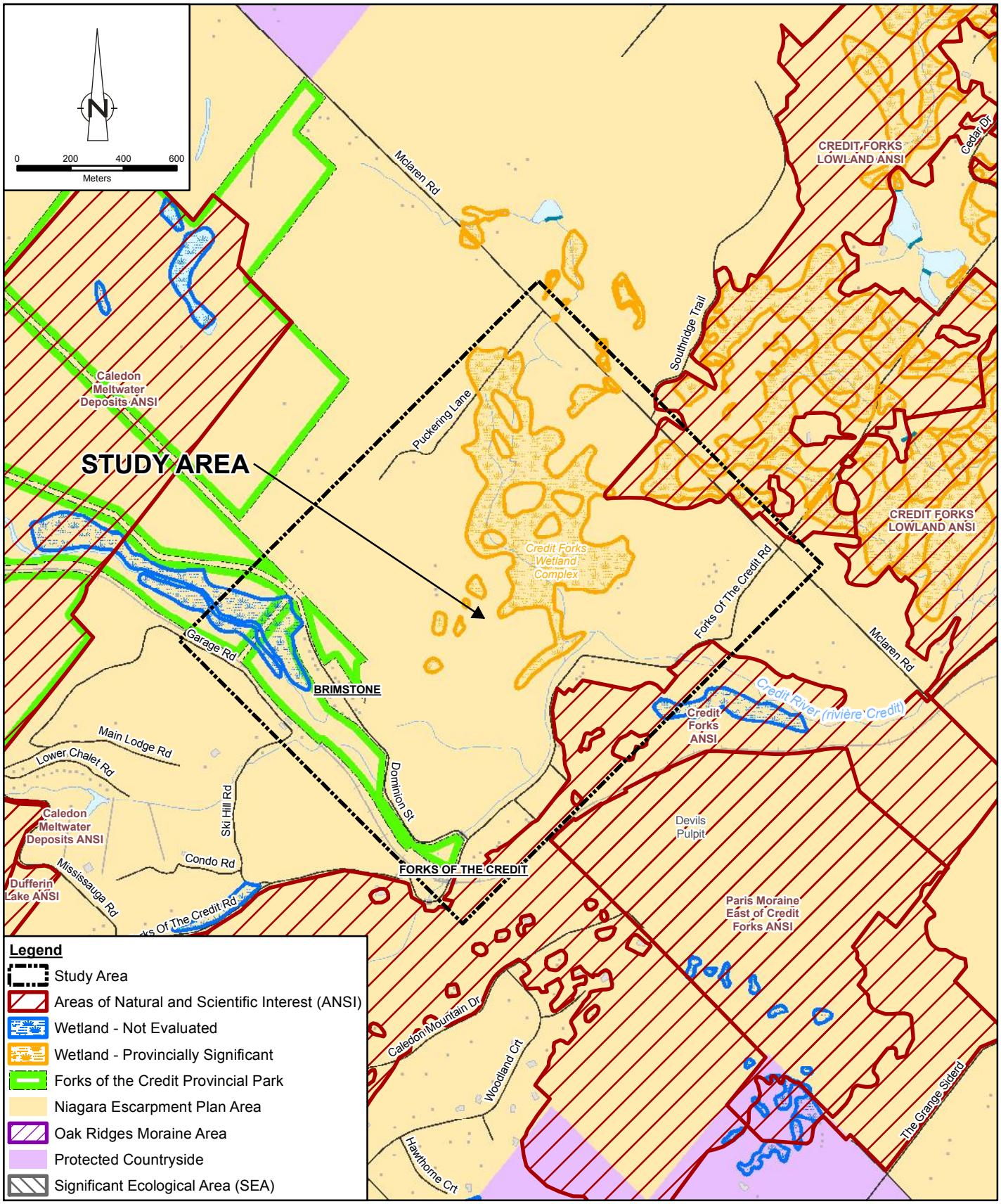
THE CORPORATION OF THE TOWN OF CALEDON
DOMINION STREET SCHEDULE 'C' CLASS EA
NATURAL ENVIRONMENT EXISTING CONDITIONS REPORT

11116800-40
Aug 11, 2016

PROVINCIALLY TRACKED SPECIES

FIGURE 4.4

GIS File: Q:\GIS\PROJECTS\11116000s\11116800\Layouts\001\11116800-40(001)GIS-WA003.mxd



Source: MNRF NRVIS, 2015. Produced by GHD under licence from Ontario Ministry of Natural Resources and Forestry, © Queen's Printer 2016.
Coordinate System: NAD 1983 UTM Zone 17N

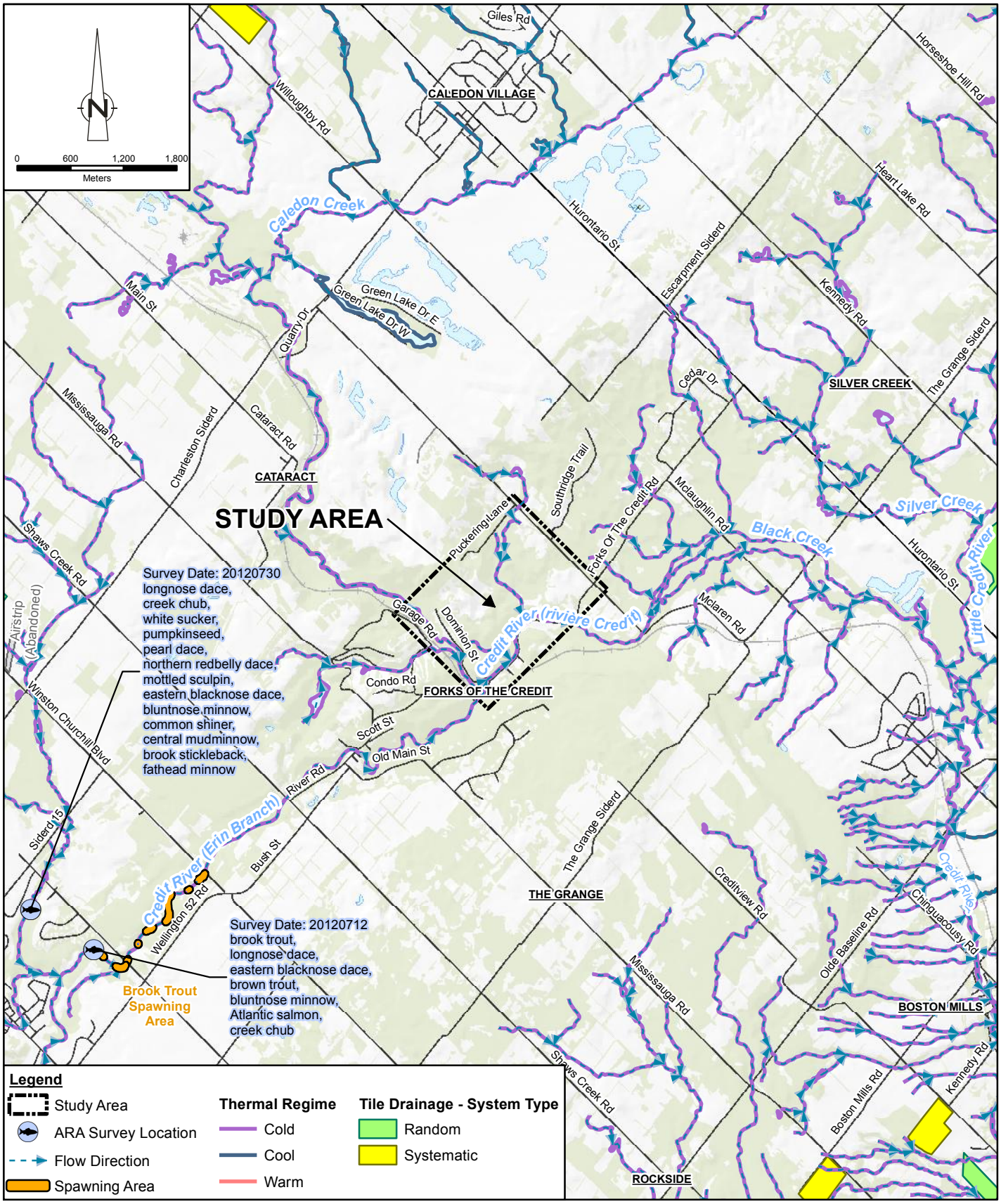
THE CORPORATION OF THE TOWN OF CALEDON
DOMINION STREET SCHEDULE 'C' CLASS EA
NATURAL ENVIRONMENT EXISTING CONDITIONS REPORT

11116800-40
Aug 12, 2016

SIGNIFICANT NATURAL FEATURES

FIGURE 4.2

GIS File: Q:\GIS\PROJECTS\11116000s\11116800\Layouts\001\11116800-40(001)GIS-WA004.mxd



Source: MNRF NRVIS, 2015. Produced by GHD under licence from Ontario Ministry of Natural Resources and Forestry, © Queen's Printer 2016.
Coordinate System: NAD 1983 UTM Zone 17N

THE CORPORATION OF THE TOWN OF CALEDON
DOMINION STREET SCHEDULE 'C' CLASS EA
NATURAL ENVIRONMENT EXISTING CONDITIONS REPORT

11116800-40
Aug 11, 2016

AQUATIC FEATURES

FIGURE 4.3

GIS File: Q:\GIS\PROJECTS\11116000s\11116800\Layouts\001\11116800-40(001)GIS-WA005.mxd

Table 4.1

Fish Species of the Credit River Watershed
Dominion Street Schedule 'C' Class EA
Caledon, Ontario

Species	Scientific Name	Identified on Upstream ARA Stations (2012)
American Brook Lamprey	*Lethenteron appendix*	
Sea Lamprey	*Petromyzon marinus*	
Pink Salmon	*Oncorhynchus gorbuscha*	
Coho Salmon	*Oncorhynchus kisutch*	
Chinook Salmon	*Oncorhynchus tshawytscha*	
Rainbow Trout	*Oncorhynchus mykiss*	
Atlantic Salmon	*Salmo salar*	X
Brown Trout	*Salmo trutta*	X
Brook Trout	*Salvelinus fontinalis*	X
Lake Trout	*Salvelinus namaycush*	
Northern Pike	*Esox lucius*	
Central Mudminnow	*Umbra limi*	X
White Sucker	*Catostomus commersonii*	X
Northern Hog Sucker	*Hypentelium nigricans*	
Silver Redhorse	*Moxostoma anisurum*	
Goldfish	*Carassius auratus*	
Northern Redbelly Dace	*Chrosomus eos*	X
Finescale Dace	*Phoxinus neogaeus*	
Redside Dace	*Clinostomus elongatus*	
Carp	*Cyprinus carpio*	
Brassy Minnow	*Hybognathus hakinsoni*	
River Chub	*Nocomis micropogon*	
Golden Shiner	*Notemigonus crysoleucas*	
Emerald Shiner	*Notropis atherinoides*	
Common Shiner	*Luxilus cornutus*	X
Bluntnose Minnow	*Pimephales notatus*	X
Fathead Minnow	*Pimephales promelas*	X
Blacknose Dace	*Rhinichthys atratulus*	X
Longnose Dace	*Rhinichthys cataractae*	X
Creek Chub	*Semotilus atromaculatus*	X
Pearl Dace	*Margariscus margarita*	X
Brown Bullhead	*Ameiurus nebulosus*	
Stonecat	*Noturus flavus*	
Brook Stickleback	*Culaea inconstans*	X
Rock Bass	*Ambloplites rupestris*	
Pumpkinseed	*Lepomis gibbosus*	X
Smallmouth Bass	*Micropterus dolomieu*	
Largemouth Bass	*Micropterus salmoides*	
Black Crappie	*Pomoxis nigromaculatus*	
Yellow Perch	*Perca flavescens*	
Rainbow Darter	*Etheostoma caeruleum*	
Iowa Darter	*Etheostoma exile*	
Fanttail Darter	*Etheostoma flabellare*	
Johnny Darter	*Etheostoma nigrum*	
Walleye	*Sander vitreus*	
Mottled Sculpin	*Cottus bairdii*	X

Source:

Fish species detected during 1999 sampling as detailed in the Credit River Fisheries Management Plan (2002); MNRF NVRIS Mapping (See Figure 4.3 in text)

Appendix C-2
Existing Conditions – Archaeology and Cultural Heritage

Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
416-966-1069 F 416-966-9723 asiheritage.ca

September 21, 2016

TO: Alex Pereira, GHD Limited

FROM: Eliza Brandy, ASI
Lisa Merritt, ASI

RE: **Dominion Street**
Archaeological Resources Existing Conditions Memorandum

ASI File: 16EA-077

In advance of Archaeological Services Inc.'s (ASI's) Stage 1 archaeological assessment report, please find below ASI's review of the existing conditions for archaeological resources captured within the Dominion Street study area. ASI understands that the contents of this existing conditions memorandum will be used to help inform the project design. ASI will undertake a comprehensive Stage 1 assessment, including a detailed property inspection, once a preferred alternative has been chosen for the Project.

Memorandum

1.0 PROJECT CONTEXT

ASI was contracted by GHD to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Dominion Street, Town of Caledon Municipal Class EA (Figure 1). This project involves the investigation of the length of the river bank and road embankment of Dominion Street along the Credit River. The study area is approximately 274 hectares. At this early stage in the Planning Phase, ASI was requested to prepare a memorandum outlining the results of the background research for the study area to factor into the design process. As noted above, a comprehensive Stage 1 assessment, including a detailed property inspection, will be undertaken once preferred alternatives have been proposed for the project.

The 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G) was used to guide the background research conducted for the existing conditions memorandum. The S & G, Section 1, administered by the Ministry of Tourism, Culture and Sport (MTCS) discusses the objectives of background research as follows:

- To provide information about the geography, history, previous archaeological fieldwork and current land condition of the study area; and,

- To evaluate in detail the archaeological potential of the study area which can be used in a Stage 1 archaeological assessment, if necessary, to support recommendations for Stage 2 archaeological assessment for all or parts of the property.

This memorandum describes the existing conditions for this project and is organized as follows: Section 2.0 summarizes the background study that was conducted to provide the archaeological and historical context for the project study area; Section 3.0 analyses the characteristics of the project study area and evaluates its presence of criteria indicating archaeological potential; Section 4.0 provides an existing conditions summary; Section 5.0 provides advice on compliance with legislation; and, Section 6.0 outlines references cited. All mapping is provided at the end of the memorandum.

Authorization to carry out the activities necessary for the completion of the existing conditions memorandum was granted to ASI by GHD on August 25, 2016.

2.0 EXISTING CONDITIONS: BACKGROUND RESEARCH

The following section provides a summary of archaeological existing conditions within the study area.

A review of the historic land use of the Dominion Street study area indicates that it has been occupied by Indigenous peoples for thousands of years. It is situated within the traditional territory of the ancestral Huron-Wendat, which was occupied until the turn of the sixteenth century, then by the Seneca First Nation until the late seventeenth century, and subsequently by the Mississauga First Nation through the early nineteenth century (Ellis 2013; Williamson 2008; 2013; Mississaugas of the New Credit First Nation n.d.).

The background research also acknowledges that, since the turn of the eighteenth century, the Métis have lived throughout the Province of Ontario, and in southern Ontario by the nineteenth century, but are often muted in the historical record (Métis Nation of Canada n.d.; Stone and Chaput 1978:607,608).

Since 1820, the study area has been occupied by Euro-Canadian peoples and is situated within the former Townships of Caledon, County of Peel. Review of historic mapping indicates that the study area includes historic features, settlements, and transportation routes (Tremaine 1859; Pope 1877) (Figures 2-4). Use of historic map sources to reconstruct/predict the location of former features within the modern landscape

generally proceeds by using common reference points between the various sources. These sources are then geo-referenced in order to provide the most accurate determination of the location of any property on historic mapping sources. The results of such exercises are often imprecise or even contradictory, as there are numerous potential sources of error inherent in such a process, including the vagaries of map production (both past and present), the need to resolve differences of scale and resolution, and distortions introduced by reproduction of the sources. To a large degree, the significance of such margins of error is dependent on the size of the feature one is attempting to plot, the constancy of reference points, the distances between them, and the consistency with which both they and the target feature are depicted on the period mapping.

A review of the physiography of the study area indicates that it is situated within the Niagara Escarpment and the Oak Ridges Moraine physiographic regions of southern Ontario (Chapman and Putnam 1984) (Figure 5). Figure 6 depicts the surficial geology in the study area as underlain predominantly by till associated with the Oak Ridges Moraine, modern alluvial and glacio-fluvial deposits, and ice-contact stratified deposits (Ontario Geological Survey 2010). There is also a small segment of Paleozoic bedrock within the southwestern corner of the study area, which is currently the site of a bedrock quarry. Review of soils information indicates that parts of the study area includes well-drained sandy soils (Department of Agriculture 1953; Hoffman and Richards 1953; Ontario Geological Survey 2010; Presant and Wicklund 1971) (Figure 7). Part of the study area is within the Forks of the Credit Provincial Park.

3.0 EXISTING CONDITIONS: CRITERIA INDICATIVE OF ARCHAEOLOGICAL POTENTIAL

The S & G, Section 1.3.1, lists criteria which are indicative of archaeological potential. The study area meets the following criteria which are indicative of archaeological potential:

- Proximity to Euro-Canadian settlements (farmsteads; early industry; villages of Belfountain; Cataract; Brimstone);
- Proximity to historic transportation routes (Credit Valley Railway; Dominion Street; Forks of the Credit Road, McLaren Road, Puckering Lane);
- Proximity to previously registered archaeological sites (see Table 1);
- Proximity to water sources (Credit River);
- Well-drained sandy soils (Caledon and Pontypool sandy loams); and,
- Distinct land formations (Oak Ridges Moraine; Niagara Escarpment)

These criteria are indicative of the study area as having potential for the identification of Euro-Canadian and Indigenous archaeological sites, depending on the degree of disturbance and physical features of the study area. This will be confirmed during the full Stage 1 Archaeological Assessment.

An archaeological potential model takes into consideration the study area's proximity to water, previously registered archaeological sites, up to 100 metres from any historic roadway, slopes greater than 20 degrees and deep and extensive land disturbances. In consideration of these factors, approximately 149 ha (54%) of the study area, is determined to have increased potential for archaeological resources (Figure 8). The archaeological potential model is presented here for planning purposes only, and does not replace a property inspection or Stage 2 assessment.

Previously Registered Archaeological Sites

According to the Ontario Archaeological Sites Database (OASD) maintained by the MTCS there are two previously registered archaeological sites located within a one kilometre radius of the study area (MTCS 2016). These sites are detailed in Table 1.

Table 1: Previously Registered Archaeological Sites within Study Area

Borden #	Site Name	Cultural Affiliation	Site Type	Researcher
AkGx-23	-	Middle Archaic	Findspot	ASI 1988
AkHa-20	Willoughby Industrial Heritage Site	Historic Euro-Canadian	Industrial, milling	Doroszenko 1989

According to the background research, two previous archaeological assessments have been conducted by ASI (1988; 2010) within 50 metres of the study area.

4.0 EXISTING CONDITIONS: SUMMARY

The Project will require a Stage 1 archaeological assessment, including a property inspection, once a preferred alternative has been determined to further assess archaeological potential as per the Standards and Guidelines for Consultant Archaeologists.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

ASI advises compliance with the following legislation:

- The Stage 1 Archaeological Assessment Report must be submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c. 18. The report is reviewed to ensure that it complies with the standards and guidelines that are 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 MTCS, 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;

- 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 Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*;

- 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 consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the *Ontario Heritage Act*;

- 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; and,

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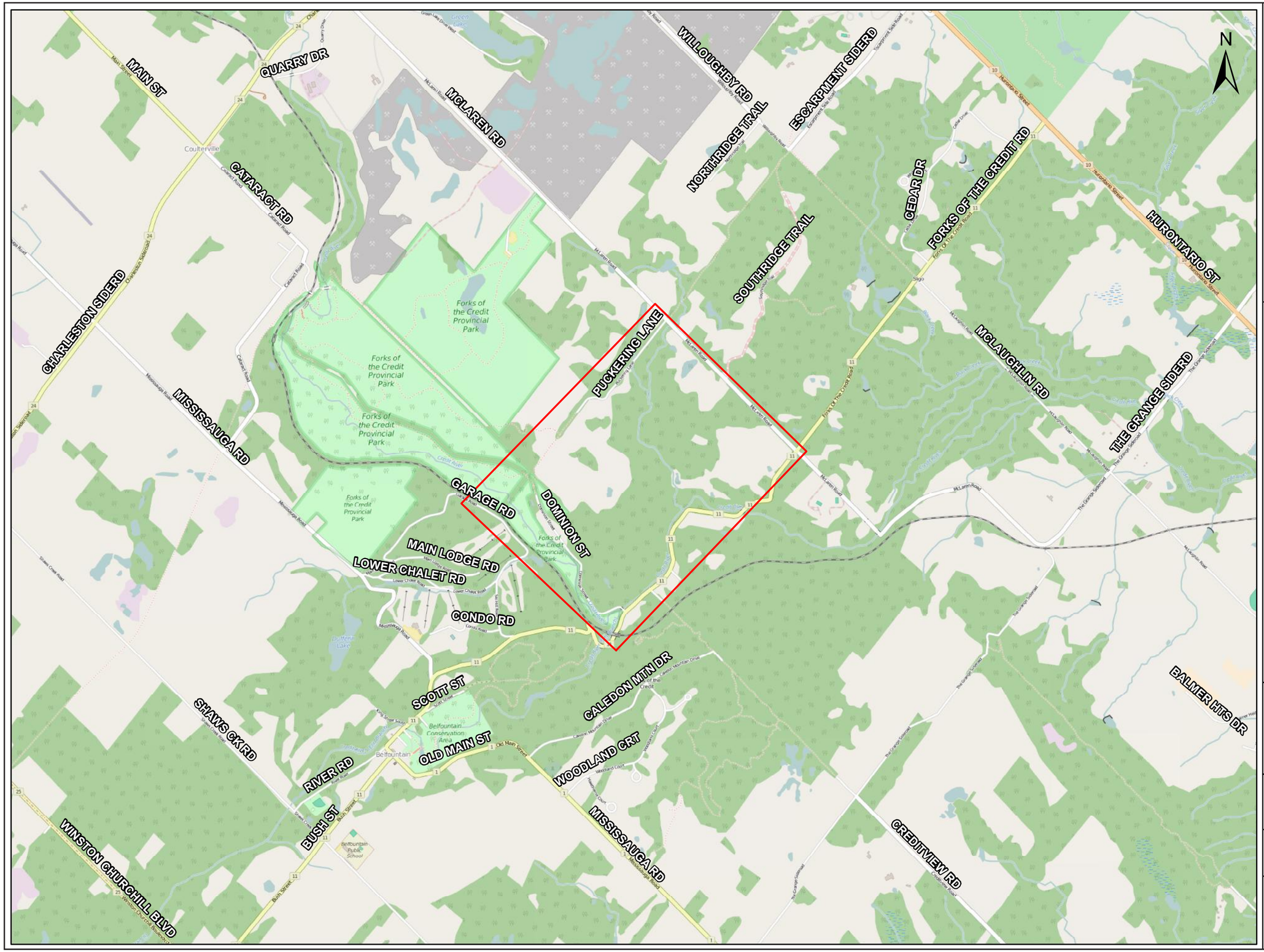


Study Area

BASE:

(c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

0 1.5

Kilometres

ASI PROJECT NO.: 16EA-077
DATE: 9/1/2016

DRAWN BY: JF
FILE: 16TS077_fig1

Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
416-966-1069 | F416-966-9723 | asiheritage.ca

Figure 1: Dominion Street Study Area

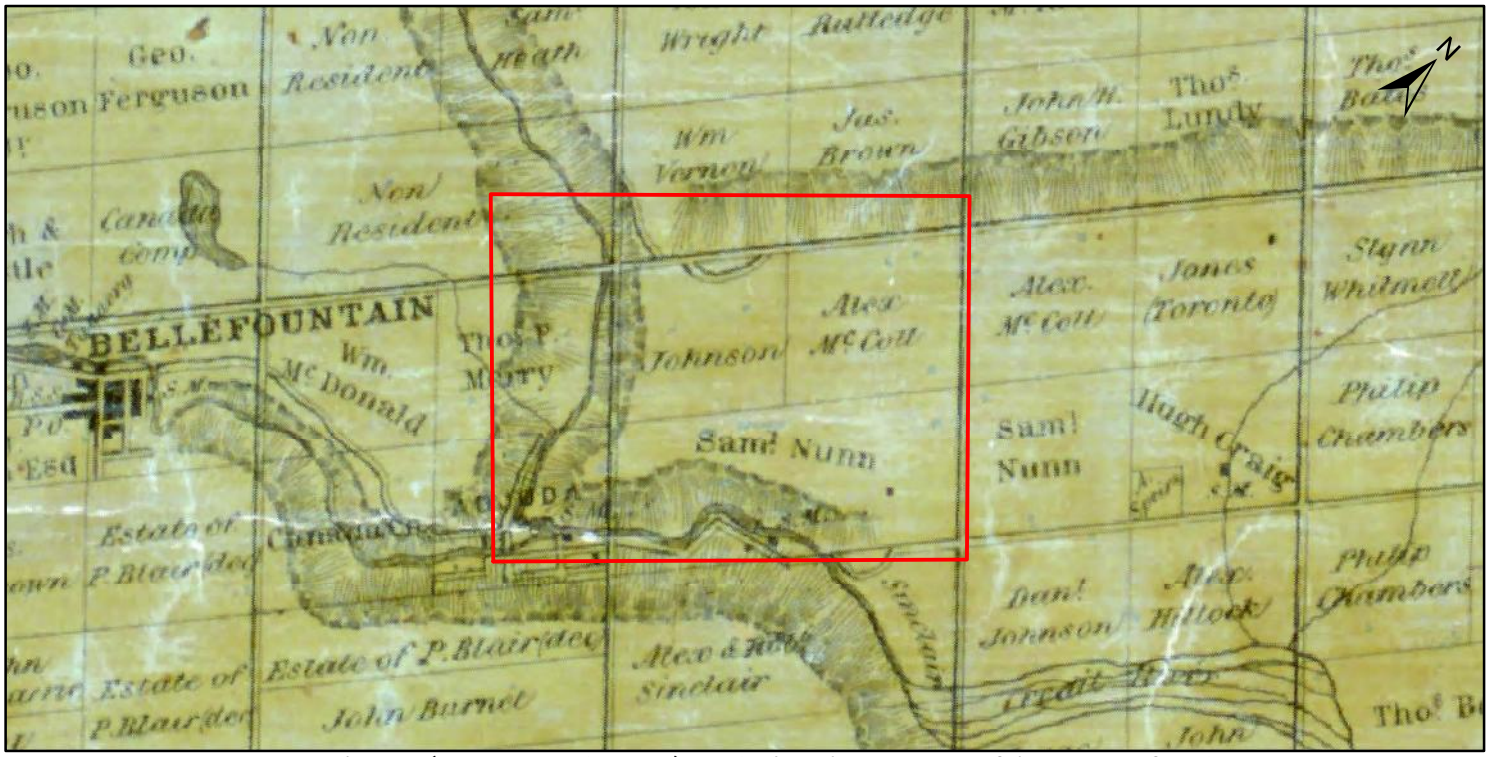


Figure 2: Dominion Street Study Area (approximate location) overlaid on the 1859 Map of the County of Peel

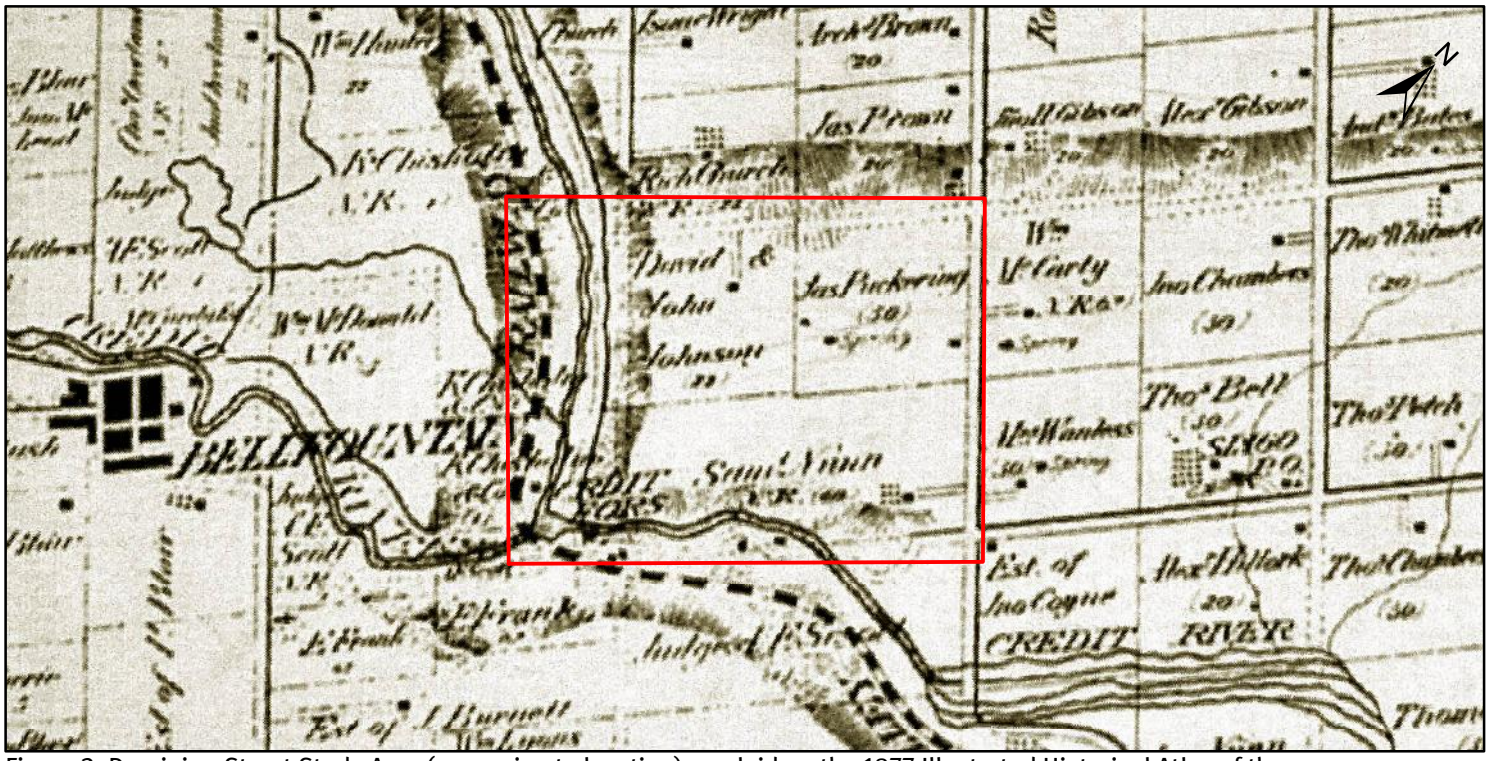
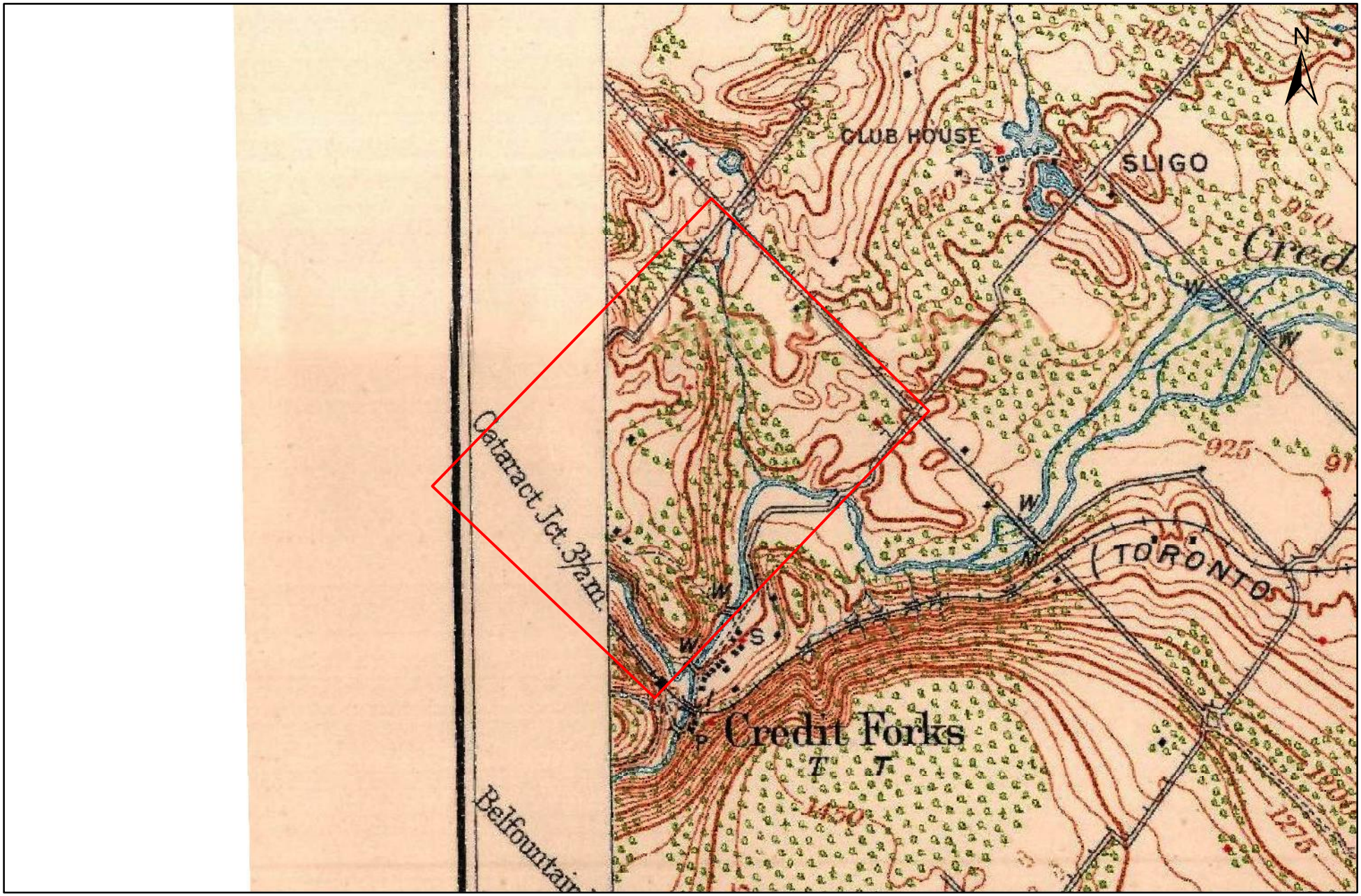


Figure 3: Dominion Street Study Area (approximate location) overlaid on the 1877 Illustrated Historical Atlas of the

ASI Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 | F416-966-9723 | asiheritage.ca	Study Area	Base: 1859 Map of the County of Peel 1877 Illustrated Historical Atlas of the Township of Caledon	0 1,000 Metres ASI PROJECT NO.: 16EA-077 DATE: 9/2/2016 DRAWN BY: JF FILE: 16EA077_fig2_3_hist

Path: X:\2016 Projects\EA\16EA-077_078 Dominion Street\View\16EA077_hist.mxd



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Study Area

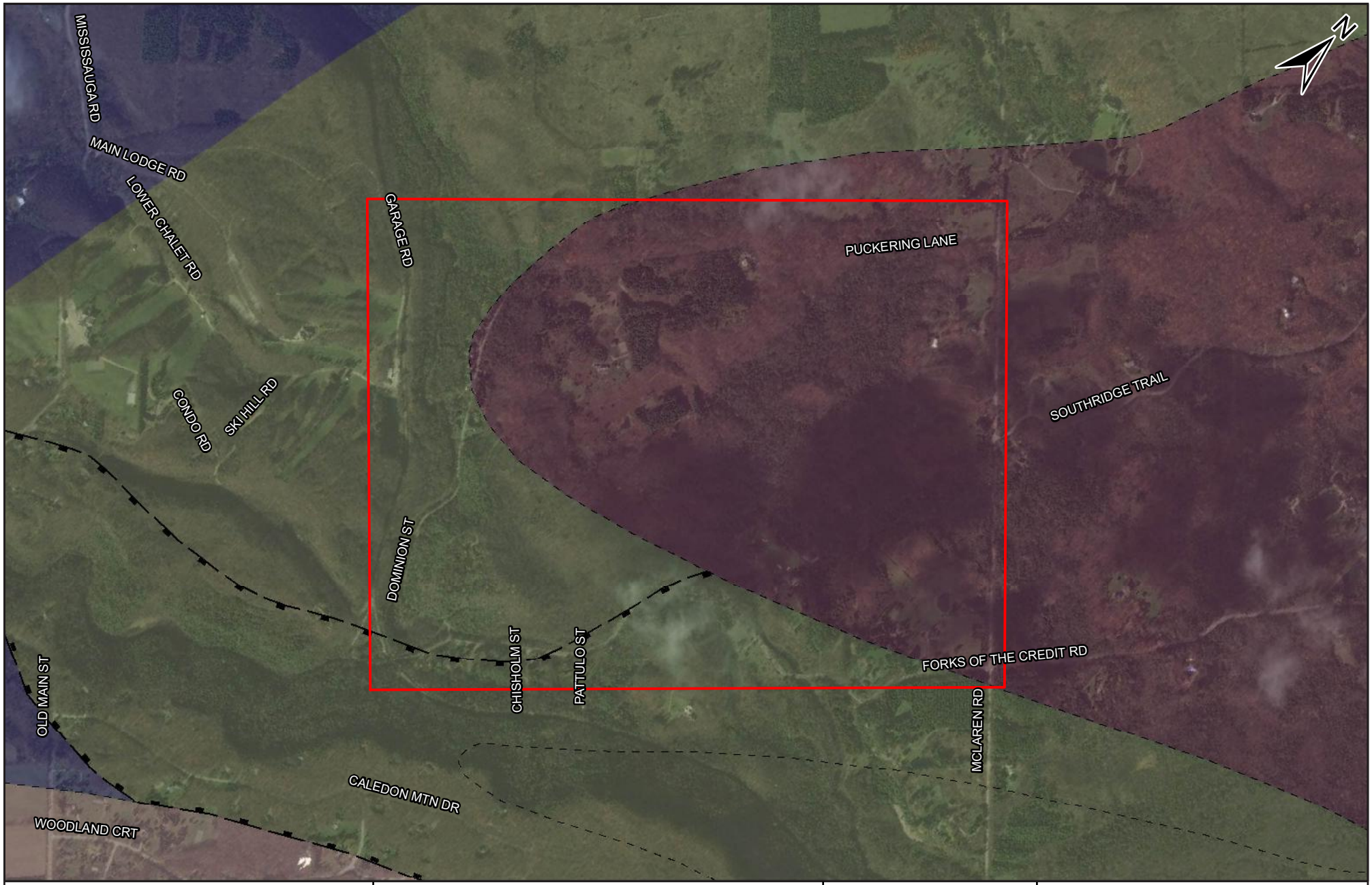
Base:
1919 NTS Bolton Sheet

0 1.25
Kilometres

ASI PROJECT NO.: 16EA-077
DATE: 9/16/2016

DRAWN BY: JF
FILE: 16EA077_fig4_hist

Figure 4: Dominion Street Study Area (approximate location) overlaid on the 1919 NTS Bolton Sheet



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Study Area
contact
escarpment
1, Niagara Escarpment
5, Horseshoe Moraines
11, Guelph Drumlin Field
30, Oak Ridges Moraine

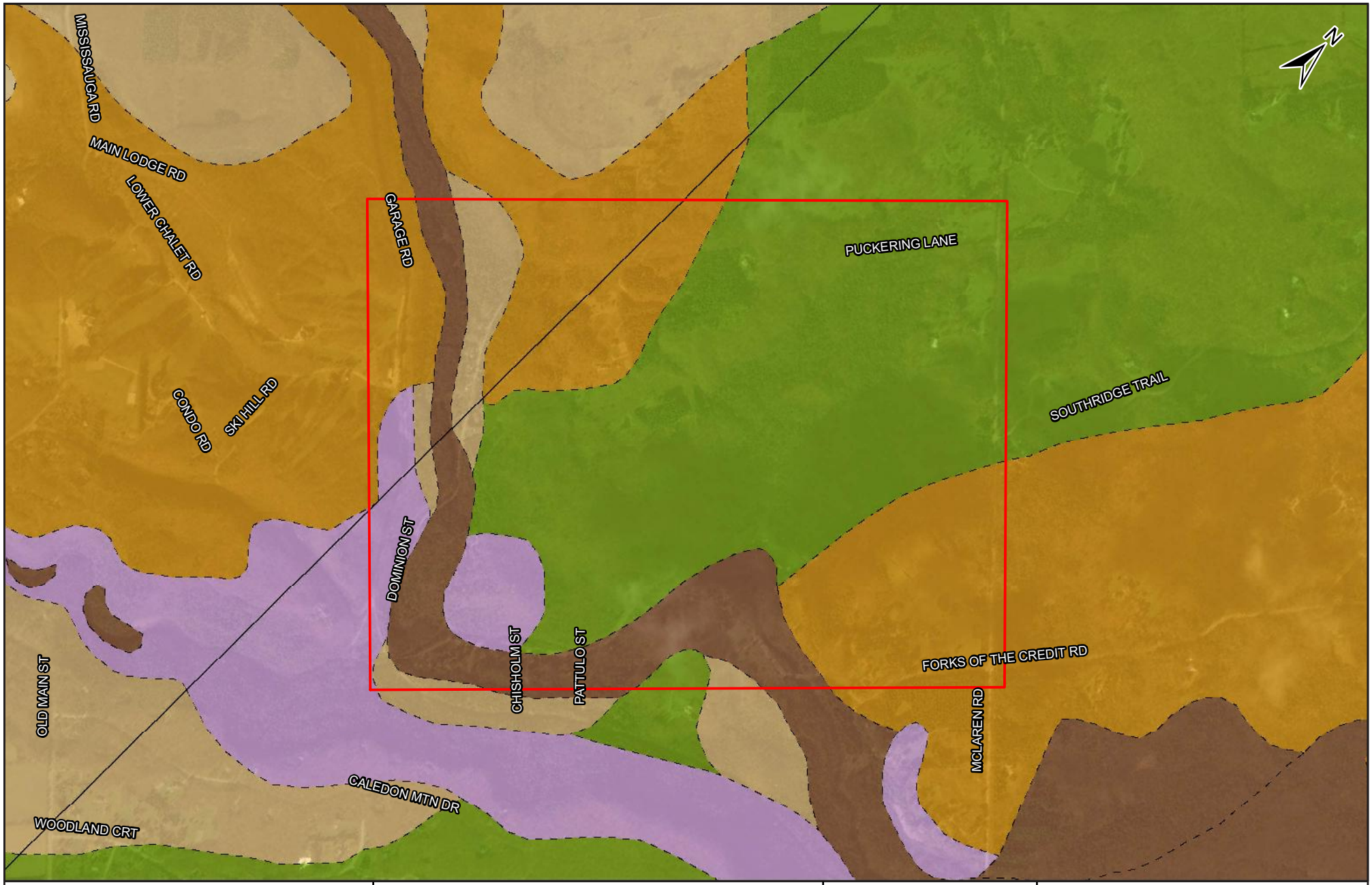
BASE:

Chapman, L.J. and Putnam, D.F. 2007. Physiography of southern Ontario; Ontario Geological Survey, Miscellaneous Release--Data 228.

0 500
Metres

ASI PROJECT NO.: 16EA-077
DATE: 9/2/2016
DRAWN BY: JF
FILE: 16EA077_fig4_physiography

Figure 5: Dominion Street Study Area Physiographic Regions



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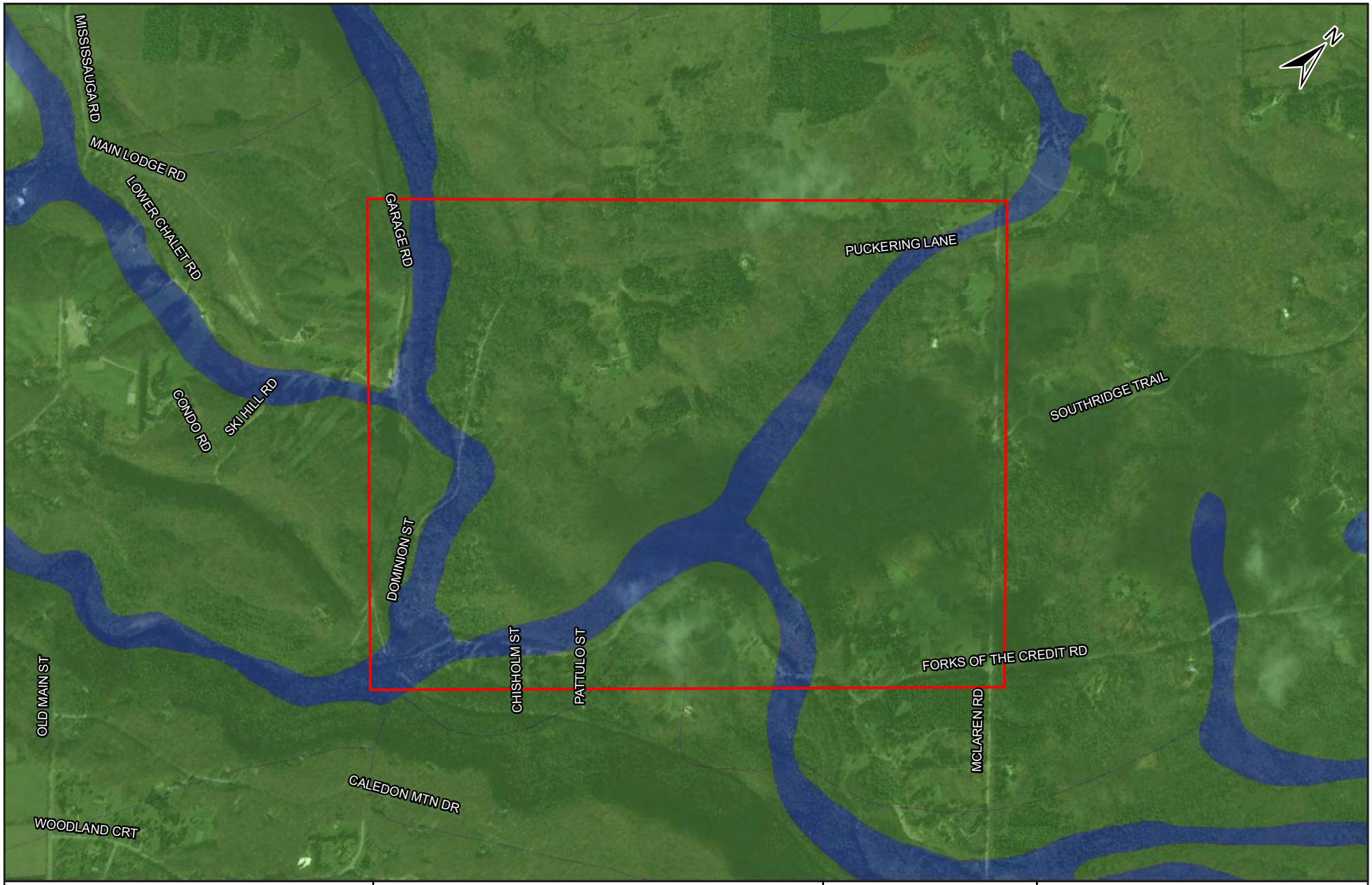
Study Area
geolap-o
nln
3: Paleozoic bedrock
5b: Stone-poor, carbonate-derived silty to sandy till
6: Ice-contact stratified deposits
7: Glaciofluvial deposits
7a: Sandy deposits
12: Older alluvial deposits
19: Modern alluvial deposits

BASE:
Dataset produced by the Ontario Geological Survey, Ministry of Northern Development and Mines, © Queen's Printer for Ontario, 2003.

0 500
Metres

ASI PROJECT NO.: 16EA-077
DATE: 9/2/2016
DRAWN BY: JF
FILE: 16EA077_fig5_SGU

Figure 6: Dominion Street Study Area Surficial Geology



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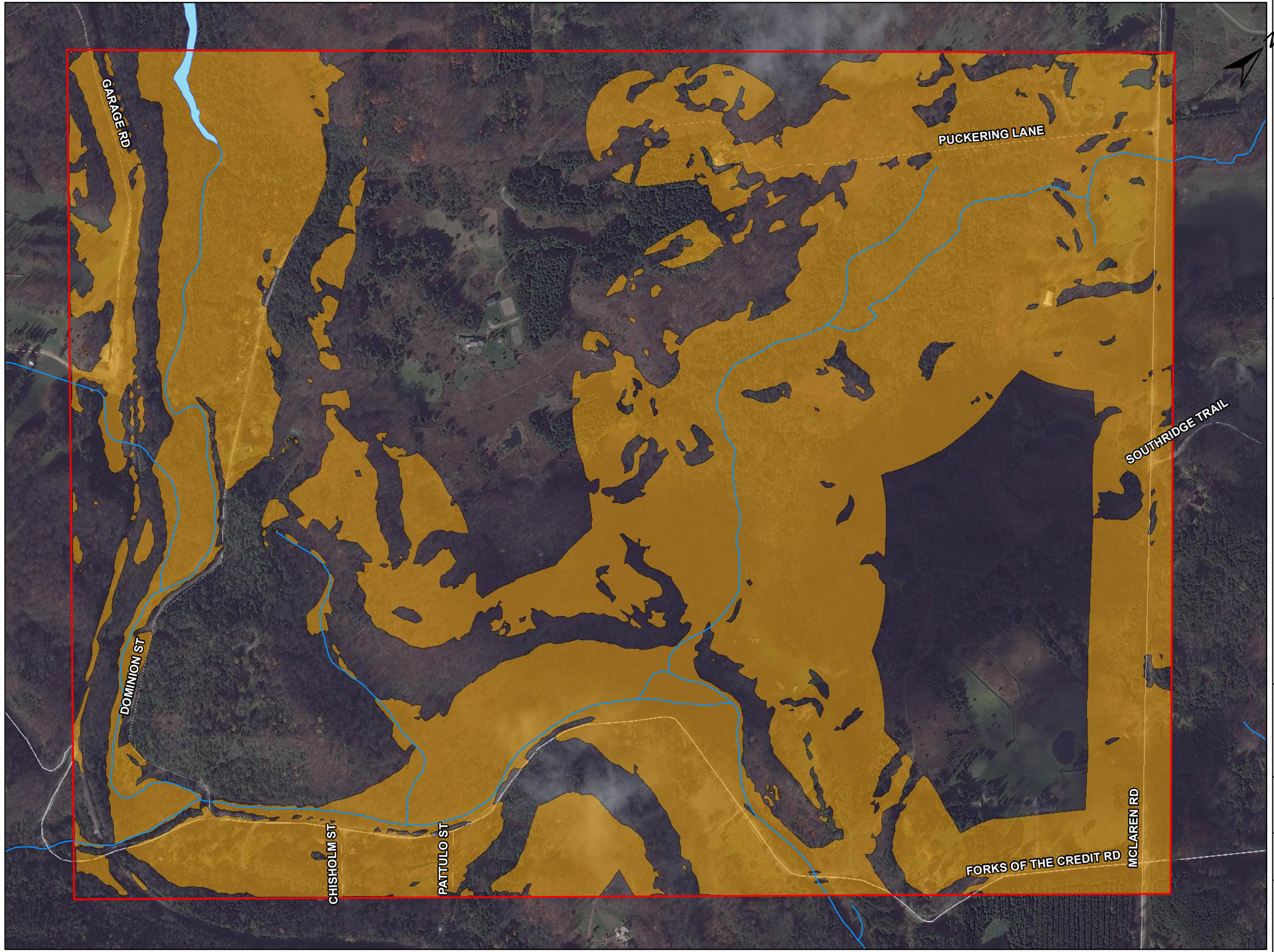
Study Area
Well Drained
Poorly Drained

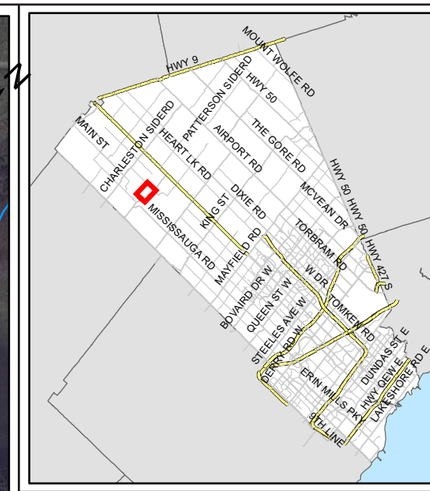
BASE:
Guelph Geomatics Services, Ontario Ministry of Agriculture and AgriFood

0 500
Metres

ASI PROJECT NO.: 16EA-077
DATE: 9/2/2016
DRAWN BY: JF
FILE: 16EA077_fig6_drain

Figure 7: Dominion Street Study Area Soil Drainage





Study Area

Water

Area of Arcaheological Potential

BASE:

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0 250

Metres

ASI PROJECT NO.: 16EA-077
DATE: 9/16/2016

DRAWN BY: JF
FILE: 16TS077_fig8_poten

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Figure 8: Dominion Street Study Area - Archaeological Potential Model

PRELIMINARY CULTURAL HERITAGE RESOURCE ASSESSMENT:
BUILT HERITAGE RESOURCES AND CULTURAL HERITAGE LANDSCAPES

DESKTOP DATA COLLECTION RESULTS

DOMINION STREET
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

PART OF LOTS 9 TO 11, CONCESSIONS 3 TO 4 WEST OF HURONTARIO STREET
FORMER TOWNSHIP OF CALEDON, COUNTY OF PEEL
TOWN OF CALEDON, REGION OF PEEL, ONTARIO

Prepared for:

GHD Limited
65 Sunray Street
Whitby, ON L1N 8Y3

ASI File: 16EA-078

September 22, 2016

ASI Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
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PRELIMINARY CULTURAL HERITAGE RESOURCE ASSESSMENT:
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FORMER TOWNSHIP OF CALEDON, COUNTY OF PEEL
TOWN OF CALEDON, REGION OF PEEL, ONTARIO

EXECUTIVE SUMMARY

ASI was contracted by GHD to conduct a Cultural Heritage Resource Assessment (CHRA) as part of the Dominion Street Town of Caledon Municipal Class Environmental Assessment (EA). This project involves an assessment of alternatives and long-term solutions for providing safe access to Dominion Street. The study is being undertaken to investigate the feasible bank stabilization and bridge rehabilitation activities in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge. Techniques to protect the road from further movement and improve overall embankment stability will also be investigated. The study area includes the southeastern portion of the Forks of the Credit Provincial Park.

The results of background historic research and a review of secondary source material, including historic mapping, revealed a study area with Indigenous history dating back thousands of years, and rural/quarry land use history dating back to the nineteenth century. Since the early twentieth century, the area has become a popular recreational destination. The results of preliminary data collection indicate that there are 30 cultural heritage resources within or adjacent to the study area, 19 of which were previously identified as having heritage interest on the Town's Built Heritage Resource Inventory. The remaining 11 cultural heritage resources were identified through historic map and document reviews.

Transportation improvements may have a variety of impacts upon cultural heritage resources. Based on the results of background data collection and a review of the project scope, there is the potential for cultural heritage resources to be negatively impacted as a result of this project. As such, the development of alternative alignments should be planned to avoid impacts to identified cultural heritage resources.

Once the alternative alignments have been identified, a field review will be conducted to photograph and confirm the location and integrity of previously identify additional heritage resources, to identify any additional cultural heritage resources, and to obtain information to accurately map above-ground cultural heritage resources. The potential impact of the proposed undertaking on identified cultural heritage resources will then be evaluated and appropriate mitigation measures recommended.

ARCHAEOLOGICAL SERVICES INC.
CULTURAL HERITAGE DIVISION

PROJECT PERSONNEL

Senior Project Manager:	Lindsay Graves, MA, CAHP *Cultural Heritage Specialist* *Assistant Manager, Cultural Heritage Division*
Project Coordinator:	Sarah Jagelewski, Hon. BA *Staff Archaeologist* *Assistant Manager, Environmental Assessment Division*
Project Administrator:	Carol Bella, Hon. BA *Research Archaeologist and Administrative Assistant*
Report Preparation:	Lindsay Graves
	John Sleath, MA *Cultural Heritage Assistant*
Graphics Preparation:	Jonas Fernandes, MSc *Geomatics Specialist*
Report Reviewer:	Katie Hull, PhD *Acting Manager, Cultural Heritage Division*

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1.0 INTRODUCTION

ASI was contracted by GHD to conduct a Cultural Heritage Resource Assessment (CHRA) as part of the Dominion Street Town of Caledon Municipal Class Environmental Assessment (EA). This project involves an assessment of alternatives and long-term solutions for providing safe access to Dominion Street (Figure 1). The study is being undertaken to investigate the feasible bank stabilization and bridge rehabilitation activities in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge. Techniques to protect the road from further movement and improve overall embankment stability will also be investigated. The study area includes the southeastern portion of the Forks of the Credit Provincial Park.

The purpose of this report is to present a built heritage and cultural landscape inventory of cultural heritage resources, identify existing conditions of the Dominion Street study area, identify impacts to cultural heritage resources, and propose appropriate mitigation measures. This research was conducted under the senior project management of Lindsay Graves, ASI.

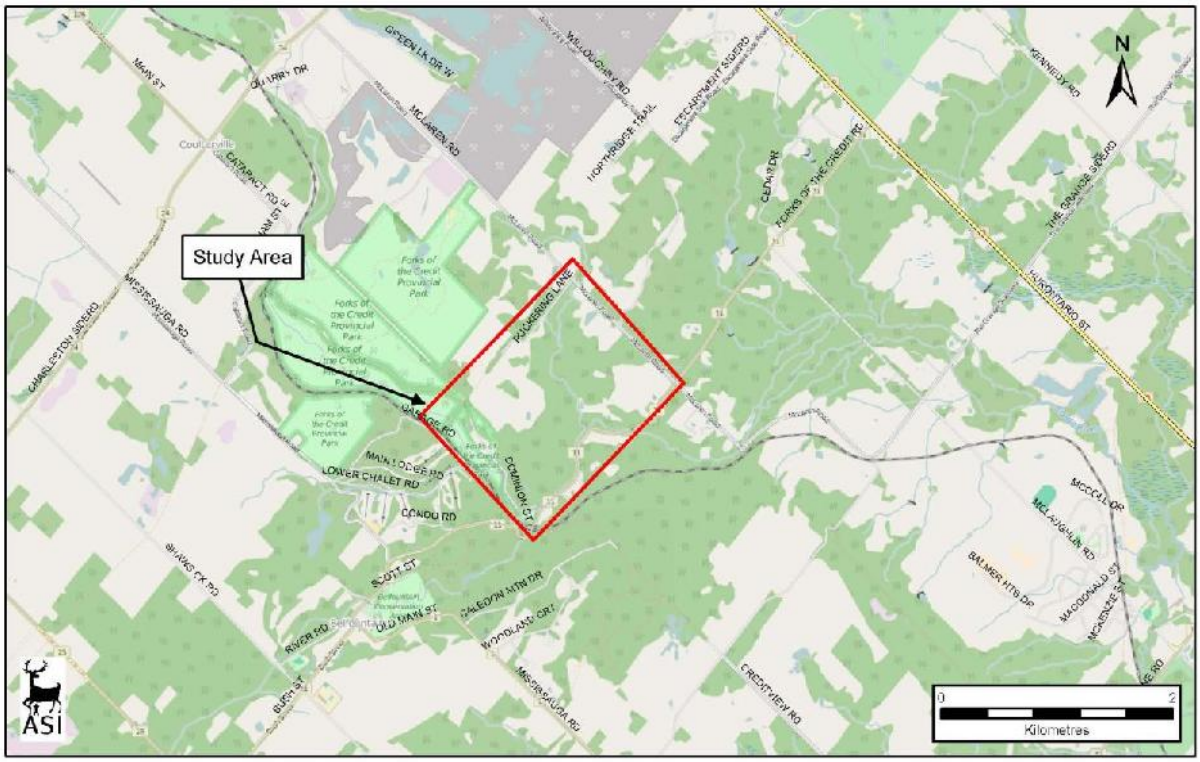

Figure 1: Location of the study area
Base Map:©OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

2.0 BUILT HERITAGE RESOURCE AND CULTURAL HERITAGE LANDSCAPE ASSESSMENT CONTEXT

2.1 Legislation and Policy Context

This cultural heritage assessment considers cultural heritage resources in the context of improvements to specified areas, pursuant to the *Environmental Assessment Act*. This assessment addresses above ground cultural heritage resources over 40 years old. Use of a 40 year old threshold is a guiding principle when conducting a preliminary identification of cultural heritage resources (Ministry of Transportation 2006; Ministry of Transportation 2007; Ontario Realty Corporation 2007). While identification of a resource that is 40 years old or older does not confer outright heritage significance, this threshold provides a means to collect information about resources that may retain heritage value. Similarly, if a resource is slightly younger than 40 years old, this does not preclude the resource from retaining heritage value.

For the purposes of this assessment, the term cultural heritage resources was used to describe both cultural heritage landscapes and built heritage resources. A cultural landscape is perceived as a collection of individual built heritage resources and other related features that together form farm complexes, roadscapes and nucleated settlements. Built heritage resources are typically individual buildings or structures that may be associated with a variety of human activities, such as historical settlement and patterns of architectural development.

The analysis throughout the study process addresses cultural heritage resources under various pieces of legislation and their supporting guidelines. Under the *Environmental Assessment Act* (1990) environment is defined in Subsection 1(c) to include:

- cultural conditions that influence the life of man or a community, and;
- any building, structure, machine, or other device or thing made by man.

The Ministry of Tourism, Culture and Sport is charged under Section 2 of the *Ontario Heritage Act* with the responsibility to determine policies, priorities and programs for the conservation, protection and preservation of the heritage of Ontario and has published two guidelines to assist in assessing cultural heritage resources as part of an environmental assessment: *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments* (1992), and *Guidelines on the Man-Made Heritage Component of Environmental Assessments* (1981). Accordingly, both guidelines have been utilized in this assessment process.

The *Guidelines on the Man-Made Heritage Component of Environmental Assessments* (Section 1.0) states the following:

> When speaking of man-made heritage we are concerned with the works of man and the effects of his activities in the environment rather than with movable human artifacts or those environments that are natural and completely undisturbed by man.

In addition, environment may be interpreted to include the combination and interrelationships of human artifacts with all other aspects of the physical environment, as well as with the social, economic and cultural conditions that influence the life of the people and communities in Ontario. The *Guidelines on the Man-Made Heritage Component of Environmental Assessments* distinguish between two basic ways of visually experiencing this heritage in the environment, namely as cultural heritage landscapes and as cultural features.

Within this document, cultural heritage landscapes are defined as the following (Section 1.0):

> The use and physical appearance of the land as we see it now is a result of man's activities over time in modifying pristine landscapes for his own purposes. A cultural landscape is perceived as a collection of individual man-made features into a whole. Urban cultural landscapes are sometimes given special names such as townscapes or streetscapes that describe various scales of perception from the general scene to the particular view. Cultural landscapes in the countryside are viewed in or adjacent to natural undisturbed landscapes, or waterscapes, and include such land uses as agriculture, mining, forestry, recreation, and transportation. Like urban cultural landscapes, they too may be perceived at various scales: as a large area of homogeneous character; or as an intermediate sized area of homogeneous character or a collection of settings such as a group of farms; or as a discrete example of specific landscape character such as a single farm, or an individual village or hamlet.

A cultural feature is defined as the following (Section 1.0):

> …an individual part of a cultural landscape that may be focused upon as part of a broader scene, or viewed independently. The term refers to any man-made or modified object in or on the land or underwater, such as buildings of various types, street furniture, engineering works, plantings and landscaping, archaeological sites, or a collection of such objects seen as a group because of close physical or social relationships.

The Minister of Tourism, Culture, and Sport has also published *Standards and Guidelines for Conservation of Provincial Heritage Properties* (April 2010; Standards and Guidelines hereafter). These Standards and Guidelines apply to properties the Government of Ontario owns or controls that have cultural heritage value or interest. They are mandatory for ministries and prescribed public bodies and have the authority of a Management Board or Cabinet directive. Prescribed public bodies include:

- Agricultural Research Institute of Ontario
- Hydro One Inc.
- Liquor Control Board of Ontario
- McMichael Canadian Art Collection
- Metrolinx
- The Niagara Parks Commission.
- Ontario Heritage Trust
- Ontario Infrastructure Projects Corporation
- Ontario Lottery and Gaming Corporation
- Ontario Power Generation Inc.
- Ontario Realty Corporation
- Royal Botanical Gardens
- Toronto Area Transit Operating Authority
- St. Lawrence Parks Commission

The Standards and Guidelines provide a series of definitions considered during the course of the assessment:

A provincial heritage property is defined as the following (14):

> Provincial heritage property means real property, including buildings and structures on the property, that has cultural heritage value or interest and that is owned by the Crown in right of Ontario or by a prescribed public body; or that is occupied by a ministry or a prescribed public body if the terms of the occupancy agreement are such that the ministry or public body is entitled to make the alterations to the property that may be required under these heritage standards and guidelines.

A provincial heritage property of provincial significance is defined as the following (14):

> Provincial heritage property that has been evaluated using the criteria found in Ontario Heritage Act O.Reg. 10/06 and has been found to have cultural heritage value or interest of provincial significance.

A built heritage resource is defined as the following (13):

> …one or more significant buildings (including fixtures or equipment located in or forming part of a building), structures, earthworks, monuments, installations, or remains associated with architectural, cultural, social, political, economic, or military history and identified as being important to a community. For the purposes of these Standards and Guidelines, "structures" does not include roadways in the provincial highway network and in-use electrical or telecommunications transmission towers.

A cultural heritage landscape is defined as the following (13):

> … a defined geographical area that human activity has modified and that has cultural heritage value. Such an area involves one or more groupings of individual heritage features, such as structures, spaces, archaeological sites, and natural elements, which together form a significant type of heritage form distinct from that of its constituent elements or parts. Heritage conservation districts designated under the Ontario Heritage Act, villages, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, trails, and industrial complexes of cultural heritage value are some examples.

Additionally, the *Planning Act* (1990) and related *Provincial Policy Statement* (*PPS*), which was updated in 2014, make a number of provisions relating to heritage conservation. One of the general purposes of the *Planning Act* is to integrate matters of provincial interest in provincial and municipal planning decisions. In order to inform all those involved in planning activities of the scope of these matters of provincial interest, Section 2 of the *Planning Act* provides an extensive listing. These matters of provincial interest shall be regarded when certain authorities, including the council of a municipality, carry out their responsibilities under the *Act*. One of these provincial interests is directly concerned with:

> 2.(d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest

Part 4.7 of the *PPS* states that:

> The official plan is the most important vehicle for implementation of this Provincial Policy Statement. Comprehensive, integrated and long-term planning is best achieved through official plans.

> Official plans shall identify provincial interests and set out appropriate land use designations and policies. To determine the significance of some natural heritage features and other resources, evaluation may be required.
>
> Official plans should also coordinate cross-boundary matters to complement the actions of other planning authorities and promote mutually beneficial solutions. Official plans shall provide clear, reasonable and attainable policies to protect provincial interests and direct development to suitable areas.
>
> In order to protect provincial interests, planning authorities shall keep their official plans up-to-date with this Provincial Policy Statement. The policies of this Provincial Policy Statement continue to apply after adoption and approval of an official plan.

Those policies of particular relevance for the conservation of heritage features are contained in Section 2- Wise Use and Management of Resources, wherein Subsection 2.6 - Cultural Heritage and Archaeological Resources, makes the following provisions:

> 2.6.1 Significant built heritage resources and significant cultural heritage landscapes shall be conserved.

A number of definitions that have specific meanings for use in a policy context accompany the policy statement. These definitions include built heritage resources and cultural heritage landscapes.

A *built heritage resource* is defined as: "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" (PPS 2014).

A *cultural heritage landscape* is defined as "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" (PPS 2014). Examples may include, but are not limited to farmscapes, historic settlements, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, trailways, and industrial complexes of cultural heritage value.

In addition, significance is also more generally defined. It is assigned a specific meaning according to the subject matter or policy context, such as wetlands or ecologically important areas. With regard to cultural heritage and archaeology resources, resources of significance are those that are valued for the important contribution they make to our understanding of the history of a place, an event, or a people (*PPS* 2014).

Criteria for determining significance for the resources are recommended by the Province, but municipal approaches that achieve or exceed the same objective may also be used. While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation (*PPS* 2014).

Accordingly, the foregoing guidelines and relevant policy statement were used to guide the scope and methodology of the cultural heritage assessment.

2.2 Town of Caledon Municipal Heritage Policies

As the subject property is located within the Town of Caledon, the Town's municipal policies (Official Plan 2015) regarding cultural heritage resources were thus reviewed as part of this assessment:

3.3.3.1.3 Cultural Heritage Planning Statements

Where the concentration and/or significance of cultural heritage resources in an area requires that detailed guidance be provided to conserve and enhance the cultural heritage of an area, the Town will prepare Cultural Heritage Planning Statements. The Cultural Heritage Planning Statements will be prepared in part to guide development and redevelopment proposals. Cultural Heritage Planning Statements shall be incorporated through an amendment to this Plan. Where the Cultural Heritage Planning Statement forms part of a secondary planning process, the Cultural Heritage Planning Statement will be incorporated into this Plan by way of that secondary planning process.

In the context of conserving and enhancing the cultural heritage of an area, the Cultural Heritage Planning Statement shall address the following:
a) Historical development context of the area;
b) Existence of cultural heritage resources and their significance;
c) Priorities as to the conservation of these cultural heritage resources;
d) Redevelopment concerns;
e) Improved public access to the area or individual site;
f) The inclusion of areas of open space;
g) The provision of interpretive devices such as plaques and displays;
h) Architectural design guidelines; and,
i) Streetscape guidelines.

3.3.3.1.4 Cultural Heritage Surveys

All development or redevelopment proposals will be reviewed by the Town to determine whether a Cultural Heritage Survey is required or whether, as appropriate, a Cultural Heritage Survey will be requested. In making this determination, the Town will consider the scope of the proposal and, through reference to the archaeological master plan, built Town of Caledon Official Plan Chapter 3 General Policies 3-33 November, 2015 Office Consolidation heritage resources inventory, cultural heritage landscape inventory, or local information, the likelihood of significant cultural heritage resources being encountered.

Where a Cultural Heritage Survey is required, the proponent is encouraged to consult with the Town and other relevant agencies concerning the scope of the work to be undertaken. The Cultural Heritage Survey will be the responsibility of the proponent and must be undertaken by a qualified professional with appropriate expertise, and it should generally:

a) Identify the level of significance of any cultural heritage resources, including archaeological resources and potential, existing on and in close proximity to the subject lands; and,

b) Make recommendations for the conservation of the cultural heritage resources including whether a Cultural Heritage Impact Statement should be prepared.

3.3.3.1.5 Cultural Heritage Impact Statements

a) Where it is determined that further investigations of cultural heritage resources beyond a Cultural Heritage Survey or Cultural Heritage Planning Statement are required, a Cultural Heritage Impact Statement may be required. The determination of whether a Cultural Heritage Impact Statement is required will be based on the following:

i) the extent and significance of cultural heritage resources identified, including archaeological resources and potential, in the Cultural Heritage Survey or Cultural Heritage Planning Statement and the recommendations of the Cultural Heritage Survey or Cultural Heritage Planning Statement;
ii) the potential for adverse impacts on cultural heritage resources; and,
iii) the appropriateness of following other approval processes that consider and address impacts on cultural heritage resources.

b) Where it is determined that a Cultural Heritage Impact Statement should be prepared, the Cultural Heritage Impact Statement shall be undertaken by a qualified professional with expertise in heritage studies and contain the following:

i) a description of the proposed development;
ii) a description of the cultural heritage resource(s) to be affected by the development;

iii) a description of the effects upon the cultural heritage resource(s) by the proposed development;
iv) a description of the measures necessary to mitigate the adverse effects of the development upon the cultural heritage resource(s); and,
v) a description of how the policies and guidance of any relevant Cultural Heritage Planning Statement have been incorporated and satisfied.

Where a Cultural Heritage Impact Statement is required, the proponent is encouraged to consult with the Town and other relevant agencies concerning the scope of the work to be undertaken.

2.3 Data Collection

In the course of the cultural heritage assessment, all potentially affected cultural heritage resources are subject to inventory. Short form names are usually applied to each resource type, (e.g. barn, residence). Generally, when conducting a preliminary identification of cultural heritage resources, three stages of research and data collection are undertaken to appropriately establish the potential for and existence of cultural heritage resources in a particular geographic area.

Background historical research, which includes consultation of primary and secondary source research and historic mapping, is undertaken to identify early settlement patterns and broad agents or themes of change in a study area. This stage in the data collection process enables the researcher to determine the presence of sensitive heritage areas that correspond to nineteenth and twentieth-century settlement and development patterns. To augment data collected during this stage of the research process, federal, provincial, and municipal databases and/or agencies are consulted to obtain information about specific properties that have been previously identified and/or designated as retaining cultural heritage value. Typically, resources identified during these stages of the research process are reflective of particular architectural styles, associated with an important person, place, or event, and contribute to the contextual facets of a particular place, neighbourhood, or intersection.

A field review is then undertaken to confirm the location and condition of previously identified cultural heritage resources. The field review is also utilised to identify cultural heritage resources that have not been previously identified on federal, provincial, or municipal databases.

Several investigative criteria are utilised during the field review to appropriately identify new cultural heritage resources. These investigative criteria are derived from provincial guidelines, definitions, and past experience. During the course of the environmental assessment, a built structure or landscape is identified as a cultural heritage resource if it is considered to be 40 years or older, and if the resource satisfies at least one of the following criteria:

Design/Physical Value:

- It is a rare, unique, representative or early example of a style, type, expression, material or construction method.
- It displays a high degree of craftsmanship or artistic merit.
- It demonstrates a high degree of technical or scientific achievement.
- The site and/or structure retains original stylistic features and has not been irreversibly altered so as to destroy its integrity.
- It demonstrates a high degree of excellence or creative, technical or scientific achievement at a provincial level in a given period.

Historical/Associative Value:

- It has a direct association with a theme, event, belief, person, activity, organization, or institution that is significant to: the Town of Caledon; the Province of Ontario; or Canada.
- It yields, or has the potential to yield, information that contributes to an understanding of the history of the: the Town of Caledon; the Province of Ontario; or Canada.
- It demonstrates or reflects the work or ideas of an architect, artist builder, designer, or theorist who is significant to: the Town of Caledon; the Province of Ontario; or Canada.
- It represents or demonstrates a theme or pattern in Ontario's history.
- It demonstrates an uncommon, rare or unique aspect of Ontario's cultural heritage.
- It has a strong or special association with the entire province or with a community that is found in more than one part of the province. The association exists for historic, social, or cultural reasons or because of traditional use.
- It has a strong or special association with the life or work of a person, group or organization of importance to the province or with an event of importance to the province.

Contextual Value:

- It is important in defining, maintaining, or supporting the character of an area.

- It is physically, functionally, visually, or historically linked to its surroundings.
- It is a landmark.
- It illustrates a significant phase in the development of the community or a major change or turning point in the community's history.
- The landscape contains a structure other than a building (fencing, culvert, public art, statue, etc.) that is associated with the history or daily life of that area or region.
- There is evidence of previous historic and/or existing agricultural practices (e.g. terracing, deforestation, complex water canalization, apple orchards, vineyards, etc.)
- It is of aesthetic, visual or contextual important to the province.

If a resource meets one of these criteria it will be identified as a cultural heritage resource and is subject to further research where appropriate and when feasible. Typically, detailed archival research, permission to enter lands containing heritage resources, and consultation is required to determine the specific heritage significance of the identified cultural heritage resource.

When identifying cultural heritage landscapes, the following categories are typically utilized for the purposes of the classification during the field review:

Farm complexes:	comprise two or more buildings, one of which must be a farmhouse or barn, and may include a tree-lined drive, tree windbreaks, fences, domestic gardens and small orchards.
Roadscapes:	generally two-lanes in width with absence of shoulders or narrow shoulders only, ditches, tree lines, bridges, culverts and other associated features.
Waterscapes:	waterway features that contribute to the overall character of the cultural heritage landscape, usually in relation to their influence on historic development and settlement patterns.
Railscapes:	active or inactive railway lines or railway rights of way and associated features.
Historical settlements:	groupings of two or more structures with a commonly applied name.
Streetscapes:	generally consists of a paved road found in a more urban setting, and may include a series of houses that would have been built in the same time period.
Historical agricultural landscapes:	generally comprises a historically rooted settlement and farming pattern that reflects a recognizable arrangement of fields within a lot and may have associated agricultural outbuildings, structures, and vegetative elements such as tree rows.
Cemeteries:	land used for the burial of human remains.

Results of the desktop data collection are contained in Sections 3.0. Once fieldwork has been undertaken further sections will provide recommendations with respect to potential impacts of the undertaking on identified cultural heritage resources.

3.0 HISTORICAL BACKGROUND

3.1 Introduction

This section provides a brief summary of historic research and a description of identified above ground cultural heritage resources that may be affected by the proposed undertaking. A review of available primary and secondary source material was undertaken to produce a contextual overview of the study area, including a general description of Indigenous land use and Euro-Canadian settlement. Historically, the study area is located in the Former Township of Caledon, County of Peel in part of Lots 9 to 11, Concessions 2 to 4 West of Hurontario Street (WHS).

3.2 Indigenous Land Use and Settlement

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier, approximately 13,500 before present (BP) (Ferris 2013: 13). Populations at this time would have been highly mobile, inhabiting a boreal-parkland similar to the modern sub-arctic. By approximately 10,000 BP, the environment had progressively warmed (Edwards and Fritz 1988), and populations now occupied less extensive territories (Ellis and Deller 1990: 62-63).

Between approximately 10,000-5,500 BP, the Great Lakes basins experienced low-water levels, and many sites which would have been located on those former shorelines are now submerged. This period produces the earliest evidence of heavy wood working tools, an indication of greater investment of labour in felling trees for fuel, to build shelter, and watercraft production. These activities suggest prolonged seasonal residency at occupation sites. Polished stone and native copper implements were being produced by approximately 8,000 BP; the latter was acquired from the north shore of Lake Superior, evidence of extensive exchange networks throughout the Great Lakes region. The earliest evidence for cemeteries dates to approximately 4,500-3,000 BP and is indicative of increased social organization, investment of labour into social infrastructure, and the establishment of socially prescribed territories (Ellis et al. 1990; Ellis et al. 2009; cf. Brown 1995:13).

Between 3,000-2,500 BP, populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. Exchange and interaction networks broaden at this time (Spence et al. 1990: 136, 138) and by approximately 2,000 BP, evidence exists for macro-band camps, focusing on the seasonal harvesting of resources (Spence et al. 1990: 155, 164). It is also during this period that maize was first introduced into southern Ontario, though it would have only supplemented people's diet (Birch and Williamson 2013: 13-15). Bands likely retreated to interior camps during the winter. It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From approximately 1,000 BP until approximately 300 BP, lifeways became more similar to that described in early historical documents. The groups occupying the study area during this period were largely immigrants from the north shore of Lake Ontario region and were Iroquoian-speakers. The Iroquoian communities established in the study area were likely involved in complex negotiations and

interactions with the local Algonquin-speaking populations. During the Early Iroquoian phase (AD 1000-1300), the communal site is replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson 1990: 317). By the second quarter of the first millennium BP, during the Middle Iroquoian phase (AD 1300-1450), this episodic community disintegration was no longer practised and populations now communally occupied sites throughout the year (Dodd et al. 1990: 343). In the Late Iroquoian phase (AD 1450-1649) this process continued with the coalescence of these small villages into larger communities (Birch and Williamson 2013). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed.

By AD 1610, the ancestral Huron-Wendat communities located along the north shore of Lake Ontario had moved northward to confederate with other Wendat communities living in Wendake, the historic Wendat homeland situated between Lake Simcoe and Georgian Bay. In the 1640s, the traditional enmity between the Haudenosaunee (Five Nation Iroquois) and the Wendat (and their Algonkian allies such as the Nippissing and Odawa) led to the latter's dispersal from south central Ontario.

After the dispersal, The Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario, including Teyaiagon, near the mouth of the Humber River; and Ganestiquiagon, near the mouth of the Rouge River. Their locations near the mouths of the Humber and Rouge Rivers, two branches of the Toronto Carrying Place, strategically linked these settlements with the upper Great Lakes through Lake Simcoe. The west branch of the Carrying Place followed the Humber River valley northward over the drainage divide, skirting the west end of the Oak Ridges Moraine, to the East Branch of the Holland River. Another trail followed the Don River watershed.

When the Senecas established Teiaigon at the mouth of the Humber, they were in command of the traffic across the peninsula to Lake Simcoe and the Georgian Bay. Later, Mississauga and earliest European presence along the north shore, was therefore also largely defined by the area's strategic importance for accessing and controlling long established economic networks. Prior to the arrival of the Seneca, these economic networks would have been used by the Huron-Wendat for over five hundred years. While the trail played an important part during the fur trade, people would also travel the trail in order to exploit the resources available to them across south-central Ontario, including the various spawning runs, such as the salmon coming up from Lake Ontario or herring or lake trout in Lake Simcoe.

Due, in large part, to increased military pressure from the French upon their homelands south of Lake Ontario, the Iroquois abandoned their north shore frontier settlements by the late 1680s, although they did not relinquish their interest in the resources of the area, as they continued to claim the north shore as part of their traditional hunting territory. The settlement vacuum, however, was immediately filled by the Anishinaubeg, including the Mississauga, Ojibwa (or Chippewa) and Odawa. At the time of European contact in the early seventeenth century, the Anishinaubeg "homeland" was a vast area extending from the east shore of Georgian Bay, and the north shore of Lake Huron, to the northeast shore of Lake Superior and into the upper peninsula of Michigan. Individual bands were politically autonomous and numbered several hundred people. These groups were highly mobile, with a subsistence economy based on hunting, fishing, gathering of wild plants, and garden farming. Their movement southward also brought them into conflict with the Haudenosaunee, which is reflected in their oral histories.

In 1763, following the fall of Quebec, New France and Toronto was transferred to British control at the Treaty of Paris. Following the American Revolutionary War in 1783 and the creation of the Canadian-

American border, the British Crown renewed its interest in the Toronto Passage as a means to replace its stake in the fur-trade lost with the American territory. In 1805, the Mississaugas were granted one mile (approximately 1.6 km) on either side of the Credit River, Twelve Mile Creek and Sixteen Mile Creek. In 1818, the majority of the Mississauga Tract was acquired by the Crown excluding the lands tracts flanking the Credit River, Twelve Mile Creek and Sixteen Mile Creek. In 1820, the remainder of Mississauaga land was surrendered except approximately 81 hectares (ha) along the Credit River (Heritage Mississauga 2012: 18). In 1825-26 the Credit Indian Village was established as an agricultural community and Methodist mission near present day Port Credit (Heritage Mississauga 2009a; MNCFN n.d.). By 1840 the village was under significant pressure from Euro-Canadian settlement that plans begun to relocate the settlement. In 1847 the Credit Mississaugas were made a land offer by the Six Nations Council to relocate at the Grand River. In 1847, 266 Mississaugas settled at New Credit, approximately 23 km southwest of Brantford. In 1848 a mission of the Methodist Church was established there by Rev. William Ryerson (WICEC 1985). Although the majority of the former Mississague Tract had been surrendered from the Mississauga by 1856 (Gould 1981), this does not exclude the likelihood that the Mississauga continued to utilise the landscape at large during travel (Ambrose 1982) and for resource extraction.

The eighteenth century saw the ethnogenesis in Ontario of the Métis, when Métis people began to identify as a separate group, rather than as extensions of their typically maternal First Nations and paternal European ancestry (Métis Nation of Canada [MNC] n.d.). Living in both Euro-Canadian and Indigenous societies, the Métis acted as agents and subagents in the fur trade but also as surveyors and interpreters. Métis populations were predominantly located north and west of Lake Superior, however, communities were located throughout Ontario (MNC n.d.; Stone and Chaput 1978:607,608). These settlements were interconnected and defined by a highly mobile lifestyle, the fur trade network, seasonal rounds, kinship connections, and a shared collective history and identity (MNC n.d.). In addition to the fur trade, the Métis were heavily involved in hunting and fishing, evidenced by their involvement in the fishing industry that developed during the nineteenth century. During the early nineteenth century, many Métis families moved towards locales around southern Lake Huron and Georgian Bay, including Kincardine, Owen Sound, Penetanguishene, and Parry Sound (MNC n.d.). By the mid-twentieth century, Indigenous communities, including the Métis, began to advance their rights within Ontario and across Canada, and in 1982, the Métis were federally recognized as one of Canada's distinct Indigenous peoples. Recent decisions by the Supreme Court of Canada (R. V. Powley , 2003; Daniels v. Canada, 2016) have reaffirmed that Métis people have full rights as one of the Indigenous people of Canada under subsection 91(24) of the Constitution Act, 1867.

3.3 Historical Euro-Canadian Land Use: Township Survey and Settlement

Historically, the study area is located in the Former Township of Caledon, County of Peel in part of Lots 9 to 11, Concessions 2 to 4 West of Hurontario Street. In 1788, the County of Peel was part of the extensive district known as the “Nassau District”. Later called the “Home District”, its administrative centre was located in Newark, now called Niagara. After the province of Quebec was divided into Upper and Lower Canada in 1792, the Province was separated into nineteen counties, and by 1852, the entire institution of districts was abolished and the late Home Districts were represented by the Counties of York, Ontario and Peel. Shortly after, the County of Ontario became a separate county, and the question of separation became popular in Peel. A vote for independence was taken in 1866, and in 1867 the village of Brampton was chosen as the capital of the new county (Armstrong 1985; Pope 1877).

3.3.1 Township of Caledon

The land within Caledon Township was acquired by the British from the Mississaugas in 1818. The first township survey was undertaken in 1819, using the "double-front" system of 200 acre lots, and the first legal settlers occupied their land holdings in the following year. The township was named after the Roman designation for Scotland. Caledon was initially settled by the children of Loyalists, soldiers who served during the War of 1812, and by immigrants from England, Scotland and Ireland. By the 1840s, the township was noted for its good farms (Armstrong 1985:142; Rayburn 1997:51; Smith 1846:27).

3.3.2 Forks of the Credit

The land from Cataract to the Forks of Credit was once owned by Richard Church. The Nunns, MacDonalds, Gibsons, Roberts, Forbes and Lovells were among the first settlers. The 3rd Line, known as the Dominion Street, between Cataract and the Forks of Credit, was opened sometime before 1850 and ran along the west side of the river (Trimble 1975:95). McCurdy's Mills developed into Belfountain, situated between the original road to the mill (River Road) which paralleled the river, the oxbow in the river and the northwest jog of the 4th Line (Mississauga Rd.) which became Main Street within the village. Within that area a relatively regular arrangement of village lots was laid out by survey in 1846 (registered 1853) with a grid of internal streets (Scheinman & ENVISION 2009:7:33). While the land survey imposed an abstract grid, the concession roads and sideroads could not all be put through as surveyed due to the topography – Fourth Line (Mississauga), Third Line (Creditview), Second Line (McLaren) and a sideroad (Escarpment Sideroad) had to be adapted to the physical reality of the landscape (Scheinman & ENVISION 2009:7:33). When the railroad came through in 1879, it was decided that the best route was along the Third Line, so the road was built on the east side of the river. In April, 1912, the road was wiped out by flood waters and was never rebuilt (Trimble 1975:95).

The village of Belfountain, already a stable entity as a local service centre when large scale quarrying began, came into prominence, becoming home to the skilled stonecutters and quarry managers. Forks of the Credit had been laid out as a village and is shown as Adjuda on the 1859 Tremaine Map, although sparsely inhabited at that time. A sawmill had been constructed at the Forks of the Credit (Price's Mill) c.1850. However, the onset of quarrying turned the village into a 'boomtown', and led to the development of its neighbour, Brimstone, located further north on the east branch of the river. Both were essentially company towns (Scheinman & ENVISION 2009:7:31).

The Credit Forks village (see Plates 1 & 2) had 33 houses, a store, a brick school with a Mechanic's Institute, a workmen's hall and a hotel. Brimstone was laid out by the major quarry operator Kenneth Chisholm who had purchased most of the east half of Lot 9, Con. 4 from Richard Church in 1873 for quarry development, and was a promoter of the CV Railway (Pope 1877; Scheinman & ENVISION 2009:7:31). Attempts were made to also establish a brick and clay works in the area in the early twentieth century, including a brickyard located on what is now the Caledon Ski Hills property. Water powered and quarrying industry waned in the late nineteenth century, however people continued to visit the area for its scenic beauty. The developers of the CV Railway were aware of the scenic potential of the route along the Escarpment for their passenger traffic, despite the technical challenges it posed. (Scheinman & ENVISION 2009:7:32)

From earliest times a path extended along the Credit River to the Forks and, as industries such as Church's Mills developed at, and below, the waterfall, it became a road. Dominion Street, as it came to be called, was moved from the west to the east side of the river in 1879 Winding Roadway to the Forks so

that the Credit Valley Railway could follow this 'path of least resistance'. It became particularly important during the height of the quarrying of building stone, linking the villages of Forks of the Credit and Brimstone with the quarries. For a period of about thirty years the Forks of the Credit and Brimstone had the lay-out and service essentials of any typical hamlet of that period. However, with the closing of the quarries, Brimstone virtually disappeared and only a small number of buildings survived at the Forks (Scheinman & ENVISION 2009:7:34).

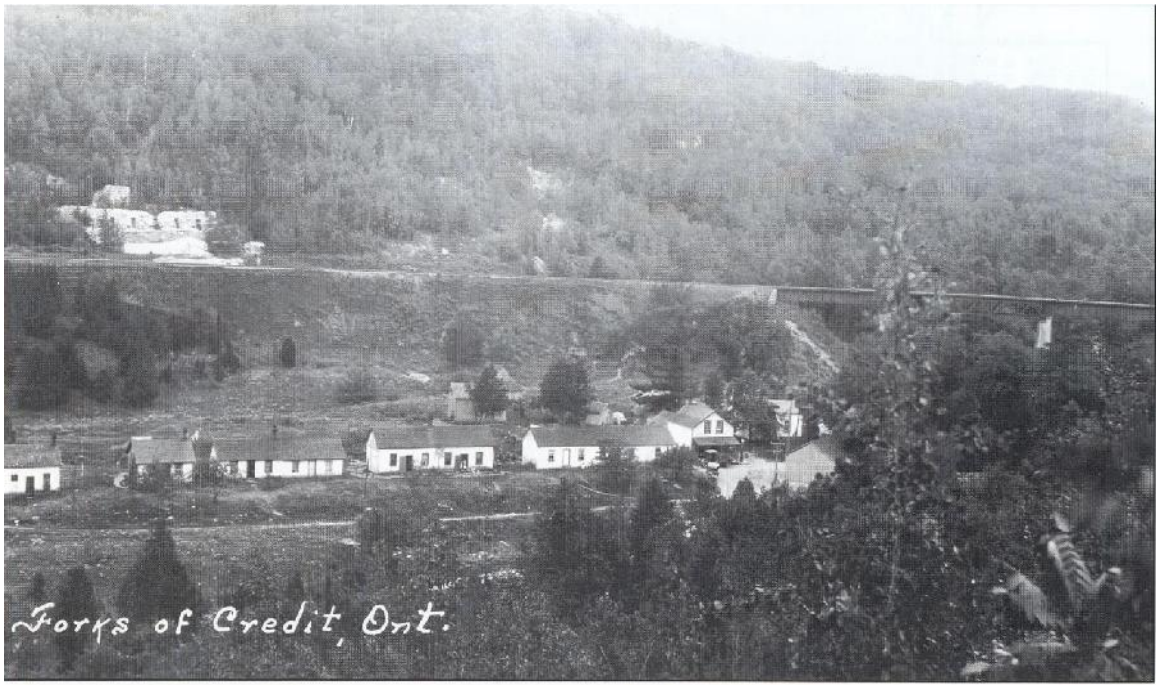

Plate 1: Circa 1928 view of Forks of the Credit, looking south.
Source: Region of Peel Archives Collection

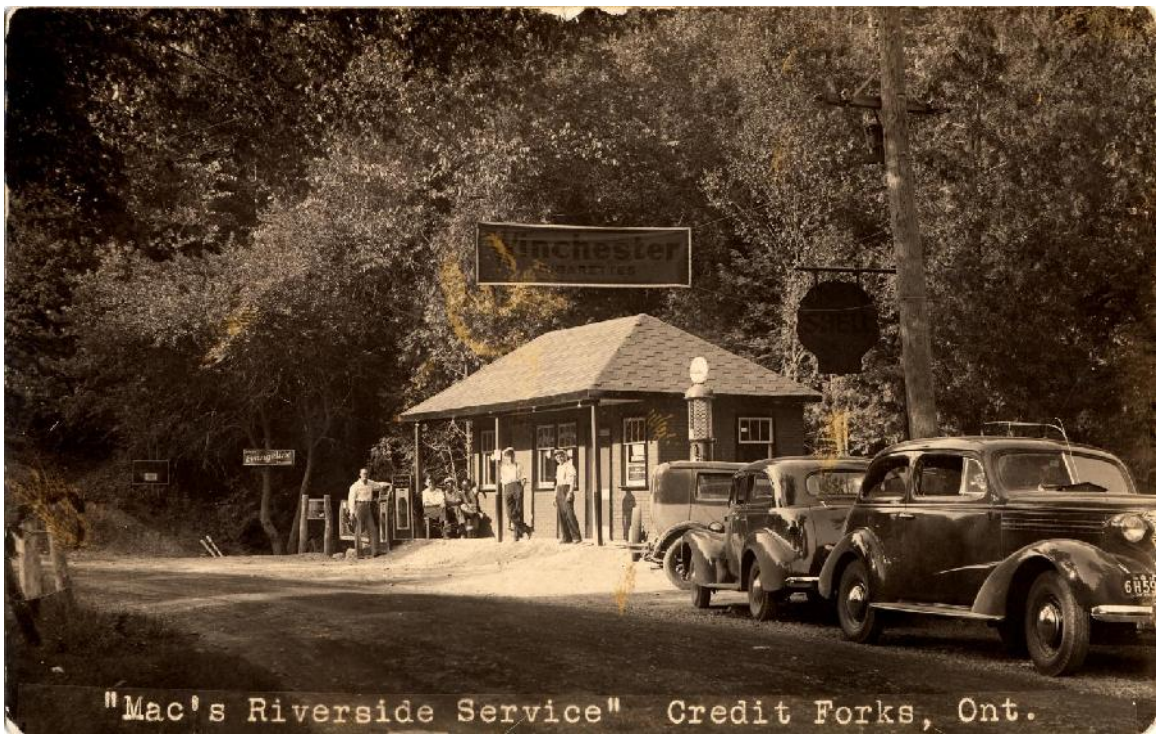

Plate 2: "Mac's Riverside Service" on Forks of the Credit Road, looking east, no date.
Source: Region of Peel Archives Collection, PN2007_77072

3.3.3 Credit Valley Railway

The Credit Valley Railway (CV Railway) was constructed between 1877 and 1879. The project was backed by George Laidlaw and was intended to connect Toronto with Orangeville via Streetsville. Construction began in 1874 and over several subsequent years several branches were added to the proposed line. The first section of track from Parkdale (Toronto) to Milton was opened in 1877. In 1873, survey work was completed and track was first laid in 1876. Construction on the railway reached the Forks of the Credit by 1879. The line was completed in 1881 but nearly bankrupted the company. It was established in direct competition with the Toronto, Grey and Bruce Railway in the hopes of stimulating trade and economic opportunities in the outlying areas. In 1883 the line was taken over by the Canadian Pacific Railway (Scheinman & ENVISION 2009) (see Plates 3 & 4).

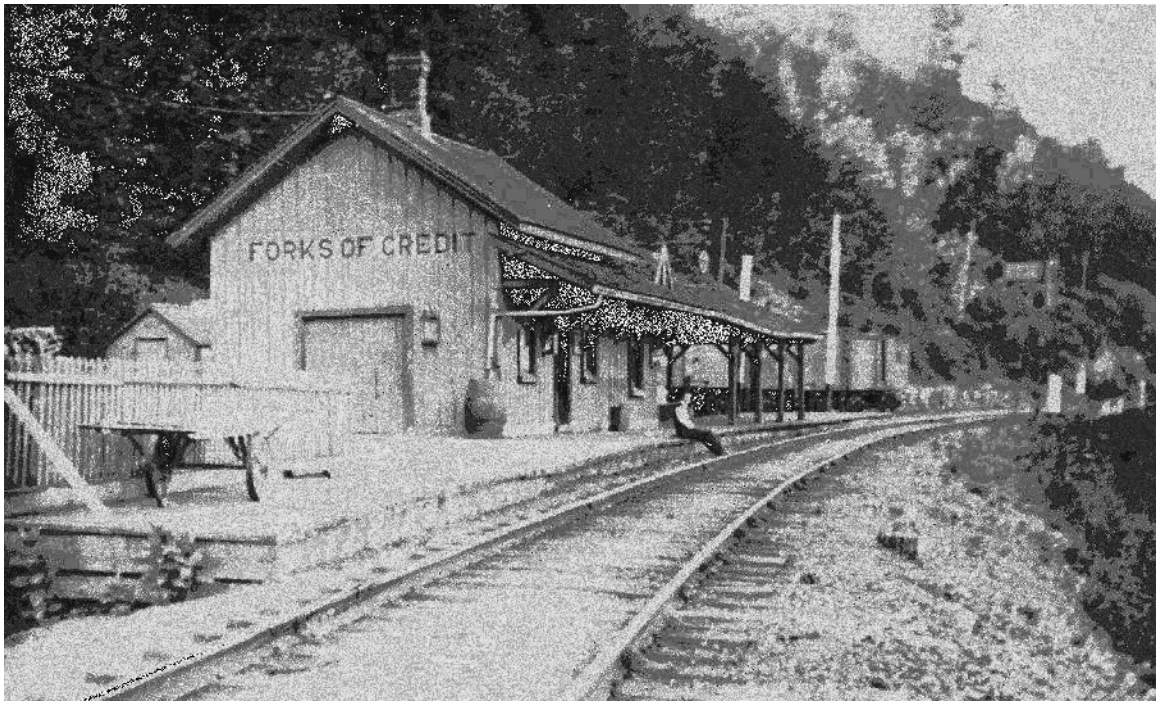

Plate 3: Forks of the Credit Railway Station, looking north, no date.
Source: Region of Peel Archives Collection, PN2007_00560

Plate 4: Filling in the railway trestle at the Forks of the Credit, looking south, 1885
Source: Region of Peel Archives Collection, PN2007_01894

3.4 Review of Historic Mapping

The *1859 Map of the County of Peel* and the *1877 Illustrated Atlas of the County of Peel* were examined to determine the presence of historic features within the study area during the nineteenth century (Figures 2 and 3).The study area is located on Lots 9 to 11, Concessions 3 to 4 West of Hurontario Street. Details of historic property owners and historic features in the study area are listed in Table 1.

It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases, given that they were financed by subscription, and subscribers were given preference with regard to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

Table 1: Dominion Street Study Area – Nineteenth-century property owner(s) and historical features(s)

		1859		1877	
Con #	Lot #	Property Owner(s)	Historical Feature(s)	Property Owner(s)	Historical Feature(s)
III W	9	Samuel Nunn	Residence (3), Saw Mill, Road	Samuel Nunn (N.R.)	Residence (3), Orchard, Laneway, Grist Mill, Road
	10 E1/2	Alex McColl	None	James Puckering	Residence, Spring
	10 W1/2	Johnson	Road	David & John Johnson	Residence, Laneway
	11 E1/2	James Brown	None	James Brown	Residence (2), Orchard
	11 W1/2	William Vernon	Road	Richard Church (N.R.)	Residence, Orchard
IV W	9 E1/2	Adjuda [Quarry Co.]	Residence (2), Saw Mill, Roads	K. Chisholm & Co.	Residence (2), Grist Mill, Road, CV Railway
				Judge A.F. Scott	None
	10 E1/2	Thomas P. Merry	None	K. Chisholm & Co.	Road, CV Railway
	11	Non Resident	None	K. Chisholm & Co. (N.R.)	Road, CV Railway

A review of nineteenth-century mapping reveals that Dominion Street and Forks of the Credit Road, the railway corridor, and Forks of the Credit, then shown as “Fork Credits”, first appear on 1877 historic mapping. There are a number of dwellings and farmsteads shown on both the 1859 and 1877 maps.

The 1909 topographic map (Figure 4) provides a more details illustration of dwellings, roads, settlements, and other features such as bridges, trails, and public buildings such as schools.

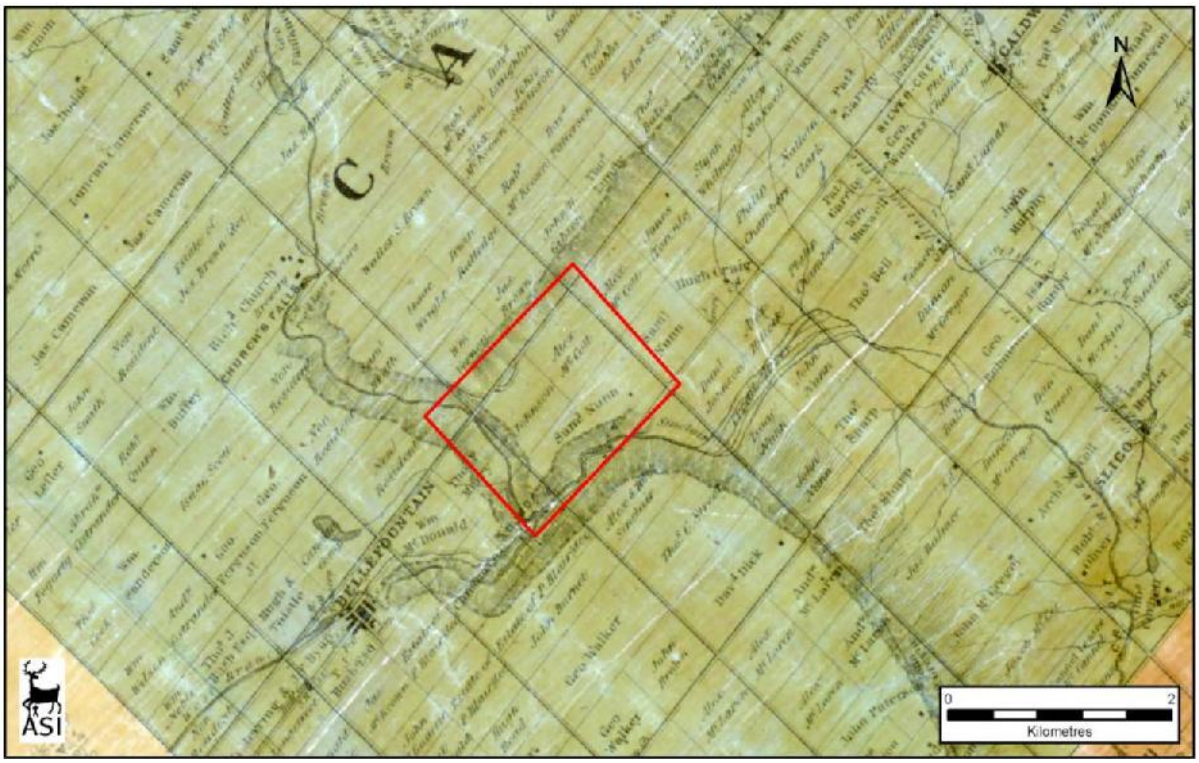

Figure 2: The study area overlaid on the 1859 map of the County of Peel

Source: Tremaine 1859

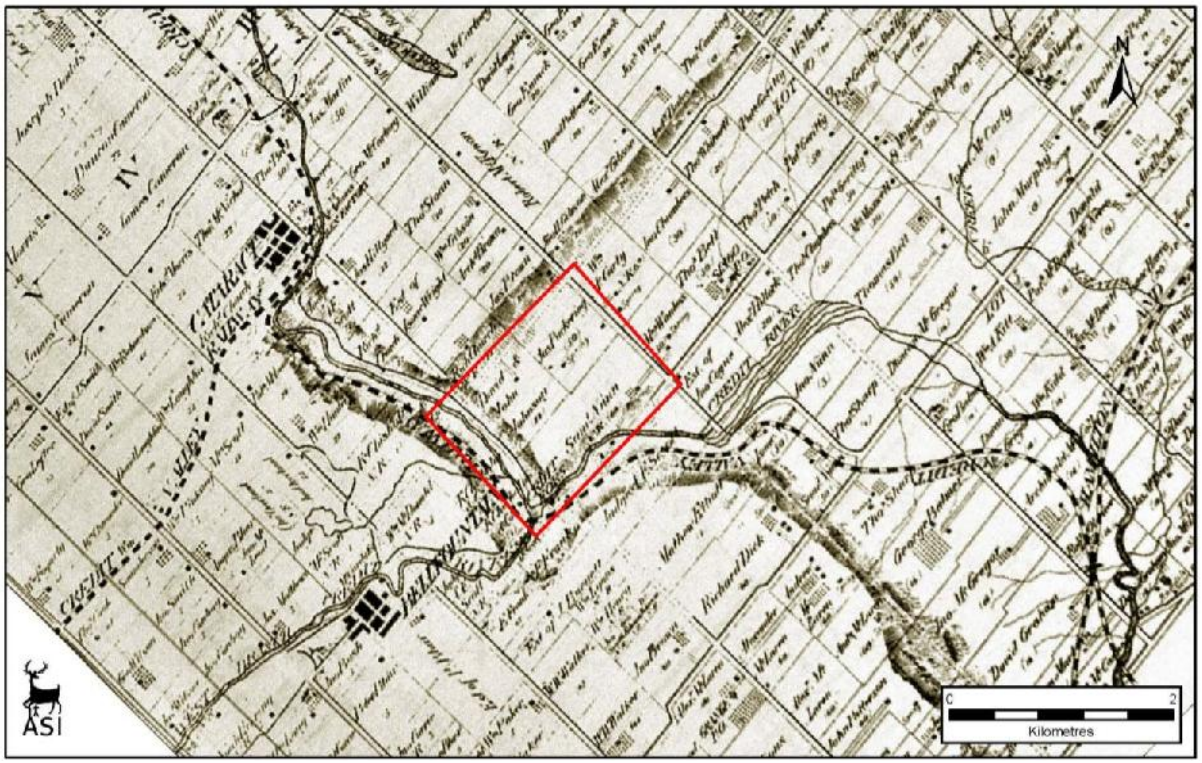

Figure 3: The study area overlaid on the 1877 map of the County of Peel

Source: Pope 1877

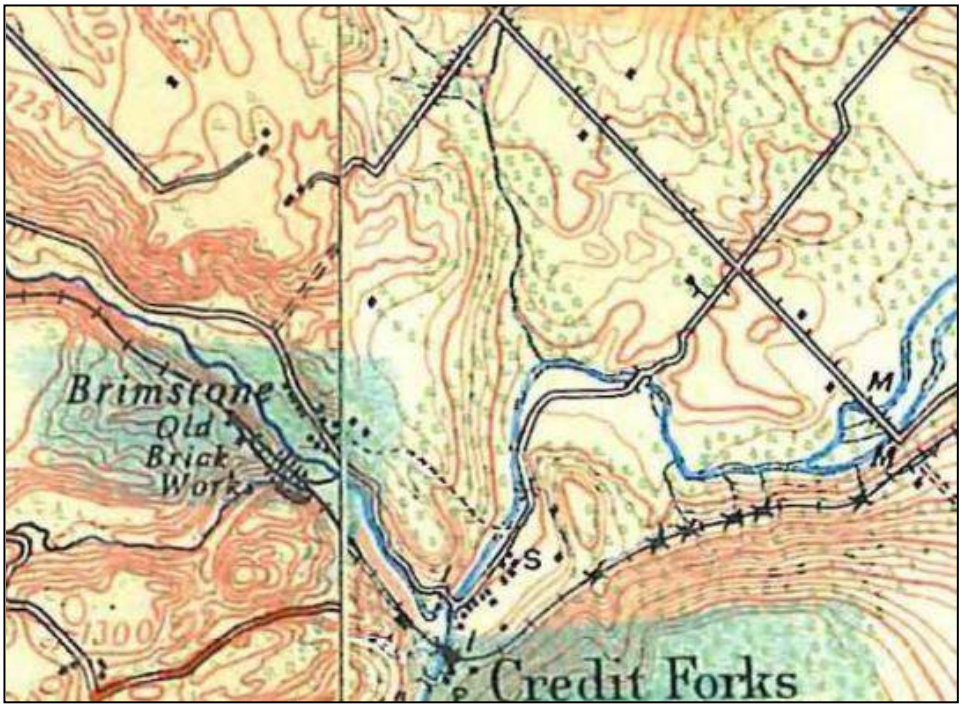

Figure 4: View of the general study area on 1909 NTS mapping
Source: Department of National Defense 1909

4.0 DESKTOP DATA COLLECTION RESULTS

The preliminary identification of existing cultural heritage resources within the study corridor was undertaken by consulting the following resources:

- The Town of Caledon's online Heritage Register;
- The Town of Caledon's Heritage Resource Officer was contacted by email (18 August 2016) and a response was received (22 August 2016). Background information was provided, including historic photographs, copies of local histories, and an excerpt of the Town's Built Heritage Resource Inventory. It was also confirmed that there are no properties that are Listed or Designated under the Ontario Heritage Act in the study area. It was also confirmed that the study area is part of the Belfountain and Credit River Gorge, a candidate Cultural Heritage Landscape;
- Town of Caledon's *Cultural Heritage Landscape Inventory* (Scheinman & ENVISION 2009);
- Inquiries regarding previously identified cultural heritage resources in the study area were sent via email to the Credit Valley Conservation Authority, Credit Valley Conservation Foundation, and the Credit Valley Heritage Society (7 September 2016);
- Review of *Quarries at the Forks: An Heritage Resource Assessment of the Willoghby-Cox Properties, Town of Caledon* (ASI & Historica Research 1989). Report on file with the author.
- Park's Canada's *Canada's Historic Places* website: available online, the searchable register provides information on historic places recognized for their heritage value at the local, provincial, territorial and national levels;
- Park's Canada's *Directory of Federal Heritage Designation*, a searchable on-line database of National Historic Sites, National Historic Events, National Historic People, Heritage Railway Stations, Federal Heritage Buildings, and Heritage Lighthouses; and

- Canadian Heritage Rivers System.

A review of available federal, provincial and municipal heritage registers and inventories revealed that there are 30 cultural heritage resources previously identified either by the Town of Caledon, or through historic map review and document review, within and/or adjacent to the study area. Table 2 lists the previously identified cultural heritage resources within and/or adjacent to the study area and Section 7 provides location mapping of these features.

It should be noted that a number of historic structures and features are depicted on late-nineteenth and early-twentieth century mapping for the study area. Accordingly, it is anticipated that additional cultural heritage resources will be identified during the field review.

Table 2: Summary of cultural heritage resources (CHRs) within and/or adjacent to the study area

Feature	Location/Name	Recognition	Description/Comments
CHR 1	Dominion Street Bridge	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	C.1935 concrete bridge.
CHR 2	Brimstone Settlement	Identified during historic map review	Former settlement centre.
CHR 3	227 Dominion Street	Identified during historic map and document review	Former Big Hill Quarry property.
CHR 4	334 Dominion Street	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Early twentieth-century house.
CHR 5	318 Dominion Street	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Early to mid twentieth-century house.
CHR 6	285 Dominion Street	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Late nineteenth-century Gothic Revival house.
CHR 7	297 Dominion Street	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Late nineteenth-century house.
CHR 8	342 Dominion Street	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Late nineteenth-century house.
CHR 9	272 Dominion Street	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Early twentieth-century house.
CHR 10	251 Dominion Street	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Early twentieth-century Edwardian Classical house.
CHR 11	265 Dominion Street	Previously identified on the Town of Caledon's Built	Early twentieth-century house.

Table 2: Summary of cultural heritage resources (CHRs) within and/or adjacent to the study area

Feature	Location/Name	Recognition	Description/Comments
		Heritage Resources Inventory	
CHR 12	271 Dominion Street	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Noted as a property of high significance. A mill stone is located in the front yard, and a small stone entrance gate with a iron door and maple leaf motif are noted. A fieldstone shed is located towards the back of the lot.
CHR 13	358 Dominion Street	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Late nineteenth-century Gothic Revival house.
CHR 14	Forks of the Credit Settlement	Identified during historic map review	Former settlement centre
CHR 15	Credit River	Identified during historic map and document review	Significant to the historical development of the area.
CHR 16	Dominion Street	Identified during historic map review	Scenic road following historical alignment.
CHR 17	Saw Mill Ruins near Dominion Street Bridge	Identified during historic map and document review	Saw mill ruins
CHR 18	Forks of the Credit Road	Identified during historic map review	Scenic road following historical alignment.
CHR 19	Railway	Identified during historic map review	Canadian Pacific Railway, formerly Credit Valley Railway. Significant to the historical development of the area.
CHR 20	CPR Railway Bridge over Forks of the Credit Road	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Three-span high-level deck truss railway bridge with concrete abutments and piers, built in the early twentieth century.
CHR 21	Former Forks of the Credit Station Site	Identified during historic map review	Site of the former Forks of the Credit Railway Station.
CHR 22	1354 Forks of the Credit Road	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Late neo-classical farmhouse, built c.1875-1899.
CHR 23	1349 Forks of the Credit Road	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Former general store, built c. 1850-1874.
CHR 24	1 Chisholm Street	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Former schoolhouse built in the late nineteenth century.
CHR 25	2 Chisholm Street	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	Late nineteenth-century house that reportedly once belonged to a quarry worker.
CHR 26	6 Chisholm Street	Identified during historic map review	Late nineteenth-century house.
CHR 27	1587 Forks of the Credit Road	Previously identified on the Town of Caledon's Built Heritage Resources	Former ice cream parlour and gas station shown in early postcard of area, known as Mac's Riverside Service. Built c.1925-1945.

Table 2: Summary of cultural heritage resources (CHRs) within and/or adjacent to the study area

Feature	Location/Name	Recognition	Description/Comments
		Inventory	Associated with the early twentieth-century recreational use of the Forks area.
CHR 28	1942 Forks of the Credit Road	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	High Victorian Gothic farmhouse, built c.1875-1899. Property is noted as having Sugar Maples along the road and lane, and an early twentieth-century fieldstone gate.
CHR 29	Puckering Lane	Identified during historic map review	Appears on 1909 topographic map.
CHR 30	1640 Puckering Lane	Previously identified on the Town of Caledon's Built Heritage Resources Inventory	C.1875-1899 farmhouse

5.0 CONCLUSIONS AND FURTHER WORK

The results of background historic research and a review of secondary source material, including historic mapping, revealed a study area with Indigenous history dating back thousands of years, and rural/quarry land use history dating back to the early-nineteenth century. Since the early twentieth century, the area has become a popular recreational destination. The results of preliminary data collection indicate that there are 30 cultural heritage resources within or adjacent to the study area, 19 of which were previously identified as having heritage interest on the Town's Built Heritage Resource Inventory. The remaining 11 cultural heritage resources were identified through historic map and document reviews.

Transportation improvements may have a variety of impacts upon cultural heritage resources. Based on the results of background data collection and a review of the project scope, there is the potential for cultural heritage resources to be negatively impacted as a result of this project. As such, the development of alternative alignments should be planned to avoid impacts to identified cultural heritage resources.

Once the alternative alignments have been identified, a field review will be conducted to photograph and confirm the location and integrity of previously identify additional heritage resources, to identify any additional cultural heritage resources, and to obtain information to accurately map above-ground cultural heritage resources. The potential impact of the proposed undertaking on identified cultural heritage resources will then be evaluated and appropriate mitigation measures recommended.

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7.0 CULTURAL HERITAGE RESOURCE LOCATION MAPPING

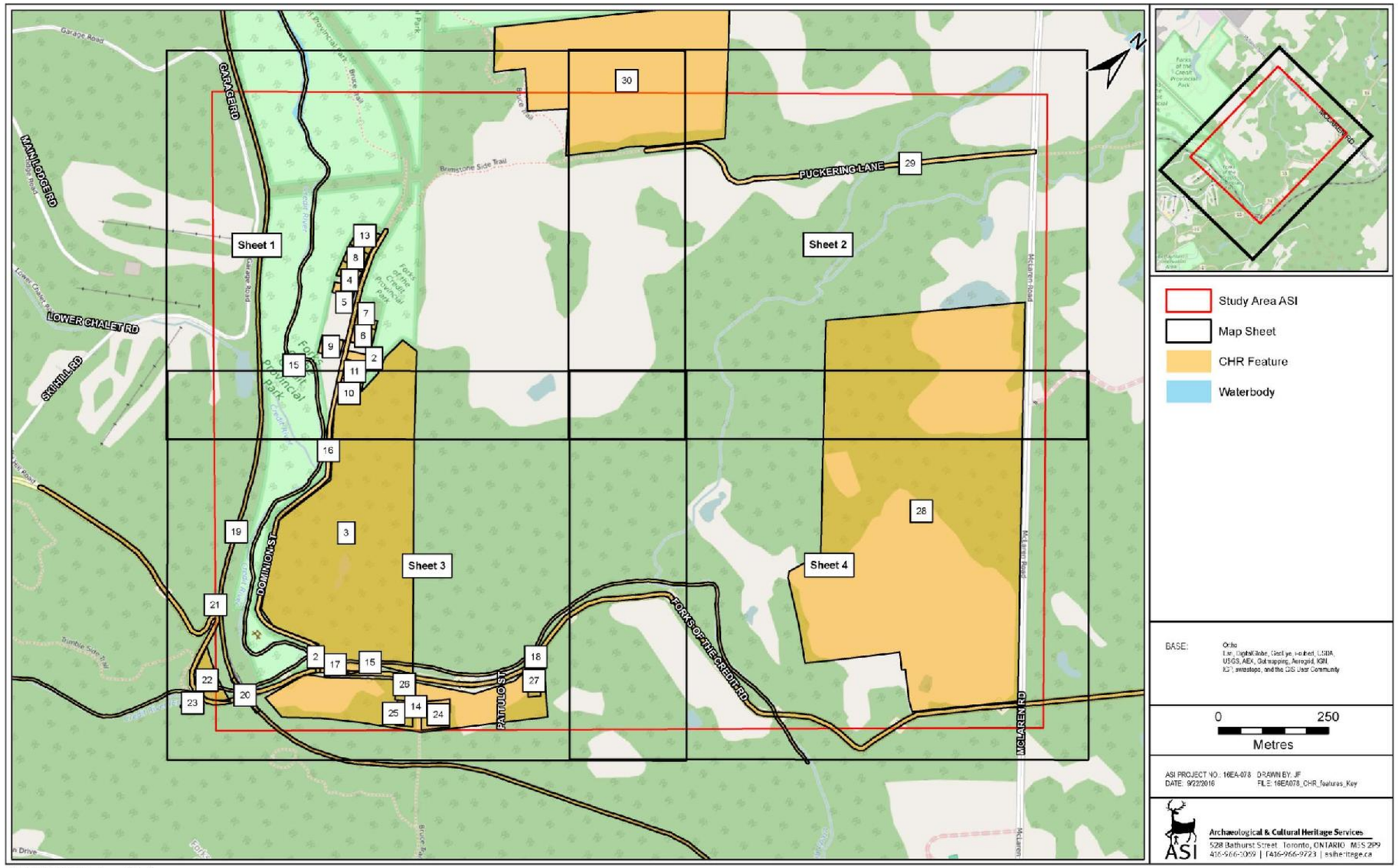

Figure 5: Location of Cultural Heritage Resources within and/or Adjacent to the Study Area – Key Map

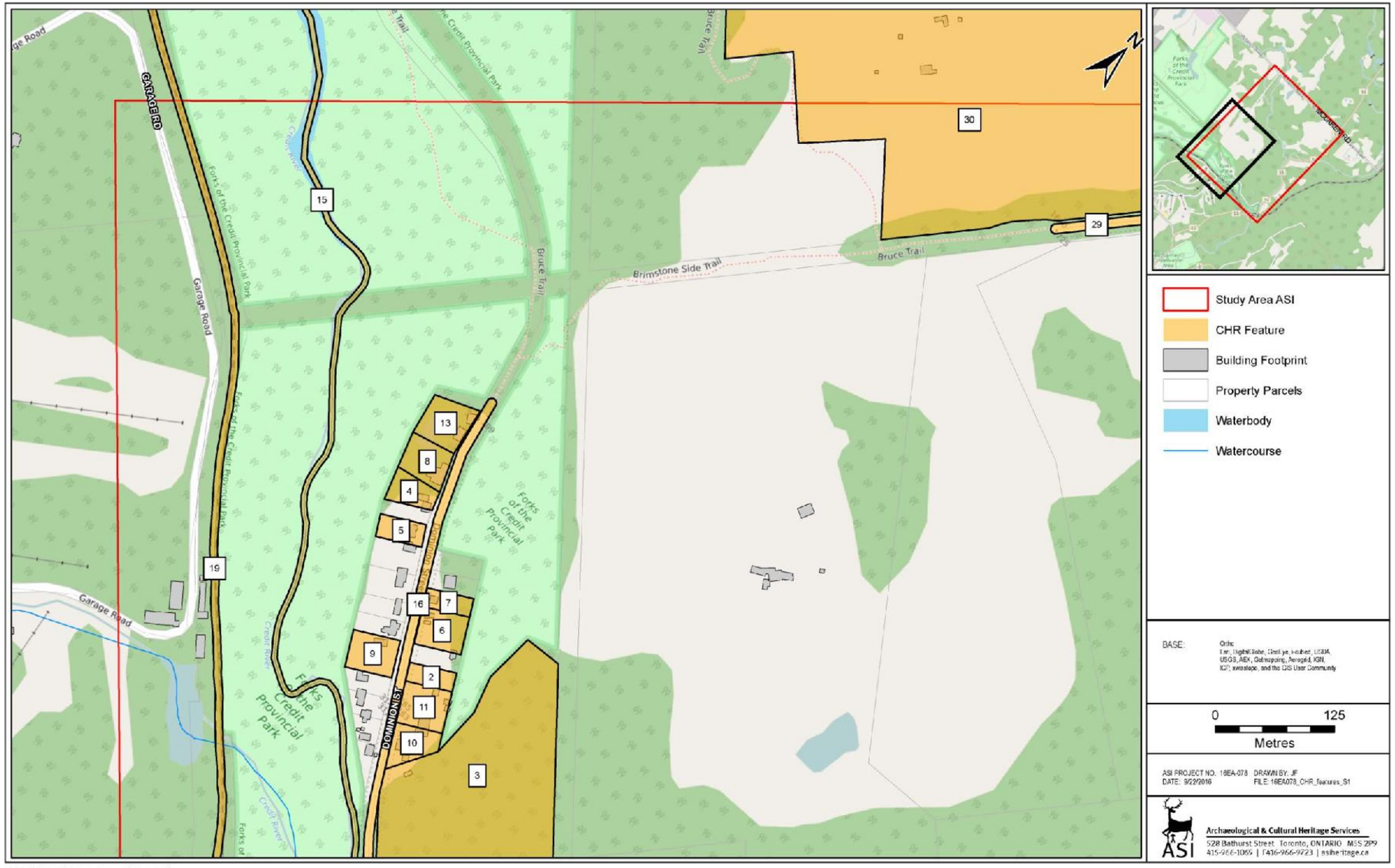

Figure 6: Location of Cultural Heritage Resources within and/or Adjacent to the Study Area

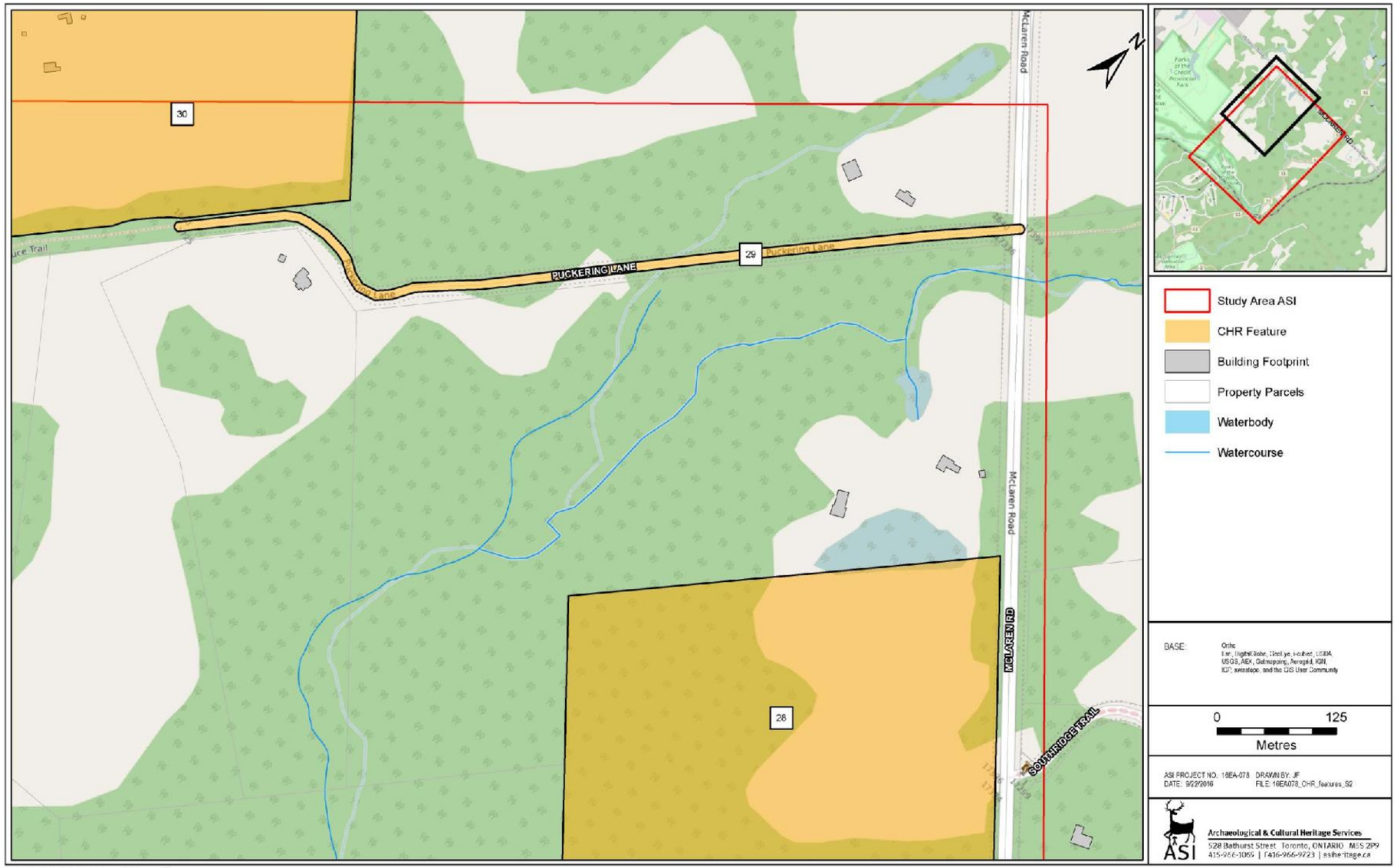

Figure 7: Location of Cultural Heritage Resources within and/or Adjacent to the Study Area

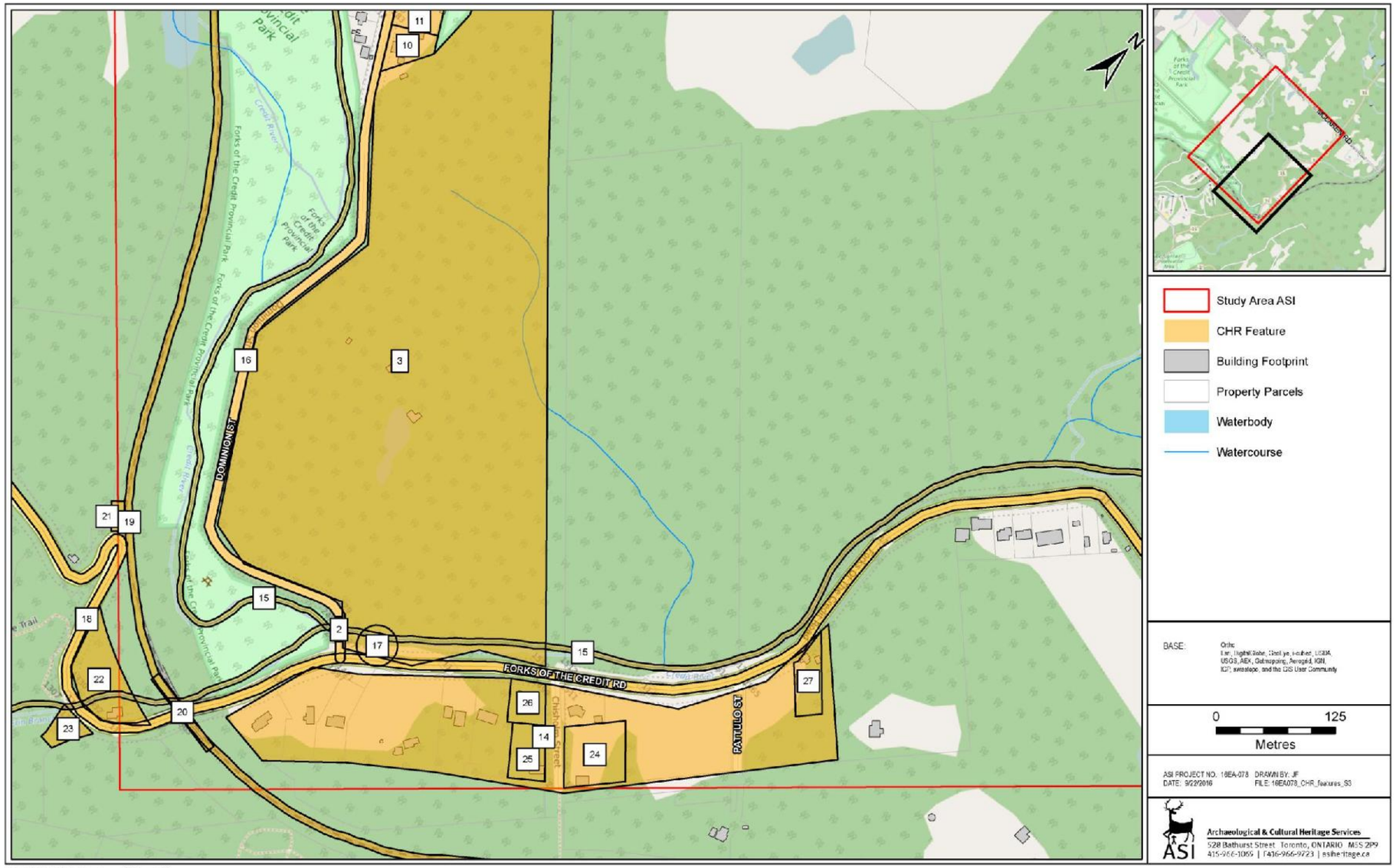

Figure 8: Location of Cultural Heritage Resources within and/or Adjacent to the Study Area

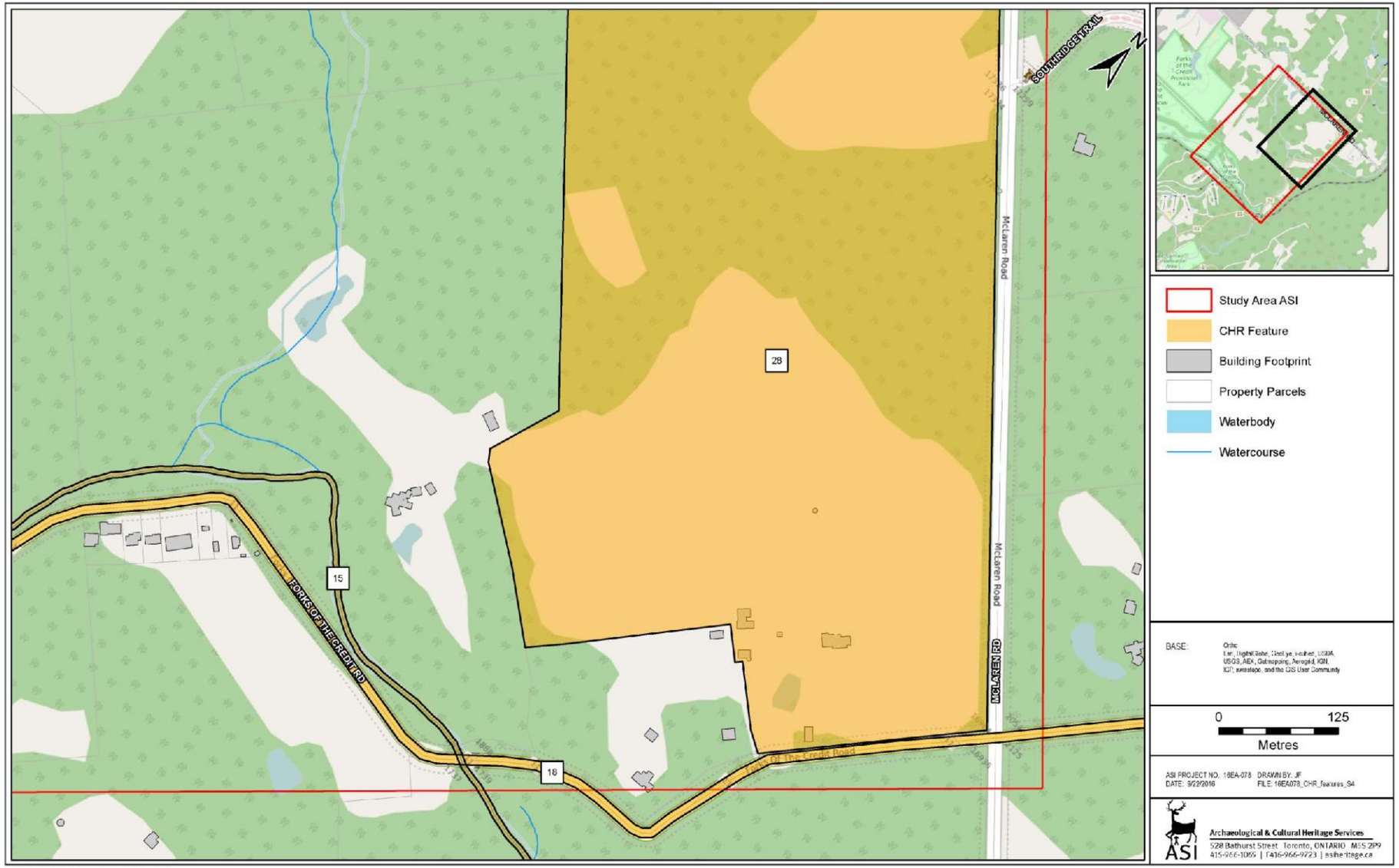

Figure 9: Location of Cultural Heritage Resources within and/or Adjacent to the Study Area

Appendix C-3
Existing Conditions – Geomorphology

Schedule ‘C’ Class EA for Dominion Street

Geomorphology and Hydrology/Hydraulics Existing Conditions

The Corporation of the Town of Caledon

GHD | 65 Sunray Street Whitby Ontario L1N 8Y3 Canada

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1. Introduction

Geomorphic and Hydrology/Hydraulic assessments will be completed as part of the Class C Environmental Assessment (EA) for Dominion Street. Existing conditions were evaluated as part of Phase I of the EA based on a review of:

- Caledon Creek and Credit River Subwatershed Study (Subwatersheds 16 and 18) Phase I: Characterization Report (Credit Valley Conservation Authority, November 1999);
- Credit River HEC-RAS Model - Lake Ontario to Island Lake Reservoir (Orangeville) (Environmental Water Resources Group Ltd, 2008);
- Credit River Flood Risk Mapping – Norval to Orangeville – Sheet No. 17 (Environmental Water Resources Group Ltd, 2008); and
- A brief site visit.

Additional assessment will be completed as part of Phase III of the EA.

2. Existing Environment

2.1 Geology and Climate

Local surficial geology in the project area is comprised of river deposits (sand and gravel), and glacial river deposits (gravel) typically found in glacial meltwater spillways (Sharpe et al., 1997). Extensive outwash sand and gravel is found along the main branch of the Credit River. Much of this is associated with the present Credit River Valley and the former Credit River Meltwater Channel within the bedrock valley found on the east flank of the Niagara Escarpment. The high relief throughout the reach and the permeable nature of most of the surficial geologic material within the valley indicates that water should easily discharge into much of the river valley (Credit Valley Conservation, 1998).

Soils in the area are made up of loamy tills and outwash deposits of fine sand and outwash gravel. Most of the soils in the spillways areas have high infiltrability and would be expected to produce overland runoff only rarely during very high intensity rain or during runoff episodes when soils are frozen with a high water content.

Climate, precipitation in particular, provides the energy for the system and directly influences basin hydrology and rates of channel erosion. Precipitation from climate normal (1981-2010) recorded at the Toronto Lester B. Pearson International Airport station (Station ID 6158733) located approximately 50 kilometres southeast of the study area, averaged 58 mm in winter months (November to February, inclusive), and 77 mm in the summer months (July and August, inclusive) (Environment Canada, 2016). As with most watercourses in southern Ontario, some of the highest instream flows likely occur during snowmelt (i.e., freshet) and, in particular, rain-on-snow events. While the longest duration of high flows typically occurs during freshet, this increase over the summer months is likely a result of convective thunderstorms. However, short durations of intense precipitation are insufficient to reduce the moisture deficit that occurs during periods of dry weather.

2.2 Land Use

Approximately 40% of the Credit River subwatershed upstream of the project area is considered a 'natural area' (i.e. terrestrial and wetland communities combined) and roughly 21% of the subwatershed is covered by forest. This 'natural area' extends as a continuous corridor from the Forks of the Credit in the south to Melville in the north. Another 40% is agriculture with one-quarter to three-quarters between non-intensive and intensive, respectively (Credit Valley Conservation, 1998).

There are five small urban areas in the vicinity; Brimstone, Cataract, McLeodville and portions of Alton and Melville which total approximately 5% of the total area of the subwatershed. The Caledon landfill site is located just south of Highway 24 adjacent to the Credit River and has an area of less than 1% of the entire subwatershed.

2.3 Geomorphic Environment

The stream within the vicinity of the crossing can be characterized as a well-defined watercourse in a steep, confined valley system between Cataract and the Dominion St bridge crossing. Within the stream corridor, the surrounding land is primarily forested with a continuous and mature riparian corridor dominated by trees and shrubs. This section of channel reach is moderately entrenched and relatively steep, with a riffle dominated channel and infrequently spaced pools primarily composed of sand to cobble.

There were multiple geomorphic issues identified within the vicinity of the crossing, as summarized below in Table 1:

Table 1 Geomorphic Issues

Geomorphic Issue	Photo
Erosion and slumping was observed at the toe of slope along the northwest quadrant at the Dominion Road bridge. Removal of fines from the toe of slope by the watercourse has resulted in slope instability which is threatening the abutments and roadway.	

Geomorphic Issue	Photo
There was evidence of slumping immediately upstream of the bridge on Dominion Road. The slump likely occurred due to removal of toe of slope material by the watercourse. The toes of slope appeared relatively stable suggesting that material removed by the watercourse has been steadily replaced by slumping of the embankment.	
A significant portion of the watercourse banks adjacent to areas of road slippage appear to be stable due to the presence of bedrock, large stone and mature vegetation. In these areas the road slippage is likely driven by slope instability that is not caused by creek processes. It may be possible to limit any bank protection works to a few areas where there is no existing natural toe protection.	
A previous slump is evident were gabion baskets have slid down the slope. The toe of slope appears to be stable due to the presence of dense shrubs. New erosion is evident just upstream of the slumped area at the left side of the photograph.	

Geomorphic Issue	Photo
Road slippage where the watercourse runs close to the road. Any alternative where the road remains in place will require careful integration of geotechnical, geomorphic and aquatic habitat considerations.	
Evidence of toe erosion was observed at several locations where the road was close to the watercourse. The watercourse position appeared to be stable suggesting that the removal of fine bank material was replaced by the slumping banks which in turn resulted in the road slippage.	

2.3.1 Next Steps

Further characterization of the existing fluvial geomorphology of the channel for Phase III of the EA will require additional desktop and field investigations. A historical aerial photographic assessment will be conducted to assess migration and planimetric form adjustment of the watercourse. Based on our initial site reconnaissance, the watercourse planform appears to be relatively stable given the narrow corridor, and it is not expected that the aerial photographic assessment will indicate significant migration rates. The assessment will be important to identify other factors such as channel widening and land use change.

Field investigations will include both rapid and detailed geomorphic assessments. The rapid geomorphic assessments will be completed to confirm appropriateness of reach boundaries; to characterize existing geomorphic conditions; to identify any systematic adjustments occurring within the watercourse; and to identify and map any hazard/erosion sites. We propose to use three rapid assessment techniques: Rapid Geomorphic Assessment (RGA), Rapid Stream Assessment Technique (RSAT), and the Downs Classification. The RGA (MOE, 2003), provides information on systematic adjustments and stability and the RSAT (Galli, 1996) provides information on stream

health and channel stability. The Downs (1995, outlined in Thorne et al., 1997) classification infers present and future potential adjustments based on physical observations and indicates the stage of evolution and the type of adjustments that can be anticipated. Locations of the unstable bank/toe of slope will be identified to determine the extent of any potential bank treatment requirements.

The detailed geomorphic assessment will consist of an evaluation of riparian cover, bed substrate (Wolman, 1954), bed and bank materials (type and strength), and general channel condition. Bankfull channel dimensions will be determined based on a survey of 8-10 representative cross sections. A long profile will be surveyed to determine channel bed gradients, and ripple and pool structure and variability. Bankfull flow characteristics along with erosion thresholds (applying both permissible velocity and critical shear methods) will be defined using the summarized geomorphic field data through an array of analytical approaches. This assessment will provide a measure of channel stability utilized in developing successful designs.

The geomorphic assessment will include sufficient information to support the development and assessment of the alternative solutions. Specific fluvial geomorphic input will be required for the placement and sizing of any new crossing structure and for recommendations for potential bank stability treatments.

2.4 Hydrology and Hydraulics

The subwatershed of the Credit River upstream of the Dominion St Bridge encompasses an area of 40km^2. The main branch of the Credit River traversing the watershed is approximately 12 km long, with an average channel gradient of 4.2 m/km. The dominant characteristics of the watershed include: limited municipal drainage, significant floodplain storage, high percentage of forest cover, the prevalence of high infiltration soils, and the presence of aggregate extraction activities. 40% of the subwatershed is considered a ‘natural area’ and roughly 21% of the subwatershed is covered by forest. The high infiltrability associated with soil under forest cover restricts the amount of precipitation appearing as runoff for entry to the surface drainage network. In addition, snowmelt in heavily forested areas melts much later than agricultural areas. The delayed snowmelt reduces the potential for flooding and provides additional opportunities for groundwater recharge. The predominance of highly permeable soils results in high recharge rates to groundwater aquifers, and reduced surface water runoff to flow within the subwatershed (Credit Valley Conservation, 1998).

The primary hydraulic concern at the site is that the existing bridge at Dominion Street does not fully span the river. As such, the flow is constricted and results in increased flow velocity and scour potential at the bridge abutments and road embankment. Under current guidelines, a bridge at this location would be longer such that it fully spans the river while allowing for dry passage on both sides for animal movements. The existing short span contributes to the erosion situation that exists on the west side of the bridge. **Table 2** below summarizes the details of the current bridge.

Table 2 Dominion St Bridge Dimensions

Dimensions (span, width)	12.2 m, 5.8 m
Channel invert elevation	302.06 m
Soffit elevation	307.36 m
Guardrail elevation	309.0 m

A hydraulic analysis was completed on the Hydrologic Engineering Center River Analysis System (HEC-RAS) hydraulic model, to conduct a one-dimensional steady flow analysis for the 2, 5, 10, 25, 50, 100-year, and Regional Storm (Hurricane Hazel) storm events. The HEC-RAS model was provided by CVC, and provides existing water surface elevations (WSEL's), flows, velocities, and hydraulic parameters for the Credit River from Orangeville to Port Credit.

The bridge crossing in the model is located at River Station 49762 with the upstream and downstream internal bridge cross sections labelled as '49762 Dominion St Bridge U/S' and '49762 Dominion St Bridge D/S' respectively. The model has a cross section directly upstream (River Sta 49766) of the bridge and one immediately downstream (River Sta 49760). Three of the model cross sections are shown in Figure 1.

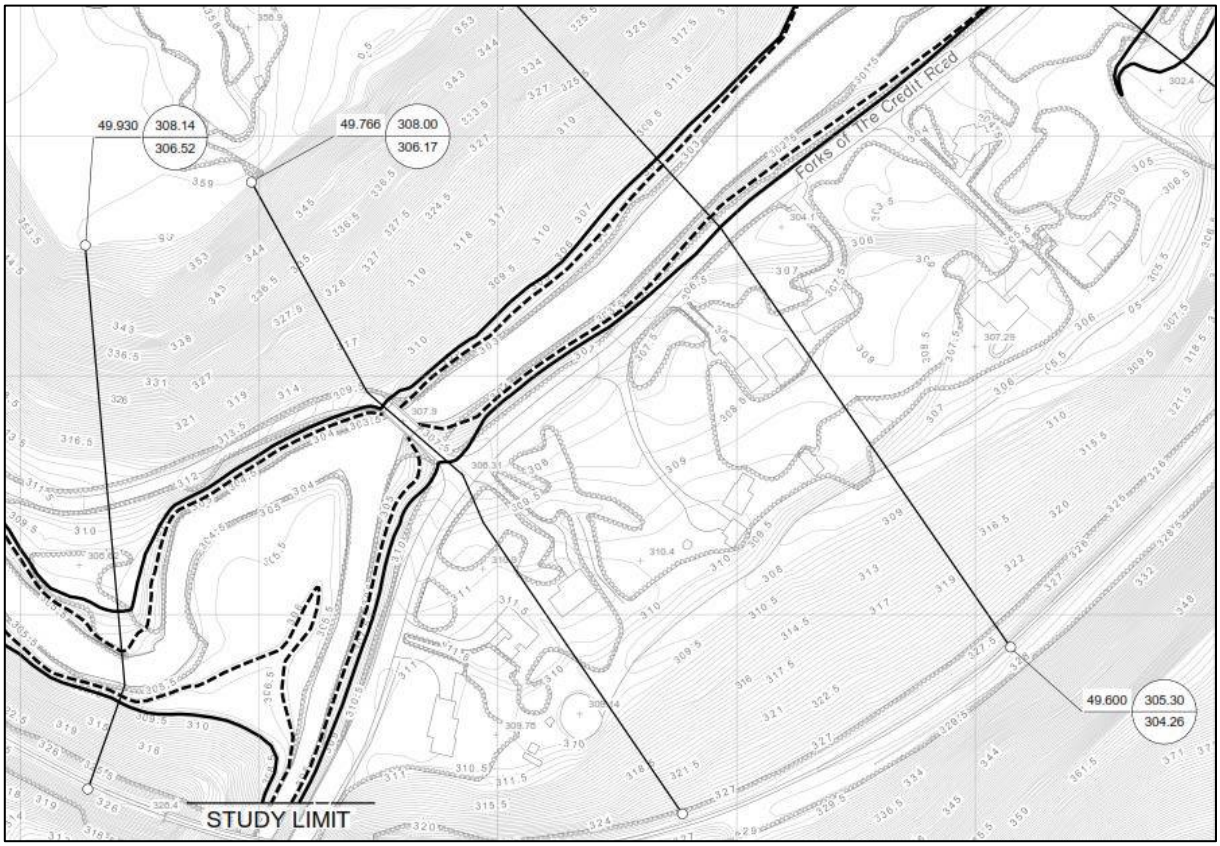

Figure 1 Cross Section Locations (Environmental Water Resources Group Ltd., 2008)

The WSEL's and various hydraulic parameters in the vicinity of the Dominion St Bridge are provided in Table 3. Results from the hydraulic analysis show an increase in channel velocities and Froude numbers under the bridge during the Regional Flow, but no significant increases during more regular flows. Channel velocities downstream of the bridge at River Station 49760 and 49600 steadily increase, primarily as a result of increased slope downstream. Similarly, the upstream River Station 49930 shows greater velocities than at the bridge due to a steeper channel gradient.

The current model shows the WSEL at River Station '49762 Dominion St U/S' for the Regional Flow at 307.12 m, 0.24 m below the bridge soffit elevation of 307.36 m. This indicates that the bridge currently passes the Regional Flow.

It should be noted that the current model shows an addition to flow due to the confluence with the West Credit River downstream of the Dominion St Bridge, when in reality the confluence occurs upstream of the bridge. The entirety of this flow is being directed through the current crossing and model values reflect artificially low flow conditions. With these additional flows the bridge would be overtopped at the Regional Flow and would likely overtop at the 100-year flow.

Table 3 Dominion St Bridge Hydraulic Summary

River Sta	Storm Event	Q Total	Min Ch El	W.S. Elev	E.G. Elev	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(m^3/s)	(m)	(m)	(m)	(m/s)	(m^2)	(m)	
49930	Regional	239.50	304.40	308.14	309.14	4.75	75.75	39.57	0.80
	100 year	83.00	304.40	306.52	307.02	3.25	30.53	18.86	0.74
	50 year	71.90	304.40	306.14	306.75	3.54	23.64	17.66	0.90
	25 year	61.40	304.40	305.93	306.53	3.52	19.95	17.09	0.96
	10 year	47.90	304.40	305.62	306.26	3.59	14.82	16.26	1.11
	5 year	38.30	304.40	305.48	306.03	3.34	12.53	15.82	1.11
	2 year	15.80	304.40	305.11	305.38	2.32	7.07	13.95	0.99
49766	Regional	239.50	302.06	308.00	308.25	2.52	131.69	35.89	0.34
	100 year	83.00	302.06	306.17	306.34	1.82	45.57	27.83	0.30
	50 year	71.90	302.06	305.54	305.72	1.89	37.97	25.06	0.34
	25 year	61.40	302.06	305.18	305.35	1.82	33.68	23.50	0.35
	10 year	47.90	302.06	304.86	304.99	1.61	29.71	22.05	0.33
	5 year	38.30	302.06	304.57	304.68	1.46	26.23	20.79	0.32
	2 year	15.80	302.06	303.87	303.91	0.89	17.71	17.68	0.24
49762 Dominion St Bridge U/S	Regional	239.50	302.06	307.12	308.04	4.26	56.20	6.75	0.61
	100 year	83.00	302.06	306.17	306.34	1.82	45.56	12.20	0.30
	50 year	71.90	302.06	305.54	305.72	1.89	37.97	12.20	0.34
	25 year	61.40	302.06	305.18	305.35	1.82	33.68	12.20	0.35
	10 year	47.90	302.06	304.86	304.99	1.61	29.71	12.20	0.33
	5 year	38.30	302.06	304.57	304.68	1.46	26.23	12.20	0.32

River Sta	Storm Event	Q Total	Min Ch El	W.S. Elev	E.G. Elev	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(m^3/s)	(m)	(m)	(m)	(m/s)	(m^2)	(m)	
	2 year	15.80	302.06	303.87	303.91	0.89	17.71	12.20	0.24
49762 Dominion St Bridge D/S	Regional	239.50	302.06	307.07	308.01	4.29	55.83	7.80	0.61
	100 year	83.00	302.06	306.16	306.33	1.82	45.51	12.20	0.30
	50 year	71.90	302.06	305.53	305.72	1.90	37.89	12.20	0.34
	25 year	61.40	302.06	305.18	305.35	1.83	33.59	12.20	0.35
	10 year	47.90	302.06	304.85	304.98	1.62	29.63	12.20	0.33
	5 year	38.30	302.06	304.56	304.67	1.46	26.16	12.20	0.32
	2 year	15.80	302.06	303.86	303.90	0.89	17.66	12.20	0.24
49760	Regional	469.60	302.06	307.36	308.72	5.80	109.69	33.08	0.83
	100 year	276.40	302.06	306.16	308.04	6.07	45.51	27.81	1.00
	50 year	209.40	302.06	305.53	307.09	5.53	37.89	25.03	1.00
	25 year	167.10	302.06	305.18	306.44	4.97	33.59	23.47	0.95
	10 year	123.40	302.06	304.85	305.73	4.16	29.63	22.02	0.85
	5 year	92.90	302.06	304.56	305.21	3.55	26.15	20.76	0.77
	2 year	38.30	302.06	303.86	304.10	2.17	17.66	17.67	0.57
49600	Regional	469.60	301.90	305.30	307.26	6.51	92.58	53.87	1.16
	100 year	276.40	301.90	304.26	306.08	6.08	49.69	27.13	1.32
	50 year	209.40	301.90	304.14	305.32	4.90	46.43	26.64	1.10
	25 year	167.10	301.90	304.00	304.88	4.21	42.78	26.09	0.98
	10 year	123.40	301.90	303.66	304.39	3.83	34.16	24.74	0.98
	5 year	92.90	301.90	303.39	304.01	3.50	27.67	23.67	0.98
	2 year	38.30	301.90	302.82	303.17	2.63	14.71	21.37	0.99

Q Total – Total Discharge
Min Ch El. – Minimum Channel Elevation
W.S. Elev – Water Surface Elevation
E.G. Elev – Elevation of Guardrail
Vel Chnl – Velocity of Channel

2.4.1 Next Steps

To evaluate alternative crossing options in Phase III of the EA, further survey data and hydrologic/hydraulic analysis will be required to update the current model. GHD will undertake comprehensive hydrologic and hydraulic analyses for the design alternatives evaluated in the EA. These analyses will characterize bridge capacity, impacts to floodlines, stability of the river under a range of flow events (in coordination with the fluvial geomorphological investigations), and will contribute to an understanding of aquatic habitat potential.

The analyses will include a detailed evaluation of the existing hydrology in the project area, building upon this document and considering upstream drainage areas, and previously established flow profiles. Flows will be confirmed with CVC for suitability in the analysis, particularly with regards to flow added to the Credit River from the West Credit River.

Following confirmation of the site hydrology, the existing HEC-RAS hydraulic model will be reviewed and updated with the detailed topographic information collected during this study. Modelling geometry and parameters will be evaluated and confirmed, with documentation developed for the EA and supplementary hydraulic memo. The preferred alternative design concepts will each be modelled to evaluate impacts on bridge capacity (and help to inform bridge sizing), impacts to upstream flood elevations, and impacts to channel stability. Hydraulic parameters will be summarized for a range of flow profiles and applied to design of bridge abutment/pier protection and channel erosion control measures.

Should you have any comments or require clarification on any matter pertaining to the information contained in this report, please do not hesitate to contact the undersigned.

Respectfully submitted,
GHD

David Arseneau, MEPP, P.Eng.
Senior Water Resource Engineer/Project Manager

Jeff Doucette, Ph.D., P.Geo. (Limited)
Coastal & River Scientist

3. References

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Appendix C-4
Existing Conditions – Geotechnical and Hydrogeological

Hydrogeological Existing Conditions Report

Schedule "C" Class Environmental Assessment for Dominion Street

The Corporation of the Town of Caledon

GHD | 65 Sunray Street Whitby Ontario L1N 8Y3 Canada

11116800 | Report No 2 | September 23 2016

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Figure Index

Appendix Index

1. Introduction

This Hydrogeological Existing Conditions Report was prepared by GHD Ltd., in support of the Schedule 'C' Class Environmental Assessment for Dominion Street, Town of Caledon Ontario. The Environmental Assessment is being undertaken to evaluate the alternatives of rehabilitating or realigning the Dominion Street road and bridge or alternatively re-routing the road, due to slope failure and damage to the road. The study area encompasses Dominion Street and includes a portion of the Forks of the Credit Provincial Park (herein referred to as the Study Area or Site) (**Figure 1.1**).

The purpose of this study was to characterize the hydrogeological conditions throughout the Site and surrounding area based on a 'desk top' review. The site conditions, physical setting, topography, surficial geology, surface water features and potential recharge/discharge areas are evaluated, based on compilation and review of available information, including geological/hydrogeological mapping (OGS, MOECC), MOECC Water Well Records, surface water features (seeps, intermittent streams) and natural environment mapping (MNR, Conservation Authority). Site inspections were also carried out by GHD staff in March 2016, and again is September 2016 to assess the slumping observed along Dominion Street and the damage it has caused to the road.

1.1 Background

The Corporation of the Town of Caledon (Town) has initiated Class Environmental Assessments (EA) in accordance with both the Municipal Engineers Association (MEA) Class EA document and the Ministry of Natural Resources and Forestry (MNRF) Provincial Parks and Conservation Reserves (PPCR) Class EA guideline, for the rehabilitation of Dominion Street. Proposed rehabilitation works in the defined study area trigger a Schedule 'C' classification. As such, the study will be conducted in accordance with the planning and design process for Schedule 'C' projects as outlined in the MEA's "Municipal Class Environmental Assessment" (October 2000, as amended in 2015).

The Study Area infringes upon the Forks of the Credit Provincial Park, triggering a Category 'C' assessment as outlined in the MNRF's Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), as approved under the *Ontario Environmental Assessment Act (EA Act)*.

Currently, Dominion Street provides sole access to 14 private residences located toward the end of the street. Dominion Street is currently a two-lane rural roadway and the Dominion Street Bridge is a single lane egress. The Dominion Street Bridge is the only egress point for residents on Dominion Street, serving as an overpass to the Forks of the Credit River. Therefore, any alternatives that involve significant construction works on Dominion Street and/or the Dominion Street Bridge will have to allow passage of vehicles at all times. There is evidence that Dominion Street is currently experiencing road surface slippage in areas where the road is closest to the Forks of the Credit River. This movement is likely due to erosion of the road embankment; however instability is not expected to be deep seated.

Unique features for further consideration within the Study Area include the Forks of the Credit Provincial Park; the Forks of the Credit River; the Dominion Street Bridge; and a segment of a C.P. Railway. The river banks of the Forks of the Credit River are covered with mature vegetation, which could potentially experience significant impacts, given the potential implementation of traditional erosion protection measures. Built in 1935, the existing Dominion Street Bridge is on scenic road with the Belfountain & the Credit Gorge Cultural Heritage Landscape. Therefore, any bridge rehabilitation work must be sensitive to the heritage characteristics of the Dominion Street Bridge.

The intent of this study is to investigate alternatives that address feasible bank stabilization and bridge rehabilitation activities, while minimizing potential environmental impacts, in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge. Alternative roadway re-alignments to Puckering Lane will be considered as part of this study, but are limited given the Study Area's topographic deviation. In order to protect Dominion Street from further movement, techniques to improve embankment stability will also be investigated in this study. The potential alternatives include the following:

1) Rehabilitate Existing Dominion Bridge and Road

2) Re-Alignment of Existing Road

3) Abandon existing Dominion Bridge and Road, and realign to Puckering Lane.

The *EA Act* requires proponents to describe the existing environment that may be affected, directly or indirectly, by the proposed alternatives to the undertaking. As such, this report characterizes the Geotechnical/Hydrogeological existing conditions at the Dominion Street Study Area.

2. Study Area

The Study Area is located approximately 6 km southwest of Caledon Village, and is bordered by the Forks of the Credit Provincial Park to the north, the Credit River to the west, the Forks of the Credit Road to the south and McLaren Road to the east (**Figure 2.1**).

Dominion Street is contained within the Study Area and provides access to the Forks of the Credit Road via a single lane bridge that crosses over the Credit River. Dominion Street is a non-through road, which is approximately 1.2 km in length. Puckering Lane is also contained within the Study Area, and provides access to McLaren Road.

The majority of the study area contains rural natural undeveloped lands, although there are numerous residences along Dominion Street, and the Forks of the Credit Road, and a few residences are located along Puckering Lane (**Figure 2.2**). It is anticipated these residences are serviced by water supply wells and individual septic systems.

3. Methodology

Available secondary sources of information were collected and reviewed to characterize the geology and hydrogeology existing conditions within the study areas. The key selected source

information is listed below, and the complete list of source information is provided in the Reference Section of this report:

- Cowan 1976. Orangeville, southern Ontario, drift thickness. Ontario Ministry of Northern Development and Mines, Ontario Geological Survey. Map, 2000 Series (M2328).
- Credit Valley Conservation Authority January 18, 2012. Credit Valley Source Protection Area Approved Updated Assessment Report.
- Kassenaar, J.D.C., and Wexler, E.J, 2006. Groundwater Modelling of the Oak Ridges Moraine Area. CAMC/YPDT Technical Report Number 01-06.
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- O.L. White 1975. Quaternary geology of the Bolton area, southern Ontario. Ontario Ministry of Northern Development and Mines, Ontario Geological Survey (R117).
- S.D. Davies, S. Holysh and D.R. Sharpe. 2008. Groundwater Resources Study 9. An Investigation of the Buried Bedrock Valley Aquifer System in the Caledon East Area, Southern Ontario. Ontario Geological Survey.
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- W.R. Cowan,D. Sharpe 1976. Orangeville, southern Ontario, granular resources. Ontario Ministry of Northern Development and Mines, Ontario Geological Survey. Map, 2000 Series(M2327).

4. Characterization of the Existing Environment

The Study Area overlaps the Niagara Escarpment and Oak Ridges Moraine Physiographic Regions as well as the Credit River valley, and is located in a relatively complex geological and hydrogeological setting. Regional studies (CVC Source Protection, 2012) indicate that both the main branch and the west branch of the Credit River flow through deep re-entrant valleys in the Niagara Escarpment, joining at the Forks of the Credit. A substantial thickness of overburden is interpreted near the Forks of the Credit, where two bedrock valleys converge.

Overburden in the area varies in thickness, ranging from less than 1 metre thick along the escarpment and within the stream valley up to more than 80 metres within the valley and on the adjacent upland moraine plateau.

Modern alluvial deposits and glaciofluvial deposits are found within the stream valley, and ice contact stratified drift, till and moraine deposits are primarily encountered on the banks and upland plateaus. Clinton Cataract Group bedrock comprised of limestone, dolostone and sandstone, and Queenstone Formation shale bedrock outcrop along the escarpment and locally within the stream valley.

Dominion Street is located at the 'Forks of the Credit', which is at the confluence of the Credit River and the Credit River west branch (Erin Branch) (**Figure 4.1**). The Credit River flows southeasterly along the west side of the Study Area then bends sharply at the confluence with the Credit River west branch and near the base of the Niagara Escarpment. It then flows in a northeasterly direction along the south side of the Study Area.

Dominion Street is situated adjacent to the Credit River along the west side of the study area and the Forks of the Credit Road is adjacent to the river along the south. The Dominion Street bridge is located close to confluence with the west branch.

Regional studies (CVC Source Protection, 2012) indicate that shallow groundwater flow is toward the Credit River west branch and main branch above the Forks of the Credit. Near the Forks of the Credit, there is an area of strong groundwater discharge. This corresponds to an area where the water table intersects with the Escarpment face and groundwater discharges into the many tributaries and seeps that drain into the Credit River.

There is significant topographical relief in theses areas associated with the Credit River valley and escarpment, and there is the potential for groundwater to impact the bridge and road rehabilitation, due to the permeable soils and potentially high groundwater gradients in the area.

4.1 Physiography and Topography

The physiography and topography of the Study Area is distinctly different between the Credit River Valley and upland moraine to the northeast of the river, as described below.

4.1.1 Credit River Valley

The Credit River valley within the Study Area is primarily within the Niagara Escarpment physiographic region (Chapman and Putnam 1984), which is characterized by a glacial spillway and the escarpment (**Figure 4.2**). The valley is situated at the base of the Escarpment and the majority of Dominion Street and the bridge are located in this region.

The Credit River is incised into the escarpment at an elevation of approximately 310 mAMSL. The escarpment rises approximately 100 metres to an elevation of 410 mAMSL, to the south, whereas to the north glacial overburden deposits generally mask the steep surficial expression of the Escarpment.

4.1.2 Oak Ridges Moraine

The majority of the Study area is to the northeast of the Credit River on the Oak Ridges Moraine physiographic region, which is characterized by a rolling hilly surface with knob and basin

(hummocky) relief. The north end of Dominion Street and Puckering Lane are located within this region.

The moraine rises approximately 50 metres above the Credit River to the northeast to an elevation of 360 mAMSL. The topography ranges in elevation from approximately 320 to 400 mAMSL, and local poorly drained wetland areas are encountered within this area. Regional studies (CVC Source Protection, 2012) indicate the importance of the Credit Forks wetlands that lie on or near the base of the Oak Ridges Moraine.

4.2 Geology

4.2.1 Credit River Valley

Regional surficial geology mapping of the area indicates that the Credit River valley is underlain by glaciofluvial deposits, sandy deposit, modern alluvial deposits and bedrock, (MNR NRVIS, 2011 - Ontario Geological Survey, 2003) (**Figure 4.3**).

Overburden underlying the Credit River Valley generally ranges from less than about 1 m in thickness to more than 30 metres thick and is described as a deposit of sand and gravel of varying thickness overlying shale bedrock (MNR NRVIS, 2011 - Ontario Geological Survey, 2006) (**Figure 4.4**). Outcrops of red shale of the Queenston Formation are found within the Credit River Valley at the Forks of the Credit.

The surficial geology and general stratigraphic framework within the valley consists of the following deposits:

- Modern alluvial deposits – clay, silt, sand , gravel
- Glaciofluvial deposits; sand, gravel
- Queenston Formation (bedrock) – Shale.

4.2.2 Oak Ridges Moraine

Regional surficial geology mapping of the area indicates that to the northeast of the Credit River the Study Area is underlain by glaciofluvial ice-contact (moraine) deposits, as well as silty to sandy till and bedrock (MNR NRVIS, 2011 - Ontario Geological Survey, 2003) (**Figure 4.3**).

Overburden underlying the Oak Ridges Moraine is greater than 100 m in thickness and is generally described as a thick layer of moraine and till deposits overlying shale bedrock. The till is mapped as the Wentworth Till comprised of silt to sandy silt, and the bedrock is mapped as the Queenston Formation comprised of red shale, and Clinton-Cataract Group comprised of shale, sandstone and dolostone bedrock (MNR NRVIS, 2011 - Ontario Geological Survey, 2006) (**Figure 4.4**).

The surficial geology and general stratigraphic framework within the moraine area consists of the following deposits:

- Wentworth Till – silt, sand silt till
- Oak Ridge Moraine - silt, sand, sand and gravel.

- Queenston Formation and Clinton/Cataract Group (bedrock) – shale.
- Clinton/Cataract Group (bedrock) – shale, sandstone, dolostone

4.3 Hydrogeology

The location of recorded Ministry of the Environment and Climate Change (MOECC) water wells for the Site and surrounding area is shown on **Figure 4.5**, and a summary of the records is presented in **Appendix A** (MOECC Water Well Record Formation Report). Based on review of the well records, there are numerous private wells situated along Dominion Street and the Forks of the Credit Road, and a few records for wells situated along Puckering Lane.

4.3.1 Credit River Valley

Selected Ministry of the Environment and Climate Change (MOECC) water well records located within the Credit Valley River area of the Site are provided in **Appendix B** (Individual MOECC Well Record). Review of the water well record information indicates that the majority of records in this area along Dominion Street and the Forks of the Credit Road near the bridge are for drilled wells (4 to 6-inch) which are completed in both the overburden and bedrock. Out of 30 selected well records 10 wells are completed in the overburden and 20 are completed in shale bedrock. All of the wells are used for domestic purposes.

Overburden

Based on the well records, the overburden wells are typically completed to depths of 10 to 30 metres, and are screened within sand and gravel, and gravel deposits. The recommended pumping rates range from 2 to 20 imperial gallons per minute (Igpm). Based on the records there is only one large diameter well (36-inch) along Dominion Street, which is completed to a depth of 3.6 metres. These large diameter wells typically rely on well storage for supply.

Flowing artesian conditions are recorded for two wells (4906379, and 4908034), which are complete in sand and gravel deposits at depths of 12 to 15 metres. The static water levels for the remaining overburden wells are variable, ranging in depth from less than one metre up to approximately 10 metres.

Bedrock

Shale bedrock was typically encountered at depths of 10 to 30 metres, however bedrock was encountered at depths of less than 10 metres for eight wells. The bedrock wells are typically completed to depths of 25 to 45 metres, and are completed as open coreholes in the shale. The recommended pumping rates range from less than 1 to 10 imperial gallons per minute (Igpm).

Four of the wells completed in the bedrock have a recommended pumping rate of less than 1 Igpm, one well could not be used due to the low yield. Where the shale is encountered and does not provide a sufficient yield for domestic water supply it behaves as an aquitard.

One well record (4908480) indicates flowing artesian conditions for a well complete in the shale bedrock at a depth of 31 metres.

The hydrostratigraphic framework corresponds to the layered regional stratigraphy, and based on review of the well records these include the following units:

- Aquifer– sand, sand and gravel
- Aquifer /Aquitard – shale bedrock

In general, the hydrostratigraphy can be described as an unconfined sand, and sand and gravel aquifer overlying a shale bedrock aquifer/aquitard. Regional groundwater flow is anticipated to be toward the Credit River Valley and artesian conditions (upward gradients) and may be locally encountered.

4.3.2 Oak Ridges Moraine

Selected Ministry of the Environment and Climate Change (MOECC) water well records located within the Moraine area of the Site are provided in **Appendix C** (Individual MOECC Well Record). Review of the water well record information indicates that the majority of records in this area are for deep drilled wells (5 to 6-inch) completed in the overburden to depths of greater than 30 metres, and are typically screened within sand and gravel deposits. The wells are used for domestic purposes, and the recommend pumping rates range from 7 to 60 imperial gallons per minute (!gpm).

The hydrostratigraphic framework corresponds to the layered regional stratigraphy, and based on review of the well records these include the following units:

- Aquitard – silt to sandy silt till
- Oak Ridges Moraine Aquifer (confined/unconfined) – sand, sand and gravel

In general, the hydrostratigraphy can be described as a silt to sandy silt till aquitard overlying and confining the Oak Ridges Moraine aquifer. Regional groundwater flow is anticipated to be toward the Credit River Valley, and locally to wetland areas on and at the base of the moraine.

4.4 Dominion Street

Dominion Street is approximately 1 kilometre in length and starts from the Forks of the Credit Road where a bridge crosses over the Credit River. The road is relatively level and follows a winding path adjacent to the Credit River and around steep slopes of the Oak Ridges Moraine. There are numerous residences located where the land becomes relatively open and level at a distance of approximately 500 metres along the road.

Site inspections were carried out by GHD staff in March 2016, and again is September 2016 to assess the slumping observed along Dominion Street and the damage it has caused to the road. Details of the impacts to the road are provided in the geotechnical and geomorphology existing conditions reports.

Where Dominion Street follows the Credit River to the residences, there is a steep slope on the west side of the road down to the river at a grade of approximately at 1H:1V or 45 degrees, and there is a steep moraine slope on the east side of the road at a grade of approximately 2H:1V.

Based on the Site inspections the Dominion Street pavement is consistently cracked on the west side of the road, closest to the Credit River, from the shoulder of the road approximately 1 metre toward the middle of the road. The Credit River is typically in close proximity to areas of Dominion Street that have the most evidence of settlement. At one of the locations where Dominion Street riverside edge has undergone severe cracking and settlement, the toe of the slope was inspected and was observed to have an approximately 1.5 m high near vertical erosion scarp. The scarp was observed to be wet and comprised of silty and sandy soils.

All of Which is Respectfully Submitted,

GHD

Philip Smart, P. Geo., M.Sc.

Thomas Guoth, P. Eng.

5. References

1. CAMC/YPDT Technical Report Number 01-06.hapman,D.F. Putnam 1984. The Physiography of Southern Ontario (third edition). . Ontario Ministry of Northern Development and Mines, Ontario Geological Survey.

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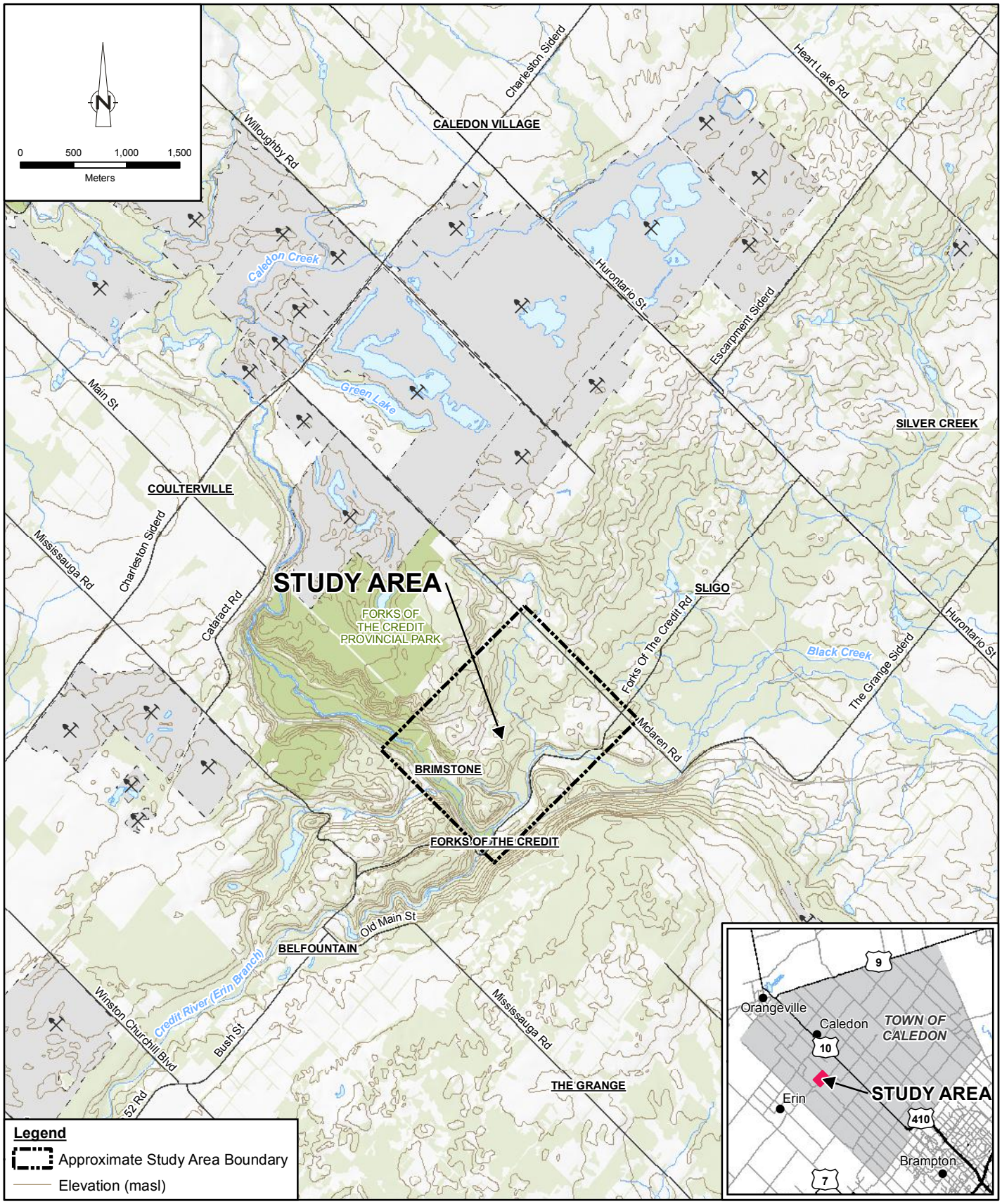
Figures



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Coordinate System: NAD 1983 UTM Zone 17N

TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS

11116800-90
Sep 23, 2016

STUDY AREA

FIGURE 1.1

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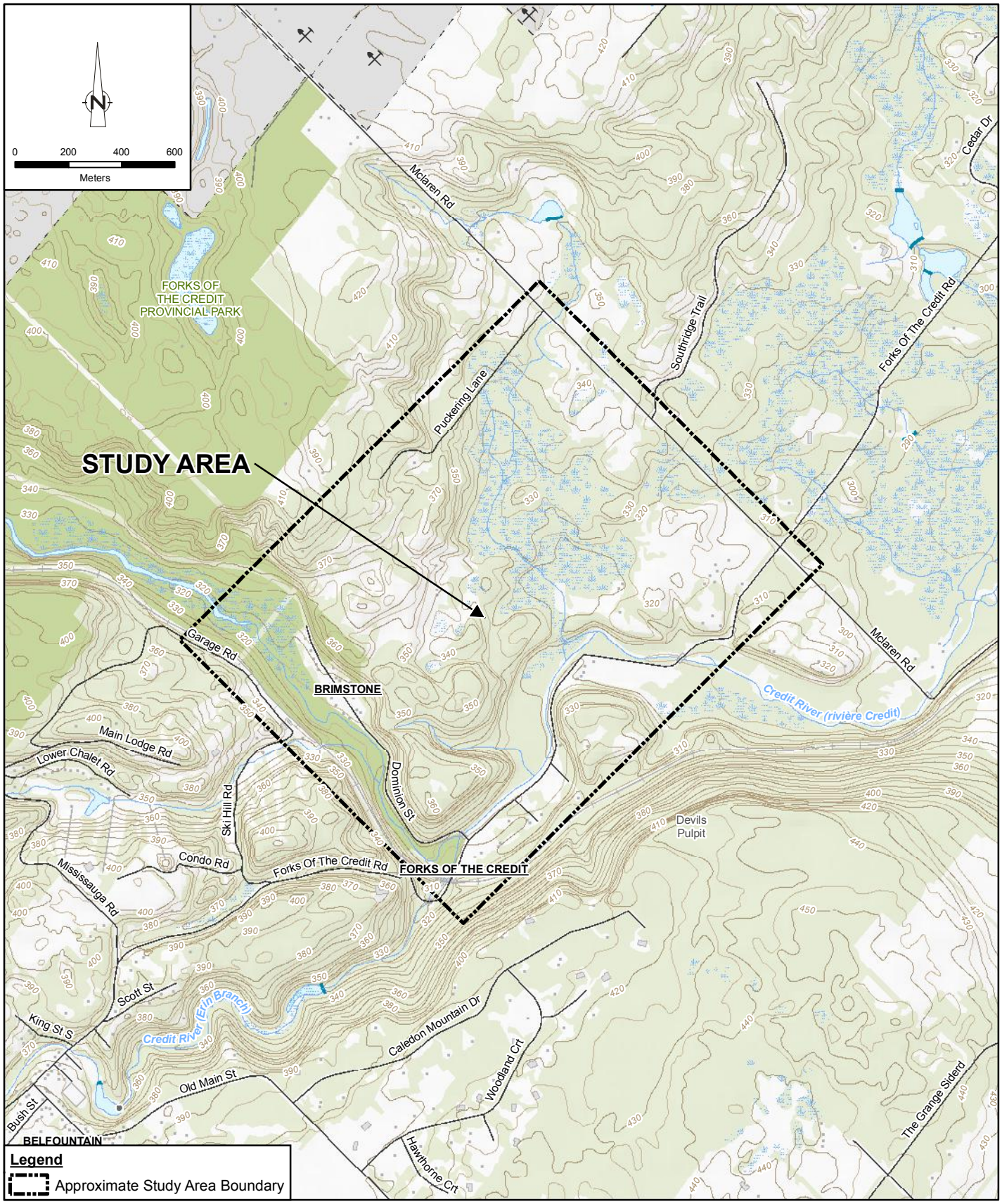

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TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS

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SITE LOCATION MAP

FIGURE 2.1

GIS File: Q:\GIS\PROJECTS\11116000s\11116800\Layouts\001\11116800-90(001)GIS-WA001.mxd

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TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS

11116800-90
Sep 23, 2016

LANDUSE (AERIAL PHOTO)

FIGURE 2.2

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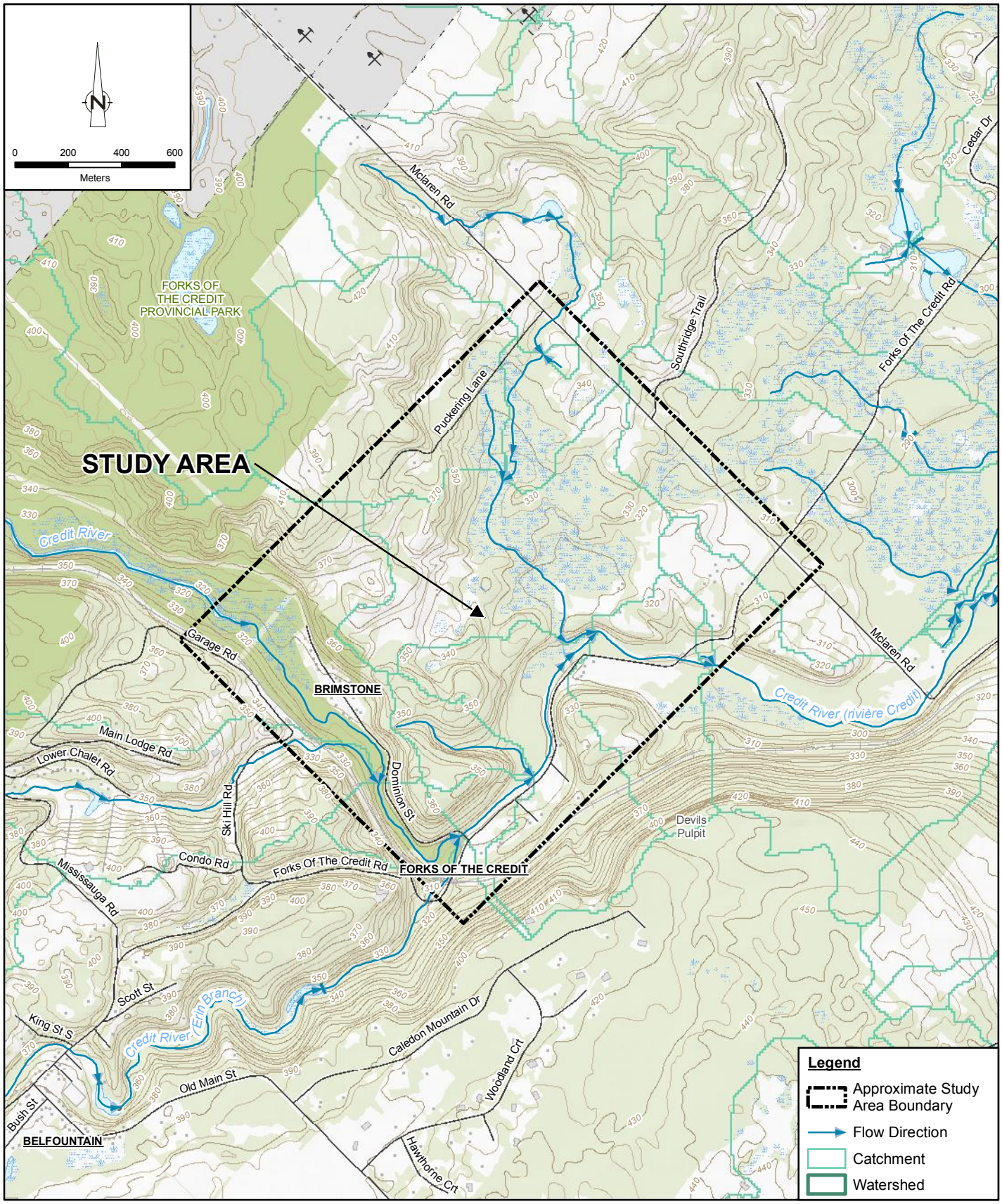

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TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS

11116800-90
Sep 23, 2016

SURFACE WATER FEATURES

FIGURE 4.1

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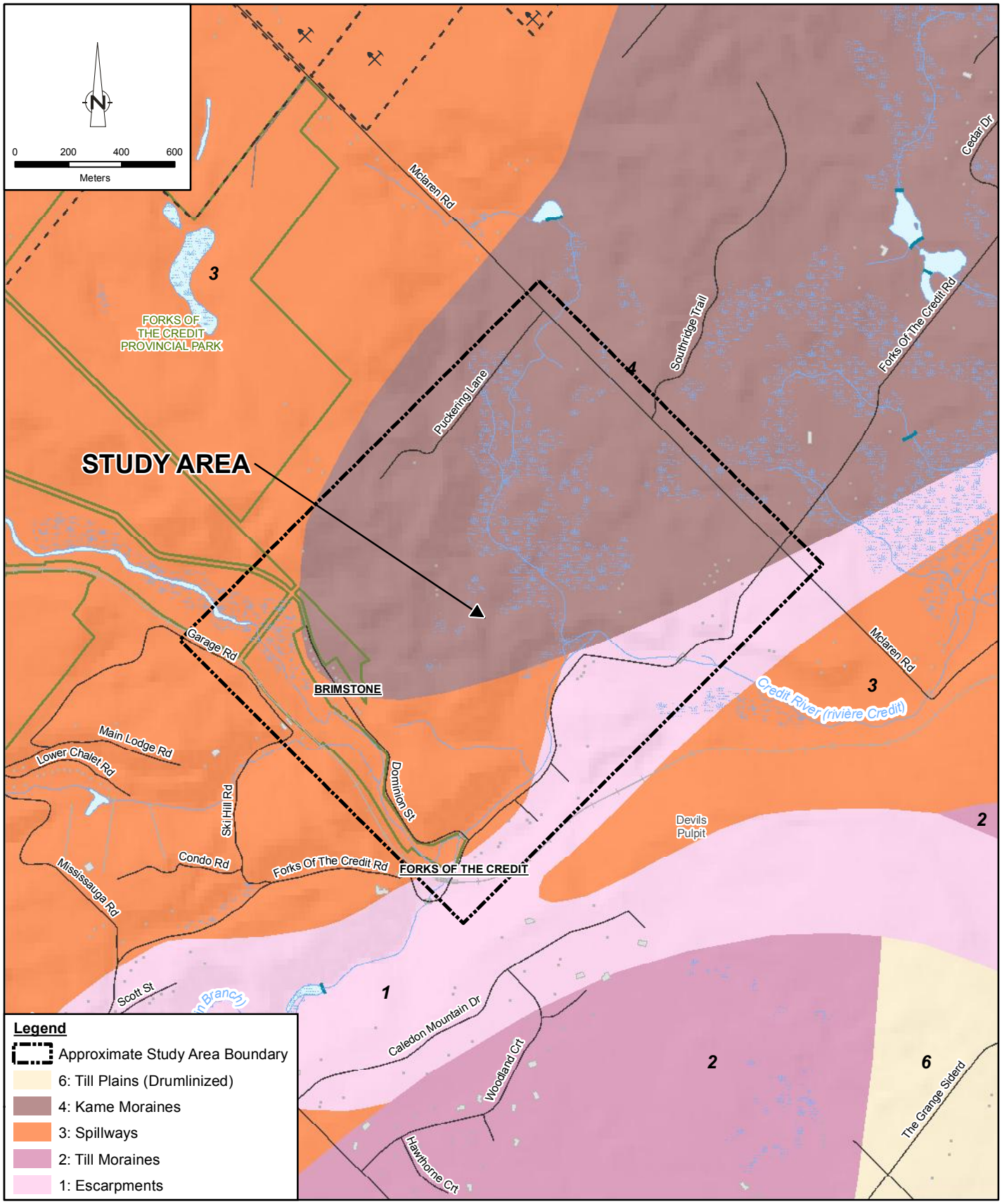


Source: MNRF NRVIS, 2015. Produced by GHD under licence from Ontario Ministry of Natural Resources and Forestry, © Queen's Printer 2016
Chapman, L.J. and Putnam, D.F. 2007. Physiography of southern Ontario; Ontario Geological Survey, Miscellaneous Release—Data 228. Coordinate System: NAD 1983 UTM Zone 17N

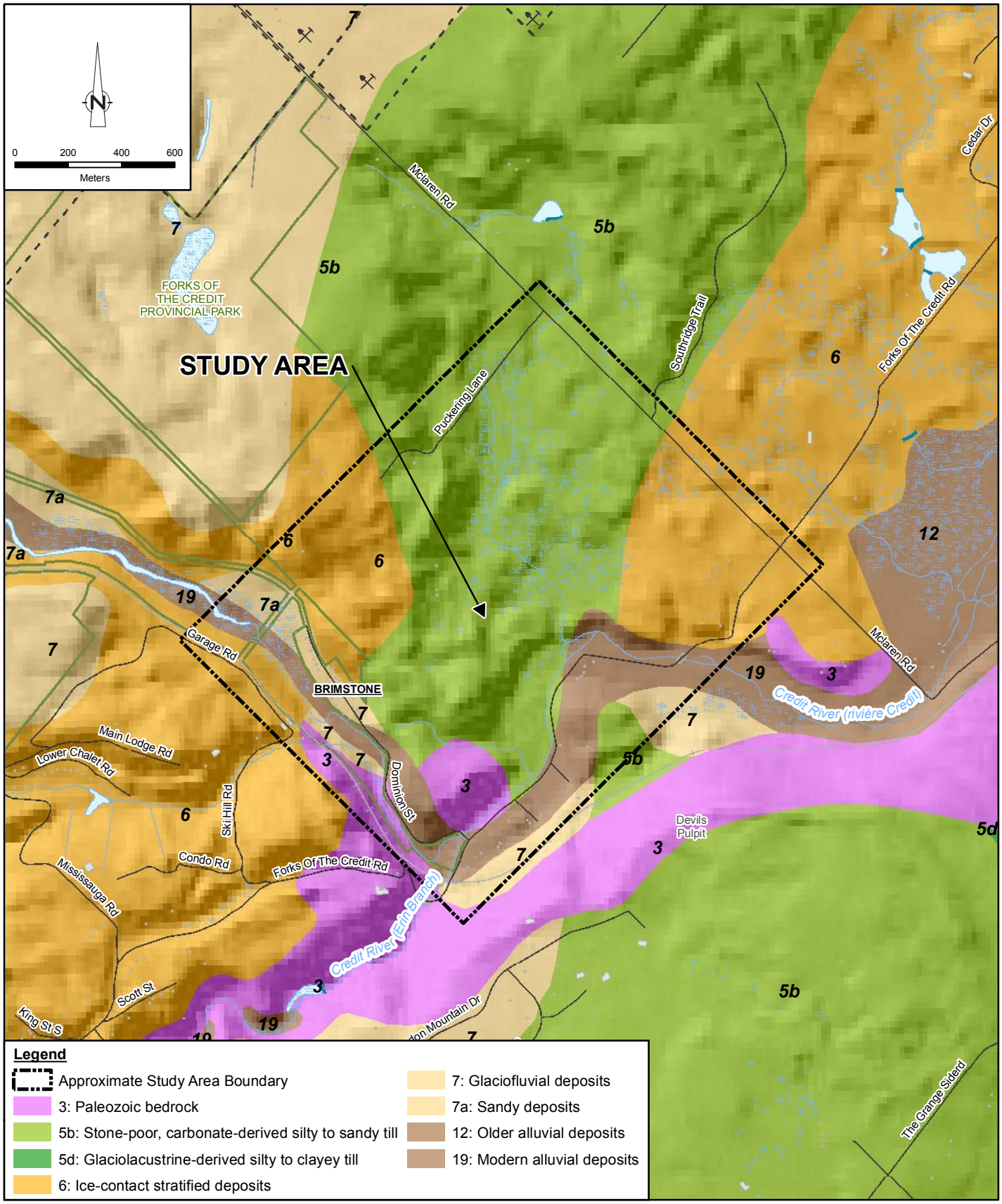
TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS

11116800-90
Sep 23, 2016

PHYSIOGRAPHY

FIGURE 4.2

GIS File: Q:\GIS\PROJECTS\11116000s\11116800\Layouts\001\11116800-90(001)GIS-WA006.mxd



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TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS

11116800-90
Sep 23, 2016

SURFICIAL GEOLOGY

FIGURE 4.3

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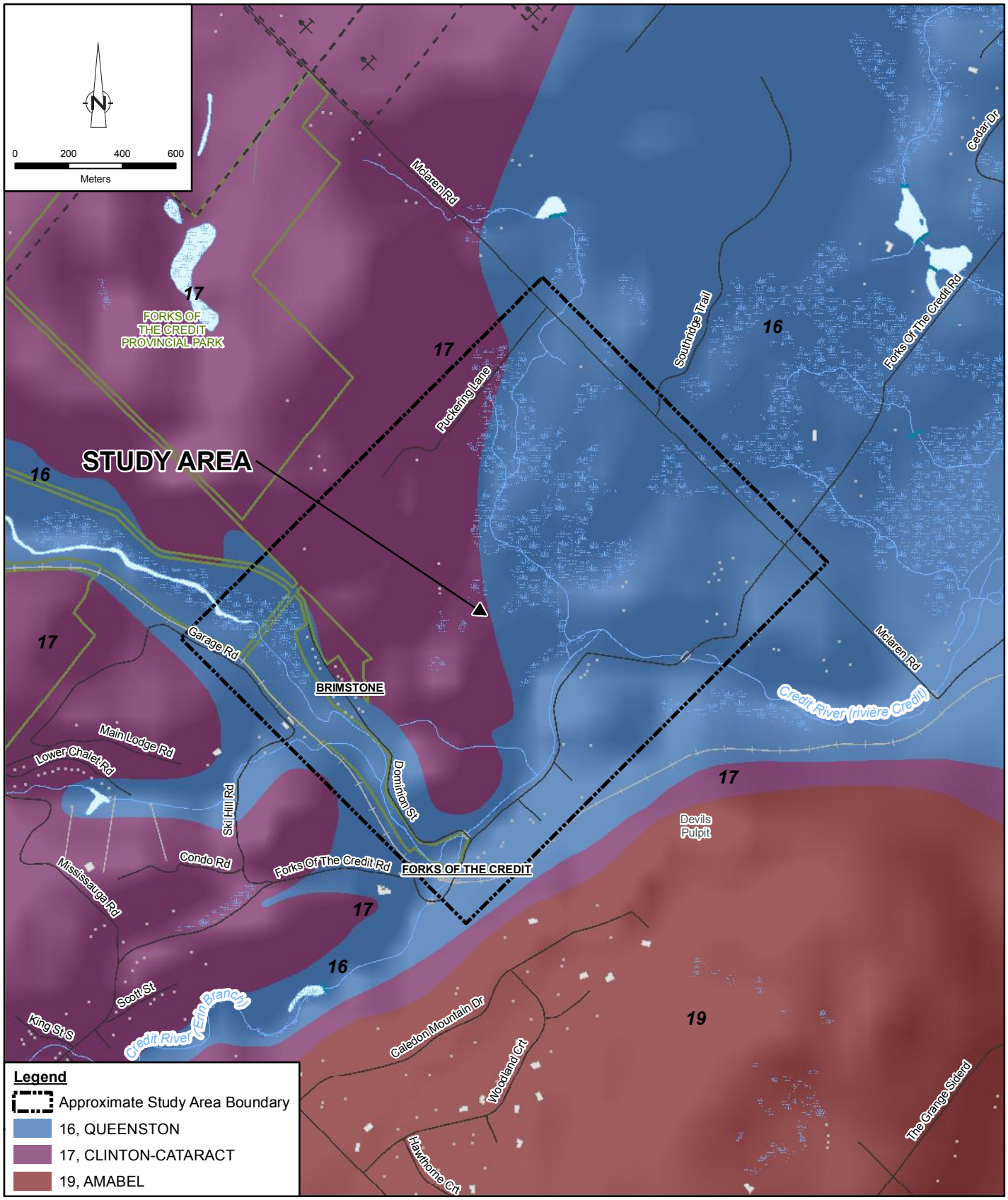

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Coordinate System: NAD 1983 UTM Zone 17N

TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS

11116800-90
Sep 23, 2016

BEDROCK GEOLOGY

FIGURE 4.4

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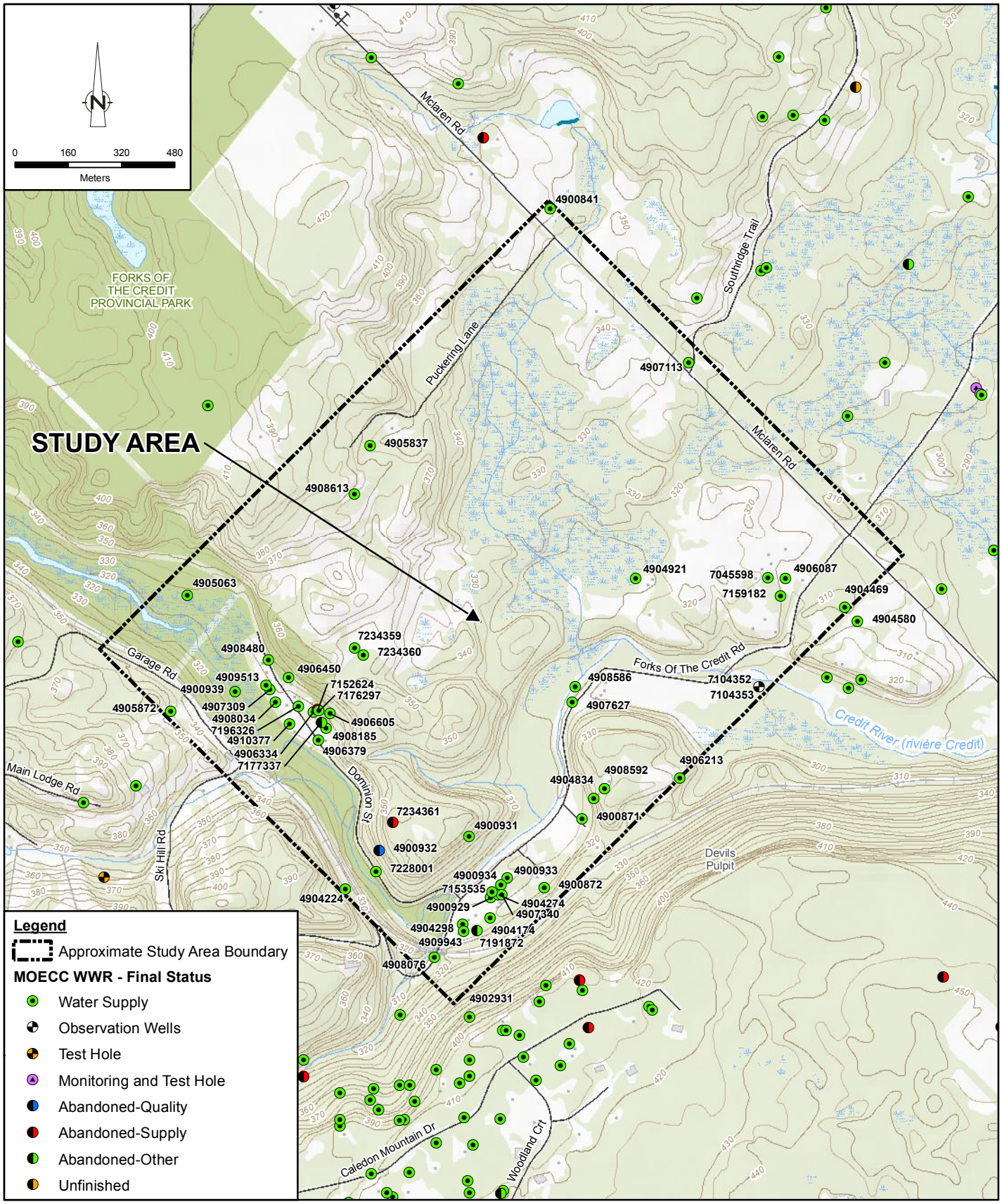


Legend

Approximate Study Area Boundary

MOECC WWR - Final Status

- Water Supply
- Observation Wells
- Test Hole
- Monitoring and Test Hole
- Abandoned-Quality
- Abandoned-Supply
- Abandoned-Other
- Unfinished

Source: MNRF NRVIS, 2015. Produced by GHD under licence from Ontario Ministry of Natural Resources and Forestry, © Queen's Printer 2016; WWIS, 2016. Ontario Ministry of the Environment and Climate Change (Accessed January 2016). Coordinate System: NAD 1983 UTM Zone 17N

TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS

11116800-90
Sep 23, 2016

MOECC WATER WELL RECORDS

FIGURE 4.5

GIS File: Q:\GIS\PROJECTS\11116000s\11116800\Layouts\001\11116800-90(001)GIS-WA016.mxd

Appendices

Appendix A
MOECC Water Well Records

MOECC Water Well Record - Formation Report
11116800 - Dominion Street Class Environmental Assessment

Well ID: **4900841** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 02(011) Completion Date: 6/23/1956 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581156.4,4852536) [9] Primary Use: Domestic
Depth to bedrock (m): Secondary Use: Domestic
Elevation (masl): 351.696716 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*RED*	*CLAY*	0	7.32
2		*CLAY BOULDERS*	7.32	10.67
3		*GRAVEL MEDIUM SAND*	10.67	17.07

Well ID: **4900871** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(008) Completion Date: 6/23/1965 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581252.4,4850698) [5] Primary Use: <null>
Depth to bedrock (m): 25.90799 Secondary Use: <null>
Elevation (masl): 305.327819 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*RED*	*CLAY STONES*	0	6.1
2		*MEDIUM SAND*	6.1	25.91
3	*RED*	*SHALE*	25.91	29.87

Well ID: **4900872** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(008) Completion Date: 6/6/1967 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581138.4,4850492) [5] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 311.769287 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*MEDIUM SAND GRAVEL BOULDERS*	0	7.32
2		*COARSE SAND GRAVEL*	7.32	8.53

Well ID: **4900929** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(008) Completion Date: 5/30/1967 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580978.4,4850461) [5] Primary Use: <null>
Depth to bedrock (m): 3.04799 Secondary Use: <null>
Elevation (masl): 310.022644 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*CLAY STONES*	0	3.05

2	*BROWN*	*LIMESTONE*	3.05	24.38

Well ID: **4900931** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(008) Completion Date: 6/26/1967 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580912.4,4850646) [5] Primary Use: <null>
Depth to bedrock (m): 3.96239 Secondary Use: <null>
Elevation (masl): 344.740875 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*TOPSOIL*	0	0.3
2	*BROWN*	*CLAY STONES*	0.3	3.96
3	*BROWN*	*LIMESTONE*	3.96	27.43

Well ID: **4900932** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(009) Completion Date: 10/15/1959 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580642.4,4850604) [5] Primary Use: <null>
Depth to bedrock (m): 6.40079 Secondary Use: <null>
Elevation (masl): 334.351074 Final Status: Abandoned-Quality

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*CLAY FILL*	0	6.4
2	*RED*	*SHALE*	6.4	79.25

Well ID: **4900933** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(009) Completion Date: 6/9/1964 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581028.4,4850521) [5] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 308.943969 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*CLAY MEDIUM SAND BOULDERS*	0	7.92
2		*GRAVEL*	7.92	8.23

Well ID: **4900934** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(009) Completion Date: 5/27/1964 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581008.4,4850501) [5] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 309.620239 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*CLAY STONES BOULDERS*	0	4.88
2		*GRAVEL*	4.88	5.18

Well ID: **4900939** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(010) Completion Date: 11/1/1967 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580208.4,4851081) [5] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 314.215026 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*TOPSOIL*	0	1.22
2		*GRAVEL BOULDERS*	1.22	6.71
3		*QUICKSAND*	6.71	27.43
4		*GRAVEL*	27.43	32

Well ID: **4902931** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(008) Completion Date: 2/26/1968 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580914.4,4850103) [5] Primary Use: <null>
Depth to bedrock (m): 3.04799 Secondary Use: <null>
Elevation (masl): 388.610595 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*CLAY STONES*	0	3.05
2	*BROWN*	*LIMESTONE*	3.05	22.86
3	*BLUE*	*CLAY*	22.86	25.6
4	*RED*	*CLAY*	25.6	26.52

Well ID: **4904174** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(008) Completion Date: 8/8/1973 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580976.4,4850401) [6] Primary Use: <null>
Depth to bedrock (m): 7.61999 Secondary Use: <null>
Elevation (masl): 311.569244 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BLACK*	*TOPSOIL*	0	0.3
2	*BROWN*	*GRAVEL CLAY*	0.3	7.62
3	*GREY*	*CLAY ROCK*	7.62	10.36
4	*RED*	*SHALE*	10.36	32.31

Well ID: **4904224** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(009) Completion Date: 11/12/1973 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580540.4,4850489) [4] Primary Use: <null>
Depth to bedrock (m): 32.00399 Secondary Use: <null>
Elevation (masl): 337.292785 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*TOPSOIL*	0	0.3
2	*RED*	*CLAY STONES*	0.3	4.57
3	*BROWN*	*CLAY STONES*	4.57	5.49
4	*YELLOW*	*CLAY ROCK*	5.49	8.53
5	*BROWN*	*ROCK*	8.53	22.86
6	*RED*	*CLAY ROCK*	22.86	32
7	*RED*	*CLAY ROCK*	32	60.96

Well ID: **4904274** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(008) Completion Date: 5/10/1973 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581001.4,4850471) [6] Primary Use: <null>
Depth to bedrock (m): 12.19199 Secondary Use: <null>
Elevation (masl): 310.020141 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*TOPSOIL*	0	0.3
2	*BROWN*	*SAND BOULDERS GRAVEL*	0.3	12.19
3	*RED*	*SHALE ROCK*	12.19	17.07

Well ID: **4904298** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(008) Completion Date: 10/23/1973 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580893.4,4850381) [6] Primary Use: <null>
Depth to bedrock (m): 10.05839 Secondary Use: <null>
Elevation (masl): 312.339752 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*GRAVEL*	0	10.06
2	*RED*	*SHALE*	10.06	32

Well ID: **4904469** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(008) Completion Date: 9/23/1974 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (582043.4,4851336) [4] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 312.242462 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*CLAY STONES*	0	3.05
2	*BROWN*	*CLAY GRAVEL*	3.05	8.23
3	*BROWN*	*CLAY GRAVEL*	8.23	8.84

Well ID: **4904580** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(008) Completion Date: 12/5/1974 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (582082.4,4851293) [4] Primary Use: <null>
Depth to bedrock (m): 35.35679 Secondary Use: <null>
Elevation (masl): 309.307739 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*TOPSOIL*	0	0.3
2	*BROWN*	*CLAY STONES*	0.3	6.1
3	*RED*	*CLAY GRAVEL*	6.1	12.19
4	*BROWN*	*CLAY SAND GRAVEL*	12.19	13.72
5		*FINE SAND*	13.72	18.29
6	*BROWN*	*CLAY SAND*	18.29	32
7	*RED*	*CLAY GRAVEL*	32	35.36
8	*BLUE*	*SHALE*	35.36	36.58

Well ID: **4904834** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(008) Completion Date: 10/3/1975 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581288.4,4850761) [4] Primary Use: <null>
Depth to bedrock (m): 1.82879 Secondary Use: <null>
Elevation (masl): 321.75885 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*CLAY STONES*	0	1.83
2	*RED*	*CLAY SHALE*	1.83	6.1
3	*RED*	*SHALE*	6.1	42.98

Well ID: **4904921** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(009) Completion Date: 7/12/1976 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581414.4,4851423) [5] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 308.717315 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*SAND FILL LOOSE*	0	0.91
2	*BLUE*	*CLAY DENSE*	0.91	2.13
3	*BLUE*	*CLAY SILT LAYERED*	2.13	15.24
4	*GREY*	*SAND SILT SOFT*	15.24	23.77
5	*RED*	*SAND SILT SOFT*	23.77	28.96
6	*GREY*	*GRAVEL SAND POROUS*	28.96	30.48

Well ID: **4905063** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(011) Completion Date: 4/30/1976 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580064.4,4851373) [5] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 327.863922 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*CLAY SANDY*	0	8.53
2	*BROWN*	*CLAY BOULDERS*	8.53	21.95
3	*BROWN*	*MEDIUM SAND*	21.95	24.38

Well ID: **4905837** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(010) Completion Date: 11/10/1981 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580614.4,4851823) [5] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 364.075561 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*SAND GRAVEL BOULDERS*	0	28.04
2	*BROWN*	*GRAVEL SAND HARD*	28.04	30.48
3	*BROWN*	*COARSE GRAVEL HARD*	30.48	32.61

Well ID: **4905872** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(010) Completion Date: 11/26/1981 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580014.4,4851023) [5] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 348.13031 Final Status: Water Supply

Layer	Colour	Description	Top	Bottom	Depth (m)
1	*BROWN*	*CLAY SAND STONES*	0	4.57	
2	*BROWN*	*CLAY SAND GRAVEL*	4.57	11.58	
3	*BROWN*	*SAND GRAVEL STONES*	11.58	14.94	
4	*BROWN*	*SAND GRAVEL*	14.94	16.46	
5	*BROWN*	*CLAY SAND GRAVEL*	16.46	21.34	
6	*BROWN*	*COARSE GRAVEL*	21.34	26.52	
7	*BROWN*	*FINE SAND*	26.52	31.7	

Well ID: **4906087** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(008) Completion Date: 5/27/1976 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581864.4,4851423) [5] Primary Use: <null>
Depth to bedrock (m): 1.52399 Secondary Use: <null>
Elevation (masl): 308.257629 Final Status: Water Supply

Layer	Colour	Description	Top	Bottom	Depth (m)
1	*BROWN*	*CLAY*	0	1.52	
2	*GREY*	*CLAY GRANITE BOULDERS*	1.52	14.63	
3	*BLUE*	*SHALE GRAVEL CEMENTED*	14.63	18.59	
4	*RED*	*CLAY*	18.59	19.51	
5	*RED*	*SHALE*	19.51	37.49	

Well ID: **4906213** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(008) Completion Date: 12/19/1984 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581547.4,4850821) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 322.172271 Final Status: Water Supply

Layer	Colour	Description	Top	Bottom	Depth (m)
1	*BLACK*	*TOPSOIL*	0	0.3	
2	*BROWN*	*CLAY STONES*	0.3	3.05	

Well ID: **4906334** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(010) Completion Date: 7/26/1985 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580444.4,4851021) [3] Primary Use: <null>
Depth to bedrock (m): 21.33599 Secondary Use: <null>
Elevation (masl): 317.853729 Final Status: Water Supply

Layer	Colour	Description	Top	Bottom Depth (m)
1	*BROWN*	*TOPSOIL LOOSE*	0	0.91
2	*BROWN*	*CLAY STONES DENSE*	0.91	5.18
3	*GREY*	*CLAY STONES DENSE*	5.18	14.02
4	*BLUE*	*CLAY FINE SAND SOFT*	14.02	21.34
5	*RED*	*SHALE HARD*	21.34	28.96

Well ID: **4906379** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(009) Completion Date: 2/10/1986 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580459.4,4850937) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 316.817626 Final Status: Water Supply

Layer	Colour	Description	Top	Bottom Depth (m)
1	*BLACK*	*TOPSOIL SANDY LOOSE*	0	3.66
2	*BROWN*	*SAND LOOSE FINE SAND*	3.66	6.4
3	*BROWN*	*SAND LOOSE*	6.4	11.28
4	*GREY*	*GRAVEL SAND PACKED*	11.28	11.89

Well ID: **4906450** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(010) Completion Date: 2/19/1986 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580370.4,4851125) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 328.359344 Final Status: Water Supply

Layer	Colour	Description	Top	Bottom Depth (m)
1	*BROWN*	*SAND GRAVEL LOOSE*	0	6.1
2	*BROWN*	*SAND LOOSE*	6.1	13.72
3	*BROWN*	*SAND COARSE-GRAINED PACKED*	13.72	27.13
4	*BROWN*	*GRAVEL FINE SAND PACKED*	27.13	27.43

Well ID: **4906605** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(009) Completion Date: 1/26/1987 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580494.4,4851017) [3] Primary Use: <null>
Depth to bedrock (m): 2.43839 Secondary Use: <null>
Elevation (masl): 325.147766 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*CLAY STONES*	0	2.44
2	*RED*	*SHALE STICKY POROUS*	2.44	45.72

Well ID: **4907113** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 02(009) Completion Date: 5/31/1989 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581574.4,4852073) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 334.843139 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*TOPSOIL*	0	0.61
2		*SAND GRAVEL*	0.61	7.62
3	*GREY*	*CLAY SAND*	7.62	22.56
4		*GRAVEL QUICKSAND*	22.56	24.99
5	*GREY*	*CLAY*	24.99	35.36
6		*QUICKSAND*	35.36	39.62
7	*BROWN*	*SAND*	39.62	54.86
8	*GREY*	*GRAVEL SAND*	54.86	58.52
9	*BROWN*	*SAND*	58.52	63.7
10	*RED*	*SHALE*	63.7	71.63
11	*BLUE*	*SHALE*	71.63	78.33

Well ID: **4907309** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(010) Completion Date: 4/26/1990 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580312.4,4851089) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 319.292388 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*TOPSOIL LOOSE*	0	0.3

2	*BROWN*	*GRAVEL SAND BOULDERS*	0.3	3.66

Well ID: **4907340** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(009) Completion Date: 6/4/1990 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581011.4,4850471) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 310.007598 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*TOPSOIL*	0	0.61
2		*GRAVEL STONES BOULDERS*	0.61	9.14
3	*RED*	*CLAY HARD*	9.14	17.37

Well ID: **4907627** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(009) Completion Date: 10/3/1991 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581222.4,4851051) [3] Primary Use: <null>
Depth to bedrock (m): 0.91439 Secondary Use: <null>
Elevation (masl): 299.534698 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*CLAY ROCK*	0	0.91
2	*BROWN*	*GRAVEL CLAY ROCK*	0.91	11.89
3	*BROWN*	*GRAVEL FINE-GRAINED*	11.89	13.72
4	*BROWN*	*SAND SILT*	13.72	22.56
5	*RED*	*SHALE*	22.56	27.43

Well ID: **4908034** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(010) Completion Date: 8/10/1994 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580330.4,4851051) [5] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 318.192749 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*CLAY GRAVEL LAYERED*	0	5.49
2	*GREY*	*CLAY SAND LAYERED*	5.49	13.72
3		*SAND GRAVEL*	13.72	16.46

Well ID: **4908076** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(009) Completion Date: 11/24/1995 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580808.4,4850283) [5] Primary Use: <null>
Depth to bedrock (m): 0.91439 Secondary Use: <null>
Elevation (masl): 310.647979 Final Status: Water Supply

Layer	Colour	Description	Top	Bottom	Depth (m)
1		*FILL*	0	0.61	
2		*TOPSOIL*	0.61	0.91	
3	*GREY*	*LIMESTONE CLAY LAYERED*	0.91	6.1	
4	*RED*	*CLAY SAND*	6.1	12.19	
5		*SAND*	12.19	42.06	
6	*RED*	*SHALE SAND*	42.06	42.67	

Well ID: **4908185** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(009) Completion Date: 2/11/1997 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580482.4,4850972) [3] Primary Use: <null>
Depth to bedrock (m): 0 Secondary Use: <null>
Elevation (masl): 318.054656 Final Status: Water Supply

Layer	Colour	Description	Top	Bottom	Depth (m)
1	*BROWN*	*SAND ROCK*	0	2.13	
2	*BROWN*	*GRAVEL SAND*	2.13	18.9	
3	*RED*	*SHALE*	18.9	22.25	
4	*GREEN*	*SHALE*	22.25	23.16	
5	*RED*	*SHALE*	23.16	25.91	
6	*GREEN*	*SHALE*	25.91	27.13	

Well ID: **4908480** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(010) Completion Date: 10/1/1999 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580308.4,4851177) [3] Primary Use: <null>
Depth to bedrock (m): 26.82239 Secondary Use: <null>
Elevation (masl): 326.087341 Final Status: Water Supply

Layer	Colour	Description	Top	Bottom	Depth (m)
1	*BLACK*	*PEAT*	0	1.52	
2	*GREY*	*CLAY GRAVEL SILT*	1.52	10.06	

3	*BLUE*	*GRAVEL SAND LAYERED*	10.06	12.8
4	*GREY*	*CLAY GRAVEL*	12.8	19.81
5	*BROWN*	*SAND GRAVEL SILT*	19.81	22.56
6	*BROWN*	*SAND GRAVEL SILT*	22.56	23.16
7	*GREY*	*CLAY*	23.16	24.08
8	*GREY*	*QUICKSAND GRAVEL*	24.08	25.6
9	*BROWN*	*CLAY GRAVEL*	25.6	26.82
10	*BLUE*	*SHALE*	26.82	28.65
11	*RED*	*SHALE*	28.65	38.1

Well ID: **4908586** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(009) Completion Date: 2/2/2000 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581232.5,4851096) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 297.134002 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*MEDIUM GRAVEL CLAY SAND*	0	9.14
2	*GREY*	*MEDIUM GRAVEL COARSE GRAVEL*	9.14	18.9

Well ID: **4908592** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(009) Completion Date: 5/20/2000 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581320.5,4850791) [3] Primary Use: <null>
Depth to bedrock (m): 15.84959 Secondary Use: <null>
Elevation (masl): 331.149444 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*SAND CLAY LAYERED*	0	4.57
2	*GREY*	*SAND CLAY*	4.57	8.23
3	*GREY*	*CLAY SANDY*	8.23	12.8
4	*GREY*	*SAND GRAVEL*	12.8	13.72
5	*GREY*	*HARDPAN*	13.72	15.85
6	*RED*	*SHALE*	15.85	16.46

7	*BROWN*	*SAND GRAVEL*	16.46	19.2
8	*BLUE*	*CLAY*	19.2	19.51
9	*BROWN*	*SAND*	19.51	19.51

Well ID: **4908613** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(010) Completion Date: 7/24/2000 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580567,4851677) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 376.31491 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*TOPSOIL*	0	0.3
2	*BROWN*	*CLAY SILTY GRAVEL*	0.3	11.28
3	*BROWN*	*GRAVEL SILT*	11.28	36.58
4	*BROWN*	*SAND GRAVEL*	36.58	41.15
5	*GREY*	*SILT WOOD FRAGMENTS*	41.15	61.87
6	*GREY*	*COARSE SAND GRAVEL*	61.87	67.06
7	*GREY*	*GRAVEL*	67.06	67.67

Well ID: **4909513** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(010) Completion Date: 6/8/2004 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580302,4851101) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 319.223236 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BLACK*	*PEAT SAND*	0	0.61
2	*BROWN*	*SAND SILT SOFT*	0.61	15.54
3	*BROWN*	*SAND*	15.54	21.64
4	*BROWN*	*GRAVEL*	21.64	23.47

Well ID: **4909943** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): 04(008) Completion Date: 10/26/2005 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580897,4850361) [] Primary Use: <null>
Depth to bedrock (m): 9.14399 Secondary Use: <null>
Elevation (masl): 313.904602 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BLACK*	*TOPSOIL*	0	1.22
2	*BROWN*	*SAND GRAVEL*	1.22	9.14
3	*RED*	*SHALE LAYERED*	9.14	29.87

Well ID: **4910377** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): 04(009) Completion Date: 12/6/2006 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580372,4850985) [3] Primary Use: <null>
Depth to bedrock (m): 64.92239 Secondary Use: <null>
Elevation (masl): 315.97467 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*TOPSOIL FILL*	0	0.61
2	*BROWN*	*SAND*	0.61	13.11
3	*GREY*	*CLAY GRAVEL*	13.11	19.81
4	*RED*	*SHALE*	19.81	29.26
5	*BLUE*		29.26	<null>

Well ID: **7045598** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): 03(009) Completion Date: 5/28/2007 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581812,4851426) [3] Primary Use: <null>
Depth to bedrock (m): 46.02479 Secondary Use: <null>
Elevation (masl): 312.364196 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*TOPSOIL*	0	0.3
2	*BROWN*	*CLAY GRAVEL*	0.3	10.67
3	*BROWN*	*SAND GRAVEL*	10.67	10.97
4	*GREY*	*STONES GRAVEL*	10.97	14.02
5	*RED*	*SHALE LAYERED*	14.02	35.36

Well ID: **7104352** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): 03(008) Completion Date: 3/19/2008 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581785,4851096) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 295.049102 Final Status: Observation Wells

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*SAND*	0	6.4

Well ID: **7104353** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): 03(008) Completion Date: 3/19/2008 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581785,4851096) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 295.049102 Final Status: Observation Wells

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*SAND*	0	3.7

Well ID: **7152624** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(009) Completion Date: 5/25/2010 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580457,4851029) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 320.082641 Final Status: Abandoned-Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*TOPSOIL*	0	0.61
2	*BROWN*	*CLAY STONES*	0.61	15.54
3	*BROWN*	*SAND*	15.54	17.37
4	*RED*	*CLAY GRAVEL*	17.37	18.9
5	*RED*	*SHALE*	18.9	42.67
6	*RED*	*SHALE*	42.67	66.14

Well ID: **7153535** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): () Completion Date: 9/23/2010 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580982,4850479) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): 309.654327 Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*GRAVEL CLAY STONES*	0	10.97
2	*GREY*	*ROCK*	10.97	11.89
3	*RED*	*SHALE*	11.89	12.8

Well ID: **7159182** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 03(009) Completion Date: 10/7/2010 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (581850,4851370) [3] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): <null> Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1		*TOPSOIL*	0	<null>
2	*BROWN*	*SAND*	<null>	1.22
3	*BROWN*	*SAND GRAVEL*	1.22	8.23
4	*RED*	*SHALE LAYERED*	8.23	35.66

Well ID: **7176297** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): () Completion Date: 12/20/2011 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580461,4851025) [4] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): <null> Final Status: Water Supply

Layer	Colour	Description	Top - Bottom Depth (m)	
1	*BROWN*	*TOPSOIL*	0	0.3
2	*BROWN*	*CLAY SAND SOFT*	0.3	18.9
3	*BROWN*	*SAND HARD*	18.9	19.2
4	*GREY*	*CLAY SOFT*	19.2	21.95
5	*BROWN*	*CLAY GRAVEL HARD*	21.95	24.38
6	*RED*	*SHALE HARD*	24.38	28.96
7	*BROWN*	*GRAVEL*	28.96	29.87
8	*GREY*	*SHALE*	29.87	31.09
9	*RED*	*SHALE*	31.09	33.53

Well ID: **7177337** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): () Completion Date: 12/28/2011 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580468,4850989) [4] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): <null> Final Status: Abandoned-Other

Layer	Colour	Description	Top - Bottom Depth (m)

1	0	<null>
2	<null>	<null>
3	<null>	<null>

Well ID: **7191872** County / Township: PEEL / CALEDON TOWN (CALEDON TWP)
Concession (Lot): HS W 04(009) Completion Date: 11/9/2012 12:00 AM
UTM Zone (Easting, Northing) [RC]: 17 (580936,4850363) [4] Primary Use: <null>
Depth to bedrock (m): Secondary Use: <null>
Elevation (masl): <null> Final Status: Abandoned-Other

Layer	Colour	Description	Top - Bottom Depth (m)	
1			0	<null>

Appendix B
MOECC Water Well Records (Credit River)

Dominion Road

UTM Plan A Z 17 | 5 8 0 | 8 9 8 E
Caledon Twsp.
R 4 8 5 0 4 3 N
Lot #15
Elev. R
7th well drilled.
Basin

49 № 931

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Peel
Township, Village, Town or City Caledon
Con. IV Plan A - Lot 15
Date completed 26th June 1967 (day month year)
[redacted]
Address 100 University Ave Toronto Ont.

Casing and Screen Record

Inside diameter of casing 5 inch
Total length of casing 21 ft
Type of screen --
Length of screen --
Depth to top of screen --
Diameter of finished hole 5 inch

Pumping Test

Static level 55 ft
Test-pumping rate 10 G.P.M.
Pumping level 65 ft
Duration of test pumping 3½ hours
Water clear or cloudy at end of test clear
Recommended pumping rate 10 G.P.M.
with pump setting of 70 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
soil	0 -	1	90'	fresh
brown clay & stones	1	13		
light brown rock	13	86		
dark brown rock	86	90		
total - 90 ft				

For what purpose(s) is the water to be used? domestic
Is well on upland, in valley, or on hillside? upland
Drilling or Boring Firm Graham Well Drilling
Address 19 Kingsley Crt. Guelph Ont.
Licence Number 2453
Name of Driller or Borer J Hawking
Address sheridan St Guelph
Date June 26th 1967
J L Graham per
(Signature of Licensed Drilling or Boring Contractor)

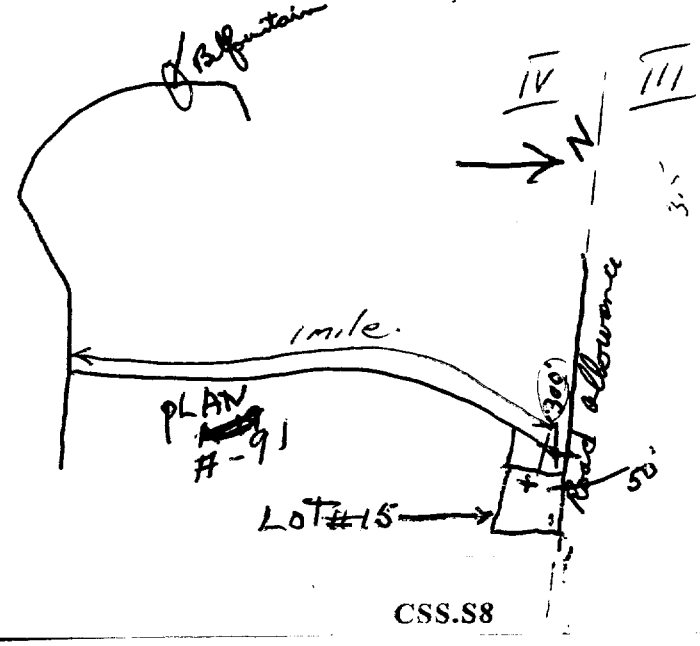
PLAN-A 91
LOT 15

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.S8

UTM 17 Z 580628 E
5 R 4850381 N
Elev. 5 R
Basin 24

49 № 932

The Ontario Water Resources Commission Act, 1957

WATER WELL RECORD

County or District ..... Township, Village, Town or City .....

[redacted]

Date completed ..... (day month year)

Address .....

Casing and Screen Record

Inside diameter of casing .....
Total length of casing .....
Type of screen .....
Length of screen .....
Depth to top of screen .....
Diameter of finished hole .....

Pumping Test

Static level .....
Test-pumping rate ..... G.P.M.
Pumping level .....
Duration of test pumping .....
Water clear or cloudy at end of test .....
Recommended pumping rate ..... G.P.M.
with pumping level of .....

Well Log / Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
			26	11	

For what purpose(s) is the water to be used?
.....

Is well on upland, in valley, or on hillside? .....
.....

Drilling Firm .....
Address .....
.....

Licence Number .....
Name of Driller .....
Address .....
Date .....
.....
(Signature of Licensed Drilling Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.

UTM 17 Z 580194 E
5 R 4850858 N
Elev. 78 R 0076

49 № 939

The Ontario Water Resources Commission Act

WATER WELL RECORD

Basin 24 Peel County or District

Township, Village, Town or City CALEDON (FORKS OF THE CREDIT)

[redacted] TW W.H.S. Lot 10

Date completed Wed. (day) NOV. 1ST (month) 1967 (year)

[redacted] CREDIT FORKS.

Casing and Screen Record

Inside diameter of casing 6"
Total length of casing 105
Type of screen no screen.
Length of screen —
Depth to top of screen —
Diameter of finished hole 6"

Pumping Test

Static level 85
Test-pumping rate 8 G.P.M.
Pumping level 87' BAILER TEST.
Duration of test pumping 6
Water clear or cloudy at end of test CLOUDY
Recommended pumping rate 8 gal. G.P.M.
with pump setting of 45 ft feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
Top soil	0	4		
Bouldery gravel.	4	22		
Quick sand	22	90		
Fine gravel.	90.	105	90	FRESH

For what purpose(s) is the water to be used? House.

Is well on upland, in valley, or on hillside? Valley

Drilling or Boring Firm ACCURATE DIAMOND DRILLING

Address R.R. # 3 Woodbridge

Licence Number

Name of Driller or Borer Bev EDWARDS.

Address 24 Burlington ST. MALTON

Date DEC. 12/67

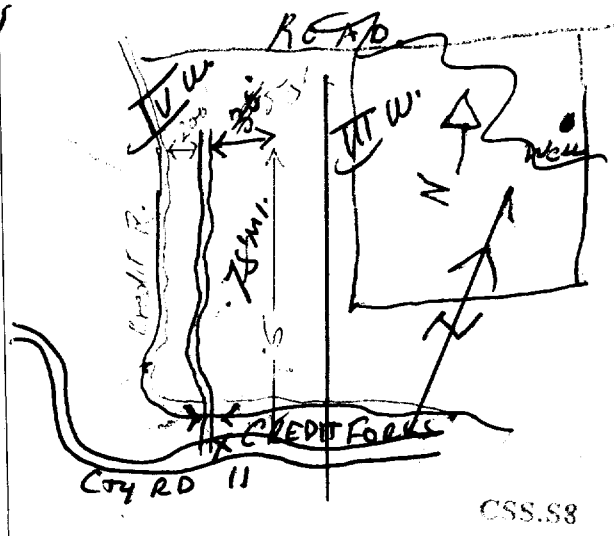
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.88

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

Ontario

40 P/16 E

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11 | 4905063 | MUNICIP 49002 | CON. HS W | LOT 04

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Peel	Caledon HSW	4W SM	04 SM

	ADDRESS	DATE COMPLETED
[redacted]	RR 2 Caledon	DAY 30 MO. 04 April YR. 76

21 | UTM ZONE 17 | EASTING 580050 | NORTHING 4851150 | RC 5 | ELEVATION 1080 | 5 | BASIN CODE 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
Brown	Sandy Clay			0	28
Brown	Clay with boulders			28	72
Brown	medium sand			72	80

OWRC P-5

31 | 0028605181 | 0072605113 | 0080609

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
72 (0072)	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
4½ (05)	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	76 (0076)
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
016	04.000	04

MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET
Stainless Steel	0076

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
0	76	Neoprene packer and
		woodplug

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	~~30~~ & 12 (0030) GPM	12 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☒ PUMPING 2 ☐ RECOVERY)	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
008 FEET	~~0~~ FEET		015 FEET	015 FEET	015 FEET	015 FEET

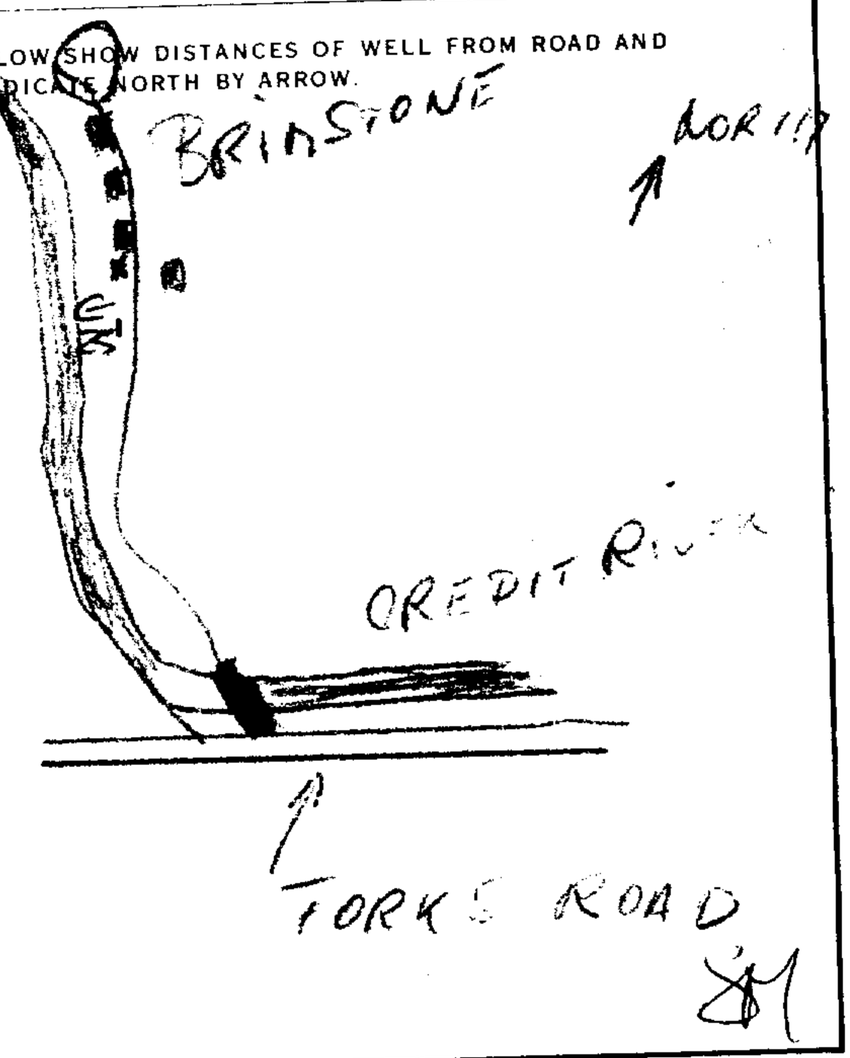
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☒ SHALLOW ☒ DEEP	025 FEET	~~up to 20~~ 0020 GPM

50-53 ——— GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL	WATER USE	METHOD OF DRILLING
1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED	1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED	1 ☐ CABLE TOOL 2 ☒ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☒ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING
1	01	2

CONTRACTOR

NAME OF WELL CONTRACTOR	LICENCE NUMBER
Precision Drilling Co.	4320

ADDRESS: Box 214 Caledon East Ont.

NAME OF DRILLER OR BORER	LICENCE NUMBER
Steven Sauter	

SIGNATURE OF CONTRACTOR: [signature]

SUBMISSION DATE: DAY 30 MO. April YR. 76

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
1	4320	770277

DATE OF INSPECTION | INSPECTOR

REMARKS: CSS.S8

P Aug 77 SM

WI

FORM 7 MOE 07-091

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Ontario

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cv/orm

WATER WELL RECORD

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MUNICIP. CON.

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
Peel	Caledon (CALEDON)	3 WHS (DOMINION ST)	10

[redacted] R. 2 Brampton 271 DOMINION ST — DATE COMPLETED: DAY 26 MO. VII YR. 85

UTM 5 0 7 9 8 — RC — ELEVATION 0 3 1 9 — RC — BASIN CODE

ROWLAND, H.

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
Brown	Top soil		Loos	0	3
Brown	Clay	Stones	Dense	3	17
GRAY	Clay	Stones	Dense	17	46
Blue	Clay	fine sand	Soft	46	70
Red	Shale		HARD	70	95

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
76	1 ☒ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
6	1 ☒ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE	188	0	74
	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☒ OPEN HOLE		74	95
	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
006	5 INCHES	4 FEET

MATERIAL AND TYPE: S.S. — DEPTH TO TOP OF SCREEN: 72 FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☒ BAILER — PUMPING RATE: 1½ GPM — DURATION OF PUMPING: 3 HOURS ___ MINS

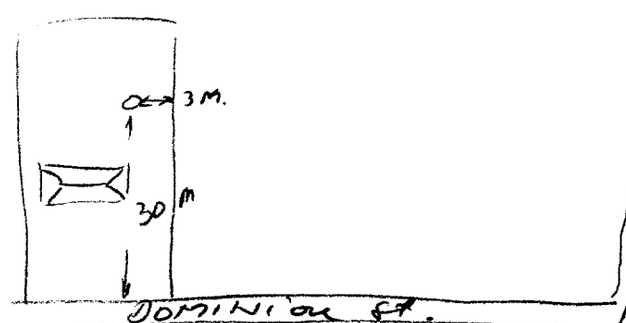
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☐ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
11 FEET	74 FEET	74 FEET	FEET	FEET	FEET

IF FLOWING, GIVE RATE: ___ GPM — PUMP INTAKE SET AT: ___ FEET — WATER AT END OF TEST: 1 ☐ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☐ DEEP — RECOMMENDED PUMP SETTING: 74 FEET — RECOMMENDED PUMPING RATE: 1½ GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: The FORS of Credit Rd

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED POOR QUALITY; 7 ☐ UNFINISHED

WATER USE

1 ☒ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; ☐ OTHER; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; 9 ☐ NOT USED

METHOD OF DRILLING

1 ☒ CABLE TOOL; 2 ☐ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☐ AIR PERCUSSION; 6 ☐ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: M. KIVAC Drilling Co — LICENCE NUMBER: 3132

ADDRESS: Box 148 Caledon - Ont.

NAME OF DRILLER OR BORER: MARKO KIVAC — LICENCE NUMBER: 3132

SIGNATURE OF CONTRACTOR: — SUBMISSION DATE: DAY 15 MO. 08 YR. 85

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR — DATE RECEIVED 13 09 85

DATE OF INSPECTION — INSPECTOR

REMARKS

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

4906379

1. PRINT ONLY IN SPACES PROVIDED
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COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
PEEL	TOWN OF CALEDON (CALEDON) -	CON. 3 W HS	9

[redacted] 228 ROCKWOOD ONT. N0B 2K0

DATE COMPLETED: DAY 10 MO 2 YR 86

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BLACK	SANDY LOAM		LOOSE	0	12
BROWN	SAND		LOOSE & FINE	12	21
BROWN	SAND		LOOSE	21	37
GREY	GRAVEL & SAND		PACKED	37	39
		GRAVEL PACKED BACK TO 34 FEET			

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
39	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	2	39
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☒ BAILER	3 GPM	2 HOURS ___ MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING ☒ PUMPING ☐ RECOVERY 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
41 FEET	31 FEET	0 FEET	1 FEET	1 FEET	1 FEET

IF FLOWING, GIVE RATE: GPM

PUMP INTAKE SET AT: FEET

WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY

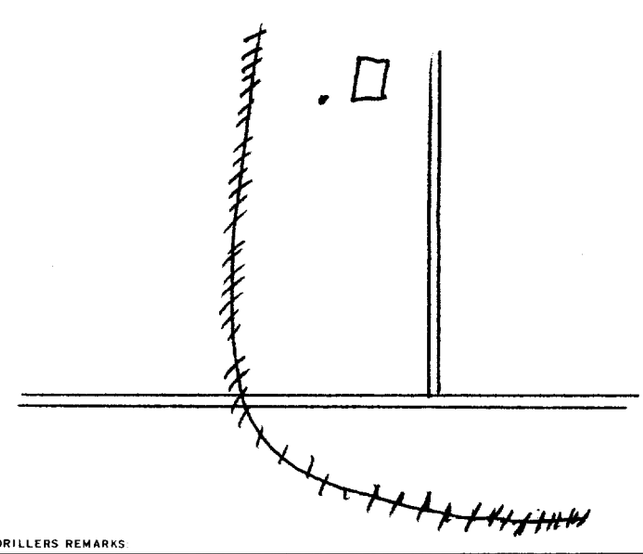
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP

RECOMMENDED PUMP SETTING: 32 FEET

RECOMMENDED PUMPING RATE: 3 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL	1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED POOR QUALITY 7 ☐ UNFINISHED
WATER USE	1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED
METHOD OF DRILLING	1 ☒ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: OCONNOR WELL DRILLING LTD. — LICENCE NUMBER: 4005

ADDRESS: RR # 1 MILLGROVE ONT. LOR IVO

NAME OF DRILLER OR BORER: W. HOWE B. WOCONNOR — LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: B. O'Connor — SUBMISSION DATE: DAY ___ MO ___ YR ___

OFFICE USE ONLY

DATA SOURCE: — CONTRACTOR: — DATE RECEIVED: 24 0286

DATE OF INSPECTION: — INSPECTOR:

REMARKS:

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Ministry of the Environment
Ontario

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WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
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11 4906450

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
PEEL	TOWN OF CALDON (CALEDON)	CON.3 WHS (10)	X

[redacted] DOMINION ST.BRIMESTONE ONT.LON 1C0

DATE COMPLETED: DAY 19 MO. 2 YR. 86

UTM ZONE 17 — 550902 — 0219

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BROWN	SAND &	GRAVEL	LOOSE	0	20
BROWN	SAND		LOOSE	20	45
BROWN	SAND	COARSE	PACKED	45	89
BROWN	GRAVEL	FINE SAND	PACKED	89	90
			Dominion St		

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
90	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	1	90
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☒ BAILER	24 GPM	3 HOURS 1/2 MINS

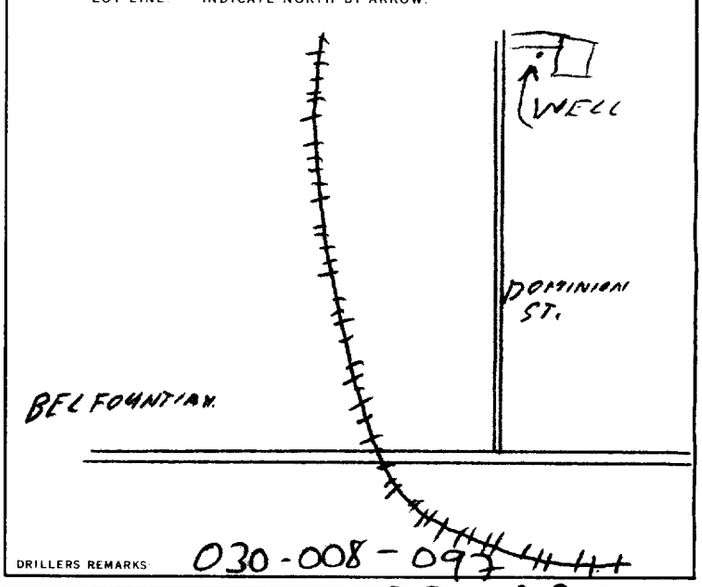
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☒ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
40 FEET	70 FEET	40 FEET	40 FEET	40 FEET	40 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	85 FEET	10 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: 030-008-093

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY
2 ☐ OBSERVATION WELL
3 ☐ TEST HOLE
4 ☐ RECHARGE WELL
5 ☐ ABANDONED, INSUFFICIENT SUPPLY
6 ☐ ABANDONED, POOR QUALITY
7 ☐ UNFINISHED

WATER USE

1 ☒ DOMESTIC
2 ☐ STOCK
3 ☐ IRRIGATION
4 ☐ INDUSTRIAL
☐ OTHER
5 ☐ COMMERCIAL
6 ☐ MUNICIPAL
7 ☐ PUBLIC SUPPLY
8 ☐ COOLING OR AIR CONDITIONING
9 ☐ NOT USED

METHOD OF DRILLING

1 ☒ CABLE TOOL
2 ☐ ROTARY (CONVENTIONAL)
3 ☐ ROTARY (REVERSE)
4 ☐ ROTARY (AIR)
5 ☐ AIR PERCUSSION
6 ☐ BORING
7 ☐ DIAMOND
8 ☐ JETTING
9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: OCONNOR WELL DRILLING LTD. — LICENCE NUMBER: 4005

ADDRESS: # 1 MILLGROVE ONT.LOR IVO

NAME OF DRILLER OR BORER: W.HOWE B.W.OCONNOR — LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: B. O'Connor — SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR — RECEIVED 080486

DATE OF INSPECTION — INSPECTOR

REMARKS

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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11 4906605

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
Region of Peel	Town of Caledon (CALEDON)	Conc 4 WHS partE 1/2	9&10

OWNER (SURNAME FIRST)	ADDRESS	DATE COMPLETED
Keewhit Investments Ltd.	Suite 6050, Box 40, 1st Canadian Place DOMINION ST Toronto, Ont.	DAY 26 MO Jan YR. 87

21 ZONE EASTING NORTHING ELEVATION

[redacted] **LOG OF OVERBURDEN AND BEDROCK MATERIALS** (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	clay	stones		0	8
Red	shale	Some grey shale strks	porous	8	150

4 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
106	☒ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL

5 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6	☒ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE	.188	+1	21
6	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☒ OPEN HOLE		21	150
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
8	8	backfilled with cement.

PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
☐ PUMP ☒ BAILER	90 galsin24hrs. GPM	HOURS MINS

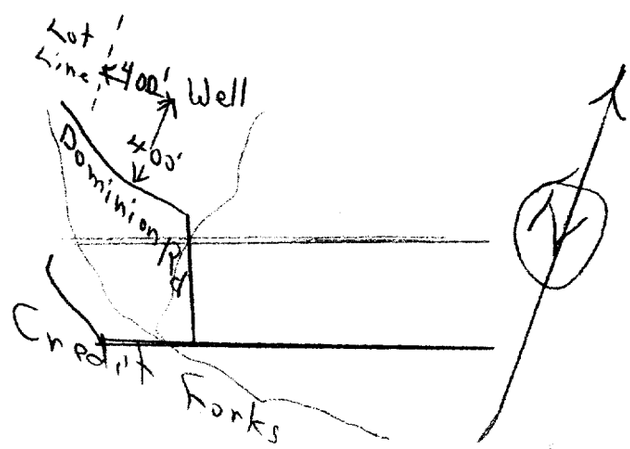
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING ☐ PUMPING ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
70 FEET	dry FEET	dry FEET	FEET	FEET	FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	☐ CLEAR ☒ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	150 FEET	90g. 24hrs GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: 07516

FINAL STATUS OF WELL
☒ WATER SUPPLY ☐ OBSERVATION WELL ☐ TEST HOLE ☐ RECHARGE WELL ☐ ABANDONED, INSUFFICIENT SUPPLY ☐ ABANDONED, POOR QUALITY ☐ UNFINISHED

WATER USE
☒ DOMESTIC ☐ STOCK ☐ IRRIGATION ☐ INDUSTRIAL ☐ OTHER ☐ COMMERCIAL ☐ MUNICIPAL ☐ PUBLIC SUPPLY ☐ COOLING OR AIR CONDITIONING ☐ NOT USED

METHOD OF DRILLING
☐ CABLE TOOL ☐ ROTARY (CONVENTIONAL) ☐ ROTARY (REVERSE) ☒ ROTARY (AIR) ☐ AIR PERCUSSION ☐ BORING ☐ DIAMOND ☐ JETTING ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR	LICENCE NUMBER
Northern Well Drilling Limited	3903
ADDRESS: P.O. Box 358 Unionville Ont.	
NAME OF DRILLER OR BORER: Jerry W. Renwick	T-0001
SIGNATURE OF CONTRACTOR: Jerry W. Renwick	SUBMISSION DATE: DAY 31 MO Mar YR. 87

OFFICE USE ONLY
CONTRACTOR DATE RECEIVED 220487
DATE OF INSPECTION INSPECTOR
REMARKS

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Ministry of the Environment

Ontario

PEEL

The Ontario Water Resources Act

WATER WELL RECORD

CV

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11 | 4907309 | MUNICIP 49002 | CON. HS. W. 04

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON	BLOCK, TRACT, SURVEY, ETC	LOT
Caledon (Peel)	Township of Caledon (Caledon)	4	W.H.S	10

OWNER (SURNAME FIRST): [redacted]

ADDRESS: [redacted] 318 Dominion St.

DATE COMPLETED: DAY 26 MO. APRIL YR. 90

21 | M 17 | EASTING 580298 | NORTHING 4850366 | RC. | ELEVATION 0322 | RC. | BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
BROWN	TOP SOIL		LOOSE.	0'	1'
BROWN	GRAVELL	SAND, BOULDERS.	SOFT.	1'	12'

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER (TASTE TEST ONLY)
4'	1 ☑ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
36"	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☑ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	3"	0'	2'6"
30"	1 ☐ STEEL 2 ☑ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	16 GAGUE	2'6"	11'
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE: | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
0	8	BENSEAL, CEMENT
		JOINT, CULVERT.

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☑ PUMP 2 ☐ BAILER	5 GPM	1 HOURS — MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☑ RECOVERY)	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
4'6" FEET	7'0" FEET		6'6" FEET	5'11" FEET	5'3" FEET	4'9" FEET

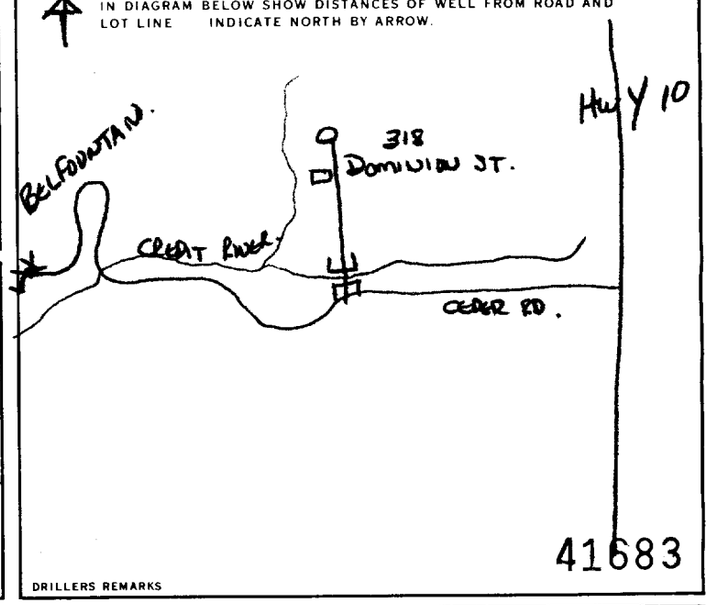
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
— GPM	8 FEET	1 ☑ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☑ SHALLOW ☐ DEEP	8 FEET	3 GPM

LOCATION OF WELL

N

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: 41683

FINAL STATUS OF WELL	1 ☑ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED POOR QUALITY 7 ☐ UNFINISHED ☐ DEWATERING
WATER USE	1 ☑ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING ☐ OTHER COTTAGE 9 ☐ NOT USED
METHOD OF CONSTRUCTION	1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING ☑ DIGGING ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: S.D. Smith Drilling Co Ltd | WELL CONTRACTOR'S LICENCE NUMBER: 4868

ADDRESS: RR#2 Acton Ont L7J 2L8

NAME OF WELL TECHNICIAN: Simon Smith | WELL TECHNICIAN'S LICENCE NUMBER: 7346.

SIGNATURE OF TECHNICIAN/CONTRACTOR: [signature] | SUBMISSION DATE: DAY 3 MO. May YR. 90

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
	4868	MAY 10 1990

DATE OF INSPECTION | INSPECTOR

REMARKS

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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11 | 4908034 | MUNICIP. 49002 | CON. HS W | 04

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON. BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]	CALEDON (Caledon)	IV WHS PLAN CAL-17 VILLAGE LOT 7	PT E-½ 10
[redacted]	RR2, LON 1C0 Dominion St., Caledon Ont		DATE COMPLETED DAY 10 MO 08 YR 94

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BR.	CLAY	GRAVEL, SAND LAYERS		0	18
GR.	CLAY	SAND & GRAVEL LAYERS		18	45
S	SAND	GRAVEL		45	54

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
50-54	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	0	50
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	SCREEN	50	54
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
#35	7½ O.D.	4

MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET
STAINLESS STEEL	50

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☐ BAILER — AIR	3 GPM	1 HOURS 15 MINS

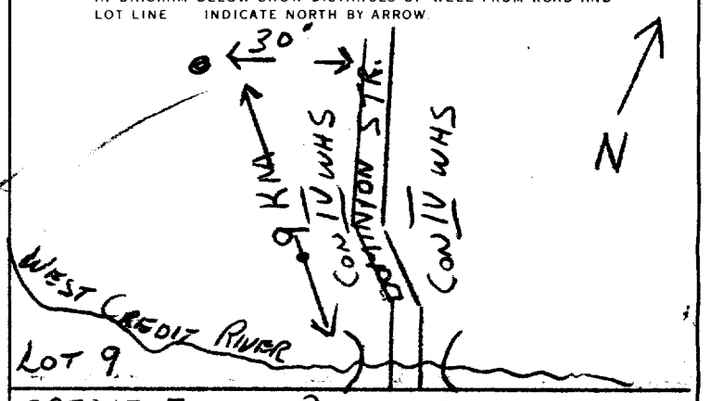
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☒ PUMPING 2 ☐ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
FLOWS FEET	40 FEET	— FEET	FEET	FEET	40 FEET

IF FLOWING GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
½ GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	45 FEET	2 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS 149983

FINAL STATUS OF WELL	1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED ☐ DEWATERING
WATER USE	1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED
METHOD OF CONSTRUCTION	1 ☐ CABLE TOOL 2 ☒ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING ☐ DIGGING ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR	WELL CONTRACTOR'S LICENCE NUMBER
LANG WELL DRILLING LTD.	3317
ADDRESS: R.R.1 HILLSBURGH ONT	
NAME OF WELL TECHNICIAN: ROY LANG	WELL TECHNICIAN'S LICENCE NUMBER: T-0158
SIGNATURE OF TECHNICIAN/CONTRACTOR: R. Lang	SUBMISSION DATE DAY 20 MO. 09 YR. 95

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
	3317	SEP 22 1995
DATE OF INSPECTION	INSPECTOR	
REMARKS		

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506 (11/86) FORM 9

Ministry of Environment and Energy
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 **4908185** Municipality 49002 Con. HS W 04

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
[redacted]	TOWN OF CALEDON	CON 4	PART 9
	Address: DOMINION ST. BELFOUNTAIN	Date completed: 11 (day) 02 (month) 97 (year)	

21 Northing RC Elevation RC Basin Code

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth – feet From	Depth – feet To
BROWN	SAND	ROCKS		0	7
BROWN	GRAVEL	SAND		7	62
RED	SHALE			62	73
GREEN	SHALE			73	76
RED	SHALE			76	85
GREEN	SHALE			85	89
	83' TO 89'	FILLED WITH HOLEPLUG			

31
32

41 WATER RECORD

Water found at – feet	Kind of water
80	1 ☒ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
85	1 ☐ Fresh 2 ☒ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth – feet From	Depth – feet To
6 1/4"	1 ☒ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	.188	+2'	66'
	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☒ Open hole 5 ☐ Plastic		66'	89'
	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic			

SCREEN

Sizes of opening (Slot No.)	Diameter inches	Length feet
Material and type	Depth at top of screen feet	

61 PLUGGING & SEALING RECORD

☒ Annular space ☐ Abandonment

Depth set at – feet From	To	Material and type (Cement grout, bentonite, etc.)
0	20	BENTONITE
83	89	BENTONITE

PUMPING TEST

71 Pumping test method: 1 ☒ Pump 2 ☐ Bailer

Pumping rate: 3 GPM

Duration of pumping: 1 Hours 0 Mins

Static level	Water level end of pumping	15 minutes	30 minutes	45 minutes	60 minutes
10' 6" feet	53' 4" feet	32' 5" feet	42' 10" feet	49' 3" feet	53' 4" feet

25 Water levels during 1 ☐ Pumping 2 ☐ Recovery

If flowing give rate: GPM

Pump intake set at: 80 feet

Water at end of test: ☒ Clear ☐ Cloudy

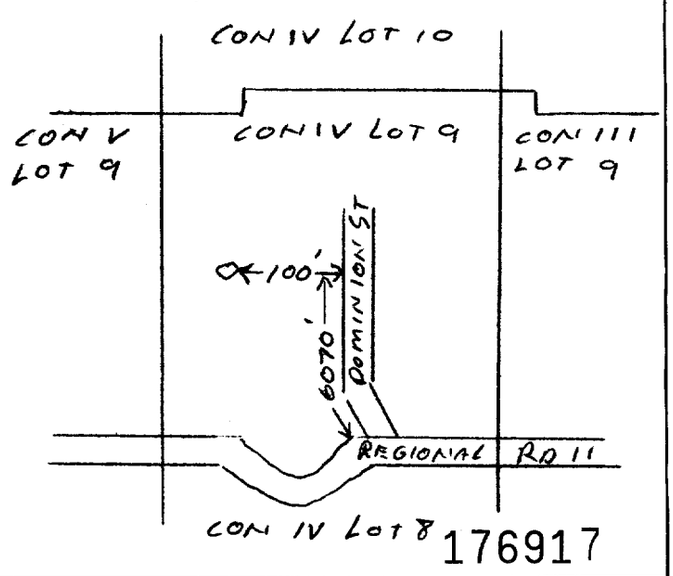
Recommended pump type: ☐ Shallow ☒ Deep

Recommended pump setting: 80 feet

Recommended pump rate: 5 GPM

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



176917

FINAL STATUS OF WELL

1 ☒ Water supply 2 ☐ Observation well 3 ☐ Test hole 4 ☐ Recharge well 5 ☐ Abandoned, insufficient supply 6 ☐ Abandoned, poor quality 7 ☐ Abandoned (Other) 8 ☐ Dewatering 9 ☐ Unfinished 10 ☐ Replacement well

WATER USE

1 ☒ Domestic 2 ☐ Stock 3 ☐ Irrigation 4 ☐ Industrial 5 ☐ Commercial 6 ☐ Municipal 7 ☐ Public supply 8 ☐ Cooling & air conditioning 9 ☐ Not used 10 ☐ Other

METHOD OF CONSTRUCTION

1 ☐ Cable tool 2 ☒ Rotary (conventional) 3 ☐ Rotary (reverse) 4 ☐ Rotary (air) 5 ☐ Air percussion 6 ☐ Boring 7 ☐ Diamond 8 ☐ Jetting 9 ☐ Driving 10 ☐ Digging 11 ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
MEADOWBANK DRILLING SERVICES	6865
Address: BOX 416 ELORA ONT N0B 1S0	
Name of Well Technician: JIM BROADFOOT	Well Technician's Licence No.: T0370
Signature of Technician/Contractor: Jim Broadfoot	Submission date: 10 (day) 03 (mo) 97 (yr)

MINISTRY USE ONLY

Data source	Contractor	Date received
	6865	MAR 18 1997
Date of inspection	Inspector	
Remarks		CSS. S

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0506 (07/94) Front Form 9

Ontario Ministry of the Environment

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 | 4908480 | Municipality 49002 | Con. HS W | 04

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
Peel	Caledon	Con 4 WHS	10

[redacted]

Address: 304 Dumion St Caledon Lowico

Date completed: 1 (day) 10 (month) 99 (year)

21 | UTM | Northing | RC | Elevation | RC | Basin Code

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
Black	Muck			0	5
Gray	clay gravel	silt		5	33
Blue	gravel	sand silt	water layers	33	42
Gray	clay	gravel		42	65
Brown	Sand	gravel silt		65	74
Brown	Sand			74	76
Gray	clay			76	79
Gray	Quick Sand	gravel	fine	79	84
Brown	clay gravel			84	88
Blue	Shale			88	94
Red	Shale			94	125

31

32

41 WATER RECORD

Water found at - feet	Kind of water
102	☑ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas — SUPPLIED
123	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas — SUPPLIED
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6	☑ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	188	+2	90
6	☐ Steel ☐ Galvanized ☐ Concrete ☑ Open hole ☐ Plastic		90	125
	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic			

SCREEN

Sizes of opening (Slot No.)	Diameter inches	Length feet

Material and type	Depth at top of screen feet

61 PLUGGING & SEALING RECORD

☑ Annular space ☐ Abandonment

Depth set at - feet From	To	Material and type (Cement grout, bentonite, etc.)
0	25	Hole plug cuttings

71 PUMPING TEST

Pumping test method	Pumping rate	Duration of pumping
☐ Pump ☑ Bailer	4.5 GPM	1 Hours Mins

Static level	Water level end of pumping	Water levels during ☐ Pumping ☑ Recovery			
		15 minutes	30 minutes	45 minutes	60 minutes
+2 feet	feet	99 feet	63 feet	45 feet	34 feet

If flowing give rate	Pump intake set at	Water at end of test
GPM	feet	☑ Clear ☐ Cloudy

Recommended pump type	Recommended pump setting	Recommended pump rate
☐ Shallow ☑ Deep	110 feet	4 GPM

FINAL STATUS OF WELL

1 ☑ Water supply
2 ☐ Observation well
3 ☐ Test hole
4 ☐ Recharge well
5 ☐ Abandoned, insufficient supply
6 ☐ Abandoned, poor quality
7 ☐ Abandoned (Other)
8 ☐ Dewatering
9 ☐ Unfinished
10 ☑ Replacement well

WATER USE

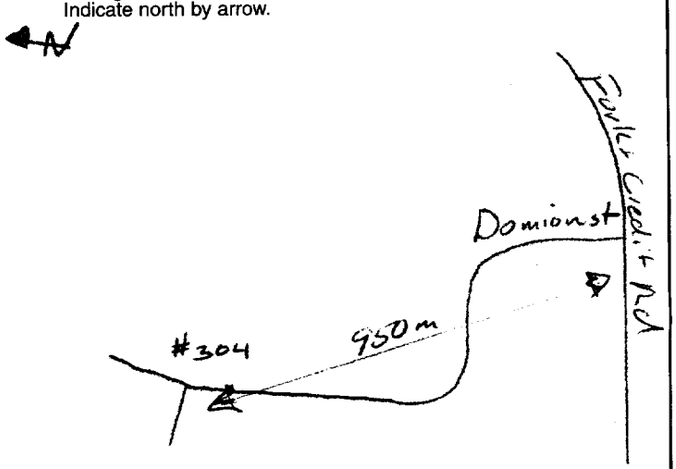
1 ☑ Domestic
2 ☐ Stock
3 ☐ Irrigation
4 ☐ Industrial
5 ☐ Commercial
6 ☐ Municipal
7 ☐ Public supply
8 ☐ Cooling & air conditioning
9 ☐ Not use
10 ☐ Other

METHOD OF CONSTRUCTION

1 ☑ Cable tool
2 ☐ Rotary (conventional)
3 ☐ Rotary (reverse)
4 ☐ Rotary (air)
5 ☐ Air percussion
6 ☐ Boring
7 ☐ Diamond
8 ☐ Jetting
9 ☐ Driving
10 ☐ Digging
11 ☐ Other

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



209429

Name of Well Contractor	Well Contractor's Licence No.
Highland Water Wells	2576
Address: Box 141 Durham N0G 1R0	
Name of Well Technician: ERICH Wilson	Well Technician's Licence No. 70113
Signature of Technician/Contractor	Submission date: day 5 mo 10 yr 99

MINISTRY USE ONLY

Data source	Contractor	Date received
	2576	OCT 13 1999

Date of inspection | Inspector

Remarks: CSS.ES0

0506 (11/98) Front Form 9

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Ontario Ministry of the Environment

Well Tag Number (Place sticker and print number below) A011516

A011516

Well Record

Regulation 903 Ontario Water Resources Act

page ___ of ___

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
- All Sections **must** be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only

MUN 49002 CON FC W 05 LOT 10

Well Owner's Information and Location of Well Information

[redacted]

Region of Peel	Town of Caledon	Pt.10	5
RR#/Street Number/Name: 324 Dominion St. R.R.2	City/Town/Village: Caledon	Site/Compartment/Block/Tract etc.	

GPS Reading: NAD 83 | Zone 17 | Easting 580302 | Northing 4851101

Unit Make/Model: Garmin eTREX Venture

Mode of Operation: [X] Undifferentiated [ ] Averaged [ ] Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From (~~Metres~~ Ft.)	Depth To
Black	Peat	Sand		0	2
Brown	Sand	Silt	Soft	2	51
Brown	Sand		Med.	51	71
Brown	Gravel		Coarse	71	77

Hole Diameter

Depth From (~~Metres~~)	To	Diameter (~~Centimetres~~)
0	20'	10"
20'	77'	6"

Water Record

Water found at ___ Metres	Kind of Water
77' m	[X] Fresh [ ] Sulphur [ ] Gas [ ] Salty [ ] Minerals [ ] Other:
___ m	[ ] Fresh [ ] Sulphur [ ] Gas [ ] Salty [ ] Minerals [ ] Other:
___ m	[ ] Fresh [ ] Sulphur [ ] Gas [ ] Salty [ ] Minerals [ ] Other:

After test of well yield, water was: [X] Clear and sediment free [ ] Other, specify

Chlorinated [X] Yes [ ] No

Construction Record

Inside diam (~~centimetres~~)	Material	Wall thickness (~~centimetres~~)	Depth From (~~Metres~~)	Depth To
Casing				
6"	[X] Steel [ ] Fibreglass [ ] Plastic [ ] Concrete [ ] Galvanized	.219"	+2'	74'
	[ ] Steel [ ] Fibreglass [ ] Plastic [ ] Concrete [ ] Galvanized			
	[ ] Steel [ ] Fibreglass [ ] Plastic [ ] Concrete [ ] Galvanized			
Screen				
Outside diam	[X] Steel [ ] Fibreglass [ ] Plastic [ ] Concrete	Slot No.		
6"	[ ] Galvanized	18	77'	74'
No Casing or Screen				
	[ ] Open hole			

Test of Well Yield

Pumping test method: Pump

	Draw Down Time min	Draw Down Water Level (~~Metres~~ Ft.)	Recovery Time min	Recovery Water Level (~~Metres~~ Ft.)
Static Level		2'		
1		2.7'	1	4.4'
2		3.2'	2	4.1'
3		3.7'	3	3.7'
4		4.2'	4	3.0'
5		4.4'	5	2.6'
10		5'	10	2'
15		5.4'	15	2'
20		5.4'	20	2'
25		5.4'	25	2'
30		5.4'	30	2'
40		5.4'	40	2'
50		5.4'	50	2'
60		5.4'	60	2'

Pumping rate - (litres/min): 10gpm

Duration of pumping: 1 hrs + ___ min

Final water level end of pumping: 5'4" (~~metres~~)

Recommended pump type: [ ] Shallow [X] Deep

Recommended pump depth: 25' (~~metres~~)

Recommended pump rate: 10gpm (litres/min)

If flowing give rate - (litres/min)

If pumping discontinued, give reason.

Plugging and Sealing Record [X] Annular space [ ] Abandonment

Depth set at (~~Metres~~) From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
21'	77'	Sand	
21'	0'	Bentonite slurry	

Method of Construction

[ ] Cable Tool [X] Rotary (air) [ ] Diamond [ ] Digging
[ ] Rotary (conventional) [ ] Air percussion [ ] Jetting [ ] Other
[ ] Rotary (reverse) [ ] Boring [ ] Driving

Water Use

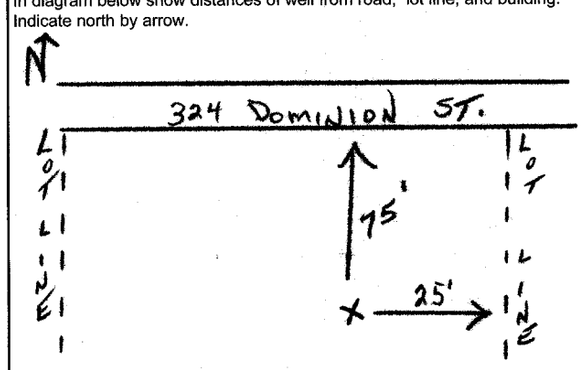
[X] Domestic [ ] Industrial [ ] Public Supply [ ] Other
[ ] Stock [ ] Commercial [ ] Not used
[ ] Irrigation [ ] Municipal [ ] Cooling & air conditioning

Final Status of Well

[X] Water Supply [ ] Recharge well [ ] Unfinished [ ] Abandoned, (Other)
[ ] Observation well [ ] Abandoned, insufficient supply [ ] Dewatering
[ ] Test Hole [ ] Abandoned, poor quality [ ] Replacement well

Location of Well

In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.



Audit No. Z 11587

Date Well Completed: 2004 06 08

Was the well owner's information package delivered? [X] Yes [ ] No

Date Delivered: 2004 06 08

Well Contractor/Technician Information

Name of Well Contractor: Davidson Well Drilling Limited

Well Contractor's Licence No.: 1737

Business Address (street name, number, city etc.): 147 North St. W.Wingham, Ontario NOG 2WO

Name of Well Technician (last name, first name): Fenton Doug

Well Technician's Licence No.: T2003

Signature of Technician/Contractor: X G.C. Davidson

Date Submitted: 2004 06 14

Ministry Use Only

Data Source

Contractor: 1737

Date Received: SEP 29 2004

Date of Inspection

Remarks

Well Record Number: 4909513

0506E (09/03)

Contractor's Copy [ ] Ministry's Copy [X] Well Owner's Copy [ ]

Cette formule est disponible en français

Ontario Ministry of the Environment

Well Tag Number (see below): A 050533

A050533

Well Record

Regulation 903 Ontario Water Resources Act

page ___ of ___

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
- All Sections **must** be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Help Desk (Toll Free) at 1-888-396-9355.
- **All metre measurements shall be reported to 1/10th of a ~~metre~~.** ft
- Please print clearly in blue or black ink only.

Ministry Use Only

[redacted]

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
Peel	Caledon	9	4 WHS

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
290 Dominion St	Bethlehem	

GPS Reading	NAD	Zone	Easting	Northing	Unit Make/Model	Mode of Operation
	83	17	580372	4850985		☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Metres To
	Topsoil + fill			0	2
Brown	Quick Sand			2	43
Gray	clay gravel			43	65
Red + Shale				65	96
Blue					

Hole Diameter

Depth From	Metres To	Diameter Centimetres
0	96	6"

Water Record

Water found at ___ Metres	Kind of Water
70 ft	☑ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: UNTESTED
25 m	☑ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
___ m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

After test of well yield, water was ☑ Clear and sediment free ☐ Other, specify

Chlorinated ☑ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To
Casing				
6	☑ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.188	+2	67
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☐ Open hole		67	96

Test of Well Yield

Pumping test method: ADR

Pump intake set at - (metres): 90'

Pumping rate - (litres/min): 6-7gpm

Duration of pumping ___hrs + ___ min

Final water level end of pumping ___metres

Recommended pump type. ☐ Shallow ☑ Deep

Recommended pump depth. 80 ft metres

Recommended pump rate. 5-6gpm (litres/min)

If flowing give rate - (litres/min)

If pumping discontinued, give reason.

Time min	Draw Down Water Level Metres	Time min	Recovery Water Level Metres
Static Level			
1		1	19'
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Plugging and Sealing Record

☑ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	30	Grout	

Method of Construction

☐ Cable Tool ☑ Rotary (air) ☐ Diamond ☐ Digging
☐ Rotary (conventional) ☐ Air percussion ☐ Jetting ☐ Other
☐ Rotary (reverse) ☐ Boring ☐ Driving

Water Use

☑ Domestic ☐ Industrial ☐ Public Supply ☐ Other
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

☑ Water Supply ☐ Recharge well ☐ Unfinished ☐ Abandoned, (Other)
☐ Observation well ☐ Abandoned, insufficient supply ☐ Dewatering
☐ Test Hole ☐ Abandoned, poor quality ☐ Replacement well

Well Contractor/Technician Information

Name of Well Contractor: Highland Water Wells

Well Contractor's Licence No.: 2576

Business Address (street name, number, city etc.)

Name of Well Technician (last name, first name): Nigel Popplidon

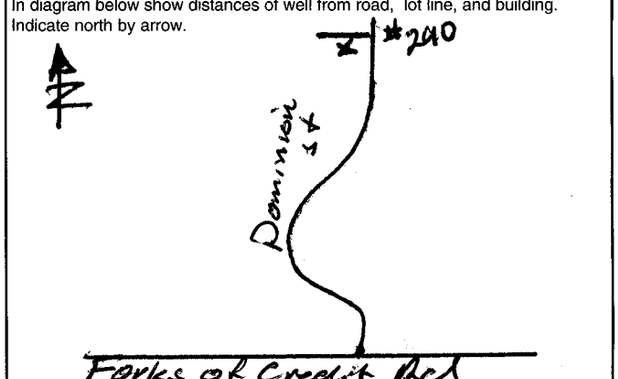
Well Technician's Licence No.: 72130

Signature of Technician/Contractor: X

Date Submitted: YYYY 6 MM 12 DD 7

Location of Well

In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.



Audit No. Z 73124

Date Well Completed: YYYY 6 MM 12 DD 6

Was the well owner's information package delivered? ☐ Yes ☐ No

Date Delivered: YYYY MM DD

Ministry Use Only

Data Source

Contractor: 2576

Date Received: DEC 18 2006

Date of Inspection: YYYY MM DD

Remarks

Well Record Number

0506E (08/2006)

Ministry's Copy

Cette formule est disponible en français

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☐ Imperial

We No. (Place Sticker and/or Print Below) **A 093410**

Well Record

Regulation 903 Ontario Water Resources Act

Page of

[redacted]

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
Domion Street	Caledon	9	4 WHS

County/District/Municipality	City/Town/Village	Province	Postal Code
Peel	Belfountain	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	580457	4851029		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
	Topsoil			0	2
Brown	clay	stones		2	51
Brown	Sand			51	57
Red	clay	gravel		57	62
Red	Shale			62	140
Red & Blue	Shale			140	217

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	30	Grout	
6	10	cement	
10	217	Holeplug	

Method of Construction

☐ Cable Tool ☐ Diamond
☑ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☐ Air percussion
☐ Other, *specify*

Well Use

☐ Public ☐ Commercial ☐ Not used
☐ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☑ Other, *specify* Not used

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
5"	Steel	.188	+2	65
5"	O/H		65	217

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To

Status of Well

☐ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☑ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, *specify*
☐ Other, *specify*

Water Details

Water found at Depth (m/ft) ☐ Gas — Kind of Water: ☐ Fresh ☐ Untested ☐ Other, *specify*
Water found at Depth (m/ft) ☐ Gas — Kind of Water: ☐ Fresh ☐ Untested ☐ Other, *specify*
Water found at Depth (m/ft) ☐ Gas — Kind of Water: ☐ Fresh ☐ Untested ☐ Other, *specify*

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)

Results of Well Yield Testing

After test of well yield, water was:
☐ Clear and sand free
☐ Other, *specify*

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

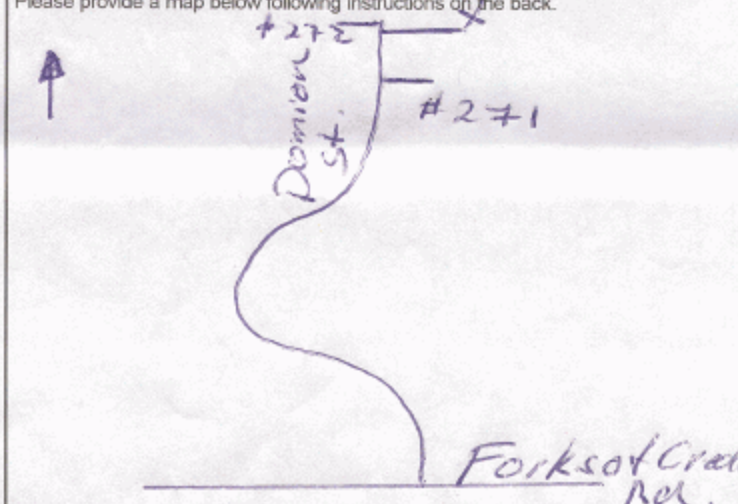
Well production (l/min / GPM)

Disinfected? ☐ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments: well produced less than 4 gpm

Well Contractor and Well Technician Information

Business Name of Well Contractor: Highland Water Wells
Well Contractor's Licence No.: 2576
Business Address (Street Number/Name): Box 141 Durham
Municipality:
Province:
Postal Code: N0G 1R0
Business E-mail Address:
Bus. Telephone No. (inc. area code):
Name of Well Technician (Last Name, First Name): Wilson Clint
Well Technician's Licence No.: 3456
Signature of Technician and/or Contractor:
Date Submitted: 2010 05 28

Well owner's information package delivered ☐ Yes ☑ No

Date Package Delivered: Y Y Y Y M M D D

Date Work Completed: 2010 05 25

Ministry Use Only

Audit No. z114878

Received OCT 12 2010

Ministry's Copy

Ontario — Ministry of the Environment

Well Tag No. *(Place Sticker and/or Print Below)* A103309

Well Record

Regulation 903 Ontario Water Resources Act

[redacted]

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
271 Dominion St	Caledon	6	2

County/District/Municipality	City/Town/Village	Province	Postal Code
Peel	Caledon/Belfountain	Ontario	K7C 1A5

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	580461	4851025		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
Brown	topsoil			0	1
Brown	clay	sand	soft	1	62
Brown	sand		hard	62	63
~~Brown~~ Grey	clay		soft	63	72
Brown	clay	gravel	hard	72	80
Red	shale		hard	80	95
Brown	gravel			95	98
Grey	shale			98	102
Red	shale			102	110

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
0	20	Bentonite clay	3.53 ft^3

Results of Well Yield Testing

After test of well yield, water was: ☐ Clear and sand free ☐ Other, specify

If pumping discontinued, give reason:

Pump intake set at (m/ft): 50

Pumping rate (l/min / GPM): 5

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 42

If flowing give rate (l/min / GPM):

Recommended pump depth (m/ft): 70

Recommended pump rate (l/min / GPM): 5

Well production (l/min / GPM): 6

Disinfected? ☑ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level	16		42
1	20	1	38
2	24	2	34
3	27	3	30
4	30	4	27
5	32	5	25
10	38	10	22
15	42	15	20
20		20	18
25		25	17
30		30	16
40		40	
50		50	
60	42	60	16

Method of Construction

☑ Cable Tool ☐ Rotary (Conventional) ☐ Rotary (Reverse) ☐ Boring ☐ Air percussion ☐ Other, specify
☐ Diamond ☐ Jetting ☐ Driving ☐ Digging

Well Use

☐ Public ☑ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Other, specify
☐ Commercial ☐ Municipal ☐ Test Hole ☐ Cooling & Air Conditioning
☐ Not used ☐ Dewatering ☐ Monitoring

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
6.125	steel	.188	+2	80
5.125	steel	.188	73	95
4.125	plastic	.188	90	110

Status of Well

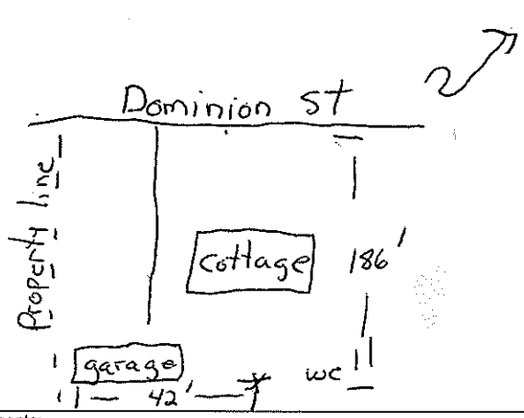
☑ Water Supply ☐ Replacement Well ☐ Test Hole ☐ Recharge Well ☐ Dewatering Well ☐ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Abandoned, other, specify ☐ Other, specify

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Water Details

Water found at Depth (m/ft)	Kind of Water	
110	☑ Fresh ☐ Untested ☐ Gas ☐ Other, specify	
	☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify	
	☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify	

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	80	8"
20	80	6"
80	110	5"

Well Contractor and Well Technician Information

Business Name of Well Contractor: Martin Well Drilling Inc
Well Contractor's Licence No.: 7146

Business Address (Street Number/Name): Box 60 Alma
Municipality: Wellington

Province: Ontario
Postal Code: N0B1A0
Business E-mail Address:

Bus. Telephone No. (inc. area code): 519846962
Name of Well Technician (Last Name, First Name): Martin Mike

Well Technician's Licence No.: 3430
Signature of Technician and/or Contractor: Mike Martin
Date Submitted: 2012 01 05

Well owner's information package delivered ☐ Yes ☐ No

Date Package Delivered: YYYY MM DD

Date Work Completed: 2011 12 20

Ministry Use Only

Audit No. Z140627

Received FEB 08 2012

Ontario — Ministry of the Environment

Well Tag No. *(Place Sticker and/or Print Below)* A/N

Well Record

Regulation 903 Ontario Water Resources Act

[redacted]

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
265 Dominion St	Caledon	20-21	3 EHS

County/District/Municipality	City/Town/Village	Province	Postal Code
Peel	Caledon	Ontario	L7R 1H8

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	580416	4850989		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
	topsoil			0	0.4
	sand	gravel		0.4	1.5
	bentonite	sand		1.5	3.0

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
		constructed by others	

Method of Construction

- ☐ Cable Tool
- ☐ Rotary (Conventional)
- ☐ Rotary (Reverse)
- ☐ Boring
- ☐ Air percussion
- ☐ Other, *specify* _____
- ☐ Diamond
- ☐ Jetting
- ☐ Driving
- ☐ Digging

Well Use

- ☐ Public
- ☐ Domestic
- ☐ Livestock
- ☐ Irrigation
- ☐ Industrial
- ☐ Other, *specify* abandoned
- ☐ Commercial
- ☐ Municipal
- ☐ Test Hole
- ☐ Cooling & Air Conditioning
- ☐ Not used
- ☐ Dewatering
- ☐ Monitoring

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
75	concrete			
	constructed by others			

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
	constructed by others			

Status of Well

- ☐ Water Supply
- ☐ Replacement Well
- ☐ Test Hole
- ☐ Recharge Well
- ☐ Dewatering Well
- ☐ Observation and/or Monitoring Hole
- ☐ Alteration (Construction)
- ☐ Abandoned, Insufficient Supply
- ☐ Abandoned, Poor Water Quality
- ☒ Abandoned, other, *specify* not required
- ☐ Other, *specify* _____

Water Details

Water found at Depth (m/ft)	Kind of Water	
☐ Gas	☐ Fresh ☐ Untested	☐ Other, *specify* _____
☐ Gas	☐ Fresh ☐ Untested	☐ Other, *specify* _____
☐ Gas	☐ Fresh ☐ Untested	☐ Other, *specify* _____

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
constructed by others		

Results of Well Yield Testing

After test of well yield, water was:
- ☐ Clear and sand free
- ☐ Other, *specify* _____

If pumping discontinued, give reason: abandonment

Pump intake set at *(m/ft)*

Pumping rate *(l/min / GPM)*

Duration of pumping _____ hrs + _____ min

Final water level end of pumping *(m/ft)*

If flowing give rate *(l/min / GPM)*

Recommended pump depth *(m/ft)*

Recommended pump rate *(l/min / GPM)*

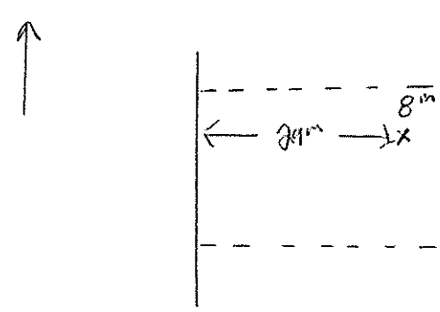
Well production *(l/min / GPM)*

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level	Dry		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Ontario Water Well Services	4011

Business Address (Street Number/Name)	Municipality
RR 1 Orangeville	

Province	Postal Code	Business E-mail Address
ON	L9W 2Y8	Ontariowaterwell@bellnet.ca

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
519 994 2425	VanOosten Ken

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3261		2011/12/22

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☐ Yes ☒ No	YYYY MM DD	2011/12/28

Ministry Use Only

Audit No. Z 144115

MAR 02 2012

Received

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☑ Imperial

Well Tag No. (Place Sticker and/or Print Below)

Tag#: A129852

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
# 296 Dominion St.	Town of Caledon	# 9	# 4

County/District/Municipality	City/Town/Village	Province	Postal Code
Peel		Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	540399	4851038		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
Brwn	Topsoil			0'	3'
Brwn	Sand		Gravel	3'	16'
Brwn	Sand			16'	26'
Grey	Silt	Clay layers		26'	73'
Brwn	Sand	Gravel		73'	80'
Grey	Sand		Fine	80'	83'
Red	Shale	Blue layers		83'	158'

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
0'	20'	Grout	

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☐ Air percussion ☑ Other, *specify* Air, D.R

Well Use

☐ Public ☑ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Other, *specify* ____ ☐ Commercial ☐ Municipal ☐ Test Hole ☐ Cooling & Air Conditioning ☐ Not used ☐ Dewatering ☐ Monitoring

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
6"	Steel	.188"	+2'	86'
6"	Open Hole		86'	158'

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To

Status of Well

☑ Water Supply ☐ Replacement Well ☐ Test Hole ☐ Recharge Well ☐ Dewatering Well ☐ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Abandoned, other, *specify* ____ ☐ Other, *specify* ____

Results of Well Yield Testing

After test of well yield, water was: ☑ Clear and sand free ☐ Other, *specify* ____

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft): 80'

Recommended pump rate (l/min / GPM): 1 GPM

Well production (l/min / GPM): 1 GPM

Disinfected? ☑ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level	1'		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Water Details

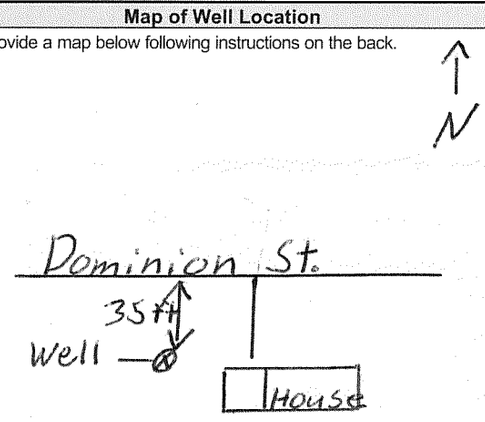
Water found at Depth (m/ft)	Kind of Water	
100'	☐ Gas	☑ Fresh ☑ Untested ☐ Other, *specify* ____
152'	☐ Gas	☑ Fresh ☑ Untested ☐ Other, *specify* ____
(m/ft)	☐ Gas	☐ Fresh ☐ Untested ☐ Other, *specify* ____

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
+2'	158'	6"

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Highland Water Wells	2576

Business Address (Street Number/Name)	Municipality
Box 141 Durham	Grey

Province	Postal Code	Business E-mail Address
Ont	N0G1R0	

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
5193696363	Wilson Clint

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3456	Clint Wilson	20120924

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☐ Yes ☐ No	YYYY MM DD	20120920

Ministry Use Only

Audit No. Z157696

JAN 30 2013

Forks of the Credit Road

UTM 17 Z 580964 E
3rd well - Bucyrus Erie 22Ws2
5 R 4850238 N

49 № 929

The Ontario Water Resources Commission Act

WATER WELL RECORD

Elev. 5 R

Basin 24

County or District Peel

Township, Village, Town or City Caledon

Con. Plan A-91 Lot # 13 (W.H.S.)

Date completed 30th (day) May (month) 1967 (year)

[redacted]ress 100 University Ave Toronto Ont

Casing and Screen Record

Inside diameter of casing 5 inch

Total length of casing 21 ft 6 in.

Type of screen --

Length of screen --

Depth to top of screen --

Diameter of finished hole 5 inch

Pumping Test

Static level 60 ft

Test-pumping rate 10 G.P.M.

Pumping level 63 ft

Duration of test pumping 3 hours

Water clear or cloudy at end of test clear

Recommended pumping rate 10 G.P.M.

with pump setting of 70 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
brown clay and stones	0	10	80	fresh
dark brown rock	10	25		
light brown rock	25	67		
light grey and brown rock	67	73		
light brown rock	73	80		
total depth - 80 ft				

For what purpose(s) is the water to be used? domestic

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm Graham Well Drilling

Address 19 Kingsley Court
Guelph Ont.

Licence Number 2453

Name of Driller or Borer James Hawkins

Address Sheridan Street Guelph Ont

Date June 6th 1967 NEG.

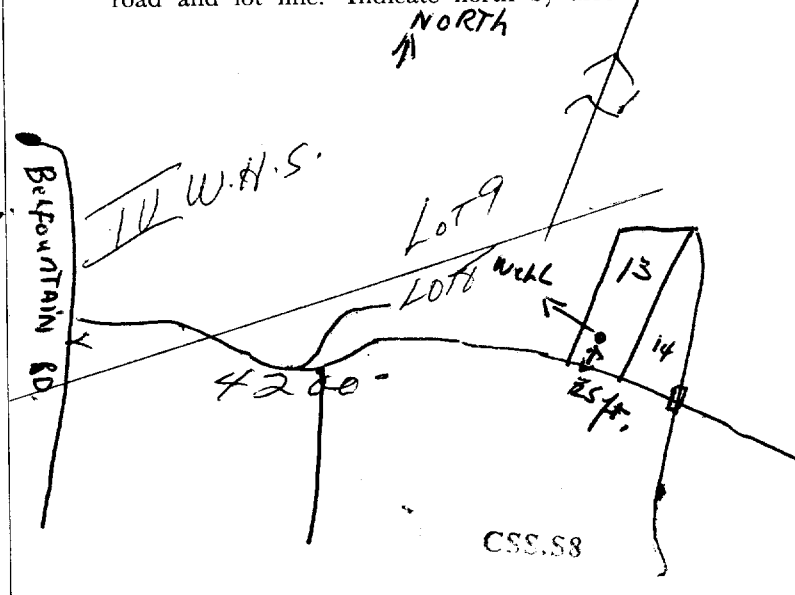
J L Graham per
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.58

UTM Plan A Z 17 | 5 8 0 | 8 9 8 E
Caledon Twsp.
R 4 8 5 0 4 3 N
Lot #15
Elev. R
7th well drilled.
Basin

49 № 931

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Peel
Township, Village, Town or City Caledon
Con. IV Plan A - Lot 15
Date completed 26th June 1967 (day month year)
[redacted]
Address 100 University Ave Toronto Ont.

Casing and Screen Record

Inside diameter of casing 5 inch
Total length of casing 21 ft
Type of screen --
Length of screen --
Depth to top of screen --
Diameter of finished hole 5 inch

Pumping Test

Static level 55 ft
Test-pumping rate 10 G.P.M.
Pumping level 65 ft
Duration of test pumping 3½ hours
Water clear or cloudy at end of test clear
Recommended pumping rate 10 G.P.M.
with pump setting of 70 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
soil	0 -	1	90'	fresh
brown clay & stones	1	13		
light brown rock	13	86		
dark brown rock	86	90		
total - 90 ft				

For what purpose(s) is the water to be used? domestic
Is well on upland, in valley, or on hillside? upland
Drilling or Boring Firm Graham Well Drilling
Address 19 Kingsley Crt. Guelph Ont.
Licence Number 2453
Name of Driller or Borer J Hawking
Address sheridan St Guelph
Date June 26th 1967
J L Graham per
(Signature of Licensed Drilling or Boring Contractor)

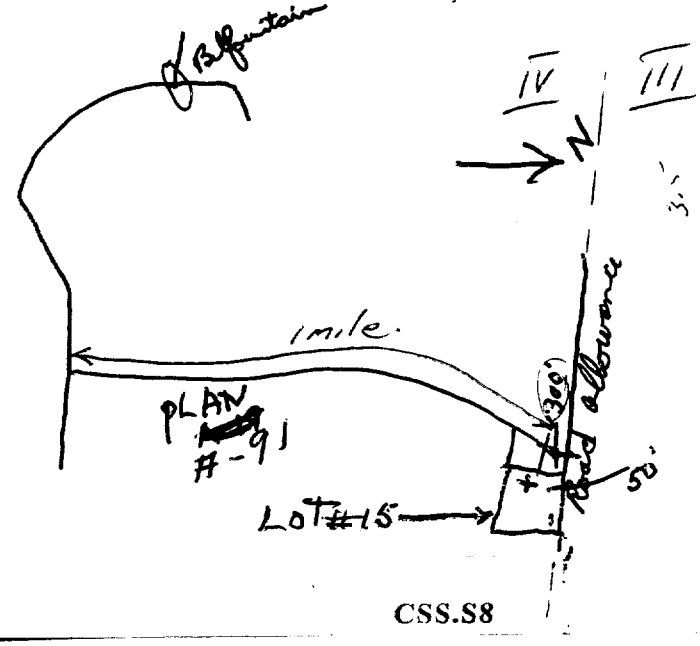
PLAN-A 91
LOT 15

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.S8

UTM 17 Z 581014 E
5 R 4855029 8 N
Elev. 5 R
Basin
Lot 24

WATER RESOURCES DIVISION
JUN 22 1964
ONTARIO WATER RESOURCES COMMISSION

49 No. 933

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Peel
Township, Village, Town or City CALEDON
Con. TW WEST Lot 8 & 9
Date completed 9 (day) JUNE (month) 1964 (year)
[redacted] ess. BELFOUNTAIN RD

Casing and Screen Record

Inside diameter of casing 5"
Total length of casing 26'
Type of screen —
Length of screen —
Depth to top of screen
Diameter of finished hole 5"

Pumping Test

Static level 20'
Test-pumping rate 10 G.P.M.
Pumping level 20'
Duration of test pumping 2 HRS.
Water clear or cloudy at end of test CLEAR
Recommended pumping rate 5 G.P.M.
with pump setting of 25' feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
CLAY - SAND BOULDERS	0	26		
MED GRAVEL	26	27	26	FRESH

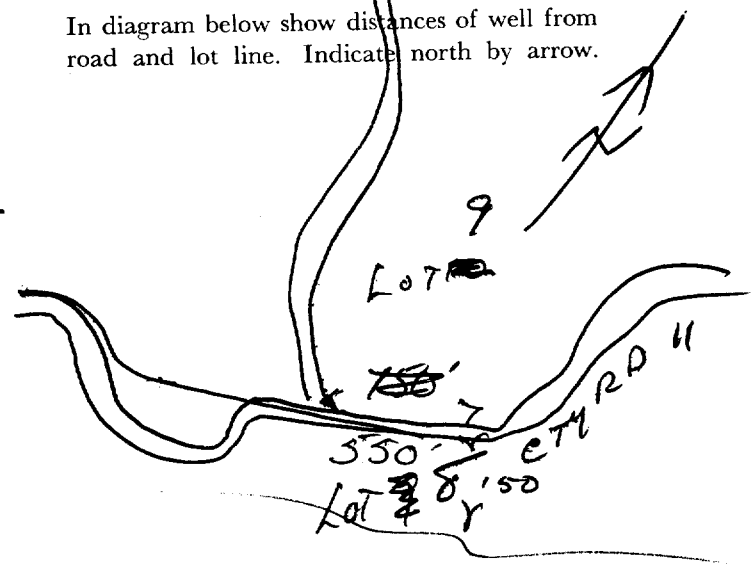
For what purpose(s) is the water to be used? HOUSE
Is well on upland, in valley, or on hillside? ✓
Drilling or Boring Firm KEITH McCLURE
Address R.R.1 INGLEWOOD ONT
Licence Number 14"
Name of Driller or Borer SAME
Address
Date JUNE 15/64
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.58

S.C.

UTM 17 Z 580994 E
5 R 4850247 N
Elev. 5 R
Basin 24

The Ontario Water Resources Commission Act

WATER WELL RECORD

WATER RESOURCES DIVISION
JUN 22 1964
ONTARIO WATER RESOURCES COMMISSION

B 49 No 934

County or District PEEL
Township, Village, Town or City CALEDON.
Con. IV West Lot X 9
Date completed 29 (day) MAY (month) 1964 (year)
[redacted]ress BELFOUNTAIN

Casing and Screen Record

Inside diameter of casing 5"
Total length of casing 16'
Type of screen —
Length of screen —
Depth to top of screen
Diameter of finished hole 5"

Pumping Test

Static level 11'
Test-pumping rate 10 G.P.M.
Pumping level 11'
Duration of test pumping 2 HRS.
Water clear or cloudy at end of test CLEAR
Recommended pumping rate 5 G.P.M.
with pump setting of 16' feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
CLAY-STONES-BOULDERS	0	16		
MED. GRAVEL	16	17	16	FRESH

Water Record

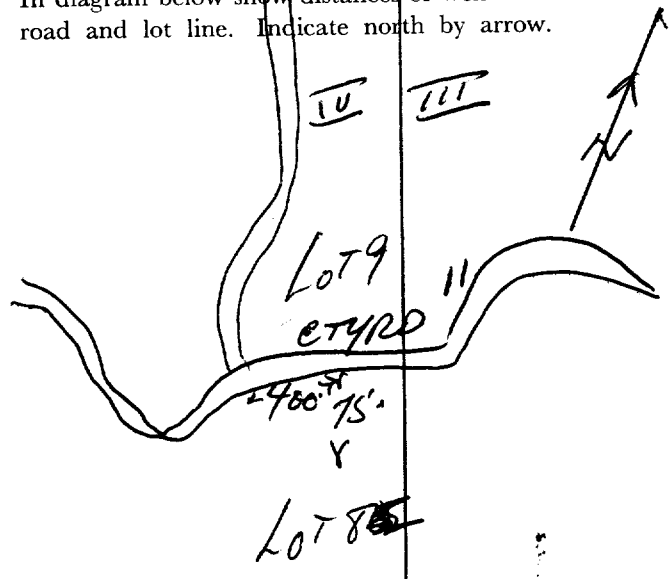
For what purpose(s) is the water to be used? HOUSE
Is well on upland, in valley, or on hillside? ✓
Drilling or Boring Firm KEITH McCLURE
Address R.R.1 INGLEWOOD ONT.
Licence Number 1411
Name of Driller or Borer SAME
Address
Date JUNE 15/64
Keith McClure
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.S8

S.C.

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

Ontario

30M/13W

HS W

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 4904174 | MUNICIP. 49002 | CON. GON | 04

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Peel	Caledon	4W	008

[redacted] Belfountain ~~Belfountain Rd. Mississauga Ont.~~ DATE COMPLETED 08 DAY 08 MO. ~~Aug.~~ YR. 73

4904174 17 980982 4850178 6 950 5 24 JAN 12, 1975 15

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
Black	Topsoil			0	~~3~~ 1
Brown	Alluvial Gravel with some clay			~~3~~ 1	25
Grey	Clay with Rocks			25	34
Red	Shale with small blue interbeds			34	106

31 0001802 0025 1/1 ABST 0034 20526 0 1 0 4 7 1 7

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0060 ~~106~~	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
0106	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
~~4.2~~ 04	1 ☐ STEEL 2 ☒ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	~~36~~ 0036
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		~~36~~ 36	~~106~~ 0106
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
0	36	Bentonite slurry

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	0008 GPM	02 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING ☒ PUMPING ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
019 FEET	050 FEET	050 FEET	050 FEET	050 FEET	050 FEET

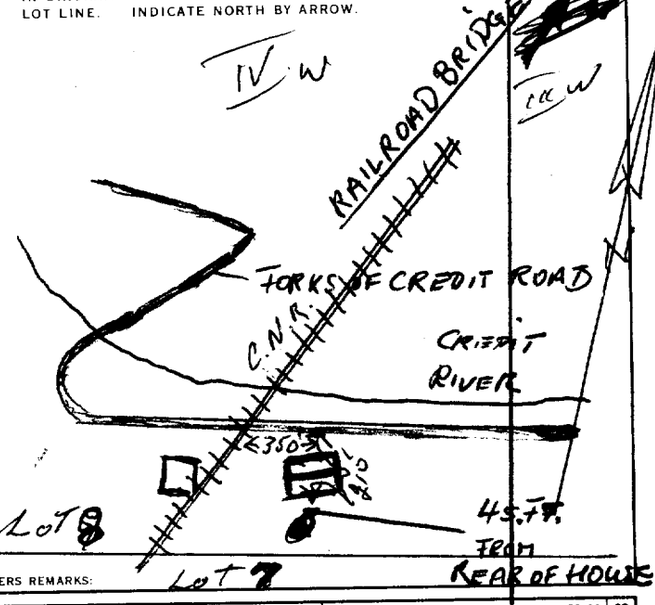
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	058 FEET	0006 GPM

50-53 0003

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: Lot 7

FINAL STATUS OF WELL	WATER USE	METHOD OF DRILLING
1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED	1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED	1 ☐ CABLE TOOL 2 ☒ ROTARY (CONVENTIONAL) 3 ☒ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING
	01	

OWRC

CONTRACTOR

NAME OF WELL CONTRACTOR: Precision Drilling Co. | LICENCE NUMBER: 4320

ADDRESS: Box 214 Caledon East Ont.

NAME OF DRILLER OR BORER: R. Sauter | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: R. Sauter | SUBMISSION DATE DAY 8 MO. Aug. YR. 73

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
1	4320	25 10 73

DATE OF INSPECTION: Jul 3/74 | INSPECTOR:

REMARKS: CSS.S8 P/J.B. S.C./J.B.

MINISTRY OF THE ENVIRONMENT COPY

FORM 7 07-091

30M/13W

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

ONTARIO

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 4904274 | MUNICIP. 49002 | CON. HSW | 04

COUNTY OR DISTRICT: PEEL | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: CALEDON | CON., BLOCK, TRACT, SURVEY, ETC.: DIW | LOT: 008

[redacted] BELFOUNTAIN ~~BATORES AVE. THORNHILL ONT.~~ | DATE COMP.: DAY 10 MO. 05 YR. 73

RC.	ELEVATION	RC.	BASIN CODE		
6	925	5	24	JAN 12, 1975	15

4904274 17 580987 4850248

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
BROWN.	TOP Soil			0	1
BROWN	SAND	Boulders GRAVEL		1	40
RED	Shale	Rock		40	56

31 | 0001602 | 00406281311 | 00567172

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0052 (10-13)	1 ☑ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL (14)
(15-18)	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL (19)
(20-23)	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL (24)
(25-28)	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL (29)
(30-33)	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL (34) 80

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
05 (10-11)	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE (12)	.188	0	0041 (13-16)
(17-18)	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☑ OPEN HOLE (19)		41	0056 56. (20-23)
(24-25)	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE (26)			(27-30)

SCREEN

SIZE(S) OF OPENING (SLOT NO.) (31-33)	DIAMETER (34-38) INCHES	LENGTH (39-40) FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN (41-44) FEET	80

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)
(10-13)	(14-17)	
(18-21)	(22-25)	
(26-29)	(30-33) 80	

71 PUMPING TEST

PUMPING TEST METHOD (10): 1 ☐ PUMP 2 ☑ BAILER

PUMPING RATE (11-14): 0006 GPM

DURATION OF PUMPING (15-16 HOURS): 01 (17-18 MINS.): 00

WATER LEVELS DURING (25): 1 ☑ PUMPING 2 ☐ RECOVERY

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
031 FEET (19-21)	048 FEET (22-24)	035 FEET (26-28)	040 FEET (29-31)	045 FEET (32-34)	048 FEET (35-37)

IF FLOWING, GIVE RATE (38-41): — GPM

PUMP INTAKE SET AT: — FEET

WATER AT END OF TEST (42): 1 ☑ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☑ DEEP

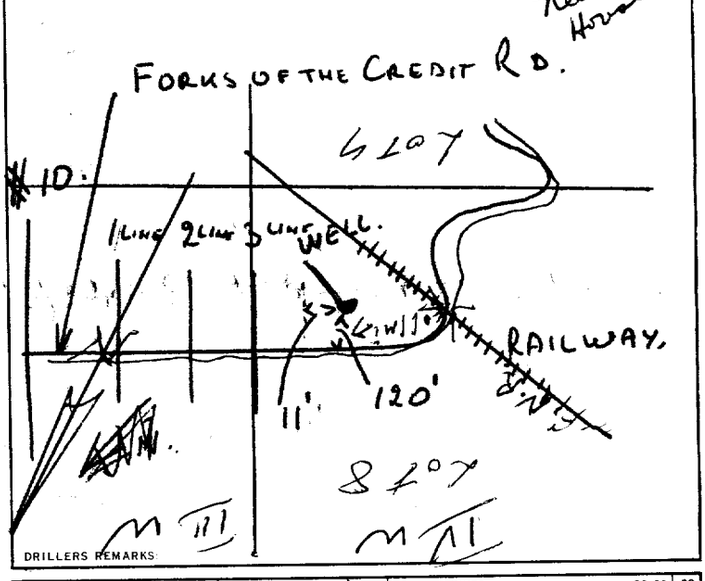
RECOMMENDED PUMP SETTING (43-45): 052 FEET

RECOMMENDED PUMPING RATE (46-49): 0006. GPM

(50-53) 000.4 GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL (54)

1 ☑ WATER SUPPLY
2 ☐ OBSERVATION WELL
3 ☐ TEST HOLE
4 ☐ RECHARGE WELL
5 ☐ ABANDONED, INSUFFICIENT SUPPLY
6 ☐ ABANDONED, POOR QUALITY
7 ☐ UNFINISHED

WATER USE (55-56)

1 ☑ DOMESTIC
2 ☐ STOCK
3 ☐ IRRIGATION
4 ☐ INDUSTRIAL
5 ☐ COMMERCIAL
6 ☐ MUNICIPAL
7 ☐ PUBLIC SUPPLY
8 ☐ COOLING OR AIR CONDITIONING
9 ☐ NOT USED

01

METHOD OF DRILLING (57)

1 ☑ CABLE TOOL
2 ☐ ROTARY (CONVENTIONAL)
3 ☐ ROTARY (REVERSE)
4 ☐ ROTARY (AIR)
5 ☐ AIR PERCUSSION
6 ☐ BORING
7 ☐ DIAMOND
8 ☐ JETTING
9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: WM. E. CORE & SON. | LICENCE NUMBER: 1660

ADDRESS: RR. # 3. GEORGETOWN. ONT.

NAME OF DRILLER OR BORER: PETER VERHEUL | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: Edward Core. | SUBMISSION DATE: DAY 08 MO. 02 YR. 74

OFFICE USE ONLY

DATA SOURCE (58): 1 | CONTRACTOR (59-62): 1660 | DATE RECEIVED (63-68): 080274 | 80

DATE OF INSPECTION: July 3/74 | INSPECTOR:

REMARKS: CSS.S8 | P/O.B. | WI

R.P.D-88

MINISTRY OF THE ENVIRONMENT COPY

FORM 7 07-091

30 M/13 W

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

Ontario

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 4904298 | MUNICIP. 49003 | CON. HS W | C 6 4

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted] Peel	Caledon	Conc 4 W	008

[redacted] BELFOUNTAIN ~~Street Brampton~~ ONTARIO

DATE COMPLETED: DAY 23 MO. 10 YR. 73

	RC.	ELEVATION	RC.	BASIN CODE			
4904298 17 580879 4850158	6	940	5	24	JAN 12, 1975		15

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
brown	coarse gravel			0	33
Red Shale with blue interbeds				33	105

31 0033611 0105717

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0060-105	☒ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERAL
0105	☒ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERAL
	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERAL
	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERAL
	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
4 04	☒ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE	.188	0	36 0036
04 4	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☒ OPEN HOLE		36	0105
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
0	36	Bentonite slurry

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	0008 GPM.	03 HOURS 00 MINS.

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☒ PUMPING 2 ☐ RECOVERY)			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
025 FEET	026 FEET	060 FEET	060 FEET	060 FEET	060 FEET

IF FLOWING, GIVE RATE: GPM.

PUMP INTAKE SET AT: FEET

WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP

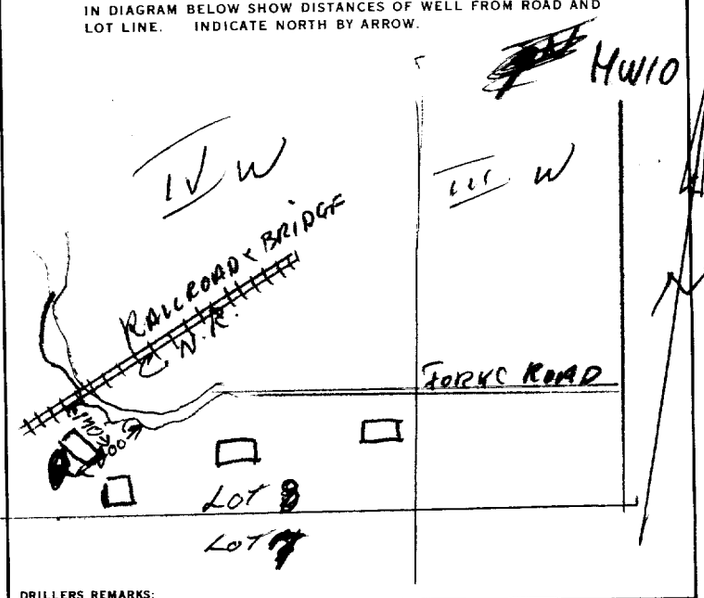
RECOMMENDED PUMP SETTING: 055 FEET

RECOMMENDED PUMPING RATE: 0006 GPM.

008.0 GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL: 1 ☒ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED, POOR QUALITY; 7 ☐ UNFINISHED

WATER USE: 1 ☒ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; ☐ OTHER; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; 9 ☐ NOT USED

METHOD OF DRILLING: 1 ☐ CABLE TOOL; 2 ☒ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☐ AIR PERCUSSION; 6 ☐ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Precision Drilling Co. — LICENCE NUMBER: 4320

ADDRESS: Box 214 Caledon East

NAME OF DRILLER OR BORER: R. Santer — LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: [signature] — SUBMISSION DATE: DAY 24 MO. 1 YR. 74

OFFICE USE ONLY

DATA SOURCE: 1 — CONTRACTOR: 4320 — DATE RECEIVED: 080274

DATE OF INSPECTION: Jul 3/74 — INSPECTOR:

REMARKS: CSS.S8

P/J.B. WI/J.B.

MINISTRY OF THE ENVIRONMENT COPY

FORM 7 07-091

Ministry of the Environment
Ontario

The Ontario Water Resources Act CV/ORM

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 4907340 | MUNICIP. 49.002 | CON. HS W 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
[redacted]	[redacted]ON (CALEDONI)	CON. 3 (9)	~~8~~ ✓

[redacted]EDIT FORKS 1483 CREDIT RD. — DATE COMPLETED: DAY 4 MO 6 YR 90

[redacted]NG 5,0,2,4,8 | RC | ELEVATION 0,3,0,8 | RC | BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
	TOP SOIL			0	2
	GRAVEL	STONES BOULDERS		2	30
RED	CLAY		HARD	30	57

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
25	1 ☑ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	0	15
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
16	6	5

MATERIAL AND TYPE: STAINLESS STEEL — DEPTH TO TOP OF SCREEN: 25 FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☐ BAILER — AIR

PUMPING RATE: 6 GPM — DURATION OF PUMPING: 4 HOURS ___ MINS

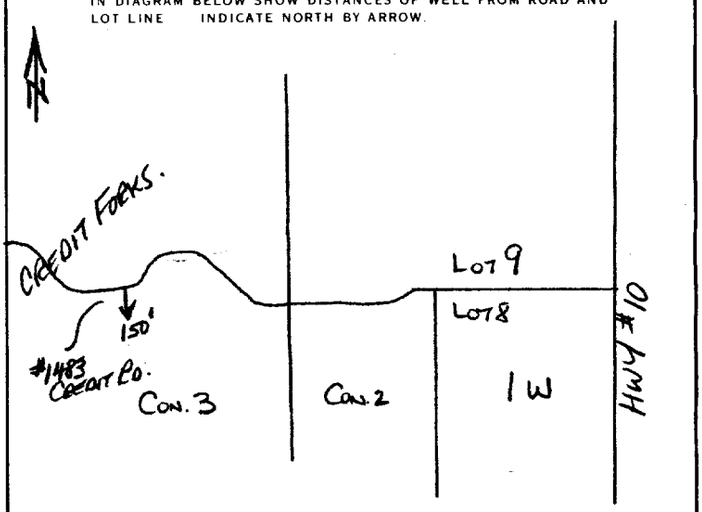
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☑ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
17 FEET	29 FEET	18 FEET	17 FEET	17 FEET	17 FEET

IF FLOWING, GIVE RATE: ___ GPM — PUMP INTAKE SET AT: ___ FEET — WATER AT END OF TEST: 1 ☑ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☑ SHALLOW ☐ DEEP — RECOMMENDED PUMP SETTING: 29 FEET — RECOMMENDED PUMPING RATE: 5 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



65380

DRILLERS REMARKS

FINAL STATUS OF WELL

1 ☑ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED ☐ DEWATERING

WATER USE

1 ☑ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF CONSTRUCTION

1 ☐ CABLE TOOL 2 ☑ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING ☐ DIGGING ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: KING CITY WELL DRILLING CO. LTD — WELL CONTRACTOR'S LICENCE NUMBER: 3108

ADDRESS: BOX 192 KING CITY

NAME OF WELL TECHNICIAN: BILL SANDERS JR. — WELL TECHNICIAN'S LICENCE NUMBER: T-0333

SIGNATURE OF TECHNICIAN/CONTRACTOR: Bill O'Brien — SUBMISSION DATE: DAY 4 MO 7 YR 90

OFFICE USE ONLY

DATA SOURCE: 58 — CONTRACTOR: 3108 — DATE RECEIVED: AUG 16 1990

DATE OF INSPECTION — INSPECTOR

REMARKS

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FORM NO. 0506 (11/86) FORM 9

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 4908076 MUNICIP. 49002 CON. H.S.W. 104

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON. BLOCK, TRACT, SURVEY, ETC	LOT
[redacted]	[redacted] EDON (Caledon)	4	14 to 20

[redacted] R #2 1349 FORK SCF THE CREDIT RD (CALEDON) LOT 100

DATE COMPLETED: DAY 24 MO 11 YR 95

ELEVATION | BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
	FILL			0	2
	TOP SOIL			2	3
LIGHT GREY	LIMESTONE	RED CLAY / BOULDERS	LAYERED	3	20
RED	CLAY + SAND			20	40
	SAND			40	138
RED + BLUE	SHALE	SAND	BROKEN	138	140
			TOTAL =	140'	

6" CASING DRIVE SHOE

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
140	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
6"	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	+2	140
6"	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE 5 ☐ PLASTIC		140	
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
0	20	BENSEAL

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	5 GPM	1 HOUR WELL 2 MINS

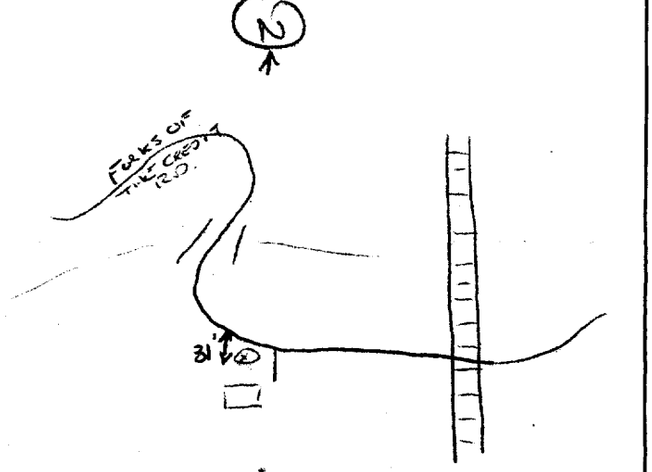
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☒ PUMPING 2 ☐ RECOVERY)	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
18 FEET	26 FEET		26 FEET	26 FEET	26 FEET	26 FEET

IF FLOWING, GIVE RATE: GPM | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP | RECOMMENDED PUMP SETTING: 75 FEET | RECOMMENDED PUMPING RATE: 5 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: 152953

FINAL STATUS OF WELL	1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED ☐ DEWATERING
WATER USE	1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED
METHOD OF CONSTRUCTION	1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☒ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING ☐ DIGGING ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: [illegible] | WELL CONTRACTOR'S LICENCE NUMBER: 2663

ADDRESS: R.R.#5 GUELPH ONT. N1H 6J2

NAME OF WELL TECHNICIAN: [illegible] | WELL TECHNICIAN'S LICENCE NUMBER: T-6540

SIGNATURE OF TECHNICIAN/CONTRACTOR: [illegible] | SUBMISSION DATE: DAY 01 MO. 12 YR. 95

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR 2663 | DATE RECEIVED DEC 15 1995

DATE OF INSPECTION | INSPECTOR | REMARKS

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506 (11/86) FORM 9

Ontario Ministry of the Environment

Well Tag Number (Place sticker and print number below): A033129

Well Record

Regulation 903 Ontario Water Resources Act

page ___ of ___

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
- All Sections **must** be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
- **All metre measurements shall be reported to 1/10th of a ~~metre~~ FOOT.**
- Please print clearly in blue or black ink only.

Ministry Use Only

MUN ___ CON ___ LOT ___

[redacted]

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
PEEL REGION	TOWN OF CALEDON	8	4 WHS

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.

GPS Reading	NAD	Zone	Easting	Northing	Unit Make/Model	Mode of Operation
	83	17	580897	4850361	MERIDIAN	☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From (FEET ~~Metres~~)	Depth To
BLACK	TOP SOIL			0	4
BROWN	SAND	GRAVEL		4	30
RED+GREEN	SHALE		LAYERED	30	98

Hole Diameter

Depth From	Metres To	Diameter Centimetres
0	98	6"

Water Record

Water found at ___ Metres	Kind of Water
39 ft	☑ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: UNTESTED
88 m	☑ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: CL.
___ m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

After test of well yield, water was ☑ Clear and sediment free ☐ Other, specify

Chlorinated ☑ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To
Casing				
6"	☑ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.188	2'	32'
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☑ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
4		slotted	28	98
No Casing or Screen				
	☑ Open hole		32'	98'

Test of Well Yield

Pumping test method: AIR

Pump intake set at - (metres): 95 FT

Pumping rate - (litres/min)

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping ___ metres

Recommended pump type: ☐ Shallow ☑ Deep

Recommended pump depth: 75 FT ~~metres~~

Recommended pump rate: 10 G.P.M. (litres/min)

If flowing give rate - (litres/min)

If pumping discontinued, give reason.

	Draw Down Time min	Draw Down Water Level Metres	Recovery Time min	Recovery Water Level Metres
Static Level		21 FT		
1			1	
2			2	
3			3	
4			4	
5			5	
10			10	
15			15	
20			20	
25			25	
30			30	
40			40	
50			50	
60			60	

Plugging and Sealing Record

☑ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	30	GROUT	

Method of Construction

☐ Cable Tool ☑ Rotary (air) ☐ Diamond ☐ Digging
☐ Rotary (conventional) ☐ Air percussion ☐ Jetting ☐ Other
☐ Rotary (reverse) ☐ Boring ☐ Driving

Water Use

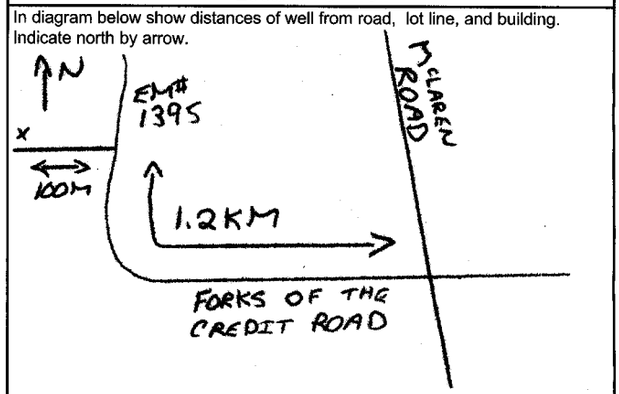
☑ Domestic ☐ Industrial ☐ Public Supply ☐ Other
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

☑ Water Supply ☐ Recharge well ☐ Unfinished ☐ Abandoned, (Other)
☐ Observation well ☐ Abandoned, insufficient supply ☐ Dewatering
☐ Test Hole ☐ Abandoned, poor quality ☐ Replacement well

Location of Well

In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.



Audit No. Z 36359

Date Well Completed: 2005 10 26

Was the well owner's information package delivered? ☐ Yes ☐ No

Date Delivered

Well Contractor/Technician Information

Name of Well Contractor: HIGHLAND WATER WELLS

Well Contractor's Licence No.: 2576

Business Address (street name, number, city etc.): BOX 141 DURHAM ONT N0G 1R0

Name of Well Technician (last name, first name): GRAHAM JEFF

Well Technician's Licence No.: 2909

Signature of Technician/Contractor: X

Date Submitted: 2005 10 26

Ministry Use Only

Data Source

Contractor: 2576

Date Received: NOV 04 2005

Date of Inspection

Remarks: INSTALLED 70FT OF 4" PLASTIC LINER AIR LIFTED AT 12 G.P.M.

Well Record Number

0506E (09/03) Contractor's Copy ☐ Ministry's Copy ☐ Well Owner's Copy ☐

Cette formule est disponible en français

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☐ Imperial

Well Tag No. (P... 104730 A104730

Well Record

Regulation 903 Ontario Water Resources Act

Page _____ of _____

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
	CALEDON	8	3e

County/District/Municipality	City/Town/Village	Province	Postal Code
PEEL		Ontario	

UTM Coordinates NAD 83	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
	17	580982	4850479		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BROWN	GRAVEL CLAY & STONES			0	36ft
GRAY	ROCK			36ft	39ft
RED GRAY	SHALE			39ft	42ft

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	37ft	BENTONITE SLURRY	

Method of Construction

☐ Cable Tool ☐ Diamond
☒ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☐ Air percussion
☐ Other, *specify*

Well Use

☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, *specify*

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
6¼	steel	.188	0	37ft
6in	open hole		37ft	42ft

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To

Status of Well

☒ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, *specify*
☐ Other, *specify*

Water Details

Water found at Depth (m/ft)	Kind of Water	
41ft	☒ Fresh ☐ Untested ☐ Gas ☐ Other, *specify*	
	☐ Fresh ☐ Untested ☐ Gas ☐ Other, *specify*	
	☐ Fresh ☐ Untested ☐ Gas ☐ Other, *specify*	

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	37ft	8.75in
37ft	42ft	6in

Results of Well Yield Testing

After test of well yield, water was:
☒ Clear and sand free
☐ Other, *specify*

If pumping discontinued, give reason:

Pump intake set at (m/ft): 35ft

Pumping rate (l/min / GPM): 10gpm

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 28ft

If flowing give rate (l/min / GPM):

Recommended pump depth (m/ft): 35ft

Recommended pump rate (l/min / GPM): 10gpm

Well production (l/min / GPM):

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level	27ft		
1		1	
2		2	
3		3	
4		4	
5	28ft	5	27ft
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60	28ft	60	27ft

Map of Well Location

Please provide a map below following instructions on the back.

Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
KEITH LANG WELL DRILLING INC	7154

Business Address (Street Number/Name)	Municipality
251 ELDON ST GODERICH ONT	

Province	Postal Code	Business E-mail Address
	N7A3R9	

Bus.Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
	KEITH LANG

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
T446	K. Lang.	Y Y Y Y M M D D

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☒ Yes ☐ No	Y Y Y Y M M D D	2010 9 23

Ministry Use Only

Audit No. z119155

Received OCT 27 2010

Ministry's Copy

Well ID

Well ID Number: 7191872
Well Audit Number: *Z142294*
Well Tag Number:
This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	1445 FORKS OF THE CREDIT
Township	CALEDON TOWN (CALEDON TWP)
Lot	009
Concession	HS W 04
County/District/Municipality	PEEL
City/Town/Village	CALEDON
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 17 Easting: 580936.00 Northing: 4850363.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
				0 m	

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	2 m	GRADE TO SURFACE	

2 m	2.6 m	BENTONITE
2.6 m	4.3 m	CLEAN FILL
4.3 m	4.9 m	BENTONITE

Method of Construction & Well Use

Method of Construction	Well Use

Status of Well

Abandoned-Other

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
90 cm	CONCRETE	0 m	4.9 m

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7147

Results of Well Yield Testing

After test of well yield, water was	
If pumping discontinued, give reason	
Pump intake set at	
Pumping Rate	
Duration of Pumping	
Final water level	
If flowing give rate	
Recommended pump depth	
Recommended pump rate	
Well Production	
Disinfected?	

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	

30	30
40	40
45	45
50	50
60	60

Water Details

Water Found at Depth	Kind
3.3 m	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number: Z142294

Date Well Completed: November 09, 2012

Date Well Record Received by MOE: November 22, 2012

Updated: February 8, 2016

Appendix C
MOECC Water Well Records (Moraine)

Puckering Land and Park

UTM 17 Z 580113 E
5 R 4851721 N
Elev. 5 R 1325

The Ontario Water Resources Commission Act

WATER WELL RECORD

WATER RESOURCES DIVISION
MAY 20 1965
ONTARIO WATER RESOURCES COMMISSION

40 No. 874

Basin 24 ~~Brin~~ PEEL County or District

Township, ~~Village, Town or City~~ Caledon

Con. #3 W.H.ST. ~~west half of~~ lot # 11

Date completed 7th (day) May (month) 1965 (year)

[redacted]ress 253 Bay Street, Toronto 1, Ont.

Casing and Screen Record

Inside diameter of casing 5 inch

Total length of casing 356 ft.

Type of screen nil

Length of screen nil

Depth to top of screen nil

Diameter of finished hole 5 inch

Pumping Test

Static level 208 ft

Test-pumping rate 7 G.P.M.

Pumping level 220 ft

Duration of test pumping 28 hours & developing well

Water clear or cloudy at end of test clear

Recommended pumping rate 7 G.P.M.

with pump setting of 220 feet below ground surface

Well Log / Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
fill in loam	0	5	356'	fresh
clay & boulders	5	90		
fine clay, sand	90	150		
fine gray sand	150	200		
fine brown sand	200	340		
gray sand	340	354		
sand and gravel	354	356		

For what purpose(s) is the water to be used? household

Is well on upland, in valley, or on hillside? hillside

Drilling or Boring Firm Graham Well Drilling

Address 119 Renfield St. Guelph Ont.

Licence Number 1601

Name of Driller or Borer Arthur Titus

Address 4 St Catherine St. Guelph Ont.

Date May 18th 1965

J L Graham per [illegible]

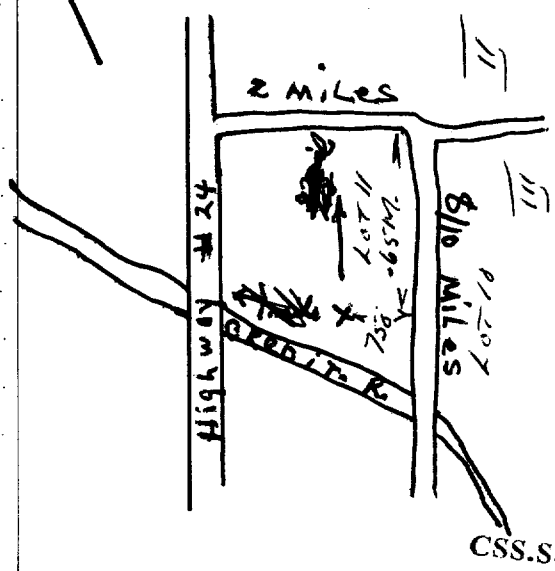
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.S8

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

30M13

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 4905837 MUNICIP 49002 CON HS W 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON BLOCK TRACT SURVEY ETC	LOT
PEEL	~~GORE~~ CALEDON (bl)	CON 3 WHS	010

[redacted]

ADDRESS: AS ABOVE

DATE COMPLETED: DAY 10 MO. DEC YR. 81

21 UTM ZONE 17 EASTING 580600 NORTHING 4851600 RC 5 ELEVATION 1175 RC 5 BASIN CODE 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH FEET FROM	TO
BROWN	SAND	GRAVELL, BOLDERS.	HARD.	0'	92'
BROWN	GRAVELL	SAND.	HARD.	92'	100'
BROWN	GRAVELL (COARSE).		HARD.	100'	107'

31 0092628 1113 0100611 2873 0107631 73

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0092'	1 ☑ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH FEET FROM	TO
06"	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0'	109'
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.): — INCHES; DIAMETER: — INCHES; LENGTH: — FEET

MATERIAL AND TYPE: —; DEPTH TO TOP OF SCREEN: — FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☑ PUMP (Air) 2 ☐ BAILER

PUMPING RATE: 0015 GPM

DURATION OF PUMPING: 02 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 PUMPING 2 ☐ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
042' FEET	FEET	FEET	FEET	FEET	FEET

IF FLOWING GIVE RATE: — GPM

PUMP INTAKE SET AT: 85' FEET

WATER AT END OF TEST: 1 ☑ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☑ DEEP

RECOMMENDED PUMP SETTING: 085' FEET

RECOMMENDED PUMPING RATE: 0010 GPM

FINAL STATUS OF WELL 1

1 ☑ WATER SUPPLY
2 ☐ OBSERVATION WELL
3 ☐ TEST HOLE
4 ☐ RECHARGE WELL
5 ☐ ABANDONED, INSUFFICIENT SUPPLY
6 ☐ ABANDONED, POOR QUALITY
7 ☐ UNFINISHED

WATER USE 01

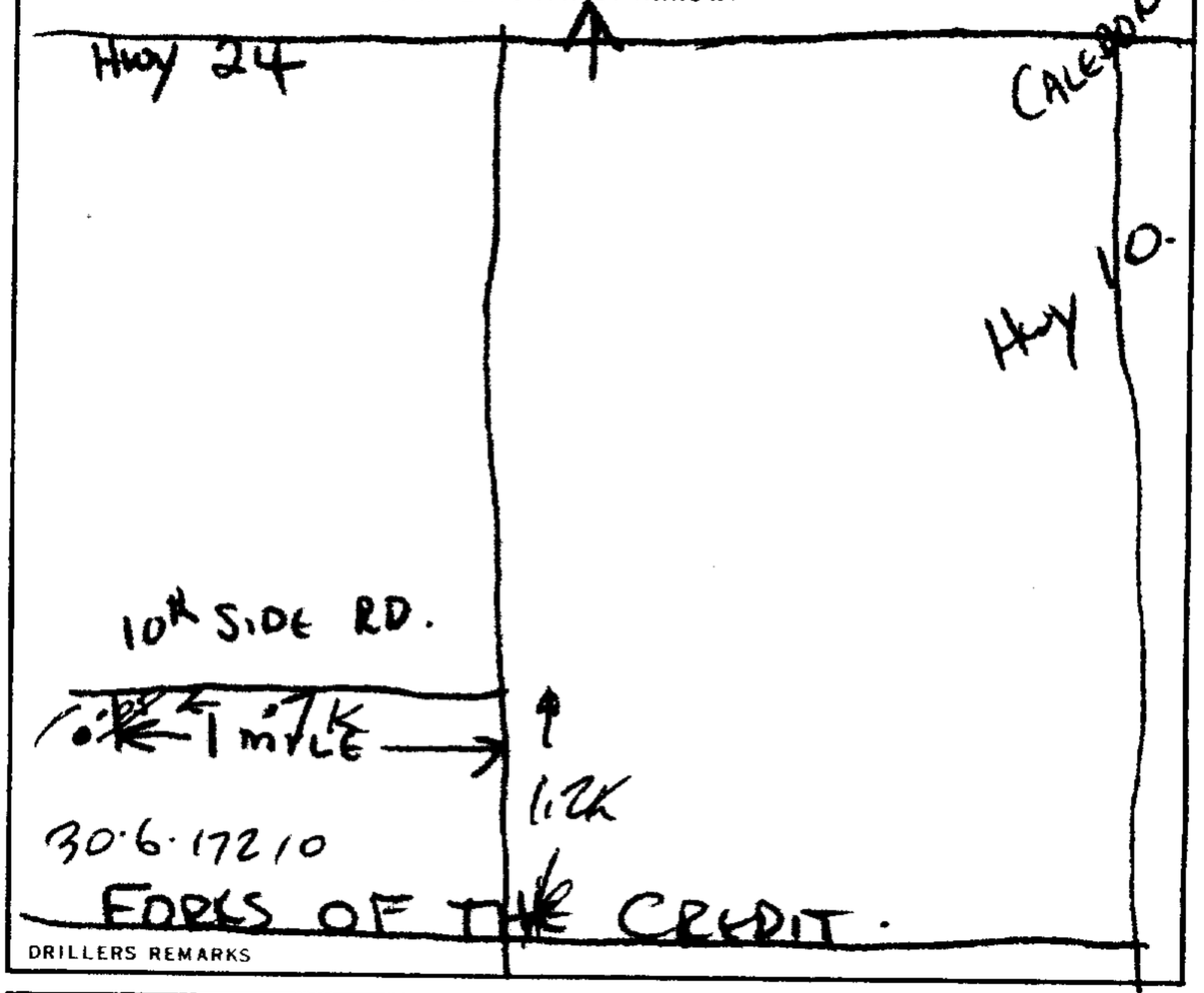
1 ☑ DOMESTIC
2 ☐ STOCK
3 ☐ IRRIGATION
4 ☐ INDUSTRIAL
☐ OTHER
5 ☐ COMMERCIAL
6 ☐ MUNICIPAL
7 ☐ PUBLIC SUPPLY
8 ☐ COOLING OR AIR CONDITIONING
9 ☐ NOT USED

METHOD OF DRILLING 4

1 ☐ CABLE TOOL
2 ☐ ROTARY (CONVENTIONAL)
3 ☐ ROTARY (REVERSE)
4 ☑ ROTARY (AIR)
5 ☐ AIR PERCUSSION
6 ☐ BORING
7 ☐ DIAMOND
8 ☐ JETTING
9 ☐ DRIVING

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS

CONTRACTOR

NAME OF WELL CONTRACTOR: S.D. SMITH DRILLING CO. LTD. LICENCE NUMBER: 4868

ADDRESS: RR# 2 ALTON

NAME OF DRILLER OR BORER: S.D. SMITH LICENCE NUMBER: 4868

SIGNATURE OF CONTRACTOR: [signature] SUBMISSION DATE: DAY 17 MO. DEC YR. 81

OFFICE USE ONLY

DATA SOURCE: 1 CONTRACTOR: 4868 DATE RECEIVED: 021281

DATE OF INSPECTION: INSPECTOR:

REMARKS: for only 27/7/83 CSS.SS

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ontario Ministry of the Environment

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 | 4908613 | Municipality 49002 | Con. HS W 03

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
PEEL COUNTY	TOWN OF CALEDON	CON 2/3 WEST	18

[redacted] Address: 811 PARKLAND AVE, MISS ONT

Date completed: 24 (day) 07 (month) 2000 (year)

21 | UTM | Northing | RC | Elevation | RC | Basin Code

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
	TOP SOIL			0	1
BROWN	SILTY CLAY	GRAVEL		1	37
BROWN	SILT	GRAVEL		37	120
BROWN	SAND	GRAVEL		120	135
GREY	SILT	WOOD FRAGMENTS		135	203
GREY	COARSE SAND	GRAVEL		203	220
GREY	GRAVEL			220	222

31 | 32

41 WATER RECORD

Water found at - feet	Kind of water
222	☑ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas (UNTESTED)
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6"	☑ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	.188	+2	222
	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic			
	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic			

SCREEN

Sizes of opening (Slot No.)	Diameter	Length
N/A.	inches	feet

Material and type	Depth at top of screen
	feet

61 PLUGGING & SEALING RECORD

☑ Annular space ☐ Abandonment

Depth set at - feet From	To	Material and type (Cement grout, bentonite, etc.)
0	41	BENSEAL

71 PUMPING TEST

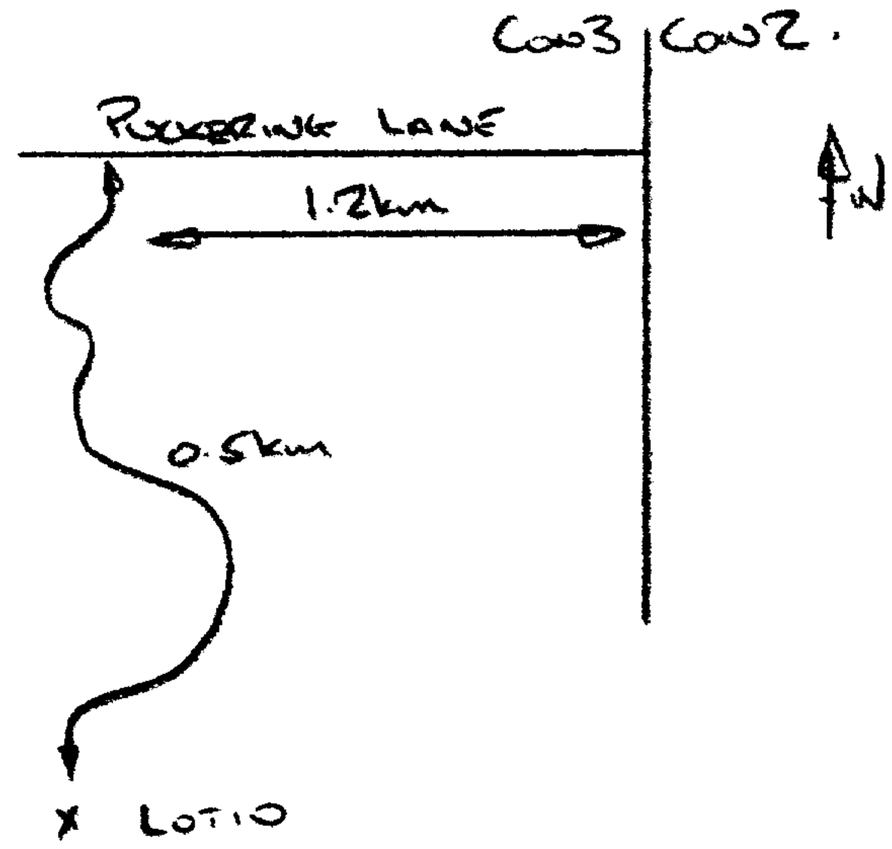
Pumping test method: ☐ Pump ☐ Bailer (AIR)
Pumping rate: 60+ GPM
Duration of pumping: 1 Hours 30 Mins

Static level	Water level end of pumping	Water levels during (☑ Recovery) 15 minutes	30 minutes	45 minutes	60 minutes
96 feet	feet	96 feet	feet	feet	feet

If flowing give rate: — GPM
Pump intake set at: 150 feet
Water at end of test: ☑ Clear ☐ Cloudy
Recommended pump type: ☐ Shallow ☑ Deep
Recommended pump setting: 150 feet
Recommended pump rate: 60 GPM

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



219602

FINAL STATUS OF WELL

☑ Water supply ☐ Observation well ☐ Test hole ☐ Recharge well ☐ Abandoned, insufficient supply ☐ Abandoned, poor quality ☐ Abandoned (Other) ☐ Dewatering ☐ Unfinished ☐ Replacement well

WATER USE

☑ Domestic ☐ Stock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Public supply ☐ Cooling & air conditioning ☐ Not use ☐ Other

METHOD OF CONSTRUCTION

☐ Cable tool ☐ Rotary (conventional) ☐ Rotary (reverse) ☑ Rotary (air) ☐ Air percussion ☐ Boring ☐ Diamond ☐ Jetting ☐ Driving ☐ Digging ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
HIGHLAND WATER WELLS	2576
Address: BOX 141, DURHAM, ONT. N0G 1R0	
Name of Well Technician: NIGEL POPPLETON	Well Technician's Licence No. T2130
Signature of Technician/Contractor	Submission date: day 25 mo 07 yr 2000

MINISTRY USE ONLY

Data source	Contractor	Date received
	2576	AUG 01 2000
Date of inspection	Inspector	
Remarks		

CSS.ES0

2 - MINISTRY OF THE ENVIRONMENT COPY

0506 (11/98) Front Form 9

Dominion Road

UTM 17 Z 580628 E
5 R 4850381 N
Elev. 5 R
Basin 24

49 № 932

The Ontario Water Resources Commission Act, 1957

WATER WELL RECORD

County or District ..... Township, Village, Town or City .....

[redacted]

Date completed ..... (day month year)

Address .....

Casing and Screen Record

Inside diameter of casing .....
Total length of casing .....
Type of screen .....
Length of screen .....
Depth to top of screen .....
Diameter of finished hole .....

Pumping Test

Static level .....
Test-pumping rate ..... G.P.M.
Pumping level .....
Duration of test pumping .....
Water clear or cloudy at end of test .....
Recommended pumping rate ..... G.P.M.
with pumping level of .....

Well Log / Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
			26	11	

For what purpose(s) is the water to be used?
.....

Is well on upland, in valley, or on hillside? .....
.....

Drilling Firm .....
Address .....
.....

Licence Number .....
Name of Driller .....
Address .....
Date .....
.....
(Signature of Licensed Drilling Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.

Well ID

Well ID Number: 7228001
Well Audit Number: *Z184798*
Well Tag Number: *A136300*
This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	285 DOMINION STREET
Township	CALEDON TOWN (CALEDON TWP)
Lot	009
Concession	HS W 04
County/District/Municipality	PEEL
City/Town/Village	Caledon
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 17 Easting: 580633.00 Northing: 4850541.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction & Well Use

Method of Construction	Well Use
	Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
6.25 inch	STEEL	1.67 ft	

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7407

Results of Well Yield Testing

After test of well yield, water was	CLEAR
If pumping discontinued, give reason	
Pump intake set at	

Pumping Rate	
Duration of Pumping	
Final water level	
If flowing give rate	
Recommended pump depth	
Recommended pump rate	
Well Production	
Disinfected?	Y

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	

50	50
60	60

Water Details

Water Found at Depth	Kind
	Untested

Hole Diameter

Depth From	Depth To	Diameter

Audit Number: Z184798

Date Well Completed: August 28, 2014

Date Well Record Received by MOE: September 22, 2014

Updated: February 8, 2016

Ontario — Ministry of the Environment

Measurements recorded in: ☑ Metric ☑ Imperial

Well Tag No. (Place Sticker and/or Print Below) Tag #: A168286

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
#1573 Puckering Lane	Caledon	10	8 WHS

County/District/Municipality	City/Town/Village	Province	Postal Code
Peel	Caledon	Ontario	L7K 1R8

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	580569	4851215		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
Black	Top Soil			0	2
Brown	Sand			2	24
Grey	Clay	Till/Sand		24	95
Grey	Gravel	Silt	Small	95	110
Brown	Sand	Silt	Soft	110	150
Grey	Gravel			150	160
			Total = 160 FT		
	6 1/4" Casing Drive Shoe				

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	20	Quick Grout	90 GAL

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☐ Air percussion Other, specify Reverse Rotary

Well Use

☐ Public ☐ Commercial ☐ Not used
☑ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☑ Other, specify Pond

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
6 1/4	Steel	.219	+2	160

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To

Status of Well

☑ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth (m/ft)	Kind of Water	
	☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify	
	☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify	
	☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify	

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	20	10"
20	160	6 1/8"

Results of Well Yield Testing

After test of well yield, water was: ☑ Clear and sand free ☐ Other, specify

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

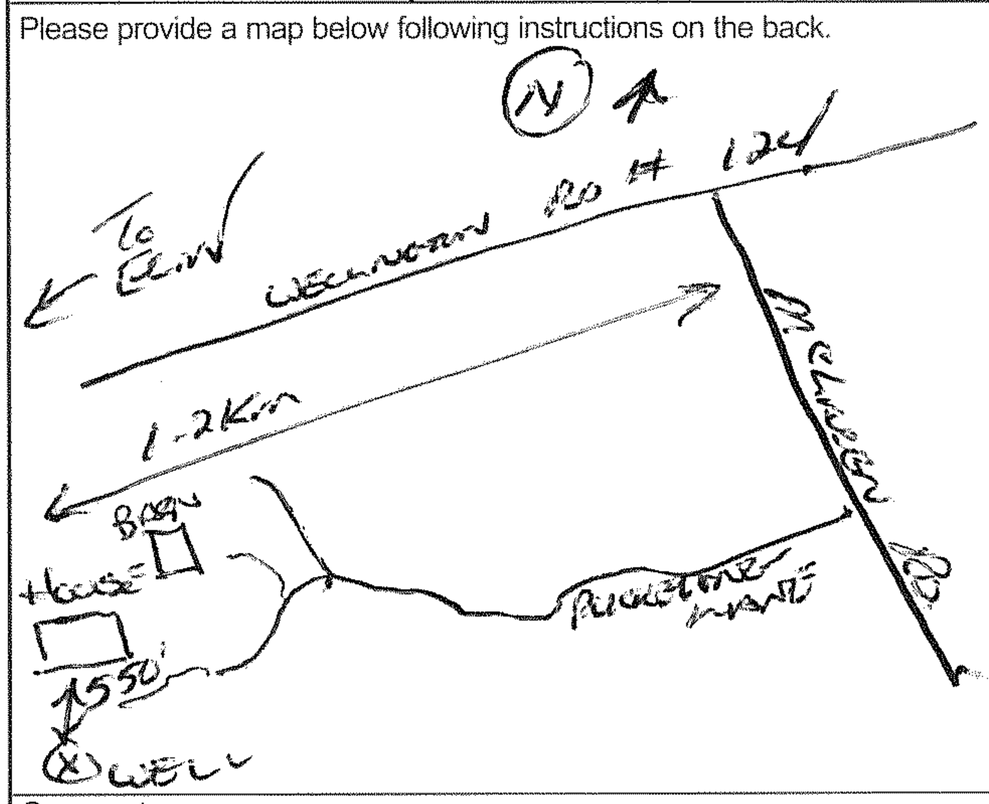
Well production (l/min / GPM)

Disinfected? ☑ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level	45		55.10
1	48	1	48.00
2	52.4	2	
3	52.7	3	45.6
4	53.4	4	
5	54.5	5	
10	54.5	10	45.0
15	55.6	15	
20	55.8	20	
25	55.8	25	
30	55.10	30	
40	55.10	40	
50	55.10	50	
60	55.10	60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments: House Well

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Hanson Letter Drilling LTD	2663

Business Address (Street Number/Name)	Municipality
#5896 Wellington Rd 7 RR#5	Guelph

Province	Postal Code	Business E-mail Address
ON	N1H 6J2	info@hankwellbilling.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
519 763 8239	Hanson Kevin

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
0590	[signature]	2014/11/01

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☑ Yes ☐ No	2014/11/01	2014/11/01

Ministry Use Only

Audit No. Z 202505

Received DEC 24 2014

Ontario — Ministry of the Environment

Measurements recorded in: ☑ Metric ☑ Imperial

Well Tag No. (Place Sticker and/or Print Below)
Tag #: A168263

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
#1573 Puckering Lane	Caledon	10	8 WHS

County/District/Municipality	City/Town/Village	Province	Postal Code
Peel	Caledon	Ontario	L7K 1R8

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	580595	4851193		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
Grey	Clay			0	12
Brown	Sand	Gravel		12	18
Grey	Clay	Sand / Till		18	100
Brown	Silt	Sand		100	120
Brown	Sand / Silt	Gravel Mix		120	150
Grey	Gravel	Cobble		150	160
			Total = 160 FT		
		6¼" Casing Drive Shoe			

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	20	Quick Grout	90 GAL

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☐ Air percussion Dual Rotary
☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used
☑ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☑ Other, specify Pond

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
6¼	Steel	.219	+2	160
6⅛	Open Hole			

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To

Status of Well

☑ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth (m/ft)	Kind of Water	
160	☐ Fresh ☑ Untested ☐ Gas ☐ Other, specify	
(m/ft)	☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify	
(m/ft)	☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify	

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	20	10"
20	160	6⅛"

Results of Well Yield Testing

After test of well yield, water was:
☑ Clear and sand free
☐ Other, specify

If pumping discontinued, give reason:

Pump intake set at (m/ft): 150

Pumping rate (l/min / GPM): 30

Duration of pumping: 1 hrs + ____ min

Final water level end of pumping (m/ft): 51.6

If flowing give rate (l/min / GPM):

Recommended pump depth (m/ft): 150

Recommended pump rate (l/min / GPM): 30+

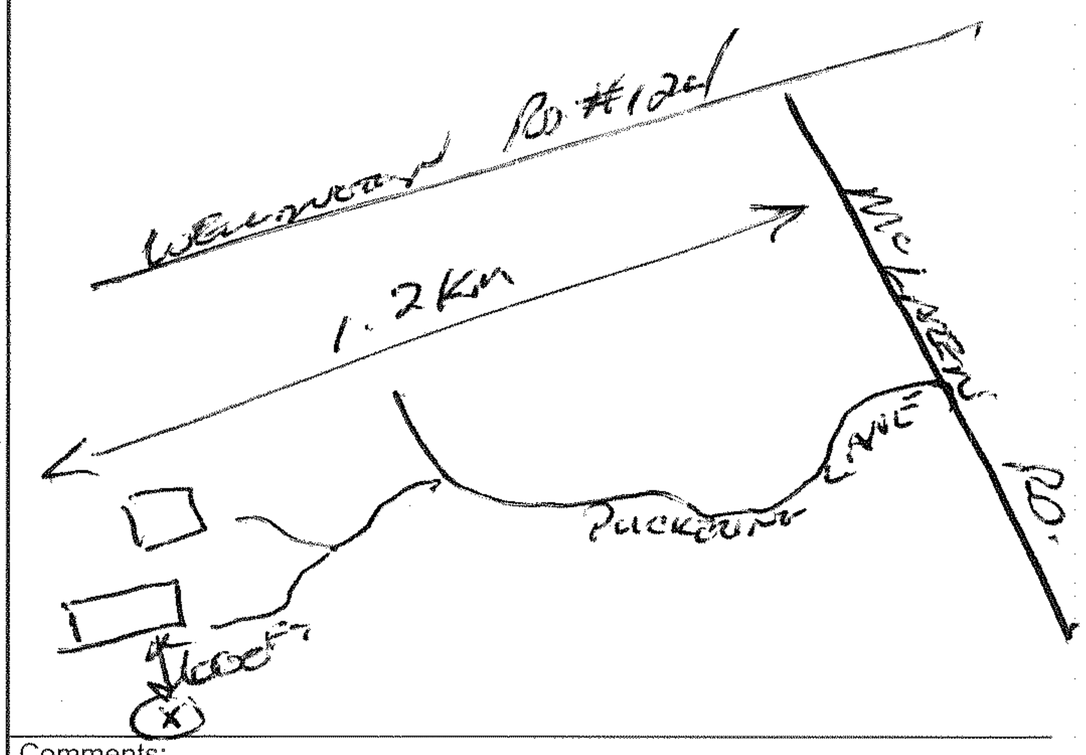
Well production (l/min / GPM): 30+

Disinfected? ☑ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level	38.0		50.2
1	50.0	1	43
2	53.0	2	43.6
3	53.6	3	43.3
4	53.6	4	43.2
5	53.8	5	43.1
10	51.0	10	42.0
15	50.2	15	
20	50.2	20	41.8
25	50.2	25	
30	50.2	30	38.4
40	50.2	40	38.0
50	50.2	50	
60	50.2	60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments: Pond Water

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Hanson Well Drilling Ltd	2663

Business Address (Street Number/Name)	Municipality
15896 Wenmoan Rd #7 RR#5	Georgetown

Province	Postal Code	Business E-mail Address
ON	M1H 6J2	info@hansonwelldrilling.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
519 763 8239	Hanson, Kevin

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
0596		2014/12/01

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☑ Yes ☐ No	2014/11/01	2014/11/01

Ministry Use Only

Audit No. Z 202504

Received DEC 24 2014

Ministry's Copy

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☑ Imperial

Well Tag No. *(Place Sticker and/or Print Below)*

Tag #: A168276

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☑ Well Constructed by Well Owner
	HEDGEWOOD INC.		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
227 DOMINION RD.	CALEDON	ON	L0N1C0	4163521954

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
227 DOMINION RD.	CALEDON	10	4

County/District/Municipality	City/Town/Village	Province	Postal Code
— PEEL	— CALEDON	Ontario	L0N1C0

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	580682	4850689		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
BLACK	TOP SOIL			0	1
GREY	LIMESTONE			1	2
RED	SHALE			2	322
			TOTAL	=	322 FT.
		6 1/4" CASING DRIVE SHOE			

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
0	20	QUICK GROUT	90 GAL.

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☐ Air percussion ☐ Other, *specify* DUAL ROTARY

Well Use

☐ Public ☐ Commercial ☐ Not used
☑ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, *specify*

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
6 1/4	STEEL	.219	+2	20
6 1/8	OPEN HOLE		20	322

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Status of Well

☑ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, *specify*
☐ Other, *specify*

Results of Well Yield Testing

After test of well yield, water was:
☐ Clear and sand free
☑ Other, *specify* CLOUDY

If pumping discontinued, give reason:

Pump intake set at *(m/ft)*

Pumping rate *(l/min / GPM)*

Duration of pumping ____ hrs + ____ min

Final water level end of pumping *(m/ft)*

If flowing give rate *(l/min / GPM)*

Recommended pump depth *(m/ft)*

Recommended pump rate *(l/min / GPM)*

Well production *(l/min / GPM)*

Disinfected? ☐ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	26.6		120.0
1	32.3	1	110
2	32.3	2	90
3	34.7	3	85
4	36.5	4	74
5	38.1	5	65
10	46.7	10	61
15	50.3	15	52
20	54.4	20	46
25	64.5	25	32
30	74.1	30	30
40	93.1	40	29
50	104.0	50	28
60	117.0	60	27

Water Details

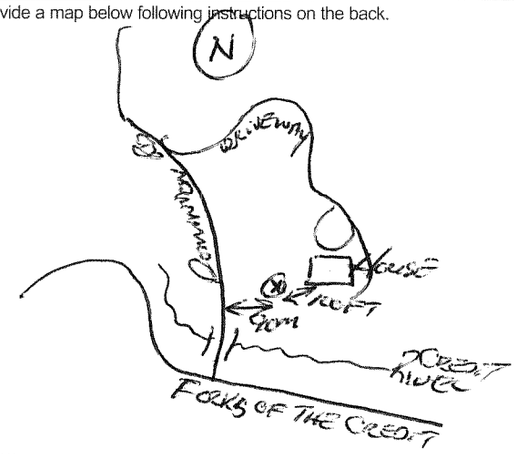
Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☐ Untested ☐ Gas ☐ Other, *specify*
Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☐ Untested ☐ Gas ☐ Other, *specify*
Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☐ Untested ☐ Gas ☐ Other, *specify*

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	20	10"
20	322	6 1/8"

Map of Well Location

Please provide a map below following instructions on the back.



Comments: RECOMMEND WELL TO BE ABANDONED

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
HANNEN WELL DRILLING LTD	2663

Business Address (Street Number/Name)	Municipality
#3896 WELLINGTON RD #7 RR#5	GUELPH

Province	Postal Code	Business E-mail Address
ON	N1H6J2	info@hannenwellbilling.com

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
519-763-8239	HANNEN, HENRY

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
0590		2014/12/22

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☑ Yes ☐ No	2014/09/22	2014/09/22

Ministry Use Only

Audit No. Z 202506

Received DEC 24 2014

Ministry's Copy

McLaren Road

UTM | Z | E

| 9 | R | N

Elev. 95 R. 4 St. West
Huron Ontario
Basin 24
Con 11
lot 11

ONTARIO

The Water-well Drillers Act, 1954
Department of Mines

(18)

RECEIVED
JUN 26 1956
GEOLOGICAL BRANCH
DEPARTMENT of MINES

19 No. 841

Water-Well Record

County or Territorial District: Peel Township, Village, Town or City: Caledon
Con. 9 Lot 11 W½ Street and Number (if in Village, Town or City)
Owner [redacted] Address: Caledon
Date completed: 23 (day) June (month) 1956 (year)

Pipe and Casing Record

Casing diameter(s): 5½ in
Length(s): 56 44'-6"
Type of screen: 4"x4' Cook shamer
Length of screen: 12'

Pumping Test 45 = 9 ft/log

Static level: 30
Pumping rate: 420 gal per hr 7 gpm
Pumping level: 50
Duration of test: 8 hrs

Well Log / **Water Record**

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
red clay	0	24	56	26	fresh
clay & boulders	24	35			
gravel & sand	35	56			

For what purpose(s) is the water to be used? farm
Is water clear or cloudy? clear
Is well on upland, in valley, or on hillside? hillside

Drilling firm: F. R. Broadway & Son
Address: Sutton West Ont

Name of Driller: F. R. Broadway
Address: Sutton West Ont

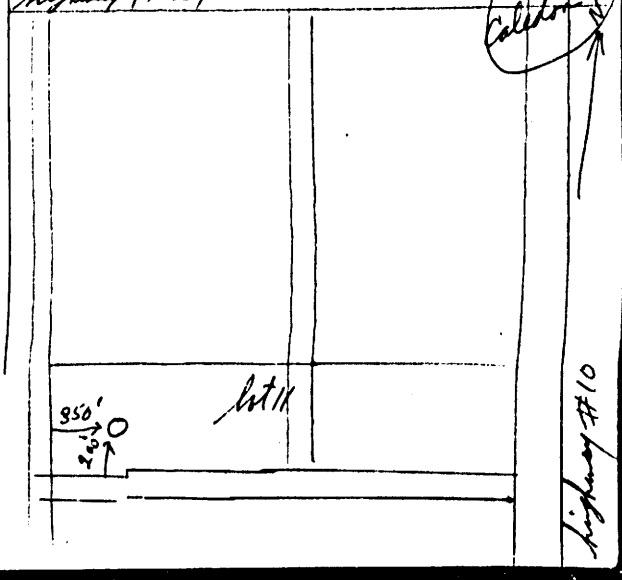
Licence Number: 57

I certify that the foregoing statements of fact are true.

Date: June 23 F. R. Broadway
Signature of Licensee

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Form 5

Ministry of the Environment
Ontario
PEEL

CV/OKM

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 — 4907113 — MUNICIP. 49002 — CON. HS. W — LOT 102

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
Caledon	Peel CALEDON (CALEDON)	Con 2 WHS	9 & 10

[redacted] [redacted] 1 Southridge Dr [redacted]

DATE COMPLETED: DAY 31 MO 5 YR 89

21 — ZONE 17 — EASTING 581560 — NORTHING 4851850 — RC — ELEVATION 0330 — RC — BASIN CODE

[redacted]

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
	Topsoil			0	2
	Sand	gravel		2	25
Gray	Clay	sand		25	74
	gravel	Quick Sand		74	82
Gray	Clay			82	116
	Quick Sand			116	130
Brown	Sand			130	180
Gray	gravel	sand		180	192
Brown	Sand			192	209
Red	Shale			209	235
Blue	Shale			235	257

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
220	1 ☑ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
255	1 ☑ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
6	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	+1	215
6	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC		215	257
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☑ AIR 3 ☐ BAILER	3-4 GPM	1 HOURS ___ MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☑ RECOVERY) 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
4 FEET	FEET	FEET	FEET	FEET	183 FEET

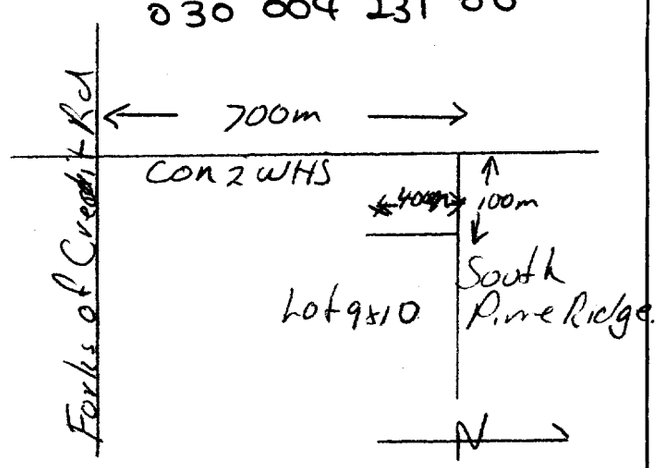
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☐ CLEAR 2 ☑ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☑ DEEP	220 FEET	3 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.

030 004 231 00



55823

DRILLERS REMARKS

FINAL STATUS OF WELL	1 ☑ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED ☐ DEWATERING
WATER USE	1 ☑ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED
METHOD OF CONSTRUCTION	1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☑ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING ☐ DIGGING ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR	WELL CONTRACTOR'S LICENCE NUMBER
Highland Water Wells	2576
ADDRESS: Box 141 Durham	
NAME OF WELL TECHNICIAN: E. Wilson	WELL TECHNICIAN'S LICENCE NUMBER: 70113
SIGNATURE OF TECHNICIAN/CONTRACTOR: [signature]	SUBMISSION DATE: DAY 6 MO. 6 YR. 89

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
	2576	JUN 27 1989
DATE OF INSPECTION	INSPECTOR	
REMARKS		

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506 (11/86) FORM 9

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Appendix C-5
Existing Conditions – Structural

Bridge Structure
Existing Conditions Report

Schedule ‘C’ Class Environmental Assessment for Dominion Street

The Corporation of the Town of Caledon

GHD | 65 Sunray Street Whitby Ontario L1N 8Y3 Canada

11116800 | 30 | Report No. 5 | January 2017

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1. Background

The existing bridge, which was constructed about 1960, is an 11.95 m span concrete rigid frame bridge with an asphalt wearing surface. The bridge spans over the Credit River.

The structure provides a roadway width of 5.10 m between concrete curbs and accommodates one lane of vehicular traffic. A 0.5 m wide concrete curb is provided on the east and west sides of the bridge. Steel vertical bar handrails are located on the curbs.

The bridge deck is supported on concrete abutments constructed normal to the roadway alignment. The founding condition for the bridge abutments is not known.

No previous rehabilitation works have been undertaken on the bridge. The Town proposed to undertake rehabilitation works in 2012 but the work was deferred for further site assessments. The proposed rehabilitation works included:

- Waterproofing and paving of the bridge deck
- Miscellaneous concrete repairs
- Full length concrete patch overbuild on deck soffit along centreline
- Installation of new deck drains
- Placement of boulders along the southeast and southeast wingwalls
- Installation of approach guide rail

2. Existing Condition

Detailed visual inspections were completed by EXP in 2015 and EMSI in 2013 and 2009.

The inspection results are summarized as follows:

- The asphalt wearing surface is in good condition.
- The concrete curbs are in poor to fair condition with localized severe spalling along the exterior face, localized severe scaling along the curb face and localized narrow transverse cracks. Previous patching was noted along the curb face.
- The steel vertical bar handrails are in generally good condition with collision damage to one panel. The concrete handrail posts are in fair condition with spalling and cracking. The handrails do not meet current Canadian Highway Bridge Code vehicle collision load requirements.
- The concrete deck soffit is in fair to good condition with severe spalling, delamination and scaling along the exterior edges, adjacent to the abutments and along the centerline of the structure. Exposed reinforcing steel is corroded.
- Deck drainage is accommodated by 4 steel deck drains which outlet flush with the deck soffit.

- The north concrete abutment is in generally good condition with localized light cracking and efflorescence staining below the centerline deck construction joint and below deck drain outlets. The south concrete abutment is in fair condition with extensive light cracking, efflorescence staining and scaling. A stained vertical crack was noted extending from the centerline joint in the bridge deck and inclined to the west to the base of the abutment.
- The northwest concrete retaining wall is in good condition. A gabion retaining wall is provided beyond the northwest concrete retaining wall and is in good condition. The northeast retaining wall consists of precast concrete blocks and boulders and is in generally good condition with minor movements. The southwest retaining wall is in fair condition with localized severe scaling and light cracking. The retaining wall also exhibits two horizontal cold joints. Efflorescence was noted along the joints. The southeast retaining wall is in fair condition with localized severe spalling and light cracking. The retaining wall also exhibits one horizontal cold joint. Efflorescence was noted along the joint.
- The asphalt paved approach roads have minor settlement adjacent to the structure.
- The roadway embankments adjacent to the structure are vegetated. No erosion was noted adjacent to the structure.
- The watercourse is in unobstructed with no evidence of scour. The watercourse is considered navigable.

Appendix C-6
Existing Conditions – Land Use and Social Environment

Land Use & Social Environment Existing Conditions Report

Schedule 'C' Class Environmental Assessment for Dominion Street

The Corporation of the Town of Caledon

GHD | 65 Sunray Street Whitby Ontario L1N 8Y3 Canada

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1. Introduction

The Corporation of the Town of Caledon (Town) has initiated Class Environmental Assessments (EA) in accordance with both the Municipal Engineers Association (MEA) Class EA document and the Ministry of Natural Resources and Forestry (MNRF) Provincial Parks and Conservation Reserves (PPCR) Class EA guideline, for the rehabilitation of Dominion Street. Proposed rehabilitation works in the defined study area trigger a Schedule 'C' classification. As such, the study will be conducted in accordance with the planning and design process for Schedule 'C' projects as outlined in the MEA's "Municipal Class Environmental Assessment" (October 2000, as amended in 2015). The Study Area infringes upon the Forks of the Credit Provincial Park, triggering a Category 'C' assessment as outlined in the MNRF's Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), as approved under the *Ontario Environmental Assessment Act (EA Act)*.

Currently, Dominion Street provides access private residences located toward the end of the street. Dominion Street is currently a two-lane rural roadway and the Dominion Street Bridge is a single lane egress. The Dominion Street Bridge is the only egress point for residents on Dominion Street, serving as an overpass to the Credit River. There is evidence that Dominion Street is currently experiencing road surface slippage in areas where the road is closest to the Credit River. This movement is likely due to erosion of the road embankment; however instability is not expected to be deep seated.

Unique features for further consideration within the Study Area include the Forks of the Credit Provincial Park; the Credit River; the Dominion Street Bridge; and a segment of a C.P. Railway. The river banks of the Credit River are covered with mature vegetation, which could potentially experience significant impacts, given the potential implementation of traditional erosion protection measures. Built in 1935, the existing Dominion Street Bridge is on scenic road within the Belfountain & the Credit Gorge Cultural Heritage Landscape. Therefore, any bridge rehabilitation work must be sensitive to the heritage characteristics of the Dominion Street Bridge.

The intent of this study is to investigate alternatives that address feasible bank stabilization and bridge rehabilitation activities, while minimizing potential environmental impacts, in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge. Alternative roadway re-alignments will be considered as part of this study, but are limited given the Study Area's topographic deviation. In order to protect Dominion Street from further movement, techniques to improve embankment stability will also be investigated in this study.

The *EA Act* requires proponents to describe the existing environment that may be affected, directly or indirectly, by the proposed alternatives to the undertaking. As such, this report characterizes the Land Use & Social Environment existing conditions of the Dominion Street Study Area.

2. Study Area

From a land use & social environment perspective, the characterization of existing conditions within the following study area is appropriate to this Class EA:

- **Site Study Area**; all lands within the Dominion Street and Puckering Lane right of ways
- **Land Use & Social Environment (Local) Study Area**; all lands within 1000 metres of the Site Study Area boundaries.

These study areas are illustrated in Figure 2.1 below.

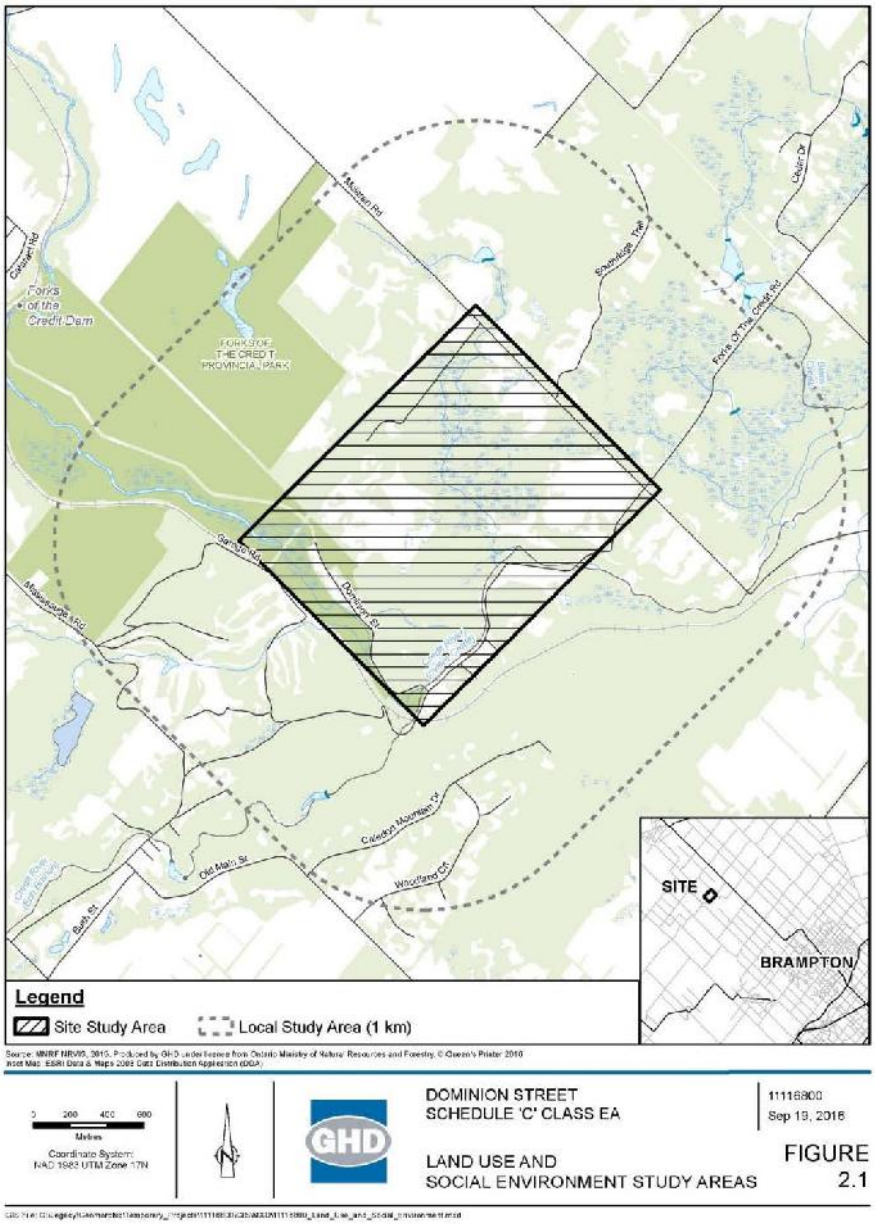


Figure 2.1 Land Use & Social Environment Study Area

3. Methodology

3.1 Secondary Source Information Collection and Review

Available secondary sources of information were collected and reviewed to characterize land use & social environment existing conditions within the study areas. The following sources of secondary information were collected and reviewed, as they are specifically applicable to the study areas identified:

- Ontario Planning Act
- Provincial Policy Statement, 2014
- Town of Caledon Official Plan, November 2015, Office Consolidation
- Region of Peel Official Plan, October 2014, Office Consolidation
- Town of Caledon Zoning By-law 2006-50, as amended
- Niagara Escarpment Plan, 2012
- Greenbelt Plan, 2005
- Town of Caledon Ward Profiles

3.1.1 Ontario Planning Act

The Ontario Planning Act is the principal legislation governing all planning matters and land use planning in Ontario. The Planning Act ensures conformity among council directed land use planning decisions with provincial plans and the provincial policy statement (PPS). The Town of Caledon is subject to the following four provincial plans: the Niagara Escarpment Plan (NEP) (2012), the Greenbelt Plan (2005), The Growth Plan (2006), and the Oak Ridges Moraine Conservation Plan (ORMCP) (2002). However, considering the Dominion Street Study Area, only two of these provincial plans apply: the NEP (2012) and the Greenbelt Plan (2005).

3.1.2 Provincial Policy Statement

The Provincial Policy Statement (PPS) (2014) sets the framework for the provincial government's long term land use vision for how Ontario lands and resources are managed. Land use planning in the Town of Caledon is subject to the PPS (2014). In consolidation with the Planning Act and provincial plans the PPS diverts development from environmentally sensitive areas. The PPS ensures the development of safe and efficient transportation systems, able to facilitate the movement of people and goods. For this reason, the proposed improvements to the Dominion Street Study Area conform to the PPS, by providing active and vehicular transportation infrastructure, which will improve the safe movement of people/residents while satisfying current and future needs of the Study Area.

3.1.3 Town of Caledon Official Plan, November 2015, Office Consolidation

The Town of Caledon Official Plan guides the future land use, physical development and change, and the effects on the social, economic, and natural environment, within the Town of Caledon. The

Official Plan came into effect in 1979 and since that time the Plan has been reviewed and amended in order to keep it current, reflect changing community needs and dynamics, address external influences, and to respond to new Regional and Provincial planning polices and guidelines. The current version of the Official Plan came into effect in November 2015 and includes all approved Official Plan Amendments to date.

3.1.4 Region of Peel Official Plan, October 2014, Office Consolidation

The Peel Regional Official Plan is regional council's long-term policy framework for decision making. It sets the Regional context for detailed planning by protecting the environment, managing resources, directing growth and setting the basis for providing regional services in an efficient and effective manner. The Official Plan provides direction for future planning activities and for public and private initiatives aimed at improving the existing physical environment.

The Regional Official Plan was adopted by Council on July 11, 1996 and approved with modifications by the Ministry of Municipal Affairs and Housing on October 22, 1996. Subsequent to the Ministry's decision, four appeals were filed to the Ontario Municipal Board (OMB) regarding parts of the decision between 1997 and 1998. The appeals were related to the 'Rural System', 'General Appeals', 'Mineral Aggregate/Natural Environment', and 'Airport' issues. Since that time, the Region has completed required updates and amendments to its Official Plan through the Peel Region Official Plan Review, which now includes leading-edge policies in a variety of focus areas, and conforms to provincial requirements identified in the *Places to Grow Act*, *Greenbelt Plan* and *Provincial Policy Statement*. The Region of Peel consolidated the Official Plan to include Ministry and OMB approvals and Regional approved amendments as of October 2014.

The four primary goals of the Regional Official Plan are to:

- create a healthy community
- recognize the importance of the environment
- recognize the importance of a vibrant economy
- support balanced growth and development

The proposed improvements to Dominion Street are consistent with the Regional Official Plan transportation system general objectives. The following policies are of particular relevance:

5.9.1 General Objectives

> *5.9.1.1 To achieve the safe, convenient and efficient movement of people and goods in the Region.*
>
> *5.9.1.2 To develop and promote a sustainable, safe, efficient, effective and integrated multi-modal transportation system.*
>
> *5.9.1.3 To support the provision of improved transportation mobility and choice to all residents, employees and visitors.*
>
> *5.9.1.4 To promote and encourage the increased use of public transit and other sustainable modes of transportation.*

5.9.1.5 To optimize the use of the Region's transportation infrastructure and services.

5.9.1.6 To maximize the capacity of the transportation system by focusing on moving people and goods rather than on moving vehicles.

5.9.1.8 To support a transportation system that enhances economic vitality and growth in the Region.

5.9.1.9 To ensure that practices and performance measures are in place to maintain a safe and efficient regional transportation network.

5.9.1.10 To support the integration of transportation planning, transportation investment and land use planning.

3.1.5 Town of Caledon Zoning By-law 2006-50, as amended

Zoning within the Town conforms to the Town of Caledon Zoning By-law 2006-50, as amended. However, lands incorporating the Study Area fall entirely within the Niagara Escarpment Plan. Therefore, Zoning By-law 2006-50 does not conform to lands within the Study Area that are within the Niagara Escarpment Plan, except where site specific zoning is present.

3.1.6 Niagara Escarpment Plan, 2012

The Niagara Escarpment Plan controls land use planning within designated lands of the Niagara Escarpment Plan Area. The Niagara Escarpment Commission acts as the approval authority within the Niagara Escarpment Plan Area, where Minor Urban Centres are not present. There are currently six settlements within the Town of Caledon designated as Minor Urban Centres for which Zoning By-law 2006-50 apply. The Minor Urban Centre of Belfountain is closest in proximity to the Dominion Street Study Area, as compared to the remaining five Minor Urban Centres.

3.1.7 Greenbelt Plan, 2005

The function of the Greenbelt Plan, 2005 is to protect the agricultural land base of designated areas as defined by Ontario Regulation 59/05 within south-central Ontario and the Greater Golden Horseshoe from urbanization. The Greenbelt Plan includes lands within the Niagara Escarpment and builds on current protection measures from other provincial plans, including the Niagara Escarpment Plan, 2012 and the Oak Ridges Moraine Conservation Plan.

The Study Area falls within the Greenbelt Plan Area. As such, infrastructure development within this area is subject to the applicable protection measures, as identified in the Greenbelt Plan, 2005.

3.1.8 Region of Peel Ward Profiles

The Region of Peel prepared ward profiles for all Regional wards in 2011, including the five wards comprising the Town of Caledon. These reports provide an overview of the features, assets and various indicators of socio-demographic characteristics within each ward. These profiles compile data from Statistics Canada, the National Household Survey, etc. The Dominion Street Study Area is located within Ward 1 of the Town of Caledon. Socio-economic and demographic data for Ward 1 are explored in Section 5.1 of this report.

3.2 Process Undertaken

An analysis was undertaken to gain an understanding and clearly document the characteristics of existing land uses with the Site Study Area and the Local Study Area. All applicable municipal and provincial regulatory planning documents were considered in identifying existing conditions for both study areas, as identified in Section 3.1.

In order to gain an understanding of site characteristics, as well as a sensory feel of the local study area, a windshield survey of publically accessible areas within the local study area was completed on August 31, 2016.

The land use and social environment within the study areas as well as at the larger community scale was documented through a review of the planning documents and demographic information sources previously identified, analysis of aerial photographs, and confirmatory site visits.

4. Characterization of Existing Land Use

The analysis presented in this section describes the existing land use conditions for the Site Study Area and the Local Study Area. In order to conduct an accurate and detailed investigation of potential land uses affected, this study thoroughly reviews all land use objectives, policies and restrictions within a 1000 metre extended boundary from the Site Study Area, referred to as the Local Study Area.

The Dominion Street Site Study Area is subject to the Town of Caledon Official Plan and further the Regional Municipality of Peel Official Plan. Zoning within the Dominion Street Site Study Area conforms to the Town of Caledon Zoning By-law 2006-50, as amended. However, lands incorporating the Dominion Street Site Study Area fall entirely within the Niagara Escarpment Plan. Therefore, Zoning By-law 2006-50 does not conform to lands within the Site Study Area that fall within the Niagara Escarpment Plan, except where site specific zoning is present. The Site Study Area also infringes on the Oak Ridges Moraine within Peel Region (not within Oak Ridges Moraine Plan Area).

4.1 Town of Caledon Official Plan Designations

Excerpts of the below Schedules from the Town of Caledon Official Plan are included within Appendix A of this report.

Schedule A – Land Use

The Study Area is located within an Environmental Policy Area (EPA). Section 5.7.3.5.1 in the Caledon Official Plan states that “New public and private infrastructure will not be permitted in EPA, with the exception of essential infrastructure which may be permitted subject to approval requirements of the Town and other relevant agencies”. Section 5.7.3.5.1 also states that an EIS and MP shall be prepared to show that all reasonable alternatives to locate proposed infrastructure outside of the EPA.

Surrounding land uses within the Local Study Area include: Open Space Policy Area, Rural Lands, and the Settlement Area of Belfountain.

Schedule A1 – Town Structure

The Local Study Area is located within the Niagara Escarpment Plan Area and Greenbelt Plan Area. The Local Study Area is located just south of the Coulterville Special Study Area (Section 5.2.6).

Schedule F – Rural Estate Residential Areas

The Local Study Area is located just north of a Rural Estate Residential Area, located in the Rural Settlement Area of Belfountain.

Schedule J – Long Range Road network

The Dominion Street Site is connected via bridge to a Low Capacity Arteria (Forks of the Credit Road). Also a CP railway runs through the Local Study Area, just west of the Site.

4.2 Region of Peel Official Plan Designations

Excerpts of the below Schedules from the Regional Official Plan are included within Appendix B of this report.

Schedule A – Core Areas of the Greenlands System in Peel

The Greenland System in Peel Region consists of Core Areas, Natural Areas and Corridors, and Potential Natural Areas and Corridors. The Local Study Area is located within a Core Area of the Greenland System, as well as a special policy area. The special policy area refers to the Niagara Escarpment Plan Area, of which the Study Area is bound. Core areas of Greenland Systems are defined in the Region of Peel Official Plan as: significant wetlands, significant coastal wetlands; core woodlands; Environmentally Sensitive or Significant areas; Areas of Natural or Scientific Interest; significant habitats of threatened and endangered species; Escarpment Natural Areas of the Niagara Escarpment Plan; and core valley and stream corridors.

Schedule D – Regional Structure-Rural System

Considering the Regional Structure of the Region of Peel, the entirety of the Local Study Area is within the Rural System and Protected Countryside.

Schedule D3 – Greenbelt Plan Area Land Use Designations

The Study Area is located within the Greenbelt Area, in addition to the Niagara Escarpment Plan Area.

Schedule D4 – Rural Settlements-The Growth Plan Policy Areas in Peel

Rural Settlements comprise of Villages, Hamlets and Industrial/commercial Centres located within the Rural System. The Local Study Area is directly adjacent to a rural settlement area, as identified in the Town of Caledon Official Plan as the settlement of Belfountain.

Schedule E – Major Road and Road Network

No Major Roads are located within the Local Study Area. Mississauga Road (Hwy 1) is a designated major Road within Peel Region and borders the west edge of the Local Study Area.

4.3 Town of Caledon Zoning & Niagara Escarpment Development Control Area

Excerpts of the below Zoning Maps from the Town of Caledon Zoning By-law 2006-50 are included within Appendix C of this report.

Town of Caledon Zoning Map 52, 53, 63 & 64

The Local Study Area is zoned in accordance with the Niagara Escarpment Development Control Area. The Town of Caledon Zoning By-law 2006-50 does not conform to the boundaries of the Local Study Area.

4.4 Niagara Escarpment Plan, 2012

The Study Area is located within the development control area of the Niagara Escarpment Plan, subject to regulations under the Niagara Development Control Area. Niagara Escarpment Plan (NEP) designations within the Study Area include "Escarpment Natural Area" and "Escarpment Protection Area". The purpose of the NEP is to *"…provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment, and to ensure only such development occurs as is compatible with that natural environment."* Objectives of the NEP are as follows:

1. To protect unique ecologic and historic areas;
2. To maintain and enhance the quality and character of natural streams and water supplies;
3. To provide adequate opportunities for outdoor recreation;
4. To maintain and enhance the open landscape character of the Niagara Escarpment in so far as possible, by such means as compatible farming or forestry and by preserving the natural scenery;
5. To ensure that all new development is compatible with the purpose of the Plan;
6. To provide for adequate public access to the Niagara Escarpment; and
7. To support municipalities within the Niagara Escarpment Plan Area in their exercise of the planning functions conferred upon them by the Planning Act.

The proposed undertaking will be considered with respect to each of the above NEP objectives. A preferred solution to the alternative solutions considered will be evaluated favorably based on minimal potential impacts against the need for infrastructure improvements at Dominion Street.

Escarpment Natural Area Designation

In accordance with the NEP, Escarpment Natural Area designation is defined as, *"Escarpment features which are in a relatively natural state and associated stream valleys, wetlands and forests*

which are relatively undisturbed are included within this designation. These contain important plant and animal habitats and geological features and cultural heritage features and area the most significant natural and scenic areas of the escarpment. The policy aims to maintain these natural areas."

Objectives under the Escarpment Natural Area designation are as follows:

1. To maintain the most natural Escarpment features, stream valleys, wetlands and related significant natural areas and associated cultural heritage features.
2. To encourage compatible recreation, conservation and education activities.
3. To maintain and enhance the landscape quality of the Escarpment features.

Potential impacts to designated Escarpment Natural Areas within the Study Area will be further explored in the Environmental Study Report (ESR) based on preliminary design concepts of the preferred alternative solution. Potential impacts to Escarpment Natural Area designated lands affecting policy 1.3 of the NEP will be considered in the evaluation of alternative solutions. *Niagara Escarpment Plan designation maps of the study areas are included within* ***Appendix D*** *of this report.*

Escarpment Protection Area Designation

In accordance with the NEP, Escarpment Protection Area designation is defined as, *"important because of their visual prominence and their environmental significance. They are often more visually prominent than Escarpment Natural Areas. Included in this designation are Escarpment Features that have been significantly modified by land use activities such as agriculture or residential development, land needed to buffer prominent Escarpment Natural Areas, and natural areas of regional significance. The policy aims to maintain the remaining natural features and the open, rural landscape character of the Escarpment and lands in its vicinity."*

Objectives under the Escarpment Protection Area designation are as follows:

1. To maintain and enhance the open landscape character of Escarpment features.
2. To provide a buffer to prominent Escarpment features.
3. To maintain natural areas of regional significance and cultural heritage features.
4. To encourage agriculture, forestry and recreation.

Potential impacts to designated Escarpment Protection Areas within the Study Area will be further explored in the Environmental Study Report (ESR) based on preliminary design concepts of the preferred alternative solution. Potential impacts to Escarpment Protection Area designated lands affecting policy 1.4 of the NEP will be considered in the evaluation of alternative solutions.

NEP Section 2.15 Transportation and Utilities

"The objective is to design and locate new and expanded transportation and utility facilities so the least possible change occurs in the environment and the natural and cultural landscape."

Policy provisions under the policy 2.15 of the NEP are as follows:

1. All new and reconstructed transportation and utility facilities shall be designed and located to minimize the impact on the Escarpment environment and be consistent with the objectives of this Plan.
2. New transportation and utility facilities should avoid Escarpment Natural Areas.

These objectives will be considered in the evaluation of the alternative solutions.

NEP Section 2.16 The Bruce Trail

"The objective is to design and locate uses within the Bruce Trail Corridor in an environmentally sound manner:"

The Bruce Trail Association/Conservancy is responsible for planning, designing, developing, maintaining and managing the Trail Corridor. The NEP considers the security of a continuous route for the Bruce Trail a high priority based on provisions of maintaining the NEP parks and open space system. For this reason, the Bruce Trail Association/Conservation will continue to be consulted as this study progresses to ensure any potential impacts to the trail are appropriately mitigated, dependent on the individual impacts of the alternatives considered.

General provisions under the Section 2.16 of the NEP are as follows:

1. The Trail shall be designed and located within the corridor so as to:
    a. Minimize potential conflicts with adjacent private landowners and surrounding land uses (e.g. agriculture, housing); and
    b. Comply with municipal official plans and by-laws (where applicable).
2. All uses within the corridor shall be designed to minimize the need for environmental change (e.g. tree removal).
3. All Trail activities shall be compatible with the natural and cultural character of the area, avoiding wherever possible the need for major engineering works and site modifications over the long term.
4. In locations which are particularly sensitive to foot traffic, or which experience heavy use, periodic reroutes of the Trail may be necessary to allow for natural regeneration and minimize negative environmental impacts.
5. All uses within the Trail corridor shall be located and designed, where possible, to avoid steep slopes, wetlands, erosion prone soils and ecologically sensitive areas such as sensitive plant and animal habitats and sensitive areas within Areas of Natural and Scientific Interest.

Each of the above NEP objectives and policy provisions will be considered as part of the next phase of alternatives evaluation process. Moving forward, the alternative solutions considered will be evaluated based on the potential for environmental impacts and disturbances, while considering the need for infrastructure improvements at Dominion Street.

4.5 Credit Valley Watershed

The Local Study Area is located within the Credit Valley Watershed and is also within the Melville to Forks of the Credit Sub-watershed. The Forks of the Credit to Churchville Sub-watershed and the West Credit River Sub-watershed surround the Local Study Area.

5. Characterization of the Existing Social Environment

5.1 Neighbourhood & Community Character

Unique features for consideration within the study area include the Forks of the Credit Provincial Park; the Credit River; the bridge connecting Dominion Street; and a segment of a C.P. Railway. The river banks of the Credit River are covered with mature vegetation and the area consists of significant aesthetic views of the Niagara Escarpment. Built in 1935, the existing bridge connecting Dominion Street is on scenic road within the Belfountain & the Credit Gorge Cultural Heritage Landscape.

As identified in Section 3.1.9, the Dominion Street Study Area is located within Region of Peel Ward 1. Utilizing the Region of Peel Ward 1 Profile, consisting of 2006 census data, Ward 1 within the Town of Caledon consists of 9,425 citizens in 3,195 households, with a growth of 6.9% and a low family income classification of 3.4% (Region of Peel, 2016).

5.2 Local Business, Institutions, Public Facilities and Community Services

The vast majority of the Local Study Area is undeveloped given its associated environmental significance. As such, the presence of local businesses, institutions, public facilities and community service facilities within the Local Study Area are limited. Aside from private residential dwellings residing on Dominion Street and Forks of Credit Road, the primary commercial use within the Local Study Area is the Caledon Ski Club. Further southwest to the Study Area in the community of Belfountain, approximately 1.5 km from the Study Area, there is a greater presence of commercial, institutional and community services facilities.

5.3 Recreation

Public recreational features within the Dominion Street Study Area include a segment of the Bruce Trail, managed by the Bruce Trail Conservancy and the Forks of the Credit Provincial Park, under the jurisdiction of Ontario Parks-MNRF. Dominion Street is a vital component of the Bruce Trail, providing an active transportation linkage to the Forks of the Credit Provincial Park. The Bruce Trail

is also an essential component of the Niagara Escarpment Parks and Open Space System with a long term goal to secure a permanent corridor for the Bruce Trail along its entire length.

Private commercial/recreational uses within the Local Study Area include in the Caledon Ski Club. The Caledon Ski Club, a commercial/recreational use within the Study Area, is located west of existing Dominion Street, on the west side of the Credit River Given the current alternative solutions under consideration and evaluation, the Caledon Ski Club is not expected to experience any potential impacts or disturbances to current and/or future operations.

6. References

The Corporation of the Town of Caledon (Town of Caledon), 2015. Town of Caledon Official Plan, November 2015, Office Consolidation. Obtained from: https://www.caledon.ca/en/townhall/officialplan.asp?_mid_=15715

The Regional Municipality of Peel (Region of Peel), 2014. Region of Peel Official Plan, October 2014, Office Consolidation. Obtained from: https://www.peelregion.ca/planning/officialplan/download.htm

The Corporation of the Town of Caledon (Town of Caledon), 2006.Town of Caledon Zoning By-law 2006-50, as amended. Obtained from: https://www.caledon.ca/en/townhall/bylaw200650.asp

Niagara Escarpment Commission (NEC) 2012. Niagara Escarpment Plan, 2012. Obtained from: http://www.escarpment.org/landplanning/plan/index.php

Ministry of Municipal Affairs and Housing (MMAH) 2005. The Greenbelt Plan, 2005. Obtained from: http://www.mah.gov.on.ca/Page189.aspx#intro

Region of Peel, 2016. Region of Peel – Ward Profiles – Ward 1. Obtained form: https://www.peelregion.ca/scripts/wardprofiles/ward-fin.pl?ward=c01

Appendices

Appendix A
Town of Caledon Official Plan – Schedule Excerpts

Schedule A

TOWN OF CALEDON LAND USE PLAN

TOWN OF CALEDON

The Town of Orangeville has undertaken studies, which have not been supported by the Region of Peel and the Town of Caledon, relating to the possibility of an expansion of the Orangeville settlement area into its neighbouring municipalities, including the Town of Caledon

Refer to OPA #150

See Section 5.2.3.2

Refer to Explanatory Notes of the Official Plan

Refer to OPA #161/124

Refer to OPA #163

Refer to OPA #133

See Section 3.2.4.16

For details of this area refer to the Caledon Village Land Use Plan Schedule "E"

Refer to OPA #122

Refer to OPA #241

Refer to OPA #171

Refer to OPA #210

Refer to OPA #156

For details of this area refer to the Caledon East Land Use Plan Schedule "D"

Refer to OPA #234

Refer to OPA #195

Refer to OPA #65

For details of this area refer to Inglewood & Area Land Use Plan Schedule "M"

For details of this area refer to Sandhill Secondary Plan Schedule "T"

Refer to OPA #227

Terra Cotta Special Residential Area

For details of this area refer to Victoria Business Park Land Use Plan Schedule "R"

See Section 5.1.3.1.5

Refer to OPA #2

Refer to OPA #148

For details of this area refer to Tullamore Secondary Plan Schedule "N"

For details of this area refer to Mayfield West Land Use Plan Schedule "B"

Refer to OPA #101 and OPA #232

Refer to OPA #98

Reddington Retirement Community

For details of this area refer to the applicable Palgrave Estate Residential Community Schedules "G, H, & I"

Refer to OPA #217

Bolton Golf Course Estate Residential

For details of this area refer to Bolton Land Use Plan Schedule "C"

DUFFERIN COUNTY

CALEDON/EAST GARAFRAXA TOWN LINE

TOWNSHIP OF EAST GARAFRAXA

TOWN OF ORANGEVILLE

TOWN OF MONO

WELLINGTON COUNTY

TOWN OF ERIN

SIMCOE COUNTY

TOWN OF NEW TECUMSETH

TOWNSHIP OF ADJALA-TOSORONTIO

HALTON REGION

TOWN OF HALTON HILLS

CITY OF BRAMPTON

YORK REGION

TOWNSHIP OF KING

CITY OF VAUGHAN

Alton

Melville

Mono Mills

Tottenham

Cataract

Caledon Village

Erin

Palgrave

Belfountain

Albion

Inglewood

CALEDON EAST

Mono Road

Claude

Cheltenham

Campbells Cross

Sandhill

Victoria

BOLTON

Nobleton

Terra Cotta

MAYFIELD WEST

Tullamore

Wildfield

HIGHPOINT SIDE RD

BEECH GROVE SIDE RD

CHARLESTON SIDE RD

ESCARPMENT SIDE RD

THE GRANGE SIDE RD

OLD BASELINE RD

BOSTON MILLS RD

CASTLEDERG SIDE RD

KING ST

OLD SCHOOL RD

HEALEY RD

MAYFIELD RD

HIGHWAY 9

HIGHWAY 50

HIGHWAY 410

CALEDON/KING TOWNLINE

General Agricultural Area

Prime Agricultural Area

Rural Lands

Extractive Industrial Area

Waste Management Area

Open Space Policy Area

Environmental Policy Area

Estate Residential Area

Retirement Community Area

Settlement Area

Mayfield West Study Area Boundary

Boundary of Greenbelt Plan Area

Oak Ridges Moraine Conservation Plan Area

Niagara Escarpment Plan Area

Provincial Road

Regional Road

Local Road

Railway

Caledon Trailway

Base Data Source: Town of Caledon

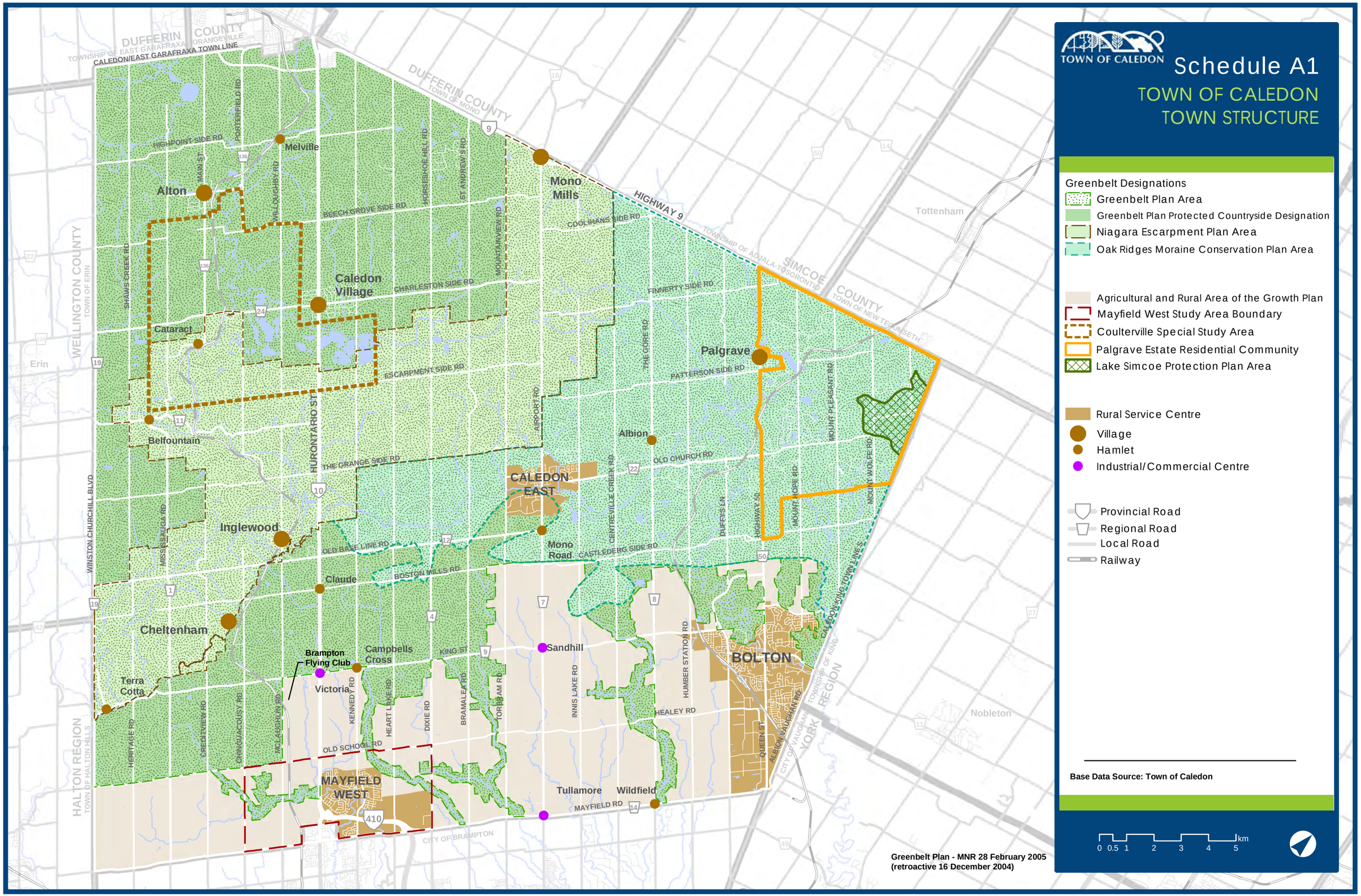
0 0.5 1 2 3 4 5 km

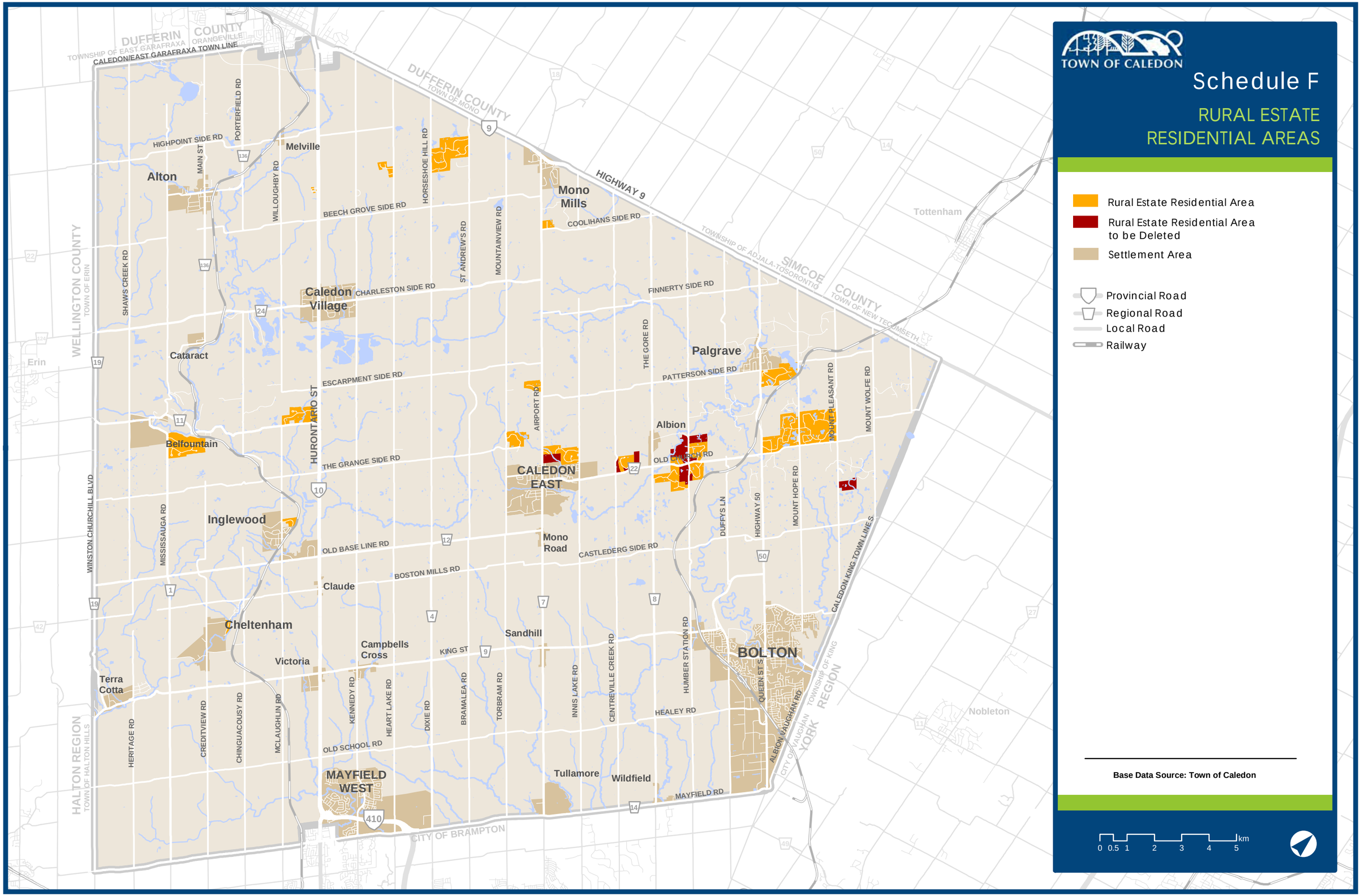
SAVED: 27 November 2015

S:\POLICY SECTION\GIS\official_plan\mxd\7-november_2015\Sch_A_NOV_2015_CONSOLIDATION.mxd

SAVED BY: KThompson

November 2015 Office Consolidation


TOWN OF CALEDON
Schedule A1
TOWN OF CALEDON
TOWN STRUCTURE
Greenbelt Designations
Greenbelt Plan Area
Greenbelt Plan Protected Countryside Designation
Niagara Escarpment Plan Area
Oak Ridges Moraine Conservation Plan Area
Agricultural and Rural Area of the Growth Plan
Mayfield West Study Area Boundary
Coulterville Special Study Area
Palgrave Estate Residential Community
Lake Simcoe Protection Plan Area
Rural Service Centre
Village
Hamlet
Industrial/Commercial Centre
Provincial Road
Regional Road
Local Road
Railway
Base Data Source: Town of Caledon
0 0.5 1 2 3 4 5 km
Greenbelt Plan - MNR 28 February 2005
(retroactive 16 December 2004)
DUFFERIN COUNTY
TOWNSHIP OF EAST GARAFRAXA
ORANGEVILLE
CALEDON/EAST GARAFRAXA TOWN LINE
DUFFERIN COUNTY
TOWN OF MONO
WELLINGTON COUNTY
TOWN OF ERIN
SIMCOE COUNTY
TOWN OF NEW TECUMSETH
TOWNSHIP OF ADJALA-TOSORONTIO
HALTON REGION
TOWN OF HALTON HILLS
YORK REGION
CITY OF VAUGHAN
TOWNSHIP OF KING
CITY OF BRAMPTON
Erin
Tottenham
Nobleton
Melville
Alton
Mono Mills
Caledon Village
Cataract
Palgrave
Belfountain
Albion
CALEDON EAST
Inglewood
Mono Road
Claude
Cheltenham
Sandhill
Brampton Flying Club
Campbells Cross
Terra Cotta
Victoria
BOLTON
MAYFIELD WEST
Tullamore
Wildfield
HIGHPOINT SIDE RD
PORTERFIELD RD
MAIN ST
WILLOUGHBY RD
BEECH GROVE SIDE RD
HORSESHOE HILL RD
ST ANDREW'S RD
MOUNTAINVIEW RD
COOLIHANS SIDE RD
HIGHWAY 9
SHAWS CREEK RD
CHARLESTON SIDE RD
FINNERTY SIDE RD
THE GORE RD
ESCARPMENT SIDE RD
PATTERSON SIDE RD
MOUNT PLEASANT RD
AIRPORT RD
HURONTARIO ST
THE GRANGE SIDE RD
OLD CHURCH RD
CENTREVILLE CREEK RD
DUFFERIN LINE
HIGHWAY 50
MOUNT WOLFE RD
WINSTON CHURCHILL BLVD
MISSISSAUGA RD
OLD BASE LINE RD
CASTLEDERG SIDE RD
BOSTON MILLS RD
CONCESSION TOWN LINES
KING ST
HUMBER STATION RD
HEALEY RD
HERITAGE RD
CREDITVIEW RD
CHINGUACOUSY RD
MCLAUGHLIN RD
KENNEDY RD
HEART LAKE RD
DIXIE RD
BRAMALEA RD
TORBRAM RD
INNIS LAKE RD
QUEEN ST
ALBION VAUGHAN RD
OLD SCHOOL RD
MAYFIELD RD
410
SAVED: 27 November 2015
FILENAME: S:\POLICY SECTION\GIS\official_plan\mxd\7-november_2015\Sch_A1_NOV_2015_CONSOLIDATION.mxd
SAVED BY: KThompson



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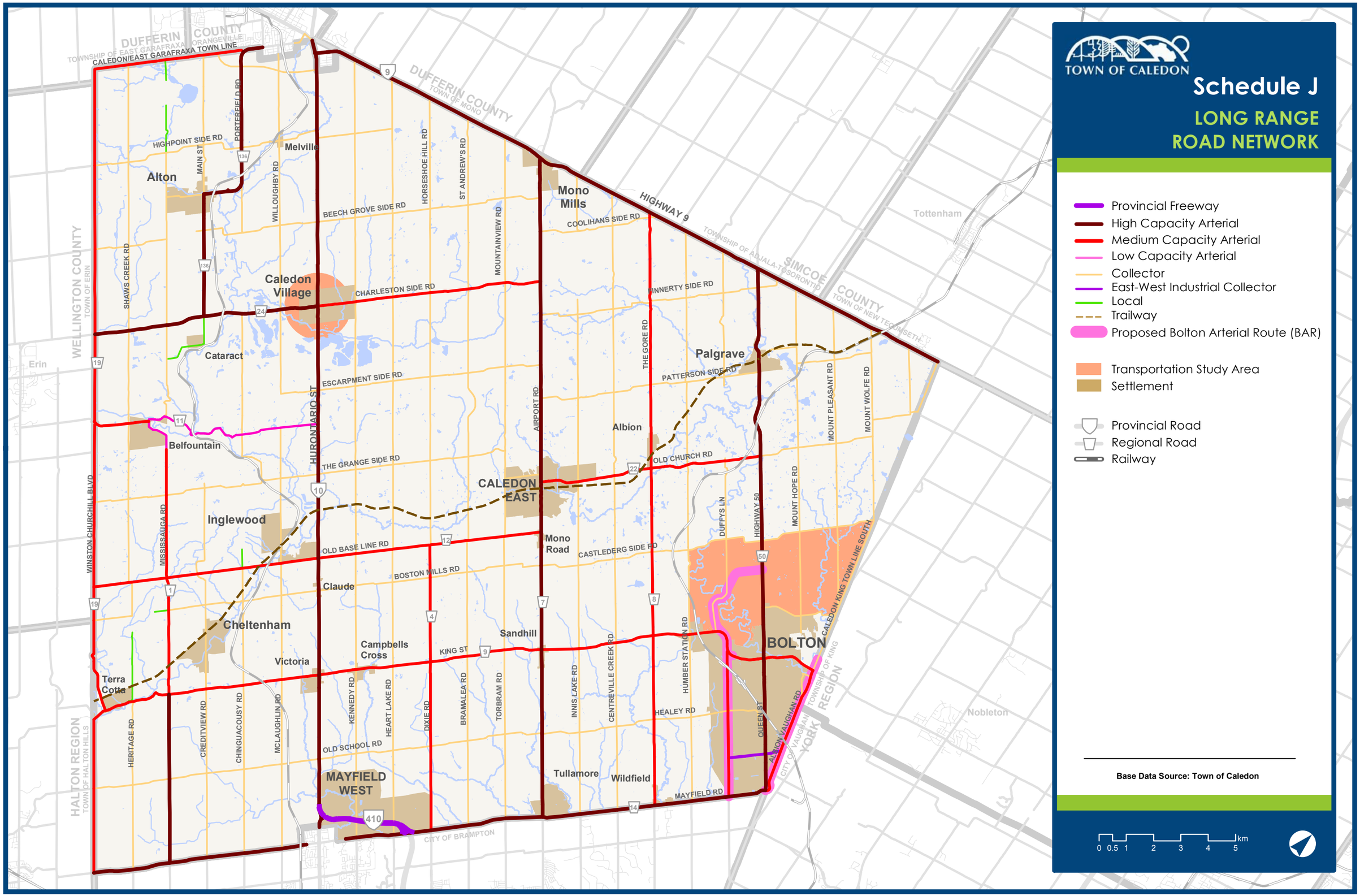
SAVED BY: KThompson

November 2015 Office Consolidation



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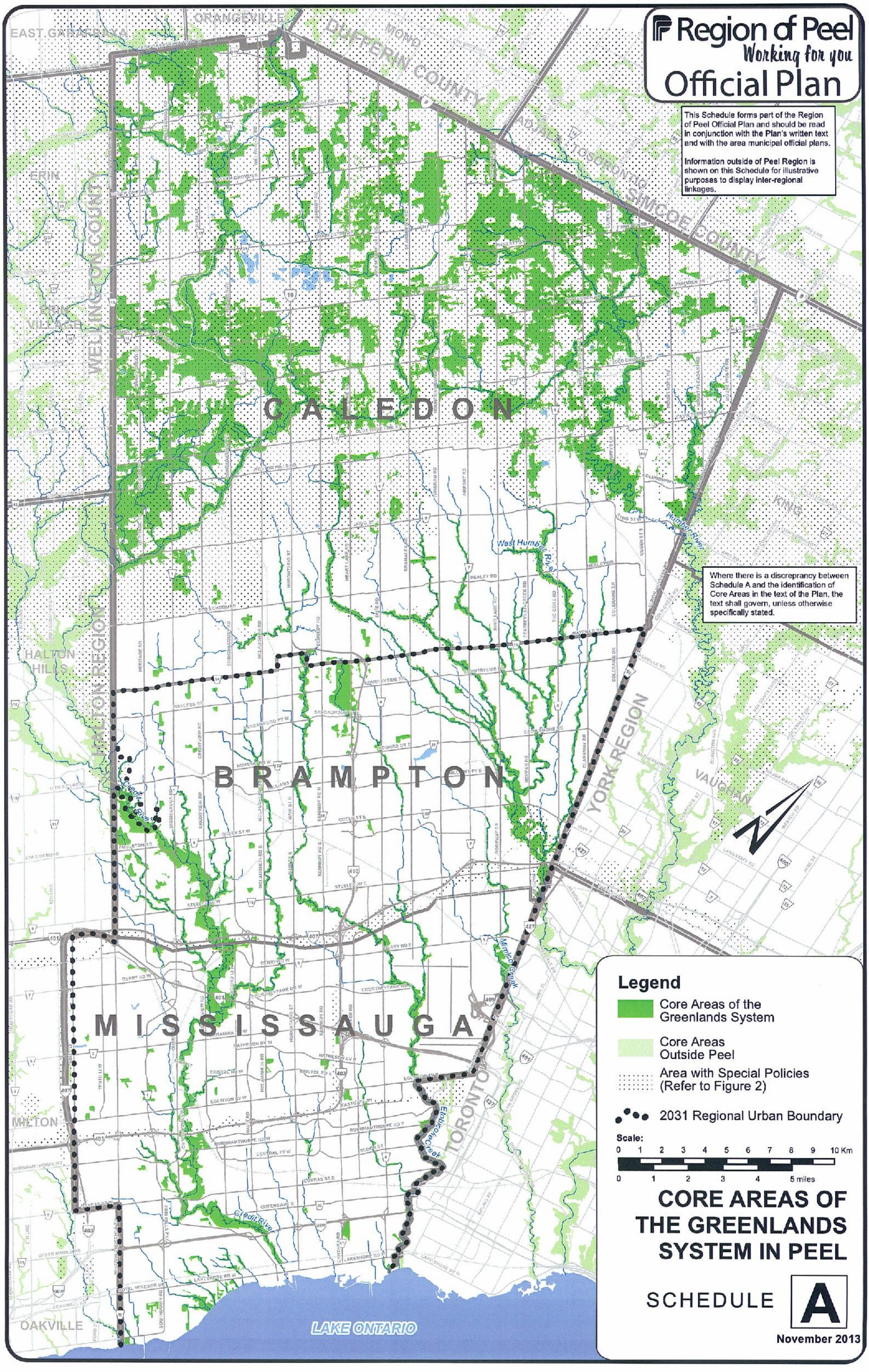
SAVED BY: bloverock

November 2016 Office Consolidation

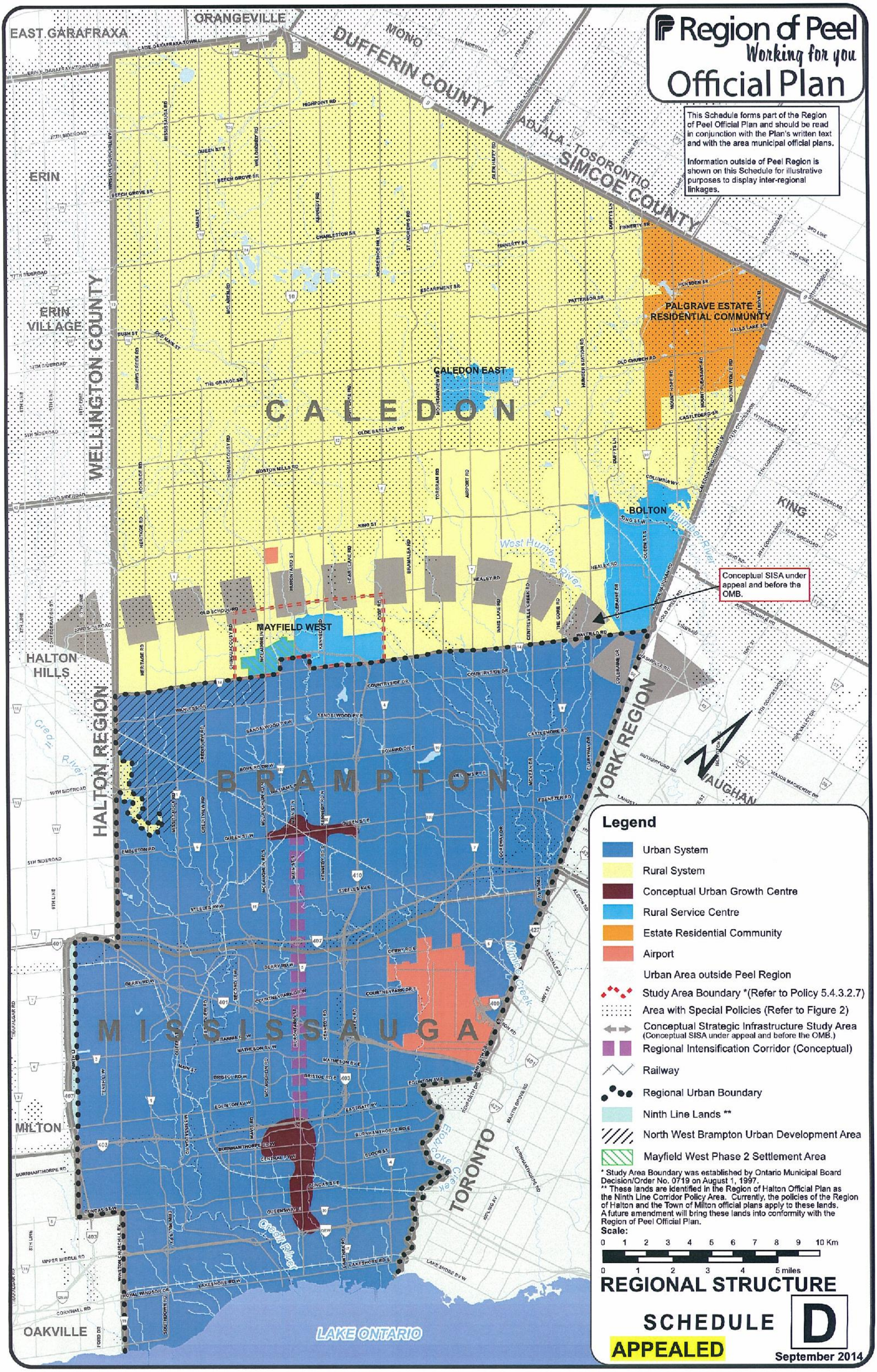
Appendix B
Region of Peel Official Plan – Schedule Excerpts


Region of Peel
Working for you
Official Plan
This Schedule forms part of the Region of Peel Official Plan and should be read in conjunction with the Plan's written text and with the area municipal official plans.
Information outside of Peel Region is shown on this Schedule for illustrative purposes to display inter-regional linkages.
Where there is a discrepancy between Schedule A and the identification of Core Areas in the text of the Plan, the text shall govern, unless otherwise specifically stated.
EAST GARAFRAXA
ORANGEVILLE
DUFFERIN COUNTY
MONO
ADJALA-TOSORONTIO
SIMCOE COUNTY
ERIN
WELLINGTON COUNTY
ERIN VILLAGE
CALEDON
KING
HALTON REGION
HALTON HILLS
BRAMPTON
YORK REGION
VAUGHAN
MISSISSAUGA
MILTON
TORONTO
OAKVILLE
LAKE ONTARIO
West Humber River
Humber River
Credit River
Mimico Creek
Etobicoke Creek
Legend
Core Areas of the Greenlands System
Core Areas Outside Peel
Area with Special Policies (Refer to Figure 2)
2031 Regional Urban Boundary
Scale:
0 1 2 3 4 5 6 7 8 9 10 Km
0 1 2 3 4 5 miles
CORE AREAS OF THE GREENLANDS SYSTEM IN PEEL
SCHEDULE A
November 2013

Region of Peel
Working for you
Official Plan

This Schedule forms part of the Region of Peel Official Plan and should be read in conjunction with the Plan's written text and with the area municipal official plans.

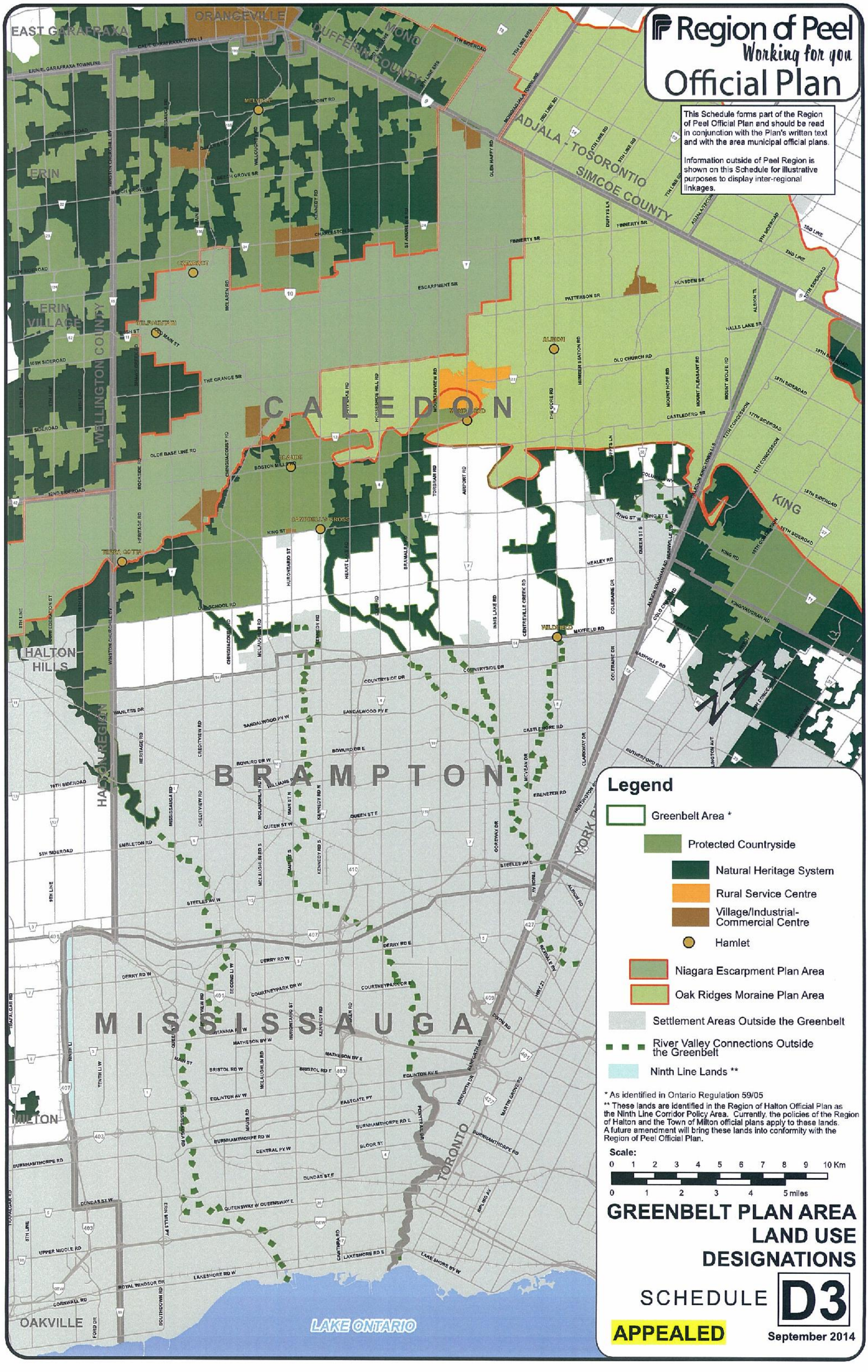
Information outside of Peel Region is shown on this Schedule for illustrative purposes to display inter-regional linkages.



Region of Peel
Working for you
Official Plan

This Schedule forms part of the Region of Peel Official Plan and should be read in conjunction with the Plan's written text and with the area municipal official plans.

Information outside of Peel Region is shown on this Schedule for illustrative purposes to display inter-regional linkages.



GREENBELT PLAN AREA LAND USE DESIGNATIONS

SCHEDULE **D3**

APPEALED

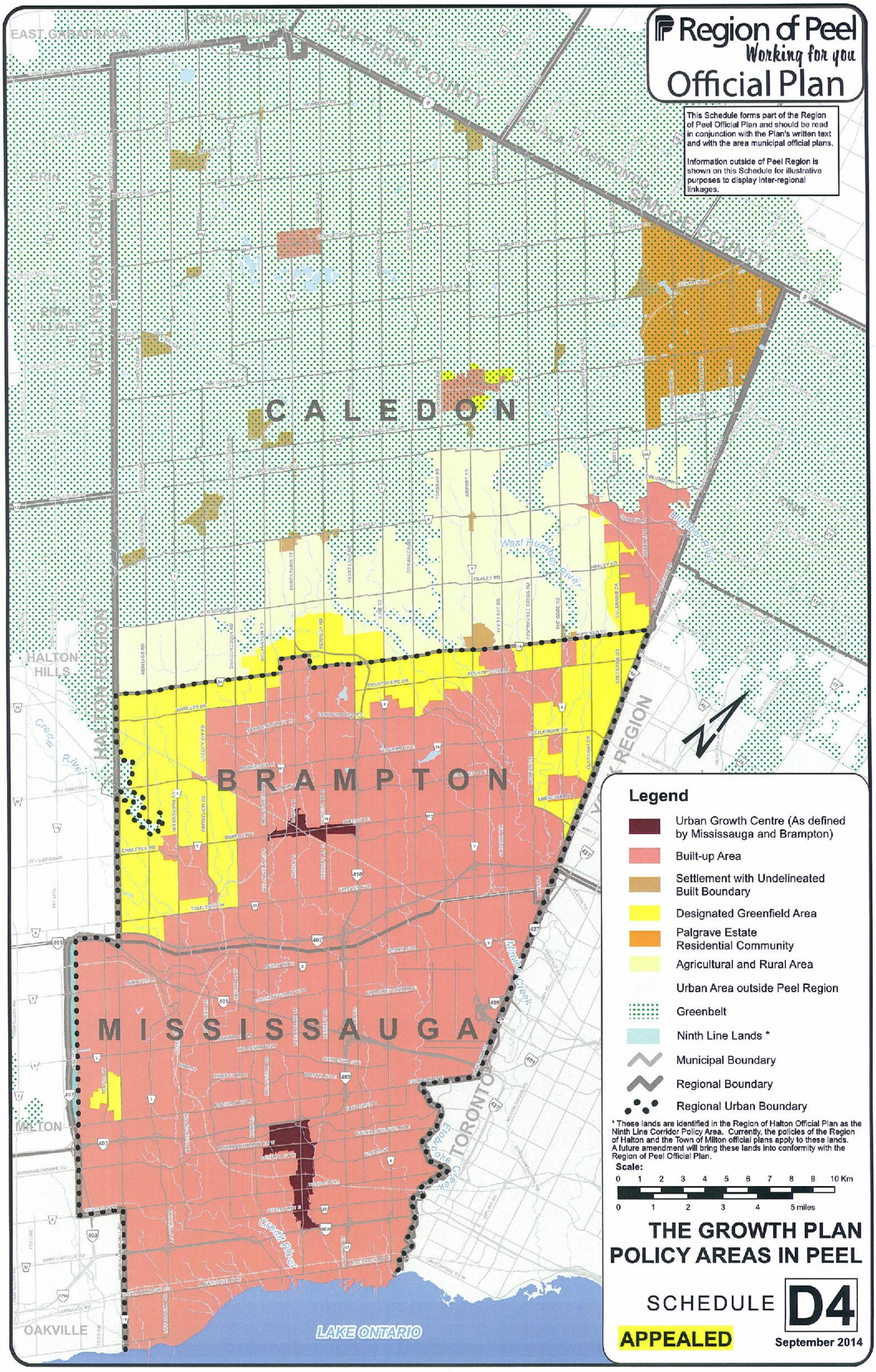
September 2014

Region of Peel
Working for you

Official Plan

This Schedule forms part of the Region of Peel Official Plan and should be read in conjunction with the Plan's written text and with the area municipal official plans.

Information outside of Peel Region is shown on this Schedule for illustrative purposes to display inter-regional linkages.



THE GROWTH PLAN POLICY AREAS IN PEEL

SCHEDULE **D4**

APPEALED

September 2014

Region of Peel
Working for you
Official Plan

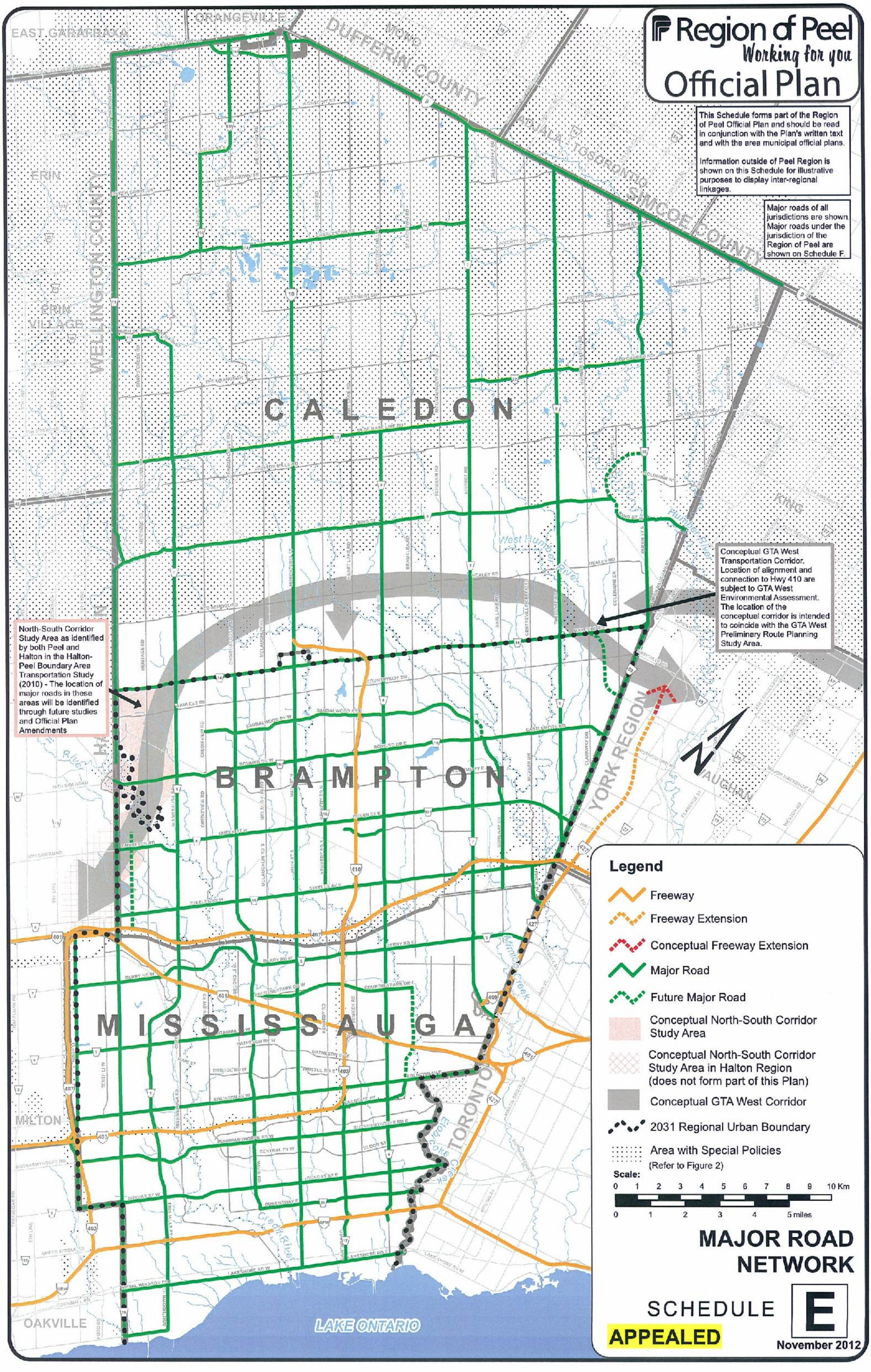
This Schedule forms part of the Region of Peel Official Plan and should be read in conjunction with the Plan's written text and with the area municipal official plans.

Information outside of Peel Region is shown on this Schedule for illustrative purposes to display inter-regional linkages.

Major roads of all jurisdictions are shown. Major roads under the jurisdiction of the Region of Peel are shown on Schedule F.

Conceptual GTA West Transportation Corridor. Location of alignment and connection to Hwy 410 are subject to GTA West Environmental Assessment. The location of the conceptual corridor is intended to coincide with the GTA West Preliminary Route Planning Study Area.

North-South Corridor Study Area as identified by both Peel and Halton in the Halton-Peel Boundary Area Transportation Study (2010) - The location of major roads in these areas will be identified through future studies and Official Plan Amendments



MAJOR ROAD NETWORK

SCHEDULE **E**

APPEALED

November 2012

Appendix C
Town of Caledon Zoning Maps 52, 53, 63 & 64

CON. 3 W.H.S. (CAL)

CON. 2 W.H.S. (CAL)

PUCKERING LANE

FORKS OF THE CREDIT RD

McLAREN RD

McLAUGHLIN RD

THE GRANGE SDRD

LOT 10

LOT 9

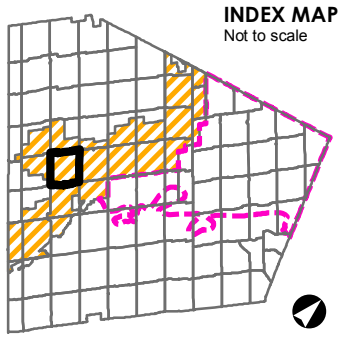
LOT 8

LOT 7

LOT 6

This copy is provided for convenience only. If necessary, the original may be referred to in the office of the Town Clerk.

INDEX MAP
Not to scale



A2 ZONE SYMBOL

A2-### ZONE SYMBOL
Note: Number of suffixes represent Exceptions which can be looked up in the Exceptions section of the By-law.

ZONE BOUNDARY

SE STRUCTURAL ENVELOPE MAP

NIAGARA ESCARPMENT DEVELOPMENT CONTROL AREA
Lands lying within the Development Control area pursuant to the Niagara Planning and Development Act are subject to permit requirements under Ontario Regulations 685/50, as amended.

OAK RIDGES MORAINE CONSERVATION PLAN AREA BOUNDARY

WELLHEAD PROTECTION AREA BOUNDARY
WP-2 WP-5 WP-10 WP-25
Zone Maps amended to indicate the 2, 5, 10, and 25 year Wellhead Protection Areas.

BY-LAW 2006-50

ZONE MAP 52

SCHEDULE "A"

0 137.5 275 550 m

TOWN OF CALEDON

Date: 3 April 2006

Revised: August 21, 2015

File: S:\POLICY SECTION\GIS\zoning_bylaw\mxd\2015_mxd

52

CON. 5 W.H.S. (CAL)

CON. 4 W.H.S. (CAL)

LOT 10

LOT 9

LOT 8

LOT 7

LOT 6

SHAWS CREEK RD

MISSISSAUGA RD

FORKS OF THE CREDIT RD

THE GRANGE SDRD

RIVER RD

BUSH ST

OLD MAIN ST

SCOTT ST

CREDIT ST

DOMINION ST

CALEDON MOUNTAIN DR

WOODLAND CRT

MAPLE MEADOW CRT

RIDGE DR

HAWTHORNE CRT

A2

A3

EPA2

This copy is provided for convenience only. If necessary, the original may be referred to in the office of the Town Clerk.

INDEX MAP
Not to scale

A2 ZONE SYMBOL

A2-### ZONE SYMBOL
Note: Number of suffixes represent Exceptions which can be looked up in the Exceptions section of the By-law.

ZONE BOUNDARY

STRUCTURAL ENVELOPE MAP

NIAGARA ESCARPMENT DEVELOPMENT CONTROL AREA
Lands lying within the Development Control area pursuant to the Niagara Planning and Development Act are subject to permit requirements under Ontario Regulations 685/50, as amended.

OAK RIDGES MORAINE CONSERVATION PLAN AREA BOUNDARY

WELLHEAD PROTECTION AREA BOUNDARY
WP-2 WP-5 WP-10 WP-25
Zone Maps amended to indicate the 2, 5, 10, and 25 year Wellhead Protection Areas.

BY-LAW 2006-50
ZONE MAP 53
SCHEDULE "A"

0 140 280 560 m

TOWN OF CALEDON

Date: 3 April 2006
Revised: August 21, 2015

File: S:\POLICY SECTION\GIS\zoning_bylaw\2015_mxd

53

CON. 3 W.H.S. (CAL)

CON. 2 W.H.S. (CAL)

CHARLESTON SDRD

24

CATARACT RD

McLAREN RD

WILLOUGHBY RD

PUCKERING LANE

QUARRY DR

NORTHRIDGE TR

A1

A2

MX

EPA2

LOT 15

LOT 14

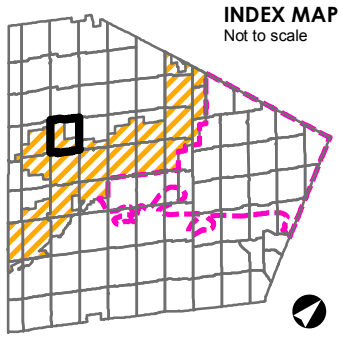
LOT 13

LOT 12

LOT 11

This copy is provided for convenience only. If necessary, the original may be referred to in the office of the Town Clerk.

INDEX MAP
Not to scale



A2 ZONE SYMBOL

A2-### ZONE SYMBOL
Note: Number of suffixes represent Exceptions which can be looked up in the Exceptions section of the By-law.

ZONE BOUNDARY

STRUCTURAL ENVELOPE MAP

NIAGARA ESCARPMENT DEVELOPMENT CONTROL AREA
Lands lying within the Development Control area pursuant to the Niagara Planning and Development Act are subject to permit requirements under Ontario Regulations 685/50, as amended.

OAK RIDGES MORAINE CONSERVATION PLAN AREA BOUNDARY

WELLHEAD PROTECTION AREA BOUNDARY
WP-2 WP-5 WP-10 WP-25
Zone Maps amended to indicate the 2, 5, 10, and 25 year Wellhead Protection Areas.

BY-LAW 2006-50

ZONE MAP 63

SCHEDULE "A"

0 137.5 275 550 m

TOWN OF CALEDON

Date: 3 April 2006

Revised: August 21, 2015

File: S:\POLICY SECTION\GIS\zoning_bylaw\mxd\2015_mxd

63

CON. 5 W.H.S. (CAL)

CON. 4 W.H.S. (CAL)

CHARLESTON SDRD

24

CATARACT RD

LOT 15

LOT 14

LOT 13

LOT 12

LOT 11

SHAWS CREEK RD

MISSISSAUGA RD

EPA2

A1

MX

MX-335

WILLIAM ST E

ALBERT ST

DEAGLE LANE

RIVER RD

This copy is provided for convenience only. If necessary, the original may be referred to in the office of the Town Clerk.

INDEX MAP
Not to scale

A2 ZONE SYMBOL

A2-### ZONE SYMBOL
Note: Number of suffixes represent Exceptions which can be looked up in the Exceptions section of the By-law.

ZONE BOUNDARY

STRUCTURAL ENVELOPE MAP

NIAGARA ESCARPMENT DEVELOPMENT CONTROL AREA
Lands lying within the Development Control area pursuant to the Niagara Planning and Development Act are subject to permit requirements under Ontario Regulations 685/50, as amended.

OAK RIDGES MORAINE CONSERVATION PLAN AREA BOUNDARY

WELLHEAD PROTECTION AREA BOUNDARY
WP-2 WP-5 WP-10 WP-25
Zone Maps amended to indicate the 2, 5, 10, and 25 year Wellhead Protection Areas.

BY-LAW 2006-50

ZONE MAP 64

SCHEDULE "A"

0 135 270 540 m

TOWN OF CALEDON

Date: 3 April 2006

Revised: August 21, 2015

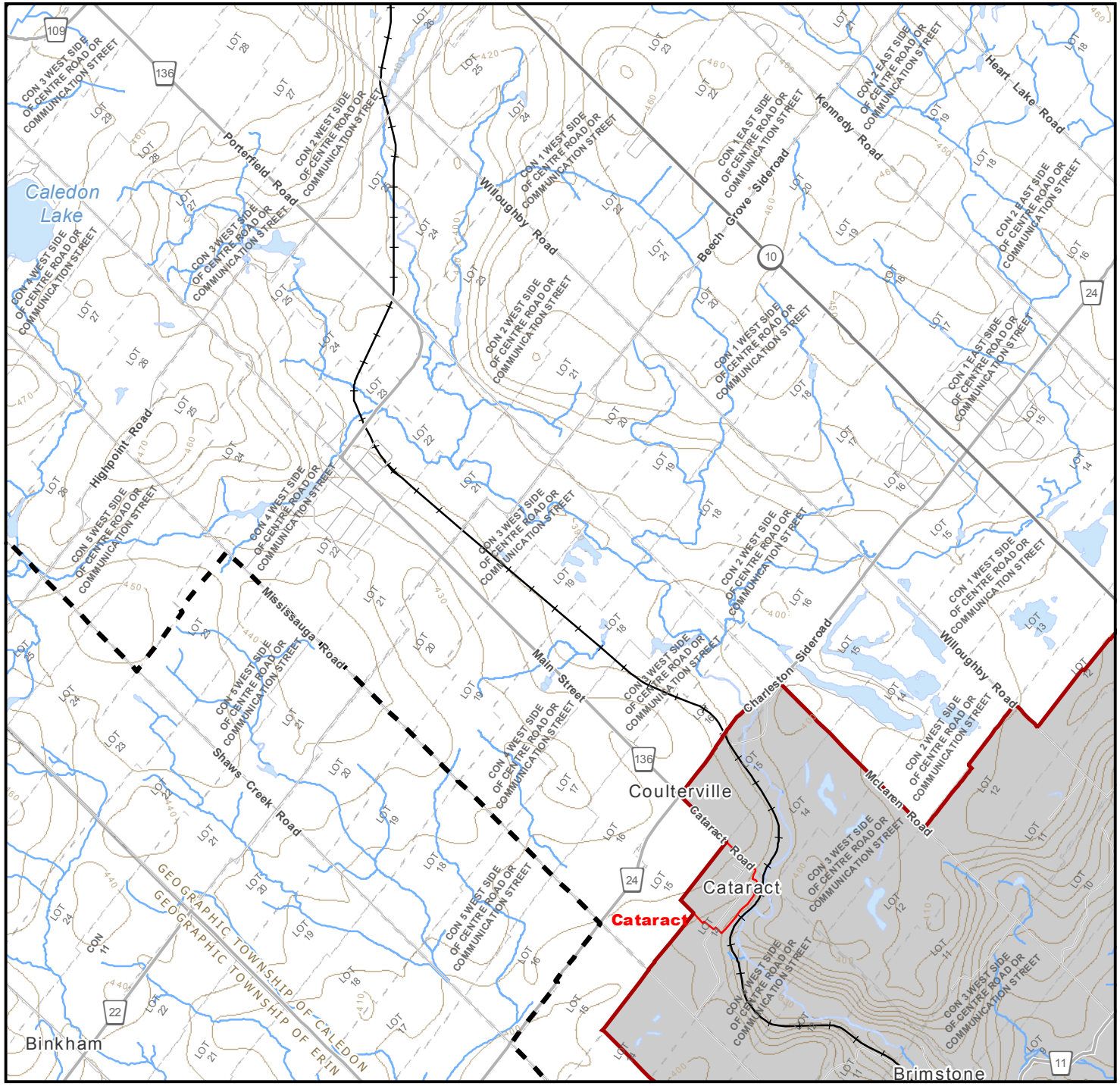
File: S:\POLICY SECTION\GIS\zoning_bylaw\mxd\2015_mxd

64

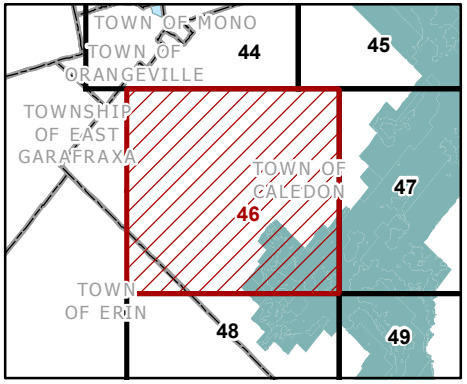
Appendix D
Niagara Escarpment Plan Designations – Maps 46, 47, 48, 49

Area of Development Control 4

Map No. 46



Peel Region



- Planning Area Boundary
- Niagara Escarpment Plan Area
- Area of Development Control
- Minor Urban Centre (Boundary Defined)

THE NIAGARA ESCARPMENT PLAN 2005
APPROVED and ORDERED June 1, 2005
O.C. # 912/2005
Amendment Consolidated to October, 2015

NOTE: The Area of Development Control and Planning Area boundaries shown on this map are drawn for convenience only. Please refer to the appropriate Ontario Regulation for accurate descriptons.

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Niagara Escarpment Commission (NEC) nor the Ontario Ministry of Natural Resources (OMNR) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

Base Data: OMNR, Natural Resources Values and Information System (NRVIS)
Niagara Escarpment Plan Data: NEC

Coordinate System: NAD 1983 UTM Zone 17N

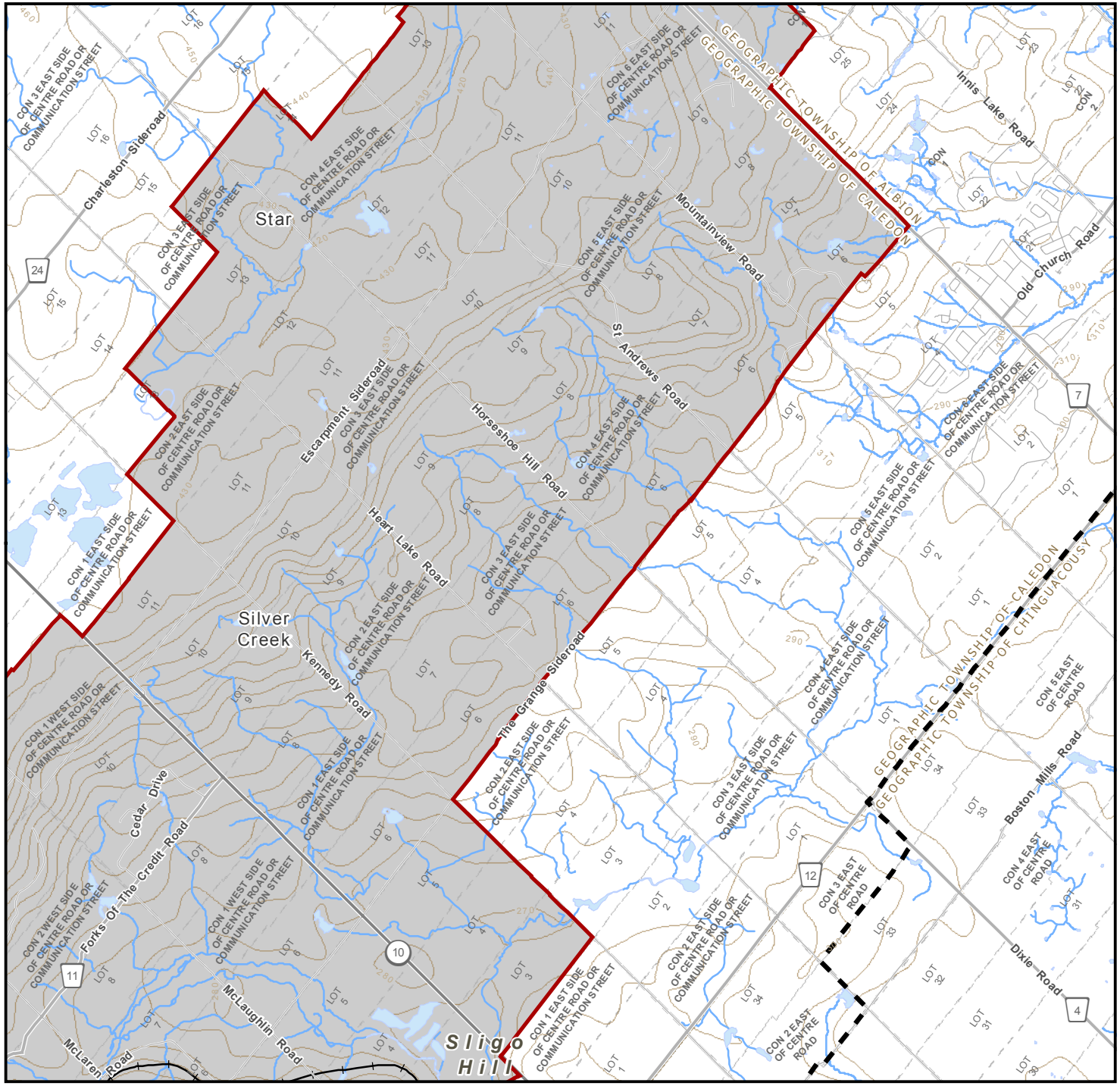
Map compiled and produced by the Geographic Information Systems (GIS) Department of the NEC
232 Guelph Street,
Georgetown, Ontario L7G 4B1

0 0.5 1 1.5 2 2.5
Kilometres

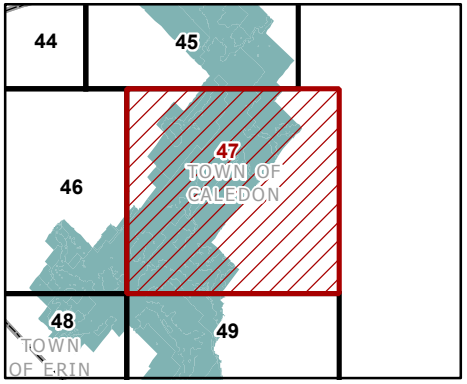
N

Area of Development Control 4

Map No. 47



Peel Region



- Planning Area Boundary
- Niagara Escarpment Plan Area
- Area of Development Control
- Minor Urban Centre (Boundary Defined)

THE NIAGARA ESCARPMENT PLAN 2005
APPROVED and ORDERED June 1, 2005
O.C. # 912/2005
Amendment Consolidated to October, 2015

NOTE: The Area of Development Control and Planning Area boundaries shown on this map are drawn for convenience only. Please refer to the appropriate Ontario Regulation for accurate descriptons.

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Base Data: OMNR, Natural Resources Values and Information System (NRVIS)
Niagara Escarpment Plan Data: NEC

Coordinate System: NAD 1983 UTM Zone 17N

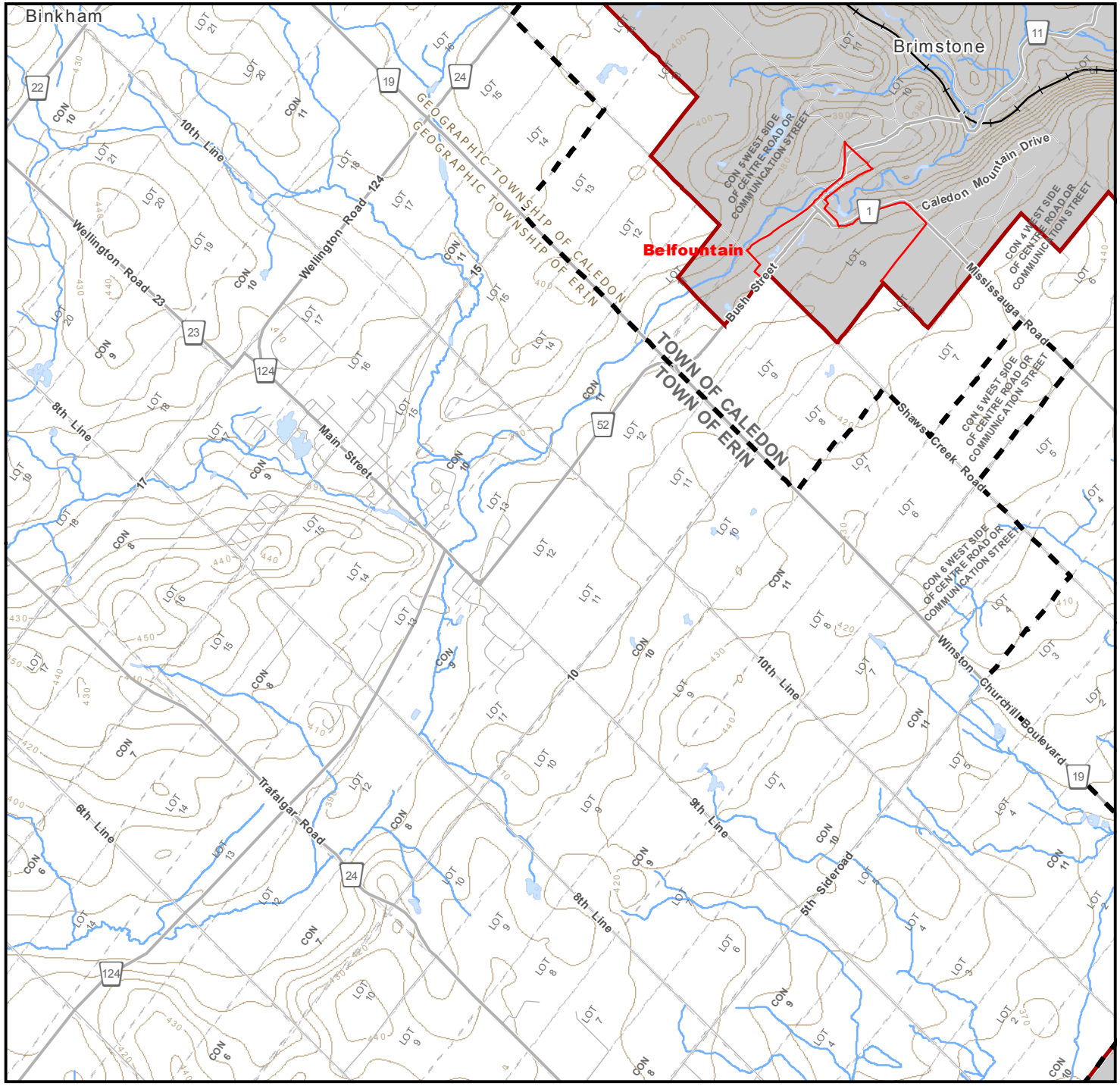
Map compiled and produced by the Geographic Information Systems (GIS) Department of the NEC
232 Guelph Street,
Georgetown, Ontario L7G 4B1

0 0.5 1 1.5 2 2.5
Kilometres

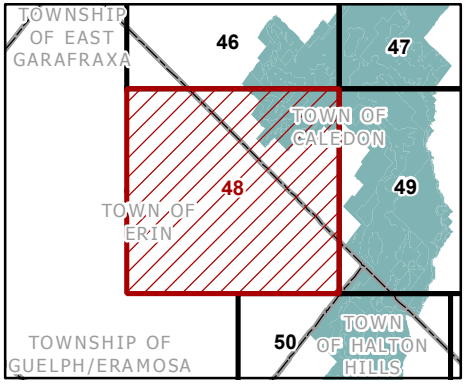
N

Area of Development Control 4

Map No. 48



Peel Region



- Planning Area Boundary
- Niagara Escarpment Plan Area
- Area of Development Control
- Minor Urban Centre (Boundary Defined)

THE NIAGARA ESCARPMENT PLAN 2005
APPROVED and ORDERED June 1, 2005
O.C. # 912/2005
Amendment Consolidated to October, 2015

NOTE: The Area of Development Control and Planning Area boundaries shown on this map are drawn for convenience only. Please refer to the appropriate Ontario Regulation for accurate descriptons.

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Niagara Escarpment Commission (NEC) nor the Ontario Ministry of Natural Resources (OMNR) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

Base Data: OMNR, Natural Resources Values and Information System (NRVIS)
Niagara Escarpment Plan Data: NEC

Coordinate System: NAD 1983 UTM Zone 17N

Map compiled and produced by the Geographic Information Systems (GIS) Department of the NEC
232 Guelph Street,
Georgetown, Ontario L7G 4B1

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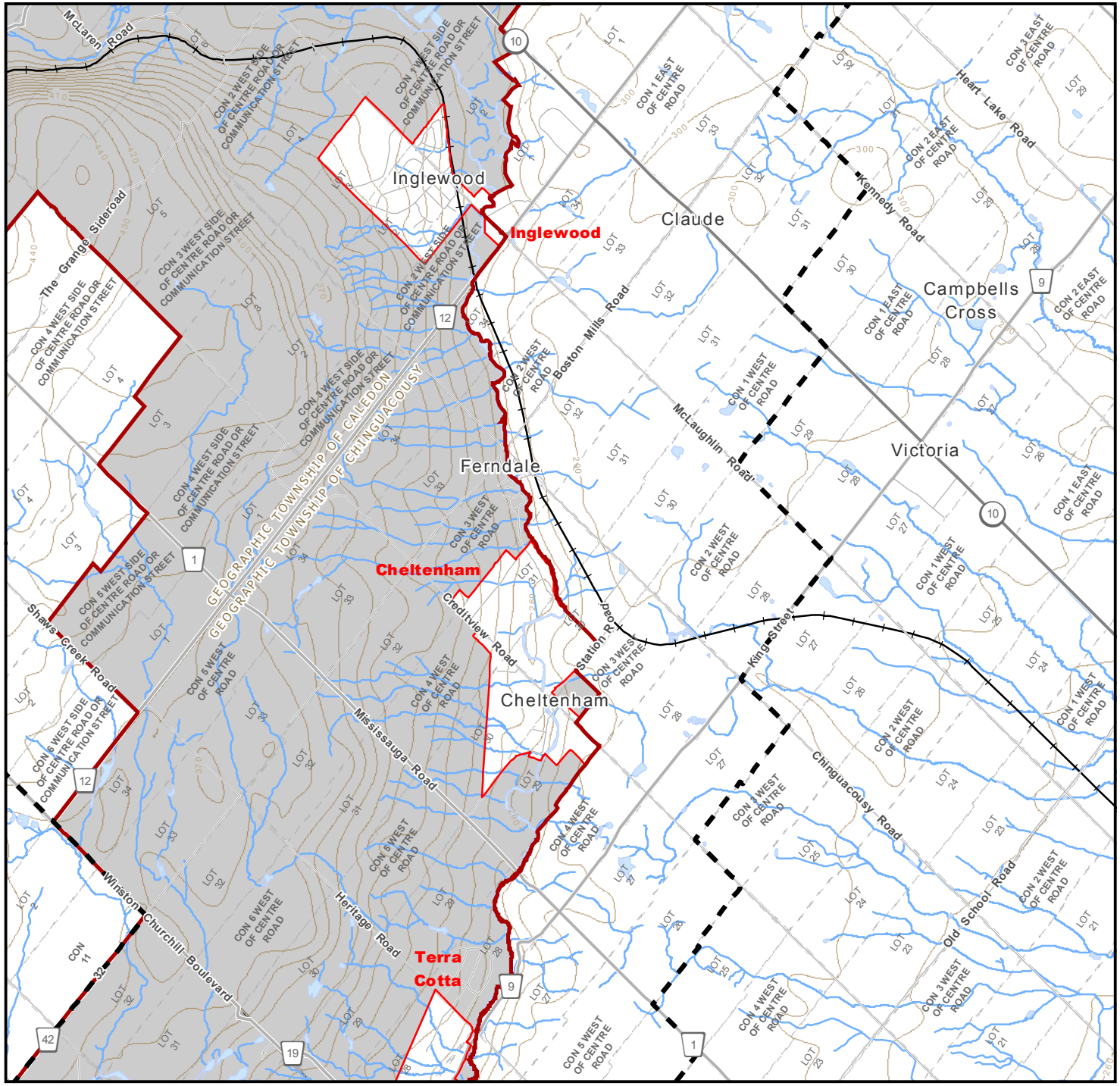
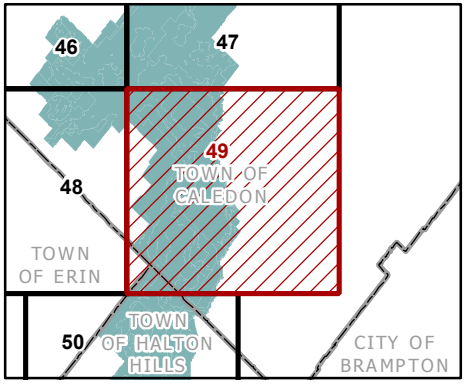
Area of Development Control 3 & 4

Map No. 49



Halton Region
Peel Region



- Planning Area Boundary
- Niagara Escarpment Plan Area
- Area of Development Control
- Minor Urban Centre (Boundary Defined)

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Appendix D
Alternative Solution Comparative Evaluation

Areas of Consideration	Dominion Street Alternative Solutions					
	Alternative 1 Do Nothing	Alternative 2 Re-alignment of Dominion Street			Alternative 3 Rehabilitate Existing Dominion Street and Bridge	
		Alternative 2A Re-alignment via Puckering Lane	Alternative 2B Re-alignment via Forks of the Credit Road	Alternative 2C Re-alignment via Forks of the Credit Provincial Park Parking Lot	Alternative 3A Existing Bridge and Road Rehabilitation	Alternative 3B New Bridge and Road Rehabilitation
Description of the Alternatives	Rehabilitation or replacement works will not be undertaken. No measures to improve the condition of the bridge and road will be considered; therefore the bridge and road would remain in its present condition. Identified issues and problems will remain unresolved and current conditions of the bridge and road would continue to deteriorate. If no rehabilitation work is undertaken, the road and bridge would no longer be able to accommodate heavier vehicles and would have to be closed.	Alternative 2 would involve moving the road farther from the river in the areas of instability. However, a large hill is located on the east side of the road, which makes this solution very difficult given the significant environmental impacts. Realignment would require significant mature vegetation removal and significant roadway cuts. No measures to improve the condition of the bridge will be considered; therefore the bridge and road would remain in its present condition, allowed to deteriorate. As a result, vehicular traffic would not be permitted to access Dominion Street via the bridge. This would require alternative access to be provided. Three variations to Alternative 2 have been generated.			This alternative would undertake bank and embankment stabilization works required to safeguard against potential hazards to the public and Town assets. This would involve the rehabilitation of Dominion Street and the Dominion Street Bridge, where a single point access would remain. Two variations to Alternative 3 have been generated.	
		Alternative 2A would require the connection of Dominion Street to Puckering Lane. The connection of west-end Puckering Lane and north-end Dominion Street would require an 11 percent grade given the significant change in elevation.	**Alternative 2B** would require an alternative connection approximately 240 metres east of the current Forks of the Credit/Dominion Street intersection to connect to the existing laneway located approximately 240 m north of the existing intersection. This new connection would not affect any of the lands of the Forks of the Credit Provincial Park. A road grade falling within the 11 percent maximum appears to be feasible. A new bridge would be required to cross the Credit River. Existing private access road would require to be purchased and reconstructed from Dominion Street to the proposed connection.	**Alternative 2C** would require the northern extension of Dominion Street following the alignment of the existing Bruce Trail, connecting to the Forks of the Credit Provincial Park parking lot. The connection would require significant cuts in excess of 20m for grade of 11 percent, maximum for a low volume rural roadway.	**Alternative 3A** would require bridge and road rehabilitation which would address some of the scour issues at the existing crossing.	**Alternative 3B** would require the construction of a new bridge, which would likely be located just east of the existing bridge at a more narrow point of the river. Building the bridge off-line would allow existing bridge to remain in service while the new one is built, thereby allowing full time access during construction.

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1. TECHNICAL ASSESSMENT GROUP						
1.1 Potential for improved public access	**POOR**	**GOOD**	**GOOD**	**GOOD**	**MODERATE**	**GOOD**
	No potential for improved public access.	Improved access by eliminating access over the deteriorated bridge	Improved access over the new structure and alignment	Improved access by eliminating access over the deteriorated bridge	Improved access	Improved access through new and wider structure
1.2 Constructability of proposed infrastructure.	**MODERATE**	**POOR**	**MODERATE**	**POOR**	**POOR**	**MODERATE**
	No proposed infrastructure is required.	Deep cuts	Moderate cuts mostly on the one side of the road and new bridge on new location	Deep cuts	Structure and road rehabilitation under traffic, with lane reduction	New structure on new location and road rehabilitation under traffic, with lane reduction
1.3 Future maintenance requirements.	**POOR**	**POOR**	**MODERATE**	**POOR**	**GOOD**	**GOOD**
	High potential for future maintenance requirements, given current deterioration conditions.	Very difficult maintenance during winter: snowdrifts due to the deep cuts	Higher maintenance during winter: potential snowdrifts due to the alignment through the valley	Very difficult maintenance during winter: snowdrifts due to the deep cuts	Lower potential for future maintenance	Lower potential for future maintenance
1.4 Land or easement requirements	**GOOD**	**POOR**	**POOR**	**POOR**	**GOOD**	**GOOD**
	No land or easements required.	Substantial property requirement due to the deep cuts (maximum width of the cut ~119 m)	Moderate property requirement (up to 54 m width of the grading width – split cut / fill)	Substantial property requirement due to the deep cuts (maximum width of the cut ~150m)	No land or easements required.	Insignificant property requirement for new bridge and connection to existing Dominion Street
1.5 Potential effect on general pedestrian, cyclist and vehicle activity	**MODERATE**	**POOR**	**MODERATE**	**POOR**	**GOOD**	**GOOD**
	No significant change	Grades up to +/-11 percent not favorable for safety of vehicles, cyclists and pedestrians	Grades up to +/-9.6 percent not so favorable for safety of vehicles, cyclists and pedestrians	Grades up to +/-11 percent not favorable for safety of vehicles, cyclists and pedestrians	No significant effect on safety of vehicles, cyclists and pedestrians	No significant effect on safety of vehicles, cyclists and pedestrians
1.6 Potential effect on property access	**MODERATE**	**MODERATE**	**MODERATE**	**MODERATE**	**MODERATE**	**MODERATE**
	No significant change	No significant change	No significant change	No significant change	No significant change	No significant change
Ranking of Technical Assessment Group	***Fourth (4th)***	***Tied Fifth (5th)***	***Third (3rd)***	***Tied Fifth (5th)***	***Second (2nd)***	***First (1st)***

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2. NATURAL ENVIRONMENT ASSESSMENT GROUP						
2.1 Potential for effects on the terrestrial environment.	**GOOD**	**POOR**	**POOR**	**POOR**	**GOOD**	**MODERATE**
	No potential impacts to the terrestrial environment would occur.	Significant Escarpment cuts affecting ecological communities will be required. Permanent removal of vegetation and habitat for road construction.	Significant Escarpment cuts affecting ecological communities will be required. Permanent removal of vegetation and habitat for road construction.	Significant Escarpment cuts affecting ecological communities will be required. Permanent removal of vegetation and habitat for road construction.	Potential for impacts to existing terrestrial environment would be temporary in nature. Mitigation measures could be put in place to reduce temporary impacts.	Permanent removal of a limited area of vegetation and habitat for road construction to lead to new bridge.
2.2 Potential for effects on the aquatic environment	**GOOD**	**GOOD**	**MODERATE**	**GOOD**	**GOOD**	**MODERATE**
	No potential impacts to the aquatic environment would occur.	Aquatic environment not directly impacted by Alternative 2A	A new bridge would be required at this location. Potential for aquatic disturbance may be experienced during construction works of the new bridge. Clear span bridge will mitigate permanent impacts to the aquatic environment.	Aquatic environment not directly impacted by Alternative 2C	Potential for impacts to existing aquatic environment would be temporary (i.e. during construction). Mitigation measures would be put in place to reduce temporary impacts.	Moderate potential for impacts to existing aquatic environment, primarily during construction. Clear span bridge will mitigate permanent impacts to the aquatic environment.
2.3 Potential for effects on known habitat for Species at Risk (SAR).	**GOOD**	**POOR**	**POOR**	**POOR**	**MODERATE**	**MODERATE**
	No potential impacts to known SAR habitats	High potential for disturbance of habitat and SAR habitat.	High potential for disturbance of habitat and SAR habitat.	High potential for disturbance of habitat and SAR habitat.	Potential for disturbance of habitat and SAR habitat as a result of temporary construction activities.	Potential for disturbance of habitat and SAR habitat as a result of temporary construction activities
2.4 Permits and Approvals requirements	**GOOD**	**POOR**	**POOR**	**POOR**	**MODERATE**	**POOR**
	No permits and approvals are required.	CVC, MNRF and NEC approvals required	CVC, MNRF and NEC approvals required. May require DFO review	CVC, MNRF and NEC approvals required	CVC, approvals are required; MNRF or NEC approvals may be required. May require DFO review.	CVC, MNRF and NEC approvals required (new river crossing). May require DFO review crossing)
2.5 Potential for effects on Area of Natural Scientific Interest (ANSI),	**GOOD**	**POOR**	**GOOD**	**POOR**	**GOOD**	**MODERATE**
	No potential impacts to ANSIs, ESAs, wetlands or hazard land	The alignment of Alternative 2A does not impede any ANSIs or	The alignment of Alternative 2B does not impede any ANSIs,	The alignment of Alternative 2C impedes the Caledon Meltwater	No potential impacts to ANSIs, ESAs, or wetlands. Minimal	No potential impacts to ANSIs, ESA would occur. A new

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Environmentally Significant Areas (ESA), wetlands or hazard lands.	would occur.	ESAs. Potential impacts to unevaluated wetland at the north end of Dominion Street. Puckering Lane is currently located within a Provincially Significant Wetland. An easement through the Forks of the Credit Provincial Park would be required.	ESAs or wetlands. A new crossing of the Credit River would be required.	ANSI. Easements through the Forks of the Credit Provincial Park would be also required.	impact to hazard lands would occur.	crossing of the Credit River would be required.
2.6 Potential for effects on baseflow and/or groundwater resources.	**GOOD** No potential effects to current baseflow and groundwater resources.	**POOR** Potential for disturbance to existing baseflow conditions. Proposed alignment adjacent to numerous water well locations.	**POOR** Potential for disturbance to existing baseflow conditions. Proposed alignment adjacent to numerous water well locations.	**POOR** Potential for disturbance to existing baseflow conditions. Proposed alignment adjacent to numerous water well locations.	**GOOD** No potential for disturbance to existing groundwater resources.	**MODERATE** Potential for temporary disturbance to baseflow.
2.7 Potential for effects on surface water resources	**GOOD** No potential effects on existing surface water resources	**POOR** Potential for offset disturbance to existing wetlands within the Study Area.	**POOR** Potential for offset disturbance to existing wetlands and waterbodies within the Study Area.	**POOR** Potential for disturbance to existing surface water resources within the Forks of the Credit Provincial Park.	**MODERATE** Potential for disturbance to Credit River resources.	**MODERATE** Potential for disturbance to Credit River resources.
Ranking of Natural Environment Assessment Group	***Tied First (1st)***	***Tied Third (3rd)***	***Tied Third (3rd)***	***Fourth (4th)***	***Tied First (1st)***	***Second (2nd)***
3. CULTURAL HERITAGE, BUILT & SOCIAL ENVIRONMENT ASSESSMENT GROUP						
3.1 Potential for disturbing existing residences through temporary and/or permanent effects (i.e. construction noise, dust, traffic disruption, temporary	**MODERATE** No potential for disturbance to existing residents resulting from new construction works. However, residents may experience future and on-going disturbances due to required maintenance of the road and	**MODERATE** Temporary construction and use of equipment may periodically affect residential access. Ongoing generation of noise and/or dust will result from construction works. Permanent easements of private and public	**MODERATE** Temporary construction and use of equipment may periodically affect residential access. Ongoing generation of noise and/or dust will result from construction works. Permanent easements of private property	**MODERATE** Temporary construction and use of equipment may periodically affect residential access. Ongoing generation of noise and/or dust will result from construction works. Permanent easements of private and public	**POOR** Temporary construction and use of equipment affect residential access. Road and bridge closure is required to complete construction and rehabilitation works. Permanent easements of	**MODERATE** Temporary construction and use of equipment may periodically affect residential access. The bridge at Dominion Street will remain in operation during the construction of the new bridge. Permanent easements of private

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property access disruption, etc)	bridge.	park property will be required.	will be required.	park property will be required.	private property will be required.	property will be required.
3.2 Potential for disturbing existing recreational facilities/users through temporary and/or permanent effects (i.e. construction noise, dust, traffic disruption, temporary property access disruption, etc)	**GOOD**	**POOR**	**GOOD**	**POOR**	**MODERATE**	**MODERATE**
	No potential for disturbance to existing use of the Bruce Trail and the Forks of the Credit Provincial Park, resulting from new construction works. However, users of these recreational facilities may experience future and on-going disturbances due to required maintenance of the road and bridge.	The existing alignment and use of the Bruce Trail will experience disturbance due to temporary construction. Paving of the existing trail, north of Dominion Street to Puckering Lane, will be required, affecting the Trails' existing alignment. Temporary closure of the Bruce Trail at these locations will be required.	The existing alignment and use of the Bruce Trail may experience some disturbance based on the relocation of the road alignment. Construction is to occur on land east of existing Bruce Trail route. The Bruce Trail may remain in operation during construction works.	The existing alignment and use of the Bruce Trail will experience disturbance due to temporary construction. Paving of the existing trail, north of Dominion Street through the existing Forks of the Credit Provincial Park, will be required, affecting the Trails' existing alignment. Temporary closure of the Bruce Trail at these locations will be required.	Temporary closure of the existing Bruce Trail route along Dominion Street and the bridge will be required for the duration of road and bridge rehabilitation and construction.	Temporary closure of the existing Bruce Trail route along Dominion Street will be required for the duration of road rehabilitation and construction works.
3.3 Potential effect on properties	**MODERATE**	**POOR**	**MODERATE**	**POOR**	**GOOD**	**MODERATE**
	Access to properties may be impacted due to future and on-going maintenance requirements	Private properties on Dominion Street have the potential for minor impacts resulting from re-alignment. Permanent easements of private property and the Forks of the Credit Provincial Park would be required in order to facilitate this re-alignment. Further investigation would be required.	Permanent easements of private property would be required in order to facilitate this re-alignment. This re-alignment would not affect and lands of the Forks of the Credit Provincial Park. Further investigation would be required.	Private properties on Dominion Street have the potential for minor impacts resulting from re-alignment. Permanent easements of private property and the Forks of the Credit Provincial Park would be required in order to facilitate this re-alignment. Further investigation would be required.	Potential effects on private property are anticipated to be minor due to rehabilitation works. Lands of the Forks of the Credit Provincial will not be impacted.	Easements to facilitate the development of a new bridge structure would be required. Further investigation would be required.
3.4 Potential for effects on archaeological resources.	**GOOD**	**POOR**	**MODERATE**	**POOR**	**GOOD**	**MODERATE**
	Archaeological resources will remain in present condition.	Re-alignment has the potential to impact known areas of archaeological potential. Proposed ROW alignment would cross known areas of	The new bridge crossing required for this alignment would be constructed in an area of archaeological potential. Re-alignment of the road would not impede any know areas of	Re-alignment has the potential to impact known areas of archaeological potential. Proposed ROW alignment would cross known areas of	Rehabilitation works would not occur within any known areas of archaeological potential.	The new bridge crossing required for this alignment would be constructed in an area of archaeological potential. Remaining rehabilitation works would not occur within any known

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		archaeological potential.	archaeological potential.	archaeological potential.		areas of archaeological potential.
3.5 Potential for effects on cultural/ built heritage resources.	**MODERATE**	**GOOD**	**POOR**	**POOR**	**GOOD**	**GOOD**
	Cultural/built heritage resources will remain in present condition, but allowed to deteriorate.	Proposed re-alignment would not impact any identified Cultural Heritage Resource features.	Proposed realignment would require an additional ROW through an existing Cultural Heritage Resource feature. A new bridge structure would be required in an area identifies as a Cultural Heritage Resource feature.	Proposed realignment would require an additional ROW through an existing Cultural Heritage Resource feature.	Identified as a Cultural Heritage Resource feature, the current bridge connecting Dominion Street will be rehabilitated and preserved. There is a low potential for impacts to identified Cultural Heritage Resource features resulting from rehabilitation works.	A new bridge structure would be required in an area identifies as a Cultural Heritage Resource feature. There is a low potential for impacts to identified Cultural Heritage Resource features resulting from rehabilitation works.
Ranking of Cultural Heritage, Built & Social Environment Assessment Group	***Tied First (1st)***	***Fourth (4th)***	***Third (3rd)***	***Fifth (5th)***	***Tied First (1st)***	***Second (2nd)***
4. LAND USE & NIAGARA ESCARPMENT PLAN (NEP) ASSESSMENT GROUP						
4.1 Potential to ensure that all new development is compatible with the purpose of the NEP	**GOOD**	**POOR**	**POOR**	**POOR**	**GOOD**	**MODERATE**
	No new development will be considered.	Disturbance to Escarpment Natural Area and Escarpment Protection Area designations would occur as a result of this re-alignment. NEP amendments would be required, as Alternative 2A is not compatible with the existing natural environment	Disturbance to an Escarpment Natural Area designation would occur as a result of this re-alignment. NEP amendments would be required, as Alternative 2B is not compatible with the existing natural environment	Disturbance to Escarpment Natural Area and Escarpment Protection Area designations would occur as a result of this re-alignment. NEP amendments would be required, as Alternative 2C is not compatible with the existing natural environment	Rehabilitation of the existing road and bridge is compatible under the general provisions of the NEP.	Development applications under the NEP would be required for the new bridge and road connection.
4.2 Potential to maintain and enhance the quality and character of natural streams and water supplies	**MODERATE**	**GOOD**	**POOR**	**GOOD**	**MODERATE**	**POOR**
	Natural streams and water supplies will remain in present condition, with no improvements and continued erosion of the embankment.	Natural streams and water supplies are not anticipated to experience potential impacts.	A new permanent bridge will be required at the proposed locations to facilitate re-alignment. This will further impact dynamics of the Credit River,	Natural streams and water supplies are not anticipated to experience potential impacts.	Potential for temporary impacts during construction and rehabilitation works are expected.	A new permanent bridge will be required at the proposed. This will further impact dynamics of the Credit River,

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4.3 Potential to provide adequate opportunities for outdoor recreation	**MODERATE**	**POOR**	**GOOD**	**POOR**	**GOOD**	**GOOD**
	Current opportunities for outdoor recreation will remain with no potential for improvements. Structural features supporting outdoor recreation will continue to deteriorate.	Paving of the existing Bruce Trail, north of Dominion Street, in the proposed locations will be required, potentially affecting the current utilization of the Bruce Trail at this location.	Existing route of the Bruce Trail will be maintained with an additional connection via the proposed realignment of Alternative 2B.	Paving of the existing Bruce Trail, north of Dominion Street, in the proposed locations will be required, potentially affecting the current utilization of the Bruce Trail at this location.	The existing route of the Bruce Trail and access to the Forks of the Credit Provincial Park will be improved through rehabilitation works.	The existing route of the Bruce Trail and access to the Forks of the Credit Provincial Park will be improved through new bridge construction and existing road rehabilitation works.
4.4 Potential to maintain and enhance the open landscape character of the Niagara Escarpment in so far as possible, by such means as compatible farming or forestry and by preserving the natural scenery	**GOOD**	**POOR**	**POOR**	**POOR**	**GOOD**	**MODERATE**
	Natural scenery will remain in present condition.	The natural scenery of the Escarpment will be disturbed from new road development requiring various cuts and fill.	The natural scenery of the Escarpment will be disturbed from new road development requiring various cuts and fill.	The natural scenery of the Escarpment will be disturbed from new road development requiring various cuts and fill.	Natural scenery will remain in present condition, with minimal potential for disturbance to the adjacent Escarpment Natural Area.	A new bridge and connecting road extension would be required, impacting the natural scenery of the Natural Escarpment Area in the proposed location.
4.5 Potential to provide for adequate public access to the Niagara Escarpment	**MODERATE**	**MODERATE**	**MODERATE**	**MODERATE**	**GOOD**	**GOOD**
	Public access will remain in present condition, but allowed to deteriorate.	An alternate/additional public access would be developed. An extended connection to Dominion street from Puckering Lane would provide an additional access to recreational facilities within the Escarpment, including the Bruce Trail and Forks of the Credit Provincial Park. This access would require significant alterations to the affected Escarpment .	An alternate/additional public access would be developed. This access would require significant alterations to the affected Escarpment.	An alternate/additional public access would be developed. An extended connection to Dominion street from the Forks of the Credit Park Parking Facility would provide an additional access to recreational facilities within the Escarpment, including the Bruce Trail and Forks of the Credit Provincial Park. This access would require significant alterations to the affected Escarpment.	Current access/egress will remain and be improved with temporary disturbance during construction and rehabilitation works.	An alternate/additional public access would be developed. This access would require minor alterations to the affected Escarpment.

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4.6 Compliance with Part One – Land Use Policies of the NEP – Escarpment Natural Area Designation	**MODERATE** Escarpment features, recreational features and landscape quality will remain in present condition.	**POOR** Would require significant alterations to Escarpment Features and landscape quality	**POOR** Would require significant alterations to Escarpment Features and landscape quality	**POOR** Would require significant alterations to Escarpment Features and landscape quality	**GOOD** Insignificant alterations to Escarpment Features and landscape quality are anticipated.	**MODERATE** Would require minor alterations to Escarpment Features and landscape quality
4.7 Compliance with provisions of Policy 2.15 of the NEP – Transportation and Utilities	**GOOD** No new transportation related facilities or additional roadways would be considered.	**POOR** Development of an additional road through Escarpment Natural Area and Escarpment Protection Area designations would be required, which are non-compliant with Policy 2.15	**POOR** Development of an additional road through an Escarpment Natural Area designation would be required, which is non-compliant with Policy 2.15	**POOR** Development of an additional road through Escarpment Natural Area and Escarpment Protection Area designations would be required, which are non-compliant with Policy 2.15	**GOOD** Rehabilitation works will be designed and located to minimize impact on the Escarpment.	**POOR** Development of an additional road through an Escarpment Natural Area designation would be required, which is non-compliant with Policy 2.15
4.8 Compliance with provisions of Policy 2.16 of the NEP – The Bruce Trail	**MODERATE** Bruce Trail access will remain in present condition, with no improvements.	**POOR** Significant alterations to the existing Bruce Trail linkages would occur as a result of this re-alignment. Significant tree removal and other natural environmental change would occur.	**POOR** Significant alterations to the existing Bruce Trail linkages would occur as a result of this re-alignment. Significant tree removal and other natural environmental change would occur.	**POOR** Significant alterations to the existing Bruce Trail linkages would occur as a result of this re-alignment. Significant tree removal and other natural environmental change would occur.	**GOOD** Current Bruce trail linkages and configuration would be maintained and improved.	**MODERATE** Minor alterations to current Bruce Trail linkages would occur, specifically at the current bridge location. Minor cuts and tree removal would be required to facilitate this alternative.
4.9 Potential to maintain and enhance the natural environment of the Niagara Escarpment	**GOOD** Natural environment of the Niagara Escarpment will remain in present condition.	**POOR** Significant alterations to the natural environment and features of the Escarpment would occur. Significant fill and cuts to the Escarpment would be required to facilitate this re-alignment.	**POOR** Significant alterations to the natural environment and features of the Escarpment would occur. Significant fill and cuts to the Escarpment would be required to facilitate this re-alignment.	**POOR** Significant alterations to the natural environment and features of the Escarpment would occur. Significant fill and cuts to the Escarpment would be required to facilitate this re-alignment.	**GOOD** Rehabilitation works will be designed to minimize environmental impacts and preserve the natural environment of the escarpment	**MODERATE** Significant alterations to the natural environment and features of the Escarpment would occur. Minor cuts and tree removal would be required to facilitate this alternative.
Ranking of Land Use & Niagara Escarpment Plan Assessment Group	***Second (2nd)***	***Tied Fourth (4th)***	***Tied Fourth (4th)***	***Tied Fourth (4th)***	***First (1st)***	***Third (3rd)***

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5. FINANCIAL ASSESSMENT GROUP						
5.1 Costs associated with property acquisition and/or temporary working easements.	**GOOD** No acquisitions required.	**POOR** Easements required at the Forks of the Credit Provincial Park. Permanent easement required at private property. Property disposition and acquisition required	**POOR** Permanent easement required at private property. Property disposition and acquisition required	**POOR** Easements required at the Forks of the Credit Provincial Park. Permanent easement required at private property. Property disposition and acquisition required	**GOOD** No acquisitions required.	**GOOD** Minor easements required adjacent to existing bridge structure
5.2 Costs for implementation (i.e., Capital Costs).	**GOOD** No works to be completed.	**POOR** Estimated cost for implementation of Alternative 2A: $5,000,000 - $6,000,000	**MODERATE** Estimated cost for implementation of Alternative 2B: $2,000,000 - $3,000,000	**POOR** Estimated cost for implementation of Alternative 2C: $6,000,000 - $8,000,000	**GOOD** Bridge Rehabilitation: $450,000 - $600,000	**MODERATE** Bridge Replacement: $1,400,000 - $1,800,000
5.3 Operations and Maintenance Costs.	**MODERATE** No works to be completed. On-going maintenance costs due to deterioration would be required.	**POOR** Development of an additional approx. 750 m of road would require significant maintenance.	**POOR** Development of an additional approx. 700 m of road and a new bridge crossing would require significant maintenance.	**POOR** Development of an additional approx. 1700 m of road would require significant maintenance.	**GOOD** No additional maintenance would be required,	**GOOD** Would require the maintenance of an additional bridge crossing.
Ranking of Financial Assessment Group	***Tied Second (2nd)***	***Tied Fourth (4th)***	***Third (3rd)***	***Tied Fourth (4th)***	***First (1st)***	***Tied Second (2nd)***
Overall Ranking of Alternative Solutions	***Second (2nd)***	***Fifth (5th)***	***Fourth (4th)***	***Sixth (6th)***	***First (1st)*** RECOMMENDED	***Third (3rd)***

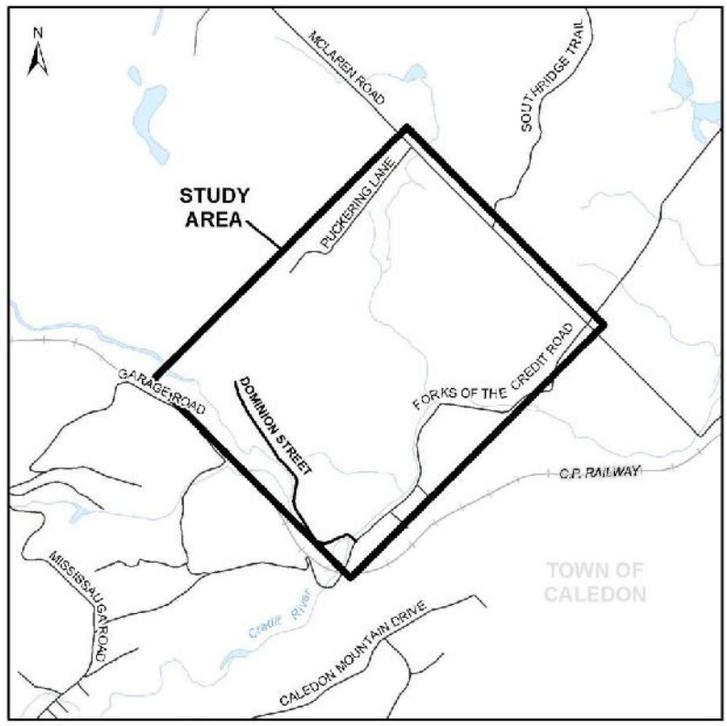
Ranking Methodology	***The recommended Alternative Solution was based on its relative advantages and disadvantages compared to other alternatives considered. With this in mind, all six Alternative Solutions were ranked according to their advantages and disadvantages, as identified in the Alternatives Solution Evaluation Table.***

Appendix E
Notice of Study Commencement

TOWN OF CALEDON

NOTICE OF STUDY COMMENCEMENT

Municipal Class Environmental Assessment & Provincial Parks and Conservation Reserves Class Environmental Assessment Study for Dominion Street



THE STUDY:

The Town of Caledon has initiated a Schedule 'C' Class Environmental Assessment Study and preliminary design, including an assessment of alternatives and long-term solutions for providing safe access to Dominion Street.

Within the Study Area, Dominion Street consists of a rural two-lane roadway and a single lane bridge providing sole access to residential dwellings located on Dominion Street. Features of the Study Area include the Dominion Street Bridge and a section of the Credit River. The Study Area also encompasses a segment of the Forks of the Credit Provincial Park.

The Study is being undertaken to investigate feasible bank stabilization and bridge rehabilitation activities in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge. Alternative roadway re-alignments will be considered as part of this Class EA Study, but are limited given the site's significant deviation in topography. Techniques to protect the road from further movement and improve the overall embankment stability will also be investigated.

THE PROCESS:
The Study will be conducted in accordance with the planning and design process for Schedule 'C' projects as outlined in the Municipal Engineers Association "Municipal Class Environmental Assessment", (October 2000, as amended in 2015) and the MNRF Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), approved under the Ontario Environmental Assessment Act. The Class EA process includes public/external agency consultation, an evaluation of alternative solutions and alternative design concepts, an assessment of potential impacts associated with the proposed improvements, and the development of mitigation measures to identified potential impacts.

COMMENTS:
Public Participation will form an integral part of the Schedule 'C' Class EA Study to ensure that the ongoing concerns of the public and affected groups within the study area are identified, documented and assessed. A minimum of two public information centres (PIC) will be held and advertised in advance to enable the public to meet the project team, and to provide feedback to better address the needs and opportunities of the study corridor. The first of two PICs is anticipated to be held in late fall/early winter, 2016. Further Notice will be provided closer to the date of the PIC, however, if you wish to have your name added to our email contact database, please contact one of the project managers listed below.

Ian Todhunter, P.Eng.
Project Manager
Town of Caledon
6311 Old Church Road
Caledon, ON L7C 1J6
Tel: 905-584-2272, Ext. 4065
Fax: 905-584-4325
E-mail: ian.todhunter@caledon.ca

Brian Ruck, P.Eng., CVS – Life
Consultant Project Manager
GHD Limited
65 Sunray Street
Whitby, ON L1N 8Y3
Tel: 905-429-4957
Fax: 905-432-7877
E-mail: brian.ruck@ghd.com

This notice published: August 4, 2016

TOWN OF CALEDON | News | Subscribe at caledon.ca/enews

The new Fall 2016 Caledon Parks and Recreation guide is now available online!

Fall and Winter program registration begins Tuesday, August 9, 2016 at 7:00 a.m.

Visit **caledon.ca/guide** to view it online today

Copies will be delivered the week of August 2, 2016 to all residents in Caledon and will also be available at your local recreation centre.

For more information call Recreation at 905.584.2272 x.7327

Registration Dates: General Programs: August 9, 2016 | Fall Aquatics: August 9, 2016 | Winter Aquatics: December 13, 2016

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LIFESAVING SOCIETY®

Swimming lesson program

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NOTICE OF STUDY COMMENCEMENT

Environmental assessment studies for Dominion Street

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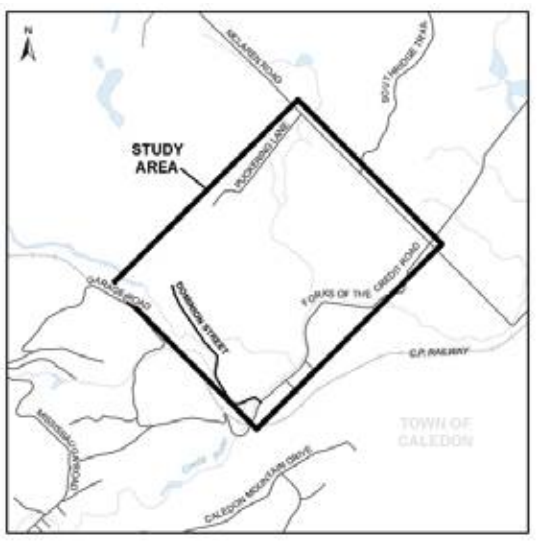

Within the study area, Dominion Street consists of a rural two-lane roadway and a single lane bridge providing sole access to residential dwellings located on Dominion Street. Features of the study area include the Dominion Street bridge and a section of the Credit River. The study area also encompasses a segment of the Forks of the Credit Provincial Park.

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THE PROCESS:

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The Class EA process includes public/external agency consultation, an evaluation of alternative solutions and alternative design concepts, an assessment of potential impacts associated with the proposed improvements, and the development of mitigation measures to identified potential impacts.

COMMENTS:

Public participation will form an integral part of the Schedule 'C' Class EA Study to ensure that the ongoing concerns of the public and affected groups within the study area are identified, documented and assessed.

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Tel: 905.429.4957
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E-mail: brian.ruck@ghd.com

This notice published: August 4, 2016

All personal information included in a submission - such as name, address, telephone number and property location - is collected, maintained and disclosed by the Ministry of the Environment and Climate Change for the purpose of transparency and consultation. The information is collected under the authority of the Environmental Assessment Act or is collected and maintained for the purpose of creating a record that is available to the general public as described in s.37 of the Freedom of Information and Protection of Privacy Act (FIPPA). Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment and Climate Change's Freedom of Information and Privacy Coordinator at (416) 327-1434.

TOWN OF CALEDON

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www.caledon.ca
T. 905.584.2272 | 1.888.225.3366 | F. 905.584.4325

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FOLLOW US For real-time updates
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www.facebook.com/yourcaledon
Download our mobile app caledon.ca/pingstreet

The new Fall 2016 Caledon Parks and Recreation guide is now available online!

Looking for an opportunity to serve your community or know someone who is?

The Town of Caledon is currently seeking three (3) cycling orientedresidents and two (2) Town business owners to serve on the Cycling Task Force (CTF) for the completion of a Share the Road application to be a Bicycle Friendly Community.

WHAT IS THE PURPOSE OF THE CYCLING TASK FORCE?

The purpose of the Task Force is to assist the Town on becoming accredited as a Bicycling Friendly Community, under Share the Road (a Provincial cycling advocacy organization).

The Task Force will assist the Town with organized community events, as applicable and have an opportunity to comment on the proposed Transportation Master Plan.

Meetings will be held on a quarterly basis.

AM I QUALIFIED?

Consideration is given to applicants with the following qualifications; however those who do not meet all the qualifications are still encouraged to apply:

- a resident or business owner of the Town of Caledon;
- available for daytime meetings;
- not an employee of the Town of Caledon;
- preference will be granted to those with a cycling background; and
- preference will be granted to those with previous committee or task force experience.

WHERE DO I SUBMIT MY APPLICATION?

Application Forms can be obtained from the Town's website at www.caledon.ca/committees, picked up at Town Hall (6311 Old Church Road, Caledon ON) or by contacting 905.584.2272

Interested individuals must submit the required Application Form to the Town's Transportation Section either by e-mail to dean.mcmillan@caledon.ca, delivered or mailed to Town Hall, Attn: Transportation – Cycling Task Force, 6311 Old Church Road, Caledon, ON L7C 1J6 by Wednesday August 31, 2016, at 4:30 p.m.

Please note that appointments to the Cycling Task Force are decided by Town staff. All applicants will be notified of the Town's decision.

WHERE CAN I GET MORE INFORMATION?

For further information regarding the recruitment process, please contact the Town at 905.584.2272.

TOWN OF CALEDON

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Size: 1/2 Vertical
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Distribution: Caledon Enterprise
Department: Communications
Account#:

Run X1

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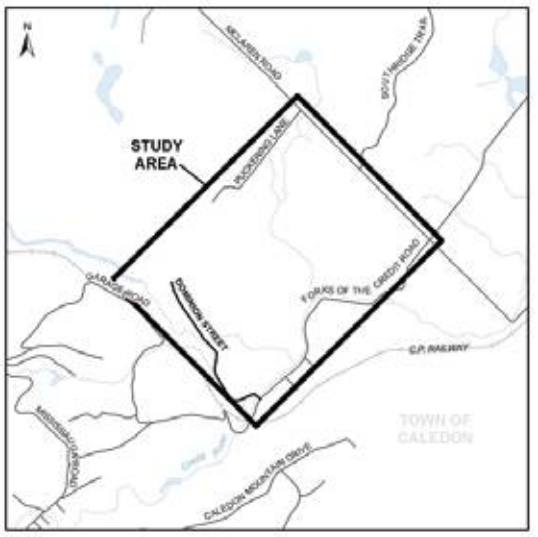

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Appendix F
Public Information Centre #1 Summary Report

FINAL

Dominion Street Schedule 'C' Class Environmental Assessment: Public Information Centre #1 Summary Report

Public Information Centre #1
November 30, 2016 | 7:30pm – 9:15pm
Inglewood Community Centre
15825 McLaughlin Road, Inglewood

Corporation of the Town of Caledon

GHD | 65 Sunray Street Whitby Ontario L1N 8Y3

11116800 | 30 | Report No. 4 | January 2017

Table of Contents

Table Index

Appendix Index

1. Introduction

This report summarizes the Public Information Centre #1 (PIC) held on November 30th, 2016 as part of the Dominion Street Class Environmental Assessment (EA). The Corporation of the Town of Caledon (Town) has initiated Class Environmental Assessments in accordance with both the Municipal Engineers Association (MEA) Class EA document and the Ministry of Natural Resources and Forestry (MNRF) Provincial Parks and Conservation Reserves (PPCR) Class EA guideline, in order to investigate feasible alternatives for the rehabilitation of Dominion Street and bridge crossing of the Credit River. Proposed rehabilitation works in the defined study area trigger a Schedule 'C' and Category 'C' classifications.

A *Notice of Public Information Centre #1* (see Appendix A) announcing the first of two PICs for the Dominion Street Class EA to be held on November 30th, 2016 was issued on November 17th, 2016. The Town also published the PIC notice via Town website and social media. This report provides a summary of the events that took place at PIC #1.

1.1 Objectives of the Public Information Centre

The purpose of PIC #1 was to provide the public with a direct opportunity to provide comments regarding the proposed undertaking of Dominion Street. With this purpose in mind, the associated objectives were as follows:

- Introduce the proposed undertaking to the public;
- Educate the public on the applicable Class EA processes;
- Provide an overview of the existing conditions of the study area based on secondary source review;
- Solicit feedback and comments relative to the Alternative Solutions;
- Identify next steps of the process;
- Meet the Project Team, ask questions, seek clarification, and provide comments.

Attendees were offered the opportunity to present their comments regarding the information directly to staff from the Town and GHD Limited (GHD) via verbal conversation and written comment form.

1.2 Date, Time & Location of the Public Information Centre

PIC #1 was held on November 30, 2016 from 7:30 p.m. to 9:15 p.m. (EST) at the Inglewood Community Centre (15825 McLaughlin, Inglewood, ON). This location was selected based on its close proximity to Dominion Street, sufficient capacity to accommodate the venue's purpose, and is accessible and compliant under the Accessibility for Ontarians with Disabilities Act (AODA).

The PIC followed a drop-in format, with the information illustrated on a set of display panels arranged around the perimeter of the presentation room. Project Team members from the Town and GHD were available to answer questions and solicit comments from attendees, as well as record attendance for the event.

2. Notification of the Public Information Centre

Notification of the PIC was provided through a variety of means to increase the potential number of public members in attendance. Specifically, notification of the event was provided as follows:

- Ad in the Caledon Citizen (newsletter publication) published on November 17, 2016.
- Ad in the Caledon Enterprise (newsletter publication) published on November 17, 2016.
- Direct mailings to all residential addresses within the study area.
- Direct emails to public contacts that have previously provided input upon the previous distribution of the *Notice of Study Commencement*.
- Direct emails to agency contacts.
- The Town included a link to the *Notice of Public Information Centre #1* on the Town's website: http://www.caledon.ca/en/News/index.aspx?feedId=3128ff83-64fd-4e32-80d2-fc0fc0abfecd&newsId=d5215132-6273-4e01-b685-c930de407dc4

Copies of these emails, newsletter and website notifications are available in Appendix A.

The following agencies were notified of PIC #1 via email and hardcopy mail:

- Fisheries and Oceans Canada
- CN Rail
- Ministry of Education
- Ministry of Natural Resources and Forestry
- Ministry of Aboriginal Affairs
- Ministry of the Environment and Climate Change
- Niagara Escarpment Commission
- Ministry of Agriculture, Food and Rural Affairs
- Ministry of Tourism, Culture and Sport
- Ministry of Municipal Affairs and Housing
- Ontario Growth Secretariat
- Ministry of Transportation
- Ontario Parks
- Ontario Provincial Police
- Credit Valley Conservation Authority
- Bruce Trail Conservancy
- TransCanada Trail Ontario
- Peel District School Board

- Dufferin-Peel Catholic District School Board
- Region of Peel
- Town of Caledon
- Town of Caledon – Heritage Committee
- Caledon Fire & Emergency Services

The following Aboriginal communities and organizations were notified of PIC #1 via email and hardcopy mail:

- Mississaugas of the New Credit First Nation
- Métis Nation of Ontario

3. Project Team Members in Attendance

Project team members were in attendance at the Public Information Centre to ensure the attending public members' questions/enquiries could be answered directly and solicit feedback. The Project Team members in attendance were from both IO and GHD as follows:

Town of Caledon:

- Ian Todhunter – Project Manager
- Tim Danyliw – Senior Project Manager
- Ryan Grodecki – Manager, Engineering Services

GHD:

- Brian Ruck – Consultant Project Manager
- Blair Shoniker – Senior Environmental Planner
- Alex Pereira – Environmental Planner

4. Information Presented

The format of the PIC was an informal drop-in session where public members could attend anytime during the hours of the event, view the information provided and meet individually with Project Team members. Information presented at the PIC was in the form of display boards arranged around the perimeter of the presentation hall and organized to take the viewer through the Class EA processes, existing conditions and alternative solutions. This information was presented in the order as follows:

Table 4.1 Summary of Information Presented

Station	Description
Purpose of the Public Information Centre	• Purpose and function of the PIC
Site Context	• High-resolution ortho image of the study area • Location of Dominion Street in relation to adjacent roads and the Forks of the Credit Provincial Park.
Class Environmental Assessment Processes	• Descriptions of the MEA and MNRF PPCR Class EA processes • Class EA requirements from the proposed undertaking
Harmonized Class EA Process	• Descriptive comparison of both Class EA requirements.
Current Issues and Constraints	• Identification of current issues, including; access, structural integrity, road instability, cultural heritage, embankment protection, Forks of the Credit Provincial Park and the Credit River, and species at risk.
Problem and Opportunity Statement	• The detailed problem and opportunity statements were provided.
Existing Conditions	• Detailed descriptions of exiting conditions for the following environment components were provided: • Natural Environment • Archaeology and Cultural Heritage • Fluvial Geomorphology • Geotechnical & Hydrogeological • Land Use & Social Environment
Alternative Solutions	• Alternative Solutions 1, 2A, 2B, 2C, 3A & 3B were presented. • Each Alternative Solution was described with estimated pricing.
Alternative Solutions Comparative Evaluation	• Alternative Solutions were evaluated against set criteria. • The recommended Alternative Solution was presented.
Consultation/Next Steps	• Description on the opportunity to comment was provided. • Next Steps of the Class EA processes were discussed.

Copies of the display panels are included in Appendix B.

5. Attendance

The Public Information Centre was well attended. Of the total number of individuals in attendance, 27 participants signed-in and attended the PIC on November 30, 2016. Those in attendance included local residents and landowners; members and representatives of the Bruce Trail Conservancy; Councilor Doug Beffort, Councilor Shaughnessy, and Mayor Allan Thompson.

Attendees were encouraged to provide written comments on the comment forms provided. Of the 27 attendees documented to be in attendance, seven (7) comment forms were returned at the PIC. Comments were also accepted through online/e-mail submission up to December 16, 2016. An additional seven (7) comments were received via e-mail following the Public Information Centre on

November 30, 2016 to the submission deadline for comments on December 16, 2016. A total of 14 comments were received.

All attendees who signed-in were given the option to be added to the project-specific contact database. This database will be used to contact and inform interested members of the public and key stakeholders of future public events, including PIC #2.

6. Summary of Comments Received

As noted, seven (7) comment forms were received at the PIC and an additional seven (7) comments were received by e-mail for a total 14 comments provided by the public and agencies. Copies of the comment forms received at PIC #1 on November 30, 2016 and additional comments received via email during the comment period are included in Appendix C. Table 6.1, below, summarizes the comments received via comment form received at the PIC on November 30, 2016.

Table 6.1 Summary of Comments Received via Comment Form

Summary of Comment	Summary of Response
• Use open-sides on the bridge – not concrete abutments • Put up local traffic only sign	The Town and GHD will take this into consideration during the design phase of the Class EA Study.
• Please keep the current "style" of bridge, not solid sides like two recently repaired on The Forks • Add an enforced Local Traffic Only sign	The Town and GHD will take this into consideration during the design phase of the Class EA Study.
Request digital copies of: • Draft summary report • Class EA 2007, 2011, 2015 • Alternative solutions comparative evaluation	The final Phase I & II Summary Report will be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp) soon and we will later inform you of its availability. In the meantime, a free non-searchable on-line version of the Municipal Engineers Association (MEA) Municipal Class EA may be viewed here: http://www.municipalclassea.ca/manual/index.html
Please keep metal guardrails or any type of railing or abutments to a minimum. Walkers + cyclists need to be able to jump out of the way.	The Town and GHD will take this into consideration during the design phase of the Class EA Study. Regarding your comment on pedestrian safety, we would like to ensure you that the recommended design will conform to all applicable standards and codes.
• Keep the original road + keep it as natural as possible • Restrict traffic to local traffic only – cars are still blocking the access gate to the	The Town and GHD will take this into consideration during the design phase of the Class EA Study.

Summary of Comment	Summary of Response
provincial park at the north end of Dominion St.	
Would like it left as natural as possible. No more concrete walls	The Town and GHD will take this into consideration during the design phase of the Class EA Study.
1. I agree with fixing the existing bridge 2. I would have new bridge to the east #2 3. Doing nothing doesn't make sense	Based on public input received at the PIC and our analysis conducted to date, we have confirmed Alternative 3A – Existing Road and Bridge Rehabilitation, as the recommended Alternative Solution. Also, the "Do Nothing" alternative solution is used as a benchmark to evaluate additional Alternative Solutions. The ranking of the "Do Nothing" alternative does not necessarily mean that it will be considered favorably over additional Alternative Solutions considered.

Of the total comments received during the comment period for PIC #1, five (5) comments received by community members specifically express they are in favor of the recommended alternative solution. All comments received and responses provided following the PIC #1 comment period are documented in a detailed comment response table, available in Appendix D.

7. Considerations for PIC #2

PIC #2 is anticipated to be held in the late winter or early spring of 2017. Based on the localized involvement of PIC #1 and the interest expressed by residents and local interest groups in attendance, the following two options regarding the format of PIC #2 are being considered:

Option #1: Similar to PIC #1, PIC #2 will have an open house format where information about the study, including Alternative Design Concepts based on the identified recommended Alternative Solution will be available. Representatives from the Town of Caledon and the consulting team will be available to answer questions and discuss the details of the study. Members of the public will also be able to voice any comments/concerns/questions discreetly via comment form.

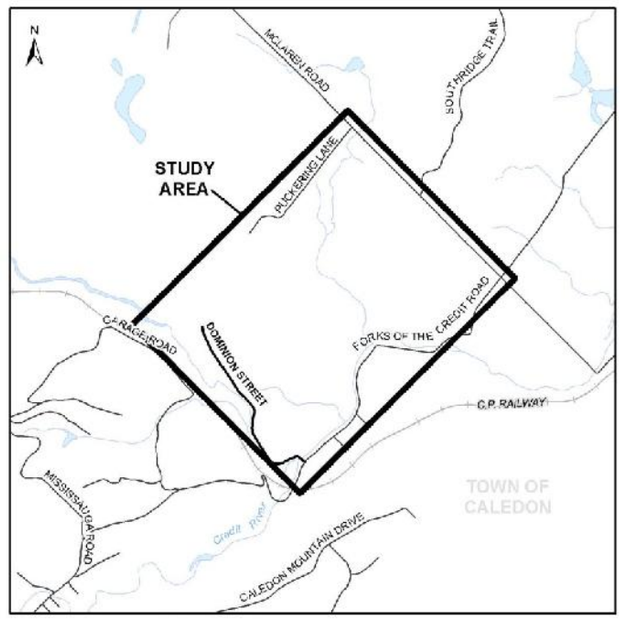
Option #2: PIC #2 would be more structured and follow a presentation style format. This would include a brief presentation of the Alternative Design Concepts by GHD, based on the identified recommended Alternative Solution. The presentation would be followed by an open discussion period, where individuals may address any comments/questions to the Project Team. Members of the public will also be able to voice any comments/questions discreetly via comment form.

Appendices

Appendix A
Notice of Public Information Centre #1

TOWN OF CALEDON
PUBLIC INFORMATION CENTRE #1

Class Environmental Assessments for Dominion Street



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The study is being undertaken to investigate a number of potential alternative solutions focussed on the improvement of access to Dominion Street based on the current and future utilization of the Dominion Street bridge.

PROCESS:

The study will be conducted in accordance with the planning and design process for 'Schedule C' projects, as outlined in the Municipal Engineers Association "Municipal Class Environmental Assessment," (October 2000, as amended in 2015) and the Ministry of Natural Resources and Forestry (MNRF) Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), as approved under the *Ontario Environmental Assessment Act*. The Class EA process includes public/external agency consultation, an evaluation of alternative solutions and alternative design concepts, an assessment of potential impacts associated with proposed improvements and development of measures to mitigate identified impacts. Upon completion of the study, an Environmental Study Report (ESR) will be prepared and made available for public review and comment.

PUBLIC CONSULTATION:

Public consultation is a vital component of the Class EA process. As such, the first of two Public Information Centres (PIC) is being held to receive your input, comments and/or concerns on the study. The PIC will have an open house format where information about the study, existing conditions and the preliminary alternative solutions will be displayed. Representatives from the Town of Caledon and the consulting team will be available to answer questions and discuss the details of the study.

Date: **Wednesday, November 30, 2016**
Time: **7:30 p.m. to 9:15 p.m.**
Location: **Inglewood Community Centre – 15825 McLaughlin Road, Inglewood, ON**

COMMENTS INVITED:

If you would like to provide us with your comments, require additional information, or would like to be placed on the study mailing list to be notified about future public meetings, please contact:

Ian Todhunter, P.Eng.
Project Manager
Town of Caledon
6311 Old Church Road
Caledon, ON L7C 1J6
Tel: 905-584-2272, Ext. 4065
Fax: 905-584-4325
E-mail: ian.todhunter@caledon.ca

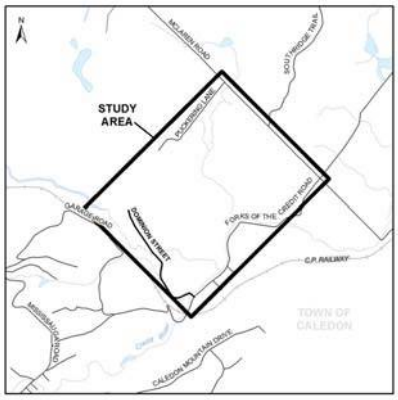
Brian Ruck, P.Eng., CVS – Life
Consultant Project Manager
GHD Limited
65 Sunray Street
Whitby, ON L1N 8Y3
Tel: 905-429-4957
Fax: 905-432-7877
E-mail: brian.ruck@ghd.com

This notice published: November 17, 2016

TOWN OF CALEDON

Dominion Street Environmental Assessments

Posted on Wednesday November 30, 2016 Like 0 Tweet G+1 0 Subscribe



UPDATE (November 30, 2016) -- At the public meeting on November 30, 2016 at the Inglewood Community Centre a presentation was delivered. **View the presentation (pdf)**. Also, please feel free to submit feedback using our comment form. **Download the comment form (pdf)**.

UPDATE (November 17, 2016) -- There will be a public meeting on Wednesday, November 30, 2016 at 7:30 pm at the Inglewood Community Centre (**map**). **Read the notice**

The Town of Caledon has initiated a Schedule 'C' Class Environmental Assessment Study and preliminary design, including an assessment of alternatives and long-term solutions for providing safe access to **Dominion Street**.

Within the Study Area, Dominion Street consists of a rural two-lane roadway and a single lane bridge providing sole access to residential dwellings located on Dominion Street. Features of the Study Area include the Dominion Street Bridge and a section of the Credit River. The Study Area also encompasses a segment of the Forks of the Credit Provincial Park.

The Study is being undertaken to investigate feasible bank stabilization and bridge rehabilitation activities in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge. Alternative roadway re-alignments will be considered as part of this Class EA Study, but are limited given the site's significant deviation in topography. Techniques to protect the road from further movement and improve the overall embankment stability will also be investigated.

The Process

The Study will be conducted in accordance with the planning and design process for Schedule 'C' projects as outlined in the Municipal Engineers Association "Municipal Class Environmental Assessment", (October 2000, as amended in 2015) and the MNRF Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), approved under the Ontario Environmental Assessment Act. The Class EA process includes public/external agency consultation, an evaluation of alternative solutions and alternative design concepts, an assessment of potential impacts associated with the proposed improvements, and the development of mitigation measures to identified potential impacts.

Comments

Public Participation will form an integral part of the Schedule 'C' Class EA Study to ensure that the ongoing concerns of the public and affected groups within the study area are identified, documented and assessed.

A minimum of two public information centres (PIC) will be held and advertised in advance to enable the public to meet the project team, and to provide feedback to better address the needs and opportunities of the study corridor.

The first of two PICs is anticipated to be held in late fall/early winter, 2016.

Further notice will be provided closer to the date of the PIC, however, if you wish to have your name added to our email contact database, please contact one of the project managers listed below.

Ian Todhunter, P.Eng.
Project Manager
Town of Caledon
6311 Old Church Road
Caledon, ON L7C 1J6
Tel: 905-584-2272, Ext. 4065
Fax: 905-584-4325
E-mail: ian.todhunter@caledon.ca

Brian Ruck, P.Eng., CVS – Life
Consultant Project Manager
GHD Limited
65 Sunray Street
Whitby, ON L1N 8Y3
Tel: 905-429-4957
Fax: 905-432-7877
E-mail: brian.ruck@ghd.com

All personal information included in a submission - such as name, address, telephone number and property location - is collected, maintained and disclosed by the Ministry of the Environment and Climate Change for the purpose of transparency and consultation. The information is collected under the authority of the Environmental Assessment Act or is collected and maintained for the purpose of creating a record that is available to the general public as described in s.37 of the Freedom of Information and Protection of Privacy Act (FIPPA). Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment and Climate Change's Freedom of Information and Privacy Coordinator at (416) 327-1434.

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Coffee with Council

Come out and join the 2017 Budget conversation with Mayor Thompson and members of Council.

Ward 1 - Saturday, November 19, 9 -11 a.m.
Lloyd Wilson Arena

Ward 2 - Friday, November 18 , 5 -7 p.m.
Mayfield Community Centre

Wards 3, 4 & 5 - Saturday, November 19, 1 - 3 p.m.
Caledon Centre for Recreation & Wellness

Tuesday, November 22, 10:30 a.m. - 12:30 p.m.
Rotary Place Seniors Centre, 7 Rotarian Way, Bolton

2017 BUDGET

2017 Budget Open House!

Town of Caledon citizens are invited to learn more about and get involved in the 2017 budget process.

On Wednesday, November 23, 2016 at 7 p.m., Town staff from each department will be available in an Open House style forum for one-on-one discussion. Small groups or individual discussions are a great way to get involved and understand the projects that will guide Town activities.

caledon.ca/budget

TOWN OF CALEDON
2017 BUDGET

PUBLIC INFORMATION CENTRE #1

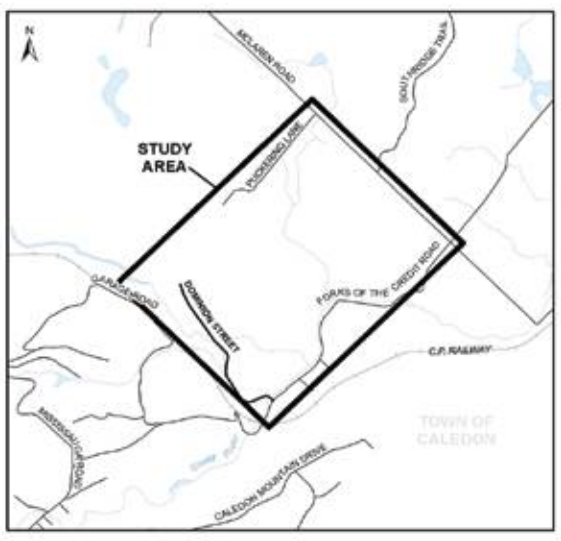
HAVE YOUR SAY

Class Environmental Assessments for Dominion Street

THE STUDY:

The Corporation of the Town of Caledon has initiated a Municipal Class Environmental Assessment (EA) and preliminary design, including an assessment of alternatives and long-term solutions for improving access to Dominion Street.

Within the Study Area, Dominion Street consists of a rural two-lane roadway and a single lane bridge providing sole access to residential dwellings located on Dominion Street. Features of the Study Area include the Dominion Street bridge and a section of the Credit River. The Study Area also encompasses a segment of the Forks of the Credit Provincial Park.



The study is being undertaken to investigate a number of potential alternative solutions focussed on the improvement of access to Dominion Street based on the current and future utilization of the Dominion Street bridge.

PROCESS:

The study will be conducted in accordance with the planning and design process for 'Schedule C' projects, as outlined in the Municipal Engineers Association "Municipal Class Environmental Assessment," (October 2000, as amended in 2015) and the Ministry of Natural Resources and Forestry (MNRF) Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), as approved under the Ontario Environmental Assessment Act. The Class EA process includes public/external agency consultation, an evaluation of alternative solutions and alternative design concepts, an assessment of potential impacts associated with proposed improvements and development of measures to mitigate identified impacts. Upon completion of the study, an Environmental Study Report (ESR) will be prepared and made available for public review and comment.

PUBLIC CONSULTATION:

Public consultation is a vital component of the Class EA process. As such, the first of two Public Information Centres (PIC) is being held to receive your input, comments and/or concerns on the study. The PIC will have an open house format where information about the study, existing conditions and the preliminary alternative solutions will be displayed. Representatives from the Town of Caledon and the consulting team will be available to answer questions and discuss the details of the study.

WHEN AND WHERE:

Date: Wednesday, November 30, 2016

Time: 7:30 p.m. to 9:15 p.m.

Location: Inglewood Community Centre – 15825 McLaughlin Road, Inglewood, ON

COMMENTS INVITED:

If you would like to provide us with your comments, require additional information, or would like to be placed on the study mailing list to be notified about future public meetings, please contact:

Ian Todhunter, P.Eng.
Project Manager
Town of Caledon
6311 Old Church Road
Caledon, ON L7C 1J6
Tel: 905.584.2272 x.4065
Fax: 905.584.4325
E-mail: ian.todhunter@caledon.ca

Brian Ruck, P.Eng., CVS – Life
Consultant Project Manager
GHD Limited
65 Sunray Street
Whitby, ON L1N 8Y3
Tel: 905.429.4957
Fax: 905.432.7877
E-mail: brian.ruck@ghd.com

NOTICE OF APPLICATIONS

HAVE YOUR SAY

Proposed Plan of Subdivision and Zoning By-law Amendment

FILE NUMBER(S): 21T-16006 & RZ 16-11

The Plan of Subdivision proposal is for 353 residential dwelling units comprised of 206 detached dwellings, 40 semi-detached dwellings, 90 rear-laneway townhouse dwellings and 17 dualfrontage townhouse dwellings. In addition, the Plan of Subdivision proposes a 2.83 hectare (7.00 acre) public elementary school block, a 2.80 hectare (6.92 acre) separate elementary school block, a stormwater management facility block and various blocks for two (2) community parks, an environmental policy area channel and greenway corridors. The Zoning By-law amendment proposes to rezone the subject lands from Agricultural (A1) to Residential One with exceptions (R1-X) for the proposed detached dwellings, Residential Two with exceptions (R2-X) for the proposed semi-detached dwellings, Townhouse Residential with exceptions (RT-X) for the proposed rear-laneway and dual-frontage townhouse dwellings, as well as Institutional (I), Open Space (OS) and Environmental Policy Area 1 (EPA1) zones to permit the proposed elementary school sites, greenway corridors and environmental channel corridor.

COMMUNITY INVOLVEMENT:

The Town has received Plan of Subdivision and Zoning By-law Amendment applications for the property outlined below. This is your way to offer input and get involved.

APPLICANT AND LOCATION:

Applicant: Glen Schnarr & Associates Inc. on behalf of The Laurier Group

Location: 2412 and 2068 Mayfield Road
Part of Lot 18, Concession 2 W.H.S. (Chinguacousy)
West side of McLaughlin Road, North side of Mayfield Road, east of Chinguacousy Road

Ward 2

Visit **www.caledon.ca/development** to obtain a copy of the location map

Area: 40.69 Hectares (100.55 Acres)

QUESTIONS:

Contact Brandon Ward,
Senior Development Planner,
905.584.2272 x.4283 or
brandon.ward@caledon.ca

ADDITIONAL INFORMATION:

A copy of the proposed Draft Plan of Subdivision and Zoning By-law Amendment and additional information and material about the proposed applications will be available to the public at the Community Services, Planning and Development Department at Town Hall. Office hours are Monday to Friday from 8:30 a.m. to 4:30 p.m. Please visit the Town's website at **www.caledon.ca/development** or contact the Development Planner to obtain a copy of the location map.

APPEAL PROCEDURE:

If a person or public body does not make oral submissions at a public meeting or make written submissions to The Corporation of the Town of Caledon before the proposed Plan of Subdivision is approved or refused and/or the Zoning By-law Amendment is adopted, the person or public body is not entitled to appeal the decision of The Corporation of the Town of Caledon to the Ontario Municipal Board.

If a person or public body does not make oral submissions at a public meeting, or make written submissions to The Corporation of the Town of Caledon before the proposed Plan of Subdivision is approved or refused and/or the Zoning By-law Amendment is adopted, the person or public body may not be added as a party to the hearing of an appeal before the Ontario Municipal Board unless, in the opinion of the Board, there are reasonable grounds to do so.

HOW TO STAY INFORMED:

If you wish to stay informed of the project described above, you must make a written request to the Clerk of the Town of Caledon, 6311 Old Church Road, Caledon, Ontario, L7C 1J6.

ACCESSIBILITY:

If you require an accessibility accommodation to access any materials related to this item in an alternate format, please contact Legislative Services by phone at 905.584.2272 x.2366 or via email at accessibility@caledon.ca.

Notice Date: November 17, 2016

Fun things to do on

P.A. Day November 18

Caledon Centre for Recreation & Wellness

DAY CAMP
Age: 4 - 12 years
Class Length: 7 Hours
Start time 9 a.m.
Price $40.00
Code 48074
Extended care available

Mayfield Recreation Complex

SKATING
Parent & Child Skate 9:30 – 10:50 a.m.
Public Skate 11:30 a.m. – 12:50 p.m.

SWIMMING
Public Swim 10:15 – 11:15 a.m.
Public Swim 7:45 – 8:45 p.m.

Lloyd Wilson Centennial Arena

SKATING
Public Skate 10:30 – 11:50 a.m.

caledon.ca/camps

TOWN OF CALEDON

6311 Old Church Road
Caledon, ON L7C 1J6
www.caledon.ca
T. 905.584.2272 | 1.888.225.3366 | F. 905.584.4325

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PUBLIC INFORMATION CENTRE #1

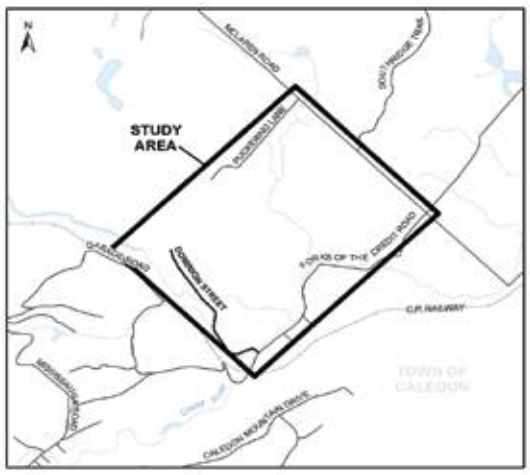
Class Environmental Assessments for Dominion Street

HAVE YOUR SAY

THE STUDY:

The Corporation of the Town of Caledon has initiated a Municipal Class Environmental Assessment (EA) and preliminary design, including an assessment of alternatives and long-term solutions for improving access to Dominion Street.

Within the Study Area, Dominion Street consists of a rural two-lane roadway and a single lane bridge providing sole access to residential dwellings located on Dominion Street. Features of the Study Area include the Dominion Street bridge and a section of the Credit River. The Study Area also encompasses a segment of the Forks of the Credit Provincial Park.



The study is being undertaken to investigate a number of potential alternative solutions focussed on the improvement of access to Dominion Street based on the current and future utilization of the Dominion Street bridge.

PROCESS:

The study will be conducted in accordance with the planning and design process for 'Schedule C' projects, as outlined in the Municipal Engineers Association "Municipal Class Environmental Assessment," (October 2000, as amended in 2015) and the Ministry of Natural Resources and Forestry (MNRF) Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), as approved under the Ontario Environmental Assessment Act. The Class EA process includes public/external agency consultation, an evaluation of alternative solutions and alternative design concepts, an assessment of potential impacts associated with proposed improvements and development of measures to mitigate identified impacts. Upon completion of the study, an Environmental Study Report (ESR) will be prepared and made available for public review and comment.

PUBLIC CONSULTATION:

Public consultation is a vital component of the Class EA process. As such, the first of two Public Information Centres (PIC) is being held to receive your input, comments and/or concerns on the study. The PIC will have an open house format where information about the study, existing conditions and the preliminary alternative solutions will be displayed. Representatives from the Town of Caledon and the consulting team will be available to answer questions and discuss the details of the study.

WHEN AND WHERE:

Date: Wednesday, November 30, 2016

Time: 7:30 p.m. to 9:15 p.m.

Location: Inglewood Community Centre – 15825 McLaughlin Road, Inglewood, ON

COMMENTS INVITED:

If you would like to provide us with your comments, require additional information, or would like to be placed on the study mailing list to be notified about future public meetings, please contact:

Ian Todhunter, P.Eng.
Project Manager
Town of Caledon
6311 Old Church Road
Caledon, ON L7C 1J6
Tel: 905.584.2272, x.4065
Fax: 905.584.4325
E-mail: ian.todhunter@caledon.ca

Brian Ruck, P.Eng., CVS – Life
Consultant Project Manager
GHD Limited
65 Sunray Street
Whitby, ON L1N 8Y3
Tel: 905.429.4957
Fax: 905.432.7877
E-mail: brian.ruck@ghd.com

NOTICE OF APPLICATIONS

Proposed Plan of Subdivision and Zoning By-law Amendment

HAVE YOUR SAY

FILE NUMBER(S): 21T-16006 & RZ 16-11

The Plan of Subdivision proposal is for 353 residential dwelling units comprised of 206 detached dwellings, 40 semi-detached dwellings, 90 rear-laneway townhouse dwellings and 17 dualfrontage townhouse dwellings. In addition, the Plan of Subdivision proposes a 2.83 hectare (7.00 acre) public elementary school block, a 2.80 hectare (6.92 acre) separate elementary school block, a stormwater management facility block and various blocks for two (2) community parks, an environmental policy area channel and greenway corridors. The Zoning By-law amendment proposes to rezone the subject lands from Agricultural (A1) to Residential One with exceptions (R1-X) for the proposed detached dwellings, Residential Two with exceptions (R2-X) for the proposed semi-detached dwellings, Townhouse Residential with exceptions (RT-X) for the proposed rear-laneway and dual-frontage townhouse dwellings, as well as Institutional (I), Open Space (OS) and Environmental Policy Area 1 (EPA1) zones to permit the proposed elementary school sites, greenway corridors and environmental channel corridor.

COMMUNITY INVOLVEMENT:

The Town has received Plan of Subdivision and Zoning By-law Amendment applications for the property outlined below. This is your way to offer input and get involved.

APPLICANT AND LOCATION:

Applicant: Glen Schnarr & Associates Inc. on behalf of The Laurier Group

Location: 2412 and 2068 Mayfield Road
Part of Lot 18, Concession 2 W.H.S. (Chinguacousy)
West side of McLaughlin Road, North side of Mayfield Road, east of Chinguacousy Road

Ward 2

Visit **www.caledon.ca/development** to obtain a copy of the location map

Area: 40.69 Hectares (100.55 Acres)

QUESTIONS:

Contact Brandon Ward,
Senior Development Planner,
905.584.2272 x.4283 or
brandon.ward@caledon.ca

ADDITIONAL INFORMATION:

A copy of the proposed Draft Plan of Subdivision and Zoning By-law Amendment and additional information and material about the proposed applications will be available to the public at the Community Services, Planning and Development Department at Town Hall. Office hours are Monday to Friday from 8:30 a.m. to 4:30 p.m. Please visit the Town's website at **www.caledon.ca/development** or contact the Development Planner to obtain a copy of the location map.

APPEAL PROCEDURE:

If a person or public body does not make oral submissions at a public meeting or make written submissions to The Corporation of the Town of Caledon before the proposed Plan of Subdivision is approved or refused and/or the Zoning By-law Amendment is adopted, the person or public body is not entitled to appeal the decision of The Corporation of the Town of Caledon to the Ontario Municipal Board.

If a person or public body does not make oral submissions at a public meeting, or make written submissions to The Corporation of the Town of Caledon before the proposed Plan of Subdivision is approved or refused and/or the Zoning By-law Amendment is adopted, the person or public body may not be added as a party to the hearing of an appeal before the Ontario Municipal Board unless, in the opinion of the Board, there are reasonable grounds to do so.

HOW TO STAY INFORMED:

If you wish to stay informed of the project described above, you must make a written request to the Clerk of the Town of Caledon, 6311 Old Church Road, Caledon, Ontario, L7C 1J6.

ACCESSIBILITY:

If you require an accessibility accommodation to access any materials related to this item in an alternate format, please contact Legislative Services by phone at 905.584.2272 x.2366 or via email at accessibility@caledon.ca.

Notice Date: November 17, 2016

TOWN OF CALEDON | News | Subscribe at caledon.ca/enews

Coffee with Council

Come out and join the Budget 2017 conversation with Mayor Thompson and members of Council.

Ward 1 - Saturday, November 19, 9 -11 a.m.
Lloyd Wilson Arena

Ward 2 - Friday, November 18, 5 - 7 p.m.
Mayfield Community Centre

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Caledon Centre for Recreation & Wellness

Tuesday, November 22, 10:30 a.m. -12:30 p.m.
Rotary Place Seniors Centre, 7 Rotarian Way, Bolton

BUDGET 2017

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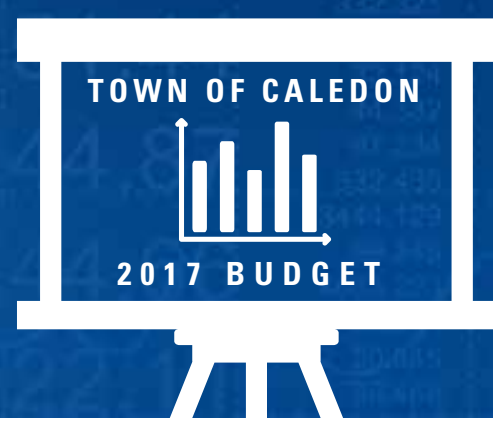
caledon.ca/budget



Fun things to do on

P.A. Day November 18

Caledon Centre for Recreation & Wellness

DAY CAMP
Age: 4 - 12 years
Class Length: 7 Hours
Start time 9 a.m.
Price $40.00
Code 48074

Extended care available

Mayfield Recreation Complex

SKATING
Parent & Child Skate 9:30 – 10:50 a.m.
Public Skate 11:30 a.m. – 12:50 p.m.

SWIMMING
Public Swim 10:15 – 11:15 a.m.
Public Swim 7:45 – 8:45 p.m.

Lloyd Wilson Centennial Arena

SKATING
Public Skate 10:30 – 11:50 a.m.

caledon.ca/camps

TOWN OF CALEDON
6311 Old Church Road
Caledon, ON L7C 1J6
www.caledon.ca
T. 905.584.2272 | 1.888.225.3366 | F. 905.584.4325

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NOTICE OF PUBLIC MEETING

Proposed Draft Plan of Subdivision, Official Plan Amendment & Zoning By-law Amendment

HAVE YOUR SAY

FILE NUMBER(S): 21T-13002C, POPA 13-05 & RZ 13-13

The Draft Plan of Subdivision proposes to create seven (7) residential lots with minimum frontages of 10.7 metres (35.1 feet) fronting onto a widened Jack Kenny Court. The subdivision will be serviced with municipal water and sanitary services. The related Official Plan Amendment proposes to redesignate a portion of the lands from Environmental Policy Area to Low Density Residential. The related Zoning By-law Amendment proposes to rezone the subject lands from Agircultural (A1) and Environmental Policy Area 1-Exception 405 (EPA1-405) to Residential One – Exception Zone (R1-X) to permit the development.

COMMUNITY INVOLVEMENT:

A Public Meeting will be held to consider a proposed Draft Plan of Subdivision, Official Plan Amendment and Zoning By-law Amendment. This is your way to offer input and get involved.

APPLICANT AND LOCATION:

Applicant: Paul King on behalf of 1361605 Ontario Limited, Peter Halmos and The Corporation of the Town of Caledon

Location: 13576 & 13584 Coleraine Drive, Bolton
Part Lot 8, Concession 5 and Part of Block 307 on Plan 43M-1324 (ALB) East side of Jack Kenny Court, south of Harvest Moon Drive

Ward 5

Visit www.caledon.ca/development to obtain a copy of the location map

Area: 0.34 Hectares (.84 Acres)

ADDITIONAL INFORMATION:

A copy of the proposed Draft Plan of Subdivision, Official Plan Amendment and Zoning By-law Amendment and additional information and material about the proposed applications will be available to the public prior to the meeting at the Development Approval and Planning Policy Department at Town Hall. Office hours are Monday to Friday from 8:30 a.m. to 4:30 p.m.

WHEN AND WHERE:

Wednesday, December 13, 2016
Info Session: 6:00 p.m.
Public Meeting: 7:00 p.m.

Council Chambers, Town Hall,
6311 Old Church Road,
Caledon East, L7C 1J6

QUESTIONS:

Contact Mary Nordstrom,
Senior Development Planner,
905.584.2272 x.4223 or
mary.nordstrom@caledon.ca

APPEAL PROCEDURE:

If a person or public body does not make oral submissions at a public meeting or make written submissions to The Corporation of the Town of Caledon before the proposed Plan of Subdivision is approved and the proposed Official Plan Amendment is adopted and the By-law is passed, the person or public body is not entitled to appeal the decision of The Corporation of the Town of Caledon to the Ontario Municipal Board.

If a person or public body does not make oral submissions at a public meeting, or make written submissions to The Corporation of the Town of Caledon before the proposed Plan of Subdivision is approved and the proposed Official Plan Amendment is adopted and the By-law is passed, the person or public body may not be added as a party to the hearing of an appeal before the Ontario Municipal Board unless, in the opinion of the Board, there are reasonable grounds to do so.

HOW TO STAY INFORMED:

If you wish to stay informed of the project described above, you must make a written request to the Clerk of the Town of Caledon, 6311 Old Church Road, Caledon, Ontario, L7C 1J6.

ACCESSIBILITY:

If you require an accessibility accommodation to attend or participate in this Public Meeting, or to access any materials related to this item in an alternate format please contact Legislative Services by phone at 905.584.2272 x.2366 or via email at accessibility@caledon.ca. Requests should be submitted at least 10 days before the Public Meeting.

Notice Date: November 24, 2016

NOTICE OF PUBLIC MEETING

Proposed Official Plan and Zoning By-law Amendments

HAVE YOUR SAY

FILE NUMBER(S): POPA 16-01 AND RZ 16-10

The Official Plan Amendment proposes a site-specific amendment to the Rural Area policies of the Official Plan to permit the use of the existing buildings on the property for a licensed medical marijuana production facility which will be subject to federal requirements under the Access to Cannabis for Medical Purposes Regulations. Similarly, the Zoning By-law Amendment proposes to re-zone the property from Rural (A2) to Rural with Exceptions (A2-X) to permit the proposed medical marijuana production facility.

COMMUNITY INVOLVEMENT:

A Public Meeting will be held to consider proposed Official Plan and Zoning By-law Amendments. This is your way to offer input and get involved.

APPLICANT AND LOCATION:

Applicant: Glen Schnarr & Associates Inc. on behalf of White Sova Holdings Inc.

Location: 20383 Hurontario Street
Part of Lot 25, Concession 1 E.H.S. East side of Hurontario Street, south of Highpoint Sideroad

Ward 1

Visit www.caledon.ca/development to obtain a copy of the location map

Area: 6.07 hectares (15.0 acres)

ADDITIONAL INFORMATION:

A copy of the proposed Official Plan and Zoning By-law Amendments and additional information and material about the proposed applications will be available to the public at the Community Services, Planning and Development Department counter at Town Hall. Office hours are Monday to Friday from 8:30 a.m. to 4:30 p.m.

WHEN AND WHERE:

Wednesday, December 13, 2016
Info Session: 6:00 p.m.
Public Meeting: 7:00 p.m.

Council Chambers, Town Hall,
6311 Old Church Road,
Caledon East, L7C 1J6

QUESTIONS:

Contact Brandon Ward,
Senior Devlopment Planner,
905.584.2272 x.4283 or
brandon.ward@caledon.ca

Please visit the Town's website at **www.caledon.ca/development** or contact the Development Planner to obtain a copy of the location map.

APPEAL PROCEDURE:

If a person or public body does not make oral submissions at a public meeting or make written submissions to The Corporation of the Town of Caledon before the proposed Official Plan Amendment is adopted and the By-law is passed, the person or public body is not entitled to appeal the decision of The Corporation of the Town of Caledon to the Ontario Municipal Board.

If a person or public body does not make oral submissions at a public meeting, or make written submissions to The Corporation of the Town of Caledon before the proposed Official Plan Amendment is adopted and the By-law is passed, the person or public body may not be added as a party to the hearing of an appeal before the Ontario Municipal Board unless, in the opinion of the Board, there are reasonable grounds to do so.

HOW TO STAY INFORMED:

If you wish to stay informed of the project described above, you must make a written request to the Clerk of the Town of Caledon, 6311 Old Church Road, Caledon, Ontario, L7C 1J6.

ACCESSIBILITY:

If you require an accessibility accommodation to attend or participate in this Public Meeting, or to access any materials related to this item in an alternate format please contact Legislative Services by phone at 905.584.2272 x.2366 or via email at accessibility@caledon.ca. Requests should be submitted at least 10 days before the Public Meeting.

Notice Date: November 23, 2016

NOTICE OF APPLICATIONS

Proposed Plan of Subdivision and Zoning By-law Amendment

FILE NUMBER(S): 21T-16006 & RZ 16-11

The Plan of Subdivision proposal is for 353 residential dwelling units comprised of 206 detached dwellings, 40 semi-detached dwellings, 90 rear-laneway townhouse dwellings and 17 dualfrontage townhouse dwellings. In addition, the Plan of Subdivision proposes a 2.83 hectare (7.00 acre) public elementary school block, a 2.80 hectare (6.92 acre) separate elementary school block, a stormwater management facility block and various blocks for two (2) community parks, an environmental policy area channel and greenway corridors. The Zoning By-law amendment proposes to rezone the subject lands from Agricultural (A1) to Residential One with exceptions (R1-X) for the proposed detached dwellings, Residential Two with exceptions (R2-X) for the proposed semi-detached dwellings, Townhouse Residential with exceptions (RT-X) for the proposed rear-laneway and dual-frontage townhouse dwellings, as well as Institutional (I), Open Space (OS) and Environmental Policy Area 1 (EPA1) zones to permit the proposed elementary school sites, greenway corridors and environmental channel corridor.

COMMUNITY INVOLVEMENT:

The Town has received Plan of Subdivision and Zoning By-law Amendment applications for the property outlined below. This is your way to offer input and get involved.

APPLICANT AND LOCATION:

Applicant: Glen Schnarr & Associates Inc.
on behalf of The Laurier Group

Location: 2412 and 2068 Mayfield Road
Part of Lot 18, Concession 2 W.H.S. (Chinguacousy)
West side of McLaughlin Road, North side of Mayfield Road, east of Chinguacousy Road

Ward 2

Visit www.caledon.ca/development to obtain a copy of the location map

Area: 40.69 Hectares (100.55 Acres)

QUESTIONS:

Contact Brandon Ward,
Senior Development Planner,
905.584.2272 x.4283 or
brandon.ward@caledon.ca

ADDITIONAL INFORMATION:

A copy of the proposed Draft Plan of Subdivision and Zoning By-law Amendment and additional information and material about the proposed applications will be available to the public at the Community Services, Planning and Development Department at Town Hall. Office hours are Monday to Friday from 8:30 a.m. to 4:30 p.m.

Please visit the Town's website at **www.caledon.ca/development** or contact the Development Planner to obtain a copy of the location map.

APPEAL PROCEDURE:

If a person or public body does not make oral submissions at a public meeting or make written submissions to The Corporation of the Town of Caledon before the proposed Plan of Subdivision is approved or refused and/or the Zoning By-law Amendment is adopted, the person or public body is not entitled to appeal the decision of The Corporation of the Town of Caledon to the Ontario Municipal Board.

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Notice Date: November 17, 2016

TOWN OF CALEDON

6311 Old Church Road
Caledon, ON L7C 1J6
www.caledon.ca
T. 905.584.2272 | 1.888.225.3366 | F. 905.584.4325

Size: 1/2 Vertical
Color: No
Date:
Distribution: Brampton Guardian
Account#: Communications

Run X1

Alex Pereira

From: Alex Pereira
Sent: Thursday, November 17, 2016 12:04 PM
Cc: Brian Ruck; 'Ian Todhunter'
Subject: Dominion Street Schedule 'C' Class Environmental Assessment
Attachments: Dominion Street Class EA_Town of Caledon_Notice of PIC 1.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

CompleteRepository: 011116800
Description: CLASS EA FOR DOMINION STREET
JobNo: 11168
OperatingCentre: 01
RepoEmail: 011116800@ghd.com
RepoType: Proposal
SubJob: 00

Good afternoon,

On behalf of the Corporation of the Town of Caledon, please find attached **Notice of Public Information Centre #1** for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

By way of this notification, we would like to invite you to attend the first Public Information Centre for this undertaking. To this end, your assistance in ensuring this email is circulated to the appropriate personnel within your agency is greatly appreciated.

Date: **Wednesday, November 30, 2016**
Time: **7:30 p.m. to 9:15 p.m.**
Location: **Inglewood Community Centre – 15825 McLaughlin Road, Inglewood, ON**

If your agency has any comments or requires additional information regarding this study, please contact the undersigned.

Kind Regards,

Alex Pereira

On behalf of
Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | www.ghd.com

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

Alex Pereira, BES
Environmental Planner

GHD
T: +1 905 429 4952 | F: +1 905 432 7877 | V: 884952 | E: Alex.Pereira@ghd.com
65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

Alex Pereira

From: Alex Pereira
Sent: Thursday, November 17, 2016 12:08 PM
To: 'Fawn.Sault@newcreditfirstnation.com'
Cc: Brian Ruck; 'Ian Todhunter'
Subject: Dominion Street Schedule 'C' Class Environmental Assessment
Attachments: Dominion Street Class EA_Town of Caledon_Notice of PIC 1.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

CompleteRepository: 011116800
Description: CLASS EA FOR DOMINION STREET
JobNo: 11168
OperatingCentre: 01
RepoEmail: 011116800@ghd.com
RepoType: Proposal
SubJob: 00

Good afternoon Ms. Sault,

On behalf of the Corporation of the Town of Caledon, please find attached **Notice of Public Information Centre #1** for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

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65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

Alex Pereira

From: Alex Pereira
Sent: Thursday, November 17, 2016 12:07 PM
Cc: Brian Ruck; 'Ian Todhunter'
Subject: Dominion Street Schedule 'C' Class Environmental Assessment
Attachments: Dominion Street Class EA_Town of Caledon_Notice of PIC 1.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

CompleteRepository: 011116800
Description: CLASS EA FOR DOMINION STREET
JobNo: 11168
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Appendix B
Public Information Centre Display Panels

WELCOME

DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
PUBLIC INFORMATION CENTRE #1

INGLEWOOD COMMUNITY CENTRE
NOVEMBER 30, 2016

THE CORPORATION OF THE TOWN OF CALEDON

TOWN OF CALEDON

GHD

PURPOSE OF THE PUBLIC INFORMATION CENTRE

Welcome to the first Public Information Centre for the Dominion Street Class Environmental Assessment.

Please sign-in using the forms provided so we may add you to our contact database for future consultation events.

Feel free to walk around and view the display boards.

Project team members are available to answer your questions and address your comments.

The purpose of this Public Information Centre (PIC) is to:

1. Introduce the Proposed Undertaking

2. Describe the Class Environmental Assessment processes

3. Solicit feedback and comments on the Proposed Undertaking

4. Provide information on the existing environmental conditions of the Site

5. Present Alternative Solutions

6. Meet the Project Team and ask questions

TOWN OF CALEDON

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N
Puckering Lane
McLaren Road
Forks of the Credit
Provincial Park
Forks of the Credit
Road
CP Railway
Dominion Street
TOWN OF CALEDON
SITE CONTEXT
GHD

CLASS ENVIRONMENTAL ASSESSMENT PROCESSES

MUNICIPAL ENGINEERS ASSOCIATION (MEA) CLASS EA PROCESS

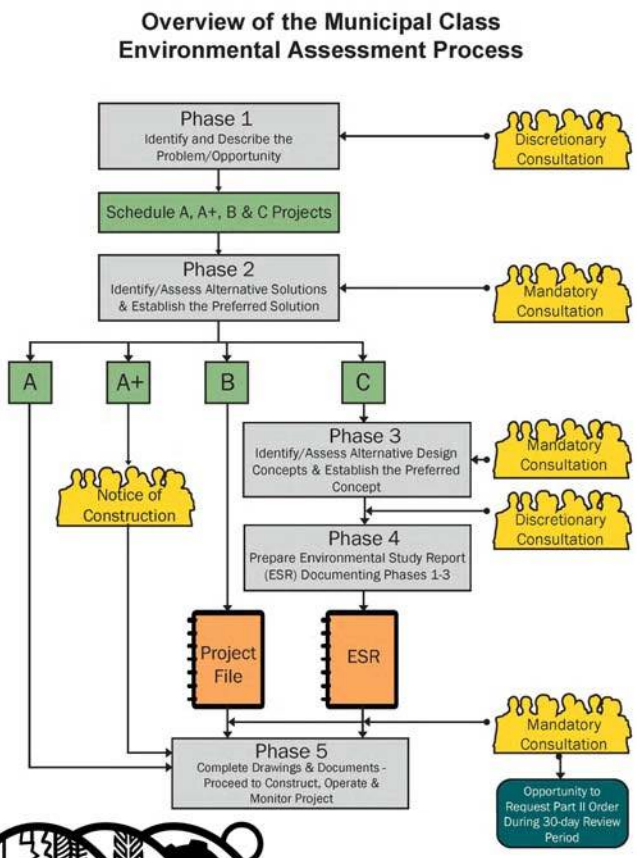
Schedule 'C' Process

Projects included under this classification have the potential for significant environmental effects and must proceed under the full planning and documentation procedures specified in the MEA Class EA document (i.e., Phases I to IV). An Environmental Study Report (ESR) must be prepared and submitted for review by the public and relevant agencies for these undertakings. If there are no outstanding concerns, the municipality may proceed to Phase V for implementation.

MINISTRY OF NATURAL RESOURCES AND FORESTRY (MNRF) PUBLIC PARKS & CONSERVATION RESERVES (PPCR) CLASS EA PROCESS

Category 'C' Process

Potential for high net negative effects and concerns of interested parties. Requires detailed information and analysis, and a comprehensive external review process. Project classified as a Category C undertaking require the completion of an ESR.



TOWN OF CALEDON

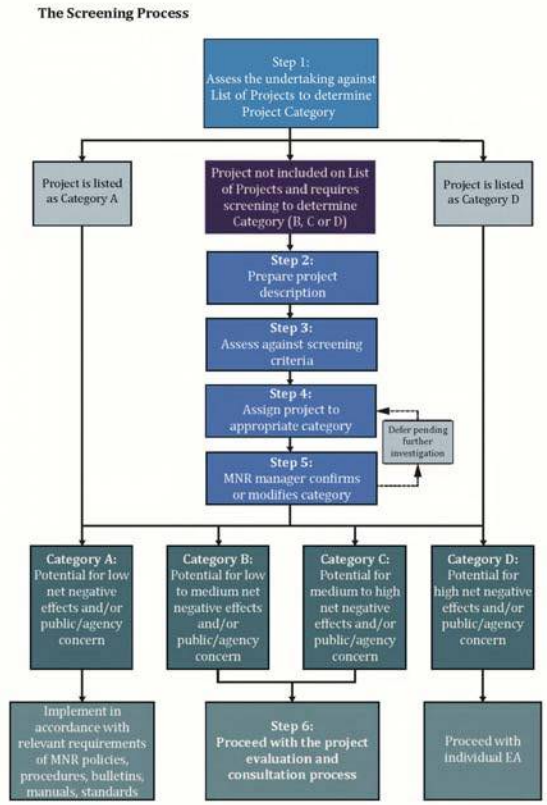
CONSIDERATION FOR BOTH CLASS EA PROCESSES

The Dominion Street undertaking requires the consideration of both the MEA Class EA and MNRF PPCR Class EA Process.

The MNRF PPCR Class EA process is triggered due to the potential impacts to the Forks of the Credit Provincial Park. It is applied to the potential alternative solutions that would require easements through the Forks of the Credit Provincial Park.

Given consideration for both Class EA processes, GHD has prepared a Harmonized Class EA process which equally considers and satisfies both Class EA processes simultaneously.

However, upon finalization of the Alternative Solutions Evaluation and confirmation of the preferred Alternative Solution, it may be determined that the undertaking no longer requires the completion of the MNRF PPCR Class EA process and the MEA Class EA process will proceed.



GHD

HARMONIZED CLASS EA PROCESS

MEA CLASS EA + MNRF PPCR CLASS EA

The Harmonized Class EA process consists of the following five milestones, which incorporate various phases and steps of both the MEA Class EA and MNRF PPCR Class EA processes.

Milestone 1 Municipal Class EA Phase I + MNRF PPCR Steps 1 & 2

Milestone 2 Municipal Class EA Phase II + MNRF PPCR Step 3

Milestone 3 Municipal Class EA Phase III + MNRF PPCR Step 4

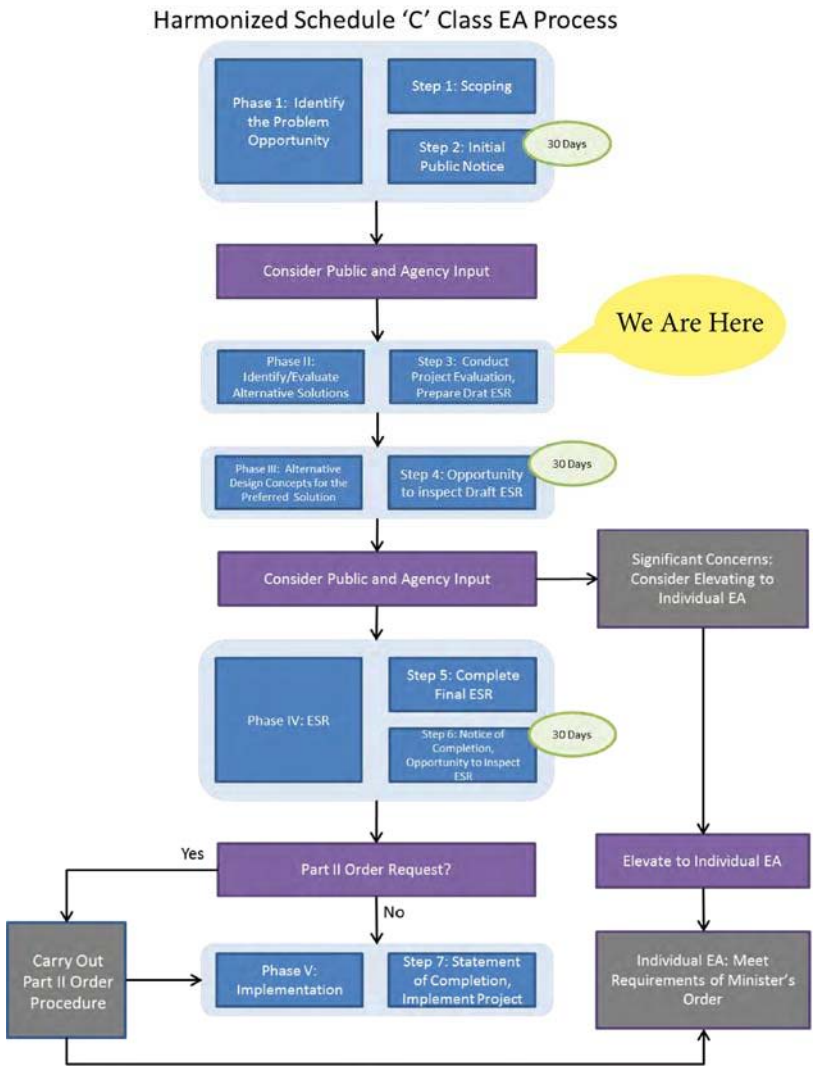
Milestone 4 Municipal Class EA Phase IV + MNRF PPCR Steps 5 & 6

Milestone 5 Municipal Class EA Phase V + MNRF PPCR Step 7

Intent of the Dominion Street Class EA Study

Te purpose of this Harmonized Class EA is three-fold:

1. To identify and evaluate the levels of risk associated with the river bank and road embankment along Dominion Street.
2. To identify a preferred long-term treatment strategy for existing Dominion Street and the Dominion Street Bridge.
3. To identify and evaluate the potential for additional access/service roads connecting to Dominion Street.



TOWN OF CALEDON

GHD

CURRENT ISSUES AND CONSTRAINTS

Access

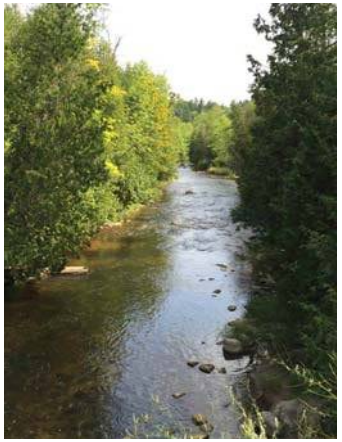
- Dominion Street and the bridge are a point-source egress and provide access to 14 private residential dwellings.
- Reliability of road access will be a focal point of the study.

Structural Integrity of the Dominion Street Bridge

- The existing bridge does not fully span the Credit River
- Flow of the river is constricted resulting in an increase in flow velocity and scour potential at the bridge abutments and road embankment
- Maintaining the structural integrity of the Dominion Street Bridge Crossing will be a key component of this EA study.

Road Instability

- Dominion Street is currently experiencing road slippage in areas where the road embankment is closest to the river.



Cultural Heritage

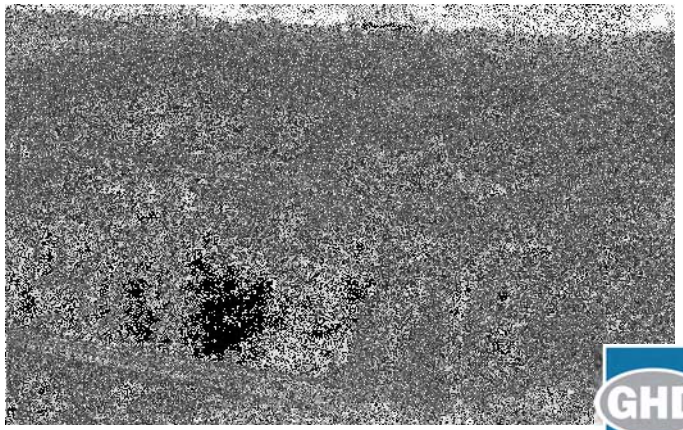
- Built in 1935, the existing bridge has been identified by the Town as being of "heritage interest".
- The bridge is located on a scenic road within the Belfountain & the Credit Gorge Cultural Heritage Landscape, and is a vital component of the Bruce Trail.
- Any required rehabilitation work must be sensitive to the bridge's heritage characteristics.

Embankment Protection

- Measures to reduce embankment toe erosion may prevent further road slippage of existing Dominion Street.
- The river banks of the Credit River are lined with mature vegetation, considered valuable for environmental and aesthetic purposes.
- Traditional erosion protection measures could involve extensive impacts to this vegetation, alternative methods will be considered.

Forks of the Credit Provincial Park and the Credit River

- The Forks of the Credit Provincial Park and the Credit River are unique features within the Study Area.
- Possible Alternative Solutions would call for additional access to Dominion Street through the Forks of the Credit Provincial Park.



Species at Risk

- The Study Area is known for having potential for the presence of Redside Dace, a species currently listed as "Special Concern" under the Species at Risk Act, and listed as "Endangered" under the Endangered Species Act.

TOWN OF CALEDON

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PROBLEM AND OPPORTUNITY STATEMENT

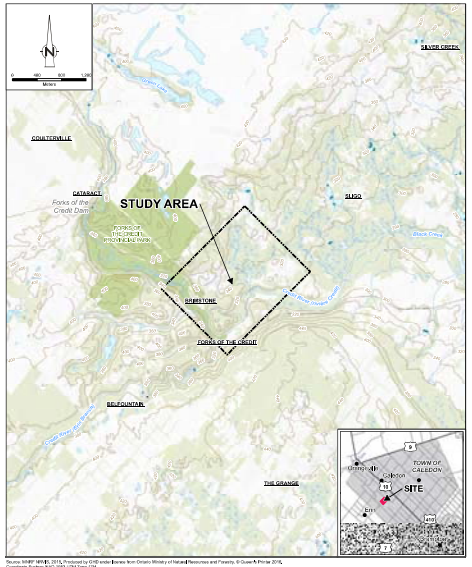
PROBLEM

Maintaining the structural integrity of Dominion Street and the Dominion Street Bridge is essential to providing access to 14 individual residential dwellings located on Dominion Street. The Dominion Street bridge also provides access for emergency and town services. The current condition of the Dominion Street Bridge warrants either significant rehabilitation or replacement. Erosion is evident around the bridge abutments and must be addressed as part of the study. Traditional erosion measures have the potential to threaten existing mature vegetation residing on the embankment. The Dominion Street Bridge is a vital cultural heritage component as well as a key link of the Bruce Trail Conservancy, which must be sustained in order to provide safe pedestrian passage in addition to safe vehicle access while respecting cultural heritage value. The solution to this problem must be financially viable given the limited number of local residents serviced by Dominion Street and the Dominion Street bridge.

OPPORTUNITY

Accordingly, an opportunity exists to remediate the identified issues surrounding the deficiencies associated with existing Dominion Street and the Bridge. Access will be improved upon the completion of identified works. The potential rehabilitation provides an opportunity for the enhancement and safety of the Bruce Trail located within the Study Area along Dominion Street. Cultural heritage resources have the potential to be maintained and rehabilitated for future long-term use.

PRELIMINARY STUDY AREA



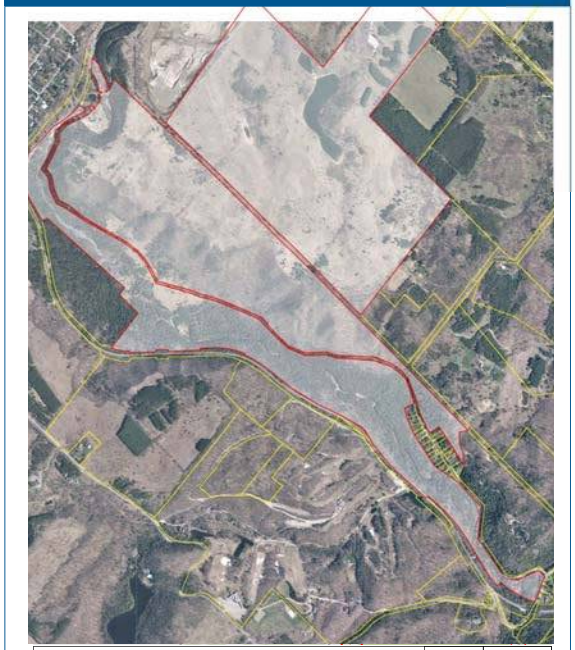
THE CORPORATION OF THE TOWN OF CALEDON
DOMINION STREET SCHEDULE 'C' CLASS EA
NATURAL ENVIRONMENT EXISTING CONDITIONS REPORT

11115800-10
Aug 11, 2016

SITE LOCATION MAP

FIGURE 2.1

FORKS OF THE CREDIT PROVINCIAL PARK



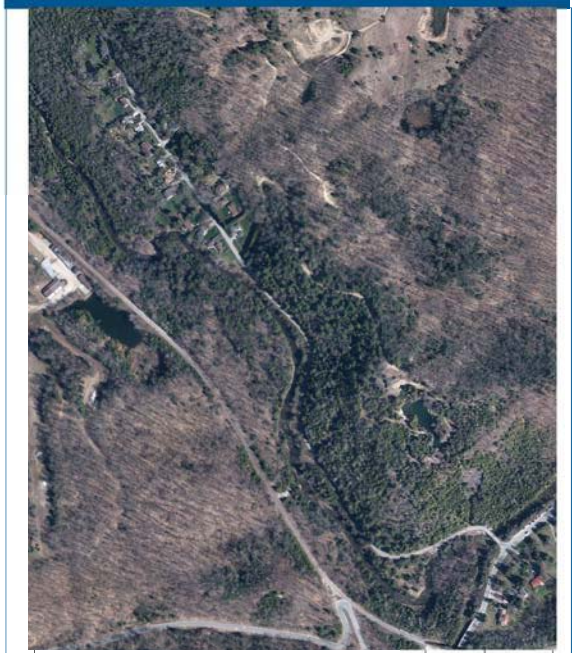
Legend

Forks of the Credit Provincial Park (potentially impacted)

N

Dominion Street Class Environmnetal Assessment
The Corporation of the Town of Caledon

DOMINION STREET



Dominion Street Aerial Ortho

N

Dominion Street Class Environmnetal Assessment
The Corporation of the Town of Caledon

ALTERNATIVE SOLUTIONS

ALTERNATIVE 1
DO NOTHING

Description

Rehabilitation or replacement works will not be undertaken. No measures to improve the condition of the bridge and road will be considered; therefore the bridge and road would remain in its present condition. Identified issues and problems will remain unresolved and current conditions of the bridge and road would continue to deteriorate. If no rehabilitation work is undertaken, the road and bridge would no longer be able to accommodate heavier vehicles and would eventually have to be closed.

The "Do Nothing" alternative is used as a benchmark for the evaluation of additional alternatives.

ALTERNATIVE 2
RE-ALIGN DOMINION STREET

Description

Alternative 2 would involve moving the road farther from the river in the areas of instability. However, a large hill is located on the east side of the road, which makes this solution very difficult given the significant environmental impacts, topography, and terrain. Realignment would require significant mature vegetation removal and significant roadway cuts. Three variations to Alternative 2 have been generated:

Alternative 2A - Re-alignment via Puckering Lane

Alternative 2B – Re-alignment via Forks of the Credit Road

Alternative 2C – Re-alignment via Forks of the Credit Provincial Park Parking Lot

Preliminary configurations for Alternatives 2A, 2B & 2C are discussed in the following "Preliminary Alternative Solution Configurations" boards.

ALTERNATIVE 3
REHABILITATE EXISTING DOMINION STREET AND BRIDGE

Description

This alternative would undertake bank and embankment stabilization works required to safeguard against potential hazards to the public and Town assets. This would involve the rehabilitation of Dominion Street and the Dominion Street Bridge, where a single point access would remain. Two variations to Alternative 3 have been generated:

Alternative 3A – Existing Bridge and Road Rehabilitation

Alternative 3B – New Bridge and Road Rehabilitation

Preliminary configurations for Alternatives 3A & 3B are discussed in the following "Preliminary Alternative Solution Configurations" boards.

TOWN OF CALEDON

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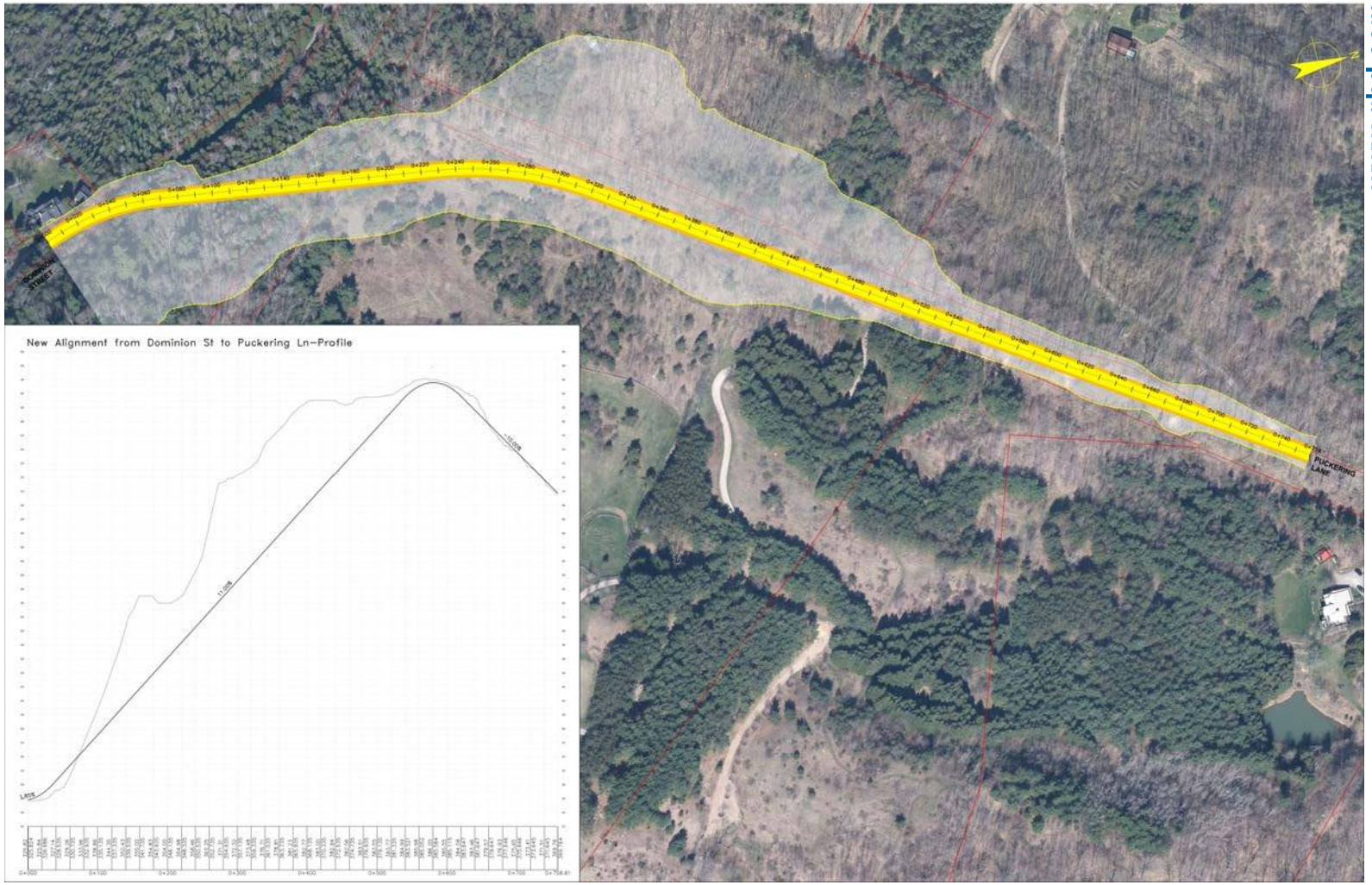
PRELIMINARY ALTERNATIVE 2 SOLUTION CONFIGURATIONS

ALTERNATIVE 2A RE-ALIGNMENT via PUCKERING LANE



TOWN OF CALEDON
SCHEDULE 'C' CLASS EA FOR DOMINION STREET

SCALE 1:1000 AT ORIGINAL SIZE

date: OCTOBER 2016
job no: 111168000
drawing: 002

NEW ALIGNMENT - ALTERNATIVE 2A

www.ghd.com

ALTERNATIVE 2A
RE-ALIGNMENT via PUCKERING LANE

Description

Alternative 2A would require the connection of Dominion Street to Puckering Lane. The connection of west-end Puckering Lane and north-end Dominion Street would require an 11 percent grade given the significant change in elevation.

Area of Potential Impact

The estimated surface area potentially impacted from the preliminary configuration of Alternative 2A is approx. **48,000 m²**

Additional Road

An approximate 750 metres of additional road would be required to facilitate Alternative 2B.

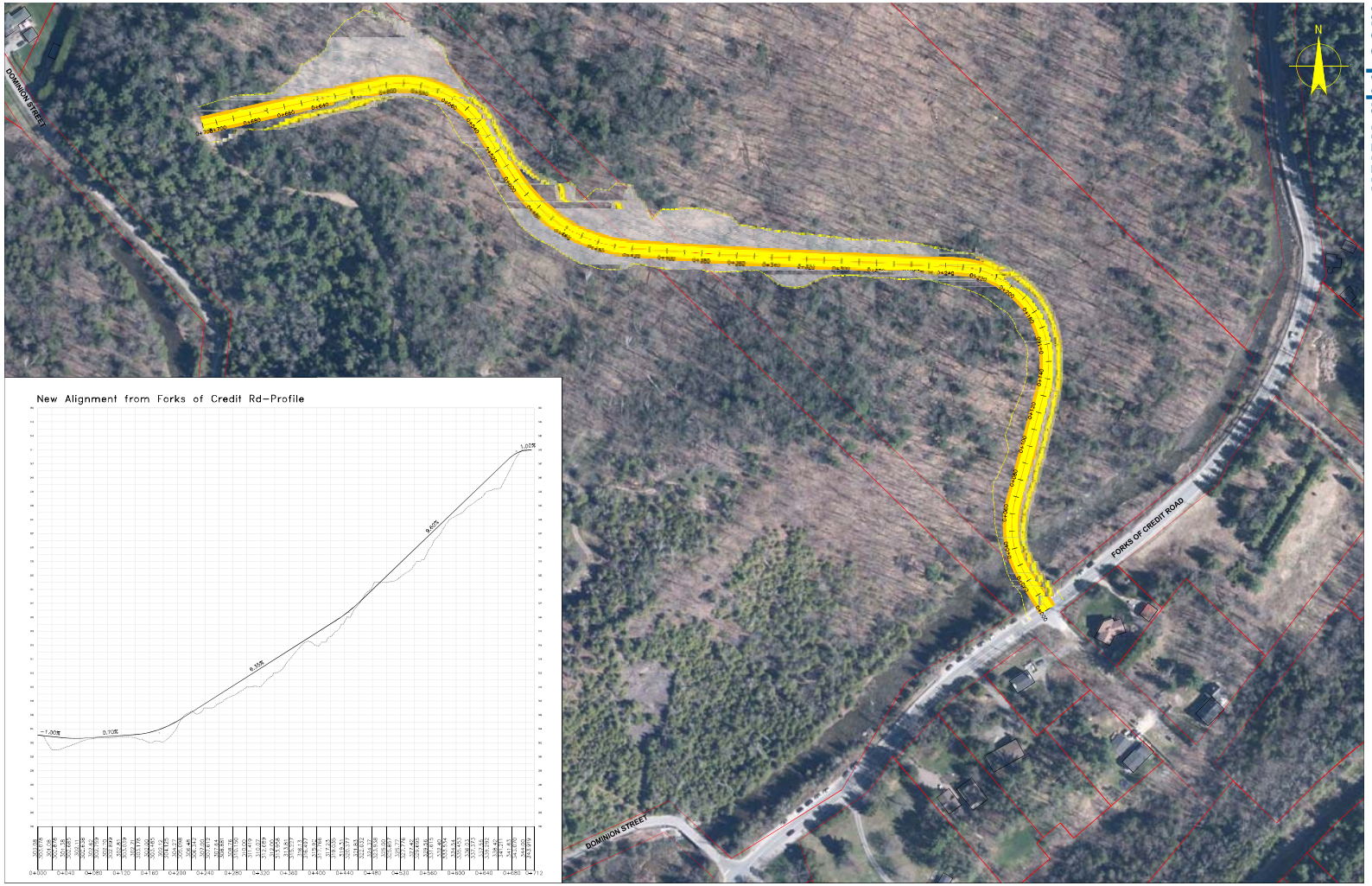
Costing

Estimated costs for implementation of Alternative 2A: $5,000,000 - $6,000,000

TOWN OF CALEDON

PRELIMINARY ALTERNATIVE 2 SOLUTION CONFIGURATIONS con't

ALTERNATIVE 2B RE-ALIGNMENT via FORKS OF THE CREDIT ROAD



TOWN OF CALEDON
SCHEDULE 'C' CLASS EA FOR DOMINION STREET

SCALE 1:1000 AT ORIGINAL SIZE

date: OCTOBER 2016
job no: 111168000
drawing: 001

NEW ALIGNMENT - ALTERNATIVE 2B

www.ghd.com

ALTERNATIVE 2B
RE-ALIGNMENT via FORKS OF THE CREDIT ROAD

Description

Alternative 2B ivolves an alternative connection approximately 240 metres east of the current Forks of the Credit/Dominion Street intersection to connect to the existing laneway located approximately 240 m north of the existing intersection. This new connection would not affect any of the lands of the Forks of the Credit Provincial Park. A road grade falling within the 11 percent maximum appears to be feasible. A new bridge would be required to cross the Credit River.

Area of Potential Impact

The estimated surface area potentially impacted from the preliminary configuration of Alternative 2B is approx. **18,700 m²**

Additional Road

An approximate 700 metres of additional road would be required to facilitate Alternative 2B.

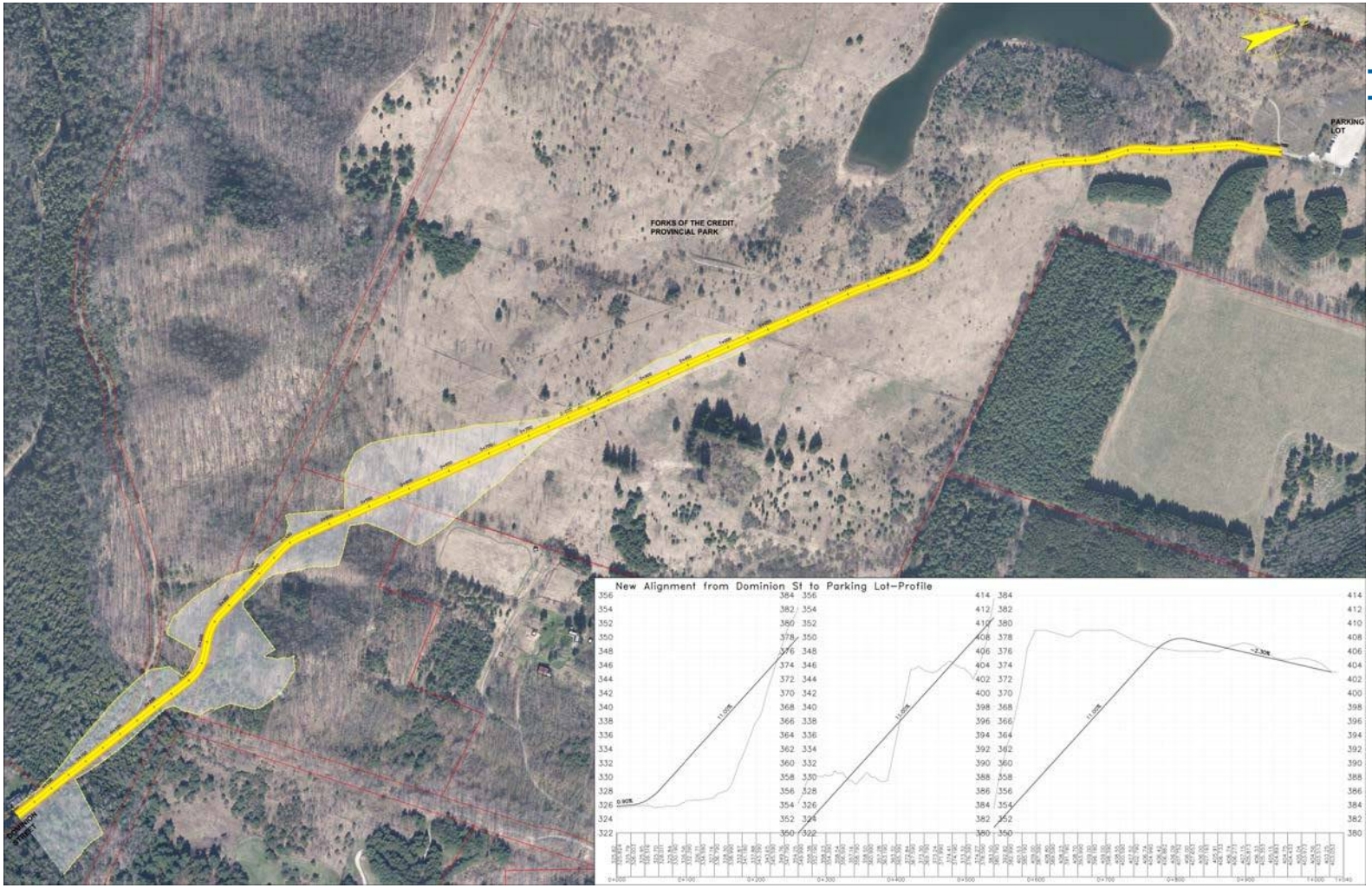
Costing

Estimated costs for implementation of Alternative 2B: $2,000,000 - $3,000,000

TOWN OF CALEDON

PRELIMINARY ALTERNATIVE 2 SOLUTION CONFIGURATIONS con't

ALTERNATIVE 2C RE-ALIGNMENT via FORKS OF THE CREDIT PROVINCIAL PARK PARKING LOT



TOWN OF CALEDON
SCHEDULE 'C' CLASS EA FOR DOMINION STREET

SCALE 1:2000 AT ORIGINAL SIZE

date: OCTOBER 2016
job no: 111168000
drawing: 003

NEW ALIGNMRNT - ALTERNATIVE 2C

www.ghd.com

ALTERNATIVE 2C
RE-ALIGNMENT via FORKS OF THE CREDIT PROVINCIAL PARK PARKING LOT

Description

Alternative 2C involves the northern extension of Dominion Street following the alignment of the existing Bruce Trail, connecting to the Forks of the Credit Provincial Park parking lot. The connection would require significant cuts in excess of 20m for grade of 11 percent, maximum for a low volume rural roadway.

Area of Potential Impact

The estimated surface area potentially impacted from the preliminary configuration of Alterntaive 2C is approx. **59,000 m²**

Additional Road

An approximate 1700 metres of additional road would be required to facilitate Alterntaive 2C.

Costing

Estimated costs for implementation of Alternative 2C: $6,000,000 - $8,000,000

TOWN OF CALEDON

PRELIMINARY ALTERNATIVE 3 SOLUTION

ALTERNATIVE 3 REHABILITATE EXISTING DOMINION STREET AND BRIDGE

ALTERNATIVE 3A EXISTING BRIDGE AND ROAD REHABILITATION

Alternative 3A would involve bridge and road rehabilitation which would address some of the scour issues at the existing crossing.

Costing

Bridge Rehabilitation: $450,000 - $600,000

ALTERNATIVE 3B NEW BRIDGE AND ROAD REHABILITATION

Alternative 3B involving a new bridge would likely be located just east of the existing bridge at a more narrow point of the river. Building the bridge off-line would allow existing bridge to remain in service while the new one is built, thereby allowing full time access during construction.

Costing

Bridge Replacement: $1,400,000 - $1,800,000

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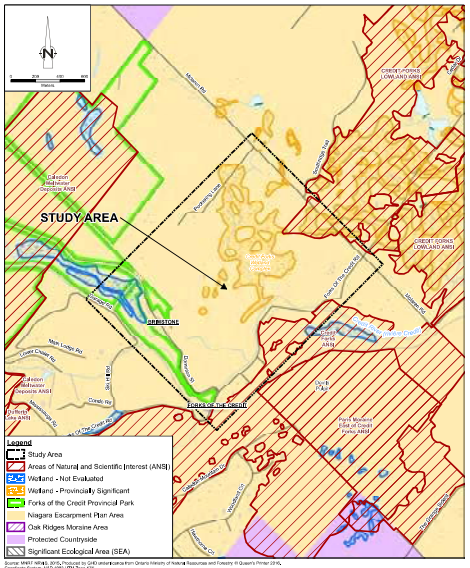
EXISTING CONDITIONS: NATURAL ENVIRONMENT

SIGNIFICANT NATURAL AREAS



THE CORPORATION OF THE TOWN OF CALEDON
DOMINION STREET SCHEDULE 'C' CLASS EA
NATURAL ENVIRONMENT EXISTING CONDITIONS REPORT

11116800-40
Aug 12, 2016

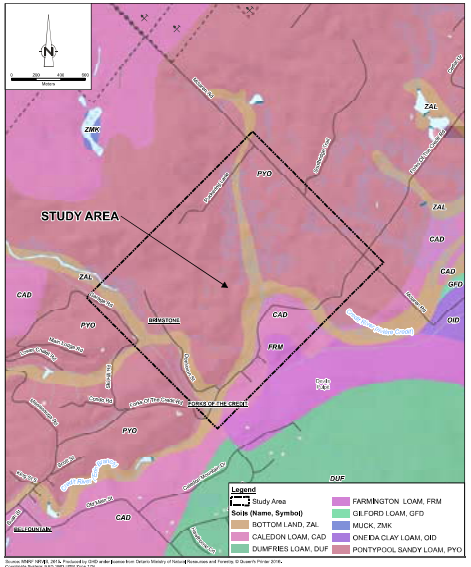
SIGNIFICANT NATURAL FEATURES — FIGURE 4.2

DESCRIPTION

- There are several significant natural features within and adjacent to the Study Area.
- Unevaluated wetlands are present in the northwestern portion and the southern portion of the Study Area.
- A provincially significant wetland complex (Credit Forks Wetland Complex) is present to the east.
- Two ANSIs are located within the Study Area; the Credit Forks ANSI and the Credit Forks Lowland ANSI.

TOWN OF CALEDON

TERRESTRIAL ENVIRONMENT



THE CORPORATION OF THE TOWN OF CALEDON
DOMINION STREET SCHEDULE 'C' CLASS EA
NATURAL ENVIRONMENT EXISTING CONDITIONS REPORT

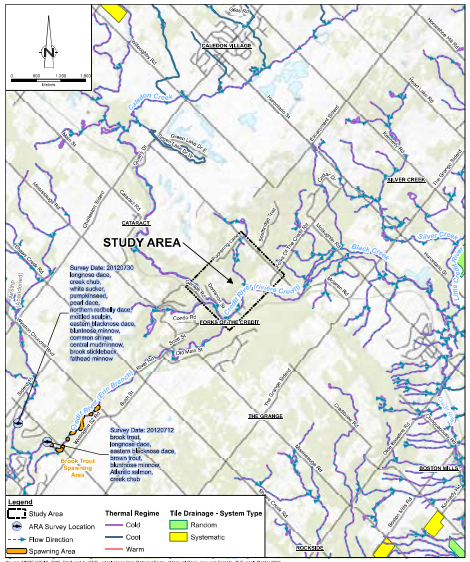
11116800-40
Aug 11, 2016

SOIL TYPE — FIGURE 4.1

DESCRIPTION

- Ecological communities include coniferous forest, coniferous plantation, mixed plantation, deciduous forest, mixed forest, mixed swamp, and cultural meadow.
- Tree species present include eastern white cedar, sugar maple, american basswood, American beech, white ash, eastern hemlock, white birch, European buckthorn, speckled alder, red-osier dogwood, black cherry and eastern white pine.

AQUATIC ENVIRONMENT



THE CORPORATION OF THE TOWN OF CALEDON
DOMINION STREET SCHEDULE 'C' CLASS EA
NATURAL ENVIRONMENT EXISTING CONDITIONS REPORT

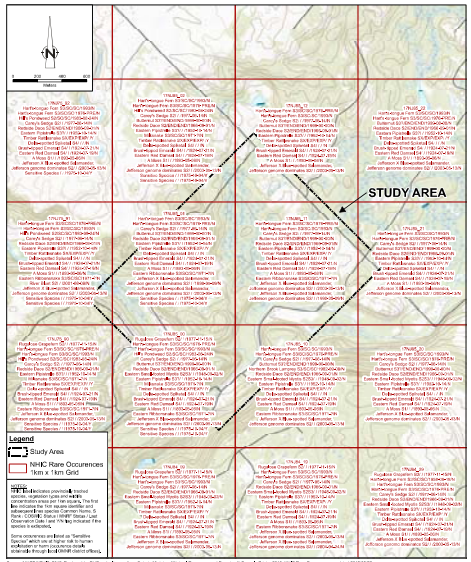
11116800-40
Aug 11, 2016

AQUATIC FEATURES — FIGURE 4.3

DESCRIPTION

- The Credit River is the primary aquatic feature within the Study Area.
- Several small 1-3 order tributaries of the Credit River also run roughly north-south within the Study Area east of Dominion Street.
- The Study Area encompasses two subwatersheds of the Credit River Watershed.

PROVINCIALLY TRACKED SPECIES



THE CORPORATION OF THE TOWN OF CALEDON
DOMINION STREET SCHEDULE 'C' CLASS EA
NATURAL ENVIRONMENT EXISTING CONDITIONS REPORT

11116800-40
Aug 11, 2016

PROVINCIALLY TRACKED SPECIES — FIGURE 4.4

DESCRIPTION

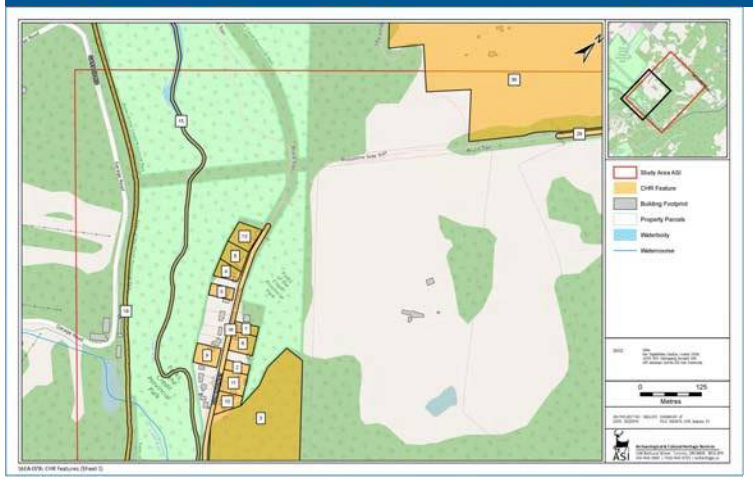
The Ministry of Natural Resources and Forestry have identified several Species at Risk as having a known presence within or adjacent to the Study Area:

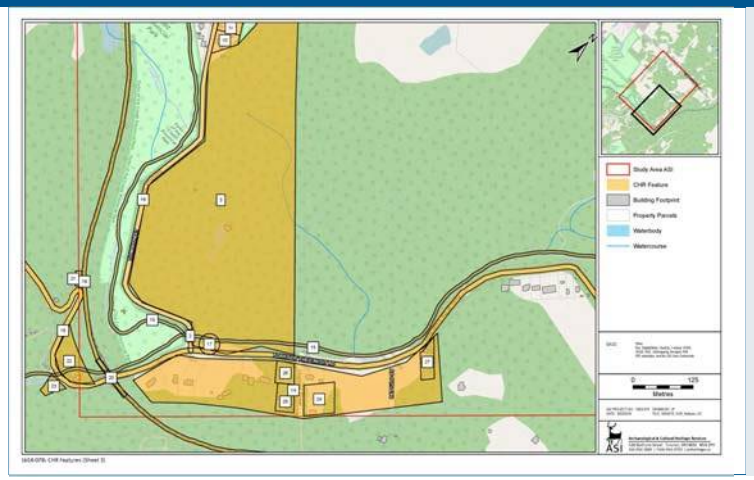
- Butternut
- Redside Dace
- Jefferson Salamander
- Chimney Swift
- Canada Warbler
- Little Brown Myotis
- Northern Myotis
- Tri-coloured Bat
- American Eel

EXISTING CONDITIONS: ARCHAEOLOGY & CULTURAL HERITAGE

TOWN OF CALEDON

CULTURAL HERITAGE RESOURCES ADJACENT TO DOMINION STREET





DESCRIPTION

The results of background historic research and a review of secondary source material, including historic mapping, revealed a study area with Indigenous history dating back thousands of years, and rural/quarry land use history dating back to the nineteenth century. Since the early twentieth century, the area has become a popular recreational destination. The results of preliminary data collection indicate that there are 30 cultural heritage resources within or adjacent to the study area, 19 of which were previously identified as having heritage interest on the Town's Built Heritage Resource Inventory.

AREAS OF ARCHAEOLOGICAL POTENTIAL

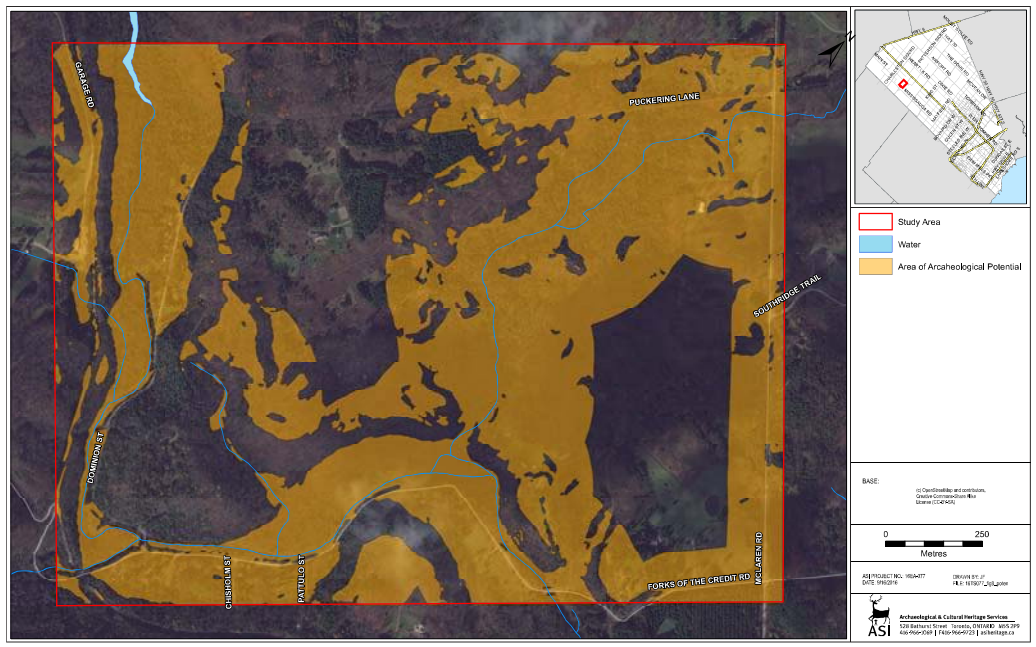
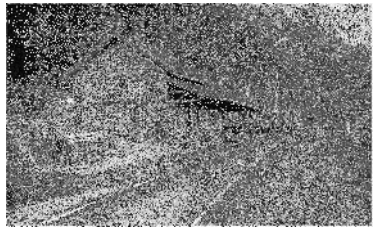


Figure 6: Dominion Street Study Area - Archaeological Potential Model



DESCRIPTION

The study area meets the following criteria which are indicative of archaeological potential:

- Proximity to Euro-Canadian settlements (farmsteads; early industry; villages of Belfountain; Cataract; Brimstone);
- Proximity to historic transportation routes (Credit Valley Railway; Dominion Street; Forks of the Credit
- Road, McLaren Road, Puckering Lane);
- Proximity to previously registered archaeological sites
- Proximity to water sources (Credit River);
- Well-drained sandy soils (Caledon and Pontypool sandyloams); and,
- Distinct land formations (Oak Ridges Moraine; Niagara Escarpment).

Archaeological potential within the Study Area is also dependent on the degree of of disturbance and physical features of the Study Area.

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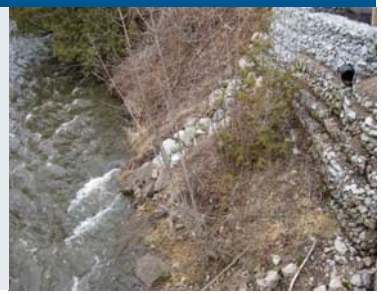
EXISTING CONDITIONS: FLUVIAL GEOMORPHOLOGY

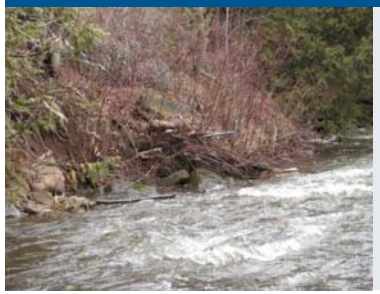
SLOPE INSTABILITTY



DESCRIPTION

Erosion and slumping was observed at the toe of slope along the northwest quadrant at the Dominion Road bridge. Removal of fines from the toe of slope by the watercourse has resulted in slope instability which is threatening the abutments and roadway.

GABION BASKETS



DESCRIPTION

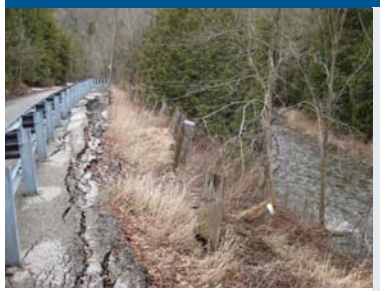
A previous slump is evident were gabion baskets have slid down the slope. The toe of slope appears to be stable due to the presence of dense shrubs. New erosion is evident just upstream of the slumped area at the left side of the photograph.

SLUMPING OF THE EMBANKMENT

DESCRIPTION

There was evidence of slumping immediately upstream of the bridge on Dominion Road. The slump likely occurred due to removal of toe of slope material by the watercourse. The toes of slope appeared relatively stable suggesting that material removed by the watercourse has been steadily replaced by slumping of the embankment.

ROAD SLIPPAGE



DESCRIPTION

Road slippage where the watercourse runs close to the road. Any alternative where the road remains in place will require careful integration of geotechnical, geomorphic and aquatic habitat considerations.

BANK PROTECTION

DESCRIPTION

A significant portion of the watercourse banks adjacent to areas of road slippage appear to be stable due to the presence of bedrock, large stone and mature vegetation. In these areas the road slippage is likely driven by slope instability that is not caused by creek processes. It may be possible to limit any bank protection works to a few areas where there is no existing natural toe protection.

TOE EROSION

DESCRIPTION

Evidence of toe erosion was observed at several locations where the road was close to the watercourse. The watercourse position appeared to be stable suggesting that the removal of fine bank material was replaced by the slumping banks which in turn resulted in the road slippage.

TOWN OF CALEDON

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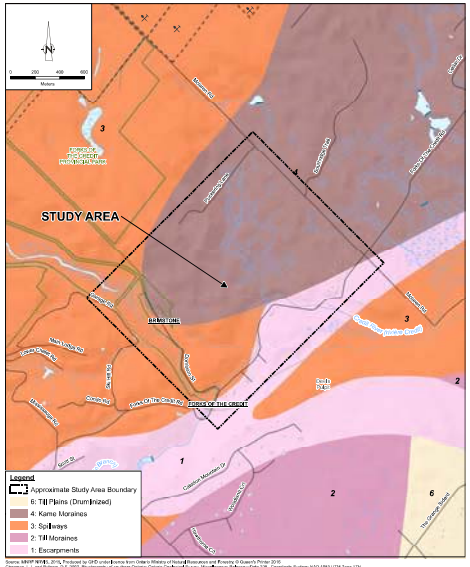
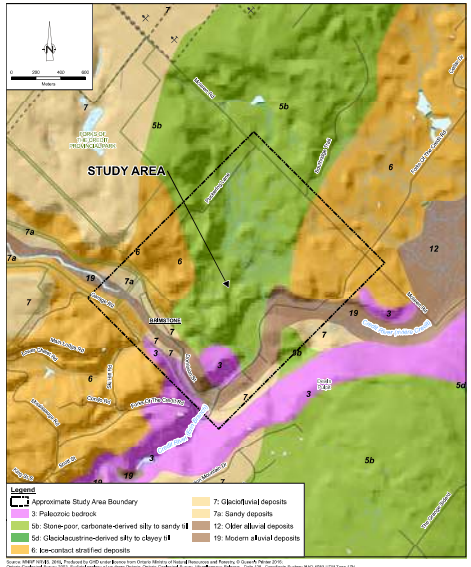
EXISTING CONDITIONS: GEOTECHNICAL & HYDROGEOLOGICAL

PHYSIOGRAPHY

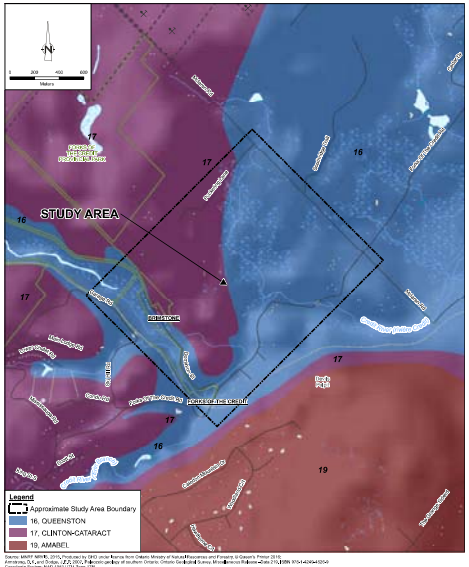


TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS
PHYSIOGRAPHY
FIGURE 4.2
1111680-90
Sep 23, 2016

SURFICIAL AND BEDROCK GEOLOGY

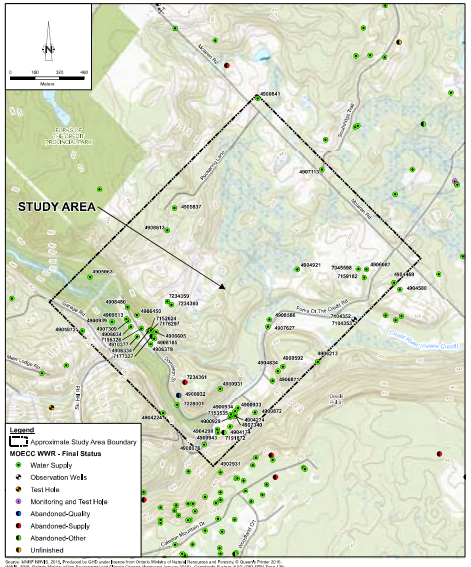


TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS
SURFICIAL GEOLOGY
FIGURE 4.3
1111680-90
Sep 23, 2016



TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS
BEDROCK GEOLOGY
FIGURE 4.4
1111680-90
Sep 23, 2016

MOECC WATER WELL RECORDS



TOWN OF CALEDON
DOMINION STREET CLASS ENVIRONMENTAL ASSESSMENT
HYDROGEOLOGICAL EXISTING CONDITIONS
MOECC WATER WELL RECORDS
FIGURE 4.5
1111680-90
Sep 23, 2016

DESCRIPTION

The Credit River valley within the Study Area is primarily within the Niagara Escarpment physiographic region, which is characterized by a glacial spillway and the escarpment.

The Credit River is incised into the escarpment at an elevation of approximately 310 mAMSL (Above Mean Sea Level). The escarpment rises approximately 100 metres to an elevation of 410 mAMSL.

TOWN OF CALEDON

DESCRIPTION

Regional surficial geology mapping of the area indicates that the Credit River valley is underlain by glaciofluvial deposits, sandy deposit, modern alluvial deposits and bedrock.

Overburden underlying the Credit River Valley generally ranges from less than about 1 m in thickness to more than 30 metres thick and is described as a deposit of sand and gravel of varying thickness overlying shale bedrock. Outcrops of red shale of the Queenston Formation are found within the Credit River Valley atthe Forks of the Credit.

The surficial geology and general stratigraphic framework within the valley consists of the following deposits:

- Modern alluvial deposits – clay, silt, sand gravel
- Glaciofluvial deposits; sand, gravel
- Queenston Formation (bedrock) – Shale.

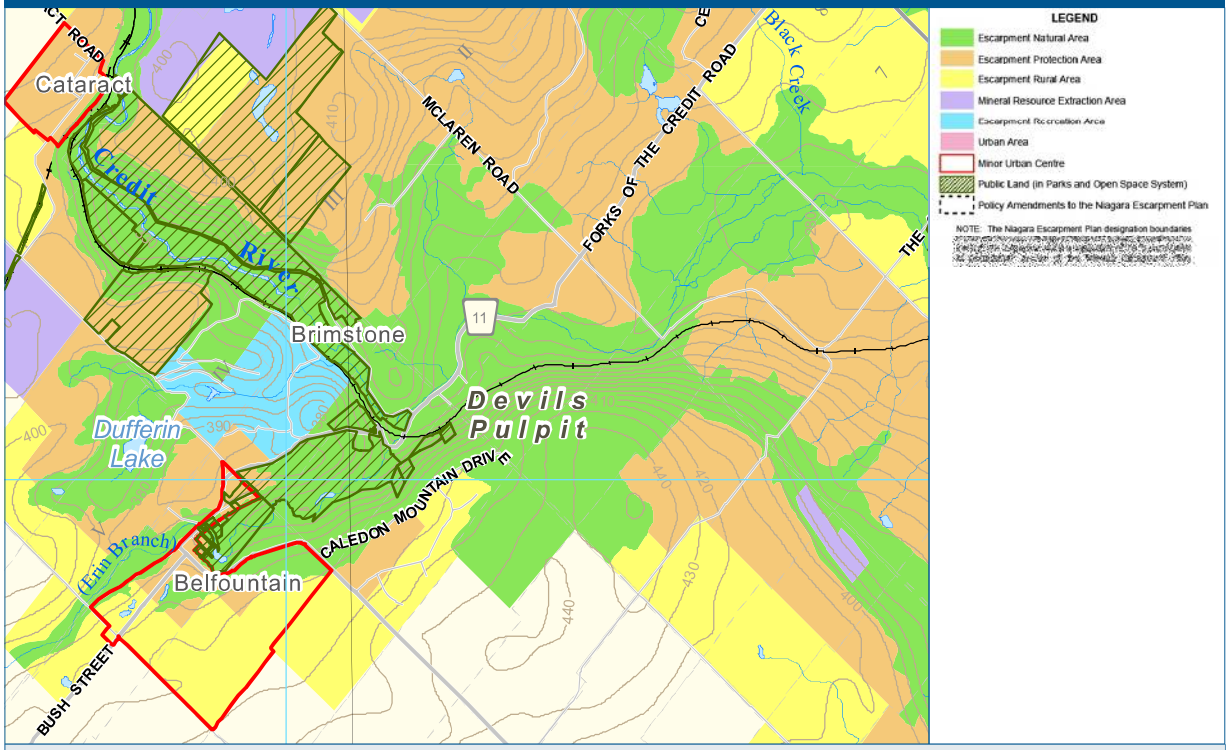
DESCRIPTION

Review of the water well record information indicates that the majority of records in this area along Dominion Street and the Forks of the Credit Road near the bridge are for drilled wells (4 to 6-inch) which are completed in both the overburden and bedrock. Out of 30 selected well records 10 wells are completed in the overburden and 20 are completed in shale bedrock. All of the wells are used for domestic purposes.

EXISTING CONDITIONS: LAND USE & SOCIAL ENVIRONMENT

TOWN OF CALEDON

NIAGARA ESCARPMENT PLAN DESIGNATIONS



ESCARPMENT NATURAL AREA DESIGNATION

In accordance with the Niagra Escarpment Plan, Dominion Street holds an Escarpment Natural Area designation and is defined as, *"Escarpment features which are in a relatively natural state and associated stream valleys, wetlands and forests which are relatively undisturbed are included within this designation. These contain important plant and animal habitats and geological features and cultural heritage features and area the most significant natural and scenic areas of the escarpment. The policy aims to maintain these natural areas."*

Objectives under the Escarpment Natural Area designation are as follows:

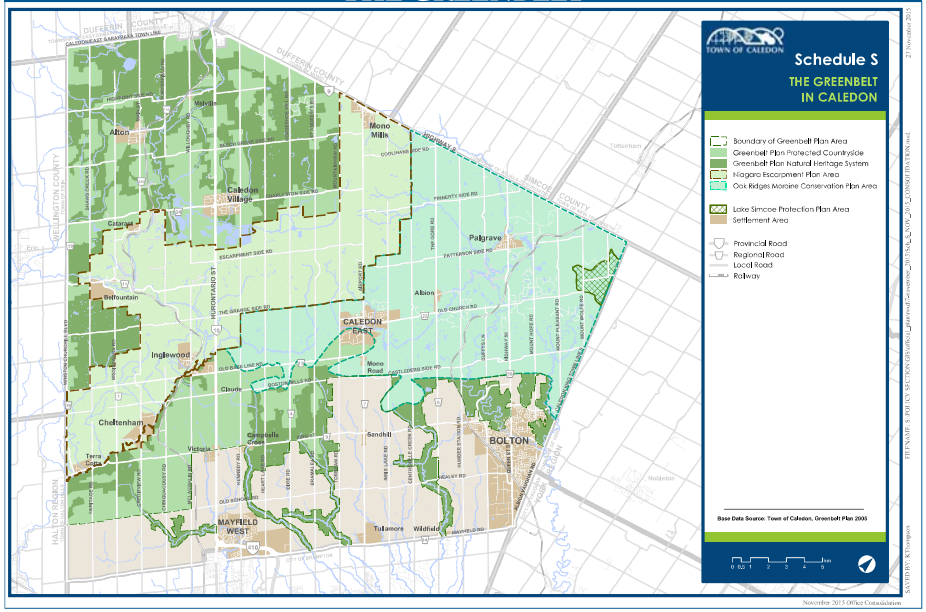
1. To maintain the most natural Escarpment features, stream valleys, wetlands and related significant natural areas and associated cultural heritage features.

2. To encourage compatible recreation, conservation and education activities.

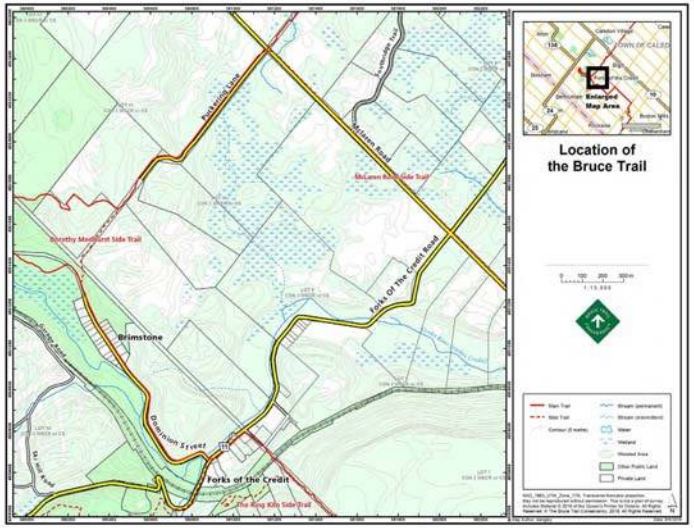
3. To maintain and enhance the landscape quality of the Escarpment features.

Potential impacts to this designation will be further explored in the ESR based on preliminary design concepts of the preferred alternative.

TOWN OF CALEDON OFFICIAL PLAN - SCHEDULE 'S' "THE GREENBELT"



THE BRUCE TRAIL



ALTERNATIVE SOLUTION COMPARATIVE EVALUATION

Areas of Consideration	Dominion Street Alterntaive Solutions					
	Alternative 1 Do Nothing	**Alternative 2 Re-align Dominion Street**			**Alternative 3 Rehabilitate Existing Dominion Street and Bridge**	
		Alternative 2A Re-alignment via Puckering Lane	Alternative 2B Re-alignment via Forks of the Credit Road	Alternative 2C Re-alignment via Forks of the Credit Provincial Park Parking Lot	Alternative 3A Existing Bridge and Road Rehabilitation	Alternative 3B New Bridge and Road Rehabilitation
1. TECHNICAL ASSESSMENT GROUP						
Group 1 Ranking	4th	Tied 5th	3rd	Tied 5th	2nd	1st
2. NATURAL ENVIRONMENT ASSESSMENT GROUP						
Group 2 Ranking	Tied 1st	Tied 3rd	Tied 3rd	4th	Tied 1st	2nd
3. CULTURAL HERITAGE, BUILT & SOCIAL ENVIRONMENT ASSESSMENT GROUP						
Group 3 Ranking	Tied 1st	4th	3rd	5th	Tied 1st	2nd
4. LAND USE & NIAGARA ESCARPMENT PLAN ASSESSMENT GROUP						
Group 4 Ranking	2nd	Tied 4th	Tied 4th	Tied 4th	1st	3rd
5. FINANCIAL ASSESSMENT GROUP						
Group 5 Ranking	Tied 2nd	Tied 4th	3rd	Tied 4th	1st	Tied 2nd
Overall Ranking of Alternative Solutions	**2nd**	**5th**	**4th**	**6th**	**1st** (RECOMMENDED)	**3rd**

RANKING METHODAOLOGY

The recommended Alternative Solution was based on its relative advantages and disadvantages compared to other alternatives considered. With this in mind, the six Alternative Solutions were ranked according to their advantages and disadvantages, as identified in the Alternatives Solution Evaluation Table. **A draft copy of the detailed Alternative Solutions Evaluation Table is available for review at the resource table.*

TOWN OF CALEDON

GHD

CONSULTATION

- Consultation events are your opportunity to get involved and to let us know of your opinion and ideas regarding the proposed undertaking at Dominion Street

- Consultation forms an intergral component of the Class EA process and we would appreciate your input regarding the proposed undertaking

- If you have any comments or concerns and would like to voice your opinion at this time please complete a **Comment Form** or feel free to speak to one of our Project Team members. We would appreciate you feedback by **December 16, 2016**

- Please plan to attend an additional Public Information Centre for the Dominion Street Class EA in the late Winter/ early Spring 2017. These boards will be made available on the Town's website: www.caledon.ca

NEXT STEPS

- Detailed Environmental Field Investigations

- Confirm Alternative Solution Design Concepts and Evaluation

- Identification of the Preferred Alternative Solution

- Alternative Designs for the Preferred Solution

- Public Information Centre #2 to be held in the late Winter/ early Spring 2017

- Completion of the Environmental Study Report (ESR)

- Submission of ESR for public review

- 30 % Detailed Design Submission

Over the next number of weeks we will review the feedback received from the public, agencies, Aboroginal groups and continue working on the development of the Environmental Study Report for the Dominion Street Class Environmental Assessment

Thank you for your participation and we look forward to future conversations

TOWN OF CALEDON

GHD

Appendix C
PIC #1 Comments Received

TOWN OF CALEDON

Public Information Centre: November 30, 2016
Dominion Street Class Environmental Assessment

Things I Didn't Get a Chance to Say ...

Please provide any questions or comments you may have regarding the proposed project or any other information presented at the Public Information Centre

Name: [redacted]

Address: _____ **Telephone:** _____

E-mail Address: [redacted]

☐ Please add me to the contact list to receive updates on this project.

How you heard about the Public Information Centre?

☐ Postal Advertisement ☐ Ad in local newspaper ☐ Social Media ☐ Town Website

☐ Other: _____

Request digital copies of:

- draft summary report
- Class EA 2007, 2011, 2015
- alternative solutions comparative evaluation

(see reverse side)

TOWN OF CALEDON

Please provide any comments no later than **Friday, December 16, 2016** to one of the following contacts:

Ian Todhunter, P.Eng.
Project Manger
Town of Caledon
6311 Old Church Road
Caledon, ON L7C 1J6
Tel: 905.584.2272 x.4065
Fax: 905.584.4325
E-mail: ian.todhunter@caledon.ca

Brain Ruck, P.Eng., CVS- Life
Consultant Project Manger
GHD Limited
65 Sunray Street
Whitby, ON L1N 8Y3
Tel: 905.429.4957
Fax: 905.432.7877
E-mail: brain.ruck@ghd.com

Thank you for your comments

TOWN OF CALEDON

Public Information Centre: November 30, 2016
Dominion Street Class Environmental Assessment

Things I Didn't Get a Chance to Say ...

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Name: [redacted]

Address: [redacted] **Telephone:** [redacted]

E-mail Address: [redacted]

☑ Please add me to the contact list to receive updates on this project.

How you heard about the Public Information Centre?

☑ Postal Advertisement ☐ Ad in local newspaper ☐ Social Media ☐ Town Website

☐ Other: _____

- KEEP THE ORIGINAL ROAD & KEEP IT AS NATURAL AS POSSIBLE
- RESTRICT TRAFFIC TO LOCAL TRAFFIC ONLY - CARS ARE STILL BLOCKING THE ACCESS GATE TO THE PROVINCIAL PARK AT THE NORTH END OF DOMINION ST.

(see reverse side)

TOWN OF CALEDON

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Thank you for your comments

TOWN OF CALEDON

Public Information Centre: November 30, 2016
Dominion Street Class Environmental Assessment

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E-mail Address: [redacted]

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How you heard about the Public Information Centre?

☐ Postal Advertisement ☐ Ad in local newspaper ☐ Social Media ☐ Town Website

☐ Other: _____

- use open-sides on the bridge - not concrete abutments

put up local traffic only sign

(see reverse side)

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Dominion Street Class Environmental Assessment

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E-mail Address: [redacted]

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How you heard about the Public Information Centre?

☐ Postal Advertisement ☐ Ad in local newspaper ☐ Social Media ☐ Town Website

☐ Other: MAIL

(1) I agree with fixing existing bridge
(2) I would rank new bridge to the east #2
(3) Doing nothing does not make sense.

thanks [redacted]

(see reverse side)

TOWN OF CALEDON

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Whitby, ON L1N 8Y3
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Thank you for your comments

TOWN OF CALEDON

Public Information Centre: November 30, 2016
Dominion Street Class Environmental Assessment

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Name: [redacted]

Address: [redacted] **Telephone:** [redacted]

E-mail Address: _____

☒ Please add me to the contact list to receive updates on this project.

How you heard about the Public Information Centre?

☒ Postal Advertisement ☐ Ad in local newspaper ☐ Social Media ☐ Town Website

☐ Other: _____

Would like it left as natural as possible
no more cement walls —

(see reverse side)

TOWN OF CALEDON

Please provide any comments no later than **Friday, December 16, 2016** to one of the following contacts:

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Thank you for your comments

TOWN OF CALEDON

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Dominion Street Class Environmental Assessment

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Name: [redacted]

Address: [redacted] **Telephone:** [redacted]

E-mail Address: [redacted]

☐ Please add me to the contact list to receive updates on this project.

How you heard about the Public Information Centre?

☐ Postal Advertisement ☐ Ad in local newspaper ☐ Social Media ☐ Town Website

☐ Other: _____

- please keep the current "style" of bridge, not solid sides like two recently repaired on The Forks
- add an enforced Local Traffic Only sign.

(see reverse side)

TOWN OF CALEDON

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Ian Todhunter, P.Eng.
Project Manger
Town of Caledon
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Fax: 905.432.7877
E-mail: brain.ruck@ghd.com

Thank you for your comments

TOWN OF CALEDON

Public Information Centre: November 30, 2016
Dominion Street Class Environmental Assessment

Things I Didn't Get a Chance to Say ...

Please provide any questions or comments you may have regarding the proposed project or any other information presented at the Public Information Centre

Name: [redacted]

Address: [redacted] **Telephone:** _____

E-mail Address: [redacted]

☑ Please add me to the contact list to receive updates on this project.

How you heard about the Public Information Centre?

☐ Postal Advertisement ☐ Ad in local newspaper ☐ Social Media ☐ Town Website

☐ Other: _____

Please keep metal guardrails or any type of railing or shutters (sp?) to a minimum. Walkers + cyclists need to be able to jump out of the way.

Thx!

(see reverse side)

TOWN OF CALEDON

Please provide any comments no later than **Friday, December 16, 2016** to one of the following contacts:

Ian Todhunter, P.Eng.
Project Manger
Town of Caledon
6311 Old Church Road
Caledon, ON L7C 1J6
Tel: 905.584.2272 x.4065
Fax: 905.584.4325
E-mail: ian.todhunter@caledon.ca

Brain Ruck, P.Eng., CVS- Life
Consultant Project Manger
GHD Limited
65 Sunray Street
Whitby, ON L1N 8Y3
Tel: 905.429.4957
Fax: 905.432.7877
E-mail: brain.ruck@ghd.com

Thank you for your comments

Alex Pereira

From: [redacted]
Sent: Thursday, December 01, 2016 6:10 PM
To: ian.todhunter@caledon.ca; Brian Ruck
Cc: doug.beffort@caledon.ca
Subject: Dominion Street Class Environmental Assessment - Comments

Dear Ian and Brian,

Thank you for an informative evening yesterday and the opportunity to review and comment on the work done so far. Outlined below is a consolidated list of my own thoughts on the study and conversations with neighbours and community members during and after the session:

1. **With regard to the Problem Statement:**
   - The statement focuses on the deteriorating condition of the bridge, whereas Dominion St. residents see the condition of the road as the more imminent problem and the one with greater impact on day-to-day safety. Whereas the bridge is of vital importance for access, the approach to the bridge has good visibility and the road width reduction is manageable.
     It is the areas where the road has slumped and created reduction in laneway width that presents a safety hazard due to the curves in the road and lack of visibility. Dominion Str. residents are accustomed to approaching these areas cautiously, however vehicles not familiar with the road (and even garbage trucks) often drive too fast to be able to anticipate and react to the road reduction and oncoming traffic. The road reconstruction should be of equal, if not greater, priority as the bridge reconstruction and this should be reflected in the problem statement and resulting solutions.

- The problem statement reads: " ... the solution must be financially viable given the limited number of local residents services by Dominion street". Consideration should be given to the cultural value of the bridge and the area. Aside from being linked with the Bruce Trail, Forks of the Credit Park, the Niagara Escarpment which is a UNESCO heritage feature, the Dominion bridge and street are among the top iconic landscapes in the Town of Caledon. This is Caledon's face to the GTA, the region and the country. The area is a huge tourist attraction and the street experienced foot traffic in the hundreds in the summer and fall. Visiting the Credit Forks in fall is a family tradition for many Ontarians. We feel that the street has invaluable cultural and tourism cachet for Caledon. Therefore the investment in its infrastructure goes well beyond the 14 resident families. The cultural and heritage values of the area should inform any budget decisions.

2. **Alternative 2:** We are all relieved that the options to extend Puckering Lane and Chisholm Street are deemed to be non-starters. As you have heard from everyone attending, there are serious concerns with any roads proposed to be routed over the escarpment:
   - the potential destruction of the natural environment and fragmentation of forest,
   - the safety of residents having to negotiate a steep grade road in winter
   - access for fire, ambulance and other services both in terms of the extended distance to nearest stations and in terms of the grade
   - erosion of the slope
   - control of stormwater, which would be channelled by a proposed road and
   - potential impact on quality and levels of residential well water
3. **Alternative 3** is very much the preferred option within the community.
4. **Alternative 1** will have substantial financial liability implications and is therefore not ranked appropriately. We hope the report will qualify that to "do nothing" is not a viable option.
5. **The value of repair work for option 3A** seems low. From conversations with GHD members, the value given only includes bridge repairs and not road repairs. As stated above, road repair is a present safety issue and should be evaluated and prioritized.
6. **Slope stability above Dominion Street**: For a comprehensive assessment of the road condition, there should be an evaluation of slope stability above the road, and assessment of the condition of the retaining wall installed after the landslide. It would be great to have some information on this at the next presentation.
7. **Bridge Heritage Preservation:** We understood that heritage evaluation of the Dominion Bridge is upcoming. Whether or not the bridge is designated, the community feels strongly that the existing design should be preserved and picket railings maintained to allow view of the river forks.
8. **Temporary closure of the road and bridge**: we understand that the details of upcoming repairs will be part of the next phase of the study.
   - Means and methods of construction, as well as schedule should be reviewed with residents prior to finalizing design
   - The majority of Dominion residents are seniors. Consideration should be given to accommodating their day-to-day needs in the period of bridge closure. Alternative provisions for ambulance access should be considered.
   - The community is willing to work with the Town to come up with a plan for the closure period.

I trust the above comments would be helpful in moving forward with Alternative 3 to the next phase.

Thanks again!

Regards,

Alex Pereira

From: Marray, Liam [mailto:lmarray@creditvalleyca.ca]
Sent: Monday, December 05, 2016 2:55 PM
To: ian.todhunter@caledon.ca; Brian Ruck
Cc: Mark Heaton (InTouch); nancy.mott@ontario.ca
Subject: Dominion Street Dominion Street EA.

Ian/Brian

CVC has taken a preliminary review of your presentation boards for the above-noted EA and have the following comments. The problem clearly identifies that access and an emergency access are important criteria for the EA. With Dominion Street being adjacent to the Credit River and valley slope, CVC expected that as part of the assessment that the flood risk, meander belt and slope stability would be identified and assessed for all the options. It did not appear that this assessment was completed.

It was also noted in the presentation boards that a draft of the detailed Alternative Solutions Evaluation Table is available. CVC would appreciate receiving a copy of this Table for our review and comment.

Please do not hesitate to contact us, if you have any questions.

Liam

Liam Marray
Manager, Planning Ecology| Credit Valley Conservation
905.670.1615 ext 239 | C: 416.896.1064| 1.800.668.5557
lmarray@creditvalleyca.ca | creditvalleyca.ca

Alex Pereira

-----Original Message-----
From [redacted]
Sent: Tuesday, December 13, 2016 9:10 AM
To: Ian Todhunter; Brian Ruck
[redacted]
Subject: Things I Didn't Get a Chance to Say at the Nov. 30, 2016 meeting: Dominion Street bridge and roadway

Hi Ian and Brian,

This email is "Things I Didn't Get a Chance to Say..." at the November 30 meeting and is from my points of view as a resident of Brimstone and President of the Caledon Hills Bruce Trail Club. The main Bruce Trail route extends along the length of Dominion Street from Forks of the Credit Road to the Forks of the Credit park. Several Side Trails, part of the Bruce Trail network are also in the study area.

Thanks for the public information session on November 30 to explain the background and outline options for repairing / replacing the Dominion Street bridge and road. After seeing the various options, the recommendation #1 to repair or replace the existing bridge and fix the existing roadway seems the most feasible and cost effective.

I understand the next phase of your work is a detailed study of the recommended option and another Public Information session will be held sometime in Spring 2017. My main concerns about the change are to ensure continued access to Brimstone while construction is underway, both for residents and Bruce Trail hikers. Of course access by Emergency Services and other service vehicles is important as well.

I look forward to hearing about the detailed planning which I understand includes plans for access to Dominion Street and Brimstone during construction.

Regards,

Alex Pereira

From: Zirger, Rosi (MTCS) <Rosi.Zirger@ontario.ca>
Sent: Friday, December 16, 2016 11:58 AM
To: Alex Pereira
Cc: Brian Ruck; Ian Todhunter
Subject: RE: Dominion Street Schedule 'C' Class Environmental Assessment

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Alex

Thank you for sending MTCS Notice of the PIC. We see from the PIC boards available on the Town`s website that numerous properties (built heritage & cultural heritage landscapes) with known or potential cultural heritage value have been identified along Dominion Street. Is this information based on a report. If so could you please send me the cultural heritage reports completed to date.

Thanks
Rosi

Rosi Zirger
Heritage Planner
Ministry of Tourism, Culture & Sport
Culture Division | Programs & Services Branch | Heritage Programs Unit
401 Bay Street, Suite 1700 Toronto, Ontario M7A 0A7
Tel. M-T-W 416.314.7159 | Th–F 905 704-2996 | E-mail: rosi.zirger@ontario.ca

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From: Alex Pereira [mailto:Alex.Pereira@ghd.com]
Sent: November-17-16 12:04 PM
Cc: Brian Ruck; Ian Todhunter
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Good afternoon,

On behalf of the Corporation of the Town of Caledon, please find attached **Notice of Public Information Centre #1** for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

By way of this notification, we would like to invite you to attend the first Public Information Centre for this undertaking. To this end, your assistance in ensuring this email is circulated to the appropriate personnel within your agency is greatly appreciated.

Date: **Wednesday, November 30, 2016**
Time: **7:30 p.m. to 9:15 p.m.**
Location: **Inglewood Community Centre – 15825 McLaughlin Road, Inglewood, ON**

If your agency has any comments or requires additional information regarding this study, please contact the undersigned.

Kind Regards,

Alex Pereira

On behalf of
Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

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Alex Pereira, BES
Environmental Planner

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WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

Alex Pereira

-----Original Message-----
From: [redacted]
Sent: Friday, December 16, 2016 5:06 PM
To: ian.toddhunter@caledon.ca; Brian Ruck
Subject: Dominion Rd reconstruction

Hello Ian and Brian.

I reside at [redacted] I visited the town meeting in Inglewood, and have reread the proposals on the town website. I have numerous concerns about these plans other than fixing the existing road and bridge.

Plan 1) do nothing.

Something needs to be done, even if it's a few years away. The road is obviously eroding.

Plan 2a) access via Puckering lane.

Puckering lane is essentially a driveway for a few homes. To widen and pave it would steel the sense of privacy the owners have. The intersection of Puckering and McLaren is dangerous as there is a blind hill coming south on McLaren that limits visibility for drivers on both roads. There has been a few bad accidents on the McLaren hill over the years, this just increases the risks. Getting the road down into Brimstone would be disastrous to the forest on hillside would be devastated, the Bruce trail that runs through there and along Puckering would become just one more paved section of trail.

Plan 2b) new road/bridge from the forks.

This plan is preposterous. How can anyone justify running a new road through the river plane, up through a undisturbed forest, with a small creek and very steep sides. Then cross onto a private driveway, that is incredibly steep to run back down the hill into the town. Does the town have no regard for the private land owner, NEC and CVC. As far as I'm aware no one has asked any of the land owners if they would mind having their land expropriated.

Plan 2c) new road from park parking lot.

I'm fairly new to the area, but have been told the access to Brimstone used to come down through the park. Then was eliminated and the current road was built. I understand it's a tricky place to get to. But let's pick one and make it work. It's financially and environmentally ridiculous to keep flip flopping. All the plans are going to be expensive (I'm guessing at least 3x what has been estimated) and involve some tricky engineering. Let's just fix and fix properly the existing road.

Plan 3a) fix the existing road.

I feel this is the best plan, even if it's not the cheapest or easiest. There would be less environmental damage to undisturbed areas and less disturbance to landowners in the immediate area.

Plan 3b) new bridge just east of existing.

Why create more road on a steep bank and disturb more riverbank? I realize it will be tricky to accommodate the towns people while under construction. But there is no easy way for any of these project ideas. Lets just bite the bullet and fix what we have properly.

I would like to hear back and be kept informed of the status of this. Please let me know if my comment on the road coming through the park in the past is accurate. If not I apologize.

Cheers

[redacted]

Alex Pereira

-----Original Message-----
From: [redacted]
Sent: Monday, December 19, 2016 12:27 PM
To: ian.todhunter@caledon.ca; Brian Ruck
Subject: Dominion Street Bridge response

To Who It May Concern.
[redacted] my family and I were unable to attend the Public Meeting regarding the alternatives and long- term solutions to provide safe access to Dominion St.
Having been brought up to date, I feel the necessity to take the time , at this busy time of year, to express our horror,shock and dismay at the potential solutions being proposed. Specifically, Parts 2A and 2B, and 3B, seem so outlandish, that if there were not such significant tax payer dollars being spent, it would seem laughable.
[redacted] and not a day goes by that I do not feel an appreciation for this untouched, natural jewel, that Caledon must protect, not destroy. The contradictions in your proposal with regard to the rules we have honoured, and abide by, as stated by the NEC and CVC, make a mockery of their mandates, and we will fight these proposals vigorously.
The energy, resources and funds require to fight this lunacy seems exhausting, yet, this is a cause that will not be ignored, and will be defended.

[redacted]

GLEN SCHNARR & ASSOCIATES INC.
URBAN & REGIONAL PLANNERS, LAND DEVELOPMENT CONSULTANTS

[redacted]

December 16, 2016

Town of Caledon
6311 Old Church Road
Caledon, ON
L7C 1J6

Attention: Mr. Ian Todhunter, P.Eng.
Project Manager

GHD Limited
65 Sunray Street
Whitby, ON
L1N 8Y3

Attention: Mr. Brian Ruck, P.Eng., CVS-Life
Consultant Project Manager

Re: Dominion Street Class Environmental Assessment
Comments Following November 30, 2016 Public Information Centre
Town of Caledon, Region of Peel

We are the planning consultants representing the following landowners of Puckering Lane and Dominion Street:

[redacted]

10 KINGSBRIDGE GARDEN CIRCLE
SUITE 700
MISSISSAUGA, ONTARIO
L5R 3K6
TEL (905) 568-8888
FAX (905) 568-8894
www.gsai.ca

Collectively, these lands are legally described as Part of Lots 9 and 10, Conc. 3, WHS, Town of Caledon. While we did not have the opportunity to attend the first Public Information Session held November 30, 2016 related to the Dominion Street Class Environmental Assessment, we have had the chance to thoroughly review the scope of work and alternative options presented for the public's review at that meeting. We appreciate the opportunity to provide input to this important process as it has direct impacts to our clients.

It is understood that this Class Environmental Assessment is being undertaken to evaluate the levels of risk associated with the riverbank and road embankment along Dominion Street and to identify a preferred long-term strategy for the existing Dominion Street and bridge, including possible alternate or additional access/service roads connecting to Dominion Street.

All of the lands subject to this Class Environmental Assessment are designated "Escarpment Natural Area" and "Escarpment Protection Area" in the Niagara Escarpment Plan, with the majority being within the most restrictive "Escarpment Natural Area' land use designation. The lands within this area are associated with the natural area of the Credit River, consisting of steep and variable topography, stream valleys, wetlands and forested areas which are environmentally significant and currently undisturbed. This is one of the most significant and scenic natural areas within the Niagara Escarpment and development should be considered carefully and in the context of the policy directives contained in the Niagara Escarpment Plan.

Section 2.15 (Transportation and Utilities) in the Niagara Escarpment Plan notes the following with respect to new and expanded infrastructure:

> *"2.15 The objective is to design and locate new and expanded transportation and utility facilities so the least possible change occurs in the environment and the natural and cultural landscape.*
>
> *1. New transportation and utility facilities should avoid Escarpment Natural Areas."*

Accordingly, we question the level of analysis that has been undertaken related to the proposed alternative options that would ultimately include disturbance of lands within the 'Escarpment Natural Area'. Further, our review of the Niagara Escarpment Plan suggests that the options that would create large scale disruption to the Niagara Escarpment would require a Niagara Escarpment Plan Amendment.

As landowners in the area, our clients are very familiar with the lands subject to the Class Environmental Assessment and have strong opinions on the alternative options which were presented at the November 30, 2016 Public Information Centre. The overwhelming position of our clients is to ensure minimal impact to the natural environment and challenging topography. Further, there is significant concern related to the possibility of private land expropriation for certain alternative options and the general absence of discussion related to this in the analysis to

date. Below is a summary of comments, questions and concerns for each of the alternative options in order of the Town's Overall Ranking, on behalf of our clients.

RANKED 1st - Alternative 3A (Existing Bridge and Road Rehabilitation)

This alternative option consists of rehabilitating the existing Dominion Street and existing bridge. This alternative option represents minimal disturbance to the Niagara Escarpment and surrounding sensitive natural features. Further, it does not impact privately owned lands and costs to facilitate this alternative option have been estimated to be in the range of $450,000 to $600,000. **This alternative option is supported by our clients.**

RANKED 2nd - Alternative 1 (Do Nothing)

The Study notes that the existing Dominion Street and bridge require some degree of rehabilitation or replacement in order to continue to provide access to the 14 private residences that utilize it for direct access to privately owned lands. The Study further notes that if the 'do nothing' approach is taken, the road and bridge will no longer be able to accommodate heavier vehicles and the access will eventually need to be closed. The need to replace the bridge and rehabilitate the road has come as a surprise to our clients and accordingly, we would like additional clarity on the degree of rehabilitation needed for Dominion Street and the bridge. **Our clients feel that maintaining access to Forks of the Credit Road via Dominion Street is essential for their properties.**

RANKED 3rd - Alternative 3B (New Bridge (slightly east) and Road Rehabilitation)

This alternative option involves construction of a new bridge located just east of the existing bridge, at a narrower point in the river. The cost noted for this alternative option is estimated to be in the range of $1,400,000 to $1,800,000. This option would involve disturbance of currently undisturbed environmental lands, including forested landscape and the Credit River.

We note that Section 2.8 (Wildlife Habitat) in the Niagara Escarpment Plan does not permit development within an identified habitat of endangered (regulated) plant or animal species. In this regard, our clients would like to better understand whether there is the presence of any species at risk within or adjacent to this new bridge location. Depending on this, MNR requirements will need to be met and the Niagara Escarpment Plan may need to be amended.

Further, it is not clear whether CVC requirements related to impacts on the floodplain and bridge abutments and related setbacks have been considered. In this regard, our clients request confirmation that CVC has been consulted and seek to understand what CVC comments or concerns may be.

As well, expropriation of privately owned land would be required to facilitate this option since the proposed new location for the bridge is clearly within one of our clients' properties. It is not clear whether the estimated costs for this option have factored in the cost for expropriation, including the loss of privacy and enjoyment by this private landowner.

In summary, it is questionable whether the environmental disturbance is clearly understood or whether the costs are accurate for this alternative option. **This alternative option is not supported by our clients because environmental impacts, CVC requirements, private land impacts/expropriation and overall costs have not been clearly outlined (and are not clearly understood).**

RANKED 4th - Alternative 2B (Re-alignment via Forks of the Credit Road)

This alternative option involves construction of approximately 700 m of new road, disturbing approximately 18,700 sq.m. (4.62 acres) of currently protected environmental lands. This terrain is forested, consisting of flora and fauna habitat within a steep valley environment with small tributary watercourses and wetland areas created by runoff from the hills. In fact, the land proposed for alternative option 2B appears to disturb an area consisting of low lying lands and floodplain areas. Furthermore, lands on the west side of the existing driveway to 227 Dominion Road are extraordinarily steep towards Dominion Street. This presents a dangerous driveway scenario and could result in a dangerous public road scenario if this alternative option is considered. Our clients would like further clarification of the degree of environmental disturbance that would result from this option, including whether this road development option would encompass floodplain lands and whether there are any species at risk that may be impacted. This option appears to have a significant impact to the natural environment based on the amount land disturbance expected and we request clarification and more details in this regard.

In addition to questions about the details related to the anticipated environmental impacts of this option, it is not clear how the new road would actually access Dominion Street. The mapping for this option appears to show the road ending mid-property and our client who owns this parcel has confirmed that the existing private driveway in this location has a very steep gradient of approximately 13% and there is an existing 'hairpin' turn in the driveway (approx. 60 degrees) in this location. It is not expected that the Town would see fit to utilize such a steep gradient or tight turn and, accordingly, clarification is required related to what the Town's plans would be for direct access to Dominion Street for this alternative option. Specifically, we are wondering if access would involve traversing the rear yards of the lots which are located along the east side of Dominion Street. The landowners along Dominion Street in this vicinity should more clearly understand how this alternative may affect them.

As well, our clients have advised there are some potentially significant building ruins on their lands and the proposed road appears to be located within close proximity of those ruins. Accordingly, we are requesting additional information and clarification on the detailed cultural heritage and/or archaeological assessments that have been carried out to determine the potential impacts on the cultural significance of this proposed road route.

As well, the costs estimated by the Town for this option are noted to be $2,000,000 to $3,000,000. It is our submission that these costs are largely underestimated, as private landowner expropriation costs do not seem to have been factored in. The noted description of this option clearly indicates that "*this new connection would not affect any of the lands of Forks of the Credit Provincial Park*"; however, there is no mention of the affect this option would have on private landowners. The properties that this option would impact are largely privately owned and valued at multi-millions of dollars. The land required to facilitate this option essentially traverses through the centre of privately owned properties. The anticipated impact environmentally, economically and personally for this option is significant and concerning.

In addition, we question the status of lot creation that may result from this option. In essence, if this new road was approved, it would have the effect of creating a new lot(s) within privately held lands. We request clarification about the status and opportunities that may result from this new lot creation. It is our understanding that any new lot(s) created inadvertently through this process would have to be purchased and held by the Town because no new developable lots can be created by a municipal undertaking. We are requesting clarity in this regard.

Our clients have indicated that they are strongly opposed to this option as it would result in environmental disturbance on a large scale and would result in significant private land expropriation.

RANKED 5th - Alternative 2A (Re-alignment via Puckering Lane)

This alternative option proposes the connection of Dominion Street to Puckering Lane. It is not clear but it is assumed this would result in the closure of the southern leg of Dominion Street and the existing bridge at Forks of the Credit Road. As noted through the analysis, there is a steep drop between where Puckering Lane ends and where Dominion Street is. It is noted in the Town's analysis that this significant change in elevation would require disturbance of approximately 48,000 sq.m. (11.86 ac) of currently undisturbed land area. The land in this vicinity is not only steep, but it is forested and may contain species at risk which would trigger MNR approvals and possibly a Niagara Escarpment Plan Amendment, per Section 2.8 (noted above). Clarification is requested in this regard.

The estimated costs outlined for this alternative option are $5,000,000 to $6,000,000 however it is important to note that this option would require significant expropriation from one private landowner. It is not clear if the anticipated costs have encompassed expected expropriation costs but it is important to note that the property affected through this option is a multi-million dollar property.

It is also worthwhile to note that the affected property owner has provided the Bruce Trail Conservatory permission to extend their trail across the northwest corner of the property (in close proximity to this proposed road extension). Selection of this alternative option will disrupt The Bruce Trail in this location, in addition to providing environmental disturbance.

As well, Puckering Lane is not currently a paved road. In fact, the road itself likely does not meet current Town road standards in terms of width, slope and surface material. The current users of Puckering Lane enjoy the secluded nature of Puckering Lane. However, our clients have raised the legitimate question of whether implementation of this alternative option, which would effectively introduce at least 14 new landowners as 'users' of this road, may trigger the need for upgrades to Puckering Lane for safety and accessibility. This has not been sufficiently explored or explained to the existing landowners in this area and we question whether costs associated with potential Puckering Lane road improvements have been factored into this alternative option.

Our clients are opposed to this alternative option as it would introduce disturbance of significant natural features estimated at 48,000 sq.m. (11.86 acres), excessively steep road configuration, and private land expropriation. As well, questions remain regarding accurate costing of this option.

RANKED 6th - Alternative 2C (Re-alignment via Forks of Credit Provincial Park)

This alternative option involves the northern extension of Dominion Street following the alignment of the existing Bruce Trail, connecting to Forks of the Credit Provincial Park parking lot. This alternative option would require large scale environmental disturbance to facilitate construction of a new road in areas of steep topography traversing the Provincial Park. The estimated area of disturbance for this option is 58,000 sq.m. (14.33 acres).

This alternative option relies on land expropriation from the Forks of the Credit Provincial Park and accordingly, private land expropriation is not a concern of our clients for this option. However, the land area subject to environmental disturbance is concerning.

Our clients are not opposed to this option because it does not have any direct impact to private landholdings; however, the land area subject to environmental disturbance required to facilitate this option is concerning.

Summary

As noted above, **our clients raise important questions and generally oppose Options 2B, 2A and 3B.** Concerns include environmental disturbance, private landholding impacts, and inaccurate (misleading) costing. Specifically, questions remain regarding the level and degree of environmental disturbance, the degree and details of impacts to private landholdings and the accuracy of costing for each of the options (and whether expropriation costs have been factored in).

The current policies in the NEP strongly discourage any new transportation or utility development within the "Escarpment Natural Area" or "Escarpment Protection Area". Furthermore, any new road that may be approved which has the effect of creating a new lot (i.e. option 2B) may require the resultant parcels to be transferred to the Town. This would have devastating effects on the private landholders who currently own and are environmental stewards of these lands.

As well, there are concerns among our clients that the Dominion Street Class Environmental Assessment has not clearly indicated those lands which are subject to this assessment that are owned privately. Since initial publication of the proposed alternative options and associated mapping, there have been increased incidences of trespassing. **We respectfully request that all publications associated with this Class Environmental Assessment immediately be revised and re-posted on the internet to clearly delineate those lands that are under private ownership to ensure that members of the public clearly understand these are not publicly owned lands and are not accessible to them.**

Please continue to keep us apprised as this important process evolves. We look forward to your written reply to our comments and requests. In the meantime, please call if you have any questions.

Yours very truly,

GLEN SCHNARR & ASSOCIATES INC.

[redacted]

cc: [redacted]

Councillor B. Shaughnessy (Ward 1 Regional Councillor)
Councillor D. Beffort (Ward 1 Local Councillor)
N. Mott, Niagara Escarpment Commission
L. Marray, Credit Valley Conservation

Appendix D
PIC #1 Comments/Response Table

Dominion Street Schedule 'C' Class EA – PIC#1 Comment/Response Tracking Table

NAME	Address	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
[redacted]	[redacted]	November 30, 2016	Comment Form	- Use open-sides on the bridge – not concrete abutments - Put up local traffic only sign	Good afternoon, Thank you for attending the first Public Information Centre (PIC) for the Dominion Street Class Environmental Assessment. We greatly appreciate the comments you have provided at this time, as they help us gain a better understanding of the community's concerns with respect to the proposed undertaking and how best to move forward. With regard to your comments provided, you have specifically raised concern over the use of concrete abutments and provide the recommendation to install a "local traffic only" sign. The Town and GHD will take this into consideration during the design phase of the Class EA Study, which is Phase III (evaluate alternative design concepts of the preferred solution). We would like to inform you that the full Phase I & II Summary Report will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp). A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter. Kind regards, Brian Ruck	January 5, 2017	Email
[redacted]	[redacted]	November 30, 2016	Comment Form	- Please keep the current "style" of bridge, not solid sides like two recently repaired on The Forks - Add an <u>enforced</u> Local Traffic Only sign	Good afternoor [redacted] Thank you for attending the first Public Information Centre (PIC) for the Dominion Street Class Environmental Assessment. We greatly appreciate the comments you have provided at this time, as they help us gain a better understanding of the community's concerns with respect to the proposed undertaking and how best to move forward. With regard to your comments provided, you have specifically raised concern over the potential to retain the current "style" of the bridge and suggest to install an "enforced" "Local Traffic Only" sign. The Town and GHD will take this into consideration during the design phase of the Class EA Study, which is Phase III (evaluate alternative design concepts of the preferred solution). We would like to inform you that the full Phase I & II Summary Report will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp). A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter. Kind regards, Brian Ruck	January 5, 2017	Email
[redacted]	[redacted]	November 30, 2016	Comment Form	Request digital copies of: - Draft summary report - Class EA 2007, 2011, 2015 - Alternative solutions comparative evaluation	Good afternoon Mr. Sinclair, Thank you for attending the first Public Information Centre (PIC) for the Dominion Street Class Environmental Assessment. We have received your request for the following documents: - Draft Phase I & II Summary Report - MEA Municipal Class EA 2007, 2011, 2015	January 5, 2017	Email

NAME	Address	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
					- Alternative solutions comparative evaluation We would like to inform you that the full Phase I & II Summary Report will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp) and we will later inform you of its availability. A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter. In the meantime, a free non-searchable on-line version of the Municipal Engineers Association (MEA) Municipal Class EA may be viewed here: http://www.municipalclassea.ca/manual/index.html Kind regards, Brian Ruck		
[redacted]	[redacted]	November 30, 2016	Comment Form	Please keep metal guardrails or any type of railing or abutments to a minimum. Walkers + cyclists need to be able to jump out of the way. Thx!	Good afternoor [redacted] Thank you for attending the first Public Information Centre (PIC) for the Dominion Street Class Environmental Assessment. We greatly appreciate the comments you have provided at this time, as they help us gain a better understanding of the community's concerns with respect to the proposed undertaking and how best to move forward. With regard to your comments provided, you have specifically requested to "keep metal guardrails or any type of railing or abutments to a minimum". The Town and GHD will take this into consideration during the design phase of the Class EA Study, which is Phase III (evaluate alternative design concepts of the preferred solution). Regarding your comment on pedestrian safety, we would like to ensure you that the recommended design will conform to all applicable standards and codes. We would like to inform you that the full Phase I & II Summary Report will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp). A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter. Kind regards, Brian Ruck	January 5, 2017	Email
[redacted]	[redacted]	November 30, 2016	Comment Form	- Keep the original road + keep it as natural as possible - Restrict traffic to local traffic only – cars are still blocking the access gate to the provincial park at the north end of Dominion St.	Good afternoon, Thank you for attending the first Public Information Centre (PIC) for the Dominion Street Class Environmental Assessment. We greatly appreciate the comments you have provided at this time, as they help us gain a better understanding of the community's concerns with respect to the proposed undertaking and how best to move forward. With regard to your comments provided, you have specifically recommended to "keep the original road and to keep it as natural as possible". The Town and GHD will take this into consideration during the design phase of the Class EA Study, which is Phase III (evaluate alternative design concepts of the preferred solution). We would like to inform you that the full Phase I & II Summary Report will soon be made publically available on the Town's	January 5, 2017	Email

NAME	Address	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
					Website (http://www.caledon.ca/en/index.asp). A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter. Kind regards, Brian Ruck		
[redacted]	[redacted]	November 30, 2016	Comment Form	Would like it left as natural as possible. No more concrete walls.	Dear [redacted] Thank you for attending the first Public Information Centre (PIC) for the Dominion Street Class Environmental Assessment. We greatly appreciate the comments you have provided at this time, as they help us gain a better understanding of the community's concerns with respect to the proposed undertaking and how best to move forward. With regard to your comments provided, you have requested the area be "left as natural as possible". The Town and GHD will take this into consideration during the design phase of the Class EA Study, which is Phase III (evaluate alternative design concepts of the preferred solution). We would like to inform you that the full Phase I & II Summary Report will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp). A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter. Kind regards, Brian Ruck	Mailed January 6, 2017	Letter
[redacted]	[redacted]	November 30, 2016	Comment Form	1. I agree with fixing the existing bridge 2. I would have new bridge to the east #2 3. Doing nothing doesn't make sense Thanks [redacted]	Good afternoon [redacted] Thank you for attending the first Public Information Centre (PIC) for the Dominion Street Class Environmental Assessment. We greatly appreciate the comments you have provided at this time, as they help us gain a better understanding of the community's concerns with respect to the proposed undertaking and how best to move forward. With regard to your comments provided, you have specifically identified a preference of the Alternative Solutions considered. Based on public input received at the PIC and our analysis conducted to date, we have confirmed Alternative 3A – Existing Road and Bridge Rehabilitation, as the recommended Alternative Solution. Also, the "Do Nothing" alternative solution is onsidered to be the "status quo" and is used as a benchmark to evaluate other Alternative Solutions. The ranking of the "Do Nothing" alternative does not necessarily mean that it will be considered favorably over additional Alternative Solutions considered. A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter. We would like to inform you that the full Phase I & II Summary Report will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp). A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter.	January 5, 2017	Email

NAME	Address	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
					Kind regards, Brian Ruck		
[redacted]	[redacted]	December 1, 2016	Email	Dear Ian and Brian, Thank you for an informative evening yesterday and the opportunity to review and comment on the work done so far. Outlined below is a consolidated list of my own thoughts on the study and conversations with neighbours and community members during and after the session: 1. **With regard to the Problem Statement:** o The statement focuses on the deteriorating condition of the bridge, whereas Dominion St. residents see the condition of the road as the more imminent problem and the one with greater impact on day-to-day safety. Whereas the bridge is of vital importance for access, the approach to the bridge has good visibility and the road width reduction is manageable. It is the areas where the road has slumped and created reduction in laneway width that presents a safety hazard due to the curves in the road and lack of visibility. Dominion Str. residents are accustomed to approaching these areas cautiously, however vehicles not familiar with the road (and even garbage trucks) often drive too fast to be able to anticipate and react to the road reduction and oncoming traffic. The road reconstruction should be of equal, if not greater, priority as the bridge reconstruction and this should be reflected in the problem statement and resulting solutions. o The problem statement reads: " … the solution must be financially viable given the limited number of local residents services by Dominion street". Consideration should be given to the cultural value of the bridge and the area. Aside from being linked with the Bruce Trail, Forks of the Credit Park, the Niagara Escarpment which is a UNESCO heritage feature, the Dominion bridge and street are among the top iconic landscapes in the Town of Caledon. This is Caledon's face to the GTA, the region and the country. The area is a huge tourist attraction and the street experienced foot traffic in the hundreds in the summer and fall. Visiting the Credit Forks in fall is a family tradition for many Ontarians. We feel that the street has invaluable cultural and tourism cachet for Caledon. Therefore the investment in its infrastructure goes well beyond the 14 resident families. The cultural and heritage values of the area should inform any budget decisions. 2. **Alternative 2:** We are all relieved that the options to extend Puckering Lane and Chisholm Street are deemed to be non-starters. As you have heard from everyone attending, there are serious concerns with any roads proposed to be routed over the escarpment: o the potential destruction of the natural environment and fragmentation of forest,	Good afternoon [redacted] Thank you for attending the first Public Information Centre (PIC) for the Dominion Street Class Environmental Assessment. We greatly appreciate the time you have taken to facilitate conversations with other community members in addition to the comments you have provided at this time, as they help us gain a better understanding of the community's concerns with respect to the proposed undertaking and how best to move forward. Regarding your comments on the Problem/Opportunity Statement, we agree that the rehabilitation of Dominion Street is of equal importance to the rehabilitation of the bridge. Therefore, we will update the Problem/Opportunity Statement accordingly. Regarding your comments on Alternative 1 – Do Nothing, and its respective ranking, we would like to reiterate that the "Do Nothing" alternative is used as a benchmark to evaluate additional Alternative Solutions. The ranking of the "Do Nothing" alternative does not necessarily mean that it will be considered favorably over additional Alternative Solutions considered. However, based on public input received at the PIC and our analysis conducted to date, we have confirmed Alternative 3A – Existing Road and Bridge Rehabilitation, as the recommended Alternative Solution to carry forward. You are correct in that the estimated value of the work proposed under Alternatives 3A and 3B is representative of the estimated costs for bridge rehabilitation or new bridge construction only. The potential costs associated with the road rehabilitation is dependent on the extent of rehabilitation required, which is to be confirmed upon the completion of necessary field investigations, including the drilling of boreholes on Dominion Street in the new year. Due to this uncertainty surrounding the level of rehabilitation required an estimate for the costing of road rehabilitation was not explicitly defined at this PIC. To this benefit, a more definitive cost analysis of the alternative design concepts will be available for review and discussion at the next PIC in 2017. The next phase (Phase 3) of the Class EA study will evaluate the Alternative Design Concepts for Alternative 3. After the completion of Phase 3 we will have a better understanding the options pertaining to temporary closure of the road and bridge. At such time, the Town and GHD will work collaboratively with the residents of Dominion Street to develop a potential temporary closure plan. We would also like to inform you that the full Phase I & II Summary Report will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp) and we will distribute to you a copy at the time of its publication. A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter.	January 5, 2017	Email

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				o the safety of residents having to negotiate a steep grade road in winter o access for fire, ambulance and other services both in terms of the extended distance to nearest stations and in terms of the grade o erosion of the slope o control of stormwater, which would be channelled by a proposed road and o potential impact on quality and levels of residential well water 3. **Alternative 3** is very much the preferred option within the community. 4. **Alternative 1** will have substantial financial liability implications and is therefore not ranked appropriately. We hope the report will qualify that to “do nothing” is not a viable option. 5. **The value of repair work for option 3A** seems low. From conversations with GHD members, the value given only includes bridge repairs and not road repairs. As stated above, road repair is a present safety issue and should be evaluated and prioritized. 6. **Slope stability above Dominion Street**: For a comprehensive assessment of the road condition, there should be an evaluation of slope stability above the road, and assessment of the condition of the retaining wall installed after the landslide. It would be great to have some information on this at the next presentation. 7. **Bridge Heritage Preservation:** We understood that heritage evaluation of the Dominion Bridge is upcoming. Whether or not the bridge is designated, the community feels strongly that the existing design should be preserved and picket railings maintained to allow view of the river forks. 8. **Temporary closure of the road and bridge**: we understand that the details of upcoming repairs will be part of the next phase of the study. o Means and methods of construction, as well as schedule should be reviewed with residents prior to finalizing design o The majority of Dominion residents are seniors. Consideration should be given to accommodating their day-to-day needs in the period of bridge closure. Alternative provisions for ambulance access should be considered. o The community is willing to work with the Town to come up with a plan for the closure period. I trust the above comments would be helpful in moving forward with Alternative 3 to the next phase. Thanks again! Regards, [redacted]	Kind regards, Brian Ruck		
Liam Marray, Manager, Planning Ecology, CVC	lmarray@creditvalleyca.ca 905.670.1615 ext 239	December 5, 2016	Email	Ian/Brian CVC has taken a preliminary review of your presentation boards for the above-noted EA and have the following comments. The problem clearly identifies that access and an emergency access are important criteria for	Good morning Liam, Thank you for reviewing the information presented at the Dominion Street PIC. The assessment you are referring to has not yet been completed. However, we are currently in the process of planning for	January 6, 2017	Email

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				the EA. With Dominion Street being adjacent to the Credit River and valley slope, CVC expected that as part of the assessment that the flood risk, meander belt and slope stability would be identified and assessed for all the options. It did not appear that this assessment was completed. It was also noted in the presentation boards that a draft of the detailed Alternative Solutions Evaluation Table is available. CVC would appreciate receiving a copy of this Table for our review and comment. Please do not hesitate to contact us, if you have any questions. Liam	the commencement of borehole drilling along Dominion Street, which is tentatively scheduled to be conducted in February 2017. As per your request, please find attached a draft copy of the Alternative Solutions Evaluation Table for CVC's review and comment. We would also like to inform you that the full Phase I & II Summary Report will soon be made publically available and we will distribute to you a copy at the time of its publication. Any comments or feedback CVC may have in relation to the attached draft Alternative Solutions Evaluation Table will be incorporated into the draft ESR at a later time. Kind regards, Brian Ruck		
[redacted]	[redacted]	December 13, 2016	Email	Hi Ian and Brian, This email is "Things I Didn't Get a Chance to Say…" at the November 30 meeting and is from my points of view as a resident of Brimstone and President of the Caledon Hills Bruce Trail Club. The main Bruce Trail route extends along the length of Dominion Street from Forks of the Credit Road to the Forks of the Credit park. Several Side Trails, part of the Bruce Trail network are also in the study area. Thanks for the public information session on November 30 to explain the background and outline options for repairing / replacing the Dominion Street bridge and road. After seeing the various options, the recommendation #1 to repair or replace the existing bridge and fix the existing roadway seems the most feasible and cost effective. I understand the next phase of your work is a detailed study of the recommended option and another Public Information session will be held sometime in Spring 2017. My main concerns about the change are to ensure continued access to Brimstone while construction is underway, both for residents and Bruce Trail hikers. Of course access by Emergency Services and other service vehicles is important as well. I look forward to hearing about the detailed planning which I understand includes plans for access to Dominion Street and Brimstone during construction. Regards, [redacted]	Good afternoon [redacted] Thank you for attending the first Public Information Centre (PIC) for the Dominion Street Class Environmental Assessment. We greatly appreciate the comments you have provided at this time, as they help us gain a better understanding of the community's concerns with respect to the proposed undertaking and how best to move forward. You are correct in that the next phase of the Class EA study will focus on alternative design concepts for the recommended alternative solution. As identified at the PIC, the issue of access to both residents of Dominion Street and users of the Bruce Trail will continue to be a focal point of the Class EA study. Strategies to ensure continued emergency services access to Dominion Street will also be considered as part of this study. We would also like to inform you that the full Phase I & II Summary Report will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp) and we will distribute to you a copy at the time of its publication. A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter. Kind regards, Brian Ruck	January 5, 2017	Email
Rosi Zirger, Heritage Planner, MTCS	rosi.zirger@ontario.ca	December 16, 2016	Email	Hi Alex Thank you for sending MTCS Notice of the PIC. We see from the PIC boards available on the Town`s website that numerous properties (built heritage & cultural heritage landscapes) with known or potential cultural heritage value have been identified along Dominion Street. Is this information based on a report. If so could you please send me the cultural heritage reports completed to date. Thanks Rosi	Good morning Rosi, Thank you for reviewing the information presented at the Dominion Street Class EA PIC. You are correct in that there are a number of properties along Dominion Street with known or potential for cultural heritage value. The information relative to cultural heritage presented at the PIC was based on an initial secondary source review conducted by our sub-consultant Archaeological Services Inc. (ASI). We are currently undertaking a formal Cultural Heritage Resource Assessment for Dominion Street, which will soon be available and distributed to the MTCS for filing. In the meantime, please refer to the attached preliminary cultural heritage resource assessment secondary source review for Dominion Street.	January 6, 2017	Email

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					We would also like to inform you that the Phase I & II Summary Report will soon be made publically available and we will distribute to you a copy at the time of its publication. Kind regards, Alex Pereira		
[redacted]	[redacted]	December 16, 2016	Email	Hello Ian and Brian. I reside at 17336 McLaren Rd. I visited the town meeting in Inglewood, and have reread the proposals on the town website. I have numerous concerns about these plans other than fixing the existing road and bridge. Plan 1) do nothing. Something needs to be done, even if it's a few years away. The road is obviously eroding. Plan 2a) access via Puckering lane. Puckering lane is essentially a driveway for a few homes. To widen and pave it would steel the sense of privacy the owners have. The intersection of Puckering and McLaren is dangerous as there is a blind hill coming south on McLaren that limits visibility for drivers on both roads. There has been a few bad accidents on the McLaren hill over the years, this just increases the risks. Getting the road down into Brimstone would be disastrous to the forest on hillside would be devastated, the Bruce trail that runs through there and along Puckering would become just one more paved section of trail. Plan 2b) new road/bridge from the forks. This plan is preposterous. How can anyone justify running a new road through the river plane, up through a undisturbed forest, with a small creek and very steep sides. Then cross onto a private driveway, that is incredibly steep to run back down the hill into the town. Does the town have no regard for the private land owner, NEC and CVC. As far as I'm aware no one has asked any of the land owners if they would mind having their land expropriated. Plan 2c) new road from park parking lot. I'm fairly new to the area, but have been told the access to Brimstone used to come down through the park. Then was eliminated and the current road was built. I understand it's a tricky place to get to. But let's pick one and make it work. It's financially and environmentally ridiculous to keep flip flopping. All the plans are going to be expensive (I'm guessing at least 3x what has been estimated) and involve some tricky engineering. Let's just fix and fix properly the existing road. Plan 3a) fix the existing road. I feel this is the best plan, even if it's not the cheapest or easiest. There would be less environmental damage to undisturbed areas and less disturbance to landowners in the immediate area. Plan 3b) new bridge just east of existing.	Good afternoon [redacted] Thank you for attending the first Public Information Centre (PIC) for the Dominion Street Class Environmental Assessment. We greatly appreciate the comments you have provided at this time, as they help us gain a better understanding of the community's concerns with respect to the proposed undertaking and how best to move forward. With regard to your comments provided, you have raised significant concerns regarding some of the Alternative Solutions presented at the PIC. At this time we would like to reiterate that the Town is obligated to abide by the Municipal Engineers Association (MEA) Municipal Class Environmental (EA) process, which requires the consideration of all feasible options during the early stages of the MEA Class EA process. Further, based on public input received at the PIC and our analysis conducted to date, we have confirmed Alternative 3A – Existing Road and Bridge Rehabilitation, as the recommended Alternative Solution to carry forward. In addition to public consultation efforts, the Town and GHD have also been in contact with the Niagara Escarpment Commission (NEC), the Credit Valley Conservation Authority (CVC), the Ministry of Natural Resources and Forestry (MNRF) and Ontario Parks regarding the proposed undertaking and the Alternative Solutions. Upon request of the NEC, we have conducted a detailed review of the Niagara Escarpment Plan evaluating its level of compliance to each Alternative Solution. The results of which are documented in the Phase I & II Summary Report, which will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp). A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter. Kind regards, Brian Ruck	January 5, 2017	Email

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				Why create more road on a steep bank and disturb more riverbank? I realize it will be tricky to accommodate the towns people while under construction. But there is no easy way for any of these project ideas. Lets just bite the bullet and fix what we have properly. I would like to hear back and be kept informed of the status of this. Please let me know if my comment on the road coming through the park in the past is accurate. If not I apologize. Cheers [redacted]			
[redacted]	[redacted]	December 19, 2016	Email	To Who It May Concern. [redacted] my family and I were unable to attend alternatives and long- term solutions to provide safe access to Dominion St. Having been brought up to date, I feel the necessity to take the time , at this busy time of year, to express our horror,shock and dismay at the potential solutions being proposed. Specifically, Parts 2A and 2B, and 3B, seem so outlandish, that if there were not such significant tax payer dollars being spent, it would seem laughable. [redacted] and not a day goes by that I do not feel an appreciation for this untouched, natural jewel, that Caledon must protect, not destroy. The contradictions in your proposal with regard to the rules we have honoured, and abide by, as stated by the NEC and CVC, make a mockery of their mandates, and we will fight these proposals vigorously. The energy, resources and funds require to fight this lunacy seems exhausting, yet, this is a cause that will not be ignored, and will be defended. [redacted]	Good afternoon [redacted] Thank you for your comments regarding the Dominion Street Class EA and the information presented at the first Public Information Centre (PIC). We greatly appreciate the comments you have provided at this time, as they help us gain a better understanding of the community's concerns with respect to the proposed undertaking and how best to move forward. With regard to your comments provided, you have specifically expressed concern over Alternative Solutions 2A, 2B and 3B. At this time we would like to inform you that the Town is obligated to abide by the Municipal Engineers Association (MEA) Municipal Class Environmental (EA) process, which requires the consideration of all feasible options during the early stages of the MEA Class EA process. Further, based on public input received at the PIC and our analysis conducted to date, we have confirmed Alternative 3A – Existing Road and Bridge Rehabilitation, as the recommended Alternative Solution. In addition to public consultation efforts, the Town and GHD have also been in contact with the Niagara Escarpment Commission (NEC), the Credit Valley Conservation Authority (CVC), the Ministry of Natural Resources and Forestry (MNRF) and Ontario Parks regarding the proposed undertaking and the Alternative Solutions. Upon request of the NEC, we have conducted a detailed review of the Niagara Escarpment Plan evaluating its level of compliance to each Alternative Solution. The results of which are documented in the Phase I & II Summary Report, which will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp). A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter. Kind regards, Brian Ruck	January 5, 2017	Email
[redacted]	[redacted]	December 16, 2016	Email & Letter	We are the planning consultants representing the following landowners of Puckering Lane and Dominion Street: [redacted]	As identified at PIC #1 , the intent of this Class EA is three-fold: 1. To identify and evaluate the levels of risk associated with the river bank and road embankment along Dominion Street. 2. To identify a preferred long-term treatment strategy for	January 13, 2016	Email & Letter

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[redacted]				[redacted] Collectively, these lands are Legally described as Part of Lots 9 and 10, Conc. 3, WHS, Town of Caledon. While we did not have the Opportunity to attend the first Public Information Session held November 30, 2016 related to the Dominion Street Class Environmental Assessment, we have had the chance to thoroughly review the scope of work and alternative options presented for the public's review at that meeting. We appreciate the opportunity to provide input to this important process as it has direct impacts to our clients. It is understood that this Class Environmental Assessment is being undertaken to evaluate the levels of risk associated with the riverbank and road embankment along Dominion Street and to identify a preferred long-term strategy for the existing Dominion Street and bridge, including possible alternate or additional access/service roads connecting to Dominion Street. All of the lands subject to this Class Environmental Assessment are designated "Escarpment Natural Area" and "Escarpment Protection Area" in the Niagara Escarpment Plan, with the majority being within the most restrictive "Escarpment Natural Area' land use designation. The lands within this area are associated with the natural area of the Credit River, consisting of steep and variable topography, stream valleys, wetlands and forested areas which are environmentally significant and currently undisturbed. This is one of the most significant and scenic natural areas within the Niagara Escarpment and development should be considered carefully and in the context of the policy directives contained in the Niagara Escarpment Plan. Section 2.15 (Transportation and Utilities) in the Niagara Escarpment Plan notes the following with respect to new and expanded infrastructure: *"2.15 The objective is to design and locate new and expanded transportation and utility facilities so the least possible change occurs in the environment and the natural and cultural landscape.* *1. New transportation and utility facilities should avoid Escarpment Natural Areas."* Accordingly, we question the level of analysis that has been undertaken related to the proposed alternative options that would ultimately include disturbance of lands within the 'Escarpment Natural Area'. Further, our review of the Niagara Escarpment Plan suggests that the options that would create large scale disruption to the Niagara Escarpment would require a Niagara Escarpment Plan Amendment. As landowners in the area, our clients are very familiar with the lands subject to the Class Environmental Assessment and have strong opinions on the alternative options which were presented at the November 30, 2016 Public Information Centre. The overwhelming position of our clients is to ensure minimal impact to the natural environment and challenging topography. Further, there is significant concern related to the possibility of private land expropriation for certain alternative options and the general absence of discussion related to this	existing Dominion Street and the bridge. 3. To identify and evaluate the potential for additional access/service roads connecting to Dominion Street. At this time we would like to reiterate that the Town is obligated to abide by the Municipal Engineers Association (MEA) Municipal Class Environmental (EA) process, which requires the consideration of all feasible options during the early stages of the MEA Class EA process. Further, based on public input received at PIC #1 and our analysis conducted to date, we have confirmed Alternative 3A – Existing Road and Bridge Rehabilitation, as the recommended Alternative Solution to carry forward. In addition to public consultation efforts, the Town and GHD have also been in contact with the Niagara Escarpment Commission (NEC), the Credit Valley Conservation Authority (CVC), the Ministry of Natural Resources and Forestry (MNRF) and Ontario Parks regarding the proposed undertaking and the Alternative Solutions. Upon request of the NEC, we have conducted a detailed review of the Niagara Escarpment Plan evaluating its level of compliance to each Alternative Solution. The results of which are documented in the Phase I & II Summary Report, which will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp). A hardcopy will also be available for display at the Town Hall, Finance and Infrastructure Services counter.		

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				in the analysis to date. Below is a summary of comments, questions and concerns for each of the alternative options in order of the Town's Overall Ranking, on behalf of our clients.			
				<u>RANKED 1st - Alternative 3A (Existing Bridge and Road Rehabilitation)</u> This alternative option consists of rehabilitating the existing Dominion Street and existing bridge. This alternative option represents minimal disturbance to the Niagara Escarpment and surrounding sensitive natural features. Further, it does not impact privately owned lands and costs to facilitate this alternative option have been estimated to be in the range of $450,000 to $600,000. **This alternative option is supported by our clients.**	Thank you for your support of the recommended Alternative Solution – Alternative 3A (Existing Bridge and Road Rehabilitation).		
				<u>RANKED 2nd -Alternative 1 (Do Nothing)</u> The Study notes that the existing Dominion Street and bridge require some degree of rehabilitation or replacement in order to continue to provide access to the 14 private residences that utilize it for direct access to privately owned lands. The Study further notes that if the 'do nothing' approach is taken, the road and bridge will no longer be able to accommodate heavier vehicles and the access will eventually need to be closed. The need to replace the bridge and rehabilitate the road has come as a surprise to our clients and accordingly, we would like additional clarity on the degree of rehabilitation needed for Dominion Street and the bridge. **Our clients feel that maintaining access to Forks of the Credit Road via Dominion Street is essential for their properties.**	Thank you for your comments pertaining to Alternative 1 (Do Nothing). The degree of rehabilitation required for Dominion street and the bridge will be determined upon the completion of field investigations to be completed during the next phase (Phase III) of the Class EA study.		
				<u>RANKED 3rd -Alternative 3B (New Bridge (slightly east) and Road Rehabilitation)</u> This alternative option involves construction of a new bridge located just east of the existing bridge, at a narrower point in the river. The cost noted for this alternative option is estimated to be in the range of $1,400,000 to $1,800,000. This option would involve disturbance of currently undisturbed environmental lands, including forested landscape and the Credit River. We note that Section 2.8 (Wildlife Habitat) in the Niagara Escarpment Plan does not permit development within an identified habitat of endangered (regulated) plant or animal species. In this regard, our clients would like to better understand whether there is the presence of any species at risk within or adjacent to this new bridge location. Depending on this, MNR requirements will need to be met and the Niagara Escarpment Plan may need to be amended. Further, it is not clear whether even requirements related to impacts on the floodplain and bridge abutments and related setbacks have been considered. In this regard, our clients request confirmation that CVC has been consulted and seek to understand what CVC comments or concerns may be. As well, expropriation of privately owned land would be required to facilitate this option since the proposed new location for the bridge is	Thank you for your comments pertaining to Alternative 3B (New Bridge and Road Rehabilitation). The potential presence of any species at risk (SAR) within or adjacent to Dominion Street will be determined upon the completion of field investigations to be completed during the next phase (Phase III) of the Class EA study. Consideration for potential impacts to the floodplain will be considered during the preparation of Alternative Design Concepts. The Town and GHD have consulted the Niagara Escarpment Commission (NEC), the Credit Valley Conservation Authority (CVC), the Ministry of Natural Resources and Forestry (MNRF) Ontario Parks in addition to other Federal, Provincial, and Municipal agencies regarding the proposed undertaking and the Alternative Solutions. Please be advised that estimated costs for all Alternative Solutions presented at PIC #1 are not inclusive of potential expropriation costs. This is identified as such in the Phase I & II Summary Report.		

NAME	Address	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
				clearly within one of our clients' properties. It is not clear whether the estimated costs for this option have factored in the cost for expropriation, including the loss of privacy and enjoyment by this private landowner. In summary, it is questionable whether the environmental disturbance is clearly understood or whether the costs are accurate for this alternative option. **This alternative option is not supported by our clients because environmental impacts, CVC requirements, private land impacts/expropriation and overall costs have not been clearly outlined (and are not clearly understood).**			
				RANKED 4th - Alternative 2B (Re-alignment via Forks of the Credit Road) This alternative option involves construction of approximately 700 m of new road, disturbing approximately18,700 sq.m. (4.62 acres) of currently protected environmental lands. This terrain is forested, consisting of flora and fauna habitat within a steep valley environment with small tributary watercourses and wetland areas created by runoff from the hills. In fact, the land proposed for alternative option 2B appears to disturb an area consisting of low lying lands and floodplain areas. Furthermore, lands on the west side of the existing driveway to 227 Dominion Road are extraordinarily steep towards Dominion Street. This presents a dangerous driveway scenario and could result in a dangerous public road scenario if this alternative option is considered. Our clients would like further clarification of the degree of environmental disturbance that would result from this option, including whether this road development option would encompass floodplain lands and whether there are any species at risk that may be impacted. This option appears to have a significant impact to the natural environment based on the amount land disturbance expected and we request clarification and more details in this regard. In addition to questions about the details related to the anticipated environmental impacts of this option, it is not clear how the new road would actually access Dominion Street. The mapping for this option appears to show the road ending mid-property and our client who owns this parcel has confirmed that the existing private driveway in this location has a very steep gradient of approximately 13% and there is an existing 'hairpin' tum in the driveway (approx. 60 degrees) in this location. It is not expected that the Town would see fit to utilize such a steep gradient or tight turn and, accordingly, clarification is required related to what the Town's plans would be for direct access to Dominion Street for this alternative option. Specifically, we are wondering if access would involve traversing the rear yards of the lots which are located along the east side of Dominion Street. The landowners along Dominion Street in this vicinity should more clearly understand how this alternative may affect them. As well, our clients have advised there are some potentially significant building ruins on their lands and the proposed road appears to be located within close proximity of those ruins. Accordingly, we are requesting additional information and clarification on the detailed cultural heritage and/or archaeological assessments that have been carried out to determine the potential impacts on the cultural significance of this proposed road route. As well, the costs estimated by the Town for this option are noted to be $2,000,000 to $3,000,000. It is our submission that these costs are largely underestimated, as private landowner expropriation costs do not	Thank you for your comments pertaining to Alternative 2B (Re-alignment via Forks of the Credit Road). The potential for environmental disturbances pertaining to all Alternative Solutions is considered in the Alternative Solutions Comparative Evaluation to the Phase I & II Summary Report. Both a Stage 1 Archaeological Assessment and a Cultural Heritage Assessment for Dominion Street are currently being undertaking. Prior to PIC #1 secondary source information pertaining to the potential for archaeological and cultural heritage resources on-site was completed. The results of which are to be published with the Phase I & II Summary Report.		

NAME	Address	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
				seem to have been factored in. The noted description of this option clearly indicates that "this new connection would not affect any of the lands of Forks of the Credit Provincial Park"; however, there is no mention of the affect this option would have on private landowners. The properties that this option would impact are largely privately owned and valued at multi-millions of dollars. The land required to facilitate this option essentially traverses through the centre of privately owned properties. The anticipated impact environmentally, economically and personally for this option is significant and concerning. In addition, we question the status of lot creation that may result from this option. In essence, if this new road was approved, it would have the effect of creating a new lot(s) within privately held lands. We request clarification about the status and opportunities that may result from this new lot creation. It is our understanding that any new lot(s) created inadvertently through this process would have to be purchased and held by the Town because no new developable lots can be created by a municipal undertaking. We are requesting clarity in this regard. **Our clients have indicated that they are strongly opposed to this option as it would result in environmental disturbance on a large scale and would result in significant private land expropriation.**			
				<u>RANKED 5th - Alternative 2A (Re-alignment via Puckering Lane)</u> This alternative option proposes the connection of Dominion Street to Puckering Lane. It is not clear but it is assumed this would result in the closure of the southern leg of Dominion Street and the existing bridge at Forks of the Credit Road. As noted through the analysis, there is a steep drop between where Puckering Lane ends and where Dominion Street is. It is noted in the Town's analysis that this significant change in elevation would require disturbance of approximately 48,000 sq.m. (11.86 ac) of currently undisturbed land area. The land in this vicinity is not only steep, but it is forested and may contain species at risk which would trigger MNR approvals and possibly a Niagara Escarpment Plan Amendment, per Section 2.8 (noted above). Clarification is requested in this regard. The estimated costs outlined for this alternative option are $5,000,000 to $6,000,000 however it is important to note that this option would require significant expropriation from one private landowner. It is not clear if the anticipated costs have encompassed expected expropriation costs but it is important to note that the property affected through this option is a multi-million dollar property. It is also worthwhile to note that the affected property owner has provided the Bruce Trail Conservatory permission to extend their trail across the northwest corner of the property (in close proximity to this proposed road extension). Selection of this alternative option will disrupt The Bruce Trail in this location, in addition to providing environmental disturbance. As well, Puckering Lane is not currently a paved road. In fact, the road itself likely does not meet current Town road standards in terms of width, slope and surface material. The current users of Puckering Lane enjoy the secluded nature of Puckering Lane. However, our clients have raised the legitimate question of whether implementation of this alternative option, which would effectively introduce at least 14 new landowners as 'users' of this road, may trigger the need for upgrades to Puckering Lane for safety and accessibility. This has not been sufficiently explored or	Thank you for your comments pertaining to Alternative 2A (Re-alignment via Puckering Lane). As previously noted, estimated costs for all Alternative Solutions presented at PIC #1 are not inclusive of potential expropriation costs.		

NAME	Address	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
				explained to the existing landowners in this area and we question whether costs associated with potential Puckering Lane road improvements have been factored into this alternative option. **Our clients are opposed to this alternative option as it would introduce disturbance of significant natural features estimated at 48,000 sq.m. (11.86 acres), excessively steep road configuration, and private land expropriation. As well, questions remain regarding accurate costing of this option.**			
				RANKED 6th - Alternative 2C (Re-alignment via Forks of Credit Provincial Park) This alternative option involves the northern extension of Dominion Street following the alignment of the existing Bruce Trail, connecting to Forks of the Credit Provincial Park parking lot. This alternative option would require large scale environmental disturbance to facilitate construction of a new road in areas of steep topography traversing the Provincial Park. The estimated area of disturbance for this option is 58,000 sq.m. (14.33 acres). This alternative option relies on land expropriation from the Forks of the Credit Provincial Park and accordingly, private land expropriation is not a concern of our clients for this option. However, the land area subject to environmental disturbance is concerning. Our clients are not opposed to this option because it does not have any direct impact to private landholdings; however, the land area subject to environmental disturbance required to facilitate this option is concerning.	Thank you for your comments pertaining to Alternative 2C (Re-alignment via Forks of the Credit Provincial Park Parking Lot).		
				Summary As noted above, **our clients raise important questions and generally oppose Options 2B, 2A and 3B.** Concerns include environmental disturbance, private landholding impacts, and inaccurate (misleading) costing. Specifically, questions remain regarding the level and degree of environmental disturbance, the degree and details of impacts to private landholdings and the accuracy of costing for each of the options (and whether expropriation costs have been factored in). The current policies in the NEP strongly discourage any new transportation or utility development within the "Escarpment Natural Area" or "Escarpment Protection Area". Furthermore, any new road that may be approved which has the effect of creating a new lot (i.e. option 2B) may require the resultant parcels to be transferred to the Town. This would have devastating effects on the private landholders who currently own and are environmental stewards of these lands. As well, there are concerns among our clients that the Dominion Street Class Environmental Assessment has not clearly indicated those lands which are subject to this assessment that are owned privately. Since initial publication of the proposed alternative options and associated mapping, there have been increased incidences of trespassing. **We respectfully request that all publications associated with this Class Environmental Assessment immediately be revised and re-posted on the internet to clearly delineate those lands that are under private ownership to ensure that members of the public clearly understand these are not publicly owned lands and are not**	As previously identified, estimated costs for all Alternative Solutions presented at PIC #1 are not inclusive of potential expropriation costs and the potential for environmental disturbances pertaining to all Alternative Solutions is considered in the Alternative Solutions Comparative Evaluation to the Phase I & II Summary Report. As noted, the Town and GHD have also been in contact with the Niagara Escarpment Commission (NEC), the Credit Valley Conservation Authority (CVC), the Ministry of Natural Resources and Forestry (MNRF), Ontario Parks and other Federal, Provincial and Municipal agencies regarding the proposed undertaking and the Alternative Solutions. Upon request of the NEC, we have conducted a detailed review of the Niagara Escarpment Plan evaluating its level of compliance to each Alternative Solution. The results of which are documented in the Phase I & II Summary Report, which will soon be made publically available on the Town's Website (http://www.caledon.ca/en/index.asp). The Phase I & II Summary Report will be updated to reflect that public and private lands may both be impacted, depending on the preliminary configuration of each Alternative Solution. We will continue to keep you informed as the study progresses and will distribute to you a copy of the full Phase I & II Summary Report upon its publication.		

NAME	Address	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
				accessible to them. Please continue to keep us apprised as this important process evolves. We look forward to your written reply to our comments and requests. In the meantime, please call if you have any questions.			

Appendix G-1
Stakeholder Correspondence: Government Review Team

Dominion Street Schedule 'C' Class EA – GRT Comment Tracking Table

NAME	ORG./TITLE	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
Krystina Koops	Planner Dufferin-Peel Catholic District School Board	08/04/2016	Email	Please find attached our completed form. (not interested)	*Noted.*		
Tim Marchand	Senior Park Planner Ontario Parks	08/10/2016	Reply Form	(interested)	*Noted. Agency will be kept informed as the study progresses.*		
Maggie Lobo, on behalf of, Gary Kocialek, P.Eng.	Director – Transportation, Region of Peel	08/10/2016	Reply Form	(interested) Interface with Forks of the Credit Road	Thanks Maggie Brian Ruck, P. Eng. , CVS – Life Certified Value Specialist Principal Vice President, Transportation and Value Engineering *Noted.* *Agency will be kept informed as the study progresses.*	09/01/2016	Email
Sally Rook,	Manager – Infrastructure Program & Studies Region of Peel	08/10/2016	Reply Form	(interested) Interface with Forks of the Credit Road	*Noted. No Response Required* *Agency will be kept informed as the study progresses.*		
Nancy Mott	Senior strategic Advisor Niagara Escarpment Commission	08/19/2016	Reply Form	(interested) Subject lands within Niagara Escarpment Plan Area + Area of Development Control. Development permits may be required for the proposed construction.	*Comment Noted.* *Agency will be kept informed as the study progresses.*		
Bianca Bielski, MCIP RPP	Manager, Planning & Enrolment Planning & Accommodation Support Services Peel District School Board	08/09/2016	Reply Form	(interested) Please update your records	Good afternoon Ms. Bielski, Thank you for your interest regarding the Dominion Street Class Environmental Assessment. We recognize the Peel District School Board as a key stakeholder to this undertaking a nd we will continue to keep you informed as the study progresses. As we are in the early stages of the environmental a ssessment process we welcome any available information from your agency relevant to the undertaking, for our consideration in the development of this study. Kind regards, Alex Pereira On behalf of Brian Ruck, P. Eng. , CVS – Life Certified Value Specialist	09/21/2016	Email
	Infrastructure Ontario	08/22/2016	Email/Letter	See "Response to EA Notice"	*Comments Noted. No further actions required.*		
Angela Stockman	Technical Analyst Region of Peel	08/31/2016	Reply Form	(not interested) There is currently no water or wastewater infrastructure on Dominion St or within the study area. There are no future plans for water/wastewater.	Thank you Angela. We will continue to keep you informed as the study progresses. Alex Pereira, BES Environmental Planner	01/12/2016	Email

NAME	ORG./TITLE	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
Liam Marray	Manager, Planning Ecology Credit Valley conservation Authority	09/01/2016	Reply Form	Natural Heritage – FSA, wetlands, significant woodlands, Peel Greenlands, Caledon EPA. Natural Hazards – floodplain, meander belt, erosion, stormwater management	Thanks Liam – we'll be in touch Brian Ruck, P. Eng. , CVS – Life Certified Value Specialist Principal Vice President, Transportation and Value Engineering *Comments Noted.* *Agency will be kept informed as the study progresses.*	09/01/2016	Email
Rosi Zirger	Heritage Planner Ministry of Tourism, Culture & Sport	08/09/2016	Email/Letter	Good afternoon Thank you for sending the Ministry of Tourism, Culture and Sport (MTCS) Notice of Study Commencement for the project mentioned above. Please find attached MTCS comments and recommendations for this project. Meanwhile, we would appreciate being kept informed of this project as it proceeds through the EA process. Please send future notices to Rosi Zirger Heritage Planner at the address below or to rosi.zirger@ontario.ca. In addition, since this EA project will also consider the Dominion Street Bridge, would you pelage provide me with a current photo of the bridge. Please contact me as necessary for further discussion. Sincerely Rosi Zirger Heritage Planner Ministry of Tourism, Culture & Sport Culture Division| Programs & Services Branch | Heritage Programs Unit	Good afternoon Rosi, As per your request, please follow the link below to download our most current photos of the Dominion Street Bridge. Date Expires: Friday, September 9, 2016 Navigate to the following link to Download the file(s): http://ghd.2big4email.com/en/downloadfiles.aspx?param=wGhJ5lA5HsjpPlUsLNJGU6BM9ltiweQuAleQuAl Regards, Alex Pereira, BES Environmental Planner GHD T: +1 905 429 4952 | C: +1 519 280 0374 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com 65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION Please consider our environment before printing this email	08/10/2016	Email
				Dear Mr. Ruck Thank you for providing the Ministry of Tourism, Culture and Sport (MTCS) with the Notice of Commencement for the above named 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. Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources. Cultural Heritage Considerations 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			

NAME	ORG./TITLE	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
				This EA project may impact archaeological resources and you should screen the project with the MTCS Criteria for Evaluating Archaeological Potential to determine if an archaeological assessment is needed. MTCS archaeological sites data are available at archaeology@ontario.ca. If this EA project area exhibits archaeological potential, then an archaeological assessment (AA) 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 be completed to help determine whether this EA project may impact cultural heritage resources. The Clerk or Heritage Planner for the Town of Caledon 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 and the Town's Heritage Planner for review, and make it available to local organizations or individuals who have expressed interest in review. **Municipal Heritage Bridges Cultural, Heritage & Archaeological Resources Assessment Checklist** Since this project includes a municipally owned bridge, you should also refer to and apply the Municipal Engineers Association screening criteria for work on bridges that fall under the Municipal Class EA. A *checklist* and *background material* developed in coordination with MTCS, is available on the MEA website. **Environmental Assessment Reporting** All technical heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MTCS of the technical heritage studies to be completed for this EA project, and provide them 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. Thank-you for consulting MTCS on this project: please continue to do so through the EA process, and contact me for any questions or clarification. Sincerely,			

NAME	ORG./TITLE	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
				Rosi Zirger Heritage Planner rosi.zirger@ontario.ca			
Environmental Assessment Program	Transport Canada	08/09/2016	Email	Hello, Thank you for your correspondence. Please note Transport Canada does not require receipt of all individual or Class EA related notifications. We are requesting project proponents to self-assess if their project will interact with a federal property and require approval and/or authorization under any Acts administered by Transport Canada*. Under the Canadian Environmental Assessment Act, 2012, Transport Canada is required to determine the likelihood of significant adverse environmental effects of projects that will occur on federal property prior to exercising a power, performing a function or duty in relation to that project. The project proponent should review the Directory of Federal Real Property, available at http://www.tbs-sct.gc.ca/dfrp-rbif/, to verify if the project will potentially interact with any federal property and/or waterway. The project proponent should also review the list of Acts that Transport Canada administers and assists in administering that may apply to the project, available at: https://www.tc.gc.ca/eng/acts-regulations/acts.htm. If the aforementioned does not apply, the Environmental Assessment program should not be included in any correspondence. If there is a role under the program, correspondence should be forwarded electronically to: EnviroOnt@tc.gc.ca. *Below is a summary of the most common Acts that have applied to projects in an Environmental Assessment context: • Navigation Protection Act (NPA) – the Act applies primarily to works constructed or placed in, on, over, under, through, or across scheduled navigable waters set out under the Act. The Navigation Protection Program administers the NPA through the review and authorization of works affecting scheduled navigable waters. Information about the Program, NPA and approval process is available at: http://www.tc.gc.ca/eng/programs-621.html. Enquiries can be directed to NPPONT-PPNONT@tc.gc.ca or by calling (519) 383-1863. • Railway Safety Act (RSA) – the Act provides the regulatory framework for railway safety, security, and some of the environmental impacts of railway operations in Canada. The Rail Safety Program develops and enforces regulations, rules, standards and procedures governing safe railway operations. Additional information about the Program is available at: https://www.tc.gc.ca/eng/railsafety/menu.htm. Enquiries can be directed to RailSafety@tc.gc.ca or by calling (613) 998-2985. • Transportation of Dangerous Goods Act (TDGA) – the transportation of dangerous goods by air, marine, rail and road is regulated under the TDGA. Transport Canada, based on risks, develops safety standards and regulations, provides oversight and gives expert advice on dangerous goods to promote public safety. Additional information about the transportation of dangerous goods is available at: https://www.tc.gc.ca/eng/tdg/safety-menu.htm. Enquiries can be directed to TDG-TMDOntario@tc.gc.ca or by calling (416) 973-1868.	*Comments Noted. No further actions required.*		

NAME	ORG./TITLE	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
				• Aeronautics Act – Transport Canada has sole jurisdiction over aeronautics, which includes aerodromes and all related buildings or services used for aviation purposes. Aviation safety in Canada is regulated under this Act and the Canadian Aviation Regulations (CARs). Elevated Structures, such as wind turbines and communication towers, would be examples of projects that must be assessed for lighting and marking requirements in accordance with the CARs. Transport Canada also has an interest in projects that have the potential to cause interference between wildlife and aviation activities. One example would be waste facilities, which may attract birds into commercial and recreational flight paths. The Land Use In The Vicinity of Aerodromes publication recommends guidelines for and uses in the vicinity of aerodromes, available at: https://www.tc.gc.ca/eng/civilaviation/publications/tp1247-menu-1418.htm. Enquires can be directed to CASO-SACO@tc.gc.ca or by calling 1 (800) 305-2059 / (416) 952-0230. Please advise if additional information is needed. Thank you, Environmental Assessment Program | Programme d'évaluation environnementale Transport Canada, Ontario Region | Transports Canada, Région de l'Ontario 4900 Yonge St., Toronto, ON M2N 6A5 | 4900, rue Yonge, Toronto, ON, M2N 6A5 Email | Courriel: EnviroOnt@tc.gc.ca Facsimile | télécopieur: (416) 952-0514 Government of Canada | Gouvernement du Canada			
Dawn Langtry	Director, Strategic Policy, Planning and Initiatives Health Services, Region of Peel	08/11/2016	Email	Hello, I believe I received this and a couple of other letters in error. I am not a member of the Government Review Team? Perhaps my name has been confused with someone else at the Region. I am in the Health Department and I'm the Director of Strategic Policy, Planning and Initiatives. Dawn Dawn Langtry Director, Strategic Policy, Planning and Initiatives Health Services, Region of Peel 10 Peel Centre Drive, 3rd Floor Brampton, ON L6T 4B9 Phone: (905) 791- 7800 ext. 4138	Good morning Dawn, I apologize for the confusion. As standard practice regarding the consultation process of environmental assessments, we typically include a contact from the municipality's health services into the initial distribution list. Should you wish, I will remove your information from our contact list. Regards, Alex Pereira, BES Environmental Planner	08/11/2016	Email
				Thanks I would appreciate that. D	*Noted.*		
Andrew Geraghty	Fisheries Protection Program Biologist, Central & Arctic Region Fisheries and Oceans Canada	08/22/2016	Email	Hello Mr. Ruck, We have reviewed the Class EA notification relating to the Dominion Street rehabilitation as submitted to us and would like to comment that the sectio ns of the Credit River that border the outlined study area have been identifi ed as potentially containing Redside Dace, a species currently listed as Sp ecial Concern under the Species at Risk Act, and listed as Endangered un der the ESA. Regards, Andrew Geraghty Fisheries Protection Program Biologist, Central & Arctic Region Fisheries and Oceans Canada / Government of Canada Andrew.Geraghty@dfo-mpo.gc.ca / Tel: 905-336-4560 Biologiste, protection des pêches, Région du Centre et de l'Arctique	Thanks Andrew - noted Brian Ruck, P. Eng. , CVS – Life Certified Value Specialist Principal Vice President, Transportation and Value Engineering *Comments Noted.* *Agency will be kept informed as the study progresses.*	08/29/2016	Email

NAME	ORG./TITLE	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
				Pêches et Océans Canada / Gouvernement du Canada Andrew.Geraghty@dfo-mpo.gc.ca / Tél. : 905-336-4560			
Sargon Sifo	Technical Analyst Region of Peel	10/08/2016	Email	Hi Alex Has the study for Dominion Street commenced and if it has is there a copy for circulation? Our Traffic Operations group is interested in the traffic and design compon ent of the EA. Thank you Sargon Sifo, C.E.T. Technical Analyst, Infrastructure Programming & Studies Transportation Division, Public Works 10 Peel Centre Drive, Brampton, ON 4th Floor, L6T 4B9 Tel: 905-791-7800, 7834 Fax: 905-791-1442 Sargon.Sifo@peelregion.ca	Hi Sargon: The EA for Dominion Street has commenced – we are expecting our first open house later this month. Given the low volumes of traffic on Dominion Street, we don't ha ve a traffic component as part of our study. We'll keep you informed as the project progresses on what the d esign features might include Brian Ruck, P. Eng. , CVS – Life Certified Value Specialist Principal Vice President, Transportation and Value Engineering GHD T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com 65 Sunray Street Whitby ON L1N 8Y3 | www.ghd.com WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION	10/08/2016	Email
Michael Orr	Public Works Officer, Canadian National Railway	10/30/2016	Email	Ian, CN is in receipt of the attached Notice of EA for Dominion St. Please be ad vised that CN has no operation within thestudy area, and therefore, you m ay remove CN from the list. Please note that you may wish to contact Canadian Pacific Railway (CP), who does appear to have operations within / near the study area.	*Comments Noted.*		
Trevor Bell	Environmental Resource Planner and EA Coordinator	08/29/2016	Email/Letter	Good afternoon, Please find attached a letter from the Ministry of the Environment and Climate Change, Central Region Technical Support Section regarding the above noted project. Feel free to contact me directly with any questions or concerns you may have. Sincerely, Trevor Bell Environmental Resource Planner and EA Coordinator Technical Support Section | Central Region Ministry of the Environment and Climate Change 5775 Yonge St., 8th Floor Toronto, ON M2M 4J1 T: 416-326-3577 E: trevor.bell@ontario.ca	*Follow up required at later stages of Class EA process.*		

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** August 4, 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: Krystina Koops

[X] **Use my contact information as the key project contact for future correspondence**

Title: Planner

Municipality/Agency: Dufferin-Peel Catholic District School Board

Address: 40 Matheson Blvd W Mississauga

Postal Code: L5R 1C5

Telephone: 905-890-0708 ex 24407 **Fax:**

Email: krystina.koops@dpcdsb.org

Please select the appropriate response:

[ ] My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list.

[x] My agency/organization **is not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

[ ] Please remove my organization/agency from the project contact list.

Area of interest or concern/comments:

peel District School Board

Bianca MV Bielski, MCIP RPP
Manager, Planning & Enrolment
Planning & Accommodation Support
Services

e bianca.bielski@peelsb.com

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c 647.468.8135
f 905.890.5295
www.peelschools.org

REPLY FORM

SE REPLY BY AUGUST 23, 2016

Date: Aug 9, 2016

Email: brian.ruck@ghd.com

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

RECEIVED AUG 1 2 2016

Name: _____

☑ **Use my contact information as the key project contact for future correspondence**

Title: _____

Municipality/Agency: _____

Address: _____

Postal Code: _____

Telephone: _____ **Fax:** _____

Email: _____

Please select the appropriate response:

☑ My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list.

☐ My agency/organization **is not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove my organization/agency from the project contact list.

Area of interest or concern/comments:

Please update your records.

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** AUGUST 10/16

Fax: (905) 432-7877 **Email:** brian.ruck@ghd.com

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: TIM MARCHAND

☑ **Use my contact information as the key project contact for future correspondence**

Title: SENIOR PARK PLANNER

Municipality/Agency: ONTARIO PARKS, MNRF

Address: 659 EXETER ROAD LONDON ON

Postal Code: N6E 1L3

Telephone: 519-873-4618 **Fax:** 519-873-4645

Email: TIM.MARCHAND@ONTARIO.CA

Please select the appropriate response:

☑ My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list.

☐ My agency/organization **is not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove my organization/agency from the project contact list.

Area of interest or concern/comments:

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** Aug 10, 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: Gary Kocialek P.Eng

☒ **Use my contact information as the key project contact for future correspondence**

Title: Director - Transportation

Municipality/Agency: Region of Peel

Address: 10 Peel Centre Drive, Brampton ON

Postal Code: L6T 4B9

Telephone: 905 791-7800 x4100 **Fax:**

Email: gary.kocialek@peelregion.ca

Please select the appropriate response:

☒ My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list.

☐ My agency/organization **is not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove my organization/agency from the project contact list.

Area of interest or concern/comments:

INTERFACE WITH FORKS OF THE CREDIT ROAD

Note: Damian Albanese has retired. Please remove him from the mailing list.

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** August 10, 2016

Fax: (905) 432-7877 **Email:** brian.ruck@ghd.com

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: Sally Rook

☒ **Use my contact information as the key project contact for future correspondence**

Title: MANAGER – INFRASTRUTURE PROGRAM & STUDIES

Municipality/Agency: REGION OF PEEL

Address: 10 PEEL CENTRE DRIVE, SUITE B, BRAMPTON

Postal Code: L6T 4B9

Telephone: 905-791-7800 x 7842 **Fax:**

Email: sally.rook@peelregion.ca

Please select the appropriate response:

☒ My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list.

☐ My agency/organization **is not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove my organization/agency from the project contact list.

Area of interest or concern/comments:

INTERFACE WITH ~~INTERSECTION~~ FORKS TO THE CREDIT ROAD

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** Aug. 19/16

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: Nancy Mott

☑ **Use my contact information as the key project contact for future correspondence**

Title: Senior Strategic Advisor

Municipality/Agency: Niagara Escarpment Commission

Address: 232 Guelph St. 3rd fl. Georgetown

Postal Code: L7G 4B1

Telephone: 905-877-5363 **Fax:** 905-873-7452

Email: nancy.mott@ontario.ca

Please select the appropriate response:

☑ My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list.

☐ My agency/organization **is not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove my organization/agency from the project contact list.

Area of interest or concern/comments:

Subject lands within Niagara Escarpment Plan Area + Area of Development Control
Development Permits may be required for the proposed construction

Ontario
Infrastructure Ontario

One Dundas Street West, Suite 2000, Toronto, ON M5G 2L5
1, rue Dundas Ouest, bureau 2000, Toronto, ON M5G 2L5

August 22, 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 (MOI lands) to support your proposed project.

Prior to MOI consenting to the use of MOI lands, the applicable environmental assessment, duty to consult Aboriginal peoples (if triggered) and heritage obligations will need to be met. In order for MOI to allow you access to MOI lands and to carry out proposed activities, MOI 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 MOI's obligations which may include considering the use of any MOI lands as part of your individual environmental assessment. All costs associated with meeting MOI's obligations will be the responsibility of the proponent. Please note that time should be allocated in your project timelines for MOI to ensure that its obligations have been met and to secure any required internal government approvals required to allow for the use of the MOI lands for your proposed project.

In order for MOI 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 MOI 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 MOI 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 MOI 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 MOI lands, then an agreement is required and all studies undertaken on MOI lands will be considered confidential until approval is received. IO will require electronic copies of all required studies on MOI lands that you undertake.

We strongly encourage you to work with IO as early as possible in your process to identify if any

MOI lands would be required for your proposed project. Please note that on title MOI control may be identified under the name of MOI 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[1].

Please provide Rita Kelly with a confirmation in writing of any MOI 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 MOI lands.

For more information concerning MOI lands in your study area or the process for acquiring access to or an interest in MOI 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

An application package and requirements checklist is attached for your reference. Please note that transfer of an interest in MOI 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

[1] 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 MOI 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

Ontario
Infrastructure Ontario

One Dundas Street West, Suite 2000, Toronto, ON M5G 2L5
1, rue Dundas Ouest, bureau 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 MOI granting access to MOI 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 MOI.

Prior to the use of MOI lands, MOI must first meet any duty to consult obligations that may be triggered by the proposed use of MOI lands. It is incumbent on you to consult with IO as early in the process as possible once you have confirmed that MOI lands would be involved.

MOI will evaluate the potential impact of your proposed project on Aboriginal and treaty rights. MOI may assess that the Crown's Duty to Consult (DTC) requires consultation of Aboriginal communities. Proponents should discuss with IO whether MOI will require consultation to occur and if so, which communities should be consulted.

Where MOI determines that Aboriginal consultation is required, MOI will formally ask you to consult or continue to consult with Aboriginal peoples at the direction of MOI.

On behalf of MOI 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.

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One Dundas Street West, Suite 2000, Toronto, ON M5G 2L5
1, rue Dundas Ouest, bureau 2000, Toronto, ON M5G 2L5

INSTRUCTION NOTE 2

Requirements of the MOI Public Work Class Environmental Assessment

MOI has an approved Class EA (the Ministry of Infrastructure Public Work Class Environmental Assessment (Public Work Class EA) to assesses undertakings that affect MOI 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 MOI lands. IO will work with you to ensure that all of the MI undertakings or activities related to the use of MOI lands are identified, that the appropriate Category of undertaking is used and a monitoring and report back mechanism is established to ensure that MOI's obligations are met.

The completion of another environmental assessment process that assesses the undertakings related to MOI lands may satisfy MOI'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 MOI lands on a case by case basis.

Where it is decided that the assessment of undertakings related to MOI 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 MOI 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 MOI undertakings related to the use or access to MOI 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 MOI would be relying on the proponent's assessment to satisfy MOI's obligations under the *Environment Assessment Act*;
- establish a monitoring and report back mechanism to ensure that any obligations of MOI 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 MOI lands are consulted

Other Due Diligence Requirements

There may also be other additional due diligence requirements for the use of MOI 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

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1, rue Dundas Ouest, bureau 2000, Toronto, ON M5G 2L5

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 MOI 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 MOI 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 MOI'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 MOI due diligence obligations, including internal government approvals. All costs associated with meeting MOI'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.

- <u>Stage 1</u> Background Study - Evaluation of Archaeological Potential
    - Archival research and non-intrusive site visit

- <u>Stage 2</u> 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….

Ontario
Infrastructure Ontario

One Dundas Street West, Suite 2000, Toronto, ON M5G 2L5
1, rue Dundas Ouest, bureau 2000, Toronto, ON M5G 2L5

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 MOI 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 MOI's heritage and MOI PW Class EA obligations, proponents will be required to undertake cultural heritage assessments for all projects that require MOI lands. This will help to determine if the MOI 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 MOI 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 MOI 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 MOI 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 MOI's heritage due diligence obligations, including internal government approvals. All costs associated with meeting MOI's heritage obligations are the responsibility of the proponent.

Staff contacts……

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** Aug 9, 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

RECEIVED AUG 1 2 2016

Name: _____

☑ **Use my contact information as the key project contact for future correspondence**

Title: _____

Municipality/Agency: _____

Address: _____

Postal Code: _____

Telephone: _____ **Fax:** _____

Email: _____

Please select the appropriate response:

☑ My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list.

☐ My agency/organization **is not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove my organization/agency from the project contact list.

Area of interest or concern/comments:

Please update your records.

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** August 31st, 2016

Fax: (905) 432-7877 **Email:** brian.ruck@ghd.com

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: Angela Stockman

[x] **Use my contact information as the key project contact for future correspondence**

Title: Technical Analyst

Municipality/Agency: Region of Peel - Water and Wastewater Program Planning

Address: 10 Peel Centre Drive, Suite A Brampton

Postal Code: L6T 4B9

Telephone: 905·791·7800 ext 4143 **Fax:**

Email: angela.stockman@peelregion.ca

Please select the appropriate response:

[ ] My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list.

[x] My agency/organization **is not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

[ ] Please remove my organization/agency from the project contact list.

Area of interest or concern/comments:

There is currently no water or wastewater infrastructure on Dominion St or within the study area.

There are no future plans for water/wastewater

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** Sept 1/2016

Fax: (905) 432-7877 **Email:** brian.ruck@ghd.com

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: LIAM MARRAY

☐ **Use my contact information as the key project contact for future correspondence**

Title: MANAGER PLANNING Ecology

Municipality/Agency: CREDIT VALLEY CONSERVATION

Address: 1255 Old Derry Road, MISSISSAUGA, ON L5N 6R4

Postal Code: L5N 6R4

Telephone: 905 670-1615 ext 239 **Fax:** 905 670-2210

Email: lmarray@creditvalleyca.ca

Please select the appropriate response:

☑ My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list.

☐ My agency/organization **is not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove my organization/agency from the project contact list.

Area of interest or concern/comments:

natural heritage - ESA, wetlands, significant woodlands
Peel Greenlands, Caledon EPA
natural hazards - floodplain, meander belt, EROSION
- stormwater management

Alex Pereira

From: Brian Ruck
Sent: Monday, August 29, 2016 1:02 PM
To: Alex Pereira; Blair Shoniker
Subject: FW: Dominion Street Schedule C Municipal Class EA and Public Parks and Conservation Reserves Class EA
Attachments: TSS_NoSC_Response Letter_Dominion Street.docx; TSS_NoSC_Response Letter_Dominion Street_signed.PDF

Follow Up Flag: Follow up
Flag Status: Completed

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

From: Bell, Trevor (MOECC) [mailto:Trevor.Bell@ontario.ca]
Sent: Monday, August 29, 2016 12:44 PM
To: ian.todhunter@caledon.ca
Cc: Brian Ruck; Martin, Paul (MOECC); Dufresne, Tina (MOECC)
Subject: Dominion Street Schedule C Municipal Class EA and Public Parks and Conservation Reserves Class EA

Good afternoon,

Please find attached a letter from the Ministry of the Environment and Climate Change, Central Region Technical Support Section regarding the above noted project. Feel free to contact me directly with any questions or concerns you may have.

Sincerely,

Trevor Bell
Environmental Resource Planner and EA Coordinator
Technical Support Section | Central Region
Ministry of the Environment and Climate Change
5775 Yonge St., 8th Floor
Toronto, ON M2M 4J1
T: 416-326-3577

E: trevor.bell@ontario.ca

Ministry of the Environment and Climate Change

Central Region
Technical Support Section

5775 Yonge Street, 8th Floor
North York, OntarioM2M 4J1

Tel.: (416) 326-6700
Fax: (416) 325-6347

Ministère de l'Environnment et de l'Action en Matière de Changement Climatique

Région du Centre
Section d'appui technique

5775, rue Yonge, 8ième étage
North York, Ontario M2M 4J1

Tél. : (416) 326-6700
Téléc. : (416) 325-6347

Ontario

August 29, 2016

File No.: EA 01-06-05

Ian Todhunter
Project Manager
Town of Caledon
6311 Old Church Road
Caledon, Ontario L7C 1J6
Ian.todhunter@caledon.ca

RE: Dominion Street
Town of Caledon
Schedule C Municipal Class Environmental Assessment and Public Parks and Conservation Reserves Class Environmental Assessment
Response to Notice of Study Commencement

Dear Mr. Todhunter,

This letter acknowledges that the Town of Caledon has retained GHD Limited to conduct a Schedule C Municipal Class Environmental Assessment concurrently with a Public Parks and Conservation Reserves Class Environmental Assessment study for the rehabilitation of Dominion Street in the Town of Caledon.

The attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please identify the areas of interest which are applicable to your project and ensure they are addressed. Proponents who address all of the applicable areas of interest can minimize potential delays to their project schedule.

Failure to properly follow the Class EA process is an offence under the *Environmental Assessment Act*. It may also result in the ministry withholding/revising an approval provided under the Act and/or the Minister issuing a Part II Order for the project.

A draft copy of the Environmental Study Report (ESR) should be sent to this office prior to the filing of the final draft, allowing approximately 30 days review time for the ministry's reviewers to provide comments. Please also forward our office the Notice of Completion and ESR when completed. Should your team have any questions regarding the above, please contact me at 416-326-3577.

Yours sincerely,

Trevor Bell
Environmental Resource Planner and EA Coordinator
Air, Pesticides and Environmental Planning

c. B. Ruck, Consultant Project Manager, GHD Limited
P. Martin, Supervisor, APEP, Central Region, MOECC
T. Dufresne, Manager, Halton Peel District Office, MOECC
Central Region EA File

A & P File

AREAS OF INTEREST

It is suggested that you check off each applicable area after you have considered / addressed it.

☐ **Ecosystem Protection and Restoration**

- Any impacts to ecosystem form and function must be avoided where possible. The ESR should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.

- All natural heritage features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:

  - Areas of Natural and Scientific Interest (ANSIs)
  - Rare Species of flora or fauna
  - Watercourses
  - Wetlands
  - Woodlots

  We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features. In addition, you may consider the provisions of the Rouge Park Management Plan if applicable.

☐ **Surface Water**

- The ESR must include a sufficient level of information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, and pollution) are mitigated as part of the proposed undertaking.

- Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry's Stormwater Management Planning and Design Manual (2003) should be referenced in the ESR and utilized when designing stormwater control methods. We recommend that a Stormwater Management Plan should be prepared as part of the Class EA process that includes:

  - Strategies to address potential water quantity and erosion impacts related to stormwater draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained
  - Watershed information, drainage conditions, and other relevant background information
  - Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works
  - Information on maintenance and monitoring commitments.

- Ontario Regulation 60/08 under the Ontario Water Resources Act (OWRA) applies to the Lake Simcoe Basin, which encompasses Lake Simcoe and the lands from which surface water drains into Lake Simcoe. If the proposed sewage treatment plant is listed in Table 1 of the regulation, the ESR should describe how the proposed project and its mitigation measures are consistent with the requirements of this regulation and the OWRA.

Groundwater

- The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the ESR.

- If the potential construction or decommissioning of water wells is identified as an issue, the ESR should refer to Ontario Regulation 903, Wells, under the OWRA.

- Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts.

- Any potential approval requirements for groundwater taking or discharge should be identified in the ESR. In particular, a Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 litres per day.

Air Quality, Dust and Noise

- If there are sensitive receptors in the surrounding area of this project, an air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization, a quantification of air quality impacts by determining emission rates and conducting dispersion modelling, and an assessment of effects. The assessment will compare to all available standards for any contaminants of concern. Please contact this office during the scoping process to confirm the appropriate level of assessment.

- Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.

- The ESR should consider the potential impacts of increased noise levels during the operation of the undertaking due to potentially higher traffic volumes resulting from this project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

Servicing and Facilities

- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with the Environmental Approvals Access and Service Integration Branch (EAASIB) to determine whether a new or amended ECA will be required for any proposed

infrastructure.

- We recommend referring to the ministry's "D-Series" guidelines – Land Use Compatibility to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.

Contamination and Soils

- Any current or historical waste disposal sites should be identified in the ESR. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites.

- Since the removal or movement of soils may be required, the ministry's document "Management of Excess Soil – A Guide for Best Management Practices" should be followed regarding all activities related to soil management. If potential contamination involved at the site, appropriate tests to determine contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with *Part XV.1 of the Environmental Protection Act* (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Please contact the ministry's District Offices for further consultation if contaminated sites are present.

- The location of any underground storage tanks should be investigated in the ESR. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.

- The ESR should identify any underground transmission lines in the study area. The owners should be consulted to avoid impacts to this infrastructure, including potential spills.

Mitigation and Monitoring

- Design and construction reports and plans should 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 any impacted areas.

- All waste generated during construction must be disposed of in accordance with ministry requirements.

- Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the ESR and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly. The proponent's construction and post-construction monitoring plans should be documented in the ESR.

Planning and Policy

- The Provincial Policy Statement (2014) contains policies that protect Ontario's natural heritage, such as significant ANSIs, watercourses and wetlands. Applicable policies should

be referenced in the ESR, and the proponent should demonstrate how this proposed project is consistent with these policies, including describing measures that prevent and minimize potential impacts. You may wish to consider consulting with the Ministry of Municipal Affairs & Housing.

- Parts of the study area are subject to the Niagara Escarpment Plan, Greenbelt Plan, Source Protection Plans, and Growth Plan for the Greater Golden Horseshoe. The ESR should reference applicable policies in these plans and demonstrate how the proposed study adheres to these policies.

Class EA Process

- If this project is a Master Plan: there are several different approaches that can be used to conduct a Master Plan, examples of which are outlined in Appendix 4 of the Class EA. The Master Plan should clearly indicate the selected approach for conducting the plan, in particular by identifying whether the levels of assessment, consultation and documentation are sufficient to fulfill the requirements for Schedule B or C projects. Please note that any Schedule B or C projects identified in the plan would be subject to Part II Order Requests under the *Environmental Assessment Act* (EAA), although the plan itself would not be.

- The ESR should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making. The ESR must also demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all public consultation efforts undertaken during the planning process. Additionally, the ESR should identify all concerns that were raised and how they have been addressed throughout the planning process. The Class EA also directs proponents to include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments.

- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment. The ESR should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments) such that all potential impacts can be identified and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the ESR.

- Please include in the ESR a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including MOECC's PTTW and ECAs, conservation authority permits, and approval under the *Canadian Environmental Assessment Act* (CEAA).

- Ministry guidelines and other information related to the issues above are available at http://www.ontario.ca/environment-and-energy/environment-and-energy under the publications link. We encourage you to review all the available guides and to reference any relevant information in the ESR.

Aboriginal Consultation

- Your proposed project may have the potential to affect Aboriginal communities who hold or claim Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. The Crown has a duty to consult First Nation and Métis communities when it knows

about established or credibly asserted Aboriginal or treaty rights, and contemplates decisions or actions that may adversely affect them.

- Although the Crown remains responsible for ensuring the adequacy of consultation with potentially affected Aboriginal communities, it may delegate procedural aspects of the consultation process to project proponents.

- The environmental assessment process requires proponents to consult with interested persons and government agencies, including those potentially affected by the proposed project. This includes a responsibility to conduct adequate consultation with First Nation and Métis communities.

- The ministry relies on consultation conducted by proponents when it assesses the Crown's obligations and directs proponents during the regulatory process.

- Where the Crown's duty to consult is triggered in relation to your proposed project, the Ontario Ministry of the Environment and Climate Change is delegating the procedural aspects of rights-based consultation to you through this letter.

- Steps that you may need to take in relation to Aboriginal consultation for your proposed project are outlined in the "Aboriginal Consultation Information" checklist below. Please complete the checklist contained there, and keep related notes as part of your consultation record. Doing so will help you assess your project's potential adverse effects on Aboriginal or treaty rights.

- You must contact the Director, Environmental Approvals Branch if you have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right, consultation has reached an impasse, or if a Part II Order request has been submitted. The ministry will then assess the extent of any Crown duty to consult in the circumstances, and will consider whether additional steps should be taken and what role you will be asked to play in them.

ABORIGINAL CONSULTATION INFORMATION

Consultation with Interested Persons under the Ontario Environmental Assessment Act

Proponents subject to the Ontario *Environmental Assessment Act* are required to consult with interested persons, which may include First Nations and Métis communities. In some cases, special efforts may be required to ensure that Aboriginal communities are made aware of the project and are afforded opportunities to provide comments. Direction about how to consult with interested persons/communities is provided in the Code of Practice: Consultation in Ontario's Environmental Assessment Process available on the Ministry's website:

http://www.ontario.ca/environment-and-energy/consultation-ontarios-environmental-assessment-process

As an early part of the consultation process, proponents are required to contact the Ontario Ministry of Aboriginal Affairs' Consultation Unit and visit Aboriginal Affairs and Northern Development Canada's Aboriginal and Treaty Rights Information System (ATRIS) to help identify which First Nation and Métis communities may be interested in or potentially impacted by their proposed projects.

ATRIS can be accessed through the Aboriginal Affairs and Northern Development Canada website:

http://sidait-atris.aadnc-aandc.gc.ca/atris_online/

For more information in regard Aboriginal consultation as part of the Environmental Assessment process, refer to the Ministry's website:

www.ontario.ca/government/environment-assessments-consulting-aboriginal-communities

You are advised to provide notification directly to all of the First Nation and Métis communities who may be interested in the project. You should contact First Nation communities through their Chief and Band Council, and Metis communities through their elected leadership.

Rights-based consultation with First Nation and Métis Communities

Proponents should note that, in addition to requiring interest-based consultation as described above, certain projects may have the potential to adversely affect the ability of First Nation or Métis communities to exercise their established or credibly asserted Aboriginal or treaty rights. In such cases, Ontario may have a duty to consult those Aboriginal communities.

Activities which may restrict or reduce access to unoccupied Crown lands, or which could result in a potential adverse impact to land or water resources in which harvesting rights are exercised, may have the potential to impact Aboriginal or treaty rights. For assistance in determining whether your proposed project could affect these rights, please refer to the attached "Preliminary Assessment Checklist: First Nation and Métis Community Interest."

If there is likely to be an adverse impact to Aboriginal or treaty rights, accommodation may be required to avoid or minimize the adverse impacts. Accommodation is an outcome of consultation and includes any mechanism used to avoid or minimize adverse impacts to Aboriginal or treaty rights and traditional uses. Solutions could include mitigation such as adjustments in the timing or geographic location of the proposed activity. Accommodation may

in certain circumstances involve the provision of financial compensation, but does not necessarily require it.

For more information about the duty to consult, please see the Ministry's website at:

www.ontario.ca/government/duty-consult-aboriginal-peoples-ontario

The proponent must contact the Director, Environmental Approvals Branch if a project may adversely affect an Aboriginal or treaty right, consultation has reached an impasse, or if a Part II Order or an elevation request is anticipated; the Ministry will then determine whether the Crown has a duty to consult.

The Director of the Environmental Approvals Branch can be notified either by email with the subject line "Potential Duty to Consult" to EAASIBgen@ontario.ca or by mail or fax at the address provided below:

Email:	EAASIBgen@ontario.ca Subject: Potential Duty to Consult
Fax:	416-314-8452
Address:	Environmental Approvals Branch 135 St Clair Ave W Toronto ON M4V1P5

Delegation of Procedural Aspects of Consultation

Proponents have an important and direct role in the consultation process, including a responsibility to conduct adequate consultation with First Nation and Métis communities as part of the environmental assessment process. This is laid out in existing environmental assessment codes of practice and guides that can be accessed from the Ministry's environmental assessment website at

www.ontario.ca/environmentalassessments

The Ministry relies on consultation conducted by proponents when it assesses the Crown's obligations and directs proponents during the regulatory process. Where the Crown's duty to consult is triggered, various additional procedural steps may also be asked of proponents as part of their delegated duty to consult responsibilities. In some situations, the Crown may also become involved in consultation activities.

Ontario will have an oversight role as the consultation process unfolds but will be relying on the steps undertaken and information you obtain to ensure adequate consultation has taken place. To ensure that First Nation and Métis communities have the ability to assess a project's potential to adversely affect their Aboriginal or treaty rights, Ontario requires proponents to undertake certain procedural aspects of consultation.

The proponent's responsibilities for procedural aspects of consultation include:

- Providing notice to the elected leadership of the First Nation and/or Métis communities (e.g., First Nation Chief) as early as possible regarding the project;

- Providing First Nation and/or Métis communities with information about the proposed project including anticipated impacts, information on timelines and your environmental assessment process;
- Following up with First Nation and/or Métis communities to ensure they received project information and that they are aware of the opportunity to express comments and concerns about the project. If you are unable to make the appropriate contacts (e.g. are unable to contact the Chief) please contact the Environmental Assessment and Planning Coordinator at the Ministry's appropriate regional office for further direction.
- Providing First Nation and/or Métis communities with opportunities to meet with appropriate proponent representatives to discuss the project;
- Gathering information about how the project may adversely impact the relevant Aboriginal and/or Treaty rights (for example, hunting, fishing) or sites of cultural significance (for example, burial grounds, archaeological sites);
- Considering the comments and concerns provided by First Nation and/or Métis communities and providing responses;
- Where appropriate, discussing potential mitigation strategies with First Nation and/or Métis communities;
- Bearing the reasonable costs associated with these procedural aspects of consultation, which may include providing support to help build communities' capacity to participate in consultation about the proposed project.
- Maintaining a Consultation Record to show evidence that you, the proponent, completed all the steps itemized above or at a minimum made meaningful attempts to do so.
- Upon request, providing copies of the Consultation Record to the Ministry. The Consultation Record should:
    - summarize the nature of any comments and questions received from First Nation and/or Métis communities
    - describe your response to those comments and how their concerns were considered
    - include a communications log indicating the dates and times of all communications; and
    - document activities in relation to consultation.

Successful consultation depends, in part, on early engagement by proponents with First Nation and Métis communities. Information shared with communities must be clear, accurate and complete, and in plain language where possible. The consultation process must maintain sufficient flexibility to respond to new information, and we trust you will make all reasonable efforts to build positive relationships with all First Nation and Métis communities contacted. If you need more specific guidance on Aboriginal consultation steps in relation to your proposed project, or if you feel consultation has reached an impasse, please contact the Environmental Assessment and Planning Coordinator at the Ministry's appropriate regional office.

Preliminary Assessment Checklist: First Nation and Métis Community Interests and Rights

In addition to other interests, some main concerns of First Nation and Métis communities may pertain to established or asserted rights to hunt, gather, trap, and fish – these activities generally occur on Crown land or water bodies. As such, projects related to Crown land or water bodies, or changes to how lands and water are accessed, may be of concern to Aboriginal communities.

Please answer the following questions and keep related notes as part of your consultation record. "Yes" responses will indicate a potential adverse impact on Aboriginal or treaty rights.

Where you have identified that your project may trigger rights-based consultation through the following questions, you should arrange for a meeting between you and the Environmental Assessment and Planning Coordinator at the Ministry's appropriate regional office to provide an early opportunity to confirm whether Ontario's duty to consult is triggered and to discuss roles and responsibilities in that event.

	YES	NO
1. Are you aware of concerns from First Nation and Métis communities about your project or a similar project in the area? The types of concerns can range from interested inquiries to environmental complaints, and even to land use concerns. You should consider whether the interest represents on-going, acute and/or widespread concern.		
2. Is your project occurring on Crown land, or is it close to a water body? Might it change access to either?		
3. Is the project located in an open or forested area where hunting or trapping could take place?		
4. Does the project involve the clearing of forested land?		
5. Is the project located away from developed, urban areas?		
6. Is your project close to, or adjacent to, an existing reserve? Projects in areas near reserves may be of interest to the First Nation and Métis communities living there.		
7. Will the project affect First Nations and/or Métis ability to access areas of significance to them?		
8. Is the area subject to a land claim? Information about land claims filed in Ontario is available from the Ministry of Aboriginal Affairs; information about land claims filed with the federal government is available from Aboriginal Affairs and Northern Development Canada.		
9. Does the project have the potential to impact any archaeological sites?		

Alex Pereira

From: Koops, Krystina <Krystina.Koops@dpcdsb.org>
Sent: Thursday, August 04, 2016 1:16 PM
To: Alex Pereira
Subject: RE: Dominion Street Schedule 'C' Class Environmental Assessment
Attachments: DOC.PDF

Hi Alex,

Please find attached our completed form.

Regards,

Krystina Koops, MCIP, RPP
Planner
Dufferin-Peel Catholic District School Board
Phone: (905) 890-0708 ext. 24407
Fax: (905) 890-1557
E-mail: krystina.koops@dpcdsb.org

From: Alex Pereira [mailto:Alex.Pereira@ghd.com]
Sent: Thursday, August 4, 2016 12:09 PM
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Dear Government Review Team member,

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If your agency wishes to provide input or has any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of
Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

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Alex Pereira, BES
Environmental Planner

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65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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Alex Pereira

From: FPP.CA / PPP.CA (DFO/MPO) <fisheriesprotection@dfo-mpo.gc.ca>
Sent: Monday, August 22, 2016 12:25 PM
To: Brian Ruck
Cc: Alex Pereira
Subject: RE: Dominion Street Schedule 'C' Class Environmental Assessment

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Mr. Ruck,
We have reviewed the Class EA notification relating to the Dominion Street rehabilitation as submitted to us and would like to comment that the sections of the Credit River that border the outlined study area have been identified as potentially containing Redside Dace, a species currently listed as Special Concern under the *Species at Risk Act*, and listed as Endangered under the ESA.
Regards,

Andrew Geraghty
Fisheries Protection Program Biologist, Central & Arctic Region
Fisheries and Oceans Canada / Government of Canada
Andrew.Geraghty@dfo-mpo.gc.ca / Tel: 905-336-4560

Biologiste, protection des pêches, Région du Centre et de l'Arctique
Pêches et Océans Canada / Gouvernement du Canada
Andrew.Geraghty@dfo-mpo.gc.ca / Tél. : 905-336-4560

From: Alex Pereira [mailto:Alex.Pereira@ghd.com]
Sent: August-04-16 12:09 PM
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Dear Government Review Team member,

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If your agency wishes to provide input or has any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of
Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

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Alex Pereira

From: Zirger, Rosi (MTCS) <Rosi.Zirger@ontario.ca>
Sent: Tuesday, August 09, 2016 1:57 PM
To: Alex Pereira; Brian Ruck
Cc: ian.todhunter@caledon.ca
Subject: Dominion Street and Bridge EA Caledon
Attachments: Dominion Street EA-MTCS initial comments Aug 9, 2016.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon

Thank you for sending the Ministry of Tourism, Culture and Sport (MTCS) Notice of Study Commencement for the project mentioned above. Please find attached MTCS comments and recommendations for this project.

Meanwhile, we would appreciate being kept informed of this project as it proceeds through the EA process. Please send future notices to Rosi Zirger Heritage Planner at the address below or to rosi.zirger@ontario.ca.

In addition, since this EA project will also consider the Dominion Street Bridge, would you pelage provide me with a current photo of the bridge.

Please contact me as necessary for further discussion.

Sincerely

Rosi Zirger
Heritage Planner
Ministry of Tourism, Culture & Sport
Culture Division| Programs & Services Branch | Heritage Programs Unit

401 Bay Street, Suite 1700 Toronto, Ontario M7A 0A7
Tel. 416.314.7159 | Fax 416.212-1802| E-mail: rosi.zirger@ontario.ca

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From: Alex Pereira [mailto:Alex.Pereira@ghd.com]
Sent: August 4, 2016 12:09 PM
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Dear Government Review Team member,

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If your agency wishes to provide input or has any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
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Ministry of Tourism, Culture and Sport

Heritage Program 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 programmes patrimoine
Direction des programmes et des services
401, rue Bay, Bureau 1700
Toronto ON M7A 0A7
Tél: 416 314-7159
Téléc: 416 212 1802

Ontario

August 9, 2016 (by email only)

Mr. Brian Ruck, Consultant Project Manager
GHD Limited
65 Sunray Street
Whitby, ON L1N 8Y3
E: brian.ruck@ghd.com

RE: MTCS file #: 0005410
Proponent: Town of Caledon
Subject: Notice of Commencement
Municipal Class EA and Public Parks & Conservation Reserves Class EA
Dominion Street and the Dominion Street Bridge
Location: Town of Caledon

Dear Mr. Ruck

Thank you for providing the Ministry of Tourism, Culture and Sport (MTCS) with the Notice of Commencement for the above named 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.

Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources.

Cultural Heritage Considerations

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

This EA project may impact archaeological resources and you should screen the project with the MTCS *Criteria for Evaluating Archaeological Potential* to determine if an archaeological assessment is needed. MTCS archaeological sites data are available at *archaeology@ontario.ca*. If this EA project area exhibits archaeological potential, then an archaeological assessment (AA) 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 be completed to help determine whether this EA project may impact cultural heritage resources. The Clerk or Heritage Planner for the Town of Caledon 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 and the Town's Heritage Planner for review, and make it available to local organizations or individuals who have expressed interest in review.

Municipal Heritage Bridges Cultural, Heritage & Archaeological Resources Assessment Checklist

Since this project includes a municipally owned bridge, you should also refer to and apply the Municipal Engineers Association screening criteria for work on bridges that fall under the Municipal Class EA. A *checklist* and *background material* developed in coordination with MTCS, is available on the MEA website.

Environmental Assessment Reporting

All technical heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MTCS of the technical heritage studies to be completed for this EA project, and provide them 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.

Thank-you for consulting MTCS on this project: please continue to do so through the EA process, and contact me for any questions or clarification.

Sincerely,

Rosi Zirger
Heritage Planner
rosi.zirger@ontario.ca

Copied to: Ian Todhunter, Project Manager, Town of Caledon

Alex Pereira

From: Brian Ruck
Sent: Thursday, August 11, 2016 8:51 PM
To: Alex Pereira; Blair Shoniker
Subject: FW: Notice of Study Commencement - Reply Form
Attachments: SKMBT_36316081114150.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Brian Ruck, P. Eng. , CVS – Life
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From: Lobo, Magdalene [mailto:magdalene.lobo@peelregion.ca]
Sent: Thursday, August 11, 2016 3:11 PM
To: Brian Ruck
Subject: Notice of Study Commencement - Reply Form

Hello Brian

Please see attached the scanned copy of the completed reply forms for our Director of Transportation, Gary Kocialek & Manager – IP&S, Sally Rook.

Thank you.

Maggie Lobo
Administrative Assistant to Director
Transportation Division
REGION OF PEEL ■■■ **Working with you**

Alex Pereira

From: EnviroOnt <EnviroOnt@tc.gc.ca>
Sent: Tuesday, August 09, 2016 2:41 PM
To: Brian Ruck; ian.todhunter@caledon.ca
Cc: Alex Pereira
Subject: Class EA - Rehabilitation of Dominion Street, Caledon: NEATS 42635
Attachments: 08-04-2016-GRT-Dominion Street-NOSC.PDF

Follow Up Flag: Follow up
Flag Status: Flagged

Hello,

Thank you for your correspondence.

Please note Transport Canada **does not** require receipt of all individual or Class EA related notifications. We are requesting project proponents to self-assess if their project will interact with a federal property **and** require approval and/or authorization under any Acts administered by Transport Canada*.

Under *the Canadian Environmental Assessment Act, 2012*, Transport Canada is required to determine the likelihood of significant adverse environmental effects of projects that will occur on federal property prior to exercising a power, performing a function or duty in relation to that project. The project proponent should review the Directory of Federal Real Property, available at http://www.tbs-sct.gc.ca/dfrp-rbif/, to verify if the project will potentially interact with any federal property and/or waterway. The project proponent should also review the list of Acts that Transport Canada administers and assists in administering that may apply to the project, available at: https://www.tc.gc.ca/eng/acts-regulations/acts.htm.

If the aforementioned does not apply, the Environmental Assessment program should not be included in any correspondence. If there is a role under the program, correspondence should be forwarded *electronically* to: EnviroOnt@tc.gc.ca.

*Below is a summary of the most common Acts that have applied to projects in an Environmental Assessment context:

- ***Navigation Protection Act (NPA)*** – the Act applies primarily to works constructed or placed in, on, over, under, through, or across scheduled navigable waters set out under the Act. The Navigation Protection Program administers the NPA through the review and authorization of works affecting scheduled navigable waters. Information about the Program, NPA and approval process is available at: http://www.tc.gc.ca/eng/programs-621.html. Enquiries can be directed to NPPONT-PPNONT@tc.gc.ca or by calling (519) 383-1863.

- ***Railway Safety Act (RSA)*** – the Act provides the regulatory framework for railway safety, security, and some of the environmental impacts of railway operations in Canada. The Rail Safety Program develops and enforces regulations, rules, standards and procedures governing safe railway operations. Additional information about the Program is available at: https://www.tc.gc.ca/eng/railsafety/menu.htm. Enquiries can be directed to RailSafety@tc.gc.ca or by calling (613) 998-2985.

- ***Transportation of Dangerous Goods Act (TDGA)*** – the transportation of dangerous goods by air, marine, rail and road is regulated under the TDGA. Transport Canada, based on risks, develops safety standards and regulations, provides oversight and gives expert advice on dangerous goods to promote public safety. Additional

information about the transportation of dangerous goods is available at: https://www.tc.gc.ca/eng/tdg/safety-menu.htm. Enquiries can be directed to TDG-TMDOntario@tc.gc.ca or by calling (416) 973-1868.

- ***Aeronautics Act*** – Transport Canada has sole jurisdiction over aeronautics, which includes aerodromes and all related buildings or services used for aviation purposes. Aviation safety in Canada is regulated under this Act and the Canadian Aviation Regulations (CARs). Elevated Structures, such as wind turbines and communication towers, would be examples of projects that must be assessed for lighting and marking requirements in accordance with the CARs. Transport Canada also has an interest in projects that have the potential to cause interference between wildlife and aviation activities. One example would be waste facilities, which may attract birds into commercial and recreational flight paths. The *Land Use In The Vicinity of Aerodromes* publication recommends guidelines for and uses in the vicinity of aerodromes, available at: https://www.tc.gc.ca/eng/civilaviation/publications/tp1247-menu-1418.htm. Enquires can be directed to CASO-SACO@tc.gc.ca or by calling 1 (800) 305-2059 / (416) 952-0230.

Please advise if additional information is needed.

Thank you,

Environmental Assessment Program | Programme d'évaluation environnementale
Transport Canada, Ontario Region | Transports Canada, Région de l'Ontario
4900 Yonge St., Toronto, ON M2N 6A5 | 4900, rue Yonge, Toronto, ON, M2N 6A5
Email | Courriel: EnviroOnt@tc.gc.ca
Facsimile | télécopieur: (416) 952-0514
Government of Canada | Gouvernement du Canada

From: Alex Pereira [mailto:Alex.Pereira@ghd.com]
Sent: Thursday, August 04, 2016 12:09 PM
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Dear Government Review Team member,

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If your agency wishes to provide input or has any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of
Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

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Alex Pereira, BES
Environmental Planner

GHD
T: +1 905 429 4952 | C: +1 519 280 0374 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com
65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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Alex Pereira

From: Langtry, Dawn <dawn.langtry@peelregion.ca>
Sent: Thursday, August 11, 2016 10:44 AM
To: Alex Pereira
Subject: Re: Dominion Street Schedule 'C' Class Environmental Assessment

Follow Up Flag: Follow up
Flag Status: Flagged

Thanks I would appreciate that. D

Sent from my iPhone

On Aug 11, 2016, at 10:29 AM, Alex Pereira <Alex.Pereira@ghd.com> wrote:

> Good morning Dawn,
>
> I apologize for the confusion. As standard practice regarding the consultation process of environmental assessments, we typically include a contact from the municipality's health services into the initial distribution list.
>
> Should you wish, I will remove your information from our contact list.
>
> Regards,
>
> **Alex Pereira, BES**
> **Environmental Planner**
>
> **GHD**
> T: +1 905 429 4952 | C: +1 519 280 0374 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com
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> WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION
>
>
>
> ---
>
> **From:** Langtry, Dawn [mailto:dawn.langtry@peelregion.ca]
> **Sent:** Thursday, August 11, 2016 8:57 AM
> **To:** Alex Pereira
> **Subject:** RE: Dominion Street Schedule 'C' Class Environmental Assessment
>
> Hello,
>
> I believe I received this and a couple of other letters in error. I am not a member of the Government Review Team? Perhaps my name has been confused with someone else at the Region. I am in the Health Department and I'm the Director of Strategic Policy, Planning and Initiatives.
>
> Dawn
>
> Dawn Langtry
> Director, Strategic Policy, Planning and Initiatives
> Health Services, Region of Peel

10 Peel Centre Drive, 3rd Floor
Brampton, ON L6T 4B9
Phone: (905) 791- 7800 ext. 4138
<image001.png>

From: Alex Pereira [mailto:Alex.Pereira@ghd.com]
Sent: August 4, 2016 12:09 PM
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Dear Government Review Team member,

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If your agency wishes to provide input or has any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of
Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

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65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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Alex Pereira

From: Sifo, Sargon <sargon.sifo@peelregion.ca>
Sent: Thursday, November 10, 2016 8:40 AM
To: Brian Ruck; Alex Pereira
Cc: Ian Todhunter
Subject: RE: Regional Comments Dominion Street Schedule 'C' Class Environmental Assessment

Follow Up Flag: Follow up
Flag Status: Flagged

Thank you

Sargon Sifo, C.E.T.
Technical Analyst, Infrastructure Programming & Studies
Transportation Division, Public Works
10 Peel Centre Drive, Brampton, ON
4th Floor, L6T 4B9
Tel: 905-791-7800, 7834
Fax: 905-791-1442
Sargon.Sifo@peelregion.ca

From: Brian Ruck [mailto:Brian.Ruck@ghd.com]
Sent: November 8, 2016 5:31 PM
To: Sifo, Sargon; Alex Pereira
Cc: Ian Todhunter
Subject: RE: Regional Comments Dominion Street Schedule 'C' Class Environmental Assessment

Hi Sargon:

The EA for Dominion Street has commenced – we are expecting our first open house later this month.

Given the low volumes of traffic on Dominion Street, we don't have a traffic component as part of our study.

We'll keep you informed as the project progresses on what the design features might include

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

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65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

Please consider our environment before printing this email

From: Sifo, Sargon [mailto:sargon.sifo@peelregion.ca]
Sent: Tuesday, November 08, 2016 4:22 PM
To: Alex Pereira; Brian Ruck
Subject: RE: Regional Comments Dominion Street Schedule 'C' Class Environmental Assessment

Hi Alex

Has the study for Dominion Street commenced and if it has is there a copy for circulation?

Our Traffic Operations group is interested in the traffic and design component of the EA.

Thank you

Sargon Sifo, C.E.T.
Technical Analyst, Infrastructure Programming & Studies
Transportation Division, Public Works
10 Peel Centre Drive, Brampton, ON
4th Floor, L6T 4B9
Tel: 905-791-7800, 7834
Fax: 905-791-1442
Sargon.Sifo@peelregion.ca

From: Brock, Liz
Sent: August 4, 2016 1:12 PM
To: Almeida, Sandra; Avsec, Joe; Carrick, Sean; Castro, Mark; Chan, Eric; Chan, Wayne; Christina Marzo; Gardiner, Len; Jamroz, Damian; Lo, Arthur; Mele, Lorenzo; Nemeth, John; Nieuwenhuysen, Bob; Rook, Sally; Saiyed, Sabbir; Toy, William; Warren, Andrea
Cc: Dela Cruz, Gino
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Hi everyone,

The Town of Caledon is undertaking a Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street. The notice of the study is attached. The purpose of the study is to investigate bank stabilization and bridge rehabilitation in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge.

If you have comments or wish to be a part of the Transportation Advisory Committee (TAC), please return them to be **August 22, 2016.**

Thanks,

Liz Brock
Technical Analyst, Infrastructure Programming & Studies
Transportation

Public Works
905-791-7800 x7902
liz.brock@peelregion.ca

In true dialogue, both sides are willing to change. Thich Nhat Hanh

---

From: Ganesh, Steve
Sent: August 4, 2016 12:40 PM
To: Brock, Liz; Rook, Sally
Subject: FW: Dominion Street Schedule 'C' Class Environmental Assessment

HI Liz/Sally:

FYI and action

Thanks,
Steve

From: Alex Pereira [mailto:Alex.Pereira@ghd.com]
Sent: August 4, 2016 12:09 PM
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Dear Government Review Team member,

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If your agency wishes to provide input or has any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of
Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

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This e-mail has been scanned for viruses

Alex Pereira

From: Michael Orr [mailto:Michael.Orr09@cn.ca]
Sent: Wednesday, November 30, 2016 10:18 AM
To: Ian Todhunter
Cc: Michael Orr; Stefan Linder
Subject: Notice of EA for Dominion Street

Ian,

CN is in receipt of the attached Notice of EA for Dominion St. Please be advised that CN has no operation within the study area, and therefore, you may remove CN from the list.

Please note that you may wish to contact Canadian Pacific Railway (CP), who does appear to have operations within / near the study area.

Michael Orr
Canadian National Railway
Public Works Officer
Design & Construction Eastern Region
(905) 669-3242 Work
(416) 433-0188 Mobile
(905) 760-3406
Michael.Orr09@cn.ca
1 Administration Road
Concord ON L4K 1B9

Alex Pereira

From: Langtry, Dawn <dawn.langtry@peelregion.ca>
Sent: Thursday, August 11, 2016 10:44 AM
To: Alex Pereira
Subject: Re: Dominion Street Schedule 'C' Class Environmental Assessment

Follow Up Flag: Follow up
Flag Status: Completed

Thanks I would appreciate that. D

Sent from my iPhone

On Aug 11, 2016, at 10:29 AM, Alex Pereira <Alex.Pereira@ghd.com> wrote:

> Good morning Dawn,
>
> I apologize for the confusion. As standard practice regarding the consultation process of environmental assessments, we typically include a contact from the municipality's health services into the initial distribution list.
>
> Should you wish, I will remove your information from our contact list.
>
> Regards,
>
> **Alex Pereira, BES**
> **Environmental Planner**
>
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>
>
>
> ---
>
> **From:** Langtry, Dawn [mailto:dawn.langtry@peelregion.ca]
> **Sent:** Thursday, August 11, 2016 8:57 AM
> **To:** Alex Pereira
> **Subject:** RE: Dominion Street Schedule 'C' Class Environmental Assessment
>
> Hello,
>
> I believe I received this and a couple of other letters in error. I am not a member of the Government Review Team? Perhaps my name has been confused with someone else at the Region. I am in the Health Department and I'm the Director of Strategic Policy, Planning and Initiatives.
>
> Dawn
>
> Dawn Langtry
> Director, Strategic Policy, Planning and Initiatives
> Health Services, Region of Peel

10 Peel Centre Drive, 3rd Floor
Brampton, ON L6T 4B9
Phone: (905) 791- 7800 ext. 4138
<image001.png>

From: Alex Pereira [mailto:Alex.Pereira@ghd.com]
Sent: August 4, 2016 12:09 PM
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Dear Government Review Team member,

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If your agency wishes to provide input or has any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of
Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

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65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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Alex Pereira

From: Brian Ruck
Sent: Monday, August 29, 2016 9:18 AM
To: FPP.CA / PPP.CA (DFO/MPO)
Cc: Alex Pereira
Subject: RE: Dominion Street Schedule 'C' Class Environmental Assessment

Follow Up Flag: Follow up
Flag Status: Completed

CompleteRepository: 889999999
Description: Canada - Miscellenous Mail
JobNo: 99999
OperatingCentre: 88
RepoEmail: 889999999@ghd.com
RepoType: Overhead
SubJob: 99

Thanks Andrew - noted

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
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Vice President, Transportation and Value Engineering

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From: FPP.CA / PPP.CA (DFO/MPO) [mailto:fisheriesprotection@dfo-mpo.gc.ca]
Sent: Monday, August 22, 2016 12:25 PM
To: Brian Ruck
Cc: Alex Pereira
Subject: RE: Dominion Street Schedule 'C' Class Environmental Assessment

Hello Mr. Ruck,
We have reviewed the Class EA notification relating to the Dominion Street rehabilitation as submitted to us and would like to comment that the sections of the Credit River that border the outlined study area have been identified as potentially containing Redside Dace, a species currently listed as Special Concern under the *Species at Risk Act*, and listed as Endangered under the ESA.
Regards,

Andrew Geraghty
Fisheries Protection Program Biologist, Central & Arctic Region
Fisheries and Oceans Canada / Government of Canada

Andrew.Geraghty@dfo-mpo.gc.ca / Tel: 905-336-4560

Biologiste, protection des pêches, Région du Centre et de l'Arctique
Pêches et Océans Canada / Gouvernement du Canada
Andrew.Geraghty@dfo-mpo.gc.ca / Tél. : 905-336-4560

From: Alex Pereira [mailto:Alex.Pereira@ghd.com]
Sent: August-04-16 12:09 PM
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Dear Government Review Team member,

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If your agency wishes to provide input or has any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of
Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

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T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

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Alex Pereira, BES
Environmental Planner

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65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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Alex Pereira

From: Brian Ruck
Sent: Thursday, September 01, 2016 10:09 AM
To: Marray, Liam
Cc: Ian Todhunter; Alex Pereira
Subject: RE: Dominion Street EA

Follow Up Flag: Follow up
Flag Status: Completed

CompleteRepository: 889999999
Description: Canada - Miscellenous Mail
JobNo: 99999
OperatingCentre: 88
RepoEmail: 889999999@ghd.com
RepoType: Overhead
SubJob: 99

Thanks Liam – we'll be in touch

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

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From: Marray, Liam [mailto:lmarray@creditvalleyca.ca]
Sent: Thursday, September 01, 2016 9:23 AM
To: Brian Ruck
Subject: Dominion Street EA

Brian – sorry for the delay in responding. If you have any questions just give me a call.

Liam

Liam Marray
Manager, Planning Ecology| Credit Valley Conservation
905.670.1615 ext 239 | C: 416.896.1064| 1.800.668.5557
lmarray@creditvalleyca.ca | creditvalleyca.ca

Alex Pereira

From: Brian Ruck
Sent: Thursday, September 01, 2016 5:27 PM
To: Lobo, Magdalene
Cc: Alex Pereira
Subject: RE: Notice of Study Commencement - Reply Form

Follow Up Flag: Follow up
Flag Status: Completed

CompleteRepository: 889999999
Description: Canada - Miscellenous Mail
JobNo: 99999
OperatingCentre: 88
RepoEmail: 889999999@ghd.com
RepoType: Overhead
SubJob: 99

Thanks Maggie

Brian Ruck, P. Eng. , CVS – Life
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From: Lobo, Magdalene [mailto:magdalene.lobo@peelregion.ca]
Sent: Thursday, August 11, 2016 3:11 PM
To: Brian Ruck
Subject: Notice of Study Commencement - Reply Form

Hello Brian

Please see attached the scanned copy of the completed reply forms for our Director of Transportation, Gary Kocialek & Manager – IP&S, Sally Rook.

Thank you.

Maggie Lobo
Administrative Assistant to Director
Transportation Division
REGION OF PEEL ■■■ **Working with you**

Your Healthy Workplace

Alex Pereira

From: Alex Pereira
Sent: Monday, September 12, 2016 9:22 AM
To: Stockman, Angela
Cc: Syeda Banuri (InTouch)
Subject: RE: Dominion Street Schedule 'C' Class Environmental Assessment

CompleteRepository: 011116800
Description: CLASS EA FOR DOMINION STREET
JobNo: 11168
OperatingCentre: 01
RepoEmail: 011116800@ghd.com
RepoType: Proposal
SubJob: 00

Thank you Angela.

We will continue to keep you informed as the study progresses.

Alex Pereira, BES
Environmental Planner

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T: +1 905 429 4952 | C: +1 519 280 0374 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com
65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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From: Stockman, Angela [mailto:angela.stockman@peelregion.ca]
Sent: Wednesday, August 31, 2016 3:03 PM
To: Alex Pereira
Cc: Syeda Banuri (InTouch)
Subject: FW: Dominion Street Schedule 'C' Class Environmental Assessment

Good afternoon Alex,

My apologies for the delayed response. I have filled out the response form attached. Please note that although we do not have any concerns at this time, can you still include myself in the circulation on the project information.

Thank you,

Angela Stockman
Technical Analyst
Water & Wastewater Program Planning
Region of Peel | 905.791.7800 ext 4143 | angela.stockman@peelregion.ca

Begin forwarded message:

> **From:** Alex Pereira <Alex.Pereira@ghd.com>
> **Date:** August 4, 2016 at 12:09:20 PM EDT

To: Undisclosed recipients:;
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Dear Government Review Team member,

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If your agency wishes to provide input or has any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of
Brian Ruck, P. Eng. , CVS – Life
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Principal
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Alex Pereira

From: Alex Pereira
Sent: Wednesday, September 21, 2016 12:32 PM
To: 'Bianca.bielski@peelsb.com'
Cc: Brian Ruck; Ian Todhunter
Subject: RE: Reserve Class Environmental Assessment for Dominion Street - Town of Caledon

Follow Up Flag: Follow up
Flag Status: Flagged

CompleteRepository: 011116800
Description: CLASS EA FOR DOMINION STREET
JobNo: 11168
OperatingCentre: 01
RepoEmail: 011116800@ghd.com
RepoType: Proposal
SubJob: 00

Good afternoon Ms. Bielski,

Thank you for your interest regarding the Dominion Street Class Environmental Assessment. We recognize the Peel District School Board as a key stakeholder to this undertaking and we will continue to keep you informed as the study progresses. As we are in the early stages of the environmental assessment process we welcome any available information from your agency relevant to the undertaking, for our consideration in the development of this study.

Kind regards,

Alex Pereira

On behalf of

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

Alex Pereira, BES
Environmental Planner

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T: +1 905 429 4952 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com
65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com

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Please consider our environment before printing this email

From: Bielski, Bianca [mailto:bianca.bielski@peelsb.com]
Sent: Wednesday, September 21, 2016 10:23 AM
To: Brian Ruck
Cc: Cameron, Stan; Wright, Randy
Subject: Reserve Class Environmental Assessment for Dominion Street - Town of Caledon

Dear Mr. Ruck: thank you for the recent notice for study commencement of the Municipal Class Environmental Assessment for Dominion Street in the Town of Caledon. The Peel District School Board is very much interested in this project and would appreciate any available information relevant to this study. To this end, all further correspondence and information should be directed to myself.

Thank you and we look forward to working with you and GHD on this very important project.

Regards,

Bianca MV Bielski MCIP RPP
Manager - Planning and Enrolment
Planning & Accommodation Support Services
Peel District School Board
P. 905-890-1010 ext. 2221
E. Bianca.bielski@peelsb.com

Alex Pereira

From: Alex Pereira
Sent: Wednesday, August 10, 2016 12:28 PM
To: 'Zirger, Rosi (MTCS)'
Cc: Brian Ruck
Subject: RE: Dominion Street and Bridge EA Caledon

Good afternoon Rosi,

As per your request, please follow the link below to download our most current photos of the Dominion Street Bridge.

Date Expires: Friday, September 9, 2016

Navigate to the following link to Download the file(s):

http://ghd.2big4email.com/en/downloadfiles.aspx?param=wGhJ5lA5HsjpPlUsLNJGU6BM9ltiweQuAleQuAl

Regards,

Alex Pereira, BES
Environmental Planner

GHD
T: +1 905 429 4952 | C: +1 519 280 0374 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com
65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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From: Zirger, Rosi (MTCS) [mailto:Rosi.Zirger@ontario.ca]
Sent: Tuesday, August 09, 2016 1:57 PM
To: Alex Pereira; Brian Ruck
Cc: ian.todhunter@caledon.ca
Subject: Dominion Street and Bridge EA Caledon

Good afternoon

Thank you for sending the Ministry of Tourism, Culture and Sport (MTCS) Notice of Study Commencement for the project mentioned above. Please find attached MTCS comments and recommendations for this project.

Meanwhile, we would appreciate being kept informed of this project as it proceeds through the EA process. Please send future notices to Rosi Zirger Heritage Planner at the address below or to rosi.zirger@ontario.ca.

In addition, since this EA project will also consider the Dominion Street Bridge, would you pelage provide me with a current photo of the bridge.

Please contact me as necessary for further discussion.

Sincerely

Rosi Zirger
Heritage Planner
Ministry of Tourism, Culture & Sport
Culture Division| Programs & Services Branch | Heritage Programs Unit

401 Bay Street, Suite 1700 Toronto, Ontario M7A 0A7

Tel. 416.314.7159 | Fax 416.212-1802| E-mail: rosi.zirger@ontario.ca

---

From: Alex Pereira [mailto:Alex.Pereira@ghd.com]
Sent: August 4, 2016 12:09 PM
Subject: Dominion Street Schedule 'C' Class Environmental Assessment

Dear Government Review Team member,

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If your agency wishes to provide input or has any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of
Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
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Alex Pereira, BES
Environmental Planner

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T: +1 905 429 4952 | C: +1 519 280 0374 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com
65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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Appendix G-2
Stakeholder Correspondence: Public

Dominion Street Schedule 'C' Class EA – Public Comment Tracking Table

NAME	Address	DATE	E / L / TEL	COMMENT	RESPONSE	RESP. DATE	E / L / TEL
[redacted]	[redacted]	08-05-2016	Email	My name is [redacted] I received your correspondence regarding the work to be done on Dominio [redacted] was included. I have issues with what will be happening when the work begins as my driveway is directly opposite the bridge. I must have tried at least 10 times to fax it to you and every time I try the number is busy. How am I supposed to get this to you?	Good morning [redacted] Thank you for your quick reply to our notification. Could I get you to try our secondary fax #: **1-888-343-9677** If this still does not work and you are unable to scan the reply form and send it via e-mail, we will make other arrangements.	08-05-2016	Email
[redacted]	[redacted]	08-04-2016	Reply Form	I understand one alternative being studied is extending Puckering Lane to Dominion street. I find this incomprehensible + irresponsible considering the environmental impact, existing terrain + suspected high cost + ongoing maintenance of such an undertaking when there are clearly more logical alternatives.	*Comment noted. Residents will be kept informed as the study progresses.*		
[redacted]	[redacted]	08-05-2016	Email	Hello Brian, [redacted] and I also happen to be a resident at [redacted] Attached are two documents: 1. A completed reply form with the response: "My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list". 2. Map of the Study Area showing the route of the main Bruce Trail and several Side Trails. The main Trail crosses the Dominion Street bridge, continues on Dominion Street to the Forks of the Credit Provincial Park and subsequently continues along Puckering Lane crossing McLaren Road. I would appreciate having the opportunity to provide input to the project. Our main interest is maintaining the Trail route throughout this very picturesque part of the Niagara Escarpment. I'm looking forward to the public information sessions. In the meantime, feel free to contact me about any questions relating to the Bruce Trail. Thank you!	Good morning [redacted] Thank you for your email; we will certainly keep y ou informed as the project unfolds and look forw ard to your input. The map is much appreciated. Brian Ruck, P. Eng. , CVS – Life Certified Value Specialist Principal Vice President, Transportation and Value Engineering	08/11/2016	Email
		08-05-2016	Reply Form	The Bruce Trail Conservancy (BTC) which stretches 900 km. from Queenston to Tobermory. The Caledon Hills Bruce Trail Club (1 of 9 local Clubs) represents the BTC in the Study Area. Attached is a map of the Study Area showing the Bruce Trail on Dominion Street and Puckering Lane - the map also shows several Side Trails in the area The Caledon Hills Club is interested in the continuity of the Bruce Trail and would like to be involved and provide comments regarding possible temporary or permanent changes in the Study Area to ensure the Trail continues to exist in the Study Area.			
		08-22-2016	Reply Form	• Protection of fish and wildlife in the area • Fire and police and ambulance access • Continued access to our residence throughout the street/bridge repairs • Thank you for consulting and communicating with the residents			

[redacted]	[redacted]	08-10-2016	Reply Form	1. Access to home during and after project. We have a young family and we would not be able to relocate. 2. Preservation of natural habitat for wildlife, especially the river bank and aquatic species because that ecosystem is a defining characteristic of this area.	Good afternoon [redacted] Thank you for your interest and comments regarding the Dominion Street Class Environmental Assessment. We greatly appreciate your insight of the area and will consider your comments as part of our study. We will continue to keep you informed as the study progresses. Kind regards, Alex Pereira, BES Environmental Planner	09/12/2016	Email

[redacted]	[redacted]	08-12-2016	Reply Form/Letter	To Whom It May Concern, We firmly believe that access to Dominion Rd. from Forks of the Credit Rd. must be maintained. Please note, in the past we have indicated we would provide consent to the Town to access our property to facilitate the remediation of Dominion. Our property runs the entire length of the affected parts of Dominion. At the outset I will reiterate that this offer of cooperation still exists. I would welcome arriving at a common sense solution satisfactory to the needs of area residents and sensitive to the NEP protected lands we all cherish. As the largest property owners in the designated Environmental Study Area, we are intimately familiar with the subject lands. We are concerned the Town, in an effort to avoid costs, has expressed an interest in closing the southern portion of Dominion and developing a link from McLaren to Dominion either through the Park or along a good portion of Puckering Lane. We have grave concerns with this alternative proposed access route along Puckering. We are deeply troubled that cross country connections to Dominion are part of the study. We realize that studies such as this have to consider all options, but we believe it is a reasonable position that the options considered must be legally possible. I do not know if preliminary consultations were held with the NEC regarding this possibility. The entire length of Puckering from McClaren to mid concession between McClaren and the unopened 3rd line west is in the Natural designation of the NEP. The continuation of Dominion north from the town maintained section is also Natural until the top of the escarpment is reached and then it is the Protection designation. Accordingly, any new road is not likely permitted by the NEC. I believe all parties would be well served to consult with the NEC with specific regard to the Puckering extension option. The NEP is divided into three designation in most of Caledon: Natural, Protection, and Rural. The Natural designation is the most restricted with very little being allowed including any proposed road widenings or new road development unless it is absolutely required for health and safety. Budgetary considerations alone would not meet the required criteria. In fact, the adopted Canadian interpretation of the Precautionary Principle refers specifically to not avoiding doing the right thing because of financial concerns. In this context, the right thing would be to rebuild the existing road and not disturb highly sensitive natural areas with challenging topography. In addition to the opposition one would expect the NEC to have to the Puckering extension option, we believe Ontario Parks would be unwilling to have a new municipal road developed within a park. We would also anticipate the Bruce Trail Club, whose path follows from the end of Puckering Ln into the Park along the proposed alternative access route, would forcibly object. On a very practical basis, the terrain in question at the end of Puckering is one of extreme grades, minor water courses, countless mature trees, and endangered / at-risk species. The sheer ecological devastation and monetary cost to engineer a municipal standard road on grade that drops over a hundred feet to Dominion from Puckering through sensitive lands is an option fraught with technical and environmental risk. Additionally, we would point out that winter maintenance for a new road with such changes in elevation would be costly. Accordingly, we are hopeful that the Town's consultants will guide them to a similar fact-based conclusion. However, we will note we believe we have the legal grounds to vigorously oppose a decision to construct road access via Puckering to Dominion for the aforementioned reasons, and we anticipate other stakeholders would support this position. Please advise if we can be of any assistance as you undertake your review. Regards,	Good morning [redacted] Thank you for your comments. We will continue to keep you informed as the study progresses. Kind regards, Alex Pereira, BES	08/15/2016	Email

			Email	Alex, Brian, Thanks for sending this electronically. We take this matter extremely seriously. We have been travelling the past 2 weeks. I enclose our response with attachment herewith. Please note we are both the [redacted] (the entirety of our property borders the specific section of the road that requires remediation) and in the study area specifically (300 acres over numerous lots). We have shared our concerns regarding the feasibility of an alternative access route along Puckering Ln. I have taken the liberty to rehash the points we have made previously. I am pleased that the town has retained a credible planning firm to steward a process that should be straight forward. Kindly confirm receipt of this email message with attachments. Regards [redacted]			
[redacted]	[redacted]	08-16-2016	Reply Form/Letter	To Whom It May Concern: We firmly believe that access to Dominion Rd. from Forks of the Credit Rd. must be maintained. Please note, in the past we have indicated we would provide consent to the Town to access our property to facilitate the remediation of Dominion. Our property runs the entire length of the affected parts of Dominion. At the outset, I will reiterate that this offer of cooperation still exists. I would welcome arriving at a common sense solution satisfactory to the needs of area residents and sensitive to the NEP Protected lands we all cherish. As the largest property owners in the designated Environmental Study Area, we are intimately familiar with the subject lands. We are concerned the Town, in an effort to avoid costs, has expressed an interest in closing the southern portion of Dominion and developing a link from McLaren to Dominion either through the Park or along a good portion of Puckering Lane. We have grave concerns with this alternative proposed access route along Puckering. We are deeply troubled that cross country connections to Dominion are part of the study. We realize that studies such as this have to consider all options, but we believe it is a reasonable position that the options considered must be legally possible. I do not know if preliminary consultations were held with the NEC regarding this possibility. The entire length of Puckering from McLaren to mid concession between McLaren and the unopened 3rd line west is in the Natural designation of the NEP. The continuation of Dominion north from the town maintained section is also Natural until the top of the escarpment is reached and then it is the Protection designation. Accordingly, any new road is not likely permitted by the NEC. I believe all parties would be well served to consult with the NEC with specific regard to the Puckering extension option. The NEP is divided into three designations in most of Caledon; Natural, Protection, and Rural. The Natural designation is the most restricted with very little being allowed including any proposed road widenings or new road development unless it is absolutely required for health and safety. Budgetary considerations alone would not meet the required criteria. In fact, the adopted Canadian interpretation of the Precautionary Principle refers specifically to not avoiding doing the right thing because of financial concerns. In this context, the right thing would be to rebuild the existing road and not disturb highly sensitive natural areas with challenging topography. In addition to the opposition one would expect the NEC to have to the Puckering extension option, we believe Ontario Parks would be unwilling to have a new municipal road developed within a park. We would also anticipate the Bruce Trail Club, whose path follows from the end of Puckering Lane into the Park along the proposed alternative access route, would forcibly object. On a very practical basis, the terrain in question at the end of Puckering is one of extreme grades, minor water courses, countless mature trees, and endangered/at-risk species. The sheer ecological devastation and monetary cost to engineer a municipal standard road on grade that drops over a hundred feet to Dominion from Puckering through sensitive lands is an option fraught with technical and environmental risk. Additionally, we would point out that winter maintenance for a new road with such changes in elevation would be costly. Accordingly, we are hopeful that the Town's consultants will guide them to a similar fact-based conclusion. However, we will note we believe we have the legal grounds to vigorously oppose a decision to construct road access via Puckering to Dominion for the aforementioned reasons, and we anticipate other stakeholders would support this position. Please advise if we can be of any assistance as you undertake your review. Regards	Thank you very much for your comments; they are much appreciated. We will be in touch as the study progresses. Brian Ruck, P. Eng. , CVS – Life Certified Value Specialist Principal Vice President, Transportation and Value Engineering	08/30/2016	Email

[redacted]	[redacted]	08-16-2016	Reply Form	[redacted] Property Owner	*Comment noted. Residents will be kept informed as the study progresses.*		
[redacted]	[redacted]	08-17-2016	Reply Form	Make the roadsafe while maintaining its rural profile Restrict it to local traffic only How will we access our homes?	Good afternoon [redacted] Thank you for your interest and recent comments regarding the Dominion Street Class Environmental Assessment. We greatly appreciate your insight of the area and will consider your comments as part of our study. In response to your question, “How will we access our homes during the project?”, the environmental assessment process will examine the need for temporary access routes to be implemented during potential construction works. As we are still in the early stages of the environmental assessment process, potential temporary access routes are to be developed and evaluated in accordance with feasibility criteria. We will continue to keep you informed as the study progresses. Kind regards, Alex Pereira, BES	09/19/2016	Email
[redacted]	[redacted]	08-22-2016	Reply Form	(not interested) Any effects to the “Estate” property	*Comment noted.*		
[redacted]	[redacted]	08-08-2016	Reply Form	We have lived full time at [redacted]. for 48 years. Because of the camber of the asphalt road surface in front of our property the winter road salt drains from the road down into out lot killing the ceder hedge and potentially causing a problem with our well. Perhaps this could be considered if and when the road is resurfaced.	Good afternoon [redacted] Thank you for your interest and comments regarding the Dominion Street Class Environmental Assessment. We greatly appreciate your insight of the area and will consider your comments as part of our study. We will continue to keep you informed as the study progresses. Kind regards, Alex Pereira, BES Environmental Planner	09/12/2016	Email
[redacted]	[redacted]	08-10-2016	Reply Form	(not Interested)	*Noted.*		
[redacted]	[redacted]	08-10-2016	Reply Form	1) Turning a quiet country road into a thoroughfare by using curbs and guardrails, thereby destroying the character of Dominion St. 2) Allowing continued public access on a narrow and winding road that is part of the Bruce Trail	*Comment noted. Residents will be kept informed as the study progresses.*		
[redacted]	[redacted]	08-06-2016	Reply Form	1) Safety of cars and pedestrians on Dominion Street 2) EMS access throughout street and bridge 3) Continued access to our residence	*Comment noted. Residents will be kept informed as the study progresses.*		
[redacted]	[redacted]	08-05-2016	Reply Form	(interested)	*Noted. Residents will be kept informed as the study progresses.*		

[redacted]	[redacted]	08-10-2016	Reply Form	River Bank Stabilization Bridge Rehabilitation	Dear [redacted] Thank you for your comments and interest regarding the Dominion Street Environmental Assessment. We will continue to keep you informed as the study progresses. Kind regards, Alex Pereira, BES Environmental Planner	09/12/2016	Email
[redacted]	[redacted]	08-09-2016	Reply Form	Current non-local traffic Safety of pets, children and walking traffic Illegal parking at Dead End Emergency Vehicle access when cars are parked illegally	Thank you for your comments. We will be in touch as the study progresses Brian Ruck, P. Eng. , CVS – Life Certified Value Specialist Principal Vice President, Transportation and Value Engineering	08/30/2016	Email
[redacted]	[redacted]	08-22-2016	Email/Reply Form	(not interested) Thank you very much for the opportunity to stay informed!	Thanks for your reply [redacted] Brian Ruck, P. Eng. , CVS – Life Certified Value Specialist Principal Vice President, Transportation and Value Engineering	09/01/2016	Email
[redacted]		08-08-2016	Email	Good morning Ian & Brian, Would you please add my email address to your DL, for the Dominion Street Environmental Assessment? Being local to this, I would like to receive any communications related to this issue. For reference, we did receive a copy of the original communication in our mailbox. Thanks, [redacted]	Thanks [redacted] we'll add you to our mailing list. Brian Ruck, P. Eng. , CVS – Life Certified Value Specialist Principal Vice President, Transportation and Value Engineering	Email	08/08/2016

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** Aug 04 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☑ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address: [redacted]

Postal Code: [redacted]

Telephone: [redacted] **Fax:** [redacted]

Email: [redacted]

Please select the appropriate response:

☑ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

MY DRIVEWAY IS DIRECTLY OPPOSITE THE DOMINION STREET BRIDGE. I WOULD LIKE TO KNOW WHAT EFFECT THIS PROJECT WILL HAVE ACCESSING OUR HOME. ALSO WHAT DAMAGE TO EXPECT TO THE BOTTOM OF OUR DRIVEWAY DUE TO TRUCKS MANOVERING THEMSELVES TO CROSS THE BRIDGE. THIS WAS A PROBLEM WE EXPERIENCED LAST TIME HEAVY TRUCKS, THE CRACKING AND BREAKING OF OUR ASPHALT AT THE BOTTOM OF THE DRIVEWAY

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** AUGUST 4, 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☒ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address: [redacted]

Postal Code: [redacted]

Telephone: [redacted] **Fax:** [redacted]

Email: [redacted]

Please select the appropriate response:

☒ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

I UNDERSTAND ONE ALTERNATIVE BEING STUDIED IS EXTENDING PUCKERING LANE TO DOMINION STREET. I FIND THIS INCOMPREHENSABLE + IRRESONSIBLE CONSIDERING THE ENVIRONMENTAL IMPACT, EXISTING TERRAIN + SUSPECTED HIGH COST + ONGOING MAINTENANCE OF SUCH AN UNDERTAKING WHEN THERE ARE CLEARLY MORE LOGICAL ALTERNATIVES.

August 4, 2016

Dear Government Review Team Member:

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street

GHD Limited has been retained by the Town of Caledon to undertake a Municipal Class Environmental Assessment (Class EA) Study concurrently with a Ministry of Natural Resources and Forestry Public Parks and Conservation Reserves Class EA Study for Dominion Street. The Town of Caledon has initiated a Schedule 'C' Class Environmental Assessment Study and preliminary design, including an assessment of alternatives and long-term solutions for the rehabilitation of Dominion Street.

The Study is being undertaken to investigate feasible bank stabilization and bridge rehabilitation activities in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge. Alternative roadway re-alignments will be considered as part of this Class EA study, but are limited given the Site's significant deviation in topography. Techniques to protect the road from further movement and improve the overall embankment stability will also be investigated.

The purpose of this letter is to inform your agency of the project and to solicit comments that should be addressed throughout the Class EA Study. To this end, your assistance in ensuring this letter is circulated to the appropriate personnel within your agency is greatly appreciated.

The Study will be conducted in accordance with the planning and design process for 'Schedule C' projects, as outlined in the Municipal Engineers Association's, "Municipal Class Environmental Assessment" (October 2000, as amended in 2015) and the Ministry of Natural Resources and Forestry's Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), approved under the *Ontario Environmental Assessment Act*. The Class EA process includes public/external agency consultation, an evaluation of alternative solutions and alternative design concepts, an assessment of potential impacts associated with the proposed improvements, and the development of mitigation measures to identified potential impacts. Please find enclosed a copy of the **Notice of Study Commencement** providing further details regarding the project.

GHD Limited
65 Sunray Street Whitby Ontario L1N 8Y3 Canada
T 905 686 6402 **F** 905 432 7877 **W** www.ghd.com

We would appreciate your agency send us any available information relevant to this study. If your agency wishes to provide input or has any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Similarly, should the proposed study have no effect on your agency's program mandate and/or policies, please let us know by returning the **Reply Form.** Your response is appreciated by **August 23, 2016**, so that we can ensure your comments/concerns are addressed in a timely manner.

If you require additional information or wish to discuss the study process, please contact the undersigned at (905) 429-4957 or brian.ruck@ghd.com

Sincerely,

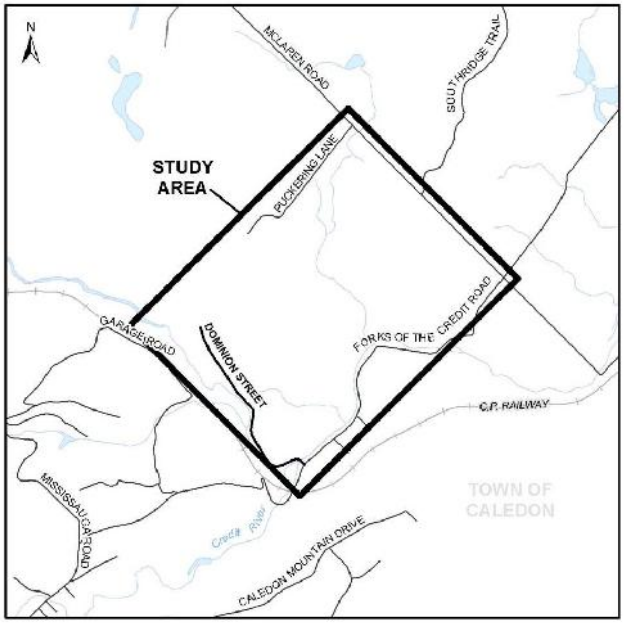
GHD Limited

Brian Ruck, P.Eng., CVS – Life

cc: Ian Todhunter, P.Eng. – Town of Caledon

TOWN OF CALEDON
NOTICE OF STUDY COMMENCEMENT

Municipal Class Environmental Assessment & Provincial Parks and Conservation Reserves Class Environmental Assessment Study for Dominion Street



THE STUDY:

The Town of Caledon has initiated a Schedule 'C' Class Environmental Assessment Study and preliminary design, including an assessment of alternatives and long-term solutions for providing safe access to Dominion Street.

Within the Study Area, Dominion Street consists of a rural two-lane roadway and a single lane bridge providing sole access to residential dwellings located on Dominion Street. Features of the Study Area include the Dominion Street Bridge and a section of the Credit River. The Study Area also encompasses a segment of the Forks of the Credit Provincial Park.

The Study is being undertaken to investigate feasible bank stabilization and bridge rehabilitation activities in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge. Alternative roadway re-alignments will be considered as part of this Class EA Study, but are limited given the site's significant deviation in topography. Techniques to protect the road from further movement and improve the overall embankment stability will also be investigated.

THE PROCESS:
The Study will be conducted in accordance with the planning and design process for Schedule 'C' projects as outlined in the Municipal Engineers Association "Municipal Class Environmental Assessment", (October 2000, as amended in 2015) and the MNRF Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), approved under the Ontario Environmental Assessment Act. The Class EA process includes public/external agency consultation, an evaluation of alternative solutions and alternative design concepts, an assessment of potential impacts associated with the proposed improvements, and the development of mitigation measures to identified potential impacts.

COMMENTS:
Public Participation will form an integral part of the Schedule 'C' Class EA Study to ensure that the ongoing concerns of the public and affected groups within the study area are identified, documented and assessed. A minimum of two public information centres (PIC) will be held and advertised in advance to enable the public to meet the project team, and to provide feedback to better address the needs and opportunities of the study corridor. The first of two PICs is anticipated to be held in late fall/early winter, 2016. Further Notice will be provided closer to the date of the PIC, however, if you wish to have your name added to our email contact database, please contact one of the project managers listed below.

Ian Todhunter, P.Eng.
Project Manager
Town of Caledon
6311 Old Church Road
Caledon, ON L7C 1J6
Tel: 905-584-2272, Ext. 4065
Fax: 905-584-4325
E-mail: ian.todhunter@caledon.ca

Brian Ruck, P.Eng., CVS – Life
Consultant Project Manager
GHD Limited
65 Sunray Street
Whitby, ON L1N 8Y3
Tel: 905-429-4957
Fax: 905-432-7877
E-mail: brian.ruck@ghd.com

This notice published: August 4, 2016

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** _____

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: _____

☐ **Use my contact information as the key project contact for future correspondence**

Title: _____

Municipality/Age

_____

Postal Code: _____

Telephone _____ **Fax:** _____

Email: _____

Please select the appropriate response:

☐ My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list.

☐ My agency/organization **is not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove my organization/agency from the project contact list.

Area of interest or concern/comments:

RECEIVED
AUG - 9 2016

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** August 5, 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☑ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address: [redacted]

Postal Code: [redacted]

Telephone: [redacted] **Fax:**

Email: [redacted]

Please select the appropriate response:

☑ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** AUG. 6, 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☑ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address: [redacted]

Postal Code: [redacted]

Telephone: [redacted] **Fax:** [redacted]

Email: [redacted]

Please select the appropriate response:

☑ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

- Safety of cars and pedestrians on Dominion Street.
- EMS access throughout street + bridge repairs
- Continued access to our residence

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** AUGUST 8, 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☑ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address: [redacted]

Postal Co [redacted]

Telephone [redacted] **Fax:** [redacted]

Email: [redacted]

Please select the appropriate response:

☑ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

We have lived full-time at [redacted] for 48 years. Because of the camber of the asphalt road surface in front of our property the winter road salt drains from the road down into our lot killing the cedar hedge and potentially causing a problem with our well. Perhaps this could be considered if and when the road is resurfaced.

[redacted]

P.S. KINDLY ADD OUR NAME TO THE EMAIL CONTACT DATABASE

[redacted]

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** August 9, 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☐ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address: [redacted]

Postal Code [redacted]

Telephone: [redacted] **Fax:**

Email [redacted]

Please select the appropriate response:

☒ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

- Current non-local traffic.
- Safety of pets, children and walking traffic
- Illegal parking at Dead End
- Emergency Vehicle access when cars are parked illegally

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** AUG. 10/2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☒ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address: [redacted]

Postal Code: [redacted]

Telephone: [redacted] **Fax:** [redacted]

Email: [redacted]

Please [redacted]

☒ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

(1) - TURNING A QUIET COUNTRY ROAD INTO A THOROUGHFARE BY USING CURBS & GUARDRAILS, THEREBY DESTROYING THE CHARACTER OF DOMINION ST.

(2) - ALLOWING CONTINUED PUBLIC ACCESS ON A NARROW & WINDING ROAD THAT IS PART OF THE BRUCE TRAIL.

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** AUG. 10/16

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☒ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address: [redacted]

Postal Code: [redacted]

Telephone: [redacted] **Fax:**

Email:

Please select the appropriate response:

☐ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☒ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** AUGUST 10th, 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☑ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address: [redacted]

Postal Code: [redacted]

Telephone: [redacted] **Fax:**

Email: [redacted]

Please select the appropriate response:

☑ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

(1) ACCESS TO HOME DURING AND AFTER PROJECT. WE HAVE A YOUNG FAMILY AND WE WOULD NOT BE ABLE TO RELOCATE.

(2) PRESERVATION OF NATURAL ~~[illegible]~~ HABITAT FOR WILDLIFE, ESPECIALLY THE RIVER BANK AND AQUATIC SPECIES BECAUSE THAT ECOSYSTEM IS A DEFINING CHARACTERISTIC OF THIS AREA.

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD

Date: August 12, 2016

Fax: (905) 432-7877

Email: brian.ruck@ghd.com

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☐ Use my contact information as the key project contact for future correspondence

Title: [redacted]

Address: [redacted]

Postal Code [redacted]

Telephone: [redacted] Fax: [redacted]

Email: [redacted]

Please select the appropriate response:

☐ I am interested in providing input regarding this project. Please leave me on the project contact list.

☐ I am not interested in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

Please see attached document outlining our opposition to the Puckering Lane
extension option.

August 12, 2016

To Whom It May Concern,

We firmly believe that access to Dominion Rd. from Forks of the Credit Rd. must be maintained.

Please note, in the past we have indicated we would provide consent to the Town to access our property to facilitate the remediation of Dominion. Our property runs the entire length of the affected parts of Dominion. At the outset I will reiterate that this offer of cooperation still exists. I would welcome arriving at a common sense solution satisfactory to the needs of area residents and sensitive to the NEP protected lands we all cherish.

As the largest property owners in the designated Environmental Study Area, we are intimately familiar with the subject lands.

We are concerned the Town, in an effort to avoid costs, has expressed an interest in closing the southern portion of Dominion and developing a link from McLaren to Dominion either through the Park or along a good portion of Puckering Lane. We have grave concerns with this alternative proposed access route along Puckering.

We are deeply troubled that cross country connections to Dominion are part of the study. We realize that studies such as this have to consider all options, but we believe it is a reasonable position that the options considered must be legally possible. I do not know if preliminary consultations were held with the NEC regarding this possibility.

The entire length of Puckering from McClaren to mid concession between McClaren and the unopened 3rd line west is in the Natural designation of the NEP. The continuation of Dominion north from the town maintained section is also Natural until the top of the escarpment is reached and then it is the Protection designation. Accordingly, any new road is not likely permitted by the NEC. I believe all parties would be well served to consult with the NEC with specific regard to the Puckering extension option.

The NEP is divided into three designation in most of Caledon: Natural, Protection, and Rural. The Natural designation is the most restricted with very little being allowed including any proposed road widenings or new road development unless it is absolutely required for health and safety. Budgetary considerations alone would not meet the required criteria. In fact, the adopted Canadian interpretation of the Precautionary Principle refers specifically to not avoiding doing the right thing because of financial concerns. In this context, the right thing would be to rebuild the existing road and not disturb highly sensitive natural areas with challenging topography.

In addition to the opposition one would expect the NEC to have to the Puckering extension option, we believe Ontario Parks would be unwilling to have a new municipal road developed within a park. We would also anticipate the Bruce Trail Club, whose path follows from the end of Puckering Ln into the Park along the proposed alternative access route, would forcibly object.

On a very practical basis, the terrain in question at the end of Puckering is one of extreme grades, minor water courses, countless mature trees, and endangered / at-risk species. The sheer ecological devastation and monetary cost to engineer a municipal standard road on grade that drops over a hundred feet to Dominion from Puckering through sensitive lands is an option fraught with technical and environmental risk. Additionally, we would point out that winter maintenance for a new road with such changes in elevation would be costly.

Accordingly, we are hopeful that the Town's consultants will guide them to a similar fact-based conclusion. However, we will note we believe we have the legal grounds to vigorously oppose a decision to construct road access via Puckering to Dominion for the aforementioned reasons, and we anticipate other stakeholders would support this position.

Please advise if we can be of any assistance as you undertake your review.

Regards,

[redacted]

August 4, 2016

[redacted]

Dear Mr. Rasch:

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street

GHD Limited has been retained by the Town of Caledon to undertake a Municipal Class Environmental Assessment (Class EA) Study concurrently with a Ministry of Natural Resources and Forestry Public Parks and Conservation Reserves Class EA Study for Dominion Street. The Town of Caledon has initiated a Schedule 'C' Class Environmental Assessment Study and preliminary design, including an assessment of alternatives and long-term solutions for the rehabilitation of Dominion Street.

The Study is being undertaken to investigate feasible bank stabilization and bridge rehabilitation activities in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge. Alternative roadway re-alignments will be considered as part of this Class EA study, but are limited given the Site's significant deviation in topography. Techniques to protect the road from further movement and improve the overall embankment stability will also be investigated.

The purpose of this letter is to inform you of the project and to solicit comments that should be addressed throughout the Class EA Study.

The Study will be conducted in accordance with the planning and design process for 'Schedule C' projects, as outlined in the Municipal Engineers Association's, "Municipal Class Environmental Assessment" (October 2000, as amended in 2015) and the Ministry of Natural Resources and Forestry's Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), approved under the *Ontario Environmental Assessment Act*. The Class EA process includes public/external agency consultation, an evaluation of alternative solutions and alternative design concepts, an assessment of potential impacts associated with the proposed improvements, and the development of mitigation measures to identified potential impacts. Please find enclosed a copy of the **Notice of Study Commencement** providing further details regarding the project.

GHD Limited
65 Sunray Street Whitby Ontario L1N 8Y3 Canada
T 905 686 6402 **F** 905 432 7877 **W** www.ghd.com

If you wish to provide input or have any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Similarly, should you wish to be removed from our mailing list, please let us know by returning the **Reply Form.** Your response is appreciated by **August 23, 2016**, so that we can ensure your comments/concerns are addressed in a timely manner.

A minimum of two public information centres (PIC) will be held and advertised in advance to enable the public to meet the project team, and to provide feedback to better address the needs and opportunities of the study corridor. The first of two PICs is anticipated to be held in late fall/early winter, 2016. Further Notice will be provided closer to the date of the PIC.

If you require additional information or wish to discuss the study process, please contact the undersigned at (905) 429-4957 or brian.ruck@ghd.com

Sincerely,

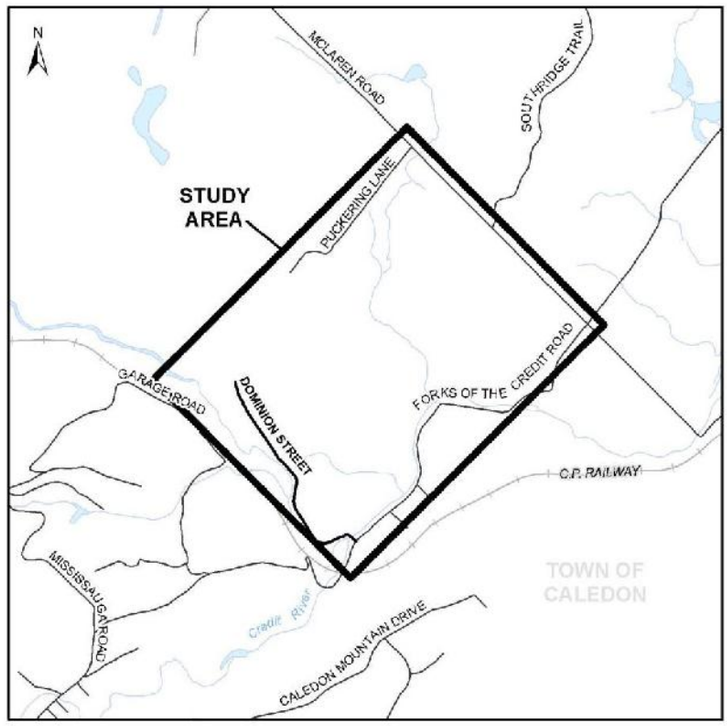
GHD Limited

Brian Ruck, P.Eng., CVS – Life

cc: Ian Todhunter, P.Eng. – Town of Caledon

TOWN OF CALEDON
NOTICE OF STUDY COMMENCEMENT

Municipal Class Environmental Assessment & Provincial Parks and Conservation Reserves Class Environmental Assessment Study for Dominion Street



THE STUDY:

The Town of Caledon has initiated a Schedule 'C' Class Environmental Assessment Study and preliminary design, including an assessment of alternatives and long-term solutions for providing safe access to Dominion Street.

Within the Study Area, Dominion Street consists of a rural two-lane roadway and a single lane bridge providing sole access to residential dwellings located on Dominion Street. Features of the Study Area include the Dominion Street Bridge and a section of the Credit River. The Study Area also encompasses a segment of the Forks of the Credit Provincial Park.

The Study is being undertaken to investigate feasible bank stabilization and bridge rehabilitation activities in order to improve safety and access based on the current and future utilization of Dominion Street and the Dominion Street Bridge. Alternative roadway re-alignments will be considered as part of this Class EA Study, but are limited given the site's significant deviation in topography. Techniques to protect the road from further movement and improve the overall embankment stability will also be investigated.

THE PROCESS:
The Study will be conducted in accordance with the planning and design process for Schedule 'C' projects as outlined in the Municipal Engineers Association "Municipal Class Environmental Assessment", (October 2000, as amended in 2015) and the MNRF Class EA for Provincial Parks and Conservation Reserves (September 2004, as amended in 2015), approved under the Ontario Environmental Assessment Act. The Class EA process includes public/external agency consultation, an evaluation of alternative solutions and alternative design concepts, an assessment of potential impacts associated with the proposed improvements, and the development of mitigation measures to identified potential impacts.

COMMENTS:
Public Participation will form an integral part of the Schedule 'C' Class EA Study to ensure that the ongoing concerns of the public and affected groups within the study area are identified, documented and assessed. A minimum of two public information centres (PIC) will be held and advertised in advance to enable the public to meet the project team, and to provide feedback to better address the needs and opportunities of the study corridor. The first of two PICs is anticipated to be held in late fall/early winter, 2016. Further Notice will be provided closer to the date of the PIC, however, if you wish to have your name added to our email contact database, please contact one of the project managers listed below.

Ian Todhunter, P.Eng.
Project Manager
Town of Caledon
6311 Old Church Road
Caledon, ON L7C 1J6
Tel: 905-584-2272, Ext. 4065
Fax: 905-584-4325
E-mail: ian.todhunter@caledon.ca

Brian Ruck, P.Eng., CVS – Life
Consultant Project Manager
GHD Limited
65 Sunray Street
Whitby, ON L1N 8Y3
Tel: 905-429-4957
Fax: 905-432-7877
E-mail: brian.ruck@ghd.com

This notice published: August 4, 2016

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date: _____**

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: ____ _____

☐ **as the key project contact for future correspondence**

Title: _____ _____

Address: _ _____

Postal Cod _____

Telephone: _____ **Fax:** _____

Email: ____ _____

Please select the appropriate response:

☐ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

To Whom It May Concern,

We firmly believe that access to Dominion Rd. from Forks of the Credit Rd. must be maintained.

Please note, in the past we have indicated we would provide consent to the Town to access our property to facilitate the remediation of Dominion. Our property runs the entire length of the affected parts of Dominion. At the outset I will reiterate that this offer of cooperation still exists. I would welcome arriving at a common sense solution satisfactory to the needs of area residents and sensitive to the NEP protected lands we all cherish.

As the largest property owners in the designated Environmental Study Area, we are intimately familiar with the subject lands.

We are concerned the Town, in an effort to avoid costs, has expressed an interest in closing the southern portion of Dominion and developing a link from McLaren to Dominion either through the Park or along a good portion of Puckering Lane. We have grave concerns with this alternative proposed access route along Puckering.

We are deeply troubled that cross country connections to Dominion are part of the study. We realize that studies such as this have to consider all options, but we believe it is a reasonable position that the options considered must be legally possible. I do not know if preliminary consultations were held with the NEC regarding this possibility.

The entire length of Puckering from McClaren to mid concession between McClaren and the unopened 3rd line west is in the Natural designation of the NEP. The continuation of Dominion north from the town maintained section is also Natural until the top of the escarpment is reached and then it is the Protection designation. Accordingly, any new road is not likely permitted by the NEC. I believe all parties would be well served to consult with the NEC with specific regard to the Puckering extension option.

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In addition to the opposition one would expect the NEC to have to the Puckering extension option, we believe Ontario Parks would be unwilling to have a new municipal road developed within a park. We would also anticipate the Bruce Trail Club, whose path follows from the end of Puckering Ln into the Park along the proposed alternative access route, would forcibly object.

On a very practical basis, the terrain in question at the end of Puckering is one of extreme grades, minor water courses, countless mature trees, and endangered / at-risk species. The sheer ecological devastation and monetary cost to engineer a municipal standard road on grade that drops over a hundred feet to Dominion from Puckering through sensitive lands is an option fraught with technical and environmental risk. Additionally, we would point out that winter maintenance for a new road with such changes in elevation would be costly.

Accordingly, we are hopeful that the Town's consultants will guide them to a similar fact-based conclusion. However, we will note we believe we have the legal grounds to vigorously oppose a decision to construct road access via Puckering to Dominion for the aforementioned reasons, and we anticipate other stakeholders would support this position.

Please advise if we can be of any assistance as you undertake your review.

Regards,

[redacted]

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** AUGUST 16, 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☑ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address: [redacted]

Postal Code: [redacted]

Telephone: [redacted] **Fax:** [redacted]

Email: [redacted]

Please select the appropriate response:

☑ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

PUCKERING LANE, ENVIRONMENTAL ISSUE
SEE ATTACHED LETTER

[redacted]

August 16, 2016

To Whom It May Concern:

We firmly believe that access to Dominion Rd. from Forks of the Credit Rd. must be maintained.

Please note, in the past we have indicated we would provide consent to the Town to access our property to facilitate the remediation of Dominion. Our property runs the entire length of the affected parts of Dominion. At the outset, I will reiterate that this offer of cooperation still exists. I would welcome arriving at a common sense solution satisfactory to the needs of area residents and sensitive to the NEP Protected lands we all cherish.

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We are concerned the Town, in an effort to avoid costs, has expressed an interest in closing the southern portion of Dominion and developing a link from McLaren to Dominion either through the Park or along a good portion of Puckering Lane. We have grave concerns with this alternative proposed access route along Puckering.

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Please advise if we can be of any assistance as you undertake your review.

Regards,

[redacted]

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** August 16, 2016

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☑ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address: [redacted]

Postal Cod [redacted]

Telephone: [redacted] **Fax:** [redacted]

Email: [redacted]

Please select the appropriate response:

☑ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

[redacted] Property Owner

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** 17 AUG 2016

Fax: (905) 432-7877 **Email:** brian.ruck@ghd.com

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☑ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address [redacted]

Postal Code [redacted]

Telephone: [redacted] **Fax:**

Email: [redacted]

Please select the appropriate response:

☑ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

- MAKE THE ROAD SAFE WHILE MAINTAINING ITS RURAL PROFILE
- RESTRICT IT TO LOCAL TRAFFIC ONLY
- HOW WILL WE ACCESS OUR HOMES DURING THE PROJECT?

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** 18/08/16

Fax: (905) 432-7877 **Email: brian.ruck@ghd.com**

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name [redacted]

☒ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Addre

Postal

Telepl

Email:

Please select the appropriate response:

☒ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

RIVER BANK STABILIZATION
BRIDGE REHABILITATION

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD

Date: AUGUST 22, 2016

Fax: (905) 432-7877

Email: brian.ruck@ghd.com

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☑ [redacted] **as the key project contact for future correspondence**

Title: [redacted]

Address [redacted]

Postal C [redacted]

Telepho [redacted]

Email: [redacted]

Please select the appropriate response:

☐ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☑ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

ANY EFFECTS TO THE "ESTATE" PROPERTY

Sent Via Regular Mail

GHD
65 Sunray St
Whitby, Ontario
L1N 8Y3

August 22, 2016

Attn: Brian Ruck, Consultant Project Manager

Re: Notice of Study Commencement Ref No: 11116800
[redacted]

Dear Brian

Please find enclosed a copy of the completed Reply Form. We did attempt to fax the form to you however there seemed to be a connectivity issue.

In the event you require any additional information or if you believe any information you have may be relevant to the "Estate" please contact us.

[redacted]

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD

Date: _____

Fax: (905) 432-7877

Email: brian.ruck@ghd.com

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☑ **Use my contact information as the key project contact for future correspondence**

Title: [redacted]

Address:

Postal Co

Telephone

Email:

Please select the appropriate response:

☑ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☐ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

- Protection of fish and wildlife in the area
- Fire and police and ambulance access
- Continued access to our residence throughout the street/bridge repairs
- Thank-you for consulting and communicating with the residents

REPLY FORM

PLEASE REPLY BY AUGUST 23, 2016

To: Brian Ruck, GHD **Date:** Aug 22/2016

Fax: (905) 432-7877 **Email:** brian.ruck@ghd.com

Re: Notice of Study Commencement
Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street
Town of Caledon

Name: [redacted]

☐ Use my contact information as the key project contact for future correspondence

[redacted]

Please select the appropriate response:

☐ I **am interested** in providing input regarding this project. Please leave me on the project contact list.

☑ I **am not interested** in providing input regarding this project but would like to be kept informed. Please leave me on the project contact list.

☐ Please remove me from the project contact list.

Area of interest or concern/comments:

Alex Pereira

From: Brian Ruck
Sent: Monday, August 08, 2016 9:43 AM
To: [redacted]
Cc:
Subject: RE: Dominion Street Environmental Assessment

Follow Up Flag: Follow up
Flag Status: Flagged

CompleteRepository: 889999999
Description: Canada - Miscellenous Mail
JobNo: 99999
OperatingCentre: 88
RepoEmail: 889999999@ghd.com
RepoType: Overhead
SubJob: 99

Thanks [redacted] we'll add you to our mailing list.

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

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From: [redacted]
Sent:
To: Brian Ruck; ian.todhunter@caledon.ca
Subject: Dominion Street Environmental Assessment

Good morning Ian & Brian,

Would you please add my email address to your DL, for the Dominion Street Environmental Assessment? Being local to this, I would like to receive any communications related to this issue. For reference, we did receive a copy of the original communication in our mailbox.

Thanks,

[redacted]

[redacted]

Alex Pereira

From: Brian Ruck
Sent: Friday, August 12, 2016 11:30 AM
To: [redacted]; Alex Pereira; Blair Shoniker
Subject: Re: Notice of Study Commencement - Response - [redacted]

Follow Up Flag: Follow up
Flag Status: Completed

Thanks will add you to the list.

Brian Ruck

On Aug 12, 2016, at 11:01 AM, [redacted] wrote:

> Morning Brian,
>
> Please find attached our response and request to be informed/provide input on the EA being conducted for Dominion St. and the surrounding area.
>
> Regards,
>
> [redacted]
>
> _____
> This e-mail has been scanned for viruses
> [redacted]

Alex Pereira

From: [redacted]
Sent: Friday, August 12, 2016 8:17 PM
To: Alex Pereira
Cc: Brian Ruck;[redacted]
Subject: Re: Dominion Street Schedule 'C' Class Environmental Assessment
Attachments: Dominion Response.pdf; DominionRdRepairs.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Alex, Brian,

Thanks for sending this electronically. We take this matter extremely seriously.

We have been travelling the past 2 weeks. I enclose our response with attachment herewith.

Please note we are both the [redacted] the entirety of our property borders the specific section of the road [redacted] a specifically (300 acres over numerous lots).

We have shared our concerns regarding the feasibility of an alternative access route along Puckering Ln. I have taken the liberty to rehash the points we have made previously.

I am pleased that the town has retained a credible planning firm to steward a process that should be straight forward.

Kindly confirm receipt of this email message with attachments.

Regards [redacted]

On 4 August 2016 at 12:10, Alex Pereira <Alex.Pereira@ghd.com> wrote:

Dear [redacted]

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If you wish to provide input or have any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of

Brian Ruck, P. Eng. , CVS – Life

Certified Value Specialist

Principal

Vice President, Transportation and Value Engineering

GHD

T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com

65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

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Alex Pereira, BES
Environmental Planner

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T: +1 905 429 4952 | C: +1 519 280 0374 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com
65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com

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Alex Pereira

From: Brian Ruck
Sent: Monday, August 08, 2016 9:43 AM
To: [redacted] ian.todhunter@caledon.ca
Cc: Alex Pereira; Blair Shoniker
Subject: RE: Dominion Street Environmental Assessment

Follow Up Flag: Follow up
Flag Status: Completed

[redacted]

Thanks [redacted] we'll add you to our mailing list.

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

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From: [redacted]
Sent: Monday, August 0
To: Brian Ruck; ian.todhunter@caledon.ca
Subject: Dominion Street Environmental Assessment

Good morning Ian & Brian,

Would you please add my email address to your DL, for the Dominion Street Environmental Assessment? Being local to this, I would like to receive any communications related to this issue. For reference, we did receive a copy of the original communication in our mailbox.

Thanks,

[redacted]

[redacted]

Alex Pereira

From: Brian Ruck
Sent: Monday, August 08, 2016 11:58 AM
To: [redacted]
Cc: ian.todhunter@caledon.ca; Doug Beffort; [redacted]
Alex Pereira; Blair Shoniker
Subject: RE: Dominion Street Schedule 'C' Class Environmental Assessment

Follow Up Flag: Follow up
Flag Status: Completed

[redacted]

Good morning [redacted]

Thank you for your e-mail; we will certainly keep you informed as the project unfolds and look forward to your input.

The map is much appreciated.

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | **www.ghd.com**

From: [redacted]
Sent:
To: Brian Ruck
Cc: ian.todhunter@caledon.ca; [redacted]
Subject: Fwd: Dominion Street Schedule 'C' Class Environmental Assessment

Hello Brian,

[redacted]

Attached are two documents:
1. A completed reply form with the response: "My agency/organization **is interested** in providing input regarding this project. Please leave me on the project contact list".

2. Map of the Study Area showing the route of the main Bruce Trail and several Side Trails. The main Trail crosses the Dominion Street bridge, continues on Dominion Street to the Forks of the Credit Provincial Park and subsequently continues along Puckering Lane crossing McLaren Road.

I would appreciate having the opportunity to provide input to the project. Our main interest is maintaining the Trail route throughout this very picturesque part of the Niagara Escarpment.

I'm looking forward to the public information sessions. In the meantime, feel free to contact me about any questions relating to the Bruce Trail.

Thank you!

[redacted]

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Alex Pereira

From: Alex Pereira
Sent: Monday, August 15, 2016 9:45 AM
To: [redacted]
Cc: [redacted]
Subject: RE: Dominion Street Schedule 'C' Class Environmental Assessment

[redacted]

Good morning [redacted]

Thank you for your comments. We will continue to keep you informed as the study progresses.

Kind regards,

Alex Pereira, BES
Environmental Planner

GHD
T: +1 905 429 4952 | C: +1 519 280 0374 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com
65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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From: [redacted]
Sent:
To: Alex Pereira
Cc: Brian Ruck; [redacted]
Subject: Re: Dominion Street Schedule 'C' Class Environmental Assessment

Alex, Brian,

Thanks for sending this electronically. We take this matter extremely seriously.

We have been travelling the past 2 weeks. I enclose our response with attachment herewith.

Please note we are both the largest property owners along Dominion Rd (the entirety of our property borders the specific section of the road that requires remediation) and in the study area specifically (300 acres over numerous lots).

We have shared our concerns regarding the feasibility of an alternative access route along Puckering Ln. I have taken the liberty to rehash the points we have made previously.

I am pleased that the town has retained a credible planning firm to steward a process that should be straight forward.

Kindly confirm receipt of this email message with attachments.

Regards. [redacted]

On 4 August 2016 at 12:10, Alex Pereira <Alex.Pereira@ghd.com> wrote:

Dear [redacted]

On behalf of the Corporation of the Town of Caledon, please find attached the Notice of Study Commencement for the Dominion Street Schedule 'C' Class Environmental Assessment for your information.

If you wish to provide input or have any comments and/or concerns regarding this study, please do so using the **Reply Form** provided. Your response is appreciated by **August 23, 2016**.

Kind Regards,

Alex Pereira

On behalf of

Brian Ruck, P. Eng. , CVS – Life

Certified Value Specialist

Principal

Vice President, Transportation and Value Engineering

GHD

T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com

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65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com

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Alex Pereira

From: Brian Ruck
Sent: Tuesday, August 30, 2016 4:32 PM
To: [redacted]
Cc: Ian Todhunter; Alex Pereira
Subject: RE: Emailing - img20160823_14352210.pdf

Follow Up Flag: Follow up
Flag Status: Completed

[redacted]

Thank you for your comments. We will be in touch as the study progresses

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | www.ghd.com

-----Original Message-----
From: [redacted]
Sent: Tuesday, August 23, 2016 2:50 PM
To: Brian Ruck
Subject: Emailing - img20160823_14352210.pdf

Hi Brian,
Please find enclosed the reply form regarding notice of study.
Regards
[redacted]

_____

Alex Pereira

From: Brian Ruck
Sent: Tuesday, August 30, 2016 4:18 PM
To: [redacted]
Cc: Alex Pereira; Ian Todhunter
Subject: RE: Emailing: BRIAN RUCK

Follow Up Flag: Follow up
Flag Status: Completed

[redacted]

Thank you very much for your comments; they are much appreciated.

We will be in touch as the study progresses.

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
65 Sunray Street Whitby ON L1N 8Y3 | www.ghd.com

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-----Original Message-----
From: [redacted]
Sent: Tuesday, August 16, 2016 4:29 PM
To: Brian Ruck
Subject: Emailing: BRIAN RUCK

Please see attached reply form and letter from [redacted] re Notice of Study Commencement, Municipal Class Environmental Assessment & Public Parks and Conservation Reserves Class Environmental Assessment for Dominion Street.

[redacted]

[redacted]

_____
This e-mail has been scanned for viruses

Alex Pereira

From: Brian Ruck
Sent: Thursday, September 01, 2016 5:37 PM
To: [redacted]
Cc:
Subject: RE: Dominion St. Project

Follow Up Flag: Follow up
Flag Status: Completed

[redacted]

Thanks for your reply [redacted]

Brian Ruck, P. Eng. , CVS – Life
Certified Value Specialist
Principal
Vice President, Transportation and Value Engineering

GHD
T: +1 905 429 4957 | F: 905 432 7877 | C: 905 718-5855 | V: 884957 | E: brian.ruck@ghd.com
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Please consider our environment before printing this email

From: [redacted]
Sent:
To: Brian Ruck
Subject: Dominion St. Project

Thank you very much for the opportunity to stay informed!

[redacted]

please consider the environment - do you really need to print this email?

_____

This e-mail has been scanned for viruses

Alex Pereira

From: Alex Pereira
Sent: Monday, September 12, 2016 12:20 PM
To: [redacted]
Subject: Dominion Street Class Environmental Assessment
Attachments: 08-08-2016_Reply Form_[redacted]

CompleteRepository: 011116800
Description: CLASS EA FOR DOMINION STREET
JobNo: 11168
OperatingCentre: 01
RepoEmail: 011116800@ghd.com
RepoType: Proposal
SubJob: 00

Good afternoon [redacted]

Thank you for your interest and comments regarding the Dominion Street Class Environmental Assessment. We greatly appreciate your insight of the area and will consider your comments as part of our study. We will continue to keep you informed as the study progresses.

Kind regards,

Alex Pereira, BES
Environmental Planner

GHD
T: +1 905 429 4952 | C: +1 519 280 0374 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com
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Alex Pereira

From: Alex Pereira
Sent: Monday, September 12, 2016 12:33 PM
To: [redacted]
Subject: [redacted] ironmental Assessment
Attachments: 08-10-2016_Reply Form [redacted]

[redacted]

Good afternoon [redacted]

Thank you for your interest and comments regarding the Dominion Street Class Environmental Assessment. We greatly appreciate your insight of the area and will consider your comments as part of our study. We will continue to keep you informed as the study progresses.

Kind regards,

Alex Pereira, BES
Environmental Planner

GHD
T: +1 905 429 4952 | C: +1 519 280 0374 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com
65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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Alex Pereira

From: Alex Pereira
Sent: Monday, September 12, 2016 11:47 AM
To: [redacted]
Subject: Dominion Street Class Environmental Assessment
Attachments: 08-18-2016_Reply Form_Public_[redacted]

[redacted]

Dear [redacted]

Thank you for your comments and interest regarding the Dominion Street Environmental Assessment. We will continue to keep you informed as the study progresses.

Kind regards,

Alex Pereira, BES
Environmental Planner

GHD
T: +1 905 429 4952 | C: +1 519 280 0374 | F: +1 905 432 7877 | E: Alex.Pereira@ghd.com
65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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Alex Pereira

From: Alex Pereira
Sent: Monday, September 19, 2016 3:54 PM
To: [redacted]
Cc: Brian Ruck
Subject: Dominion Street Class Environmental Assessment
Attachments: 08-17-2016_Reply Form [redacted]

[redacted]

Good afternoon [redacted]

Thank you for your interest and recent comments regarding the Dominion Street Class Environmental Assessment. We greatly appreciate your insight of the area and will consider your comments as part of our study.

In response to your question, *"How will we access our homes during the project?"*, the environmental assessment process will examine the need for temporary access routes to be implemented during potential construction works. As we are still in the early stages of the environmental assessment process, potential temporary access routes are to be developed and evaluated in accordance with feasibility criteria.

We will continue to keep you informed as the study progresses.

Kind regards,

Alex Pereira, BES
Environmental Planner

GHD
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65 Sunray Street Whitby Ontario L1N 8Y3 Canada | www.ghd.com
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