

Town of Wasaga Beach, Constance Boulevard Drainage Improvements Schedule 'C' Municipal Class Environmental Assessment

Environmental Study Report

Prepared For:
Town of Wasaga Beach

December 2022

CREATING QUALITY SOLUTIONS TOGETHER



**TOWN OF WASAGA BEACH, CONSTANCE
BOULEVARD DRAINAGE IMPROVEMENTS
SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL
ASSESSMENT
ENVIRONMENTAL STUDY REPORT**

PROJECT NO. 221057

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1 Background

1.1 Introduction

The Town of Wasaga Beach (Town) has retained the services of Ainley Group (Ainley) to undertake a Municipal Class Environmental Assessment (Class EA) to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change. The current capacity of the side road ditch along Constance Boulevard in this area is insufficient to contain larger stormwater events and results in flooding.

The study area (Figure 1) is focused around the corridors of Thomas Street, Bayswater Drive, and the segment of Constance Boulevard that runs parallel to the shoreline of Georgian Bay.

The Town is undertaking a 2D hydraulic model specific to the area of George Ave., Marilyn Ave. South, and Robert St. South. This undertaking is a separate project and being conducted under the Drainage Master Plan.

Figure 1: Project Study Location



1.2 Municipal Class Environmental Assessment Process

The Municipal Class Environmental Assessment document (amended 2015) as published by the Municipal Engineers Association outlines a planning process for municipalities to follow so as to complete infrastructure projects in an environmentally responsible manner and in accordance with the *Ontario Environmental Assessment Act* (OEAA). Based on the scope of the proposed improvements, a Schedule 'C' level of planning was determined to be required. A Schedule 'C' project requires completion of Phases 1 to 4 of the Class EA process as illustrated in Figure 2, which is generally comprised of the following tasks:

PHASES 1 & 2

- Identify the problem/opportunity;
- Inventory the existing environment (physical, natural, social and economic);
- Develop alternative solutions to address the problem/opportunity;
- Evaluate proposed alternative solutions;
- Consult with the public, review agencies, relevant stakeholders;
- Select the Preferred Solution giving consideration to the evaluation and any feedback received through consultation;

PHASES 3 & 4

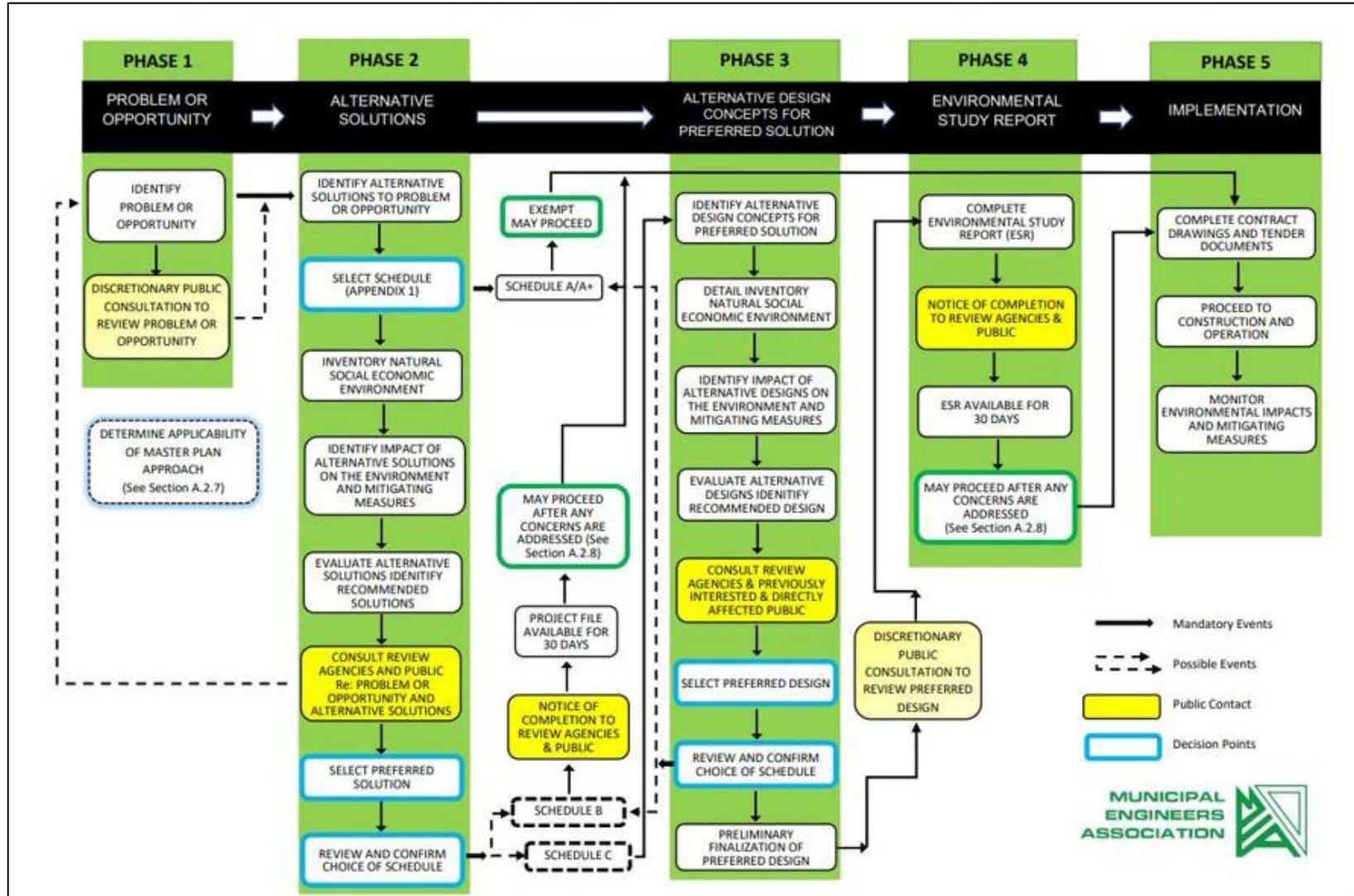
- Establish alternative design concepts to implement the Preferred Solution as selected at the close of Phase 2;
- Evaluate the impacts of the proposed alternative designs on the existing environment;
- Consult with the public, review agencies, relevant stakeholders;
- Select the Preferred Design in consideration of comments received;
- Develop a suitable mitigation strategy to minimize potential environmental effects;
- Prepare an Environmental Study Report (ESR) to document the Class EA process;
- Issue a Notice of Completion followed by a 30-day review period; and
- Address and final comments and conclude the Class EA process.

PHASE 5 - Implementation

- Complete the detailed design and prepare the contract drawings and tender documents and proceed to construction.
- Monitor for environmental provisions and commitments.

Consultation is a key component of the Class EA process as it allows members of the public, Indigenous communities, and relevant review agencies opportunity to provide relevant information and feedback for consideration.

Figure 2: MCEA Planning and Design Process



1.3 Objective of this Report

The objective of this report is to document the Class EA, Schedule 'C', planning process. This report identifies the deficiencies affecting the subject study area; the Problem/Opportunity Statement to be addressed; the alternative solutions considered; and the evaluation of these alternatives to demonstrate the decision-making process leading to the selection of the preferred solution and subsequently the design solution. This report also describes the existing project environment, the potential for environmental impact, and the mitigation strategy proposed. Consultation completed during this process is also included.

1.4 Project Team

The project team involved in the completion of this Schedule 'C' Class EA includes the following:

Proponent:	Town of Wasaga Beach
Prime Consultant:	Ainley Group
Sub-Consultants:	ARA Heritage Azimuth Environmental Consulting Inc.

2 Planning Policy and this Class EA

This section provides a brief discussion of various land use planning policies and principles to illustrate the consistency of this project in relation to provincial, regional and municipal planning goals.

2.1 Provincial Policy Statement (2020)

The *Provincial Policy Statement (2020)* provides policy direction relating to land use planning and development in Ontario. Section 3 of the *Planning Act* stipulates that all decisions affecting planning matters are to be consistent with the *Provincial Policy Statement (PPS)*. Policies applicable to this project include the following:

- Section 1.1.1i) "Healthy, liveable and safe communities are sustained by preparing for the regional and local impacts of a changing climate."
- Section 1.6.6.7c "Planning for stormwater management shall minimize erosion and changes in water balance, and prepare for the impacts of a changing climate through the effective management of stormwater, including the use of green infrastructure."
- Section 1.6.6.7d "Planning for stormwater management shall mitigate risks to human health, safety, property and the environment."
- Section 2.1.1 "Natural features and areas shall be protected for the long term."
- Section 2.1.6 "Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements."
- Section 2.6.1 "Significant built heritage resource and significant cultural heritage landscapes shall be conserved."

As the current project is following a Municipal Class Environmental Assessment process consideration is being given to the potential to impact the physical, natural, social, cultural and

economic environment prior to selection of the preferred solution. Various studies have been completed to obtain a better understanding of the existing conditions of the study area so that impacts can be properly assessed and appropriate mitigation developed.

2.2 Places to Grow Act (2005)

The *Places to Grow Act, 2005* enables the development of regional growth plans that guide government investments and land use planning policies. A Place to Grow – *Growth Plan for the Greater Golden Horseshoe (2020)* is the Ontario government’s initiative to plan for growth and development in a way that supports economic prosperity, protects the environment, and helps communities achieve a high quality of life. This Plan applies to the area designated by Ontario Regulation 416/05 as the Greater Golden Horseshoe growth plan area, to which the Town of Wasaga Beach is located.

2.3 Town of Wasaga Beach Official Plan (Adopted 2004, Consolidated Sep. 2021)

Under the *Places to Grow Act*, regional and municipal Official Plans are required to reflect the policies of the relevant growth plan. At the municipal level, provincial policy is implemented through the Town of Wasaga Beach’s Official Plan document. The Official Plan guides the decisions of Town Council on land use and construction of public works. Since the Official Plan has incorporated both the Growth Plan and the PPS, among others, the reasoning provided in the previous two sections that demonstrate consistency of this Class EA with those policies can also be applied to the Official Plan.

2.4 Nottawasaga Valley Conservation Authority Guidance Documents

Portions of the project study area are within an area regulated by the Nottawasaga Valley Conservation Authority (NVCA) and as such, a permit will be required from this agency prior to construction. The NVCA Planning and Regulation Guidelines (NVCA, August 2009) is a guidance document that outlines the role of a conservation authority under the *Conservation Authorities Act* and the *Planning Act*. These guidelines provide direction relating to standards and requirements associated with NVCA approvals.

2.5 Source Water Protection

The purpose of the *Clean Water Act (2006)* is to protect drinking water at the source and to safeguard human health and the environment. It aims to protect existing and future drinking water sources. It ensures that municipal drinking water supplies are protected through prevention by the development of a watershed-based source protection plan. The source protection plans identify vulnerable areas within each municipality and provide policies to address existing and future risks to municipal drinking water sources within these vulnerable areas. This project is subject to the South Georgian Bay Lake Simcoe’s Region Source Protection Plan (SGBLS – SPP) and is within the Nottawasaga Valley Source Protection Area. Source Water Protection policy as it relates to this project are specifically discussed further in Section 6.3 of this document.

2.6 Climate Change

The MECP document entitled “Considering Climate Change in the Environmental Assessment Process” (2017) provides guidance relating to the Ministry’s expectations for considering climate change during the environmental assessment process. The Guide is now a part of the Environmental Assessment Program’s Guides and Codes of Practice. The environmental

assessment of proposed undertakings is to consider how a project might impact climate change and how climate change may impact a project. Climate Change was considered during the course of this Class EA and is discussed further in Section 6.7 of this document to include any works for the collection, and transmission of drainage and storm water.

2.7 County of Simcoe Official Plan (Adopted 2008, Amended December 2016)

The purpose of the County of Simcoe Official Plan (2008) is to provide a policy context for land use planning taking into consideration the economic, social, and environmental impacts of land use and development decisions. Section 4.7 of the County's Official Plan provides the objectives and policies for the development of municipal sewage services, as defined in the Ontario Water Resources Act. The County's objective is to promote the development of sewage works that facilitate the conservation and protection of ground and surface water quality and quantity, natural heritage features, and ecological functions. The County requires that any servicing capability study or hydrological study must be prepared to the satisfaction of the County and local municipality in consultation with relevant agencies.

3 Phase 1 – Problem/Opportunity Statement

The purpose of Phase 1 of the Class EA process is to develop a problem/opportunity statement that clearly identifies the issue, challenge, or opportunity that is being reviewed and addressed. The problem/opportunity statement that has been developed for the Town of Wasaga Beach Constance Boulevard Improvements study is as follows:

“The purpose of this study is to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change. The current capacity of the side road ditch along Constance Boulevard in this area is insufficient to contain larger stormwater events and results in flooding.”

4 Existing Conditions

This section describes the characteristics of the study area to provide context and allow for accurate evaluation of potential impacts.

4.1 Physical Environment

4.1.1 Existing Structure

The existing roadside ditch is approximately 1m deep and is relatively flat. Drainage area is approximately 328 ha and is made up of road drainage and residential areas. The culvert at Constance Blvd. and Thomas St. conveys flows under from Thomas St. west towards the outlet condition. Flooding occurs most often at the low point in the road in front of 12 and 18 Constance Boulevard.

Figure 3 is a photo taken in 2021 and shows the view along the southern side of Constance Boulevard looking east. Figure 4 is a photo taken in 2021 and shows the watercourse crossing under Constance Boulevard at Bayswater Drive. The arrows indicate the flow direction of the watercourse.

Figure 3: Southern side of Constance Boulevard facing east



Figure 4: Watercourse crossing under Constance Boulevard at Bayswater Drive



4.1.2 Existing Utilities and Services

Within the existing road right-of-way (ROW), there are hydro poles/lines on the southern side of Constance Boulevard. Underground utilities within the existing ROW include sanitary sewer along the centre of Constance Boulevard, watermain along the north, and west sides of the ROW of each road, as well as underground cable and telephone lines under the intersection, connecting to pedestals located on the southeast corner of the intersection.

4.2 Natural Environment

This section provides an inventory of the Study Area's existing natural environment, including significant resources, vegetation, Species-at-Risk (SAR), aquatic (fish/fish habitat), and ground and surface water. To assist in the completion of this inventory, Azimuth Environmental Consulting Inc. (Azimuth), on behalf of Ainley Group, completed a natural heritage preliminary constraints screening of the study area. A copy of each report is included in **Appendix A**. The study approach used by Azimuth to complete the natural heritage assessment involved background information research and field surveys.

The majority of the study area is comprised of residential lots with a wooded area located in the easterly area. The majority of the project area is regulated by the NVCA owing to the watercourse and low-lying floodplain along the Georgian Bay shoreline.

4.2.1 Vegetation Communities Including Species at Risk (SAR)

The majority of the study area is comprised of residential lots with a wooded area located in the far south easterly area. Vegetation within the road ROW is comprised of

manicured lawn along front yards, or vegetated where the ROW ditches are not maintained, or vegetated where the ROW includes a drainage feature (watercourse or backwatered ditches).

Watercress is an aquatic plant that was prevalent in ditches that convey a watercourse, as well as in ditches not on the watercourse that are connected. Watercress is a species of plant most commonly found in areas of cold water associated areas of groundwater upwelling. The abundance of this plant in the Constance Boulevard study area indicates that drainage would be considered coldwater.

Two woodlots on Thomas Street were evaluated from the road side and classified as Dry-Fresh White Cedar-Poplar Mixed Forest and Dry-Fresh White Cedar Coniferous Forest. No Butternut (*Juglans cinerea*), (SAR), were found within the study area.

4.2.2 Wildlife Including SAR

According to the Ministry of Northern Development, Mines, Natural Resources and Forestry's (NDMNRF) Natural Heritage Information Centre (NHIC) database, no known occurrences of terrestrial Species at Risk (SAR) are present within the study area.

Endangered Bat species have the potential to occur within treed areas of the study area. Suitable habitat is found within the woodlot of the study area.

4.2.3 Fish and Fish Habitat

The drainage feature within the study area is a Tributary to the Nottawasaga River that originates approximately 2.5km to the south, and crosses Highway 26 and Beachwood Road before entering the roadside ditches of the project area. The Tributary in the project lands is contained in the ditch along the east side of Thomas Street, then flows west along the north side of Constance Boulevard, then north at Bayswater Drive where it discharges to Georgian Bay in an open channel in the east side ditch. The outlet to the lake is accessible to fish, as is the watercourse within roadside ditches. Considering the flow permanency, water depths, aquatic plants present and connectivity to Georgian Bay, the tributary and connecting ditches in the study area are considered fish habitat, protected under the Federal *Fisheries Act*.

4.2.4 Groundwater

Using the Ministry of the Environment, Conservation and Parks (MECP) Source Protection Information Atlas, a search was completed to identify any vulnerable areas present within the study area. It was determined that there are no vulnerable areas within the study area and therefore, no South Georgian Bay Lake Simcoe (SGBLS) Source Protection Plan policies apply and there will not be any source protection requirements for the proposed works. The project area is within a highly vulnerable aquifer zone. Further geotechnical studies will be conducted during the detailed design stage. It is not anticipated that any of the work proposed under the options would impact ground water conditions. There are approximately 10 residential wells located within the study area. Residents are connected to municipal water.

4.3 Cultural Environment

This section provides an inventory of the Study Area's existing cultural heritage resources, including archaeological resources as well we cultural heritage resources (which include built heritage and cultural heritage landscapes). To assist in the completion of this inventory, Archaeological Research Associates Ltd. (ARA) on behalf of Ainley Group completed a Stage 1

Archaeological Assessment and a scoped Cultural Heritage Assessment. Copies of the full reports are included in **Appendix B and Appendix C**, respectively. The study approach used by to complete the cultural heritage assessments involved background information research and on-site inspection.

4.3.1 Archaeological Resources

The Stage 1 assessment encompassed the entire study area. At the time of assessment, the study area comprised parts of multiple residential properties, numerous roads and driveways and a variety of grassed and wooded areas.

The Stage 1 assessment determined that the study area comprises a mixture of areas of archaeological potential, areas of no archaeological potential and previously assessed lands of no further concern. It is recommended that all areas of archaeological potential that could be impacted by the project be subject to a Stage 2 property assessment in accordance with Section 2.1 of the 2011 *Standards and Guidelines for Consultant Archaeologists*.

Figure 5: Results of Stage 1 Archaeological Assessment



Images	Potential Modelling (Recommended Survey Method)
Study Area	Archaeological Potential (Test Pit Survey at an Interval of 5 m)
Previous Assessments	Archaeological Potential (Combination Survey to Confirm Disturbance)
CIF #P007-039 (Stage 1-2)	No Archaeological Potential - Disturbed (No Further Work)
PIF #P1024-0157-2016 (Stage 1-2)	No Archaeological Potential - Permanently Wet (No Further Work)
PIF #P056-1624-2020 (Stage 1-2)	Previously Assessed (No Further Work)

1:3,160

0 62.5 125m

N

Contains information licensed under the Open Government License - Ontario
Base Map Source: County of Simcoe (2018)

4.3.2 Cultural Heritage Resources

A field survey of the study area was conducted, and all potential cultural heritage resources noted were evaluated against the criteria of Ontario Regulation 9/06. In total, one Cultural Heritage Landscape adjacent to the study area was identified as having potential cultural heritage value or interest. The cultural heritage value associated may be directly or indirectly impacted, specifically the vegetation, views and shoreline associated with Georgian Bay. No shadows will be cast near any of the identified cultural heritage resources, as the proposed improvements will take place at ground level.

4.3.3 Land Use

The lands within the project study area are classified as 'Residential' and 'Natural Hazards' under the Town of Wasaga Beach's Official Plan. The beach/shoreline within the project area is a private access beach and not open to the public, with the exception of municipal road allowances leading to waters edge.

5 Phase 2 – Proposed Alternative Solutions

As part of Phase 2 of the Class EA process, several alternative solutions were developed to address the problem/opportunity statement.

Option 1 – “Do Nothing”

The “Do-Nothing” option considers no improvements and/or modifications. This alternative does not address the problem/opportunity statement and is provided as a benchmark to gauge the potential impacts of the other options being considered.

The conveyance capacity of the existing ditch along Constance Blvd was calculated using Mannings formula to be approximately 3.2m³/s based on 0.5% slope and 0.9m depth. The calculations are attached in Appendix D. The HEC-RAS model received from NVCA shows the ditch overtopping at 3.0m³/s at cross-section (577.9811). The HEC-RAS model is attached in Appendix D. Along the existing drainage route between Bayswater Drive and Thomas Street there are a number of existing culvert crossings located at the driveway entrances to each property. These culverts vary in size and further limited the available capacity within the existing ditch. The capacity of a typical driveway culvert was calculated using Culvert Master to be 1.4m³/s based on 900mm culvert size.

Option 2 – Create New Outlet to the Bay through Property at 18 Constance Boulevard

This option includes a new drainage outlet constructed through private residence at 18 and 24 Constance Boulevard. A new outlet to Georgian Bay would be constructed and the current outlet would continue to convey the flows from west of Thomas Street along Constance Boulevard.

This option would require land to construct the new outlet system through 18 and 24 Constance Blvd. The new outlet to Georgian Bay would be constructed and the current outlet would continue to convey the flows from west of Thomas Street along Constance Boulevard. The flow along Thomas Street would split into two outlets using weir to convey the flow safely to the Georgian bay. The new outlet can be a piped system or open channel which will be further investigated in Section 7.

Option 3 – Increase Capacity of Constance Boulevard Ditch to Outlet North of Bayswater Drive

This option proposes to increase the capacity of the ditch along the south side of Constance Boulevard between Bayswater Drive and Thomas Street. To increase capacity, the current ditch would be regraded and the existing culverts would be replaced. The work proposed under this option would be maintained within the current road ROW.

The conveyance capacity of Constance Blvd ditch will be controlled by the driveway culverts. As mentioned in the option 1, the driveway culverts capacity was calculated to be $1.4 \text{ m}^3/\text{s}$ and to increase the capacity of this ditch to $6.5 \text{ m}^3/\text{s}$, a significant increase in the width of the ditch which will impact several properties from Thomas Street to Bayswater Drive. Along the existing drainage route there are a number of existing culvert crossings located at the driveway entrances to each property. These culverts vary in size and further limited the available capacity within the existing ditch. To evaluate the impact of increasing the capacity of the existing ditch two separate aspects were considered. The first was to increase the width of the ditch to the extent possible within the existing road allowance, the other was to recommend larger culverts at each entrance. The allowable culvert sizes are limited due to the existing grades at each property minimizing the opportunity to provide the necessary cover to ensure the structural integrity of the improved culverts

Option 4A and 4B – Redirect Drainage to Other Private Lands

Under option 4A the flows along Thomas Street would be diverted easterly along Constance Boulevard to a connection point in the proposed West End Depot ditch. The upstream elevation at the intersection of Constance Blvd and Thomas Street is 178.01 m. This is at the southwest ditch upstream of the crossing culvert. The elevation of the connection point in the proposed West End Depo Outlet Channel is 179.39 m. It is not possible to regrade the Constance Blvd ditch to achieve positive drainage to the outlet channel. The elevation at Constance Blvd is lower than the elevation at the connection point in the outlet channel, meaning we are unable to send water to the outlet as its uphill.

Under option 4B the flows along Thomas Street would be diverted easterly along Betty Boulevard to a connection point in the proposed West End Depot ditch. Betty Blvd has a ditch on both side of the road from the intersection with Thomas St to the south. The upstream elevation at the intersection of Betty Blvd and Thomas Street is 179.06 m and 179.16m. The elevation of the connection point in the proposed West End Depo Outlet Channel is 181.48. It is not possible to regrade the Betty Blvd ditch to achieve positive drainage to the outlet channel. The elevation at Constance Blvd is lower than the elevation at the connection point in the outlet channel, meaning we are unable to send water to the outlet as its uphill.

Figure 6: Alternative Solutions



6 Phase 2 - Evaluation of Alternative Solutions

6.1 Evaluation Criteria

Under the Class EA process, evaluation involves the identification and consideration of the effects of each alternative on all aspects of the environment. The completion of the evaluation considered a number of factors, which were separated into evaluation criteria:

- **Physical Environment:** Increases Capacity to Reduce Flooding, Constructability, Erosion Potential, Sufficient Grade, Required Footprint, Expected Performance, Utility Impacts
- **Natural Environment:** Terrestrial Vegetation (Includes SAR), Wildlife (Includes SAR), Fish and Fish Habitat, Ground Water
- **Social and Cultural Environment:** Noise, Archaeological, Cultural and Built Heritage, Property Impacts, Climate Change
- **Economic Environment:** Construction Costs, and Operation and Maintenance Costs

A summary of the evaluation results is expressed in an Evaluation Matrix (Table 1). The Evaluation Matrix provides a means of comparing the effects that each alternative will generate on the area environment (physical, natural, cultural, social and economic). Visual markers are used to represent the potential for impact on each of the evaluation criteria.

Legend:

Positive	Positive Neutral	Neutral	Negative Neutral	Negative
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Green represents the most preferred option, as it will address the key concerns, but create the least amount of environmental impact. Red is indicative of a least preferred option as it has a higher potential to impact the environment. A blank space indicates that the impact is considered neutral. The evaluation of each criterion is described in more detail in the following subsections.

Table 1: Phase 2 Evaluation Matrix

EVALUATION CRITERIA	OPT 1	OPT 2	OPT 3	OPT 4	DESCRIPTION OF IMPACTS
PHYSICAL ENVIRONMENT					
Increases Capacity to Reduce Flooding	Red	Green	Light Green	Red	Option 2 provides additional capacity by creating a new outlet. Option 3 will allow for increased capacity along Constance Blvd. which will help reduce flooding but not to the same extent as Option 2. Option 4 is not feasible due to constructability and grading issues as identified below, therefore no increase to conveyance capacity and no improvements to flooding issues are provided.
Constructability		Green	Green	Red	Option 2 and 3 help improve deficiencies in the site and are constructable. Option 4 cannot be constructed as the connection location within the proposed West End Depot ditch is higher than the existing elevations within the Thomas Street ditch.
Erosion Potential		Green	Light Orange	Light Orange	Increased erosion is possible where the conveyance route turns. Options 3 and 4 have several 90° bends, or sharper, at road intersections. Option 2 provides the straightest flow pathway for flows from Thomas St.
Sufficient Grade		Green	Red	Red	Higher grades within the conveyance route allow for more capacity. Option 3 is the longest route and has the flattest grade. The diversions to the east considered in Option 4 go against the natural contours in the area creating flat or negative grades. Option 2 follows the natural contours in the area over the shortest pathway providing the best option for grading purposes.
Required Footprint		Green	Red	Light Orange	Given the existing capacity issues Option 3 would require a significant increase in the width of the ditch impacting several properties from Thomas St. to Bayswater Dr. Although the proposed West End Depot ditch could remain unchanged to accommodate the diversion an issue similar to that described for Option 3 would be expected where a new route would be constructed adjacent to private properties. Option 2 allows for the most efficient cross section.
Expected Performance		Green	Red	Light Orange	The potential for increased capacity along the route proposed for Option 3 is limited by the potential impact to private properties, limiting the opportunity to reduce flooding. The amount which can be diverted to the proposed West End Depot ditch is limited by the expected capacity required to convey flow from the Depot and surrounding properties per the original design of that system. Option 2 is the most efficient and can allow for the diversion of the most flow.
Impacts to Existing Utilities		Light Orange	Red	Light Orange	Option 2 proposed work is on private property and may impact private utility services. Option 3 proposes work within the existing ROW, there are hydro poles/lines on the southern side of Constance Blvd. that may be impacted by improvements. Option 4 proposes work within the ROW of Constance Blvd. easterly and there are hydro poles/lines present that may be impacted by the construction of the diversion ditch.
NATURAL ENVIRONMENT					
Terrestrial Vegetation (Includes SAR)		Light Orange	Light Green	Red	The work proposed under Option 2 may include tree removals dependent on size of channel. No tree removals are anticipated under Options 3, as the surrounding land is manicured lawns no impacts are anticipated to vegetation. Options 4 involves the construction of a diversion channel within a woodlot, vegetation removal is required. No SAR tree species have been identified within the project study area.
Wildlife (Includes SAR)		Light Green	Light Green	Light Orange	The woodlot to the east of the project area contains potential habitat for Endangered bats, construction work proposed under Option 4 in this area may impact this wildlife habitat.
Fish Habitat (Includes SAR)		Light Orange	Light Green	Light Orange	While the alignment of Option 2 and Option 4 doesn't currently include fish habitat constraints the options involve fisheries considerations. If the Tributary in the current alignment were altered or eliminated, the impacts may constitute the harmful alteration, disruption or destruction of fish habitat. Option 3 would maintain the existing drainage alignment and substrate may even be improved.
Ground Water					The project area is within a highly vulnerable aquifer zone. Further geotechnical studies will be conducted during the detailed design stage. It is not anticipated that any of the work proposed under the options would impact ground water conditions. There are approximately 10 residential wells located within the study area. Residents are connected to municipal water.
CULTURAL & SOCIAL ENVIRONMENT					
Noise		Light Orange	Light Orange	Light Orange	Options 2, 3 and 4 would have temporary noise disturbances due to construction activity. There are numerous residential dwellings in close proximity.

EVALUATION CRITERIA	OPT 1	OPT 2	OPT 3	OPT 4	DESCRIPTION OF EFFECTS
CULTURAL & SOCIAL ENVIRONMENT					
Archaeological					The work proposed under Options 2 and 4 have the potential to impact archaeological resources, however further field investigation is required to confirm. Option 3 involves work within areas that are designated as previously disturbed and there is no anticipated impact to archaeological resources.
Cultural and Built Heritage					The beach/shoreline is identified as a Cultural Heritage Landscape and the construction of a new channel outlet as proposed under Options 2 and 4 may have a negative impacted on the CHL. As the existing outlet will continue to be used as part of Option 3, no additional impacts to the CHL are anticipated.
Property Impacts					Under Option 1 private property will continue to be at risk for flooding. Option 2 would have major property impacts to construct a new outlet. The channel can be placed to allow for future severance of this lot and maximizing the development potential while provided a positive outlet. Options 3 and 4 will have impacts associated with the construction or ditch improvements along Constance Blvd ROW.
Climate Change					As Option 1 does not address flooding, adaptation to climate change and increased flooding events will not occur. Options 2 to 4 propose work to increase drainage capacity and the ability to convey larger storm events, with Option 2 providing the greatest increase in capacity.
ECONOMIC ENVIRONMENT					
Construction Costs					The construction cost associated with Option 4 are substantially higher than Options 2 and 3 as the length of the drainage channel and land clearing is a significant factor in determining cost.
Operating and Maintenance Costs					Option 1 involves continued maintenance associated with flooding, road closures, and potential damages. Options 2 to 4 would not require regular maintenance and are considered a positive impact to existing costs incurred.
TOTALS					
					The Options have been ranked using the evaluation of all criteria to select a suitable approach that will address the problem/opportunity but also keep impacts to a minimum.

6.2 Physical Environment

Option 2 provides additional capacity by creating a new outlet in the system to help alleviate flooding. Option 3 will allow for increased capacity along Constance Boulevard which will help reduce flooding but not to the same extent as Option 2 as there are geometric limitations with the size of culvert and ditch footprint. Option 4 is not feasible due to constructability and grading issues as identified below, therefore no increase to conveyance capacity and no improvements to flooding issues are provided.

Option 2 and 3 help improve deficiencies in the site and are constructable. Option 4 cannot be constructed as the connection location within the proposed West End Depot ditch is higher than the existing elevations within the Thomas Street ditch.

Increased erosion is possible where the conveyance route turns. Options 3 and 4 have several 90° bends, or sharper, at road intersections. Option 2 provides the straightest flow pathway for flows from Thomas St.

Higher grades within the conveyance route allow for more capacity. Option 3 is the longest route and has the flattest grade. The diversions to the east considered in Option 4 go against the natural contours in the area creating flat or negative grades. Option 2 follows the natural contours in the area over the shortest pathway providing the best option for grading purposes.

Given the existing capacity issues Option 3 would require a significant increase in the width of the ditch impacting several properties from Thomas St. to Bayswater Dr. Although the proposed West End Depot ditch could remain unchanged to accommodate the diversion an issue similar to that described for Option 3 would be expected where a new route would be constructed adjacent to private properties. Option 2 allows for the most efficient cross section

The potential for increased capacity along the route proposed for Option 3 is limited by the potential impact to private properties, limiting the opportunity to reduce flooding. The amount which can be diverted to the proposed West End Depot ditch is limited by the expected capacity required to convey flow from the Depot and surrounding properties per the original design of that system. Option 2 is the most efficient and can allow for the diversion of the most flow

Option 2 proposed work is on private property and may impact private utility services. Option 3 proposes work within the existing ROW, there are hydro poles/lines on the southern side of Constance Blvd. that may be impacted by improvements. Option 4 proposes work within the ROW of Constance Blvd. easterly and there are hydro poles/lines present that may be impacted by the construction of the diversion ditch. Table 2 shows the technical drainage consideration for each option.

Table 2: A Summary of the Technical Considerations for each Drainage Option.

Option #	Description	Technical consideration
1	Do nothing	<ul style="list-style-type: none"> • Typical driveway conveyance capacity for Constance Boulevard between Bayswater and Thomas Street is 1.4 m³/s • The conveyance capacity of Constance Blvd's ditch based on 0.5% slope and 0.9m depth, is 3.2 m³/s. • HEC RAS model shows ditch overtopping at 3.0 m³/s
2	Create New Outlet to the Bay through Property at 18 Constance Boulevard	<ul style="list-style-type: none"> • The new outlet to Georgian Bay would be constructed and the current outlet would continue to convey the flows from west of Thomas Street along Constance Boulevard
3	Increase Capacity of Constance Boulevard Ditch to Outlet North of Bayswater Drive	<ul style="list-style-type: none"> • a significant increase in the width of the ditch will be required which could impact several properties from Thomas Street to Bayswater Drive • larger Driveway culverts are needed at each entrance to increase the capacity of the drainage route. The allowable culvert sizes are limited due to the existing grades at each property minimizing the opportunity to provide the necessary cover to ensure the structural integrity of the improved culverts.
4A-4B	<i>Redirect Drainage to Other Private Lands</i>	Option 4B- The elevation at Constance Blvd is lower than the elevation at the connection point in the private lands, meaning we are unable to send water to those lands as its uphill.

A copy of the “*Constance Boulevard Drainage Improvements, Drainage Study Technical Brief*” can be found in **Appendix D**.

6.3 Natural Environment

The work proposed under Option 2 may include tree removals dependent on size of channel. No tree removals are anticipated under Options 3, as the surrounding land is manicured lawns no impacts are anticipated to vegetation. Options 4 involves the construction of a diversion channel within a woodlot, vegetation removal is required. No SAR tree species have been identified within the project study area.

The woodlot to the east of the project area contains potential habitat for Endangered bats, construction work proposed under Option 4 in this area may impact this wildlife habitat.

While the alignment of Option 2 and Option 4 doesn't currently include fish habitat constraints the options involve fisheries considerations. If the Tributary in the current alignment were altered or eliminated, the impacts may constitute the harmful alteration, disruption or destruction of fish habitat. Option 3 would maintain the existing drainage alignment and substrate may even be improved.

The project area is within a highly vulnerable aquifer zone. Further geotechnical studies will be conducted during the detailed design stage. It is not anticipated that any of the work proposed under the options would impact ground water conditions. There are approximately 10 residential wells located within the study area. Residents are connected to municipal water.

6.4 Cultural Environment

The work proposed under Options 2 and 4 have the potential to impact archaeological resources, however further field investigation is required to confirm. Option 3 involves work within areas that are designated as previously disturbed and there is no anticipated impact to archaeological resources.

The beach/shoreline is identified as a Cultural Heritage Landscape and the construction of a new channel outlet as proposed under Options 2 and 4 may have a negative impacted on the CHL. As the existing outlet will continue to be used as part of Option 3, no additional impacts to the CHL are anticipated.

6.5 Social Environment

Options 2, 3 and 4 would have temporary noise disturbances due to construction activity. There are numerous residential dwellings in close proximity.

Under Option 1 private property will continue to be at risk for flooding. Option 2 would have major property impacts to construct a new outlet. The channel can be placed to allow for future severance of this lot and maximizing the development potential while provided a positive outlet. Options 3 and 4 will have impacts associated with the construction or ditch improvements along Constance Blvd ROW.

As Option 1 does not address flooding, adaptation to climate change and increased flooding events will not occur. Options 2 to 4 propose work to increase drainage capacity and the ability to convey larger storm events, with Option 2 providing the greatest increase in capacity.

6.6 Economic Environment

The construction cost associated with Option 4 are substantially higher than Options 2 and 3 as the length of the drainage channel and land clearing is a significant factor in determining cost.

Option 1 involves continued maintenance associated with flooding, road closures, and potential damages. Options 2 to 4 would not require regular maintenance and are considered a positive impact to existing costs incurred.

6.7 Climate Change

Climate change concerns generally relate to the increased concentration of greenhouse gases in the atmosphere, which can result in a rise in the global mean surface temperature. Increased temperatures worldwide are creating changes in climate that is resulting in extreme weather events.

The rise of greenhouse gas emissions is influencing climate patterns, hydrology, ecosystems and ocean chemistry. There are two approaches to address climate change. These include reducing a project's impact on climate change (climate change mitigation) and increasing the local ecosystem's resilience to climate change (climate change adaptation).

Climate change has the potential to result in increased storm events and intensities that can lead to flooding. Alternatives were evaluated in regards to how successful they would decrease water ponding and flood duration. The preferred solution is designed to accommodate water volumes of up to a 100-year storm event level and is expected to make the area less vulnerable to climate change.

6.8 Selection of the Preferred Solution

Considering the comments received during Phase 2, it was determined that the Preferred Solution is *Option 2 – Create New Outlet to the Bay through Property at 18 Constance Boulevard*

This option includes a new drainage outlet constructed through private residence at 18 and 24 Constance Boulevard. A new outlet to Georgian Bay would be constructed and the current outlet would continue to convey the flows from west of Thomas Street along Constance Boulevard.

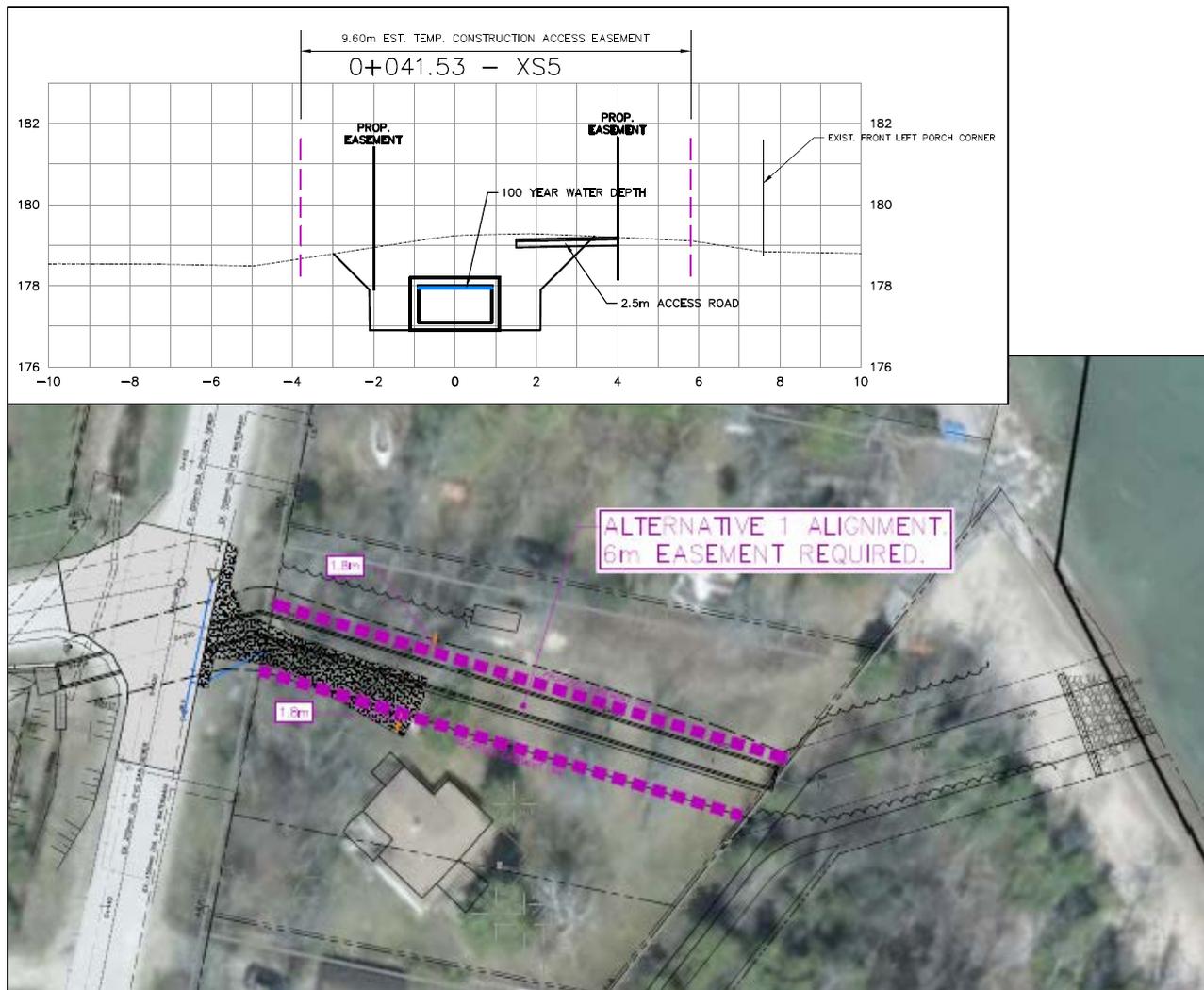
7 Preferred Solution Design Concepts

As part of Phase 3 of the Class EA process five design concepts were developed to implement the Preferred Solution selected at the close of Phase 2. These concepts were established to determine the potential impacts to the existing residence located on the property while providing sufficient capacity within the drainage infrastructure, and allowing for Town access for ongoing maintenance activities following construction of the selected concept.

7.1 Alternative 1 – Skewed Alignment with a Culvert Extension

- A concrete culvert installed under Constance Boulevard. The current culvert under Thomas Street that outlets to the Constance Boulevard ditch will remain in place.
- New concrete box culvert extension 1800 x 900mm (width and height).
- Access road for maintenance would be adjacent to the culvert extension.
- Total easement width required would be approximately 9.6m for construction, with the possibility post construction the easement width reduced 6m.

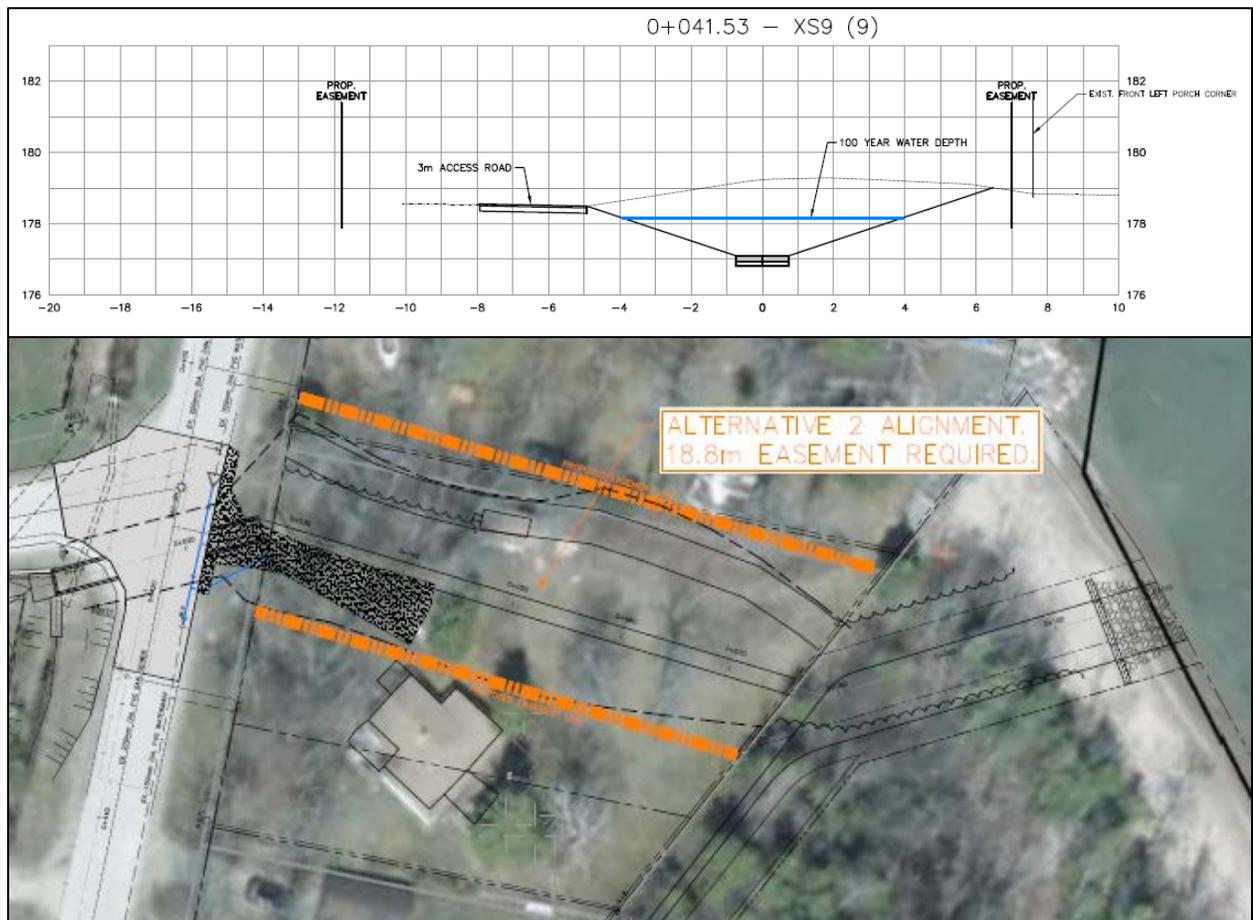
Figure 7: Alternative 1 - Overview and Profile Design Concept



7.2 Alternative 2 – Skewed Alignment with Open Channel, Slope of 3:1

- A concrete culvert installed under Constance Boulevard. The current culvert under Thomas Street that outlets to the Constance Boulevard ditch will remain in place.
- 1.5m flat bottom channel with a 3:1 side slope
- Access road for maintenance would be adjacent to channel.
- Total easement width required would be approximately 18.8m.
- Perimeter fencing installed around perimeter for public safety.

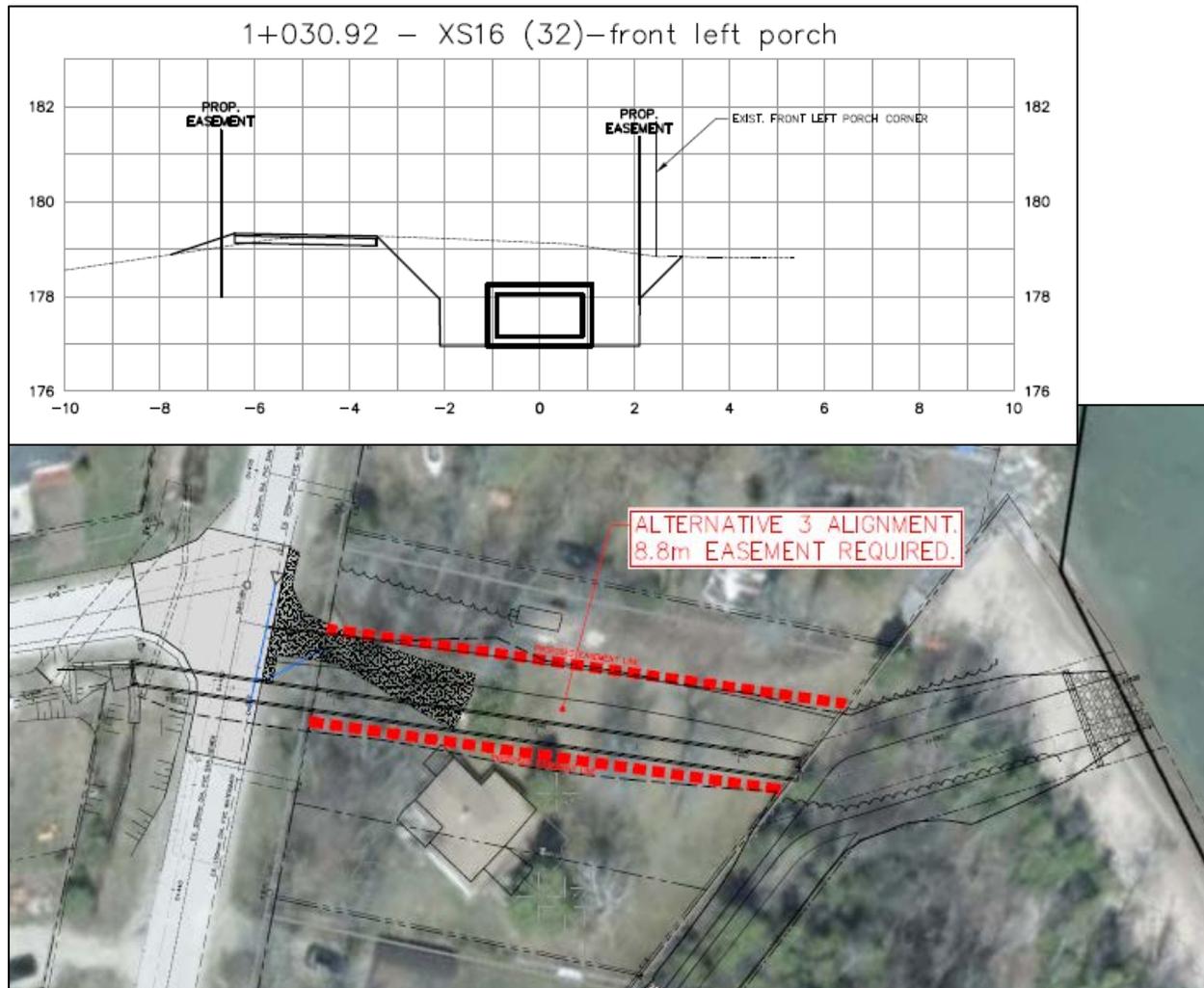
Figure 8: Alternative 2 - Overview and Profile Design Concept



7.3 Alternative 3 – Straight Alignment with Culvert Extension

- Concrete culvert installed under Constance Boulevard. Current culvert under Thomas Street that outlets to the Constance Boulevard ditch will remain in place.
- New concrete box culvert extension 1800 x 900mm (width and height)
- Access road for maintenance would be adjacent to the culvert extension
- Total easement width required would be approximately 8.8m.

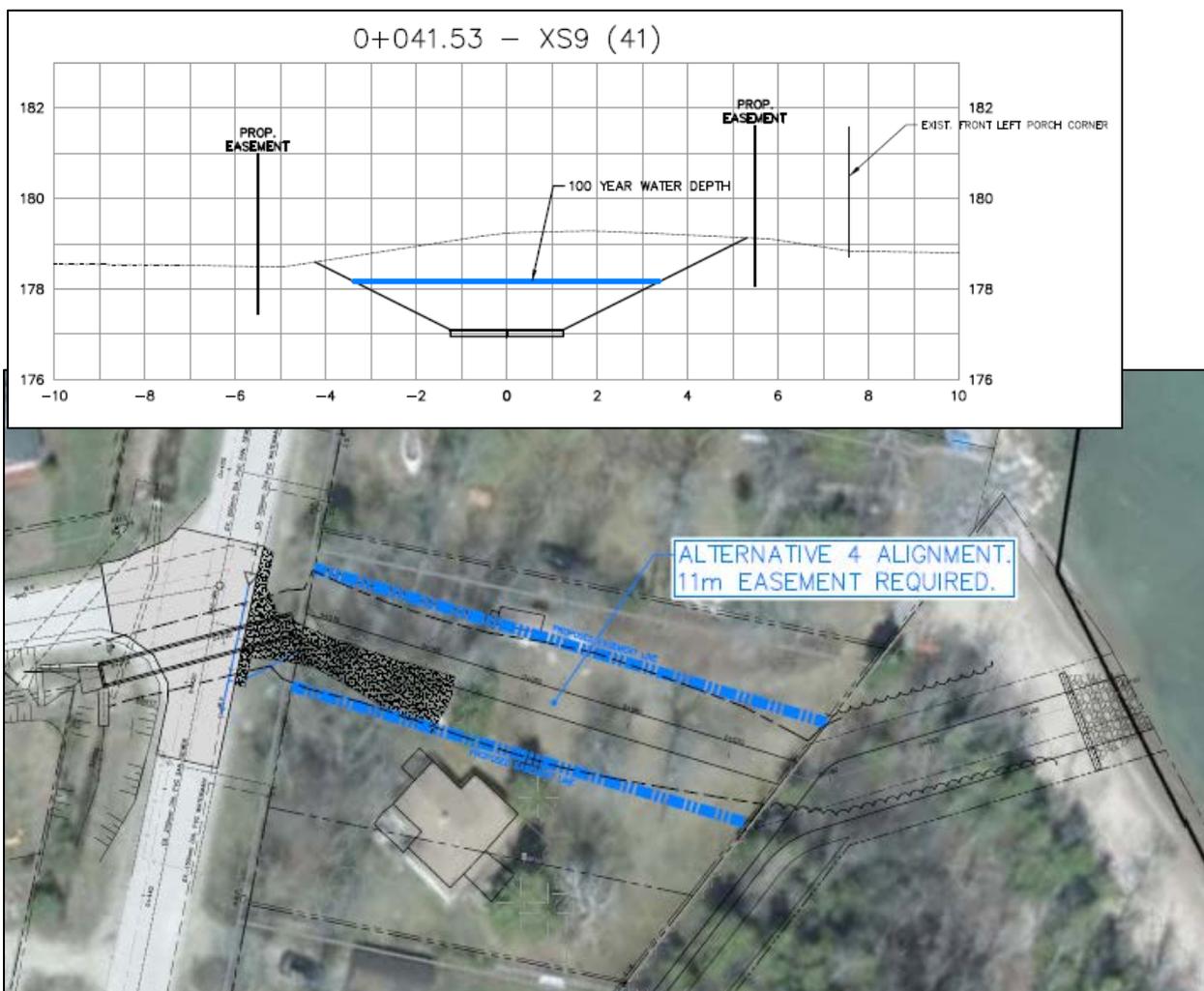
Figure 9: Alternative 3 - Overview and Profile Design Concept



7.4 Alternative 4 – Skewed Alignment with Open Channel, Slope of 2:1

- Concrete culvert installed under Constance Boulevard. Current culvert under Thomas Street that outlets to the Constance Boulevard ditch will remain in place.
- 2.5m flat bottom channel with a 2:1 side slope.
- Access road for maintenance would be accommodated inside the channel.
- Total easement width required would be approximately 11m.
- Perimeter fencing installed around perimeter for public safety

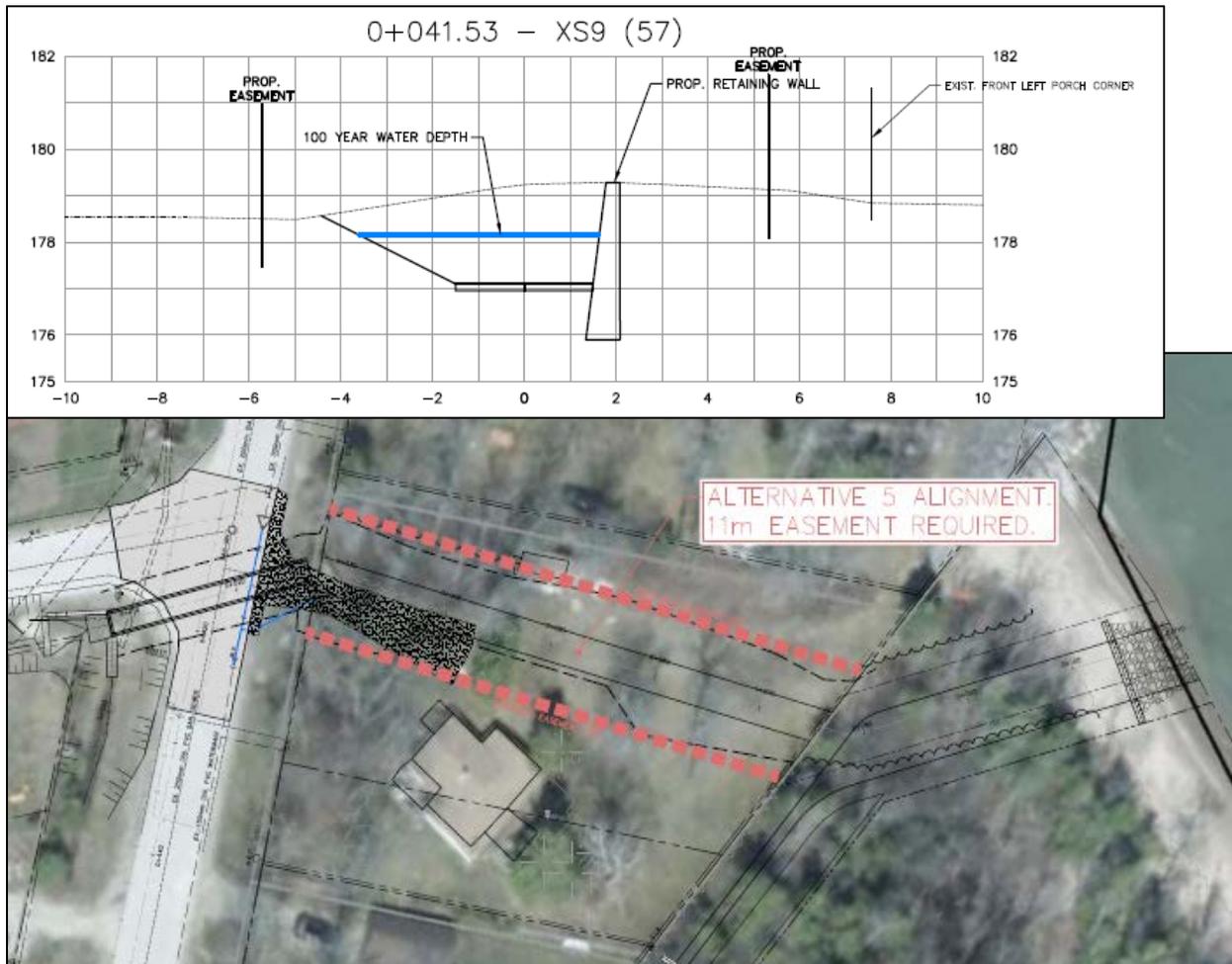
Figure 10: Alternative 4 - Overview and Profile Design Concept



7.5 Alternative 5 – Skewed Alignment with Open Channel and Retaining Wall, Slope of 2:1

- Concrete culvert installed under Constance Boulevard. Current culvert under Thomas Street that outlets to the Constance Boulevard ditch will remain in place.
- 3.0m flat bottom channel with a 2:1 side slope
- Access road for maintenance would be accommodated inside the channel
- A retaining wall would be constructed on the south eastern side of the channel for the section of channel in proximity to the existing structure.
- Total easement width required would be approximately 11m.
- Perimeter fencing installed around perimeter for public safety.

Figure 11: Alternative 5 - Overview and Profile Design Concept



8 Phase 3 Evaluation

To assist in the selection of the Preferred Design during Phase 3 of the Class EA process the aforementioned design concepts were evaluated to assess their potential to impact the area environment (physical, natural, social, cultural and economic) so as to obtain an understanding of the advantages and disadvantages associated with each design. An evaluation matrix was completed (Table 2) to compare each using criteria considered relevant to the project.

Similarly, to the evaluation matrix of Phase 2 a green visual marker represents the most preferred option, as it will address the key concerns, but create the least amount of environmental impact. Red is indicative of a least preferred option as it has a higher potential to impact the environment. A blank space indicates that the impact is considered neutral. The evaluation criteria were updated slightly from that used in the Phase 2 evaluation.

Table 3: The Evaluation of the Alternatives based on the Footprint and Maintenance

Alter #	Shape	Size	Pros	Cons
1,3	Box	1800mmx900mm	<ul style="list-style-type: none"> Requires Less Footprint 	<ul style="list-style-type: none"> Frequent maintenance Limited capacity and freeboard High velocity
2,4,5	Open Channel	flat bottom channel	<ul style="list-style-type: none"> Adequate Freeboard and Capacity Better maintenance access 	<ul style="list-style-type: none"> Large footprint Potential erosion

Table 4: Phase 3 Evaluation Matrix

EVALUATION CRITERIA	ALT 1	ALT 2	ALT 3	ALT 4	ALT 5	DESCRIPTION OF IMPACTS
PHYSICAL ENVIRONMENT						
Expected Performance						All design alternatives are expected to perform equally. The 100-year water depth at the critical cross-section for each of the alternatives are comparable as the depth is within in <2cm difference for culvert designs and open channel designs.
Constructability						An open channel design is considered easier to construct than a culvert design. Alternatives 3, 4, and 5 will be subject to the Ontario Building Code to protect the existing structure.
Erosion Potential						Under Alternatives 1 and 3 erosion along the length of the culvert extension is not likely as the box culvert is underground. There is potential for erosion at the outlet to the bay due to the velocity of water exiting the culvert, however mitigation measures can be implemented to reduce the impacts. Under Alternatives 2, 4 and 5 there is potential for erosion of the exposed channel side slopes.
Required Easement						The open channel design of Alternative 2 will require the largest easement width. While the designs of Alternatives 1 and 3 have the smallest easement width, the alignment of Alternative 3 brings the limit of the easement within the closest proximity to the existing structure. The required easement to implement Alternatives 4 and 5 are considered mid-range when compared to the other Alternatives.
Safety						The design of the culvert extension as part of Alternatives 1 and 3 places the culvert underground, with no exposed water flow or depth. Alternatives 2, 4 and 5 propose an open channel that could potential be a safety concern, however secure fencing will be installed around the perimeter of the open channel to ensure safety.
Maintenance						Alternative 1 is on a skewed alignment, creating a 'bend' in the flow of water from the culvert under Constance Boulevard, which may create blockages and require more frequent maintenance. Alternative 3 has a straight alignment, however underground culverts still can pose challenges to maintenance. Alternatives 2, 4 and 5 have an open channel design allowing for ease of maintenance and visual inspection.
NATURAL ENVIRONMENT						
Terrestrial (Includes SAR)						No Species at Risk (SAR) habitat is present within the project area. Under Alternative 2, tree removal will be required and potentially as part of Alternatives 4 and 5. It is anticipated that tree removal would not be required as part of Alternatives 1 and 3.
Fish Habitat (Includes SAR)						Under all Alternatives the project will require submission to Fisheries and Oceans Canada for review. The project is not anticipated to negatively impact fish or fish habitat.
SOCIAL ENVIRONMENT						
Cultural Heritage & Archaeological						Each alternative is considered to have potential to impact possible archaeological resources, further field investigation is required to confirm. The area of the shoreline (classified as a Cultural Heritage Landscape) is beyond the scope of this project and mitigation measures have been addressed through the proposed West End Depot ditch.
Property Impacts						Alternative 1 proposes a design that has the smallest easement in comparison and utilizes the existing driveway. Alternatives 2 and 3 propose designs that, at the critical cross section, are the closest to the existing structure. Alternatives 4 and 5 propose the same easement width, however the retaining wall of Alternative 5 minimize the proximity of the channel to the existing structure on private property.
Climate Change						All of the Alternatives are expected to provide flood relief and create a more resilient system to the affects of climate change within the local community.
ECONOMIC ENVIRONMENT						
Construction Costs						Construction costs associated with the concrete box culvert under Alternatives 1 and 3 creates an overall higher cost, compared to the construction material and complexity of the open channel as part of Alternatives 2, 4 and 5. Alternative 5 includes the construction of a retaining wall, which will somewhat increase costs in comparison.
Operating and Maintenance Costs						Alternative 1 is on a skewed alignment, creating a 'bend' in the flow of water from the culvert under Constance Boulevard and may require more frequent maintenance to remove blockages. Alternatives 4 and 5 may require more frequent maintenance due to the steeper slope of 2:1.

8.1 Selection of Preferred Design Concept

Considering the comments received during Phase 3, it was determined that the Preferred Design for this project is *Alternative 1 – Skewed Alignment with a Culvert Extension*

The Preferred Design is summarized as follows:

- A concrete culvert installed under Constance Boulevard. The current culvert under Thomas Street that outlets to the Constance Boulevard ditch will remain in place.
- New concrete box culvert extension 1800 x 900mm (width and height).
- Access road for maintenance would be adjacent to the culvert extension.
- Total easement width required would be approximately 9.6m for construction, with the possibility post construction the easement width reduced 6m.

The estimated cost for the design and construction of the Preferred Design is \$853,130.00 +HST. Table provides a breakdown of estimated costs for the Constance Boulevard Drainage Improvements.

Table 5: Cost Estimate

Item	Estimated Total (\$)
General Work	\$143,000.00
Sediment and Erosion Control Measures	\$1,250.00
Removals	\$12,590.00
Roadworks	\$92,035.00
Culvert Works	\$409,550.00
Watermain	\$13,350.00
Provisional items	\$22,500.00
Allowances	\$158,855.00
TOTAL	\$853,130.00

9 Consultation

9.1 Notice of Commencement and Public Information Centre No. 1

A Notice of Commencement and Public Information Centre (PIC) No. 1 was placed in the Stayner/Wasaga Sun newspaper for the February 17 and 24, 2022 editions and a copy of the notice was also posted on the Town of Wasaga Beach’s website. A mail out to area residents adjacent to the project study area, relevant review agencies as well as Indigenous communities and agencies was issued on February 17, 2022 providing notification of the commencement of the project and the scheduled virtual PIC No. 1. A copy of the agency mailing list and copies of

all comments received and associated responses as a result of the Notice are included in **Appendix E**. A summary of the comments and responses is also provided in Table 3.

The Town of Wasaga Beach hosted a virtual Public Information Centre on March 3, 2022. The PIC presentation had 2 comment periods, 1 mid-way through the presentation material and the 2nd at the end of the presentation.

The live virtual PIC was attended by 13 members of the public, including two Town of Wasaga Beach Councilors. The project information presented was well received with all comments and questions addressed or resolved during the PIC.

A common inquiry received from participants regarding the impacts of flooding in the adjacent area of George Street and Robert Street south of Highway 26. The Town clarified for residents that the area to the west is covered by a separate study, as part of the master drainage plan. It is unlikely that the results of this Class EA study would recommend directing more water down Thomas Street, a drainage area that is already having drainage issues. Rather the study will look at directing the flows to the Bay in the most direct route as possible without impacted already flooded drainage areas.

There were also a number of questions regarding consideration of climate change and the use of Low Impact Developments (LIDs). The Town responded by informing participants that the Town has accounted for future flows in current engineering design standards (2021) that have increased parameters for stormwater events. The project team of this Class EA is focusing on looking at the larger events and to provide more capacity on that scale. This is a very large drainage catchment area with a large amount of flow coming from upstream where there is no opportunity for LID inclusion or lot level controls. A record of all comments and questions discussed during the virtual PIC No. 1 can be found in **Appendix E**.

A comment period post PIC presentation No. 1 was open until March 17, 2022. The Town received 11 comments during this period from agency, Indigenous community, and members of the public. Each comment received during the comment period has been addressed by the project team via email or formal letter. A copy of each comment and associated response is provided in **Appendix E**. The comments provided by the Ministry of the Environment, Conservation and Parks acknowledged receipt of the Notice of Commencement/PIC No. 1 and provided information on the Ministry's areas of interest with respect to the Class EA process. Saugeen Ojibway Nation (SON) informed the project team that at this time they had no concerns, however if archaeological interests were identified or shoreline development proposed, detailed consultation with SON would be required. A number of the public comments received were inquires for accessing the PIC presentation recording. There were a couple public members that inquired about the impacts of flooding in the adjacent area of George Street and Robert Street south of Highway 26 and the Town responded accordingly with information provided during the live virtual PIC No. in response to similar questions. One public member submitted questions and concerns regarding the exclusion of stormwater ponds as part of the potential solutions. The project team responded by informing the public member that as part of the natural heritage assessment for this study, it was determined that any modifications to this tributary could result in harmful alteration, disruption or destruction of fish habitat. As a result, a single pond could not be placed in an area sufficient to capture the entire tributary area, which would necessitate implementation of several ponds, some of which would be located outside of the Town limits.

9.2 Notice of Public Information Centre No. 2

A Notice of Public Information Centre No. 2 was placed in the Stayner/Wasaga Sun newspaper for the June 9, 2022 edition and a copy of the notice was also posted on the Town of Wasaga

Beach's website. A mail out to area residents adjacent to the project study area, relevant review agencies as well as Indigenous communities and agencies was issued on June 9, 2022 providing notification of the commencement of the project and the scheduled virtual PIC No. 1. A copy of the agency mailing list and copies of all comments received and associated responses as a result of the Notice are included in **Appendix F**. A summary of the comments and responses is also provided in Table 7.

The Town of Wasaga Beach hosted a virtual Public Information Centre No. 2 on June 23, 2022. The PIC No. 2 presentation had 2 comment periods, 1 mid-way through the presentation material and the 2nd at the end of the presentation.

The live virtual PIC was attended by 2 members of the public, including Town of Wasaga Beach Councillor. The project information presented was well received with all comments and questions addressed or resolved during the virtual PIC.

An inquiry was received from a participant regarding the identified preliminary preferred design (Alternative 1 – Skewed alignment with culvert extension). With the design being on the skewed alignment, a 'bend' is created in the flow of water through the culvert, this design was evaluated to have the potential for more frequent maintenance. The participant questioned why the culvert design on a straight alignment (Alternative 3) was not selected as the preliminary preferred design to avoid potential maintenance impacts. The project team reviewed the drawing presented for Alternative 3 again on the screen and described that the alignment would create major impacts to the existing residential structure. By created a skewed alignment the culvert extension is shifted away from the existing residential structure creating the least amount of property impacts of all of the Alternative Design Concepts. It was also shared that under Alternative 1 a manhole cover is proposed directly at the 'bend' of the culvert to allow for easy maintenance when required.

A comment period post PIC presentation No. 2 was open until July 7, 2022. The Town received 1 comment during this period from a member of the public who owns the private property at 18 and 24 Constance Boulevard. The comments received included the proposal of 2 solutions that differed from the Alternatives presented. The first solution shared was the installation of a storm sewer parallel to the existing ditch along Constance Boulevard to the outlet at Baywater Drive. The second solution shared by the respondent was to replace the Constance Boulevard ditch with a properly sized box concrete culvert and suggested it could be done without disturbing the existing asphalt. The respondent also expressed concerns for safety and felt that covering the open ditch would remove the hazards of dangerous fast flowing water to neighbourhood kids and pets.

A formal response letter to the respondent dated July 12, 2022 was prepared by the project team. The letter provided detailed information and engineering review of the suggested solutions from the respondent. The response letter shared that Option 3 was not selected as the Preferred Solution due to the evaluation of this solution with respect to the expected impact on the Physical Environment. Most notably due to the lack of sufficient grade, the available capacity within the existing road allowance, and the required footprint, which would impact several private properties, to convey a similar capacity achieved with the Preferred Solution. A summary of the comments and responses is also provided in Table 7, with copies of all correspondence found in **Appendix F**.

Table 6: Consultation Summary

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
AGENCY COMMENTS			
Notice of Commencement and PIC No. 1 – February/March 2022			
1.	Chunmei Liu Regional EA and Planning Coordinator, MECP Chunmei.Liu@ontario.ca	Comment received via email on February 18, 2022: The MECP provided comments in a formal letter. The letter outlined the areas of interest to the ministry with respect to the Class EA process. The letter also provided direction as to which Indigenous Nation should be included as part of consultation. The letter indicated that a copy of the draft ESR b sent directly to Chunmei prior to filing the final report, allowing a minimum of 30 days for the ministry’s technical reviewers to provide comments. A full copy of the letter and all attachments can be found in Appendix ‘E’.	No response is required at this time
Notice of Public Information Centre No. 2 – June 2022			
No Comments Received			
INDIGENOUS COMMUNITY COMMENTS			
Notice of Commencement and PIC No. 1 – February/March 2022			
1.	Emily Martin Resources and Infrastructure Associate Saugeen Ojibway Nation Environment Office manager.ri@saugeenojibwaynation.ca (519) 379-0849	Comment received via email on February 18, 2022: “At this point, the Saugeen Ojibway Nation’s Environment Office does not have the resources to engage in consultation on this project. We have no further comments on this project. If at any point anything of archeological interest is revealed on site, please contact the SON Environment Office immediately. If at any point this work involves or contemplates shoreline development or infrastructure, please be in touch. SON has significant concerns about shoreline development in SON Territory. You can learn more about the Saugeen Ojibway Nation and SON territory here: https://www.saugeenojibwaynation.ca/resources Please do not respond to this email unless you have specific follow up questions.”	No response required at this time.
Notice of Public Information Centre No. 2 – June 2022			
No Comments Received			
PUBLIC COMMENTS			
Notice of Commencement and PIC No. 1 – February/March 2022			
1.		Comment received via email on February 18, 2022: “My husband [REDACTED] (cc’ed above) & I just received your information re the drainage improvements on Constance Blvd. We are very interested in the progress as we are about to start our dream home right there on the waterfront side . We have seen the scary water levels in the ditch during dry times and we’re jokingly telling our builder to put our home on stilts already! Please always keep us in the loop”	Contact list has been updated
2.		Comment received via email on February 26, 2022: “It’s alarming to see in the Sun Newspaper this week and last that Constance Blvd., Drainage Improvements will soon be underway. The study location shown partially overlaps our area of concern however Marilyn Avenue South parts of Beachwood Road and George Avenue are not in this study. Tatham Engineering is the company to undertake the study between January to March 2022. Is this still happening and why is there a partial overlap with another engineering	Town of Wasaga Beach responded via email on March 3, 2022: Thanks for reaching out and sorry for the delay in response. I wanted to clarify with you that this EA study area is North of Beachwood Road, as shown below in one of tonight’s slides. It is specific to the Stormwater flows down Tomas Street that cause flooding on Constance Blvd, and require a better outlet. Please note that surface water runoff from George St, Marilyn Ave and Robert St. cross Beachwood Road at Robert

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
		company conducting another water drainage study? The only information on Drainage Improvements don't show anything being done before the year 2024 on your website for our area. Please advise as to what is going on! On behalf of myself and the other 50 petitioners."	St. and run-down Bayswater Dr. out to the Bay. This is a different conveyance corridor than the Thomas St flooding issue. Evaluation of the George Ave, Marilyn Ave S, and Robert St S drainage area South of Beachwood Road is being completed within the Drainage Master Plan using 2D hydraulic modeling. Following completion of the Drainage Master Plan, priority areas will be defined and a public meeting will be held to satisfy the E.A. criteria for those defined projects. Any further questions or concerns please feel free to let us know."
3.		<u>Comment received via email on March 1, 2022:</u> "The EA that Ainley is doing for the Constance Boulevard drainage improvements, would the study area affect those on both sides of Beachwood, including the folks on Marilyn who were raising concerns about flooding back in November?"	<u>Town of Wasaga Beach responded via email on March 3, 2022:</u> "Thanks for reaching out. This EA study area is North of Beachwood Road, as shown below in one of tonight's slides. It is specific to the Stormwater flows down Tomas Street that cause flooding on Constance Blvd, and require a better outlet. Please note that surface water runoff from George St, Marilyn Ave and Robert St. cross Beachwood Road at Robert St. and run-down Bayswater Dr. out to the Bay. This is a different conveyance corridor than the Thomas St flooding issue. Evaluation of the George Ave, Marilyn Ave S, and Robert St S drainage area South of Beachwood Road is being completed within the Drainage Master Plan using 2D hydraulic modeling. Following completion of the Drainage Master Plan, priority areas will be defined and a public meeting will be held to satisfy the E.A. criteria for those defined projects. Any further questions or concerns please feel free to let us know."
4.		<u>Comment received via email on March 3, 2022:</u> "First in my opinion Ainley Group is in conflict of interest to conduct this Class EA. Ainley was the company responsible for engineering and subsequently awarded Contract #9B, (c. 2005). A project, besides water and sanitary sewer installation in the area, also included enlarging ditches and oversized culverts along Thomas and Constance to Bayswater. Result - Worst flooding ever occurred in 2006! The problem is the converging water from "upstream" between Beechwood to Hwy 26 and beyond. A proper Class EA has to include All the widened area between Robert St. and 75 th St. Solution: SWM ponds upstream. Or does that make too much common sense?"	<u>Ainley Group responded via email on March 30, 2022:</u> "The study area for the project has been selected based on potential improvements which can be implemented in the area north of Beachwood Road to accommodate the expected flows from the watercourse which contributes directly to Thomas Street. As identified in our presentation this watercourse originates within Clearview Township approximately 2.5 km south of Beachwood Road. As part of the natural heritage assessment, completed as part of this study, it was determined that any modifications to this tributary could result in harmful alteration, disruption or destruction of fish habitat. As a result, a single pond could not be placed in an area sufficient to capture the entire tributary area, which would necessitate implementation of several ponds, some of which would be located outside of the Town limits. The property acquisition and coordination of these ponds would be impractical and, as such, did not meet the criteria for our short list of options included in the presentation. We note that, the area east of this watercourse, was considered as part of the design for the proposed outlet channel associated with the future development of the West End Public Works Depot. The area to the west, extending to George Avenue, will be analyzed in more detail as part of the Town's ongoing work completed as part of the Town wide Drainage Study." A copy of the letter can be found in Appendix 'E'.
5.		<u>Comment received via email on March 7, 2022:</u> "Hello, I received a notice in the mail for a PIC on March 3, 2022 for the Constance Blvd Drainage Improvements. Unfortunately I was unable to attend. The notice says I can watch a recording of the PIC on your website but I am unable to find it, even when I do a specific search for it. Can you send me the link for it please?"	<u>Town of Wasaga Beach responded via email on March 7, 2022:</u> "Sorry to hear you could not attend, glad to share the link to the EA page for reference: https://www.wasagabeach.com/en/town-and-government/engineering-services.aspx#Environmental-Assessment-Studies . The presentation slides and notice are available for the Constance Blvd Drainage Improvements EA, and the video of the meeting will be up linked shortly once we finish working through the upload with IT."

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
6.		<p><u>Comment received via email on March 7, 2022:</u> “Would you please share the link to the recording of March 3, Public Information Meeting about Drainage Improvement in the area of Constance Boulevard. I could not find it on wasagabeach.com”</p> <p><u>Comment received via email on March 7, 2022:</u> “Thank you for your response, Mike. Please let me know when it will be online so I can share with a few interested neighbours. You could post on public streaming platforms such as Vimeo or YouTube or the same platform you use for the Council meetings.”</p> <p><u>Comment received via email on March 8, 2022:</u> “Thank you, Mike. Based on the presentation, Option 2 is preferred, do that mean it will definitely be the one selected and the design work will be done for option 2? Looking forward to see the final design on the second Public Information Meeting.”</p> <p><u>Comment received via email on March 9, 2022:</u> “Thank you for detailed clarification Mike. Then, should I send in writing the question and comments I did on the meeting?”</p>	<p><u>Town of Wasaga Beach responded via email on March 7, 2022:</u> “The materials are being posted on our website here: https://www.wasagabeach.com/en/town-and-government/engineering-services.aspx#Environmental-Assessment-Studies. We do not have the video saved there yet as it is a very large file and we are sorting out the correct platform for people to be able to access it without having to download the whole file.”</p> <p><u>Town of Wasaga Beach responded via email on March 8, 2022:</u> “The video is now on our website under the link I provided.”</p> <p><u>Town of Wasaga Beach responded via email on March 9, 2022:</u> “The process for a Schedule C Municipal Class EA includes that now, we receive public / stakeholders comments for consideration and response, through which we confirm if the recommended preferred solution is in fact the solution that we will proceed with. Following that confirmation, we get more into the details of how that solution will work / look (i.e. we look at various design options for that solution). We then will have a second public information centre (PIC) to present the findings, and obtain further comments etc. before we close the EA. Following the EA, we will complete detailed design as required for construction. We will also have to acquire privately owned lands (if/as applicable) for the works. Please note that the above noted process is for a Schedule C EA (which we are following for this project). If it were a Schedule B, we would only have the one public meeting, then go into detailed design.”</p> <p><u>Town of Wasaga Beach responded via email on March 10, 2022:</u> “I leave that question to Ainley. <u>Richard and Jody</u>: recognizing that [REDACTED] provided the questions in writing, and I already replied to them in writing (albeit this was in the chat on the Zoom meeting for the PIC), does that chat written dialogue suffice? I would suggest that it does, and you just need to reiterate that Q&A within the ESR document where summarizing all Q&A. This would just save [REDACTED] and yourselves time rather than re-writing the same questions and answers. As long as Ainley confirm my notes above, I suggest that you do not need to submit anything further in writing [REDACTED], unless you have additional / different questions.”</p> <p><u>Ainley responded via email on March 14, 2022:</u> “I can confirm that you do not need to provide the questions/comments you shared during the live PIC presentation in writing to the project team. As Mike mentioned, the discussions that occurred during the live PIC presentation will be summarized as part of the project report (ESR) and a transcript of the Q&A appended. Thank you for your interest in this project and for provided comments.”</p>
7.		<p><u>Comment received via email on March 6, 2022:</u> “We are experiencing flooding at [REDACTED] and [REDACTED] Constance Boulevard. The town will need to do something ASAP! My parent’s place is flooding inside. Please respond.”</p> <p>*Note: this comment was received as a general concern over flooding in the area, the resident sent along photos. The comment was not directly received linked to the Notice of PIC No. 1 – however relevant the study area and has been included I the consultation record.</p>	<p><u>Town of Wasaga Beach responded via email on March 8, 2022:</u> “I’m sorry to hear about this. Yes, staff were on site at 3:30pm and indicated that, although water was flowing without obstruction, the volume of runoff from the melt simply overwhelmed the drainage systems.”</p>

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8.		<p><u>Comment received via email on March 14, 2022:</u> “We participated in the on-line public information meeting on March 3 re drainage improvement in the Constance Boulevard and Shoreline area in west Wasaga Beach. Thank you for an informative and comprehensive presentation, with discussion of options for drainage issues in our neighbourhood. We purchased our home at ■■■ Bayswater Drive in May 2017 and have enjoyed living in Wasaga Beach. As ■■■ commented at the meeting, we have been concerned about drainage issues on Bayswater, which has similar volume flows to Thomas Street during heavy rainfall and snow melt. Mike Pincivero of the Engineering Department mentioned during the meeting that future development of Robert Street south of Beachwood may involve diverting “more water down Bayswater Drive.” This is of particular concern to the residents of Bayswater, as during peak flow the ditch is at capacity, there is significant erosion of the banks, and the turbulent water is a danger to young children. Attached are two videos that were taken on Sunday March 6 in front of our house. At one point an ice dam blocked the pipe under our driveway, and we had to break up ice to prevent flooding. Note that this was ice melt flow only – on other occasions when rain is added to the mix, the water level has risen to the top of the bank. As future plans are made for growth in the area and in light of climate change issues, we would like assurances that no further water will be diverted to Bayswater Drive.”</p>	<p><u>Town of Wasaga Beach responded via email on March 14, 2022:</u> “Thank you for reaching out and sharing the videos, I understand your concerns identified below regarding any additional flows being directed to the ditching along Bayswater Dr. As Mike mentioned during the PIC meeting, any new developments are required to complete a Storm Water Management Report as part of the approval process. Among various items the SWM Report, it also identifies the site’s exiting condition, and how the proposed final condition will be maintaining the same runoff or lower as preconstruction conditions. In terms of existing flooding conditions to be alleviated on the south side of Beachwood, it is not yet determined the alignment and means to convey those flows. We will take your comments and videos into consideration when evaluating the potential solutions.”</p>
9.		<p><u>Comment received via email on March 16, 2022:</u> “I am a resident in the Constance/Thomas neighbourhood and I am curious to see more information about the proposed project. I was not able to attend the live zoom meeting on March 3, and I would like to see the presentation. However, I am unable to find the video on the Wasagabeach.com website. Can you forward me the appropriate information or an accurate link?”</p>	<p><u>Town of Wasaga Beach responded via email on March 16, 2022:</u> “Please find the link to the page which hosts further information on this EA, including the video of the PIC and slides. https://www.wasagabeach.com/en/town-and-government/engineering-services.aspx#Environmental-Assessment-Studies Any further information or questions please don’t hesitate to ask.”</p>

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Notice of Public Information Centre No. 2 – June 2022			
10.		<p><u>Comment received via email on June 9, 2022:</u> “Thank you for the email but as previously noted, could you please resend the pdf in Accessible Word format as my Screen reader does not access pdf’s.”</p> <p><u>Comment received via email on July 7, 2022:</u> Thank you first for your reply to my submission of PIC #1 but you did not professionally address my points nor did you provide details of Contract #9B as requested. To start this submission, first review pictures of last major flooding taken by and circulated by town engineer Mike Pinceviro which occurred during the week of March 8-12, 2021 (16 months ago). Yes, in addition to the flooding, note the number of traffic hazard cones aligning the road. Noticeably absent is town Backhoes digging out the ditches! These pics were taken 3-4 days following Environment Canada's forecast of Above normal temperatures (mid teens). So your statement of flooding caused by global warming is unsubstantiated but instead, could it be concluded flooding due to inactive works Dept. staff and equipment? Solution Option 1 - The obvious solution is a 1200mm overflow storm sewer paralleling the existing ditch along Constance to Bayswater 33ft outlet to the Bay. The gradient and flow is already established here. This is the engineering which should have been included in Contract #9B (c2005). Again in my opinion, Ainley and Associates are in conflict of interest to conduct this EA. Option 2 - Better yet is replacing the ditch with a properly sized boxed concrete culvert Which can be located within the existing ditch / boulevard without disturbing existing asphalt. This would eliminate the need for town backhoes! removing the ice chunks left from snowplow windrows during the winter. We have been property owners in the area for over 30 years and the above almost annual spring flooding and absence of Works Dept. equipment has been the norm, not the rarity! More important is the safety factor - by covering the open ditch removes the hazards of dangerous fast flowing water to neighbourhood kids, grandkids and pets. Does this not make a little bit of common sense? In summary, it is our properties which have suffered the most damage due to the Town's three decades of negligence of not resolving this matter, going back to my first hand written letter notification to then mayor Walter Borthwick. In conclusion, my submissions are complimentary, without prejudice, and of no costs to the taxpayers of Wasaga Beach. Thank you for your time and attention to this matter once again.”</p> <p><u>Comment received via email on August 8, 2022:</u> First, thanks Jody for once again sending documents in accessible Word format. Very much appreciated. I have also advised the Town of Wasaga Beach (Carrie) that their website is not accessible to persons whom are blind. To Whom it Should Concern including Mayor and Members of Council. Urgent matter for Council Mtg. August 18th. Please circulate. Thank you for your response to my further points in my submission of July 7th PIC. We do however disagree with some of your conclusions regarding choices of options but will reserve further comments at this time.</p>	<p><u>Ainley responded via email on June 9, 2022:</u> “I sincerely apologize, I had confused the document formatting. Attached is the accessible Word version of the Notice.”</p> <p><u>Ainley responded via email on August 2, 2022:</u> “Thank you for providing your input. Please find attached a letter with further project information and a response to your concerns/comments.”</p> <p>“At the outset, please be advised that we (the Ainley Group) and the Town of Wasaga Beach hereby confirm that there is no conflict of interest for the Ainley Group to complete this Drainage Improvements Class Environmental Assessment (Class EA). Contract #9B that you refer to, which was completed in 2006, was a municipal sanitary sewer and watermain servicing project, not a drainage improvement project. The intent of that project was to provide area residents with municipal sanitary sewer and water services, in order to eliminate the need for private wells and septic systems. A major driving factor of proceeding with that project was the Town had received external Provincial and Federal funding to apply to the servicing project costs. At the time of the project proceeding, select drainage improvements were installed along Thomas Street and Constance Boulevard at the same time as the servicing construction to convey surface stormwater within the Town owned right-of-way to the Bay via open ditch and culverts sized as large as would fit in an open ditch. There was not a detailed analysis of the drainage catchment area, as this was not a drainage-focussed project. Notwithstanding, the introduction of the deep ditch was agreed upon by the Nottawasaga Valley Conservation Authority and a permit was issued. The ditch provided relief of the existing flooding issues, but did not resolve the flooding entirely.</p> <p>In 2009 the Town commenced negotiations with yourselves ([REDACTED]) to obtain an easement through your lot at [REDACTED] Constance Boulevard in order to create a new storm drainage outlet. This was further to your lot line adjustment application to the Town – file #B12/09. Acquisition of drainage easements through private property via Planning applications is a typical practice. The Town acknowledges that after 12 years negotiations were unsuccessful. Drainage improvements are however still necessary for the catchment area to mitigate flooding and therefore the Town initiated this Class EA to develop and review alternatives solutions.</p> <p>Establishing a preferred solution to address the long history of flooding in the area is the purpose for undertaking the current Class EA Study. These two options that you have presented for consideration are simply variations of the Alternative Solution Option 3, as presented in Public Information Centre Number 1, hosted on March 3, 2022. Option 3 was not selected as the Preferred Solution due to the evaluation of this solution with respect to the expected impact on the Physical Environment. Most notably due to the lack of sufficient grade, the available capacity within the existing</p>

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		<p>We do take issue with the statement of "twelve years of failed negotiations. First it took six years for the Town to agree that a piped culvert in a 4m easement is doable instead of the original 6m open ditch. The Town's proposed Dev. Agreement in 2016 was an absolute insult, not worth the paper it was printed on and would not even cover our legal and professional expenses at that point.</p> <p>In November 2012 when we submitted variance application A04/12 for ■ Constance, R. Kelso's manner of negotiations was "give us the easement and we will support your variance". That was not negotiation - it was blackmail! Good riddance Kelso and non too soon.</p> <p>Fast forward to March 2021 following major flooding, we provided M. Pinceviro, on or about March 28th, an MoU to which he was to take to Council for considerations. We note there were two Council meetings including a Special in April 2021. Our solicitor could not find agenda minutes where our matter was brought before Council for discussion. We received No follow-up proposal. That does Not constitute negotiations. Note that that MoU is now irrelevant. Instead in June 2021, we were advised by Kevin Lalonde that Council had requested an EA be undertaken. Please provide the staff report (in accessible Word format) on which the Mayor and Council based this decision. This decision further prevented us from moving forward by another 15 months. This is Not negotiating.</p> <p>How much did this EA cost the taxpayers of Wasaga Beach? Why was this EA not requested in 2006 - 09 following so-called ditch "improvements" in 2005?</p> <p>It has now been 13 years that Wasaga Beach has held our property at ransom and has caused us several missed financial opportunities. So to level the playing field, on June 15th we withdrew our boundary application B12/09 from C of A files. We have also submitted revised site plans for both ■ and ■ Constance Blvd. as per original lot boundaries and is currently being circulated at NVCA. for their comments.</p> <p>In conclusion if the Town of Wasaga Beach still wish to proceed with the drainage through our property, there are two options for all or part of the property. Neither will involve the easement alone.</p> <ul style="list-style-type: none"> • Negotiate in good faith on our terms or • Expropriate <p>Should either of the above two be chosen then an interim payment of \$1.5 million payable to the owners will be required upon initiation of agreement. If either of the above is not doable then we respectfully request at your earliest convenience, that a release registered on title of our properties at ■ and ■ Constance Blvd. that neither is required in whole or in part for public purposes. Said release to be registered on title by Friday August 26, 2022.</p> <p>Your prompt procedural decisions to this matter would be appreciated. Thank you"</p>	<p>road allowance, and the required footprint, which would impact several private properties, to convey a similar capacity achieved with the Preferred Solution.</p> <p>To assist with the evaluation of the currently proposed options we have reviewed the Record Drawings for the <i>Plan and Profile of Constance Boulevard, Bayswater Drive to STA 0+540</i>, dated July 2004, revised January 2007.</p> <p>Regarding Option 1, it would not be possible to construct a new storm sewer parallel to the existing ditch on the south side of Constance Boulevard due to inadequate separation between the existing sanitary sewer and the proposed storm sewer. There would be difficulties in accommodating a storm sewer on the north side of Constance Boulevard due to a lack of grade for the proposed storm sewer, the design high water level of 177.5 m for Georgian Bay in comparison to the expected sewer inverts, conflicts with at least nine pairs of sanitary and water services, and two fire hydrants along the north side of Constance Boulevard, and the lack of cover to accommodate a 1200 mm diameter pipe.</p> <p>For Option 2 replacing the existing ditch with a box culvert would not provide sufficient capacity to convey the major storm events. The Preferred Solution relies on the combined capacity of the proposed culvert and outlet in addition to conveyance within the existing ditch. Given the cover limitations in the area, it is expected that the maximum sized culvert which could be accommodated along the length of Constance Boulevard to the outlet at Bayswater Drive would have a span of 2.4m. A culvert of this size would require an expansion of the road allowance and property acquisitions along the south side of Constance Boulevard. The increased costs of the additional property acquisition and additional length of culvert in comparison to the Preferred Solution, would be too significant to recommend this alternative over the Preferred Solution."</p> <p>A copy of the letter can be found in Appendix F.</p> <p><u>Town of Wasaga Beach responded via email on August 15, 2022:</u> "Thank you for your email and inquiries below. As you have requested, this has been sent to Council.</p> <p>You have sought information that was addressed in closed sessions of Council. We are not able to disclose information from closed sessions of Council. The concerns that you have expressed with the Class Environmental Assessment have been considered by our external consultants and we understand that they have responded to you.</p> <p>Your remarks with respect to compensation issues can be addressed as part of the process in the event that interests in your property are acquired. We understand that you have engaged external legal counsel to assist with this process."</p>

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11.		<p><u>Comment received via email on September 12, 2022:</u></p> <p>My parents have just completed work on their seasonal cottage so that as my father's dementia worsens they can live there year round. The issue is if the flooding continues as it has historically over the past several years, all that work and the cost they have incurred will be for nothing. Please provide an update on the plan to improve drainage on Constance Boulevard and the timeline. I look forward to your response.</p> <p><u>Comment received via email on September 12, 2022:</u></p> <p>Do you know when in 2023?</p>	<p><u>Town of Wasaga Beach responded via email on September 13, 2022:</u></p> <p>Thank you for reaching out regarding the drainage around the area of your parent's cottage. As part of the Environmental Assessment process, the Town held two online Public Information Centers which brought forth alternative options and solutions that were reviewed to reduce the frequency and severity of flooding events in the study area.</p> <p>The Environmental Study Report is in the process of being finalized now that the comment period after PIC#2 has been completed. Once the ESR is finalized, a notice of study completion will be advertised in the Town newspaper and then the last 30 day comment period will commence. Anticipating no delays during the completion of the EA, construction of the preferred design (Creation of a new outlet to the bay through a box culvert at 18 Constance Boulevard) is scheduled to commence in 2023 according to the 10 year capital plan.</p> <p>The PIC slides are available for review at the Town Environmental Assessments Studies webpage:</p> <p>https://www.wasagabeach.com/en/town-and-government/engineering-services.aspx#Environmental-Assessment-Studies</p> <p><u>Town of Wasaga Beach responded via email on September 13, 2022:</u></p> <p>The design needs to be finalized but is close to tender ready. Finalization of the ESR and property acquisition are required before tendering though, so although it is expected to be included in the 2023 budget, exact timing in 2023 is unknown at this time.</p>

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		<p><u>Comment received via email on November 10, 2022:</u> To Whom it Should Concern</p> <p>I am re sending my letter sent a week ago (nov 3rd).</p> <p>Since it has yet to be responded to, I would appreciate in addition to the previous requested information below, the following:</p> <ul style="list-style-type: none"> • Bearings of the 5 proposed box culverts crossing Constance in front of #18. • Also, the Bearings of both Thomas roadside ditch as well as Constance roadside ditch. <p>You may disregard my request for the video as Deputy Clerk Laura Borland located for me by the end of that day. It was not on the Town website as was stated.</p> <p>I would appreciate your immediate response to my requested information at your earliest convenience. Thank you so much.</p> <p>██████████</p> <p><u>Comment received via email on November 10, 2022:</u> Again, To whom it Should Concern</p> <p>Note: Third request in 3 weeks as no response yet.</p> <p>in addition to the two below requests for further information I would also appreciate the following:</p> <ul style="list-style-type: none"> • Invert elevation of both culverts, the existing crossing Thomas at Constance and • Proposed culvert crossing Constance at # ██████. <p>I would appreciate this info at your earliest convenience.</p> <p>I am also copying Deputy Clerk Laura Borland on this correspondence should there be a problem with my email contact information. Thank you</p> <p>Regards ██████████████████</p>	<p>Alternative 4: The ingress offset from the southwest property corner is 3.79m, and 20.2m from the southeast property corner. The egress offset is 9.09m from the northwest property corner, and 18.57m from the northeast property corner.</p> <p>Alternative 5: The ingress offset from the southwest property corner is 3.56m, and 20.38m from the southeast property corner. The egress offset is 8.85m from the northwest property corner, and 18.76m from the northeast property corner.</p> <p>From the southwest property corner the boundary extends at a bearing of S 52 degrees, 39 minutes and 56.27 seconds W. From the southeast corner the property line extends at a bearing of S 52 degrees. 47 minutes and 2.23 seconds W.</p> <p>Alternatives 1,2,4 and 5 extend at a bearing of S 57 degrees, 30 minutes, 40 seconds W. Alternative 3 extends at a bearing of N 49 degrees, 6 minutes and 6.13 seconds E.</p> <p>The culvert crossing Constance Boulevard is the same for all alternatives at a bearing of N 26 degrees, 52 minutes and 35 seconds E.</p> <p>The ditch on the east side of Thomas Street is on a bearing of N 30 degrees, 59 minutes, and 23.7 seconds E.</p> <p>The ditch on the south side of Constance is at a bearing of S 36 degrees, 5 minutes and 27.05 seconds E.</p> <p>In addition, based on your latest inquiry, we provide the following:</p> <p>The existing 1200mm diameter corrugated steel culvert which crosses Thomas Street from the south side ditch has an upstream invert of 177.42m, and outlets on the north side of Thomas in the west side Constance ditch having a downstream invert of 177.29m.</p> <p>The existing 400mm diameter pipe on the south side of Thomas in the west side Constance ditch (that crosses Thomas northward) has an upstream invert of 177.97m (we believe this culvert tees in to the 1200mm culvert within the road allowance such that there is only the one outlet elevation of 177.29m as stated above.)</p> <p>For the Proposed Box Culvert: Alternatives 1 and 3 both have a proposed upstream invert of 177.31 and proposed downstream invert of 176.97m. These culverts are significantly longer, 68m and 66m respectively, in comparison to the other alternatives. Alternatives 2, 4 & 5 all have the same; proposed upstream invert of 177.31 and proposed downstream invert of 177.16m. These are all proposed to be 19m in length.</p> <p>We trust this information is sufficient. However, should you require any additional information please feel free to contact us.</p>

Table 7: Typical Public Concerns and Responses

No. of Respondents	Identified Concern	General Response: Flooding Concerns
2	Additional Studies Currently Underway in Town	Residents were advised that the evaluation of the George Ave, Marilyn Ave S, and Robert St S drainage area South of Beachwood Road is being completed within the Drainage Master Plan using 2D hydraulic modeling. Following completion of the Drainage Master Plan, priority areas will be defined and a public meeting will be held to satisfy the E.A. criteria for those defined projects.
8	General Questions About EA Process	Residents were referred to the information available at https://www.wasagabeach.com/en/town-and-government/engineering-services.aspx#Environmental-Assessment-Studies Residents were also advised that public/stakeholders comments would be received for consideration and response to inform the decision regarding the selection of a Preferred Solution, with detailed design options presented for additional public input prior to selection of a Preferred Option. Following the close of the EA process, detailed design will be completed, as required, for construction.
1	Consideration for Additional Upstream Ponds to Alleviate Flooding in Project Area	Resident was informed that the study area for the project was selected based on potential improvements which can be implemented in the area north of Beachwood Road to accommodate the expected flows from the watercourse which contribute directly to Thomas Street. It was also noted that the watercourse originates within Clearview Township approximately 2.5 km south of Beachwood Road. This watercourse was reviewed as part of the natural heritage assessment, completed as part of this study, it was determined that any modifications to this tributary could result in harmful alteration, disruption or destruction of fish habitat. As a result, a single pond could not be placed in an area sufficient to capture the entire tributary area, which would necessitate implementation of several ponds, some of which would be located outside of the Town limits. The property acquisition and coordination of these ponds would be impractical and, as such, did not meet the criteria for our short list of options included in the presentation. It was noted that, the area east of this watercourse, was considered as part of the design for the proposed outlet channel associated with the future development of the West End Public Works Depot. The area to the west, extending to George Avenue, will be analyzed in more detail as part of the Town's ongoing work completed as part of the Town wide Drainage Study
4	Previous Flooding Incidents within Study Area	Residents were advised of actions taken by the Town in response to these previous incidences and were advised that the intent of the current study was for implementation of a solution which would assist in limiting the severity and frequency of these incidents in the future.
1	Specific Information regarding Design Alternatives	Measurements, bearings and offsets were provided, as requested for all design alternatives.

10 Mitigation Measures

The following sub-sections outline the mitigation measures to be considered in the development of the detailed design for the implementation of the Preferred Solution. The anticipated approvals and permitting requirements are also described.

10.1 Fish and Fish Habitat

Any alteration in areas of fish habitat requiring submission to the NVCA or DFO. The MNRF may also require a permit under the *Lakes and Rivers Improvement Act* based on works in the water. The following mitigation measures should be applied to avoid any potential impacts to the watercourse and aquatic habitat:

- Appropriate sediment and erosion control measures should be implemented between any stockpiled materials and the water, and exposed soils should be stabilized with vegetation where possible.
- Re-fueling and the maintenance of construction equipment should be completed away from water to minimize the possibility of water and sediment contamination.
- All on-site fuel oils and chemical should also be stored at least 100m away from surface water.
- Should there be any dewatering requirements that require a permit to take water the MECP will have to review and approve the permit before local approvals can be issued.

10.2 Vegetation

- It is not expected that construction will significantly impact area vegetation. To preserve the ecological integrity of the natural areas, any fill used on the site will be native soil or comply with construction standards. This will minimize the risk of introducing invasive species to the project area and surrounding natural environments.
- Activities involving the removal of vegetation should be restricted from occurring during the breeding season. Migratory birds, nests, and eggs are protected by the *Migratory Birds Convention Act, 1994* (MBCA) and the *Fish and Wildlife Conservation Act, 1997* (FWCA).
- In the project area Zone (C1 and C2) vegetation clearing should be avoided between **April 1 through August 31** of any given year.

10.3 Wildlife and Species at Risk

Complete general survey screening for the presence of 'snag' trees with potential to provide refuge and maternity roosting habitat for bat species listed as Endangered under the Endangered Species Act (ESA).

- Tree removal be avoided during the active period for bats that occurs during the early spring through later summer months. As such, tree removals should be avoided between **April 1 and September 30** to avoid potential impacts to maternity and/or day roosting bats.
- If vegetation clearing is required within the date range above, it is recommended that screening by an ecologist with knowledge of bird and bat habitat be undertaken to 'screen' trees, and confirm absence of nesting/roosting.

- Tree cutting should occur within 48 hours of confirmation of nest/roost absence, and if nesting/roost occurrence is confirmed, vegetation removal should not occur until fledglings have vacated prior to clearing to avoid contraventions of the MBCA and ESA.
- Workers should be instructed to stop work and contact the MECP immediately if any SAR are encountered within the work area. Individuals working on site should ensure that SAR are not harmed during construction or killed by heavy machinery, vehicles or other equipment.
- The contractor should educate all site personnel to ensure that, if identified, the SAR are not wantonly injured or killed, and to ensure that damage to features which could constitute habitat is avoided. Information should be conveyed through a SAR expert.

10.4 Ground and Surface Water

During detailed design of the water crossing structure the construction requirements for the foundation will be identified and the need for dewatering considered. The separation between the closest well and the proposed water crossing is approximately 350 metres. This separation will help safeguard the well from any dewatering that may be required for the water crossing construction and will be studied further during detailed design.

During the detailed design of the trail connection, pervious materials should be selected to provide adequate stormwater infiltration.

10.5 Archaeological and Cultural Heritage Resources

All areas of archaeological potential that could be impacted by the project be subject to a Stage 2 property assessment in accordance with Section 2.1 of the 2011 S&Gs.

In the event the following situations are encountered during construction, the contractor should be advised to stop work immediately and take the appropriate actions as noted below:

- Should previously unknown or unassessed deeply buried archaeological resources be uncovered, they may be a new archaeological site and; therefore, subject to section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed archaeologist to carry out archaeological fieldwork, in compliance with section 48 (1) of the *Ontario Heritage Act*. The Ministry of Tourism, Culture and Sport should be notified immediately at archaeology@ontario.ca
- In the event that human remains are encountered, the proponent or person discovering human remains must immediately notify the police or coroner and the Registrar of the Bereavement Authority of Ontario at 647-483-2645 or 1-807-468-2450.
- Construction activities, staging areas, and temporary signage are to be suitably planned and undertaken to avoid impacts to identified cultural heritage resources.
- Should future work require an expansion of the study area, a qualified heritage consultant should be contacted in order to confirm the impacts of the proposed work on identified cultural heritage resources and confirm if a Heritage Impact Assessment is required.

10.6 Utilities and Servicing

On-going consultation with utilities is recommended during detailed design and construction of the project to ensure that any concerns are addressed.

11 Monitoring

Information pertaining to required mitigation and monitoring will be incorporated into the Construction Documents once the detailed design has been finalized. Monitoring will be conducted by on-site construction staff to make certain that environmental protection measures are being implemented and are effective. The Contract Administrator will make certain that environmental protection measures and monitoring, as identified, are implemented during construction and that any repairs to protection measures will be made in a timely fashion.

Appendix A

Natural Heritage Preliminary Constraints Screening Report



Environmental Assessments & Approvals

December 2, 2021

AEC 21-443

Ainley Group
550 Welham Road
Barrie, Ontario
L4N 8Z7

Attention: Richard Sloan, P.Eng., Water Resources Group Lead

Re: **Natural Heritage Preliminary Constraints Summary
Constance Boulevard Drainage Improvements, Town of Wasaga Beach,
County of Simcoe**

Dear Mr. Sloan:

Azimuth Environmental Consulting Inc. (Azimuth) was retained to provide a Natural Heritage Preliminary Constraints Screening Report to identify natural environmental conditions which would require consideration in the evaluation of proposed drainage improvement alternatives for the Constance Boulevard Drainage Improvements project in the Town of Wasaga Beach. A map illustrating the limits of the study area is provided as Figure 1. The review of preliminary constraints is presented in this report, as they relate to Key Natural Heritage Features (KNHFs) and as defined by the Provincial Planning Policy. KNHFs may include woodlands, wetlands, valleylands, Significant Wildlife Habitat (SWH), fish habitat, and habitat for Species at Risk (SAR) protected under Ontario's *Endangered Species Act, 2007* (ESA).

This letter report identifies natural heritage considerations for the evaluation of drainage alternatives, and includes a summary of recommendations to be considered for future stages of the project including possibly additional environmental field study and study area evaluation if warranted, depending on the selected alternative. Recommendations herein may be time sensitive given the seasonality of inventory studies for various natural heritage disciplines. Such recommendations require consideration during project planning stages to ensure that approvals are considered and secured for construction within expected timelines.



It should be noted that a portion of the study area has been previously assessed by Azimuth as part of an EIS (Wasaga Beach West End Maintenance Depot Drainage Channel EIS, Azimuth 2021). Where applicable and with Ainley permission, results and associated recommendations have been incorporated into the Natural Heritage Preliminary Constraints Summary.

1.0 POLICY CONTEXT

Azimuth has prepared this Report relative to the following federal, provincial, and municipal planning policies with potential applicability to the study area:

- Provincial Policy Statement (MMAH, 2020);
- *Endangered Species Act*, 2007 (ESA);
- County of Simcoe Official Plan;
- Town of Wasaga Beach Official Plan;
- NVCA Ontario Regulation 172/06; and,
- Federal *Fisheries Act*.

2.0 STUDY APPROACH

Prior to undertaking field studies, an initial classification of habitats was undertaken using recent air photo imagery for an area encompassing the property and adjacent lands (*i.e.* lands within approximately 120 meters (m)). A desktop background search was completed of the Ministry of Northern Development, Mines, Natural Resources and Forestry's (NDMNRF) Natural Heritage Information Center (NHIC), and a Species at Risk (SAR) Information Request was sent to the Ministry of Environment, Conservation and Parks (MECP). Agency correspondence is included as Attachment 1.

One (1) field visit was completed by two Azimuth ecologists (Alyssa Deurwaardar and Sara Murphy) on October 28, 2021. Environmental features mapping was prepared that illustrates information derived from a combination of desktop mapping resources and field study conclusions. Environmental features are presented on Figure 2. Photographs of the study area are provided as attached, referenced as to location on Figure 2.

Mapping illustrating a total of four Options for drainage control was provided by Ainley at the project outset, and provided as Attachment 2. As noted above, Azimuth completed an Environmental Impact Study (EIS) for the Wasaga Beach West End Maintenance Depot Drainage Channel, (Azimuth, 2021) under a separate assignment for the Ainley Group that is referenced herein, given the applicability of its findings in evaluating Option 3 located at the eastern end of the study area (Figure 3).



3.0 SUMMARY OF NATURAL HERITAGE CONDITIONS

3.1 Vegetation and Vegetation Communities

The majority of the study area is comprised of residential lots with a wooded area located in the far south easterly area. Vegetation within the road right-of-way is comprised of manicured lawn along front yards, or vegetated where the ROW ditches are not maintained, or vegetated where the ROW includes a drainage feature (watercourse or backwatered ditches). The latter is shown on Figure 2. Species of tree present include Eastern White Cedar (*Thuja occidentalis*), Trembling Aspen (*Populus tremuloides*), Spruce (*Picea spp.*), and Maple (*Acer spp.*), with associate Ash (*Fraxinus spp.*), Elm (*Ulmus spp.*), Scots Pine (*Pinus sylvestris*) and White Pine (*Pinus strobus*). Common Buckthorn (*Rhamnus cathartica*), Goldenrod (*Solidago spp.*) and a component of Asters (*Symphyotricum spp.*) were also present in the ground layer. Cattails (*Typha spp.*), watercress (*Nasturtium spp.*), and Field Mint (*Mentha arvensis*) were found in the ditches. Common Reed (*Phragmites australis spp. australis*) was found in one area to the north of Constance Boulevard between Thomas Street and Bayswater Drive.

Watercress is an aquatic plant that was prevalent in ditches that convey a watercourse, as well as in ditches not on the watercourse that are connected (Figure 2). Watercress is a species of plant most commonly found in areas of cold water associated areas of groundwater upwelling. The abundance of this plant in the Constance Boulevard study area indicates that drainage would be considered coldwater. This is further discussed as part of the fisheries review below.

Two woodlots on Thomas Street (Figure 2) were evaluated from the road side and classified as Dry-Fresh White Cedar-Poplar Mixed Forest (FOMM4-2) and Dry-Fresh White Cedar Coniferous Forest (FOCM2-2). No Butternut (*Juglans cinerea*), (SAR), were found within the study area.

Vegetation communities within the woodlot in the east portion of the study area were delineated for the Azimuth EIS, (Azimuth, 2021). Communities include: Fresh-Moist White Birch Mixed Forest (FODM8-2), Fresh-Moist White Cedar Coniferous Forest (FOCM4-1), Green Ash Mineral Deciduous Swamp (SWDM2-2), Dry-Fresh White Cedar-Poplar Mixed Forest (FOMM4-2) and Poplar Mineral Deciduous Swamp (SWDM4-5) communities. Communities are as shown on Figure 2.

3.2 Wildlife and Wildlife Habitat

The NDMNRF NHIC database (Square 17NK6924) did not identify terrestrial SAR listed as provincially Endangered, Threatened, or provincially rare within the study area. NHIC



did identify possible occurrence of Lake Sturgeon (aquatic SAR, listed as Threatened (THR)), however habitat does not occur in the project area. A review of habitat suitability for the project is further discussed in the fisheries section below.

A SAR Information Request was sent to MECP on November 2, 2021 and a reply was received on November 4, 2021 (Shamus Snell, Management Biologist; attached). As per MECP correspondence, three species were added to the consolidated list: Eastern Hog-nosed Snake, Piping Plover and Hill's Thistle. Each are discussed as follows:

- Eastern Hog-nosed Snake (THR) prefers sandy/open areas and can occupy shorelines in proximity to wetland matrixes (MECP, 2021a). The study area is a residential neighbourhood with treed natural areas, and does not contain sandy areas or wetland matrixes. It is unlikely that this environment would be able to support Eastern Hog-nosed Snake.
- Piping Plover (THR) habitat is described as comprising shoreline in undisturbed beaches and beach dunes (MECP, 2021b). The shoreline within the study area is fronting residential properties and consists of rock without undisturbed sandy beaches, making it unsuitable habitat for Piping Plover.
- Hill's Thistle (THR) can be found in sandy areas, including beaches, beach dunes and inland sand barrens (MECP, 2021c). No suitable habitat was found within the study area that would be anticipated to support Hill's Thistle.

In addition to the SAR listed above, Endangered Bat species including Little Brown Myotis, Northern Myotis and Tri-colored Bat have the potential to occur within treed areas of the study area. Suitable habitat is found within woodlot habitat located in the southeast portion of the study area. This area was previously evaluated as part of Azimuth's EIS (Azimuth, 2021), which concluded that the number of snags/hectare below the provincial threshold for consideration as 'Maternity Roost' habitat. For this reason, while SAR bats have the potential to occur (habitat occurrence), habitat is not considered a KNHF protected under the ESA.

3.3 Watercourses and Fish Habitat

The study area includes a mapped drainage feature as shown on Figure 2. Desktop mapping indicates the feature is a Tributary to the Nottawasaga Bay that originates approximately 2.5km to the south, and crosses Highway 26 and Beachwood Road before entering the roadside ditches of the project area. The system is identified in the NVCA Fisheries Management Plan (NVCA, 2009) as a Nottawasaga Bay shoreline tributary



(unnamed) within the Blue Mountain subwatershed, regulated by the NVCA. Regulated lands mapping is provided as Attachment 3 illustrating that the majority of the project area is regulated owing to the watercourse and low-lying floodplain along the Georgian Bay shoreline. Mapping sources consistently show the Tributary in the alignment on Figure 2 as the only watercourse in the project area, with the exception of the NVCA regulated lands mapping, (Attachment 3), which includes a second drainage channel to the east flowing from south to north through the east limit woodland. This feature was not evaluated during the field visit for this project, but was assessed as part of Azimuth's EIS (Azimuth, 2021) and classified as 'surface drainage' at Highway 26, and not a watercourse. As such, the feature mapped by the NVCA for the purposes of this preliminary constraints review, is not considered fish habitat. Further study would be required to confirm.

The Tributary in the project lands is contained in the ditch along the east side of Thomas Street (Photograph 1), then flows west along the north side of Constance Boulevard (Photograph 2), then north at Bayswater Drive where it discharges to Georgian Bay in an open channel in the east side ditch (Photograph 3 and 4). The watercourse in the ditches contained sediment (gravel, sand, organics), with water depths of approximately 10-30cm, vegetated banks, and an abundance of Watercress (*Nasturtium spp.*). Given the volume of flow and channel attributes the system is considered permanently flowing, with direct hydraulic connectivity to Georgian Bay. The outlet to the lake is accessible to fish, as is the watercourse within roadside ditches mapped on Figure 2. Under flooded conditions, fish habitat may also occur in any ditch sections inundated seasonally or permanently (example east side of Bayswater St., Photograph 5).

As mentioned above, Watercress (*Nasturtium spp.*) was prevalent in ditches and is a likely indication of coldwater conditions. Considering the flow permanency, water depths, aquatic plants and connectivity to Georgian Bay, the tributary and connecting ditches in the study area are considered fish habitat, protected under the Federal *Fisheries Act*. Expectantly there is potential for direct fish habitat and possible occurrence of salmonids under elevated flow conditions although the habitat in ditches is not considered ideal. The culvert under Beachwood Road has a flow control structure approximately 5m inside the structure from the outlet. The structure forms a barrier to fish movement; therefore although fish may have the potential to wash downstream from the upstream reach (if they occur), no fish movement occurs from the project area upstream beyond Beachwood Road.

The NDMNRF NHIC database (Square 17NK6924) identifies one species listed as provincially Endangered, Threatened, or provincially rare within 1 kilometer (km) of the



study area: Lake Sturgeon (Threatened (THR)). Lake Sturgeon can be found in the Great Lakes basin and major connecting waterways, and occur in the Nottawasaga River (generally 5km east). They migrate to large river systems associated with Georgian Bay to spawn and when mature utilize deep open water environments and not shoreline habitats within Georgian Bay (MECP, 2021d). The study area includes a small drainage system in roadside ditches and is not habitat suitable for this species. As such, Lake Sturgeon is not considered further for this assessment.

4.0 SUMMARY OF CONSTRAINTS AND OPPORTUNITIES

The Town of Wasaga Beach is reviewing engineering design alternatives for drainage improvements in the Constance Boulevard study area as part of a Class Environmental Assessment (EA), and is evaluating Options 1-4 as shown on Attachment 2. Azimuth has reviewed on a high level conceptual basis the alignments proposed for each, and considered potential impacts based on our review of existing conditions. The environmental constraints for each Option within the study area based on a review of site conditions and potential restrictions outlined in municipal and provincial policies. The KNHF's identified within the study area are listed under each Option. Options relative to environmental features documented within the study area are illustrated on Figure 3.

4.1 Option 1

Option 1 is located entirely within the Single Residential (CVR_3) area, and would involve the redirection of watercourse drainage from Constance Boulevard to a new outlet to Georgian Bay. The KNHF's considered are as follows:

- **Fish Habitat:** Drainage in the roadside ditches is considered a coldwater watercourse, with direct connectivity to Georgian Bay. Hydraulically connected ditches are considered fish habitat, protected under the Federal *Fisheries Act*. While the alignment of Option 1 doesn't currently include fish habitat constraints (aside from the outlet connection to Georgian Bay), the option involves fisheries considerations. If the Tributary in the current alignment were altered or eliminated, the impacts may constitute the harmful alteration, disruption or destruction of fish habitat (HADD) and would require fisheries review to determine approval requirements. If a HADD is unavoidable, then an authorization may be required under the Federal *Fisheries Act*. This applies regardless of whether the impact is considered positive or negative in nature. Based on existing conditions, elimination of a portion of the current drainage alignment and redirection of drainage from Constance Boulevard to the Option 1 location would require completion of a fisheries impact assessment, and submission to DFO under a Request for Review. If the project is deemed to result



in unmitigable HADD, then an authorization may be required under the Federal *Fisheries Act*.

4.2 Option 2

Option 2 is located entirely within the Single Residential (CVR_3) area and involves maintaining the current drainage alignment. The KNHF's considered are as follows:

- Fish Habitat: As noted previously, drainage in the roadside ditches is considered a coldwater watercourse, with direct connectivity to Georgian Bay. Hydraulically connected ditches are considered fish habitat, protected under the Federal *Fisheries Act*. Any proposal to conduct ditch 'cleanouts' or modifications to drainage in the Tributary and associated hydraulically connected ditches require further fisheries review to confirm potential impacts, mitigation requirements and possible permitting. Option 2 would maintain the existing drainage alignment therefore permitting from DFO would likely not be required if impacts can be appropriately mitigated in consultation with a fisheries ecologist.

4.3 Option 3

Option 3 is within the Fresh-Moist White Birch Mixed Forest (FODM8-2), Fresh-Moist White Cedar Coniferous Forest (FOCM4-1) and Dry-Fresh White Cedar-Poplar Mixed Forest (FODM4-2) communities. This option proposes to redirect drainage easterly along Constance Boulevard to the limits of the current residential area, then north-westerly to a new outlet to Georgian Bay. The KNHF's considered are as follows:

- Potential Habitat for Threatened and Endangered Species.
 - Little Brown Myotis, Northern Myotis, Tri-colored Bat (low potential): See Azimuth EIS (Azimuth, 2021).
- Other wetland: See Azimuth EIS (Azimuth, 2021).
- Candidate Significant Wildlife Habitat
 - Terrestrial Crayfish
 - Habitat for Special Concern and Rare Wildlife Species: See Azimuth EIS (Azimuth, 2021).
- Fish Habitat: While the alignment of Option 3 doesn't currently include fish habitat constraints, the option involves fisheries considerations. Similar to the other two Options, if drainage is aligned as per Option 3, then the same constraints apply as presented for Option 1. If the Tributary in the current alignment would be altered or eliminated, the impacts may constitute a HADD and would require fisheries review to determine approval requirements. If HADD is unavoidable, then an authorization may be required under the Federal *Fisheries Act*.



5.0 RECOMMENDATIONS FOR MITIGATION

5.1 Vegetation and Vegetation Communities

5.1.1 Migratory Birds

Activities involving the removal of vegetation should be restricted from occurring during the breeding season. Migratory birds, nests, and eggs are protected by the *Migratory Birds Convention Act*, 1994 (MBCA) and the *Fish and Wildlife Conservation Act*, 1997 (FWCA). Environment Canada outlines dates when activities in any region have potential to impact nests at the Environment Canada Website (<https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html>). In Zones C1 and C2 vegetation clearing should be avoided between **April 1 through August 31** of any given year.

5.1.2 SAR Bats

It is recommended that tree removal be avoided during the active period for bats that occurs during the early spring through later summer months. As such, tree removals should be avoided between **April 1 and September 30** to avoid potential impacts to maternity and/or day roosting bats. If vegetation clearing is required within the date range above, it is recommended that screening by an ecologist with knowledge of bird and bat habitat be undertaken to ‘screen’ trees, and confirm absence of nesting/roosting. Tree cutting should occur within 48 hours of confirmation of nest/roost absence, and if nesting/roost occurrence is confirmed, vegetation removal should not occur until fledglings have vacated prior to clearing to avoid contraventions of the MBCA and ESA.

5.2 Wildlife and Wildlife Habitat

The following wildlife and wildlife habitat surveys are recommended:

- Complete general survey screening for the presence of ‘snag’ trees with potential to provide refuge and maternity roosting habitat for bat species listed as Endangered under the ESA.

It should be noted that the absence of a protected species within the study area does not indicate that they will never occur within the area. Given the dynamic character of the natural environment, there is a constant variation in habitat use. Care should be taken in the interpretation of presence of species of concern including those listed under the ESA. Changes to policy, or the natural environment, could result in shifts, removal, or addition of new areas to the list of areas currently considered SAR habitat.



Worker training would assist the on-site workers in the identification of the SAR with potential to occur in the area. Workers should be instructed to stop work and contact the MECP immediately if any SAR are encountered within the work area. Individuals working on site should ensure that SAR are not harmed during construction or killed by heavy machinery, vehicles or other equipment.

The contractor should educate all site personnel to ensure that, if identified, the SAR are not wantonly injured or killed, and to ensure that damage to features which could constitute habitat is avoided. Information should be conveyed through a SAR expert and include:

- Species habitat and identification;
- Requirements under the ESA including avoidance of harm to the species and damage to relevant habitat;
- Appropriate action to take if the species is encountered;
- How to record sightings and encounters; and
- That care should be taken when undertaking construction activities in order to avoid harming the species or damaging/destroying habitat.

The expert should be a qualified biologist who specializes in ecology/biology, or SAR.

5.3 Fish and Fish Habitat

If the Town's drainage option proposes to alter areas of fish habitat requiring submission to the NVCA or DFO, the following fish and fish habitat surveys are recommended:

- Spring (April) and summer (July) aquatic habitat assessments to further characterize watercourses within the study area.
- Fish sampling by means of electrofishing with an MNRF issued Licence to Collect Fish for Scientific Purposes.

Based on any proposed alterations, a fisheries screening can be completed once the design concepts are understood. The screening will aim to identify potential impacts and potential for the death of fish or HADD that could result from the project, opportunities for avoidance and mitigation during planning stages, residual effects of the project (meaning impacts that cannot be mitigated), and approval requirements with DFO. In general terms, any proposal that includes the redirection of drainage in a watercourse requires submission to DFO under a Request for Review. Possible outcomes include DFO signoff under a Letter of Advice (LOA), or, confirmation that an authorization is



required. In this case, project review occurs following submission of a Request for Authorization. Noting for project planning purposes, that the schedule for federal permitting can be lengthy.

5.4 Sediment and Erosion Controls

Diligent application of sediment and erosion controls is recommended for all future construction activities to minimize the extent of accidental or unavoidable impacts to KNHF's including fish habitat. Prior to the commencement of site works, silt fencing should be applied along the length of directly adjacent natural or naturalized features, and routine inspection/maintenance of the silt fencing should occur throughout construction.

5.5 Operations

All maintenance activities required during future construction should be conducted at least 30m away from woodlands and/or wetlands to prevent accidental spillage of deleterious substances that may harm natural environments.

Snow fencing or equivalent should be installed at the limit of the work area to prevent the accidental intrusion of machinery operations into adjacent undisturbed natural areas.

6.0 CONCLUSIONS

Based on our initial assessment, all three drainage improvement Options will require further fisheries review to confirm mitigation and permitting requirements under the *Fisheries Act*. Options 1 and 3 also have implications on the Tributary and fish habitat in the long term. Although there are no fisheries constraints under current conditions for both Options (meaning the new alignment doesn't currently contain a watercourse), modifications to drainage under the future scenario will require fisheries input during design stages, identification of HADD and mitigation to avoid/minimize the HADD, review of residual effects (albeit positive or negative), permitting from the NVCA for works in regulated lands, and DFO considering fish habitat constraints.

In order to adequately assess the ecological functions within the study area these additional studies would be required by the approval agencies and possibly the requirement for an EIS during preliminary and detail design stages. Terrestrial field studies previously completed by Azimuth (Azimuth, 2021) relating to Option 3 would contribute to the completion of future studies in the study area.



Should you have any additional questions or concerns, or wish to discuss further please do not hesitate to contact the undersigned.

Yours truly,
AZIMUTH ENVIRONMENTAL CONSULTING, INC.

For: Alyssa Deurwaarder B.Sc.
Ecologist

Attached: Figure 1, Figure 2, Figure 3
Photographic Record
Attachment 1 MECP Correspondence
Attachment 2 (Ainley Fig)
Attachment 3 (NVCA regulated lands map)



7.0 REFERENCES

Azimuth. 2021. Wasaga Beach West End Maintenance Depot Drainage Channel Environmental Impact Study.

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Appendix B

Stage 1 Archeological Assessment Report

**Stage 1 Archaeological Assessment
Constance Boulevard Drainage Improvements
Town of Wasaga Beach
Part of Lots 34–35, Concession 3
and Part of Lot 35, Concession 4
Geographic Township of Nottawasaga
Simcoe County, Ontario**

Prepared for
Ainley Group
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Licensed under
P.J. Racher
MTCS Licence #P007
PIF #P007-1272-2021
ARA File #2021-0492

06/09/2022

Original Report

EXECUTIVE SUMMARY

Under a contract awarded in October 2021, Archaeological Research Associates Ltd. carried out a Stage 1 assessment of lands with the potential to be impacted by the Constance Boulevard Drainage Improvements project in the Town of Wasaga Beach, Simcoe County, Ontario. It is anticipated that the project will re-establish a direct outlet to Georgian Bay just north of the intersection with Thomas Street, but other alternatives to redirect or control drainage are under consideration. The assessment was carried out as part of a Schedule 'C' Municipal Class Environmental Assessment in accordance with the *Environmental Assessment Act*. This report documents the background research and potential modelling involved in the investigation and presents conclusions and recommendations pertaining to archaeological concerns.

The Stage 1 assessment was conducted in December 2021 under Project Information Form #P007-1272-2021. The investigation encompassed the entire study area. All field observations were made from accessible public areas; accordingly, no permissions were required for property access. At the time of assessment, the study area comprised parts of multiple residential properties, numerous roads and driveways and a variety of grassed and wooded areas.

The Stage 1 assessment determined that the study area comprises a mixture of areas of archaeological potential, areas of no archaeological potential and previously assessed lands of no further concern. It is recommended that all areas of archaeological potential that could be impacted by the project be subject to a Stage 2 property assessment in accordance with Section 2.1 of the 2011 *Standards and Guidelines for Consultant Archaeologists*.

The identified areas of no archaeological potential and previously assessed lands of no further concern do not require any additional assessment. Given that there are still outstanding archaeological concerns within the subject lands, no ground alterations or development of any kind may occur until the required investigation is complete, a recommendation that the lands require no further archaeological assessment is made, and the associated report is entered into the Ontario Public Register of Archaeological Reports.

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ABBREVIATIONS

ARA – Archaeological Research Associates Ltd.
CIF – Contract Information Form
MTCS – Ministry of Tourism, Culture and Sport
PIF – Project Information Form
S&Gs – Standards and Guidelines for Consultant Archaeologists

PERSONNEL

Project Director: P.J. Racher (#P007)
Operations Manager: C.E. Gohm (#R187)
Project Archaeologists: S. Bolstridge (#R471), A. Dunlop (#P1146), M. Maika (#P1021)
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1.0 PROJECT CONTEXT

1.1 Development Context

Under a contract awarded in October 2021, Archaeological Research Associates Ltd. (ARA) carried out a Stage 1 assessment of lands with the potential to be impacted by the Constance Boulevard Drainage Improvements project in the Town of Wasaga Beach, Simcoe County, Ontario. It is anticipated that the project will re-establish a direct outlet to Georgian Bay just north of the intersection with Thomas Street, but other alternatives to redirect or control drainage are under consideration. The assessment was carried out as part of a Schedule ‘C’ Municipal Class Environmental Assessment in accordance with the *Environmental Assessment Act*. This report documents the background research and potential modelling involved in the investigation and presents conclusions and recommendations pertaining to archaeological concerns.

The study area consists of an irregularly-shaped parcel of land with an area of 11.78 ha (Map 1). This parcel is generally bounded by Georgian Bay to the north, residential properties and part of a woodlot to the east, Beachwood Road to the south and Marilyn Avenue North to the west. In legal terms, the study area falls on part of Lots 34–35, Concession 3 and part of Lot 35, Concession 4 in the Geographic Township of Nottawasaga, Simcoe County. The Crown obtained these lands from the Chippewas as part of the Nottawasaga Purchase (Treaty 18) in 1818.

The Stage 1 assessment was conducted in December 2021 under Project Information Form (PIF) #P007-1272-2021. The investigation encompassed the entire study area. All field observations were made from accessible public areas; accordingly, no permissions were required for property access. In compliance with the objectives set out in Section 1.0 of the 2011 *Standards and Guidelines for Consultant Archaeologists (S&Gs)* this investigation was carried out in order to:

- Provide information concerning the geography, history and current land condition of the study area;
- Determine the presence of known archaeological sites in the study area;
- Present strategies to mitigate project impacts to such sites, if they are located;
- Evaluate in detail the archaeological potential of the study area; and
- Recommend appropriate strategies for Stage 2 archaeological assessment, if some or all of the study area has archaeological potential.

The Ministry of Tourism, Culture and Sport (MTCS) is asked to review the results and recommendations presented herein and enter the report into the Ontario Public Register of Archaeological Reports. ARA was not directed to engage with any Indigenous groups over the course of the subject investigation.

1.2 Historical Context

After a century of archaeological work in southern Ontario, scholarly understanding of the historical usage of the area has become very well-developed. With occupation beginning in the Palaeo period approximately 11,000 years ago, the greater vicinity of the study area comprises a complex chronology of Indigenous and Euro-Canadian histories. Section 1.2.1 summarizes the

region's settlement history, whereas Section 1.2.2 documents the study area's past and present land uses. Three previous archaeological reports containing relevant background information were obtained during the research component of the study. These reports are summarized in Section 1.3.3, and the references (including title, author and PIF number) appear in Section 7.0.

1.2.1 Settlement History

1.2.1.1 Pre-Contact

The Pre-Contact history of the region is lengthy and rich, and a variety of Indigenous groups inhabited the landscape. Archaeologists generally divide this vibrant history into three main periods: Palaeo, Archaic and Woodland. Each of these periods comprise a range of discrete sub-periods characterized by identifiable trends in material culture and settlement patterns, which are used to interpret past lifeways. The principal characteristics of these sub-periods are summarized in Table 1.

Table 1: Pre-Contact Settlement History
(Wright 1972; Ellis and Ferris 1990; Warrick 2000; Munson and Jamieson 2013)

Sub-Period	Timeframe	Characteristics
Early Palaeo	9000–8400 BC	Gainey, Barnes and Crowfield traditions; Small bands; Mobile hunters and gatherers; Utilization of seasonal resources and large territories; Fluted points
Late Palaeo	8400–7500 BC	Holcombe, Hi-Lo and Lanceolate biface traditions; Continuing mobility; Campsite/Way-Station sites; Smaller territories are utilized; Non-fluted points
Early Archaic	7500–6000 BC	Side-notched, Corner-notched (Nettling, Thebes) and Bifurcate traditions; Growing diversity of stone tool types; Heavy woodworking tools appear (e.g., ground stone axes and chisels)
Middle Archaic	6000–2500 BC	Stemmed (Kirk, Stanly/Neville), Brewerton Side- and Corner-Notched traditions; Reliance on local resources; Populations increasing; More ritual activities; Fully ground and polished tools; Net-sinkers common; Earliest copper tools
Late Archaic	2500–900 BC	Narrow Point (Lamoka), Broad Point (Genesee) and Small Point (Crawford Knoll) traditions; Less mobility; Use of fish-weirs; True cemeteries appear; Stone pipes emerge; Long-distance trade (marine shells and galena)
Early Woodland	900–400 BC	Meadowood tradition; Crude cord-roughened ceramics emerge; Meadowood cache blades and side-notched points; Bands of up to 35 people
Middle Woodland	400 BC–AD 600	Point Peninsula tradition; Vinette 2 ceramics appear; Small camp sites and seasonal village sites; Influences from northern Ontario and Hopewell area to the south; Hopewellian influence can be seen in continued use of burial mounds
Middle/Late Woodland Transition	AD 600–900	Gradual transition between Point Peninsula and later traditions; Princess Point tradition emerges elsewhere (i.e., in the vicinity of the Grand and Credit Rivers)
Late Woodland (Early)	AD 900–1300	Glen Meyer tradition; Settled village-life based on agriculture; Small villages (0.4 ha) with 75–200 people and 4–5 longhouses; Semi-permanent settlements
Late Woodland (Middle)	AD 1300–1400	Uren and Middleport traditions; Classic longhouses emerge; Larger villages (1.2 ha) with up to 600 people; More permanent settlements (30 years)
Late Woodland (Late)	AD 1400–1600	Huron-Petun tradition; Globular-shaped ceramic vessels, ceramic pipes, bone/antler awls and beads, ground stone celts and adzes, chipped stone tools, and even rare copper objects; Large villages (often with palisades), temporary hunting and fishing camps, cabin sites and small hamlets; Territorial contraction in early 16 th century; Fur trade begins ca. 1580; European trade goods appear

Although Iroquoian-speaking populations tended to leave a much more obvious mark on the archaeological record and are therefore emphasized in the Late Woodland entries above, it must be understood that Algonquian-speaking populations also represented a significant presence in

southern Ontario. Due to the sustainability of their lifeways, archaeological evidence directly associated with the Anishinaabeg remains elusive, particularly when compared to sites associated with the more sedentary agriculturalists. Many artifact scatters in southern Ontario were likely camps, chipping stations or processing areas associated with the more mobile Anishinaabeg, utilized during their travels along the local drainage basins while making use of seasonal resources. This part of southern Ontario represents the ancestral territory of various Indigenous groups, each with their own land use and settlement pattern tendencies.

1.2.1.2 Post-Contact

The arrival of European explorers and traders at the beginning of the 17th century triggered widespread shifts in Indigenous lifeways and set the stage for the ensuing Euro-Canadian settlement process. Documentation for this period is abundant, ranging from the first sketches of Upper Canada and the written accounts of early explorers to detailed township maps and lengthy histories. The Post-Contact period can be effectively discussed in terms of major historical events, and the principal characteristics associated with these events are summarized in Table 2.

Table 2: Post-Contact Settlement History
 (Smith 1846; Coyne 1895; Hunter 1909a, 1909b; Lajeunesse 1960; Cumming 1975; Ellis and Ferris 1990; Surtees 1994; AO 2015)

Historical Event	Timeframe	Characteristics
Early Exploration	Early 17 th century	Brûlé explores southern Ontario in 1610/11; Champlain travels through in 1613 and 1615/1616, making contact with a number of Indigenous groups (including the Algonquin, Huron-Wendat and other First Nations); European trade goods become increasingly common and begin to put pressure on traditional industries
Increased Contact and Conflict	Mid- to late 17 th century	Conflicts between various First Nations during the Beaver Wars result in numerous population shifts; European explorers continue to document the area, and many Indigenous groups trade directly with the French and English; ‘The Great Peace of Montreal’ treaty established between roughly 39 different First Nations and New France in 1701
Fur Trade Development	Early to mid-18 th century	Growth and spread of the fur trade; Peace between the French and English with the Treaty of Utrecht in 1713; Ethnogenesis of the Métis; Hostilities between French and British lead to the Seven Years’ War in 1754; French surrender in 1760
British Control	Mid- to late 18 th century	<i>Royal Proclamation</i> of 1763 recognizes the title of the First Nations to the land; Numerous treaties subsequently arranged by the Crown; First land cession under the new protocols is the Seneca surrender of the west side of the Niagara River in 1764; The Niagara Purchase (Treaty 381) in 1781 included this area
Loyalist Influx	Late 18 th century	United Empire Loyalist influx after the American Revolutionary War (1775–1783); British develop interior communication routes and acquire additional lands; John Collins acquires the northern part of the Toronto Carrying Place in 1785 (subject to a confirmatory surrender in the Williams Treaties of 1923); <i>Constitutional Act</i> of 1791 creates Upper and Lower Canada
County Development	Late 18 th to early 19 th century	Nominally became part of Kent County in 1792 and Simcoe County in 1798; Additional land cessions included the Penetanguishene Purchase (Treaty 5) in 1798, Lake Simcoe Purchase (Treaty 16) in 1815 and Nottawasaga Purchase (Treaty 18) in 1818; All townships surveyed by the mid-1830s; Townships ceded to Waterloo County in 1837 and York County in 1838; Simcoe County independent after the abolition of the district system in 1849
Township Formation	Early 19 th century	Surveyed by T. Kelly in 1832 and C. Rankin in 1833; First settlers arrived in 1834; Settlement initially facilitated by Crown Lands Agent H.C. Young, and four communities were founded (two Scottish, one Irish and one German); Scottish settlement at Bowmore (Duntroon) began with free grants, and 21 families settled there in 1834

Historical Event	Timeframe	Characteristics
Township Development	Mid-19 th to early 20 th century	Population reached 420 by 1842 (mostly Scottish); 7,628 ha taken up by 1846, with 623 ha under cultivation; 3 grist mills and 3 saw mills in operation at that time; Traversed by the Ontario, Simcoe & Huron Railway/Northern Railway (1855) and a branch of the Hamilton & North Western Railway (1879); Principal settlement was Collingwood; Other communities at Avening, Batteaux, Creemore, Dunedin, Duntroon, Glen Huron, Nottawa, Singhampton and Stayner

1.2.2 Past and Present Land Use

1.2.2.1 Overview

During Pre-Contact and Early Contact times, the vicinity of the study area would have comprised a mixture of coniferous trees, deciduous trees and open areas. Indigenous communities would have managed the landscape to some degree. During the early 19th century, Euro-Canadian settlers arrived in the area and began to clear the forests for agricultural and settlement purposes. The study area was located southeast of the historical community of Collingwood. The land use at the time of assessment can be classified as a mixture of infrastructural, residential and green space.

1.2.2.2 Mapping and Imagery Analysis

In order to gain a general understanding of the study area’s past land uses, two historical settlement maps, one topographic map and five aerial images were examined during the research component of the study. Specifically, the following resources were consulted:

- *Hogg’s Map of the County of Simcoe* (1871) (OHCMP 2019);
- *The Simcoe Supplement in Illustrated Atlas of the Dominion of Canada* (1881) (MU 2001);
- A topographic map from 1946 (OCUL 2022); and
- Aerial images from 1954–2002 (Simcoe County 2022; U of T 2022).

The limits of the study area are shown on georeferenced versions of the consulted historical resources in Map 2–Map 6.

Hogg’s Map of the County of Simcoe (1871) does not identify any occupants for the subject lands, and no buildings are illustrated in the immediate vicinity (Map 2). This map does not depict any private structures, however, so this should not be taken as evidence that the area was unimproved. The *Simcoe Supplement in Illustrated Atlas of the Dominion of Canada* (1881) similarly does not provide any insights regarding occupants or land uses (Map 3). Since this publication only included information for its subscribers, these omissions are not particularly significant. The nearby road allowances were only partially opened, and the Northern Railway is shown to the southwest.

The topographic map from 1946 indicates that the study area consisted primarily of forested lands between Beachwood Road and the lakeshore (Map 4). Sand or gravel pits appear to the southwest and south, and a minor waterway traversed the eastern edge of the study area. The 1954 aerial photo demonstrates that the local roadways were well-established, but the poor resolution precludes any other meaningful interpretations (Map 5). By 1978, the lands north of Constance Boulevard contained waterfront cottages, and limited residential development had occurred along

the other thoroughfares (Map 6). The aerial images from 1989, 1997 and 2002 indicate that this land use pattern remained relatively unchanged, save for a few minor alterations.

1.3 Archaeological Context

The Stage 1 assessment (property inspection) was conducted on December 15, 2021 under PIF #P007-1272-2021. ARA utilized a Samsung S20 with a built-in GPS/GNSS receiver during the investigation (UTM17/NAD83). The limits of the study area were confirmed using project-specific GIS data translated into GPS points for reference in the field, in combination with aerial imagery showing physical features in relation to the subject lands.

The archaeological context of any given study area must be informed by 1) the condition of the property as found (Section 1.3.1), 2) a summary of registered or known archaeological sites located within a minimum 1 km radius (Section 1.3.2) and 3) descriptions of previous archaeological fieldwork carried out within the limits of, or immediately adjacent to the property (Section 1.3.3).

1.3.1 Condition of the Property

The study area lies within the Great Lakes–St. Lawrence forest region, which is a transitional zone between the southern deciduous forest and the northern boreal forest. This forest extends along the St. Lawrence River across central Ontario to Lake Huron and west of Lake Superior along the border with Minnesota, and its southern portion extends into the more populated areas of Ontario. This forest is dominated by hardwoods, featuring species such as maple, oak, yellow birch, white and red pine. Coniferous trees such as white pine, red pine, hemlock and white cedar commonly mix with deciduous broad-leaved species, such as yellow birch, sugar and red maples, basswood and red oak (MNR 2022).

In terms of local physiography, the subject lands fall within the Simcoe Lowlands. This region consists of the Nottawasaga basin in the west, transverse valleys and the Lake Simcoe basin in the east. Both the lowlands and transverse valleys were flooded by Lake Algonquin and are bordered by shorecliffs, beaches and bouldery terraces. The study area is located within the Nottawasaga basin, which is limited to the broad flats bordering the Nottawasaga River. For the most part, this basin comprised the floor of Lake Algonquin and its surface beds therefore comprise deposits of deltaic and lacustrine origin rather than glacial outwash (Chapman and Putnam 1984:177–180). The bluffs of Lake Algonquin and the Nipissing Great Lakes occur roughly 3,600 m and 610 m to the southwest, respectively. The study area would have been submerged by these waterbodies.

According to the Ontario Soil Survey, the study area consists of Eastport sand in the north and Sargent gravelly sandy loam in the south. The characteristics of these soil types are summarized in Table 3 (Hoffman et al. 1962).

Table 3: Soil Types

Soil Type	Great Soil Group	Soil Materials	Drainage	Topography	Surface Stoniness
Eastport sand	Dry Sands	Grey calcareous outwash sand	Excessive	Irregular, moderately sloping	Stonefree

Soil Type	Great Soil Group	Soil Materials	Drainage	Topography	Surface Stoniness
Sargent gravelly sandy loam	Brown Forest	Pale brown calcareous outwash gravel	Good	Smooth, gently sloping	Stonefree to moderately stony

The subject lands fall within the Blue Mountains drainage basin, which is under the jurisdiction of the Nottawasaga Valley Conservation Authority (NVCA 2020). Specifically, the study area abuts Georgian Bay, is traversed by a modified tributary of Georgian Bay and is located 83 m northeast, 190 m north and 196 m east of various unnamed swamps.

At the time of assessment, the study area comprised parts of multiple residential properties, numerous roads and driveways and a variety of grassed and wooded areas. Soil conditions were ideal for the activities conducted. No unusual physical features were encountered that affected the results of the Stage 1 assessment.

1.3.2 Registered or Known Archaeological Sites

The Ontario Archaeological Sites Database and the Ontario Public Register of Archaeological Reports were consulted to determine whether any registered or known archaeological resources occur within a 1 km radius of the study area. The available search facility did not return any registered sites located within at least a 1 km radius (the facility returns sites in a rectangular area, rather than a radius, potentially resulting in results beyond the specified distance). No unregistered sites were identified within a 1 km radius of the study area.

1.3.3 Previous Archaeological Work

A review of available archaeological management plans and/or other archaeological potential mapping was undertaken to inform the assessment process. Specifically, Simcoe County's *Archaeological Potential* GIS layer was examined for information that could influence the choice of fieldwork techniques or recommendations. The associated mapping indicates that the entire study area has archaeological potential, save for the roadways and eastern woodlot (Map 7).

Reports documenting assessments conducted within the subject lands and assessments that resulted in the discovery of sites within adjacent lands were sought during the research component of the study. In order to ensure that all relevant past work was identified, an investigation was launched to identify reports involving assessments within 50 m of the study area. The investigation determined that there are three available reports documenting previous archaeological fieldwork within the specified distance. The relevant results and recommendations are summarized below as required by Section 7.5.8 Standards 4–5 of the 2011 *S&Gs*.

1.3.3.1 Blue Water Canoe Club Subdivision (Stage 1–2)

In November 2004, Stage 1 and 2 assessments were carried out for a proposed subdivision development under Contract Information Form (CIF) #P007-039 (ARA 2005). The assessed area abuts the northwestern edge of the study area. Several wooded areas were not surveyed, as they were to be conveyed to the Town of Wasaga Beach. The investigation did not result in the

discovery of any archaeological materials, and the property was not recommended for further assessment (ARA 2005:10).

1.3.3.2 2320 Shore Lane (Stage 1–2)

In August 2016, Stage 1 and 2 assessments were carried out for a proposed subdivision development at 2320 Shore Lane under PIF #P1024-0157-2016 (AMICK 2017). The assessed area overlaps the eastern part of the study area. The investigation did not result in the discovery of any archaeological materials, and no further assessment was recommended (AMICK 2017:27–29). The overlapping area of previous assessment is therefore of no further archaeological concern.

1.3.3.3 Beachwood Development (Stage 1–2)

In April and May 2020, Stage 1 and 2 assessments were carried out for a proposed condominium development under PIF #P058-1824-2020 (AMICK 2020). The assessed area abuts the southeastern edge of the study area. The investigation did not result in the discovery of any archaeological materials, and the lands required no further assessment (AMICK 2020:31–32).

2.0 STAGE 1 BACKGROUND STUDY

2.1 Background

The Stage 1 assessment involved background research to document the geography, history, previous archaeological fieldwork and current land condition of the study area. This desktop examination included research from archival sources, archaeological publications and online databases. It also included the analysis of a variety of historical maps and aerial imagery. The results of the research conducted for the background study are summarized below.

With occupation beginning approximately 11,000 years ago, the greater vicinity of the study area comprises a complex chronology of Pre-Contact and Post-Contact histories (Section 1.2). Artifacts associated with Palaeo, Archaic, Woodland and Early Contact traditions are well-attested in Simcoe County, and Euro-Canadian archaeological sites dating to pre-1900 and post-1900 contexts are likewise common. The absence of documented sites in the surrounding area is likely related to lack of local archaeological exploration and should not be taken as an indicator that the area was unattractive or undesirable for occupation (Section 1.3.2). Background research identified one area of previous assessment within the study area (Section 1.3.3).

The natural environment of the study area would have been attractive to both Indigenous and Euro-Canadian populations as a result of proximity to Georgian Bay. The study area was submerged by Main Lake Algonquin and the Nipissing Great Lakes, however, which would have resulted in the destruction of many Indigenous sites dating prior to the Late Archaic period. The areas of well-drained soils would have been ideal for agriculture, and the diverse local vegetation would also have encouraged settlement throughout Ontario's lengthy history.

In summary, the background study included an up-to-date listing of sites from the Ontario Archaeological Sites Database (within at least a 1 km radius), the consideration of previous local archaeological fieldwork (within at least a 50 m radius), the analysis of historical maps (at the most detailed scale available) and the study of aerial imagery. A review of an archaeological management plan was also carried out. ARA therefore confirms that the standards for background research set out in Section 1.1 of the 2011 *S&Gs* were met.

2.2 Field Methods (Property Inspection)

In order to gain first-hand knowledge of the geography, topography and current condition of the study area, a property inspection was conducted on December 15, 2021. Environmental conditions were ideal during the inspection, with overcast skies, diffuse lighting and a temperature of 3 °C. Although there was intermittent rain, there was no reduction in the ability to observe features of potential. ARA therefore confirms that fieldwork was carried out under weather and lighting conditions that met the requirements set out in Section 1.2 Standard 2 of the 2011 *S&Gs*.

The study area was subjected to random spot-checking. Specifically, the inspection began within the eastern woodlot and then generally progressed from northwest to southeast along Constance Boulevard and from northeast to southwest along Thomas Street. The inspection confirmed that all surficial features of archaeological potential were present where they were previously identified

and did not result in the identification of any additional features of archaeological potential not visible on mapping (e.g., relic water channels, patches of well-drained soils, etc.).

The inspection determined that several parts of the study area were disturbed by past and ongoing construction activities, and one permanently wet area was documented. No other natural features (e.g., sloped lands, overgrown vegetation, heavier soils than expected, etc.) that would affect assessment strategies were identified. One potential cultural heritage landscape was observed during ARA's heritage assessment: the Georgian Bay Lakeshore (ARA 2022). No other significant built features (e.g., heritage structures, plaques, monuments, cemeteries, etc.) were encountered.

2.3 Analysis and Conclusions

In addition to relevant historical sources and the results of past archaeological assessments, the archaeological potential of a property can be assessed using its soils, hydrology and landforms as considerations. Section 1.3.1 of the 2011 *S&Gs* recognizes the following features or characteristics as indicators of archaeological potential: previously identified sites, water sources (past and present), elevated topography, pockets of well-drained sandy soil, distinctive land formations, resource areas, areas of Euro-Canadian settlement, early transportation routes, listed or designated properties, historic landmarks or sites, and areas that local histories or informants have identified with possible sites, events, activities or occupations.

The Stage 1 assessment resulted in the identification of several features of archaeological potential in the vicinity of the study area (Map 8). The closest and most relevant indicators of archaeological potential (i.e., those that would directly affect survey interval requirements) include two primary water sources (Georgian Bay and one of its modified tributaries) and three secondary water sources (unnamed swamps). Background research did not identify any features indicating that the study area has potential for deeply buried archaeological resources.

Although proximity to a feature of archaeological potential is a significant factor in the potential modelling process, current land conditions must also be considered. Section 1.3.2 of the 2011 *S&Gs* emphasizes that 1) quarrying, 2) major landscaping involving grading below topsoil, 3) building footprints and 4) sewage/infrastructure development can result in the removal of archaeological potential, and Section 2.1 states that 1) permanently wet areas, 2) exposed bedrock and 3) steep slopes ($> 20^\circ$) in areas unlikely to contain pictographs or petroglyphs can also be evaluated as having no or low archaeological potential. Areas previously assessed and not recommended for further work also require no further assessment.

Simcoe County's *Archaeological Potential* GIS layer indicates that the entire study area has archaeological potential, save for the roadways and eastern woodlot (Map 7). However, this modelling was not the result of a property-specific assessment and therefore does not fully account for land-use history and current conditions. One previously assessed area of no further concern was identified within the study area (i.e., the eastern woodlot), which does not warrant additional assessment.

ARA's visual inspection, coupled with the analysis of historical sources and digital environmental data, resulted in the identification of multiple areas of no archaeological potential. Specifically, deep land alterations have resulted in the removal of archaeological potential from the roadway

platforms, ditched areas, residential developments and related infrastructure (Image 1–Image 12). These areas have clearly been impacted by past and ongoing earth-moving/construction activities, resulting in the disturbance of the original soils to a significant depth and severe damage to the integrity of any archaeological resources. A permanently wet area was encountered in the north-central portion of the study area, which is associated with a modified tributary of Georgian Bay (Image 13). This drain could also be considered as an area of disturbance (i.e., it is not a natural watercourse). The previously assessed woodlot was also photo-documented (Image 14–Image 16).

The remainder of the study area has potential for Indigenous and Euro-Canadian archaeological materials or requires test pit survey to confirm disturbance. The areas of archaeological potential include various grassed and wooded areas along the extant roadways as well as wooded areas along the Georgian Bay shoreline (Image 17–Image 18). It seems likely that the grassed portions of several residential properties were previously impacted, but this could not be verified based on the inspection alone. Accordingly, these lands have been categorized as areas of archaeological potential and must be empirically tested to confirm that archaeological potential has been removed.

In summary, the Stage 1 assessment determined that the study area comprises a mixture of areas of archaeological potential, areas of no archaeological potential and previously assessed lands of no further concern. The potential modelling results are presented in Map 9. The study area limits are depicted as a layer in this map.

3.0 RECOMMENDATIONS

The Stage 1 assessment determined that the study area comprises a mixture of areas of archaeological potential, areas of no archaeological potential and previously assessed lands of no further concern. It is recommended that all areas of archaeological potential that could be impacted by the project be subject to a Stage 2 property assessment in accordance with Section 2.1 of the 2011 *S&Gs*.

The grassed and wooded areas must be assessed using the test pit survey method. A survey interval of 5 m will be required due to the proximity of the lands to the identified features of archaeological potential. Given the likelihood that the grassed portions of several residential properties were previously impacted, a combination of visual inspection and test pit survey should be utilized to confirm the extent of disturbance in accordance with Section 2.1.8 of the 2011 *S&Gs*. This will allow for the empirical evaluation of the integrity of the soils and the depth of any impacts. If disturbance cannot be confirmed, then a test pit survey interval of 5 m must be maintained.

Each test pit must be excavated into at least the first 5 cm of subsoil, and the resultant pits must be examined for stratigraphy, potential features and/or evidence of fill. The soil from each test pit must be screened through mesh with an aperture of no greater than 6 mm and examined for archaeological materials. If archaeological materials are encountered, all positive test pits must be documented, and intensification may be required.

The identified areas of no archaeological potential and previously assessed lands of no further concern do not require any additional assessment. Given that there are still outstanding archaeological concerns within the subject lands, no ground alterations or development of any kind may occur until the required investigation is complete, a recommendation that the lands require no further archaeological assessment is made, and the associated report is entered into the Ontario Public Register of Archaeological Reports.

4.0 ADVICE ON COMPLIANCE WITH LEGISLATION

Section 7.5.9 of the 2011 *S&Gs* requires that the following information be provided for the benefit of the proponent and approval authority in the land use planning and development process:

- This report is 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 0.18. 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 Section 48 (1) of the *Ontario Heritage Act*.
- The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar at the Ministry of Public and Business Service Delivery.

5.0 IMAGES



Image 1: Disturbed Lands
(December 15, 2021; Facing Northeast)



Image 2: Disturbed Lands
(December 15, 2021; Facing South)



Image 3: Disturbed Lands
(December 15, 2021; Facing Northwest)



Image 4: Disturbed Lands
(December 15, 2021; Facing Northeast)



Image 5: Disturbed Lands
(December 15, 2021; Facing Northeast)



Image 6: Disturbed Lands
(December 15, 2021; Facing Southwest)



Image 7: Disturbed Lands
(December 15, 2021; Facing Southeast)



Image 8: Disturbed Lands
(December 15, 2021; Facing Northeast)



Image 9: Disturbed Lands
(December 15, 2021; Facing Northeast)



Image 10: Disturbed Lands
(December 15, 2021; Facing Southwest)



Image 11: Disturbed Lands
(December 15, 2021; Facing Southeast)



Image 12: Disturbed Lands
(December 15, 2021; Facing Northwest)



Image 13: Permanently Wet Lands
(December 15, 2021; Facing Southwest)



Image 14: Previously Assessed Lands
(December 15, 2021; Facing Southwest)



Image 15: Previously Assessed Lands
(December 15, 2021; Facing Northwest)



Image 16: Previously Assessed Lands
(December 15, 2021; Facing Northwest)

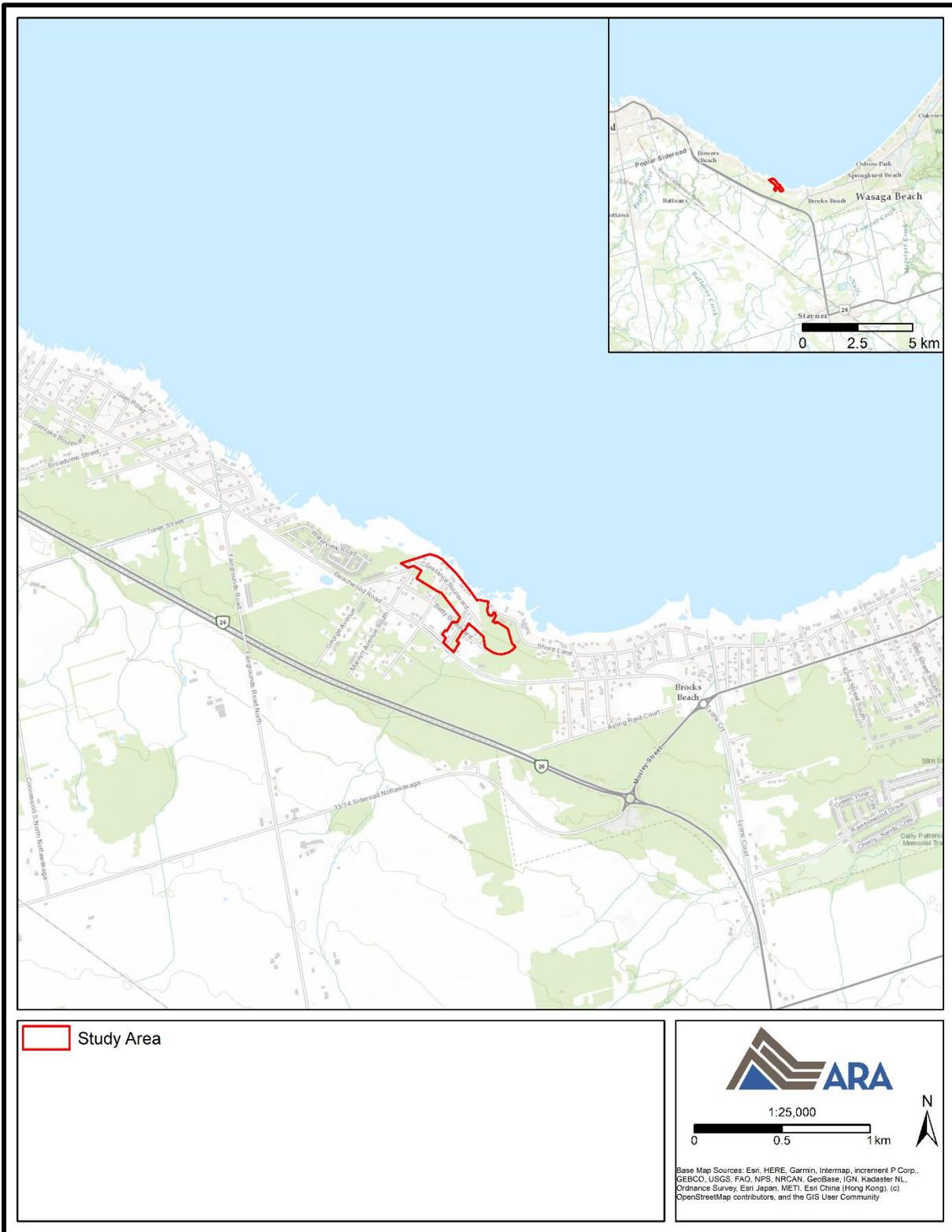


Image 17: Area of Potential
(December 15, 2021; Facing Northeast)

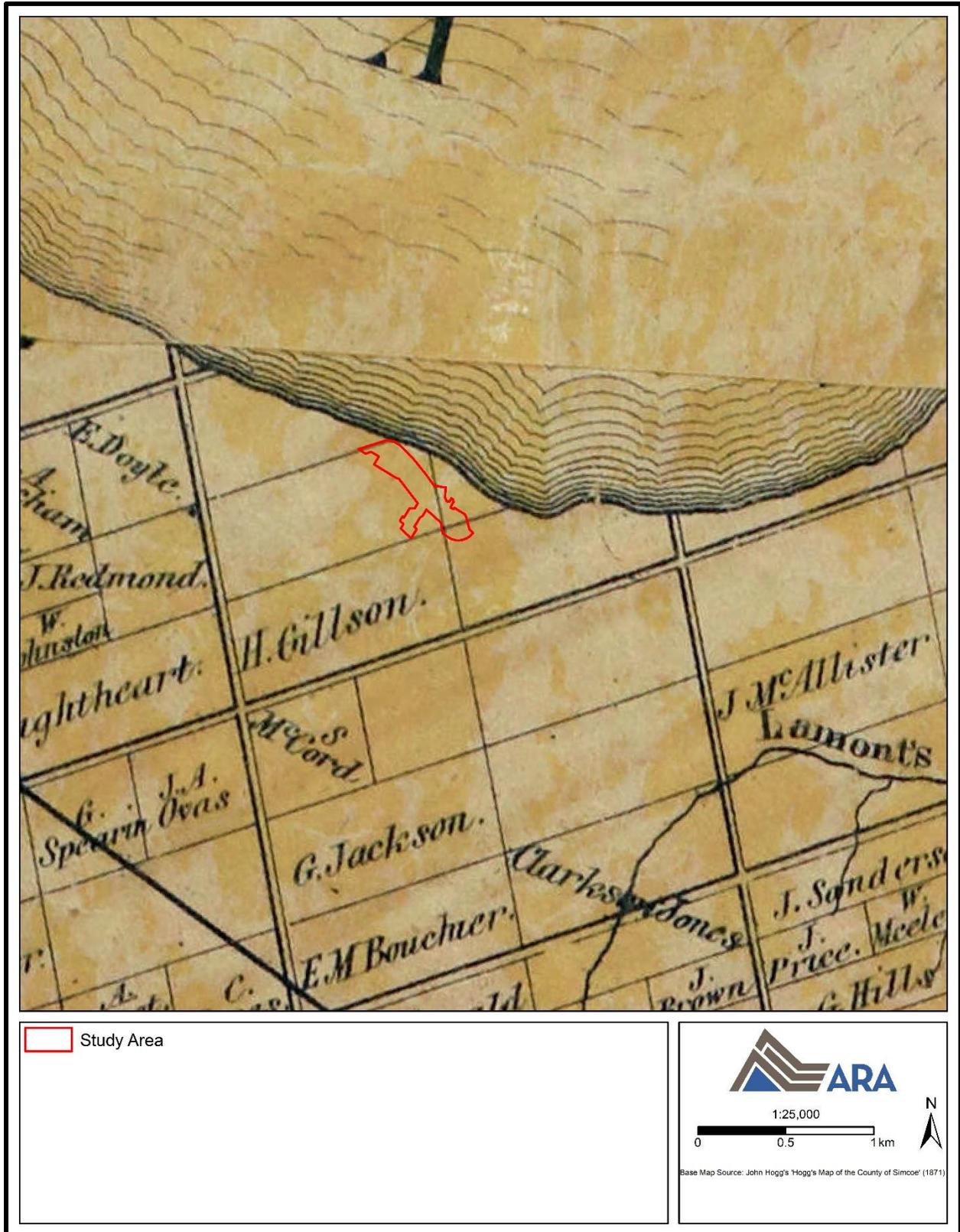


Image 18: Area of Potential
(December 15, 2021; Facing Northeast)

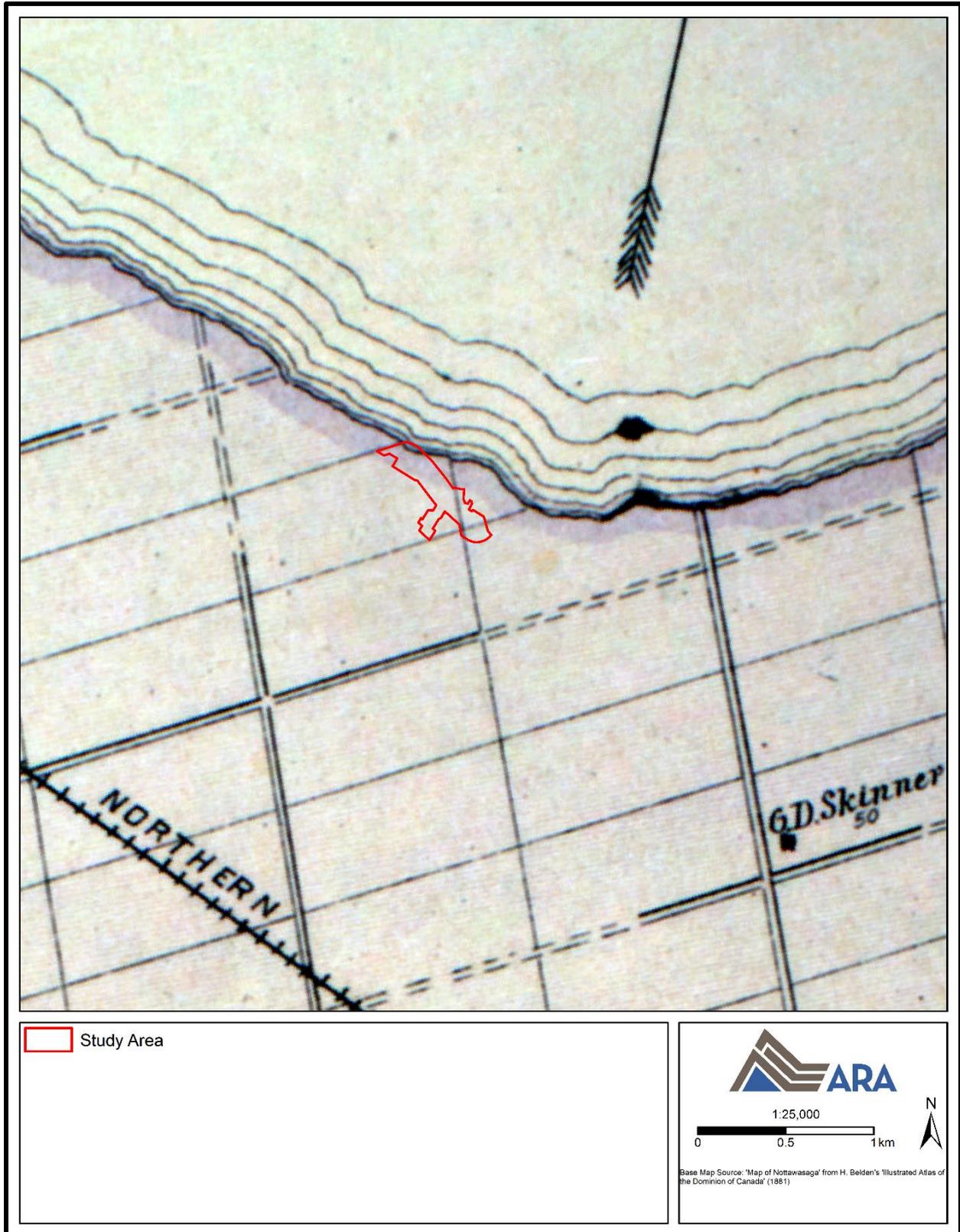
6.0 MAPS



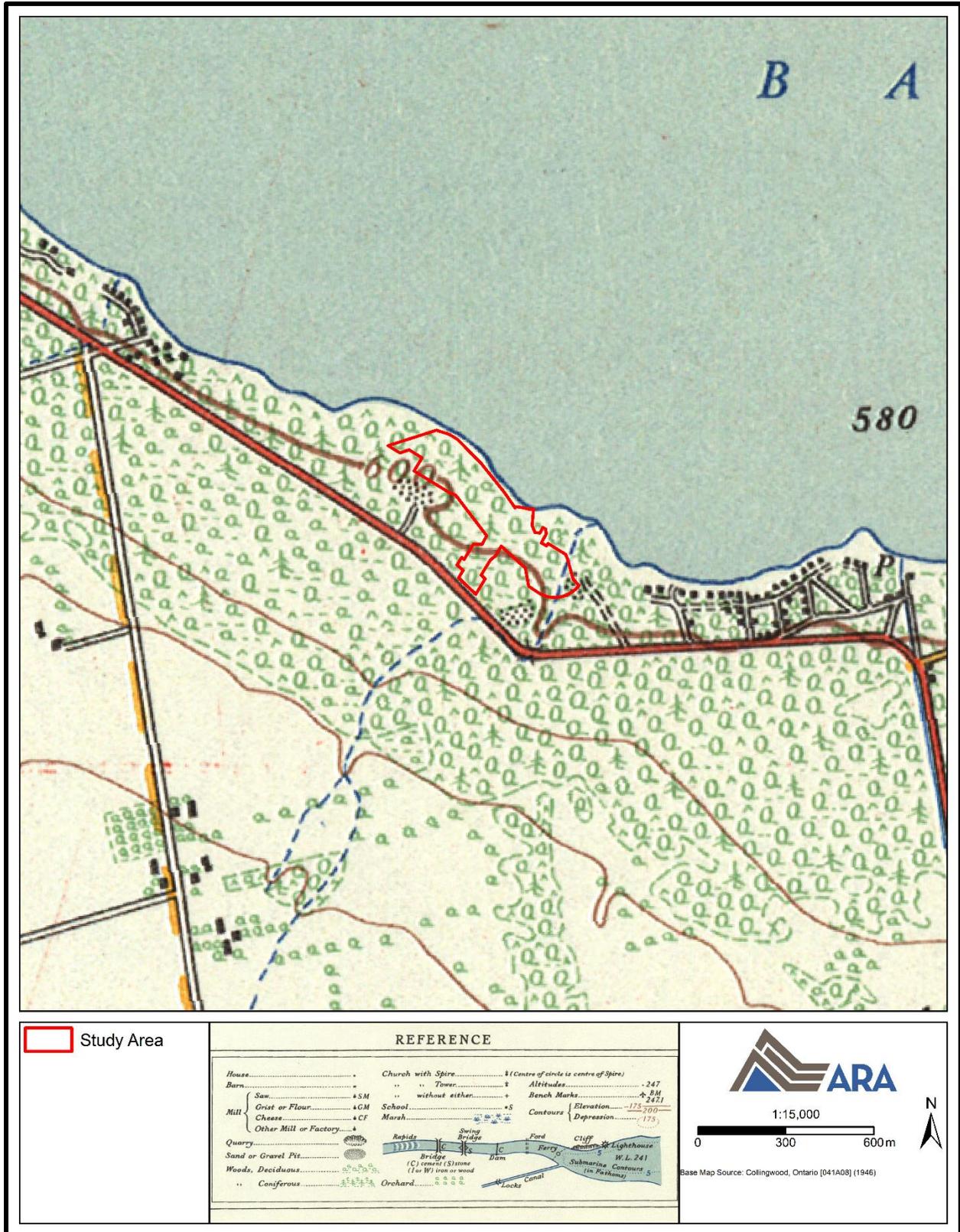
Map 1: Location of the Study Area
(Produced under licence using ArcGIS® software by Esri, © Esri)



Map 2: Hogg's Map of the County of Simcoe (1871)
(Produced under licence using ArcGIS® software by Esri, © Esri; OHCMP 2019)



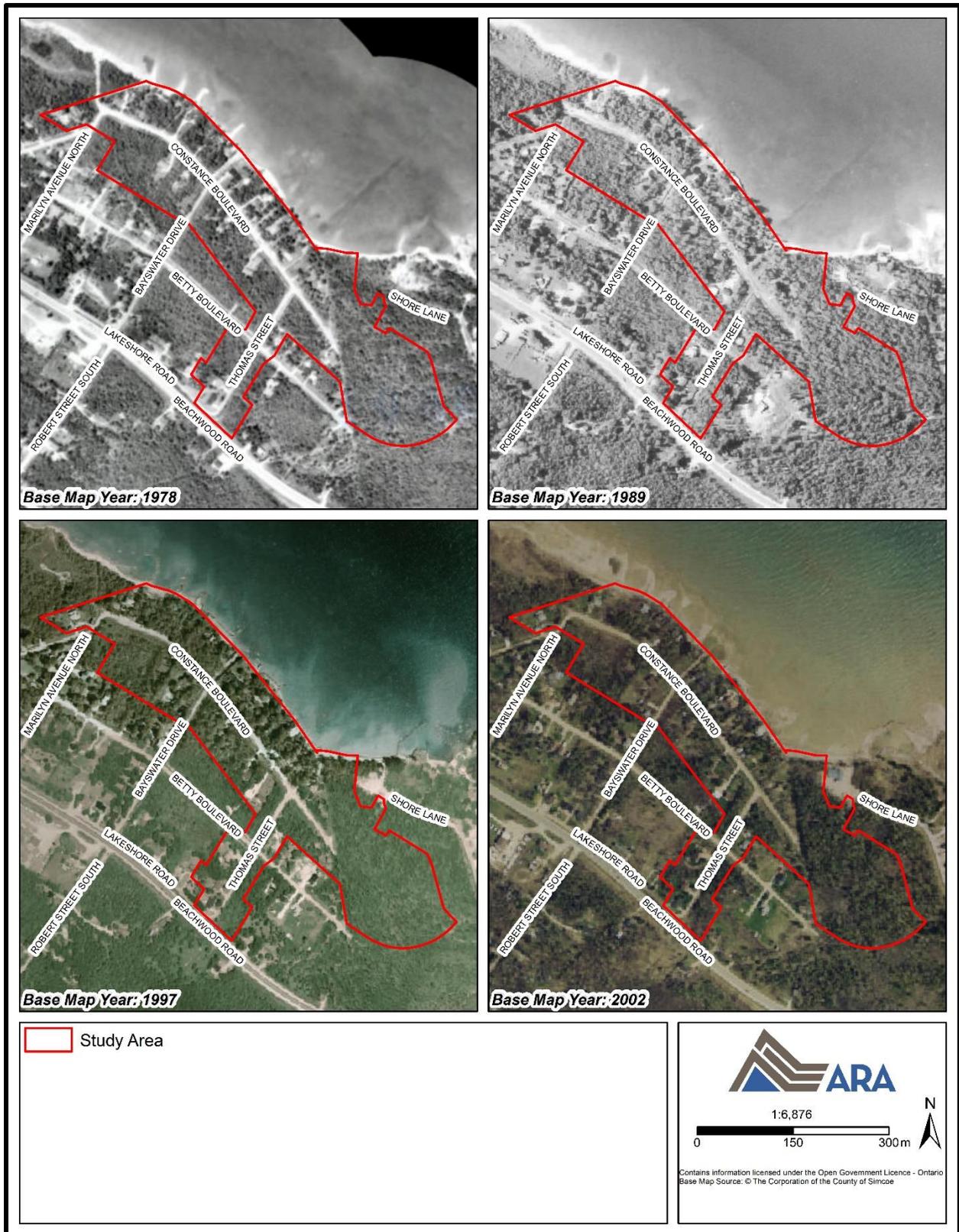
Map 3: Simcoe Supplement in Illustrated Atlas of the Dominion of Canada (1881)
(Produced under licence using ArcGIS® software by Esri, © Esri; MU 2001)



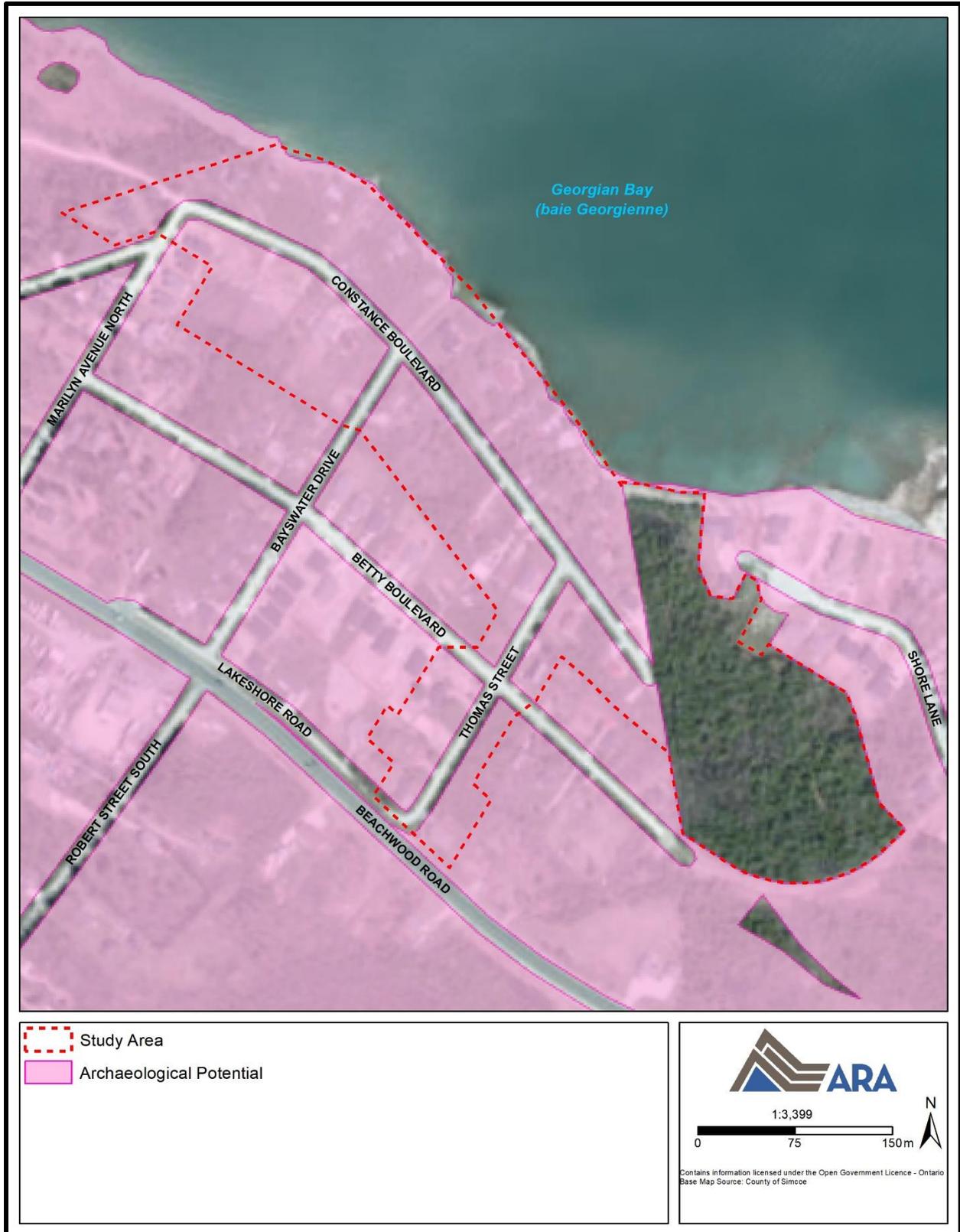
Map 4: Topographic Map (1946)
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Map 5: Aerial Image (1954)
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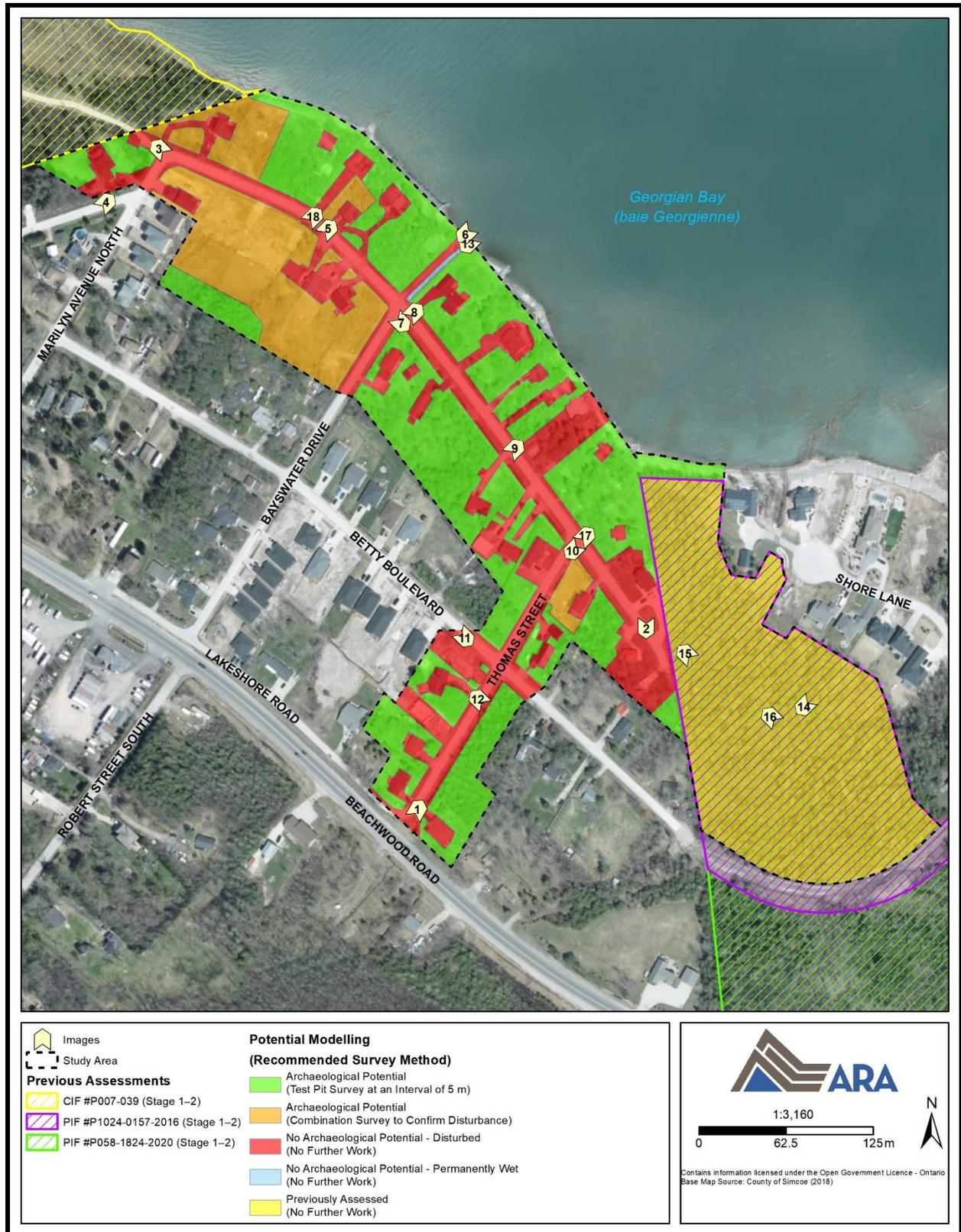


Map 6: Aerial Images (1978–2002)
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Map 7: Simcoe County's Archaeological Potential GIS Layer
(Produced under licence using ArcGIS® software by Esri, © Esri; Simcoe County 2022)





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Sep 7, 2022

Paul Racher (P007)
Archaeological Research Associates Ltd.
219 - 900 Guelph Kitchener ON N2H 5Z6

RE: Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 1 Archaeological Assessment, Constance Boulevard Drainage Improvements, Town of Wasaga Beach, Part of Lots 34–35, Concession 3 and Part of Lot 35, Concession 4, Geographic Township of Nottawasaga, Simcoe County, Ontario", Dated Sep 6, 2022, Filed with MHSTCI Toronto Office on N/A, MHSTCI Project Information Form Number P007-1272-2021, MHSTCI File Number 0015640

Dear Mr. Racher:

The above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18, has been entered into the Ontario Public Register of Archaeological Reports without technical review.¹

Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require further information, please do not hesitate to send your inquiry to Archaeology@Ontario.ca

cc. Archaeology Licensing Officer
Jody Marks, Ainley Graham and Associates Ltd
Doug Herron, Town of Wasaga Beach

1 In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Appendix C

Cultural Heritage Assessment Report

Cultural Heritage Assessment Report

Constance Boulevard Drainage Improvements Town of Wasaga Beach Lots 34-35, Concessions 3-4 Geographic Township of Nottawasaga County of Simcoe

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HR-371-2021
ARA File # 2021-0493

19/05/2022
FINAL

EXECUTIVE SUMMARY

Under a contract awarded in October 2021, Archaeological Research Associates Ltd. carried out a Cultural Heritage Assessment Report, for *Constance Boulevard Drainage Improvement* in the Town of Wasaga Beach, Regional Township of Nottawasaga, Ontario. The Town is undertaking a Schedule 'C' Municipal Class Environmental Assessment with a Cultural Heritage Assessment Report in support of the proposed drainage improvements on Constance Boulevard. The two-lane road runs parallel to Georgian Bay, with properties on the north/northwest side of the road positioned on the lake edge.

The purpose of this assessment is to identify and evaluate the cultural heritage resources within and adjacent to the study area that may be impacted by the Constance Road Drainage Improvements project. The study area consists of an irregularly shaped parcel of land and includes Constance Boulevard bounded by Georgian Bay to the north, Beachwood Drive to the south, Marilyn Avenue North to the west and a vacant forested lot to the east. In legal terms, the project falls on part of Lots 34-35, Concessions 3-4 in the Geographic Township of Nottawasaga, County of Simcoe.

The Cultural Heritage Assessment Report approach included:

- Background research concerning the project and historical context of the study area;
- Consultation with Town of Wasaga Beach staff regarding heritage matters in the study area;
- Identification of any designated or recognized properties within and adjacent to the study area;
- On-site inspection and creation of an inventory of all properties with potential Built Heritage Resources and Cultural Heritage Landscapes within and adjacent to the study area;
- A description of the location and nature of potential cultural heritage resources;
- Evaluation of each potential cultural heritage resource against the criteria set out in Ontario Regulation 9/06 for determining cultural heritage value or interest;
- Evaluation of potential project impacts; and
- Provision of suggested strategies for the future conservation of identified cultural heritage resources.

As a result of consultation, existing recognition, research, and the field survey, only one potential Cultural Heritage Landscape was identified and evaluated against Ontario Regulation 9/06. There are currently no designs available that would aid in the identification of project specific impacts. The following mitigation strategies are recommended to address the identified potential adverse impacts:

- That during the planning and design phases, cultural heritage resources be avoided where possible and any construction staging areas be located on lands located well away from the Cultural Heritage Landscape.
- That during the design phases, the removal of vegetation (a heritage attribute) along the Georgian Bay shoreline should be avoided where possible. That if removal or damage to

existing vegetation along the shoreline back is unavoidable, replacement in kind should be considered during preliminary and detailed design;

- That once design work has begun (i.e., 30% design), it should be reviewed against the findings in this Cultural Heritage Assessment Report and an update provided in an Impact Memo. Specifically, the memo should review the identified Cultural Heritage Landscape and evaluate any impact of the design (or alternative design concepts), as well as outline avoidance/mitigation measures to minimize the impact. Depending on the nature of the impact (i.e., demolition, significant modification, or alteration) the review may result in additional studies being recommended (i.e., a Cultural Heritage Evaluation Report, Heritage Impact Assessment, Conservation Plan etc.). The review should be undertaken by a qualified heritage professional.
- That public consultation may result in additional potential cultural heritage resources being identified. These potential cultural heritage resources should be reviewed by a qualified heritage consultant to: 1) determine their Cultural Heritage Value or Interest, 2) evaluate potential project impacts, and 3) suggest strategies for future conservation of any candidate cultural heritage resources;
- That previously unrecognized cultural heritage resources with Cultural Heritage Value or Interest discussed in this assessment may be worthy of inclusion on a Municipal Heritage Register;
- That this Cultural Heritage Assessment Report should be provided to staff/planners at the municipal and county level as needed and;
- That a Stage 1 and 2 archaeological assessment is currently being undertaken to address the identified archaeological potential associated with the study area. No soil disturbing activities should take place until all archaeological concerns are mitigated and all reports are accepted by the Ministry of Heritage, Sport, Tourism and Culture Industries.

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GLOSSARY OF ABBREVIATIONS

ARA – Archaeological Research Associates Ltd.
BHR – Built Heritage Resource
CHAR – Cultural Heritage Assessment Report
CHL – Cultural Heritage Landscape
CHVI – Cultural Heritage Value or Interest
EA – Environmental Assessment
MCEA – Municipal Class Environmental Assessment
MHSTCI – Ministry of Heritage, Sport, Tourism and Culture Industries
MMAH – Ministry of Municipal Affairs and Housing
OCUL – Ontario Council of University Libraries
OHA – Ontario Heritage Act
OHCMP – Ontario Historical County Maps Project
OHT – Ontario Heritage Trust
OP – Official Plan

O. Reg. – Ontario Regulation
PPS – Provincial Policy Statement
SWMF – Storm Water Management Facility

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Two-page Curriculum Vitae (CV) for key team members that demonstrate the qualifications and expertise necessary to perform cultural heritage work in Ontario are provided in Appendix B.

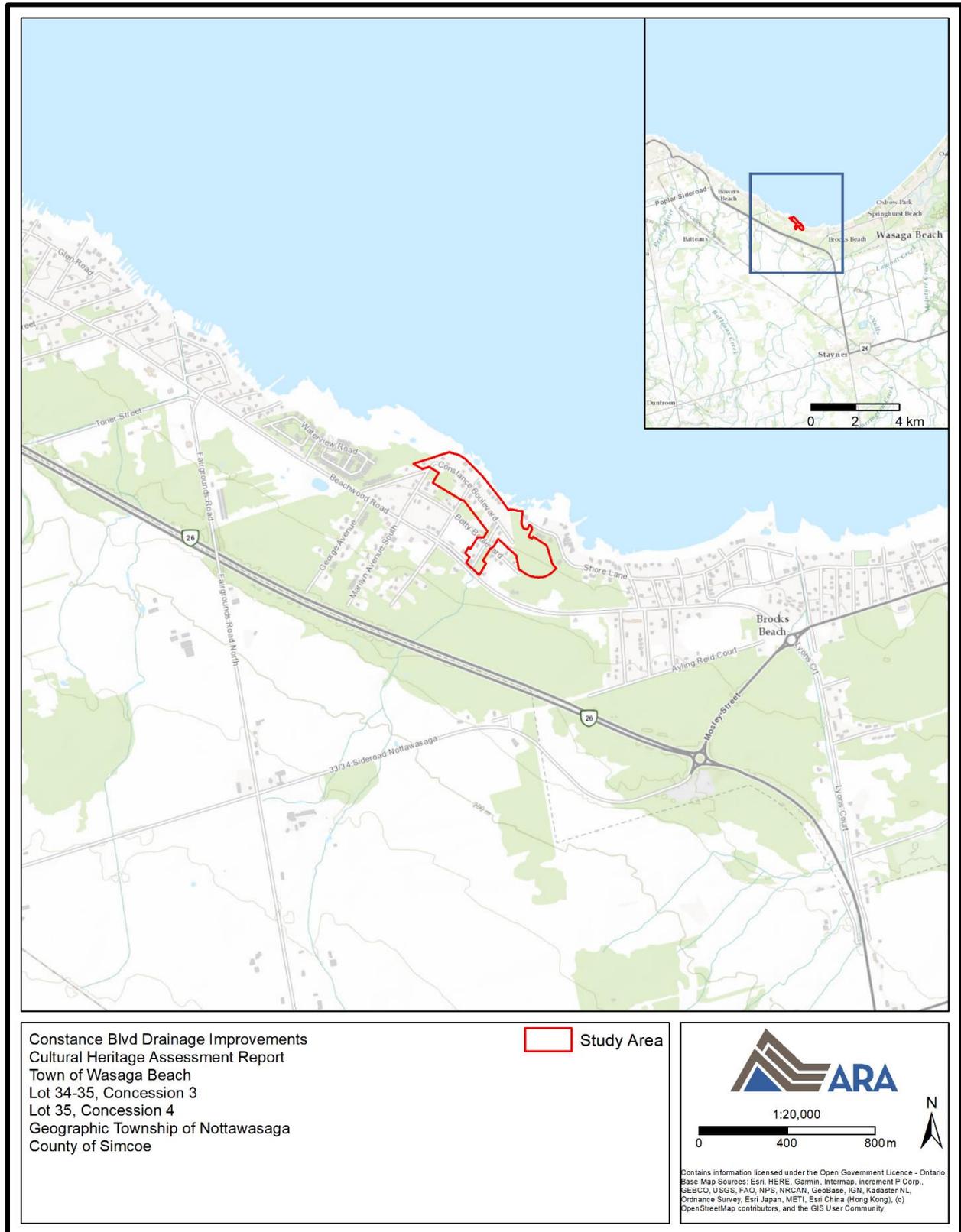
1.0 PROJECT CONTEXT

Under a contract awarded in October 2021, Archaeological Research Associates Ltd. (ARA) carried out a Cultural Heritage Assessment Report (CHAR), for the *Constance Boulevard Drainage Improvement* project in the Town of Wasaga Beach, Regional Township of Nottawasaga, Ontario. The Town is undertaking a Schedule ‘C’ Municipal Class Environmental Assessment (MCEA) with a CHAR in support of the proposed drainage improvements on Constance Boulevard. The two-lane road runs parallel to Georgian Bay, with properties on the north/northwestern side of the road positioned on the lake edge.

The study area consists of an irregularly shaped parcel of land and includes Constance Boulevard bounded by Georgian Bay to the north, Beachwood Drive to the south, Marilyn Avenue North to the west and a vacant forested lot to the east. In legal terms, the project falls on part of Lots 34-35, Concessions 3-4 in the Geographic Township of Nottawasaga, County of Simcoe.

The study area is characterized as a flat area of land with relatively little topographical change, that contains a variety of sized lots with residential structures, and a significant tree presence. Georgian Bay is located to the north of the roadway and contributes to the character of the study area. The roadway is two-lanes and paved and is characterized as a quiet residential street. There are no pedestrian pathways on either side of the roadway (see Map 1 and Map 2).

This assessment was conducted in accordance with the aims of the *Environmental Assessment Act*, R.S.O. 1990, *Provincial Policy Statement* (MMAH 2020) and the *Ontario Heritage Act*, R.S.O. 1990, c. O.18, *Ontario Heritage Tool Kit series* (MHSTCI 2006a), the *County of Simcoe Official Plan* (2016) and *Official Plan of the Town of Wasaga Beach* (2020).



Map 1: Study Area in the Town of Wasaga Beach
 (Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



Map 2: Aerial Image of Study Area in Town of Wasaga Beach
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)

2.0 LEGISLATION AND POLICY REVIEW

The framework for this assessment report is provided by provincial environmental, heritage and planning legislation, and policies as well as regional and local municipal Official Plans and guidelines.

2.1 Federal Guidelines

At the national level, *The Standards and Guidelines for Conservation of Historic Places in Canada* (Parks Canada 2010) provides guidance for the preservation, rehabilitation and restoration of historic places, including cultural heritage landscapes (CHLs) and built heritage resources (BHRs). Such guidance includes the planning and implementation of heritage conservation activities.

2.2 Provincial Policies and Guidelines

2.2.1 Environmental Assessment Act and Guideline

Within the *Environmental Assessment Act*, the environment includes “any building, structure, machine or other device or thing made by humans.” An Environmental Assessment (EA) is a study that evaluates both the potential positive and/or negative effects of a project on the environment. This study is conducted as part of a streamlined EA process known as a Municipal Class EA (MCEA), which applies to routine projects grouped into classes that range from A (minor undertakings) to C (new construction of large facilities). The MCEA applies to municipal infrastructure undertakings including roads, water, and wastewater projects.

The *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments* indicates a need to describe the “affected environment” that is “a spatially defined area within which land will be altered as a result of the proponent’s development” (MHSTCI 1992:3). As such, ARA completes in-depth research and evaluation of any potential cultural heritage resource within the study area.

2.2.2 Planning Act

Section 2 of the Ontario *Planning Act* indicates that a council of a Municipality have regard for matters of provincial interest such as: “(d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest” (Government of Ontario 1990). Section 3 of the *Planning Act* directs a municipal Council’s decisions to be consistent with the *Provincial Policy Statement* (PPS 2020).

2.2.3 The Provincial Policy Statement (2020)

The *Provincial Policy Statement* (PPS 2020) contains a combined statement of the Province’s land use planning policies. It provides the provincial government’s policies on a range of land use planning issues including cultural heritage outlined. As outlined in Section 2.0 on Wise Use of and Management of Resources: “Ontario’s long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for

their economic, environmental and social benefits” (MMAH 2020:24). The PPS 2020 promotes the conservation of cultural heritage resources through detailed polices in Section 2.6, such as “2.6.1 Significant built heritage resources and significant cultural heritage landscapes shall be conserved” and “2.6.3 Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.” (MMAH 2020:31).

2.2.4 Ontario Heritage Act

The *Ontario Heritage Act (OHA)*, R.S.O. 1990, c.018 is the guiding piece of provincial legislation for the conservation of significant cultural heritage resources in Ontario. The *OHA* gives provincial and municipalities governments the authority and power to conserve Ontario’s heritage. The *OHA* has policies which address individual properties (Part IV), heritage districts (Part IV), and allows municipalities to create a register of non-designated properties which may have cultural heritage value or interest (Section 27).

In order to objectively identify cultural heritage resources, O. Reg. 9/06 made under the *OHA* sets out three principal criteria with nine sub-criteria for determining cultural heritage value or interest (CHVI) (MHSTCI 2006b:20–27). The criteria set out in the regulation were developed to identify and evaluate properties for designation under the *OHA*. Best practices in evaluating properties that are not yet protected employ O. Reg. 9/06 to determine if they have CHVI. In the absence of specific CHL evaluation criteria, potential CHLs O. Reg 9/06 is also applied to consider the built and natural features and the property as a whole. The O. Reg. 9/06 criteria include: design or physical value, historical or associative value and contextual value.

1. *The property has design value or physical value because it,*
 - i. *is a rare, unique, representative or early example of a style, type, expression, material or construction method,*
 - ii. *displays a high degree of craftsmanship or artistic merit, or*
 - iii. *demonstrates a high degree of technical or scientific achievement.*

2. *The property has historical value or associative value because it,*
 - i. *has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community,*
 - ii. *yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or*
 - iii. *demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.*

3. *The property has contextual value because it,*
 - i. *is important in defining, maintaining or supporting the character of an area,*
 - ii. *is physically, functionally, visually or historically linked to its surroundings, or*
 - iii. *is a landmark. O. Reg. 9/06, s. 1 (2).*

The *OHA* provides three key tools for the conservation of built heritage resources (BHRs) and cultural heritage landscapes (CHLs). It allows for protection as:

1. A single property (i.e., farmstead, park, garden, estate, cemetery), a municipality can designate BHRs and CHLs as individual properties under Part IV of the *OHA*.
2. Multiple properties or a specific grouping of properties may be considered a CHL, as such, a municipality can designate the area as a Heritage Conservation District (HCD) under Part V of the *OHA*.
3. Lastly, a municipality has the authority to add an individual or grouping of non-*OHA* designated property(ies) (often called “listed” properties) of heritage value or interest on their Municipal Heritage Register.

An *OHA* designation provides the strongest heritage protection available for conserving cultural heritage resources.

2.3 Municipal Policies

2.3.1 Official Plan of the County of Simcoe

With respect to cultural heritage, one of the goals of the *County of Simcoe Official Plan* is to “protect, conserve, and enhance the County’s natural and cultural heritage” (2016:5). Under Part 3 Growth Management Strategy, one of the strategies is “3.1.3 Protection and enhancement of the County's natural heritage system and cultural features and heritage resources”, where it states: “The rich cultural heritage of the County...is to be protected through the requirements for appropriate archaeological and cultural heritage assessments” (County of Simcoe 2016:12).

Section 4.6 entitled Cultural Heritage Conservation contains the policies that address cultural heritage resources located within the County. As stated in Policy 4.6.2:

Simcoe County indicates that it will work with municipalities within the County and will create and maintain inventory of local and significant cultural features including but not limited to:

- a) heritage resources designated under Parts IV and V of the Ontario Heritage Act;*
- b) sites or areas having historical, archaeological, cultural, scenic, or architectural merit both on land and underwater;*
- c) cemeteries; and*
- d) other cultural heritage resources of community interest and significance* (Simcoe County 2016:87).

Additional cultural heritage policies in Section 4.6 include those for the conservation of archaeological resources and those that echo the intent of the Provincial Policy Statement.

2.3.2 The Official Plan of the Town of Wasaga Beach

The Town of Wasaga Beach supports the conservation of cultural heritage resources as noted by one of the general development policies of the Town which states: “Council will encourage the maintenance and preservation of cultural heritage resources which include, but are not limited to archaeological sites, buildings and structural remains of historical and architectural value, and rural, village and urban districts or landscapes of historic and scenic interest” (Town of Wasaga Beach 2020:6).

Within the Official Plan for the Town of Wasaga Beach Section 15 provides policies on cultural heritage conservation. There are several objectives including Policy 15.1.1.1 where the Town indicates it will work to: “prevent the demolition, destruction, inappropriate alteration or use of cultural heritage resources” (Town of Wasaga Beach 2020:103).

Also, the Town acknowledges the importance of inventory or register of heritage resources in Policy 15.2.6.2 as it states that:

Council may direct and cause to be prepared and published, an inventory of identified significant resources including buildings, structures, monuments or artifacts of historical and/or prehistoric value or interest and areas of unique, rare or effective urban composition, streetscape, landscape or archaeological value or interest (Town of Wasaga Beach 2020:105).

Of relevance to this project the Official Plan contains policies that address cultural heritage resources and the *Environmental Assessment Act*, such as policy 15.2.6.9 that states:

Council may employ relevant legislation to encourage the preservation and enhancement of cultural heritage resources may include the Heritage Act, the Planning Act, as amended, the Municipal Act, as amended, the Environmental Assessment Act, as amended, and the Aggregate Resources Act, as amended” (2016:106).

The Town also intends to address potential development impacts to cultural heritage resources as stated in Policy 15.2.6.7: “When inventoried or designated built heritage properties, features and districts are affected by development proposals, Council may require a heritage impact statement”.

2.4 Policy Conclusions

Federal guidance, provincial legislation and policies of the *Official Plan of the County of Simcoe* and the *Official Plan of the Town of Wasaga Beach* call for the conservation of cultural heritage resources, the maintaining of an inventory of heritage resources and provide policies related to potential development impacts to cultural heritage resources. This cultural heritage assessment report will address these cultural heritage policies as they relate to the proposed project.

3.0 KEY CONCEPTS

The following concepts require clear definition in advance of the methodological overview and proper understanding is fundamental for any discussion pertaining to cultural heritage resources:

- **Cultural Heritage Value or Interest (CHVI)**, also referred to as Heritage Value, is identified if a property meets one of the criteria outlined in O. Reg. 9/06 namely historic or associate value, design or physical value and/or contextual value. Provincial significance is defined under *Ontario Heritage Act (OHA) O. Reg. 10/06*.
- **Built Heritage Resource (BHR)** can be defined in the *PPS* as: “a building, structure, monument, installation or any manufactured or constructed part or remnant that contributes to a property’s cultural heritage value or interest as identified by a community, including Indigenous community. Built heritage resources are located on property that has been designated under Parts IV or V of the *Ontario Heritage Act*, or that may be included on local, provincial and/or federal and/or international registers” (MMAH 2020:41).
- **Conserved** means “the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment that has been approved, accepted or adopted by the relevant planning authority and/or decision- maker. Mitigative measures and/or alternative development approaches can be included in these plans and assessments” (MMAH 2020:41-42).
- **Cultural Heritage Landscape (CHL)** is defined in the *PPS* 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. Examples may include, but are not limited to, heritage conservation districts designated under the *Ontario Heritage Act*; villages, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, trailways, viewsheds, natural areas and industrial complexes of heritage significance; and areas recognized by federal or international designation authorities (e.g., a National Historic Site or District designation, or a UNESCO World Heritage Site)” (MMAH 2020:42).
- **Heritage Attributes** are defined as: “the principal features or elements that contribute to a protected heritage property’s cultural heritage value or interest, and may include the property’s built, constructed, or manufactured elements, as well as natural landforms, vegetation, water features, and its visual setting (e.g. significant views or vistas to or from a protected heritage property).” (MMAH 2020:44-45).
- **Protected Heritage Property** is defined as ”property designated under Parts IV, V or VI of the *Ontario Heritage Act*; property subject to a heritage conservation easement under Parts II or IV of the *Ontario Heritage Act*; property identified by the Province and prescribed public bodies as provincial heritage property under the *Standards and Guidelines for Conservation of Provincial Heritage Properties*; property protected under federal legislation, and UNESCO World Heritage Sites” (MMAH 2020:49).

- **Significant** in reference to cultural heritage is defined as: “resources that have been determined to have cultural heritage value or interest. Processes and criteria for determining cultural heritage value or interest are established by the Province under the authority of the Ontario Heritage Act” (MMAH 2020:51).

Key heritage definitions from the *Official Plan of the County of Simcoe* are as follows:

- **Adjacent Lands** means “for purposes of cultural heritage and archaeology means those lands contiguous to a protected heritage property or as otherwise defined in the municipal official plan” (2016:122).
- **Cultural Features** are defined as “historical, architectural, archaeological, recreational, and aesthetic built and natural features of cultural significance including significant built heritage resources, significant cultural heritage landscapes, and archaeological resources” (2016:123).

4.0 HISTORICAL CONTEXT

Simcoe County has a long history of Indigenous land use and settlement including pre-contact and post-contact Indigenous campsites and villages due to its favourable farmland and productive lakeside lands. It should be noted that the written historical record regarding Indigenous use of the landscape in Southwestern Ontario draws on accounts by European explorers and settlers. As such, this record details only a small period of time in the overall human presence in Ontario. Oral histories and the archaeological record show that Indigenous communities were mobile across great distances, which transcend modern understandings of geographical boundaries and transportation routes.

As the potential cultural heritage resources located within the study area are tied to this history prior to the arrival of colonial settlers as well as the initial settlement and growth of Euro-Canadian communities in the Town of Wasaga Beach, this historical context section spans the Pre-Contact Indigenous occupation history through Euro-Canadian settlement history to present. The early history of the subject property can be effectively discussed in terms of major historical events.

4.1 Settlement History

4.1.1 Pre-Contact

The Pre-Contact history of the region is lengthy and rich, and a variety of Indigenous groups inhabited the landscape. Archaeologists generally divide this vibrant history into three main periods: Palaeo, Archaic and Woodland. Each of these periods comprise a range of discrete sub-periods characterized by identifiable trends in material culture and settlement patterns, which are used to interpret past lifeways. The principal characteristics of these sub-periods are summarized in Table 1.

Table 1: Pre-Contact Settlement History
 (Wright 1972; Ellis and Ferris 1990; Warrick 2000; Munson and Jamieson 2013)

Sub-Period	Timeframe	Characteristics
Early Palaeo	9000–8400 BC	Gainey, Barnes and Crowfield traditions; Small bands; Mobile hunters and gatherers; Utilization of seasonal resources and large territories; Fluted projectiles
Late Palaeo	8400–7500 BC	Holcombe, Hi-Lo and Lanceolate biface traditions; Continuing mobility; Campsite/Way-Station sites; Smaller territories are utilized; Non-fluted projectiles
Early Archaic	7500–6000 BC	Side-notched, Corner-notched (Nettling, Thebes) and Bifurcate traditions; Growing diversity of stone tool types; Heavy woodworking tools appear (e.g., ground stone axes and chisels)
Middle Archaic	6000–2500 BC	Stemmed (Kirk, Stanly/Neville), Brewerton side- and corner-notched traditions; Reliance on local resources; Populations increasing; More ritual activities; Fully ground and polished tools; Net-sinkers common; Earliest copper tools
Late Archaic	2500–900 BC	Narrow Point (Lamoka), Broad Point (Genesee) and Small Point (Crawford Knoll) traditions; Less mobility; Use of fish-weirs; True cemeteries appear; Stone pipes emerge; Long-distance trade (marine shells and galena)
Early Woodland	900–400 BC	Meadowood tradition; Crude cord-roughened ceramics emerge; Meadowood cache blades and side-notched points; Bands of up to 35 people
Middle Woodland	400 BC–AD 600	Saugeen tradition; Stamped ceramics appear; Saugeen projectile points; Cobble spall scrapers; Seasonal settlements and resource utilization; Post holes, hearths, middens, cemeteries and rectangular structures identified
Middle/Late Woodland Transition	AD 600–900	Gradual transition between Saugeen and Algonkian lifeways; Princess Point tradition emerges elsewhere (i.e., in the vicinity of the Grand and Credit Rivers)
Late Woodland	AD 900–1600	Practice of maize horticulture spread beyond the western end of Lake Ontario; Algonkian-speaking peoples lived along the Georgian Bay littoral; Known historically as the Odawa/Ottawa/Ondatauauat Nation, these people are best understood from early 17 th century explorers; Primarily mobile hunters and gatherers who lived in small population groups; Bands began to build longhouses in some areas in the early 17 th century

4.1.2 Post-Contact

The arrival of European explorers and traders at the beginning of the 17th century triggered widespread shifts in Indigenous lifeways and set the stage for the ensuing Euro-Canadian settlement process. Documentation for this period is abundant, ranging from the first sketches of Upper Canada and the written accounts of early explorers to detailed township maps and lengthy histories. The Post-Contact period can be effectively discussed in terms of major historical events, and the principal characteristics associated with these events are summarized in Table 2.

Table 2: Post-Contact Settlement History
 (Smith 1846; Coyne 1895; Hunter 1909a–b; Cumming 1970; Lajeunesse 1960; Ellis and Ferris 1990; Surtees 1994; AO 2015)

Historical Event	Timeframe	Characteristics
Early Contact	Early 17 th century	Brûlé explores southern Ontario in 1610; Champlain travels through in 1613 and 1615/1616, encountering a variety of Indigenous groups (including both Iroquoian-speakers and Algonkian-speakers); European goods begin to replace traditional tools
	Mid- to Late 17 th century	Conflicts between various First Nations during the Beaver Wars result in numerous population shifts; European explorers continue to document the area, and many Indigenous groups trade directly with the French and English; ‘The Great Peace of Montreal’ treaty established between roughly 39 different First Nations and New France in 1701
Fur Trade Development	Early and mid-18 th century	Growth and spread of the fur trade; Peace between the French and English with the Treaty of Utrecht in 1713; Ethnogenesis of the Métis; Hostilities between French and British lead to the Seven Years’ War in 1754; French surrender in 1760
British Control	Mid-18 th century	<i>Royal Proclamation</i> of 1763 recognizes the title of the First Nations to the land; Numerous treaties arranged by the Crown; First acquisition is the Seneca surrender of the west side of the Niagara River in August 1764
Loyalist Influx	Late 18 th century	United Empire Loyalist influx after the American Revolutionary War (1775–1783); British develop interior communication routes and acquire additional lands; Constitutional Act of 1791 creates Upper and Lower Canada
County Development	Late 18 th and early 19 th century	Nominally became part of Kent County in 1792 and Simcoe County in 1798; Lake Simcoe-Nottawasaga Purchase completed in the east in 1818; First surveyed townships were Alta and Zero (later Collingwood and St. Vincent); Bond Head-Saugeen Treaty completed in the west in 1836; Keppel and Sarawak initially kept as reserves, but were later surrendered; Indian Strip acquired in 1851; Grey County created after the abolition of the district system in 1849
Township Formation	Early 19 th century	Surveyed by Thomas Kelly in 1832 and Charles Rankin in 1833; First settlers arrived in 1834; Settlement initially facilitated by Crown Lands Agent H.C. Young, and four communities were founded (two Scottish, one Irish and one German); Scottish settlement at Bowmore (Duntroon) began with free grants, and 21 families settled there in 1834
Township Development	Mid-19 th and early 20 th century	Population reached 420 by 1842 (mostly Scottish); 7,628 ha had been taken up by 1846, with 623 ha under cultivation; 3 grist mills and 3 saw mills in operation at that time; Traversed by the Ontario, Simcoe & Huron Railway/the Northern Railway (1855) and a branch of the Hamilton & North Western Railway (1879); Collingwood was the principal settlement; Surrounding communities include Stayner, Nottawa, Batteaux, Duntroon, Singhampton, Glen Huron, Dunedin, Creemore and Avening

The site history of the study area was constructed using background information obtained from aerial photographs, historical maps (i.e., illustrated atlases) and published secondary sources (online and print). Given the closures due to the current pandemic, there is always the possibility that additional historical information exists but may not have been identified or accessible for review.

4.2 Town of Wasaga Beach.

The study area lies at the western extent of the Town of Wasaga Beach. Initially, the Town of Wasaga Beach was a small settlement known as Van Vlack, named after John Van Vlack, who purchased 69 acres of land near the Nottawasaga River in 1870. A sawmill was constructed by Van Vlack, and by 1896 the settlement had a population of approximately 70 people.

As the 20th century approached, the area began to be exploited for its summer resort capabilities with hotels and cottages dotting the landscape around the mouth of the Nottawasaga River. Cottage courts first appeared in the 1920s, though at this time the western extent of the settlement was modern 18th Street. Wasaga Beach became a police village in 1940, was designated as an improvement district in 1946 and became an incorporated village in 1949 (Watson 2013:12).

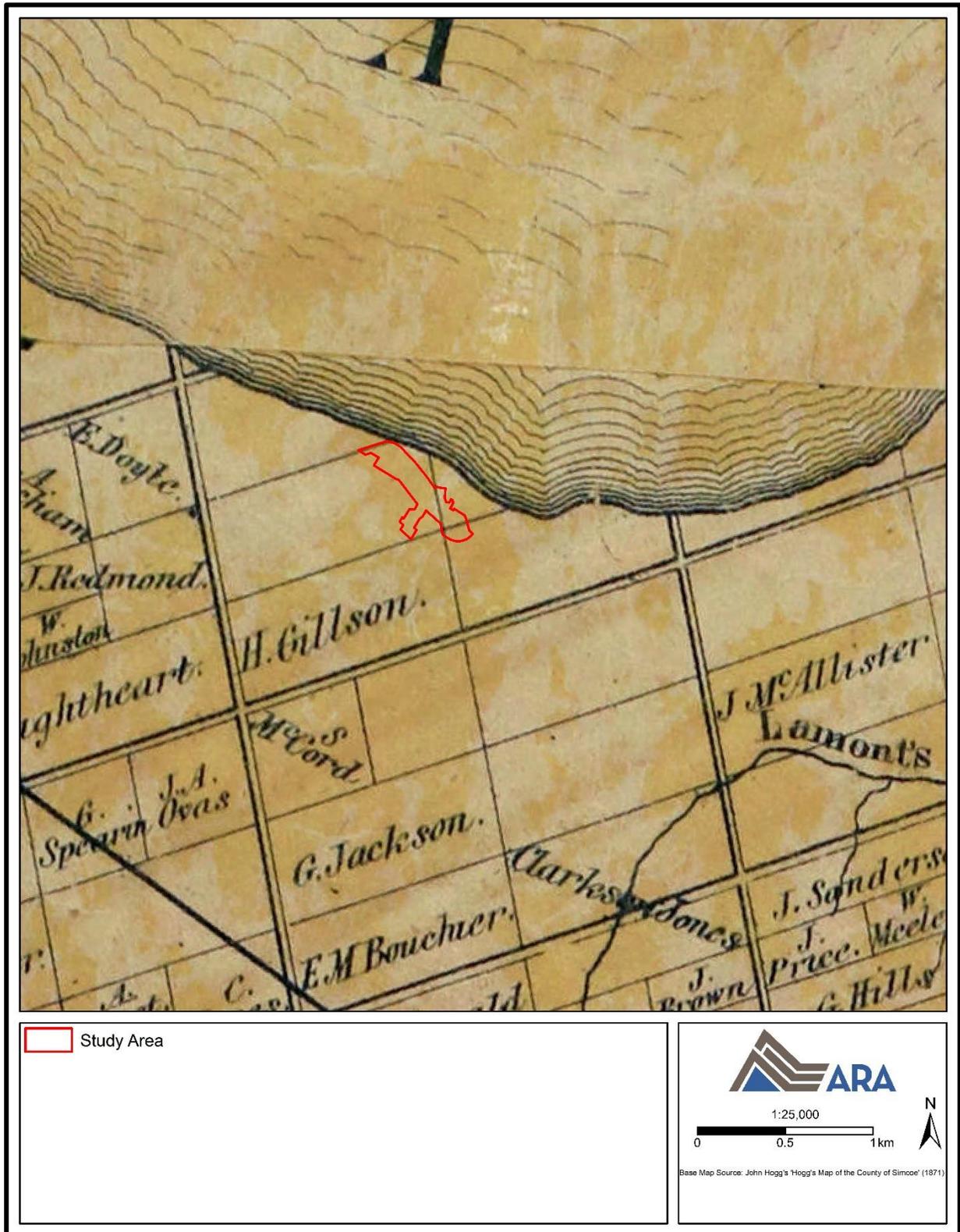
In 1974, part of the Township of Nottawasaga comprising the study area was annexed to Wasaga Beach, which had been incorporated as a town on January 1st of the same year. The influx of visitors to the area and the establishment of the Wasaga Beach Provincial Park put an end to the presence of cars driving on the beach, which was previously the main road of the area. The main (east) end of the town was closed off to all vehicular traffic and became a pedestrian mall. The Town of Wasaga Beach now stretches between the Collingwood boundary to the west and the boundary of Tiny Township to the east.

4.3 Historic Mapping Analysis

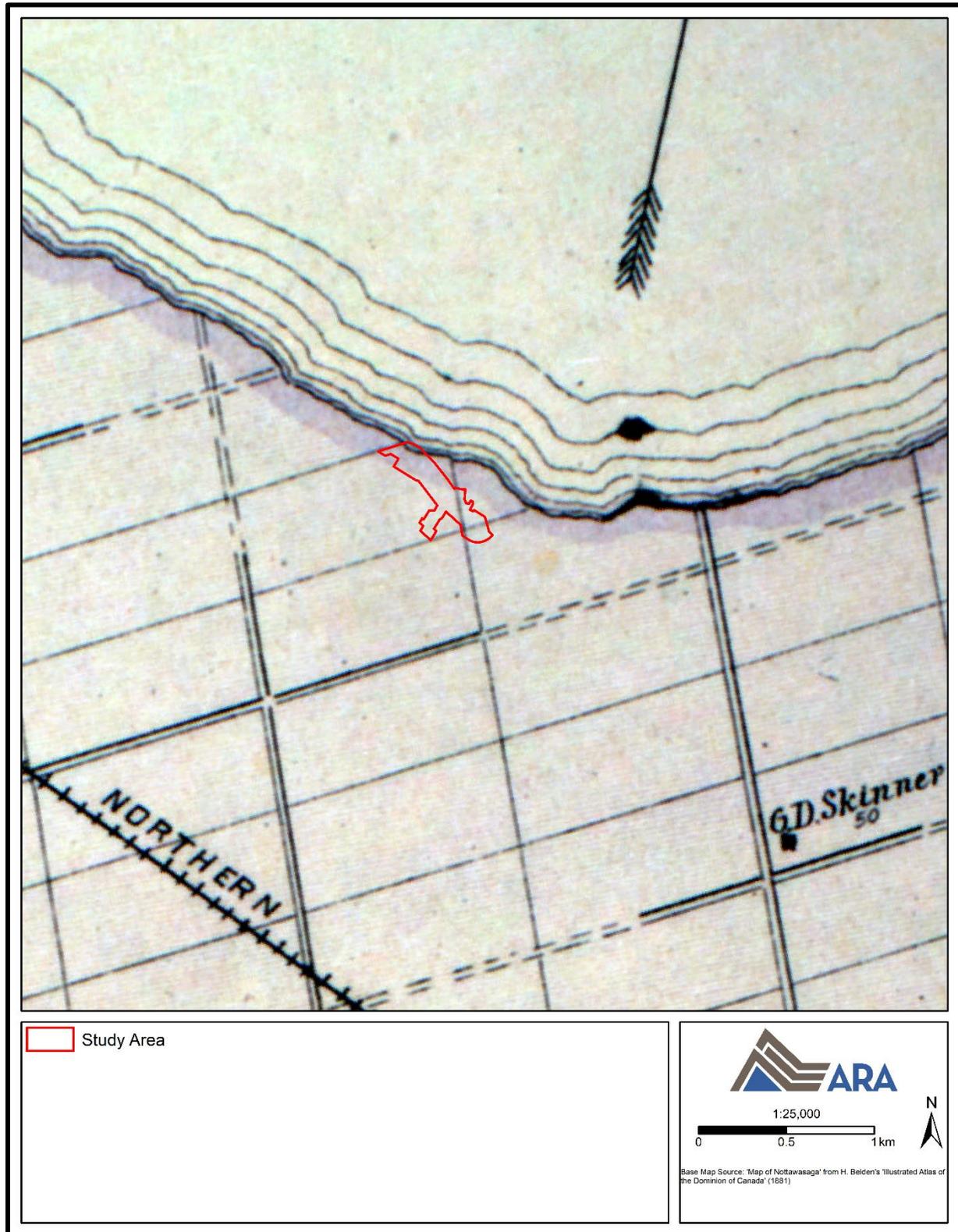
In order to gain a general understanding of the study area, two historic settlement maps and one topographic map were examined during the research component of the study. Specifically, the following resources were consulted:

- John Hogg's *Hogg's Map of the County of Simcoe* (1871) (OHCMP 2021);
- *Map of Nottawasaga* from H. Belden's *Illustrated Atlas of the Dominion of Canada* (1881) (McGill University 2001); and
- A topographic map from 1946 (OCUL 2021).
- An aerial photograph of the study area from 1954 (University of Toronto 2021)

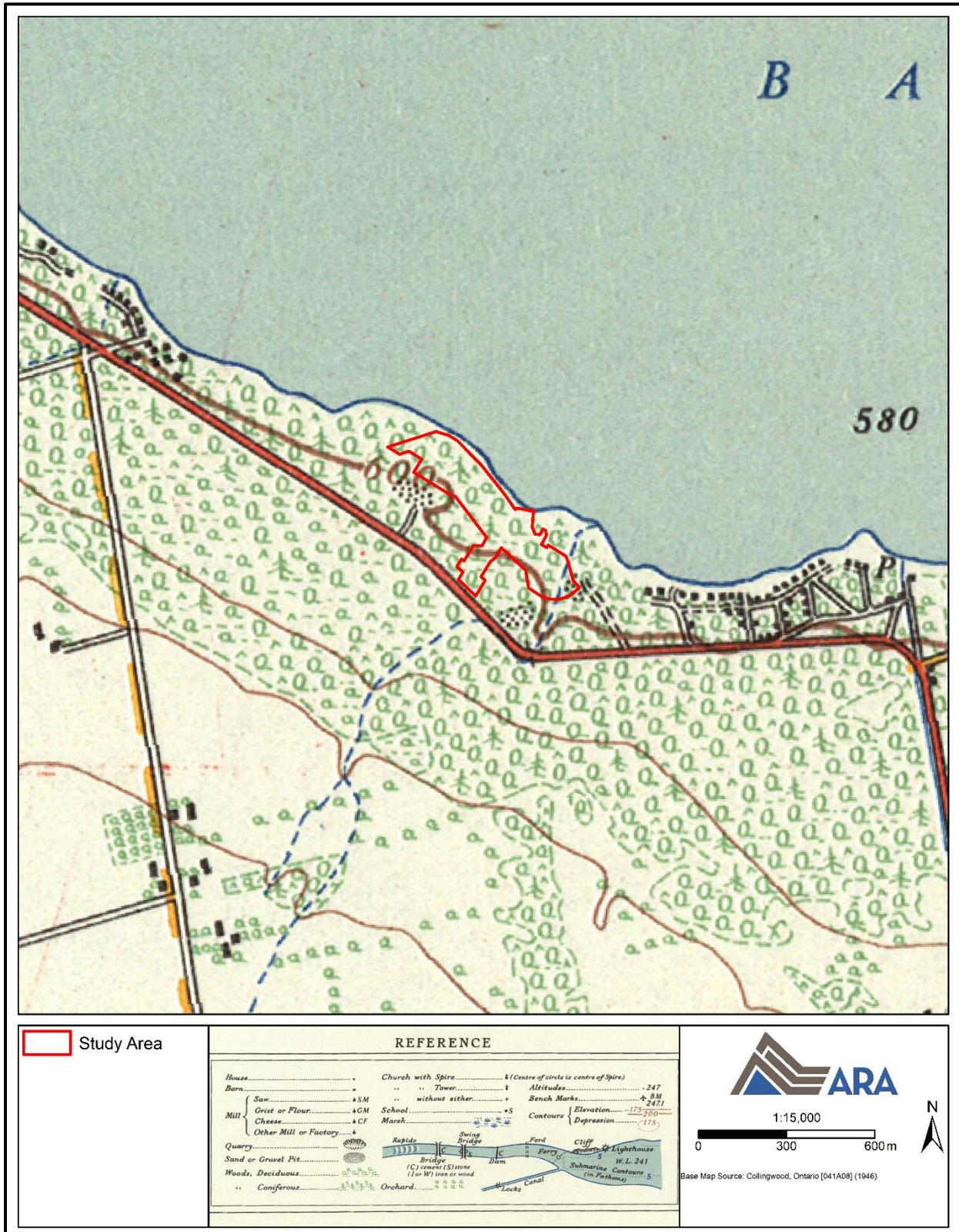
The study area is shown on georeferenced versions of the consulted historical resources in Map 3-Map 6). The historic maps from 1871 and 1881 do not depict any structures within the study area. A topographic map from 1946 indicates that Beachwood Road was well established to the south of the study area and traversed the lakeshore from Wasaga Beach to Collingwood to the west. The Town of Wasaga Beach was located to the east of the study area in 1946 and the study area remained treed. Three small gravel pits with access roads on the north side of Beachwood Road surrounded the south part of the study area in 1946 and Constance Boulevard had not yet been laid. The resolution of the 1954 aerial photo makes it difficult to interpret if any structures are present within the study area, however the roadway pattern displayed reflects the study area's existing roadways, suggesting that residential development, or the planning for residential development had begun.



Map 3: J. Hogg's "Hogg's Map of the County of Simcoe" (1871)
(Produced under licence using ArcGIS® software by Esri, © Esri; OHCMP 2018)



Map 4: Map of Nottawasaga from H. Belden's Illustrated Historical Atlas of the Counties of The Dominion of Canada (1881)
(Produced under licence using ArcGIS® software by Esri, © Esri; McGill University 2001)





Map 6: Historic Aerial Image (1954) Showing the Study Area
(Produced under licence using ArcGIS® software by Esri, © Esri; University of Toronto 2021)

5.0 CONSULTATION

Built Heritage Resources (BHRs) and Cultural Heritage Landscapes (CHLs) are broadly referred to as cultural heritage resources. A variety of types of recognition exist to commemorate and/or protect cultural heritage resources in Ontario.

The Minister of Canadian Heritage, on the advice of the Historic Sites and Monuments Board of Canada (HSMBC), makes recommendations to declare a site, event or person of national significance. The National Historic Sites program commemorates important sites that had a nationally significant effect on, or illustrates a nationally important aspect of, the history of Canada. A National Historic Event is a recognized event that evokes a moment, episode, movement or experience in the history of Canada. National Historic People are people who are recognized as those who through their words or actions, have made a unique and enduring contribution to the history of Canada. There exists Parks Canada's online *Directory of Federal Heritage Designations* which captures these national commemorations. This directory also lists Heritage Railway Stations, Federal Heritage Buildings and Heritage Lighthouses. The *Federal Canadian Heritage Database* was searched, and no plaques or properties were noted within or adjacent to the study area (Parks Canada 2022).

The Canadian Register of Historic Places, developed under the Historic Places Initiative, a federal-provincial-territorial partnership, is an online register of locally, provincially and federally recognized heritage properties from across Canada. No plaques or properties were listed within or adjacent to the study area. The Canadian Heritage River System Program recognizes and conserve 40 of Canada's rivers which have been recognized for natural, cultural and recreational heritage. There are no Canadian Rivers located within or adjacent to the study area. It is important to note that these federal commemoration programs do not offer protection from alteration or destruction.

The Ontario Heritage Trust (OHT) operates the Provincial Plaque Program that has over 1,250 provincial plaques recognizing key people, places and events that shaped the province. Additionally, properties owned by the province may be recognized as a "provincial heritage property" (MHSTCI 2010). The OHT plaque database were searched and none of the properties within or adjacent to the study area are commemorated with an OHT plaque (OHT 2022).

Many municipal heritage committees and historical societies provide plaques for local places of interest. "One role of municipal heritage groups (i.e., municipal heritage committees, historical societies) is to educate and inform the community on local heritage and several ways this could occur could include: producing descriptive guides and newsletters or by installing commemorative plaques" (MHSTCI 2007:8). No local plaques were observed during the field survey.

MHSTCI's current list of Heritage Conservation Districts was consulted. No designated districts were identified in or adjacent to the study area (MHSTCI 2019).

At project commencement, ARA contacted the Town of Wasaga Beach to inquire about: 1) protected properties within or adjacent to the study area, 2) properties with other types of recognition in or adjacent to the study area, and 3) other heritage concerns regarding the study area. The Town Engineer replied on October 15, 2021 and indicated that there are no cultural or

built heritage of interest in the study area. ARA followed up by also inquiring with the Town Planner, to which no response had yet been received at the time of drafting this report.

6.0 FIELD SURVEY

The field survey component of an assessment involves the collection of primary data through systematic photographic documentation of all potential cultural heritage resources within the study area, as identified through historical research and consultation. Generally, potential cultural heritage resources are identified by applying a 40-year rolling timeline. This timeline is considered an industry best practice (i.e., MTO 2008). A date of 40 years does not automatically attribute CHVI to a resource; rather, that it should be flagged as a potential resource and evaluated for CHVI.

Additional cultural heritage resources may also be identified during the survey itself. Photographs capturing all properties with potential BHRs and CHLs are taken, as are general views of the surrounding landscape. The field survey also assists in confirming the location of each potential cultural heritage resource and helps to determine the relationship between resources. Given that such surveys are limited to areas of public access (i.e., roadways, intersections, non-private lands, etc.), there is always the possibility that obscured cultural heritage resources may be missed or that heritage attributes may be refined upon closer inspection.

A field survey was conducted on December 15, 2021, to photograph and document the study area. The field survey enables the team to record any local features that could enhance ARA's understanding of their setting in the landscape and contribute to the cultural heritage evaluation process. The field survey was conducted from publicly accessible, non-private lands.

7.0 HERITAGE ASSESSMENT

As a result of consultation, existing recognition, research, and the field survey, only one potential CHL was examined. The CHL potential heritage status is summarized in Table 3 and Table 4. The information sheet with the evaluation can be found in Appendix A. The location of CHL 1 appears in Map 7.

Table 3: Cultural Heritage Landscape – Georgian Bay Lakeshore

Type and Number	Address/Name	Adjacent/ Participating	CHVI (Y/N)	Criteria Met
CHL-1	Georgian Bay Lakeshore	Adjacent	Yes	Historical/associative value and contextual value

Table 4: Cultural Heritage Landscape Value Statement and Heritage Attributes

Type and Number	Address/Name	Value Statement(s)	Heritage Attributes
CHL-1	Georgian Bay Lakeshore	<p>The Georgian Bay Lakeshore is the northeast arm of Lake Huron in southcentral Ontario. The east shore, a portion of which is located adjacent to the study area cuts into the Canadian Shield and is characterized by many bays, inlets, islands and sounds.</p> <p>The Lakeshore overall is characterized by different types of shorelines including bedrock shores, river mouths, sand beaches, coastal wetlands and cobble beaches.</p> <p>The portion of the Georgian Bay Lakeshore adjacent to the study area is characterized as a narrow cobble beach made of smooth rocks and pebbles resting on a finer clay, silt and sand layer.</p> <p>The Georgian Bay Lakeshore has historical/associative and contextual value as a landscape that has been the ancestral home of Indigenous peoples for 10,000 years and has influenced settlement of all of its shoreline communities.</p>	<ul style="list-style-type: none"> - Narrow, cobble beach resting on finer clay, silt and sand particles - Scrubby vegetation

Heritage attributes may include, but are not limited to, those listed in this table. The assessment determined that one CHL met, or has the potential to meet one or more, O. Reg. 9/06 criteria.



Map 7: Assessment Results Map showing CHL1
 (Produced by ARA under licence using ArcGIS® software by Esri, © Esri)

8.0 PROPOSED PROJECT

At the present time, the Town of Wasaga Beach is anticipating the re-establishment of a direct outlet to the bay just north of the intersection of Constance Boulevard and Thomas Street. Options under consideration include various improvements to redirect or control drainage as shown on Figure 1 (Ainley/County of Simcoe 2021).

There are four options being considered:

- Option 1: New Outlet to Bay
- Option 2: Constance Blvd. Ditch
- Option 3: Flow to Depot Outlet
- Option 4: Control in Storm Water Management Facility (SWMF)

The approximate location of each option is shown in Figure 1.

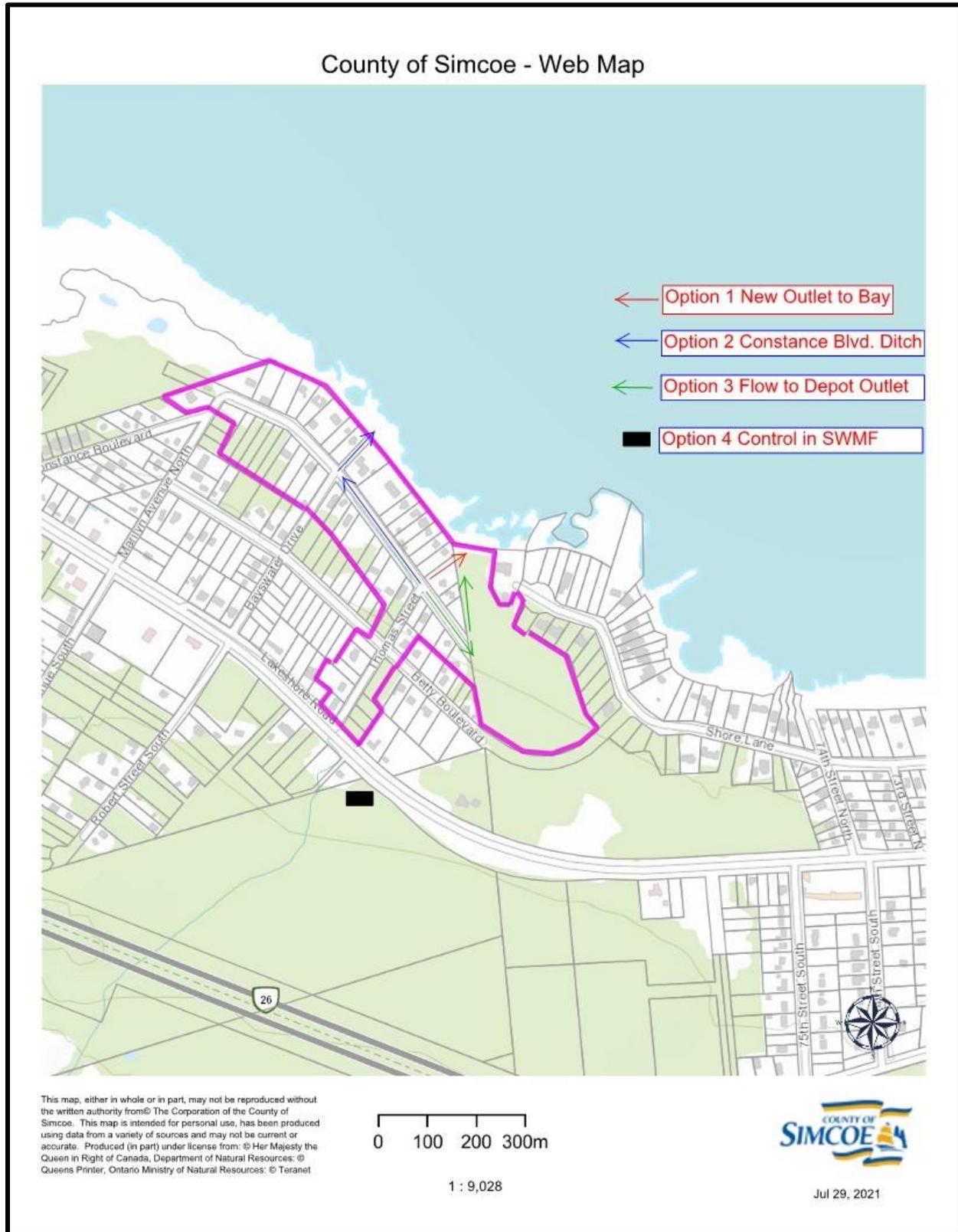


Figure 1: Proposed Options
 (Ainley/County of Simcoe 2021)

9.0 ANALYSIS OF POTENTIAL IMPACTS

The proposed project has the potential to affect cultural heritage resources. MHSTCI InfoSheet #5: *Heritage Impact Assessments and Conservation Plans* (MHSTCI 2006c:3) provides a list of potential negative impacts (for evaluating against any proposed development impacts) which can be classified as either direct or indirect.

Direct impacts (those that physically affect the heritage resources themselves) include but are not limited to: initial project staging and other project activities that are to alter or remove structures as part of the project. These direct impacts may destroy some or all significant heritage attributes or may alter soils and drainage patterns and adversely impact unknown archaeological resources.

Indirect impacts include but are not limited to: alterations that are not compatible with the historic fabric and appearance of the area, the creation of shadows that alter the appearance of an identified heritage attribute, the isolation of a heritage attribute from its surrounding environment, the obstruction of significant views and vistas, change in land use such as rezoning allowing for a reduction in open spaces and other less-tangible impacts. There may be positive environmental and cultural effects as a result of an EA undertaking. For example, more recent infrastructure may be removed to restore the original views to cultural heritage resources or streetscape improvements might be made.

The proposed project requires new drainage options for Constance Blvd.

The cultural heritage value associated with CHL-1 may be directly or indirectly impacted by proposed Options 1 and 2, specifically the vegetation, views and shoreline associated with Georgian Bay.

No shadows will be cast near any of the identified cultural heritage resources, as the proposed improvements will take place at ground level. None of the heritage attributes outlined in Appendix A appear to be isolated from their surrounding environment, context or significant relationship. Furthermore, no rezoning is anticipated. Archaeological and environmental impacts are to be addressed in separate reports.

10.0 MITIGATION MEASURES AND RECOMMENDATIONS

The study area consists of an irregularly shaped parcel of land as well. A field survey of the study area was conducted, and all potential cultural heritage resources noted were evaluated against the criteria of Ontario Regulation 9/06. In total, one Cultural Heritage Landscape adjacent to the study area was identified as having potential cultural heritage value or interest.

Detailed designs or plans for the proposed project were not available at the time that this report was written, however depending on the nature and extent of the proposed project there is potential that the identified CHL may be directly or indirectly impacted by the proposed project; specifically, Options 1 and 2.

The following mitigation strategies are recommended to address the identified potential adverse impacts:

- That during the planning and design phases, cultural heritage resources be avoided where possible and any construction staging areas be located on lands located well away from the CHL.
- That during the design phases, the removal of vegetation (a heritage attribute) along the Georgian Bay shoreline should be avoided where possible. That if removal or damage to existing vegetation along the shoreline back is unavoidable, replacement in kind should be considered during preliminary and detailed design;
- That once design work has begun (i.e., 30% design), it should be reviewed against the findings in this CHAR and an update provided in an Impact Memo. Specifically, the memo should review the identified CHL and evaluate any impact of the design (or alternative design concepts), as well as outline avoidance/mitigation measures to minimize the impact. Depending on the nature of the impact (i.e., significant modification, or alteration) the review may result in additional studies being recommended (i.e., a Cultural Heritage Evaluation Report, Heritage Impact Assessment, Conservation Plan etc.). The review should be undertaken by a qualified heritage professional.
- That public consultation may result in additional potential cultural heritage resources being identified. These potential cultural heritage resources should be reviewed by a qualified heritage consultant to: 1) determine their CHVI, 2) evaluate potential project impacts, and 3) suggest strategies for future conservation of any candidate cultural heritage resources;
- That previously unrecognized cultural heritage resources with CHVI discussed in this assessment may be worthy of inclusion on a Municipal Heritage Register;
- That this CHAR should be provided to staff/planners at the municipal and county level as needed and;
- That a Stage 1 and 2 archaeological assessment is currently being undertaken to address the identified archaeological potential associated with the study area. No soil disturbing activities should take place until all archaeological concerns are mitigated and all reports are accepted by the MHSTCI.

The EA process includes preliminary studies, an examination of alternatives and selection of a preferred alternative prior to the development of preliminary and detailed designs. Impacts to cultural heritage resources should be considered during all phases of the EA process. Further, these preliminary mitigation recommendations are subject to review and confirmation during the preliminary and detailed design phases, in consideration of the more detailed understanding of design and project constraints.

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Appendix A: Built Heritage Resources and Cultural Heritage Landscapes

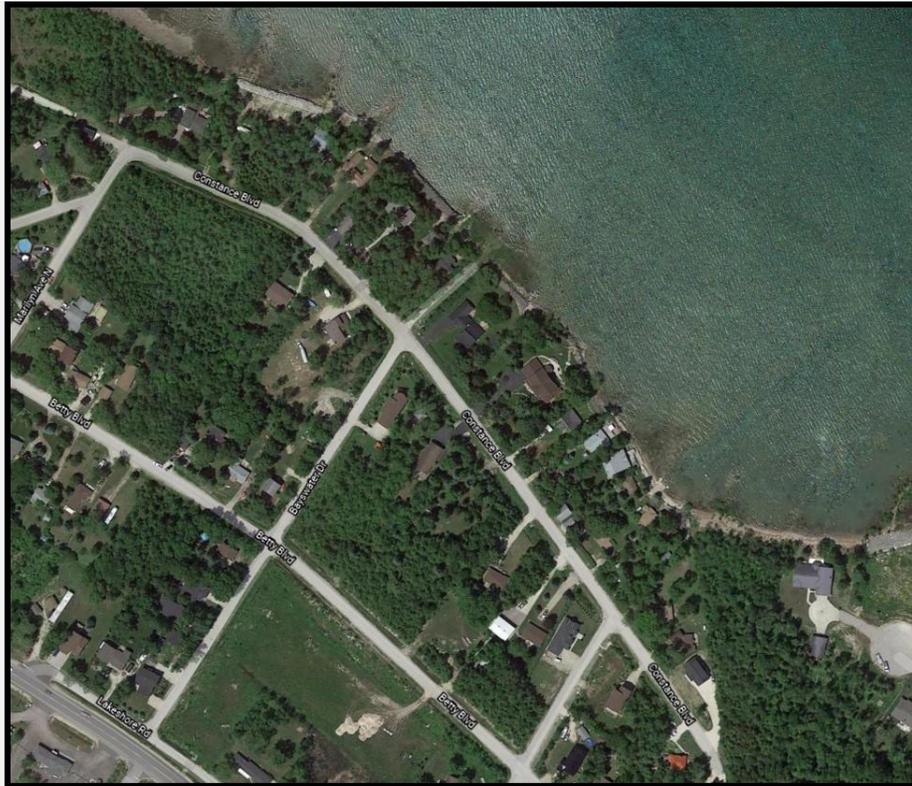
CULTURAL HERITAGE LANDSCAPE RESOURCE NO. 1

DESCRIPTION OF LANDSCAPE	
Address	N/A
Name	Georgian Bay Lakeshore
Recognition	None
Location	Town of Wasaga Beach
Relationship to Study Area	Adjacent
Type of Landscape	Lake
Description	<p>According to <i>The Canadian Encyclopedia</i>:</p> <p><i>Georgian Bay, northeast arm of Lake Huron in southcentral Ontario. It is shielded from the lake by the limestone spine of the Niagara Escarpment, which extends in a great arc northwest up the Bruce Peninsula. The bay is fed from Lake Superior via the North Channel, between Manitoulin Island and the north shore, and independently by the Mississagi, Spanish, French, Magnetawan, Muskoka, Severn and Nottawasaga rivers. The strait between the Bruce Peninsula and Manitoulin Island is called Main Channel (25 km wide).</i></p> <p><i>In contrast to the soft, white limestone cliffs of the west shore, the east shore is cut into the hard edge of the Canadian Shield, fractured into myriad bays, inlets and sounds, with thousands of islands strewn along the coasts. On the inner, southwest curve of Nottawasaga Bay are numerous sandy beaches, the longest of which is Wasaga. Located around the bay (from southwest to northeast) are Owen Sound, Collingwood, Wasaga Beach, Midland, Port McNicoll, Victoria Harbour and Parry Sound; in summer local residents are greatly outnumbered by tourists.</i></p> <p><i>Brûlé was the first European to see the bay (perhaps as early as 1610) and Champlain came via the French River (1615) to visit the Huron, who lived on a small peninsula along the southeast shore (see Huronia). Jesuit missionaries came to the area in the 1620s and Brébeuf was entrusted with founding a permanent mission in the area in 1634 (Sainte-Marie Among the Hurons).</i></p> <p><i>The bay also has a natural water connection, sometimes called the Toronto Passage, to Lake Ontario via Lake Simcoe and the Nottawasaga River. It was used by the Indians and later during the War of 1812, when a military base was opened at Penetanguishene. Settlement followed the building of a railway from Barrie to Collingwood in 1855. Free land grants opened the area in 1868, but the soil is generally unfavourable to farming. The key industry of the late 19th century was logging; in 1890 Midland was second in production only to Ottawa. By 1900 most of the original forests had disappeared; the lumber industry died, leaving behind slashed-over terrain and a few local mills. The fishing industry lasted longer. Immense quantities of whitefish, trout and pickerel were shipped out by rail until the 1950s. By 1960 the industry was virtually ruined by the Lamprey.</i></p>

DESCRIPTION OF LANDSCAPE	
	<p><i>Today there is a variety of secondary industry around the bay - textiles, cameras, shipbuilding. But the once-profitable grain-handling business diminished rapidly after the St. Lawrence Seaway opened. Tourism, based on the natural splendour of the Georgian Bay area, began in the 1850s with the arrival of the railway and is now the main industry. Summer homes were built along the N shore in the 1880s, and thousands came after 1900 by train to Parry Sound and Midland, thence by boat to the islands to fish, sail and pitch tents - a pattern of vacationing repeated every year. The best-known areas are the North shore islands, the "Thirty Thousand Islands" on the east shore, Manitoulin Island, the amusement-park atmosphere of Wasaga Beach, the yacht harbour at Tobermory and the Martyrs' Shrine and reconstructions of Sainte-Marie and a Huron village near Midland.</i></p> <p><i>Called Lake Manitoulin by Captain William Fitzwilliam Owen, who charted the area 1815, the bay was later decreed part of Lake Huron and named for King George IV by Captain H.W. Bayfield's Admiralty Survey 1819-22. Nearly as large as Lake Ontario, it is one of the world's great bodies of fresh water. (Marsh 2015).</i></p> <p>The Georgian Bay Lakeshore is located adjacent to the study area. The character of the landscape includes a narrow cobble beach that is composed of smooth rocks and pebbles resting on a finer clay, silt and sand layer. This portion of the lakeshore is lined by private properties. Numerous rock retaining walls or groyne-like structures have been constructed along the lake edge in attempts to mitigate shoreline erosion and have altered the natural curvature of the shoreline.</p> <p>Public access to the Lakeshore within the study area is provided at the northern terminus of Bayswater Drive. A small watercourse is located on the east side of Bayswater and drains into the lake.</p>

DESCRIPTION OF LANDSCAPE

Photographs



View of Georgian Bay Lakeshore adjacent to Study Area (Google Earth, 2022)

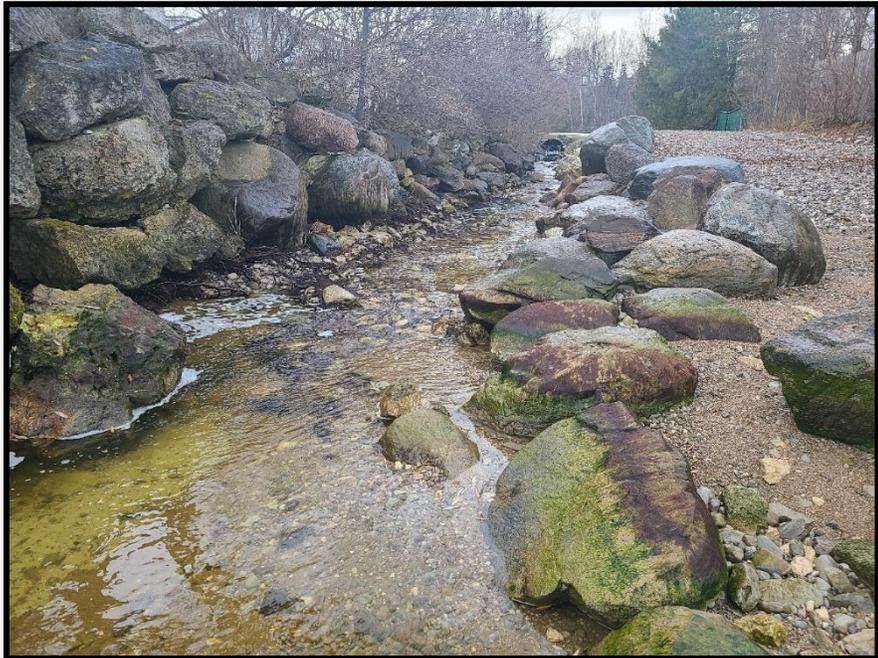


View of access road across from Bayswater Drive, off of Constance Boulevard leading to Georgian Bay Lakeshore (Google Streetview, June 2015)

DESCRIPTION OF LANDSCAPE



View of access road from Georgian Bay Lakeshore leading to Constance Boulevard
(ARA, December 15, 2021)



View of watercourse along access road draining to Georgian Bay Lakeshore
(ARA December 15, 2021)

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		It is not a rare, unique, representative or early example of a style, type, expression, material or construction method
	Displays a high degree of craftsmanship or artistic value		The CHL does not display a high degree of craftsmanship or artistic value.
	Displays a high degree of technical or scientific achievement		The CHL does not display a high degree of technical or scientific achievement.
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community	✓	Georgian Bay has been the ancestral home of Indigenous peoples for 10,000 years and the lake has influenced the settlement of the shoreline communities.
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		The landscape does not yield or have the potential to yield information that contributes to the understanding of a community or culture.
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		The landscape does not demonstrate or reflect the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	The Georgian Bay CHL is important in defining, maintaining and supporting the character of the Town of Wasaga Beach as it dominates the landscape and has influenced the area's development.
	Is physically, functionally, visually or historically linked to its surroundings	✓	The CHL is physically, functionally, visually and historically linked to its surroundings as it was a principal factor that has influenced Pre-Contact lifeways and historic settlement patterns.
	Is a landmark	✓	The CHL is a landmark in the community. The views to and from the Lake represent important scenic landscapes.
RESULTS OF HERITAGE ASSESSMENT OF CHL-1, GEORGIAN BAY LAKESHORE			
CHVI Evaluation	Has CHVI		
Heritage Attributes	Well-defined shoreline; and significant views to, from the lake. Cobble beach that is composed of smooth rocks and pebbles resting on a finer clay, silt and sand layer. Scrubby vegetation on adjacent private properties		

Appendix B: Team Member Curriculum Vitae

Kayla Jonas Galvin, MA, RPP, MCIP, CAHP
Heritage Operations Manager

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Biography

Kayla Jonas Galvin, Archaeological Research Associates Ltd.'s Heritage Operations Manager, has extensive experience evaluating cultural heritage resources and landscapes for private and public-sector clients to fulfil the requirements of provincial and municipal legislation such as the *Environmental Assessment Act*, the *Standards & Guidelines for the Conservation of Provincial Heritage Properties* and municipal Official Plans. She served as Team Lead on the Ministry of Tourism, Culture and Sport Historic Places Initiative, which drafted over 850 Statements of Significance and for *Heritage Districts Work!*, a study of 64 heritage conservation districts in Ontario. Kayla was an editor of *Arch, Truss and Beam: The Grand River Watershed Heritage Bridge Inventory* and has worked on Municipal Heritage Registers in several municipalities. Kayla has drafted over 150 designation reports and by-laws for the City of Kingston, the City of Burlington, the Town of Newmarket, Municipality of Chatham-Kent, City of Brampton and the Township of Whitchurch-Stouffville. Kayla is the Heritage Team Lead for ARA's roster assignments for Infrastructure Ontario and oversees evaluation of properties according to *Standards & Guidelines for the Conservation of Provincial Heritage Properties*. Kayla is a Registered Professional Planner (RPP), Member of the Canadian Institute of Planners (MCIP), a professional member of the Canadian Association of Heritage Professionals (CAHP) and is the President of the Ontario Association of Heritage Professionals.

Education

2016 MA in Planning, University of Waterloo. Thesis Topic: *Goderich – A Case Study of Conserving Cultural Heritage Resources in a Disaster*
2003-2008 Honours BES University of Waterloo, Waterloo, Ontario
Joint Major: Environment and Resource Studies and Anthropology

Professional Memberships and Accreditations

Current Professional Member, Canadian Association of Heritage Professionals (CAHP)
Member of the Canadian Institute of Planners (MCIP)
Registered Professional Planner (RPP)
President, Ontario Association of Heritage Professionals.

Work Experience

Current **Heritage Operations Manager, Archaeological Research Associates Ltd.**
Oversees business development for the Heritage Department, coordinates completion of designation by-laws, Heritage Impact Assessments, Built Heritage and Cultural Heritage Landscape Assessments, and Cultural Heritage Resource Evaluations.

- 2009-2013 **Heritage Planner, Heritage Resources Centre, University of Waterloo**
Coordinated the completion of various contracts associated with built heritage including responding to grants, RFPs and initiating service proposals.
- 2008-2009, 2012 **Project Coordinator–Heritage Conservation District Study, ACO**
Coordinated the field research and authored reports for the study of 32 Heritage Conservation Districts in Ontario. Managed the efforts of over 84 volunteers, four staff and municipal planners from 23 communities.
- 2007-2008 **Team Lead, Historic Place Initiative, Ministry of Culture**
Liaised with Ministry of Culture Staff, Centre’s Director and municipal heritage staff to draft over 850 Statements of Significance for properties to be nominated to the Canadian Register of Historic Places. Managed a team of four people.

Selected Professional Development

- 2019 OPPI and WeirFoulds Client Seminar: Bill 108 – More Homes, More Choice, 2019
- 2019 Annual attendance at Ontario Heritage Conference, Goderich, ON (Two-days)
- 2019 Information Session: Proposed Amendments to the OHA, by MHSTCI
- 2018 Indigenous Canada Course, University of Alberta
- 2018 Volunteer Dig, Mohawk Institute
- 2018 Indigenizing Planning, three webinar series, Canadian Institute of Planners
- 2018 Cultural Heritage, Archaeology and Planning Symposium
- 2018 Transforming Public Apathy to Revitalize Engagement, Webinar, MeteorQuest
- 2018 How to Plan for Communities: Listen to the Them, Webinar, CIP
- 2017 Empowering Indigenous Voices in Impact Assessments, Webinar, International Association for Impact Assessments
- 2017 Cultural Heritage, Archaeology and Planning Symposium
- 2017 Capitalizing on Heritage, National Trust Conference, Ottawa, ON.
- 2016 Cultural Heritage, Archaeology and Planning Symposium
- 2016 Heritage Rising, National Trust Conference, Hamilton
- 2016 Ontario Heritage Conference St. Marys and Stratford, ON.
- 2016 Heritage Inventories Workshop, City of Hamilton & ERA Architects
- 2015 Cultural Heritage, Archaeology and Planning Symposium
- 2015 City of Hamilton: Review of Existing Heritage Permit & Heritage Designation Process.
- 2015 Ontario Heritage Conference, Niagara on the Lake, ON.
- 2015 Leadership Training for Managers Course, Dale Carnegie Training

Selected Publications

- 2018 “Conserving Cultural Heritage Landscapes in Waterloo: An Innovative Approach.” *Ontario Association of Heritage Professionals Newsletter*, Winter 2018.
- 2018 “Restoring Pioneer Cemeteries” *Ontario Association of Heritage Professionals Newsletter*. Spring 2018. *In print*.
- 2015 “Written in Stone: Cemeteries as Heritage Resources.” *Municipal World*, Sept. 2015.
- 2015 “Bringing History to Life.” *Municipal World*, February 2015, pages 11-12.
- 2014 “Inventorying our History.” *Ontario Planning Journal*, January/February 2015.
- 2014 “Mad about Modernism.” *Municipal World*, September 2014.
- 2014 “Assessing the success of Heritage Conservation Districts: Insights from Ontario Canada.” with R. Shipley and J. Kovacs. *Cities*.

Jacqueline McDermid, BA, CAHP
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Biography

Jacqueline McDermid has ten years of technical writing and management experience; Seven years direct heritage experience. She has gained seven years of experience conducting primary and secondary research for archaeological and heritage assessments and drafting reports and evaluating property according to Ontario Regulation 9/06 and 10/06 as part of Municipal Heritage Registers. Jacqueline is expert at copy editing heritage reports including checking grammar, consistency and fact checking, to ensure a high-quality product is delivered to clients. She has experience assisting with the drafting of Heritage Conservation District Studies through the drafting of reports for potential Heritage Conservation Districts in the City of Toronto (Weston HCD) and Township of Bradford West Gwillimbury (Bond Head HCD). Jacqueline has proven project management experience gained by completing projects on time and on budget as well as formal Project Management training. In 2018, under a six-month contract as the Heritage Planner at the Ministry of Transportation, acquired considerable experience conducting technical reviews of consultant heritage reports for Ministry compliance including Cultural Heritage Evaluation Reports, Heritage Impact Assessment, Strategic Conservation Plans, and Cultural Heritage Resource Assessments as well as gained valuable insight on provincial heritage legislation (*Ontario Heritage Bridge Guidelines*, *Ontario MTO Environmental Standards and Practices for Cultural Heritage*, *MTO Environmental Reference for Highway Design – Heritage*, *MTCS' Heritage Identification & Evaluation Process* as well as the new *MHTCI Information Bulletins on Heritage Impact Assessments and Strategic Conservation Plans*, and inter-governmental processes. She has extensive Knowledge of heritage and environmental policies including the *Planning Act*, *Provincial Policy Statement*, the *Ontario Heritage Act*, *Official Plans*, *Environmental Assessment Act* and *Green Energy Act*. Working knowledge of the *Standards and Guidelines for Consultant Archaeologists* (2011), Ministry of Tourism, Culture and Sport.

Education

2000-2007 Honours B.A., Wilfrid Laurier University, Waterloo, Ontario
Major: Near Eastern Archaeology

Work Experience

2020-present **Heritage Project Manager**

2015-2020 **Technical Writer and Researcher – Heritage, Archaeological Research Associates Ltd., Kitchener, ON**

Research and draft designation by-laws, heritage inventories, Heritage Impact Assessments, Built Heritage and Cultural Heritage Landscape Assessments, and Cultural Heritage Resource Evaluations using Ontario Regulation 9/06, 10/06 and the Ontario Heritage Bridge Guidelines.

- 2018 **Environmental Planner – Heritage Ministry of Transportation, Central Region – Six-month contract.**
Responsibilities included: project management and coordination of MTO heritage program, managed multiple consultants, conducted and coordinated field assessments and surveys, estimated budgets including \$750,000 retainer contracts. Provided advice on heritage-related MTO policy to Environmental Policy Office (EPO) and the bridge office.
- 2017-2018 **Acting Heritage Team Lead – Heritage Archaeological Research Associates Ltd., Kitchener, ON**
Managed a team of Heritage Specialists, oversaw the procurement of projects, retainers; managed all Heritage projects, ensured quality of all outgoing products.
- 2014-2015 **Technical Writer – Archaeology, Archaeological Research Associates Ltd., Kitchener, ON**
Report preparation; correspondence with the Ministry of Tourism, Culture, and Sport; report submission to the Ministry and clients; and administrative duties (PIF and Borden form completion).
- 2012-2013 **Lab Assistant, Archaeological Research Associates Ltd., Kitchener, ON**
Receive, process and register artifacts.
- 2011-2012 **Field Technician, Archaeological Research Associates Ltd., Kitchener, ON**
Participated in field excavation and artifact processing.
- 2005-2009 **Teaching Assistant, Wilfrid Laurier University, Waterloo, ON**
Responsible for teaching and evaluating first, second, third- and fourth-year student lab work, papers and exams.
- 2005-2007 **Lab Assistant, Wilfrid Laurier University – Near Eastern Lab, Waterloo, ON**
Clean, Process, Draw and Research artifacts from various sites in Jordan.

Selected Professional Development

- 2019 OPPI and WeirFoulds Client Seminar: Bill 108 – More Homes, More Choice
- 2019 Annual attendance at Ontario Heritage Conference, Goderich, ON (Two-days)
- 2019 Information Session: Proposed Amendments to the OHA, MTCS
- 2018 Indigenizing Planning, three webinar series, Canadian Institute of Planners
- 2018 Cultural Heritage, Archaeology and Planning Symposium
- 2018 Transforming Public Apathy to Revitalize Engagement, Webinar, MetorQuest
- 2018 How to Plan for Communities: Listen to the Them, Webinar, CIP
- 2017 Empowering Indigenous Voices in Impact Assessments, Webinar, International Association for Impact Assessments
- 2015 Introduction to Blacksmithing (One day)
- 2015 Leadership Training for Managers Course, Dale Carnegie Training

Penny M. Young, MA, CAHP (#P092)
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Biography

Penny Young has 27 years of cultural heritage management experience, 21 years working in government, as a Heritage Planner, Heritage Coordinator, Regional Archaeologist and Archaeological Database Coordinator where she managed and coordinated the impacts to cultural heritage resources including built heritage, archaeological sites and cultural heritage landscapes for compliance with municipal, provincial and federal legislation and policy. She has conducted results-driven and collaborative management of complex cultural heritage resource projects within the public sector involving developing project terms of reference, defining scope of work, preparation of budgets and conducting sites visits to monitor and provide heritage/archaeological and environmental advice and direction. At the Ministry of Transportation Penny revised, updated and developed policy, as part of a team, for the *Ontario Heritage Bridge Guidelines for Provincially Owned Bridge Guidelines for Provincially Owned Bridges*. She received the MTO Central Region Employee Recognition Award in 2001 and 2002. While at MTO she provided technical advice and input into the development of the *MTO Environmental Reference for Highway Design - Section 3.7 Built Heritage and Cultural Heritage Landscapes* and the *MTO Environmental Guide for Built Heritage and Cultural Heritage Landscapes*. She is a professional member of the Canadian Association of Heritage Planners (CAHP) and holds Professional License #P092 from MTCS. She also holds memberships in the Ontario Professional Planners Institute (OPPI) and the Ontario Archaeological Society (OAS).

Education

1990-1993 Master of Arts, Department of Anthropology McMaster University, Hamilton Ontario. Specializing in Mesoamerican and Ontario archaeology.
1983-1987 Honours Bachelor of Arts (English and Anthropology), McMaster University, Hamilton, Ontario.

Professional Memberships and Accreditations

Current Professional Member, Canadian Association of Heritage Professionals (CAHP)
Member of Ontario Archaeological Society
Pre-Candidate Member, Ontario Professional Planners Institute (OPPI)
Ministry of Tourism Culture & Sport Professional Licence (#P092)

Work Experience

Current **Project Manager - Heritage, Archaeological Research Associates Ltd.**
Coordinates ARA project teams and conducts heritage assessment projects including Heritage Impact Assessments, Built Heritage and Cultural Heritage Landscape Assessments, and Cultural Heritage Resource Evaluations. Additional responsibilities include the completion of designation by-laws and heritage

- inventories. Liaises with municipal staff, provincial ministries and Indigenous communities to solicit relevant project information and to build relationships.
- 2008-2016 **Heritage Planner, Culture Services Unit, Ministry of Tourism, Culture & Sport (MTCS)**
Responsible for advising and providing technical review for management of cultural heritage resources in environmental assessment undertakings and planning projects affecting provincial ministries, municipalities, private sector proponents and Indigenous communities. Advised on municipalities' Official Plan (OP) policies cultural heritage conservation policies. Provided guidance on compliance with the Public Work Class EA, other Class EA legislation and 2010 *Standards and Guidelines for Provincial Heritage Properties*.
- 2014 **Senior Heritage Planner, Planning and Building Department, City of Burlington** (temporary assignment)
Project manager of the study for a potential Heritage Conservation District. Provided guidance to a multiple company consultant team and reported to municipal staff and the public. Liaised with Municipal Heritage Committee and municipal heritage property owners approved heritage permits and provided direction on Indigenous engagement, archaeological site assessments and proposed development projects.
- 2011 **Heritage Coordinator, Building, Planning and Design Department, City of Brampton** (temporary assignment)
Project lead for new Heritage Conservation District Study. The assignment included directing consultants, managing budgets, organizing a Public Information Session, and reporting to Senior Management and Council. Reviewed development/planning documents for impacts to heritage including OP policies, OP Amendments, Plans of subdivision and Committee of Adjustment applications and Municipal Class EA undertakings.
- 2010-2011 **Senior Heritage Coordinator, Culture Division, City of Mississauga** (temporary assignment)
Provided advice to Senior Management and Municipal Council on heritage conservation of built heritage, archaeological sites and cultural heritage landscapes. Liaised with multiple municipal staff including the Clerks' office, Parks and development planners and the public. Supervised and directed project work for junior heritage planner.
- 1999-2008 **Regional Archaeologist, Planning and Environmental Section, Ministry of Transportation (MTO)**
Responsibilities included: project management and coordination of MTO archaeology and heritage program, managed multiple consultants, conducted and coordinated field assessments, surveys and excavations, liaised with First Nations' communities and Band Councils, estimated budgets including \$200,000 retainer contracts.

Sarah Clarke, BA, CAHP
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Biography

Sarah Clarke is Archaeological Research Associates Ltd.'s Heritage Research Manager. Sarah has over 12 years of experience in Ontario archaeology and 10 years of experience with background research. Her experience includes conducting archival research (both local and remote), artifact cataloguing and processing, and fieldwork at various stages in both the consulting and research-based realms. As the Heritage Research Manager, Sarah is responsible for conducting archival research in advance of ARA's archaeological and heritage assessments. In this capacity, she performs Stage 1 archaeological assessment site visits, conducts preliminary built heritage and cultural heritage landscape investigations and liaises with heritage resource offices and local community resources in order to obtain and process data. Sarah has in-depth experience in conducting historic research following the *Ontario Heritage Toolkit* series, and the *Standards and Guidelines for Provincial Heritage Properties*. Sarah holds an Honours B.A. in North American Archaeology, with a Historical/Industrial Option from Wilfrid Laurier University and is currently enrolled in Western University's Intensive Applied Archaeology MA program. She is a member of the Ontario Archaeological Society (OAS), the Society for Industrial Archaeology, the Ontario Genealogical Society (OGS), the Canadian Archaeological Association, and is a Council-appointed citizen volunteer on the Brantford Municipal Heritage Committee. Sarah holds an R-level archaeological license with the MHSTCI (#R446) and is a Professional member of the Canadian Association of Heritage Professionals.

Education

Current	MA Intensive Applied Archaeology, Western University, London, ON. Proposed thesis topic: Archaeological Management at the Mohawk Village.
1999–2010	Honours BA, Wilfrid Laurier University, Waterloo, Ontario Major: North American Archaeology, Historical/Industrial Option

Professional Memberships and Accreditations

Current	Professional Member, Canadian Association of Heritage Professionals (CAHP)
Current	Member of the Ontario Archaeological Society
Current	Member of the Society for Industrial Archaeology
Current	Member of the Brant Historical Society
Current	Member of the Ontario Genealogical Society
Current	Member of the Canadian Archaeological Association
Current	Member of the Archives Association of Ontario

Work Experience

Current	Heritage Research Manager, Archaeological Research Associates Ltd. Manage and plan the research needs for archaeological and heritage projects. Research at offsite locations including land registry offices, local libraries and local
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- and provincial archives. Historic analysis for archaeological and heritage projects. Field Director conducting Stage 1 assessments.
- 2013-2015 **Heritage Research Manager; Archaeological Monitoring Coordinator, Archaeological Research Associates Ltd.**
Stage 1 archaeological field assessments, research at local and distant archives at both the municipal and provincial levels, coordination of construction monitors for archaeological project locations.
- 2010-2013 **Historic Researcher, Timmins Martelle Heritage Consultants Inc.**
Report preparation, local and offsite research (libraries, archives); correspondence with the Ministry of Tourism, Culture, and Sport; report submission to the MTCS and clients; and administrative duties (PIF and Borden form completion and submission, data requests).
- 2008-2009 **Field Technician, Archaeological Assessments Ltd.**
Participated in field excavation and artifact processing.
- 2008-2009 **Teaching Assistant, Wilfrid Laurier University.**
Responsible for teaching and evaluating first year student lab work.
- 2007-2008 **Field and Lab Technician, Historic Horizons.**
Participated in excavations at Dundurn Castle and Auchmar in Hamilton, Ontario. Catalogued artifacts from excavations at Auchmar.
- 2006-2010 **Archaeological Field Technician/Supervisor, Wilfrid Laurier University.**
Field school student in 2006, returned as a field school teaching assistant in 2008 and 2010.

Professional Development

- 2019 Annual attendance at Ontario Heritage Conference, Goderich, ON
- 2018 Cultural Heritage, Archaeology and Planning Symposium
- 2018 Grand River Watershed 21st Annual Heritage Day Workshop & Celebration
- 2018 Mississaugas of the New Credit First Nation Historical Gathering and Conference
- 2017 Ontario Genealogical Society Conference
- 2016 Ontario Archaeological Society Symposium
- 2015 Introduction to Blacksmithing Workshop, Milton Historical Society
- 2015 Applied Research License Workshop, MTCS
- 2014 Applied Research License Workshop, MTCS
- 2014 Heritage Preservation and Structural Recording in Historical and Industrial Archaeology. Four-month course taken at Wilfrid Laurier University, Waterloo, ON. Professor: Meagan Brooks.

Presentations

- 2018 *The Early Black History of Brantford.* Brant Historical Society, City of Brantford.
- 2017 *Mush Hole Archaeology.* Ontario Archaeological Society Symposium, Brantford.
- 2017 *Urban Historical Archaeology: Exploring the Black Community in St. Catharines, Ontario.* Canadian Archaeological Association Conference, Gatineau, QC.

Victoria Cafik, Hons. B.A. (#R437), CAHP
Indigenous Engagement and Accommodation Manager/Heritage Technician
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Victoria Cafik has fifteen years of experience in cultural resource management in Ontario. Victoria has filled a number of professional roles since she first joined ARA in 2007. Beginning in 2015, Victoria assumed the role of Indigenous Engagement Manager and is now responsible for providing proponents direction and support through the engagement process, coordinating fieldwork efforts with local First Nations Groups as directed by the proponent. Victoria has recently brought her writing and coordination skills to the heritage team as a technical writer. In this role she prepares proposals for heritage work, conducts field surveys, and undertakes technical writing for heritage assessments. Victoria holds an Honours B.A. in Near Eastern Archaeology from Wilfrid Laurier University, has completed the Indigenous Canada certificate course offered through the University of Alberta, has supervised square excavations at Khirbat al-Mudayna ath-Thamad in the Hashemite Kingdom of Jordan, is a long-standing member of the OAS, a Professional member of the Canadian Association of Heritage Professionals and holds an R-level archaeological licence (#R437) with the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI).

Education

2007–2012 Honours B.A., Wilfrid Laurier University, Waterloo, Ontario
Major: Near Eastern Archaeology

Professional Memberships and Accreditations

Current Applied Research, MHSTCI (R437)
Member of the Ontario Archaeology Society (OAS)
Professional Member, Canadian Association of Heritage Professionals (CAHP)

Professional Development

- 2022 The Power of Education in Advancing Reconciliation” (Webinar) by Empire Club
- 2021 Workshop on Recent Changes in the Ontario Planning Legislation: What all Heritage Advocates Need to Know
- 2019 Indigenous Canada Certificate, University of Alberta (12 weeks).
- 2018 CHAP: All 94: Truth, Reconciliation and Heritage Policy. Symposium (One day).
- 2017 Nations United: What do Indigenous Communities Want? Panel discussion with 10 First Nations Communities represented at the OAS Symposium (One Day)
Indigenous Consultation and Engagement Workshop presented by Indigenous Corporate Training Inc. (One day)
Creating an Indigenous Engagement Plan presented by Indigenous Corporate Training Inc. (One Day).
- 2016 Municipal Class EA Workshop presented by the Municipal Class Engineers Association (Two days).
- 2015 Archaeology and Heritage Planning: Where Are We Now? Symposium (One day).

Work Experience

Current **Indigenous Engagement Manager, Archaeological Research Associates Ltd., Kitchener, ON.**

Responsible for identifying interested communities and advising proponents about engagement protocols. Develop engagement work plans based on archaeological policies, and best practices. Liaise with Indigenous community representatives. Draft and circulate project notifications, follow ups, and incorporate community input into projects. Coordinate archaeological monitors for fieldwork and track all points of contact.

2016 **Interim Operations Manager (Archaeology), Indigenous Engagement Manager, Archaeological Research Associates Ltd., Kitchener, ON**

While maintaining the role of Indigenous Engagement and Accommodation Manager, for the duration of a Maternity leave, was also responsible for preparation of proposals, scope of work, preliminary archaeological fieldwork strategies, maintaining quality in all field operations with an eye to ensuring compliance with MHSTCI *Standards and Guidelines for Consultant Archaeologists*.

2015 **Indigenous Engagement and Accommodation Manager/Assistant Project Manager, Archaeological Research Associates Ltd., Kitchener, ON**

While maintaining the responsibilities of Assistant Project Manager, began a newly created role, Indigenous Engagement and Accommodation Manager.

2012 **Assistant Project Manager, Archaeological Research Associates Ltd., Kitchener, ON**

Responsible for conducting historical background research for reporting purposes, preparing archaeological assessment reports for Stages 1–4 to be submitted to the Proponent and the MHSTCI.

2012 **Assistant Field Director, Archaeological Research Associates Ltd., Kitchener, Ontario.**

Assisted Field Director with all aspects of crew and site management. Responsible for photographing the process of excavation and field work for Ministry reporting, identifying, recovering and recording archaeological artifacts, identifying, mapping and recording archaeological features and operating the total station to shoot in site grid.

2007, **Field Technician, Archaeological Research Associates Ltd., Kitchener, Ontario.**

2010, On an annual basis (April-December) Participated in Stages 2, 3 and 4 of archaeological
2011 field work. Identified and recovered archaeological artifacts through the process of excavation and triangulated and plotted in 1x1m squares for excavation.

2009 **Field Technician, Timmins Martelle Heritage Consultants, London, Ontario.**

Participated in stages 2,3 and 4 of archaeological field work including field walking, test pitting and test unit excavation.

2010- **Instructional Assistant (NE346, NE347), Wilfrid Laurier University, Waterloo, ON**

2011 Evaluated submitted assignments and held office hours for students with questions regarding course material for two courses: NE346 – Archaeology of Palestine and NE347 – Archaeology of Syria and Jordan. Led students in hands-on educational assignments working with Iron Age pottery.

2010- **Curator, Archaeology Laboratory, Wilfrid Laurier University, Waterloo, ON**

2011 Participated in processing over 10,000 artifacts for analysis including; washing, colour coding, and drawing pottery. Responsible for managing a database of Iron Age pottery recovered from the excavation site of Khirbat al-Mudayna in the Kingdom of Jordan.

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Aly Bousfield-Bastedo, ARA's Heritage Technical Writer and researcher has four years of experience in evaluating cultural heritage resources, conducting historical research and providing conservation recommendations on a variety of projects. She holds an Honours BA in Sociology from the University of Guelph as well as a post-graduate certificate in Urban Design from Simon Fraser University. Building on these experiences, Aly received a graduate Diploma in Heritage Conservation from the Willowbank School of Restoration Arts. Aly has gained substantial experience in provincial and municipal legislation and guidelines, including the *Ontario Heritage Act*, *Official Plans*, the *Standards and Guidelines for the Conservation of Historic Places*, and the *Ontario Heritage Toolkit*. Aly has gained considerable experience in evaluating potential impacts and recommending mitigation strategies for a variety of resources such as farmsteads, bridges, houses, churches, cultural heritage landscapes and heritage districts in urban and rural areas. Aly's breadth of work has demonstrated her ability in conducting consultations with heritage stakeholders including interviews and surveys.

Education

2017-2020 Post-Graduate Diploma in Heritage Conservation, Willowbank School of Restoration Arts. Queenston, ON
2016-2017 Post-Graduate Certificate in Urban Design, Simon Fraser University, Vancouver, BC
2009-2013 Honours BA, University of Guelph, Guelph, ON
Sociology

Select Work Experience

Current **Technical Writer and Researcher, Archaeological Research Associates Ltd.**
Produce deliverables for ARA's heritage team, including historic research, heritage assessment and evaluation for designation by-laws, Heritage Impact Assessments, Built Heritage and Cultural Heritage Landscape Assessments, and Cultural Heritage Resource Evaluations.

2021 **Cultural Consultant, Ministry of Heritage, Sport, Tourism and Culture**
Provided liaison and advisory services to municipalities and stakeholders in the heritage sector on cultural heritage legislation in Ontario.

2020 **Heritage Planning Consultant, Megan Hobson & Associates**
Provided heritage consulting services, including site investigation and documentation. Provided cultural heritage value assessment and evaluations.

2019-2020 **Cultural Heritage Planning Intern, ERA Architects**
Coordinated and authored various heritage related contracts. Duties included historic research, heritage impact assessments, cultural heritage assessments and evaluations.

2016-2017 **Heritage Vancouver, Programs and Communications**

Conducted research and analysis of heritage properties and neighbourhoods in Vancouver. Assisted in the creation of a cultural heritage landscape assessment of Vancouver's Chinatown neighbourhood through historical research and community engagement.

Select Professional Development

- 2021 International Network for Traditional Building and Urbanism (INTBAU) membership
- 2021 “Drafting Statements of Significance.” Webinar presented by ARA's K. Jonas Galvin for ACO's job shadow students.
- 2021 “Architectural Styles.” Webinar presented by ARA's K. Jonas Galvin for ACO's job shadow students.
- 2021 “Perspectives on Cultural Heritage Landscapes”. Cultural Heritage, Archaeology and Planning Symposium. ARA Ltd.
- 2019 University of Toronto, Mark Laird “Selected topics on Landscape Architecture”, Course audit
Messors, “Fornello Sustainable Preservation Workshop”, Cultural Landscape Field School
- 2018 Points of Departure. Association for Preservation Technology (APT) Conference. Buffalo, NY.

Presentations

- 2018 Essential issues or themes for education in heritage conservation: Montreal Roundtable on Heritage (Canada Research Chair on Built Heritage)

Appendix D

Drainage Study Technical Brief

Constance Boulevard Drainage Improvements

Drainage Study Technical Brief

Prepared For:
Town of Wasaga Beach.

10 2022

CREATING QUALITY SOLUTIONS TOGETHER



CONSTANCE BOULEVARD DRAINAGE IMPROVEMENTS DRAINAGE STUDY TECHNICAL BRIEF

PROJECT NO. 221057

Prepared For:

The Town of Wasaga Beach.

By:

Name & Title

Checked By:

Name & Title

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Attachments

Digital PCSWMM Model
All Five Alternatives

1 Introduction

The Town of Wasaga Beach has retained the services of Ainley Group to undertake a Municipal Class Environmental Assessment (Class EA) to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive. As part of the Class EA, a drainage analysis has been completed to assess the current drainage infrastructure and summarize the proposed drainage improvements that minimize the local flooding. The current capacity of the side road ditch along Constance Boulevard in this area is insufficient to contain larger stormwater events and results in flooding.

The primary objective of this technical report is to document drainage analysis results for the existing drainage conditions and to summarize proposed drainage alternatives that will improve site drainage and minimize flooding at Constance Boulevard. The extent of the study area is outlined in red and shown on **Figure D1**.



Figure D1: Study Area

The flow from the study area is currently directed north down Thomas Street and then flows west down Constance Blvd. Under current conditions flooding occurs at the low point located in front of 12 and 18 Constance Blvd.

2 Background

A number of reports and design projects completed within the watershed and its immediate vicinity were consulted as part of the background review for this study. These include:

- Hydrology And Stormwater Management Report for Highway 26 New Alignment between Collingwood and Wasaga Beach, dated July 3, 2009, prepared by Delcan (Delcan2009).
- West End Water Tower and Public Works Depot West End Drainage Study, dated May 2021, prepared by Ainley & Associates.
- Drainage Easement At 24 Constance Blvd, Plan & profile for the proposed concrete box Culvert, dated June 2016. Prepared by Ainley & Associates.
- HEC-RAS - NVCA Regulatory Flood model subset, received from NVCA on October 19, 2021.

The above-mentioned documents and models were used to establish the existing drainage conditions of the site and help set up a PCSWMM model that represent the drainage infrastructure at Constance Blvd.

3 Existing Drainage Conditions

The existing drainage patterns and boundaries were established through site visitation, record drainage studies, and recent topographic maps. The drainage boundary of the study area as well as the design flow (2 to 100yr) at the low point of Constance Road were obtained from the *Hydrology and Stormwater Management Report for Highway 26 New Alignment between Collingwood and Wasaga Beach, dated July 3, 2009, prepared by Delcan (Delcan2009)*. This report identifies the tributary drainage catchments as well as the 2-yr to 100-year flow for the existing outlet near Bayswater Drive.

The majority of the study area is comprised of residential lots with a wooded area located in the easterly area. The majority of the project area is regulated by the Nottawasaga Valley Conservation Authority (NVCA) owing to the watercourse and low-lying floodplain along the Georgian Bay shoreline.

Under existing conditions, the flow from the study area drains along Thomas Street via roadside ditches down towards Constance Blvd and then flows west towards Bayswater Drive to outlet to Georgian Bay via the existing outlet east of Bayswater Drive. The culvert at Constance Blvd and Thomas Street conveys flow under Thomas Street west toward the existing outlet.

4 PCSWMM Model

The existing drainage and the proposed drainage conditions were simulated using the PCSWMM model. This model was set up based on background data from the *West End Water Tower and Public Works Depot West End Drainage Study (May, 2021)*, and *Hydrology And Stormwater Management Report for Highway 26 New Alignment between Collingwood and Wasaga Beach, dated July 3, 2009, prepared by Delcan*, see Section 2. The ditch along Thomas Street as well as the existing arch culvert under Thomas Street were simulated in

the PCSWMM model to assess the capacity of the existing culvert and roadside ditch. **Figure D2** shows the existing culvert crossing under Thomas Street.

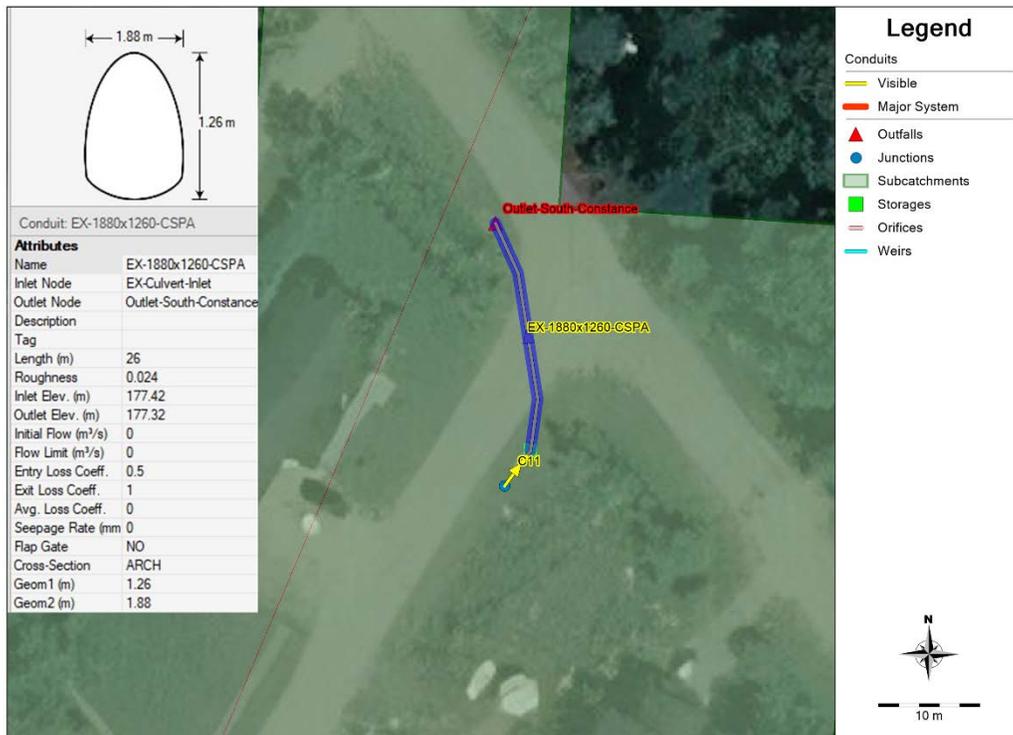


Figure D2: The existing culvert crossing near Constance Blvd

The 100-year flow from the drainage catchment was determined based on a comparison of the past and current studies of the site area. Tatham.inc was consulted regarding the flow at Constance Blvd as they are developing a 2D flood model for the entire watershed, as part of the ongoing Town Wide Drainage Study. The highest flow was used in our analysis which is from *Hydrology and Stormwater Management Report for Highway 26 New Alignment between Collingwood and Wasaga Beach, (Delcan2009)*.

5 Proposed Drainage Scenarios

The latest PCSWMM model from the *West End Water Tower and Public Works Depot West End Drainage Study (May,2021)* and the existing conditions PCSWMM received from R.J. Burnside, dated October 2013, a combined PCSWMM model has been developed to assess several design concepts for the proposed alignment. Several alternative solutions have been proposed for consideration as part of Phase 2 and Phase 3 of the Class EA process and a Preferred Solution has been recommended.

During Phase 2 of Class EA process, five design options were developed for consideration including:

- **Option 1: Do nothing**

This option considers no improvement or modifications. The existing conveyance capacity of the road side ditch along Constance Blvd is 3.2m³/s. The 100-year flow from the study area was calculated in the Delcan 2009 study to be 6.5m³/s. This flow was used as inflow in PCWMM to assess the conveyance capacities of all proposed alignments.

- **Option 2 - Create New Outlet to the Bay through Property at 18 Constance Boulevard**

This option includes a new drainage outlet constructed through private lots at 18 and 24 Constance Boulevard. A new outlet to Georgian Bay would be constructed and the current outlet would continue to convey the flows from west of Thomas Street along Constance Boulevard.

- **Option 3 - Increase Capacity of Constance Boulevard Ditch to Outlet North of Bayswater Drive**

This option proposes to increase the capacity of the ditch along the south side of Constance Boulevard between Bayswater Drive and Thomas Street. To increase capacity, the current ditch would be regraded and the existing culverts would be replaced. The work proposed under this option would be maintained within the current road right of way (ROW).

- **Option 4A - Redirect Drainage to Other Private Lands**

Under this option the flows along Thomas Street would be diverted easterly along Constance Boulevard to a connection point in the proposed West End Depot ditch.

- **Option 4B - Redirect Drainage to Other Private Lands**

Under this option the flows along Thomas Street would be diverted easterly along Betty Boulevard to a connection point in the proposed West End Depot ditch.

Those above-mentioned alternatives were evaluated as part of the Class EA phase 2 and it was determined that option 2 (Create New Outlet to the Bay through Property at 18 Constance Boulevard) was the recommended solution, see Section 7. Phase 3 of Class EA presented various design concepts for the preferred solution from Phase 2 evaluation. The design concepts under consideration are listed below, with associated cross section.

5.1 Alternative 1: Skewed Alignment with a Culvert Extension

In this scenario, the concrete culvert installed under Constance Boulevard is proposed with a skewed alignment, as shown on *Drawing 221057-Alt1 in Attachment 2*. The proposed culvert extension is an 1800 x 900mm (width and height) concrete box culvert with a 6m easement to permit the construction of an access road and for undertaking maintenance operations. Using PCSWMM this scenario has been simulated to assess the proposed alignment under the 100-

year flow of 6.5m³/s. The key attributes for this scenario and results are summarized in **Table D1**.

Table D1: Alternative 1 proposed Alignment and Key Attributes (under 100-year flow)

Alter #	Shape	Size	U/S Invert (m)	D/S Invert (m)	Capacity %	Water Depth (m)
1	Box	1800mmx900mm	177.31	176.97	95%	0.855*

*This depth is measured from the bottom of the channel/culvert to the water level at the critical cross section.



Figure 3D: Alternative 1 Skewed Alignment with a Culvert Extension

5.2 Alternative 2 – Skewed Alignment with Open Channel, Slope of 3:1

In this scenario, the concrete culvert installed under Constance Boulevard is proposed along with an open channel, as shown on *Drawing 221057-Alt2 in Attachment 2*. The proposed extension is an open channel with 1.5m flat bottom, 1.39m depth (the minimum depth along the proposed channel), and 3:1 side slope. The total required easement for the proposed alignment is approximately 18.8m including a 3m access road for channel maintenance. this scenario has been simulated to assess the proposed alignment under the 100-year flow of 6.5m³/s. The key attributes for this scenario and results are summarized in **Table D2**.

Table D2: Alternative 2 proposed Alignment and Key Attributes (under 100-year flow)

Alter #	Shape	Size	U/S Invert (m)	D/S Invert (m)	Capacity %	Water Depth (m)
2	Open Channel	1.5m flat bottom channel & 3:1 side slope	177.31	176.97	76%	1.056*

*This depth is measured from the bottom of the channel/culvert to the water level at the critical cross section.

5.3 Alternative 3 – Straight Alignment with Culvert

In this scenario, the concrete culvert installed under Constance Boulevard is proposed with a straight alignment, as shown on *Drawing 221057-Alt3 in Attachment 2*. The proposed culvert extension is an 1800x900mm concrete box culvert. The total required easement for the proposed alignment is approximately 8.8m including a 3m access road for culvert maintenance. this scenario has been simulated to assess the proposed alignment under the 100-year flow of 6.5m³/s. The key attributes for this scenario and results are summarized in **Table D3**.

Table D3: Alternative 3 proposed Alignment and Key Attributes (under 100-year flow)

Alter #	Shape	Size	U/S Invert (m)	D/S Invert (m)	Capacity %	Water Depth (m)
3	Box	1800mmx900mm	177.31	176.97	90%	0.810*

*This depth is measured from the bottom of the channel/culvert to the water level at the critical cross section.

5.4 Alternative 4 – Straight Alignment with Open Channel, Slope of 2:1

In this scenario, the concrete culvert installed under Constance Boulevard is proposed with an open channel with 2:1 bank side slopes, as shown on *Drawing 221057-Alt4 in Attachment 2*. The proposed extension is an open channel with 2.5m flat bottom, 1.49m depth (the minimum depth along the proposed channel), and 2:1 side slopes. The total required easement for the proposed alignment is approximately 11m including a 3m access road for channel maintenance. This scenario has been simulated to assess the proposed alignment under the 100-year flow of 6.5m³/s. The key attributes for this scenario and results are summarized in **Table D4**.

Table D4: Alternative 4 proposed Alignment and Key Attributes (under 100-year flow)

Alter #	Shape	Size	U/S Invert (m)	D/S Invert (m)	Capacity %	Water Depth (m)
4	Open Channel	2.5m flat bottom channel & 2:1 side slope	177.31	176.97	72%	1.072*

*This depth is measured from the bottom of the channel/culvert to the water level at the critical cross section.

5.5 Alternative 5 – Straight Alignment with Open Channel and Retaining Wall, Slope of 2:1

In this scenario, the concrete culvert installed under Constance Boulevard is proposed with an open channel, complete with retaining walls, as shown on *Drawing 221057-Alt5 in Attachment 2*. The proposed extension is an open channel with 3.0m flat bottom, 1.49m depth (the minimum depth along the proposed channel), and 2:1 side slope. A retaining wall will be installed on the eastern side. The total required easement for the proposed alignment is approximately 12m including a 3m access road for channel maintenance. This scenario has been simulated to assess the proposed alignment under the 100-year flow of 6.5m³/s. The key attributes for this scenario and results are summarized in **Table D5**.

Table D5: Alternative 5 proposed Alignment and Key Attributes (under 100-year flow)

Alter #	Shape	Size	U/S Invert (m)	D/S Invert (m)	Capacity %	Water Depth (m)
5	Open Channel	2.5m flat bottom channel & 2:1 side slope	177.31	176.97	72%	1.072*

*This depth is measured from the bottom of the channel/culvert to the water level at the critical cross section.

6 Evaluation of Alternatives and Preferred Design Concept

A summary of the hydraulic performance of the proposed alternatives to improve local drainage at Constance Blvd is provided in **Table D6**. All proposed alternatives improve local drainage by decreasing water depth, and overland flow on Constance Blvd; however, some alternatives have better performance compared to others. Table D6 shown the concept of each design concept with water depth as well as the required easement width.

Table D6: Summary of the proposed Alternatives with key Attributes

Alter #	Shape	Size	Capacity %	Water Depth (m)	Required Easement (m)
1	Box	1800mmx900mm	95%	0.855*	6
2	Open Channel	1.5m flat bottom channel & 3:1 side slope	76%	1.056*	18.8
3	Box	1800mmx900mm	90%	0.810*	8.8
4	Open Channel	2.5m flat bottom channel & 2:1 side slope	72%	1.072*	11
5	Open Channel	2.5m flat bottom channel & 2:1 side slope	72%	1.072*	12

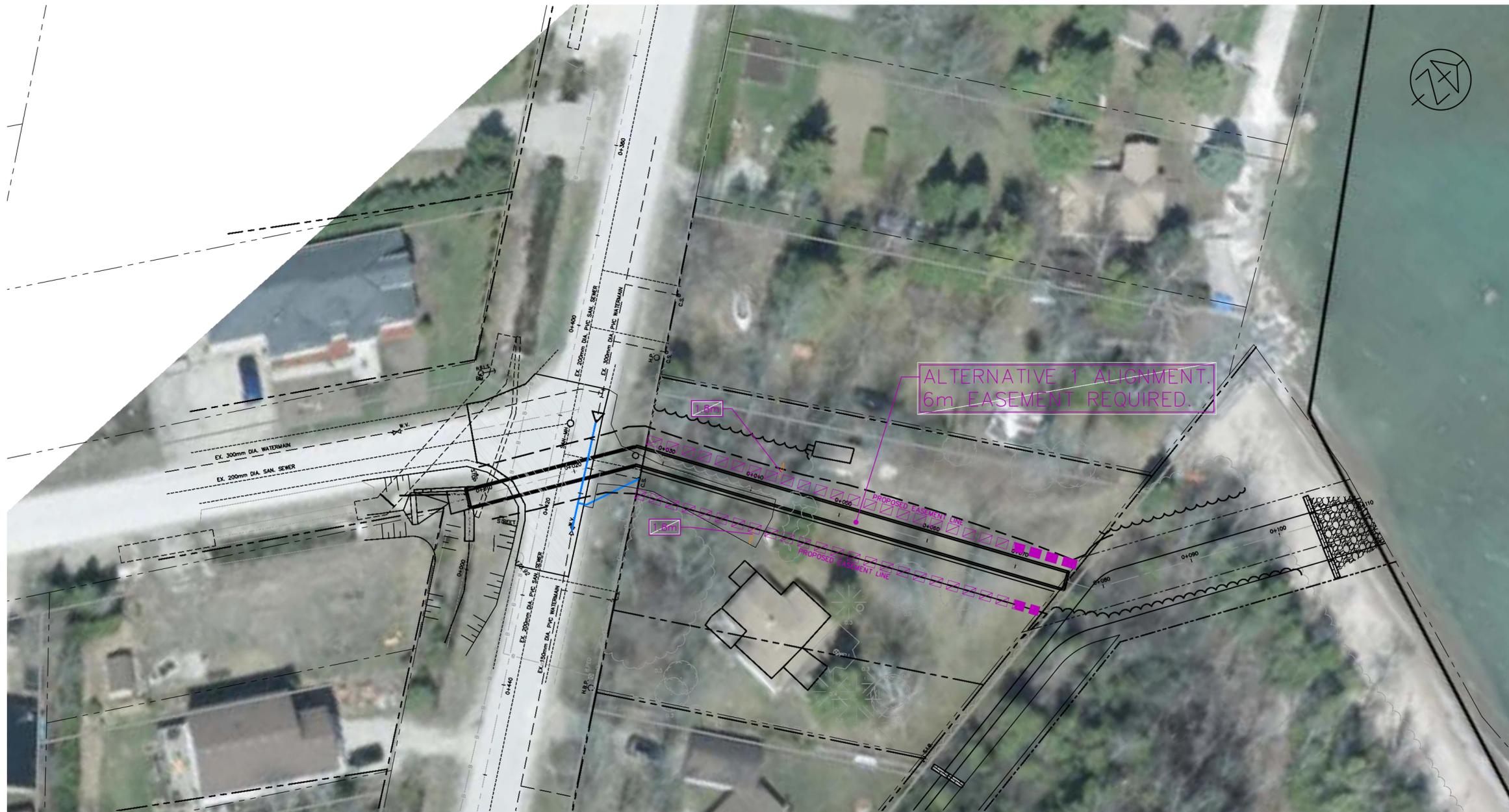
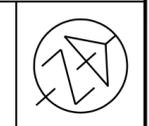
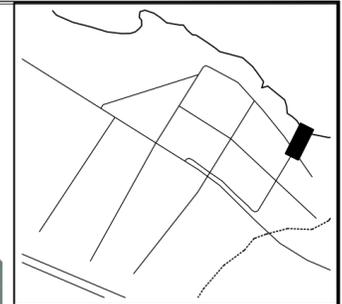
*This depth is measured from the bottom of the channel/culvert to the water level at the critical cross section.

Attachment 1

Digital PCSWMM Model

Attachment 2

All Five Alternatives



PLOT 1-1

NOTES

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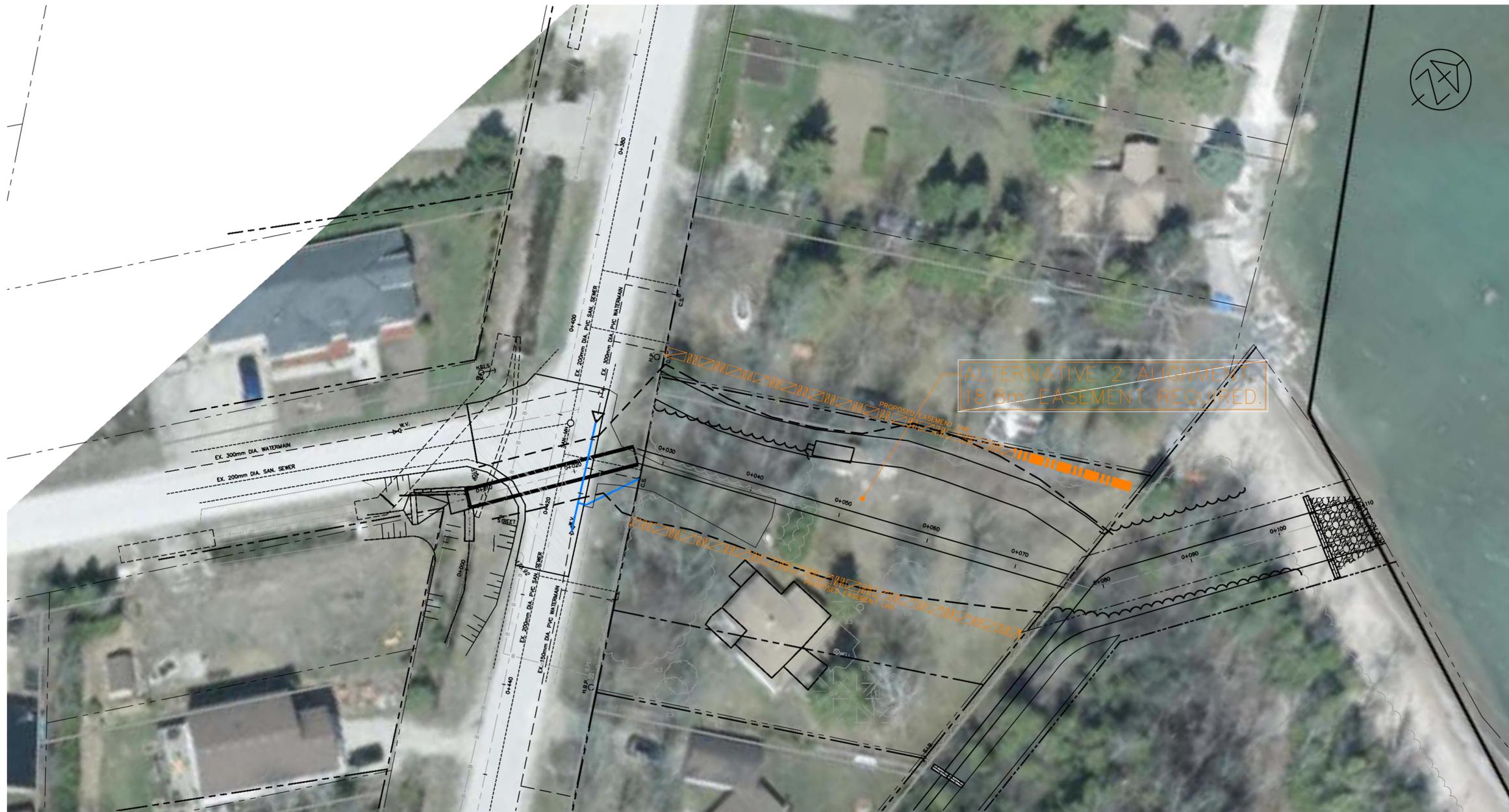
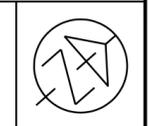
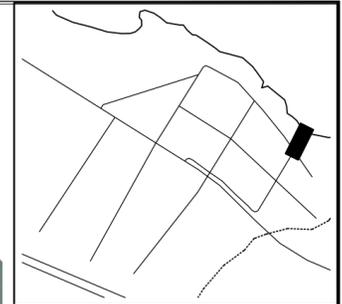
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TOWN OF WASAGA BEACH
CONSTANCE BOULEVARD
DRAINAGE IMPROVEMENTS
 WASAGA BEACH, ONTARIO

ALTERNATIVE 1
PROPOSED CONCRETE BOX CULVERT

Ainley GROUP CONSULTING ENGINEERS PLANNERS

CONTRACT No. DWG. No. 221057-KEY1



PLOT 1-1

NOTES

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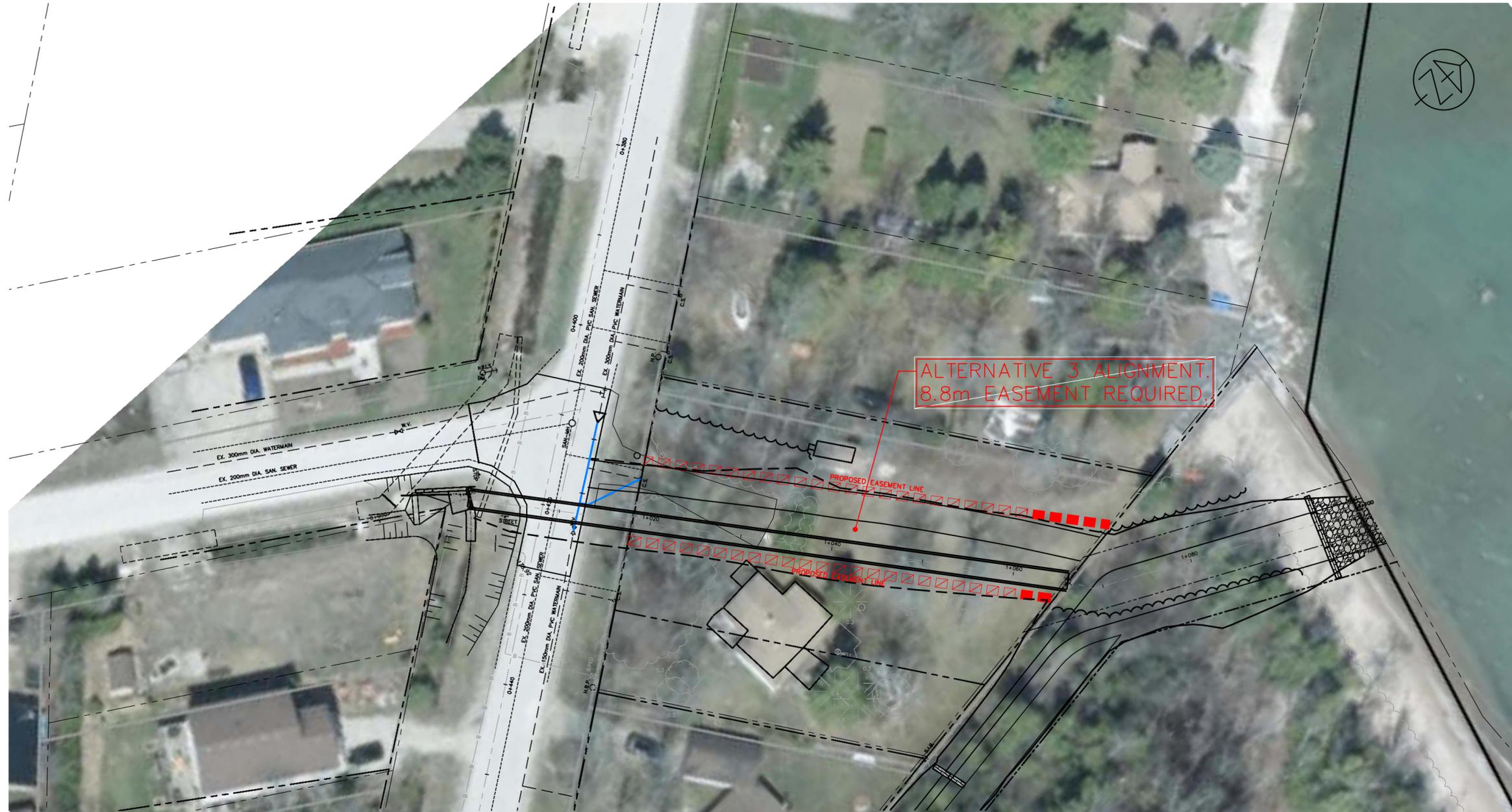
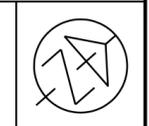
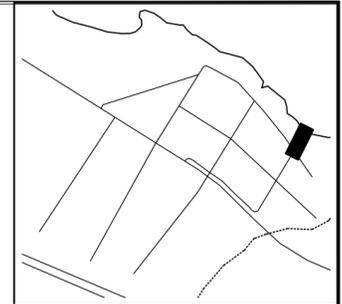
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TOWN OF WASAGA BEACH
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 WASAGA BEACH, ONTARIO

**ALTERNATIVE 2
 PROPOSED OPEN CHANNEL**

Anley CONSULTING ENGINEERS PLANNERS

CONTRACT No. DWG. No. 221057-KEY2



PLOT 1-1

NOTES

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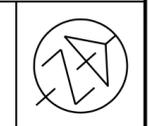
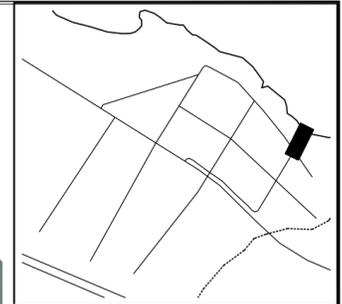
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TOWN OF WASAGA BEACH
 CONSTANCE BOULEVARD
 DRAINAGE IMPROVEMENTS
 WASAGA BEACH, ONTARIO

PLAN & PROFILE
 PROPOSED CONCRETE BOX CULVERT
 STA. 0+000 TO STA. 0+110

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CONTRACT No. DWG. No. 221057-KEY3



PLOT 1-1

NOTES

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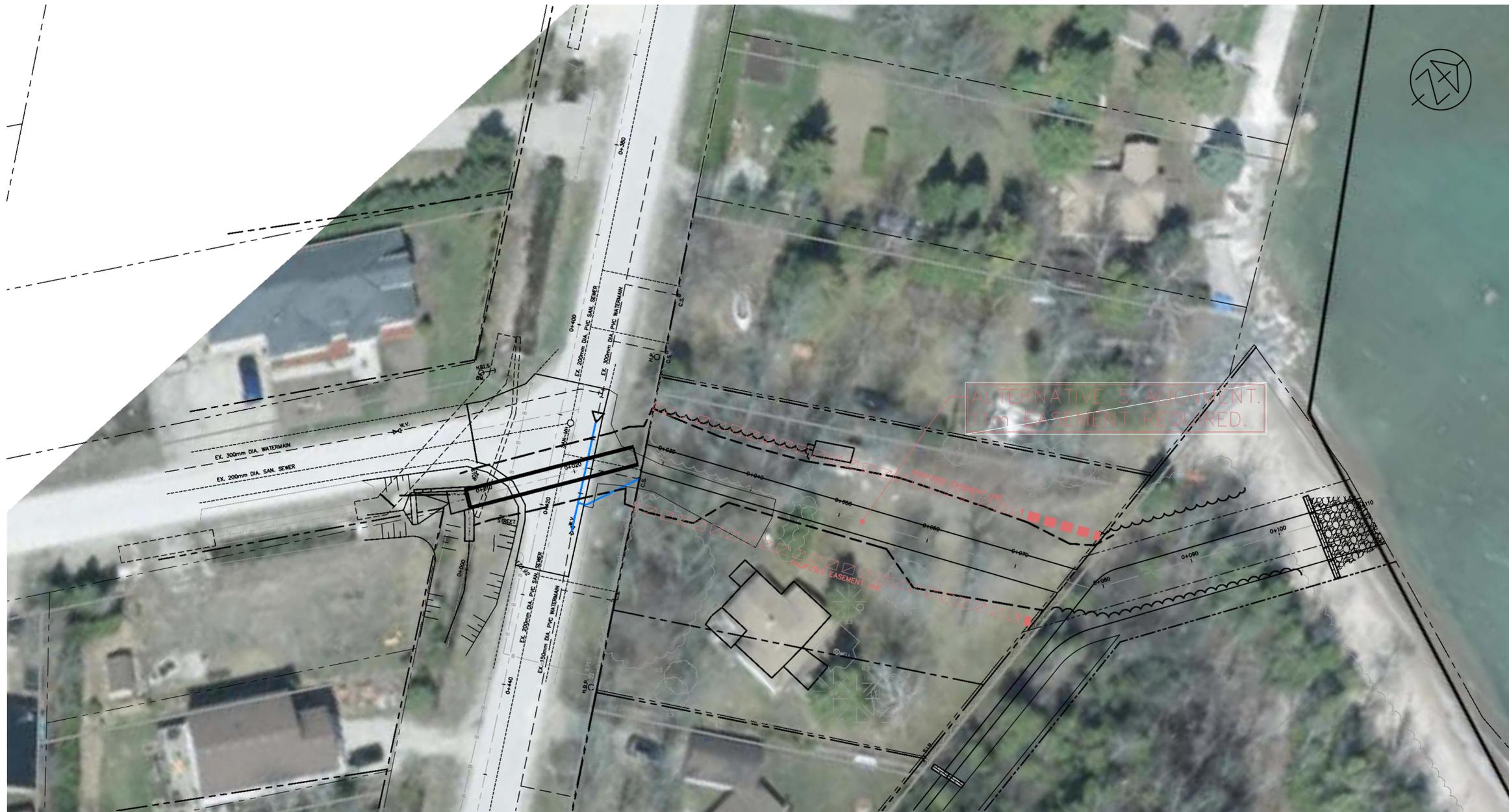
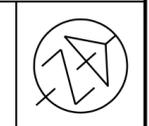
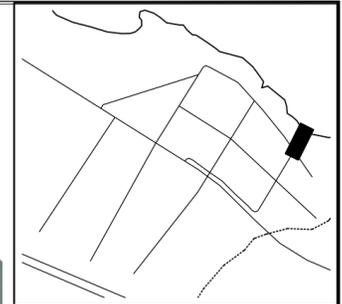
TOWN OF WASAGA BEACH
 CONSTANCE BOULEVARD
 DRAINAGE IMPROVEMENTS
 WASAGA BEACH, ONTARIO

ALTERNATIVE 4
PROPOSED OPEN CHANNEL



CONSULTING ENGINEERS PLANNERS

CONTRACT No. DWG. No. 221057-KEY4



PLOT 1-1

NOTES

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DATE: JUNE 2022	

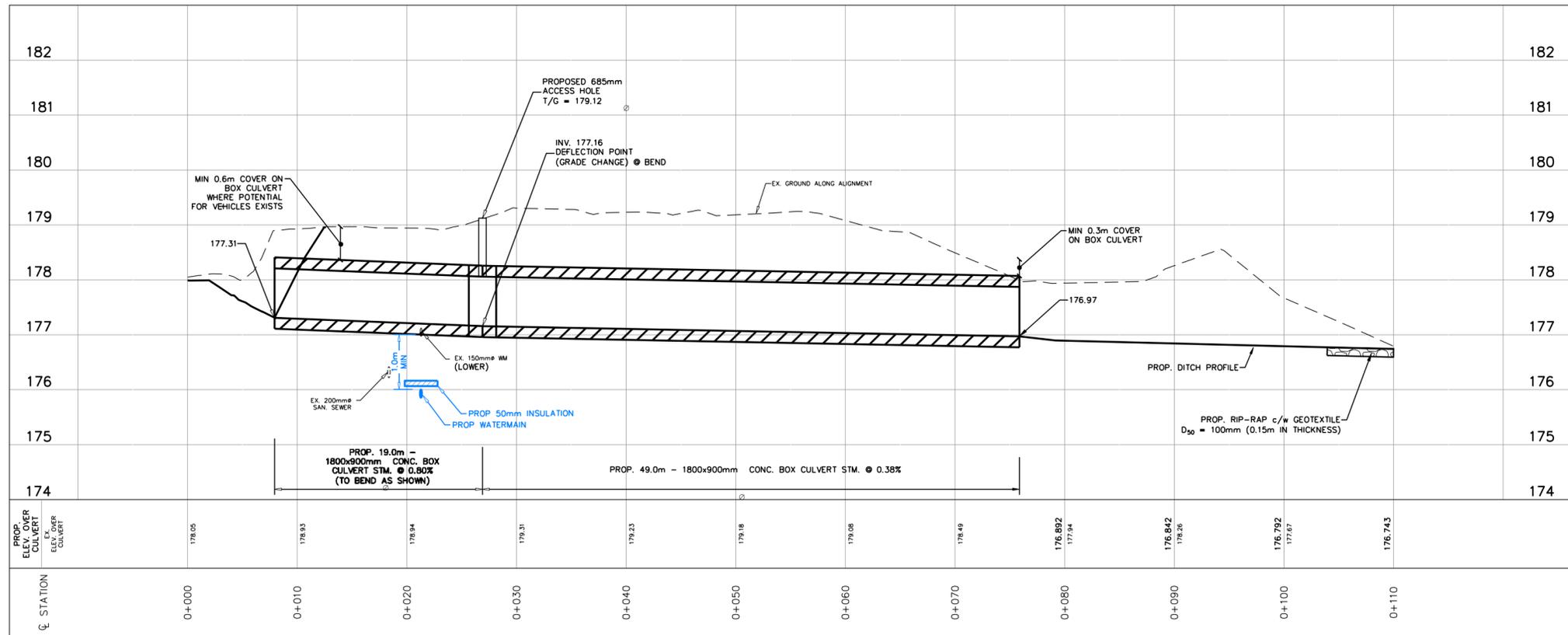
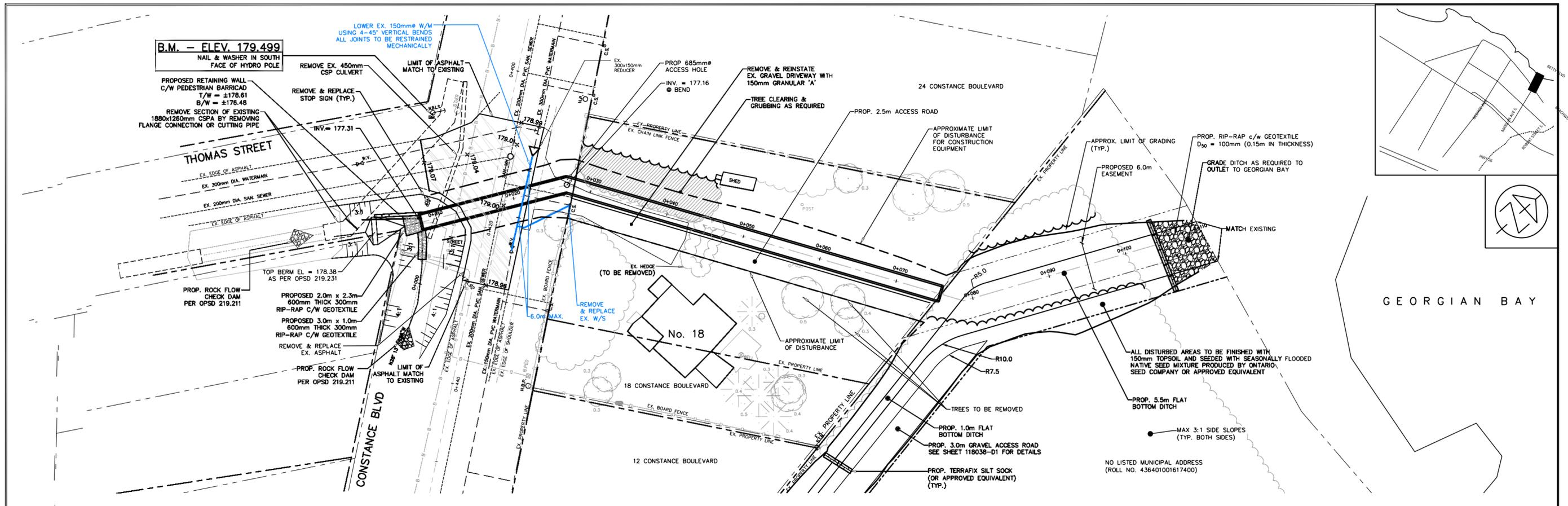
TOWN OF WASAGA BEACH
 CONSTANCE BOULEVARD
 DRAINAGE IMPROVEMENTS
 WASAGA BEACH, ONTARIO

ALTERNATIVE 5
 PROPOSED OPEN CHANNEL w/ RET. WALL



Anley CONSULTING ENGINEERS PLANNERS

CONTRACT No. DWG. No. 221057-KEY5



PLOT 1-1

NOTES

CONTRACT DRAWINGS
 Contractor must verify all dimensions and be responsible for same. Any discrepancies must be reported to the Engineer before commencing work. Drawings are not to be scaled. Drawings may not be used for any purpose other than that stipulated in the contract agreement between the owner/client and the Engineer without the express written consent of Anley & Associates Limited. Use of these drawings by any party for any other purpose is subject to the following caution.

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NO.	REVISIONS	DATE	INITIAL

Not Valid Unless Signed And Dated

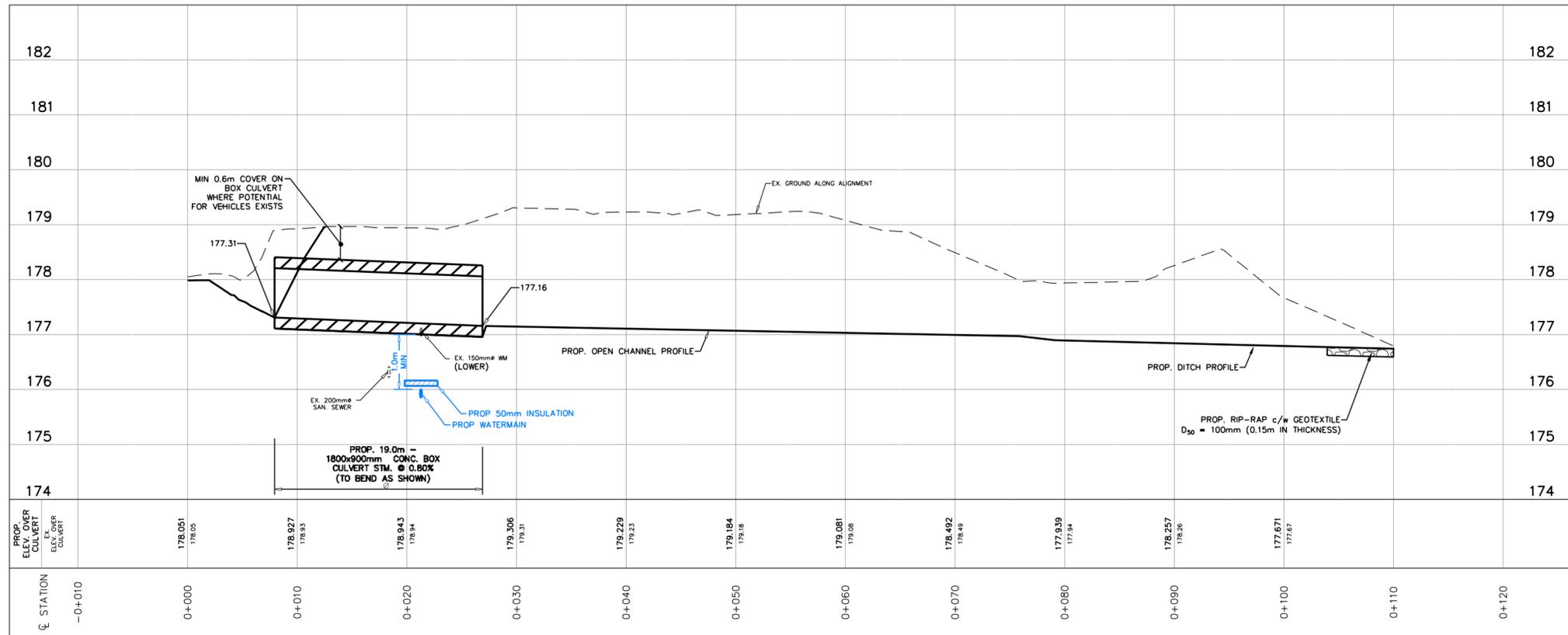
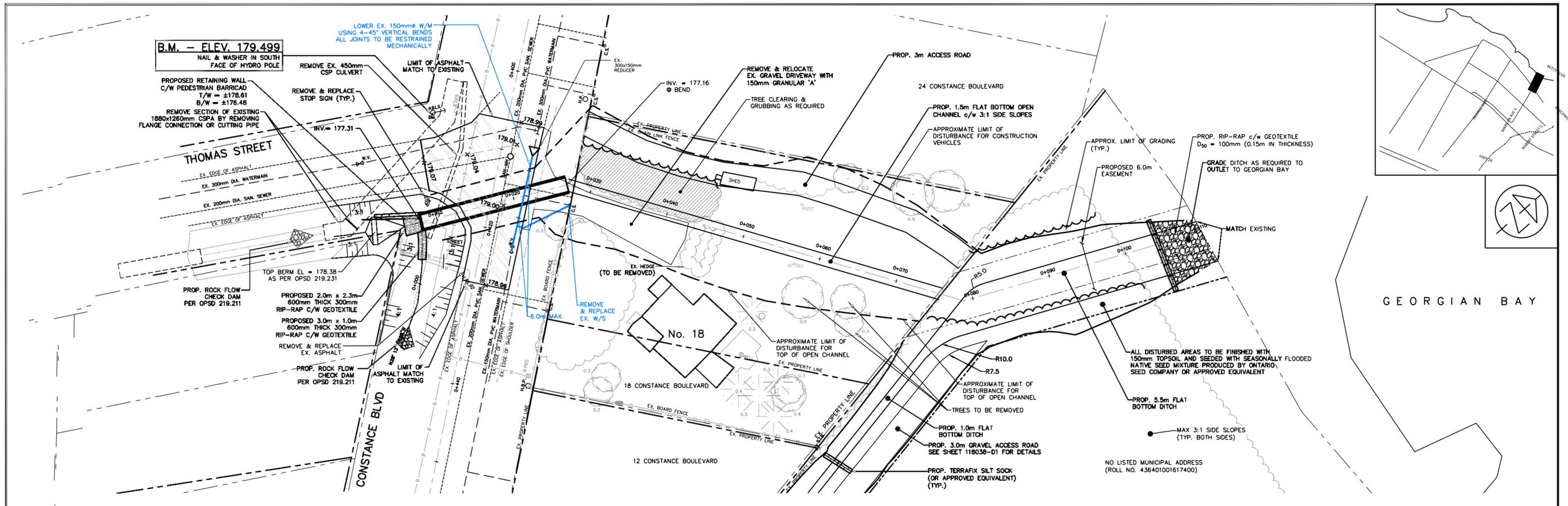
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 V= 1:50
 DESIGN: J.W.B.
 DRAWN: M.D.C./J.D.C.
 CHECKED: R.D.S.
 DATE: JUNE 2022

TOWN OF WASAGA BEACH
 CONSTANCE BOULEVARD
 DRAINAGE IMPROVEMENTS
 WASAGA BEACH, ONTARIO

PLAN & PROFILE
 PROPOSED CONCRETE BOX CULVERT
 STA. 0+000 TO STA. 0+080

Anley CONSULTING ENGINEERS PLANNERS

CONTRACT No. DWG. No. 221057-AL11



PLOT 1-1

NOTES

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Plotted by: RWECKERLE on June 23, 2022 at 1:13pm
 File: C:\Users\yweckerle\AppData\Local\Temp\AutoPublish_36896\221057-0plan.dwg Layout: AL12

NO.	REVISIONS	DATE	INITIAL

Not Valid Unless Signed And Dated

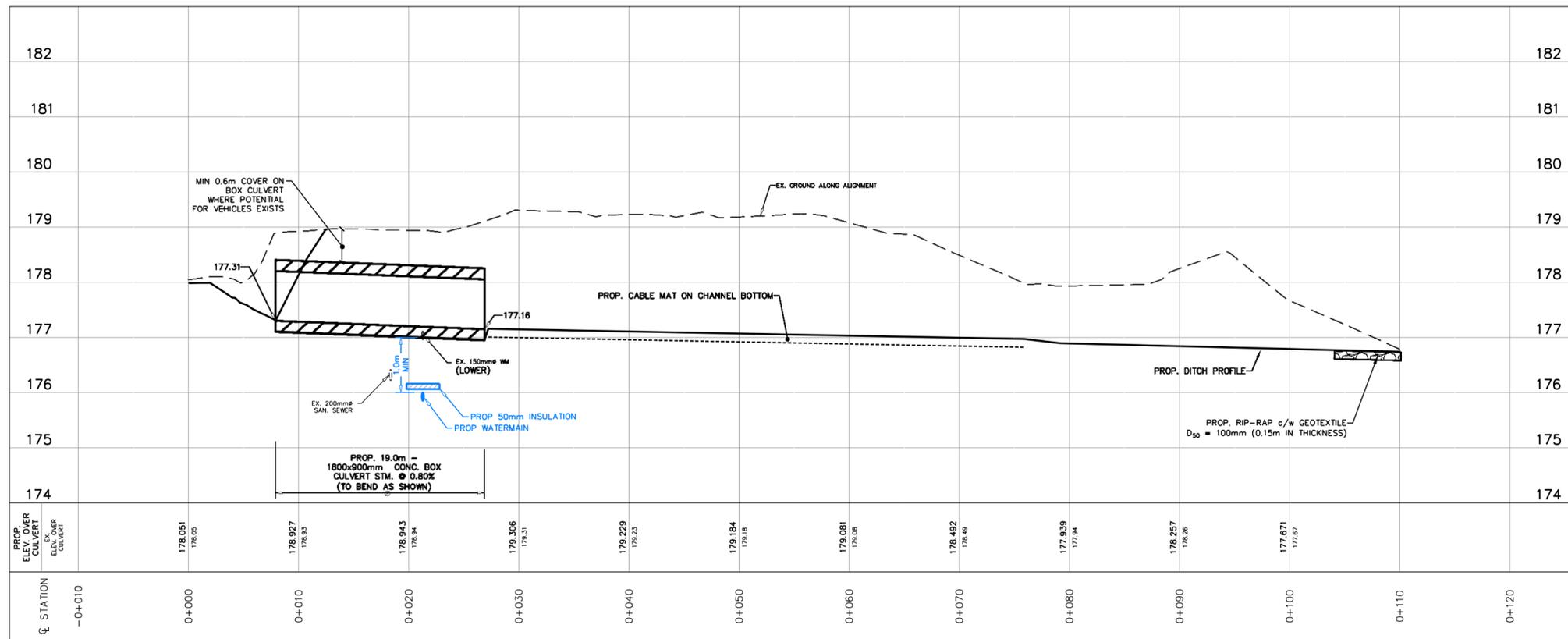
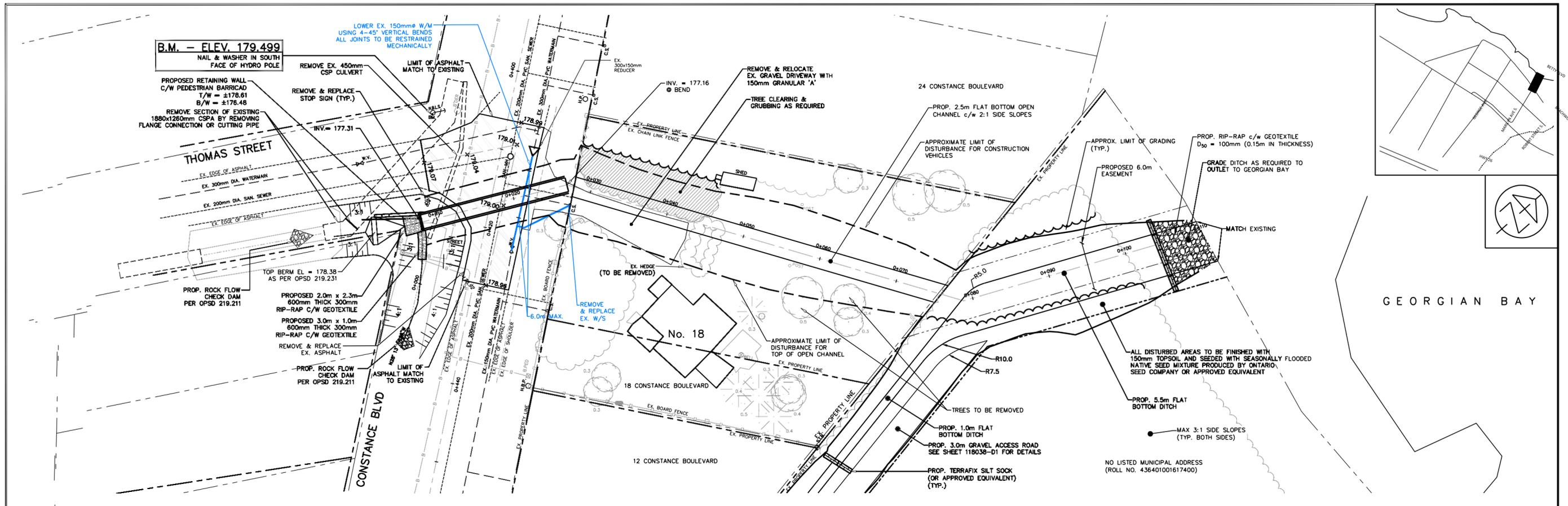
SCALE: H= 1:250
 V= 1:50
 DESIGN: J.W.B.
 DRAWN: M.D.C./J.D.C.
 CHECKED: R.D.S.
 DATE: JUNE 2022

TOWN OF WASAGA BEACH
 CONSTANCE BOULEVARD
 DRAINAGE IMPROVEMENTS
 WASAGA BEACH, ONTARIO

PLAN & PROFILE
 PROPOSED OPEN CHANNEL
 STA. 0+000 TO STA. 0+080

Anley CONSULTING ENGINEERS PLANNERS

CONTRACT No. DWG. No. 221057-ALT2



NOTES

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Plotted by: RWECKERLE on June 23, 2022 at 1:13pm
 File: C:\Users\yweckerle\AppData\Local\Temp\AcPublish_36896\221057-0plan.dwg Layout: AL14

NO.	REVISIONS	DATE	INITIAL

Not Valid Unless Signed And Dated

SCALE: H= 1:250
 V= 1:50

DESIGN: J.W.B.

DRAWN: M.D.C./J.D.C.

CHECKED: R.D.S.

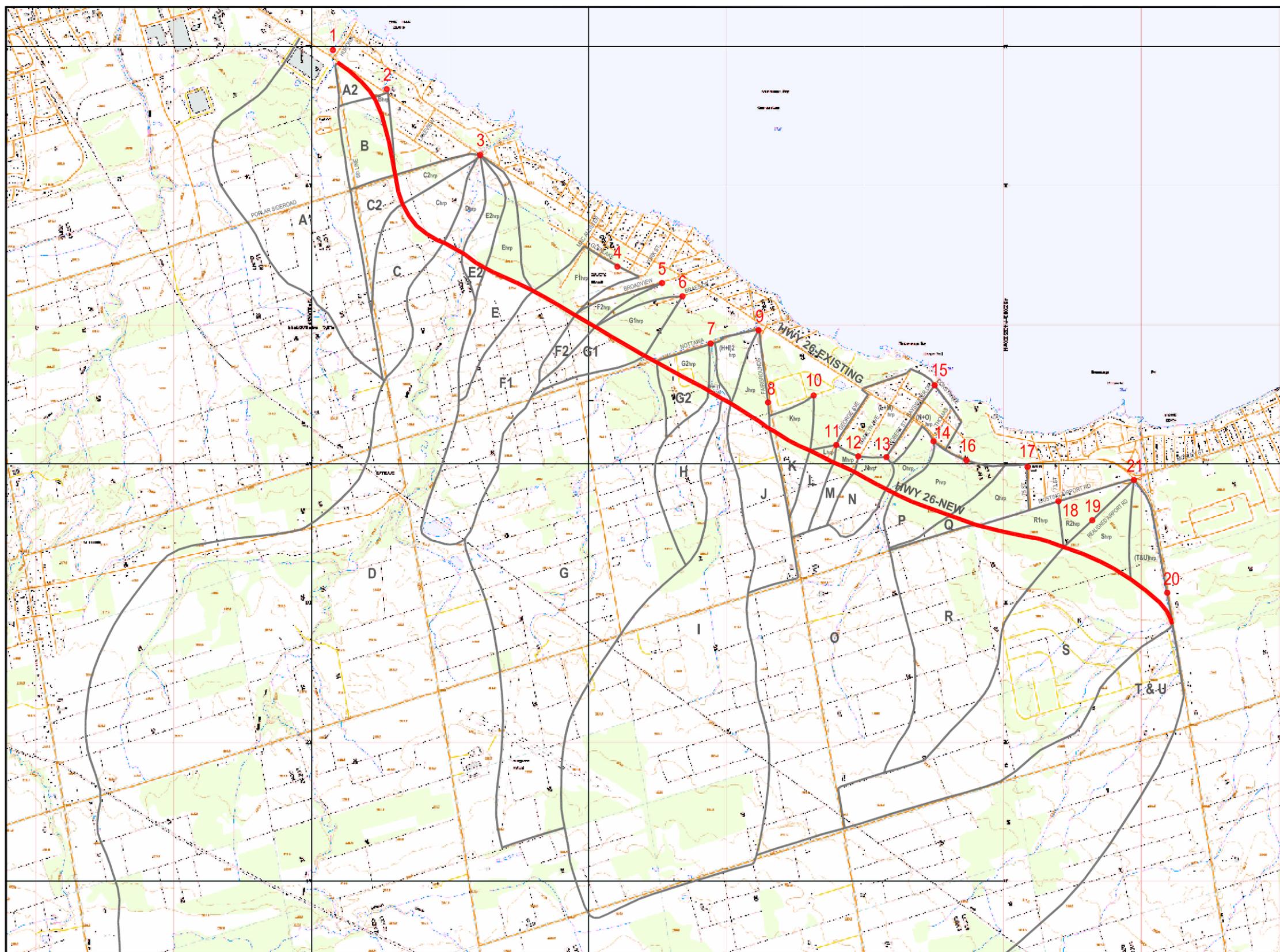
DATE: JUNE 2022

TOWN OF WASAGA BEACH
 CONSTANCE BOULEVARD
 DRAINAGE IMPROVEMENTS
 WASAGA BEACH, ONTARIO

PLAN & PROFILE
 PROPOSED OPEN CHANNEL
 STA. 0+000 TO STA. 0+080

CONTRACT No. DWG. No. 221057-ALT4

J:\Division\Water\Projects\MARKHAM\TT4006 Hwy 26 - Drainage\CAD files\External Drainage patterns\Hwy26-External Drainage Patterns_p0702.dwg Fig 1 Jul 02 2009 3:52pm d.liu



HRP ID	HRP-Description
HRP-1	Huronia Pathway
HRP-2	Between Huronia Pathway and Lakeview Avenue
HRP-3	Batteaux Creek
HRP-4	Glenlake Blvd
HRP-5	Broadview Street
HRP-6	Braeside Street
HRP-7	Nottawa Sideroad Channel
HRP-8	Fairgrounds Roadside Ditch
HRP-9	Intersection of Nottawa, Fairgrounds Rd and Hwy 26-existing
HRP-10	Interceptor Ditch
HRP-11	George Avenue
HRP-12	Marilyn Avenue
HRP-13	Robert Street
HRP-14	Thomas Street
HRP-15	Constance Blvd
HRP-16	West of Joan Avenue
HRP-17	75th Street
HRP-18	Existing Airport Road
HRP-19	Realigned Airport Road
HRP-20	The Canal (Nottawa East Canal)
HRP-21	Intersection of Mosley St, Airport Rd and Hwy 26-existing



LEGEND

- BOUNDARY OF CATCHMENT AREA
- HYDROLOGIC REFERENCE POINT (HRP)
- PROPOSED HWY 26 (NEW)
- A, B** EXTERNAL DRAINAGE AREA ID UPSTREAM OF HWY 26-NEW
- Chrp** DRAINAGE AREA ID DOWNSTREAM OF HWY 26-NEW

SCALE: 1 : 30000 DATE: June 30, 2009

HIGHWAY 26 NEW ALIGNMENT BETWEEN COLLINGWOOD AND WASAGA BEACH (GWP 630-91-00)

Figure 1: DRAINAGE AREAS AND HYDROLOGIC REFERENCE POINTS (HRPs) WITHIN THE STUDY LIMITS

Appendix E

Notice of Commencement and Public Information Centre No. 1



TOWN OF WASAGA BEACH

Constance Boulevard Drainage Improvements

Schedule 'C' Municipal Class Environmental Assessment

Notice of Commencement and Public Information Centre No. 1

The Project

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Comments Invited

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Jonathan Uylenbroek, C.E.T.
Project Coordinator
Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, Ontario L9Z 1A1
Tel: 705-429-2540 ext. 2342
projects@wasagabeach.com

Richard Sloan, P.Eng.
Water Resources Group Lead
Ainley Group
550 Welham Road
Barrie, Ontario L4N 8Z7
Tel: 705-726-3371 ext. 256
Richard.sloan@ainleygroup.com

This notice first issued February 17, 2022.

Information will be collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

Town of Wasaga Beach
Thomas St. and Constance Blvd. Area Drainage - Schedule 'C' Class EA
AGENCY CONTACT LIST

First	Last	Title	Company/Community	Address 1	Address 2	Town	PC	Telephone	Email	Notes
Provincial & Federal Agencies										
Chunmei	Liu	Environmental Resource Planner & EA Coordinator - Air, Pesticides and Environmental Planner (Barrie, Orillia & County of Simcoe)	Central Region Ministry of Environment, Conservation and Parks	5775 Yonge Street	8th Floor	North York, ON	M2M 4J1	416-326-4886	chunmei.liu@ontario.ca	
Cindy	Hood	District Manager	Barrie District Office Ministry of Environment, Conservation and Parks	54 Cedar Point Drive	Unit 1201	Barrie, ON	L4N 5R7	705-739-6436	cindy.hood@ontario.ca	
Ken	Mott	District Manager, Midhurt	Ministry of Northern Development, Mines, Natural Resources and Forestry	2284 Nursery Road		Minesing, ON	L0L 1Y2	705-725-7546	Ken.mott@ontario.ca	
Becky	Cudmore	Senior Science Advisor - Bayfield Institute	Department of Fisheries and Oceans	867 Lakeshore Road	P.O. Box 5050	Burlington, ON	L7R 4A6		becky.cudmore@dfo-mpo.gc.ca	
Karla	Barboza	Team Lead, Heritage	Ministry of Heritage, Sport, Tourism and Culture Industries	401 Bay Street	Suite 1700	Toronto, ON	M7A 0A7	416-314-7120	karla.barboza@ontario.ca	
Annelies	Eckert	Rural Planner	Ontario Ministry of Agriculture, Food and Rural Affairs	6484 Wellington Road 7	Unit 10	Elora, ON	N0B 1S0	519-827-6040	anneleis.eckert@ontario.ca	
Alejandra	Perdomo	Municipal Planning Advisor - Team Lead Central Ontario	Ministry of Municipal Affairs and Housing	777 Bay Street	13th Floor	Toronto, ON	M5G 2E5		Alejandra.perdomo@ontario.ca	
Francois	Lachance	Senior Advisor, Indigenous Relations Branch	Ministry of Indigenous Affairs	160 Bloor St. East	9th Floor	Toronto, ON	M7A 2E6	416-326-4754		
Teepu	Khawja	Regional Director	Ministry of Transportation, Central Region	1201 Wilson Avenue		Toronto, ON	M3M 1J8	416-235-5400	teepu.khawja@ontario.ca	
Local Government, Adjacent Municipalities & Other Agencies										
Christian	Meile	Director, Transportation and Engineering	County of Simcoe	1110 Highway 26 West		Midhurst, ON	L0L 1X0	705-726-9300	christian.meile@simcoe.ca	
Nathan	Westendorp	Director, Planning and Chief Planner	County of Simcoe	1110 Highway 26 West		Midhurst, ON	L0L 1X0	705-726-9300	nathan.westendorp@simcoe.ca	
Chris	Hibberd	Director, Watershed Management Services	Nottawasaga Valley Conservation Authority	John Hix Conservation Administration Centre	8195 8th Line	Utopia, ON	L0M 1T0	705-424-1479	c.hibberd@nvca.on.ca	
Brad	Krul	Manager, Planning Services	Nottawasaga Valley Conservation Authority	John Hix Conservation Administration Centre	8195 8th Line	Utopia, ON	L0M 1T0		bkul@nvca.on.ca	
Meagan	Kieferle	Senior Regulations Technician	Nottawasaga Valley Conservation Authority	John Hix Conservation Administration Centre	8195 8th Line	Utopia, ON	L0M 1T0		mkieferle@nvca.on.ca	
George	Vadeboncoeur	CAO	Town of Wasaga Beach	30 Lewis Street		Wasaga Beach, ON	L9Z 1A1			
Doug	Herron	Director of Planning and Economic Initiatives	Town of Wasaga Beach	30 Lewis Street		Wasaga Beach, ON	L9Z 1A1			
Kevin	Lalonde	Director of Public Works	Town of Wasaga Beach	150 Westbury Road		Wasaga Beach, ON	L9Z 0C8		publicworksdirector@wasagabeach.com	
Mike	McWilliam	Director of Emergency Services and Fire Chief	Town of Wasaga Beach	966 River Road West		Wasaga Beach, ON	L9Z 2K7			
Sonya	Skinner	CAO	Town of Collingwood	97 Hurontario Street	P.O. Box 157	Collingwood, ON	L9Y 3Z5			
John	Ferguson	CAO	Clearview Township	217 Gideon Street		Stayner, ON	L0M 1S0		jferguson@clearview.ca	
		Simcoe County District Health Unit		280 Pretty River Parkway		Collingwood, ON	L9Y 4J5	705-445-6498		
Earl	Elliott	President	Simcoe County Historical Association		P.O. Box 144	Barrie, ON	L4M 4S9	705-796-7649	earl.elliott@rogers.com	
Emergency Services										
JC	Gilbert	Deputy Chief Operations	County of Simcoe Paramedic Services	1110 Highway 26		Midhurst, ON	L0L 1X0	705-726-9300	jc.gilbert@simcoe.ca	
Donna	Danyluk	Communications Representative	Royal Victoria Regional Health Centre	201 Georgian Drive		Barrie, ON	L4M 6M2	705-728-9090 ext. 41610	danylukd@rvh.on.ca	
Paula	Brown	Operational Policy & Strategic Planning	Ontario Provincial Police	777 Memorial Ave., 2nd Floor		Orillia, ON	L3V 7V3			
		Attn: General	Nottawasaga OPP Detachment Office	4601 Industrial Pkwy		Alliston, ON	L9R 1V2	705 434 1939	Fax: 705 434 9109	(Prefer to receive Fax)
Indigenous Consultation - As per MECP direction Feb. 4 2022										
Donna	Big Canoe	Chief	Chippewas of Georgina Island*	R.R. #2	P.O. Box N-13	Sutton West	L0E 1R0	705-437-1337	donna.bigcanoe@georginaisland.com	
Ted	Williams	Chief	Chippewas of Rama First Nation *	5884 Rama Road	Suite 200	Rama	L3V 6H6	705 325-3611	tedw@ramafirstnation.ca	
Sharday	James	Community Consultation	Chippewas of Rama First Nation *	5884 Rama Road	Suite 200	Rama	L3V 6H6		shardayj@ramafirstnation.ca	
Susan	Copegog	Consultation	Beausoleil First Nation*	11 O'Gema Miikaans		Christian Island	L9M 0A9		consultations@chimissing.ca	
Keith	Knott	Chief	Curve Lake First Nation*	22 Winookeedaa Road		Curve Lake	K0L 1R0			
Kelly	LaRocca	Chief	Mississaugas of Scugog Island First Nation*	Administration Building	22521 Island Road	Port Parry	L9L 1B6	905-985-3337	info@scugogfirstnation.com	
Dave	Mowat	Chief	Alderville First Nation*	11696 Second Line Rd		Alderville	K0K 2X0	905-352-3000	dmowat@alderville.ca	
Laurie	Carr	Chief	Hiawatha First Nation*	431 Hiawatha Line		Hiawatha	K9J 0E6	705-295-4421	chiefcarr@hiawathafn.ca	
*cc Karry Sandy-McKenzie on all correspondence sent to the above 7 FN (Williams Treaty Communities)										
Karry	Sandy- McKenzie	Barrister & Solicitor	Williams Treaties Communities	8 Creswick Court		Barrie	L4M 2J7	705-792-5087	k.a.sandy-mckenzie@rogers.com	
Remy	Vincent	Grand Chief	Huron-Wendat Nation	255 Place Chef Michel Laveau		Wendake	G0A 4V0		administration@cnhw.qc.ca	
Dave	Dusome	Regional Councillor, Region 7	Métis Nation of Ontario	66 Slater Street	Suite 1100, 11th Floor	Ottawa	K1P 5H1		DavidD@metisnation.org	
		Attn: Lands, Resources and Consultations Branch	Métis Nation of Ontario	66 Slater Street	Suite 1100, 11th Floor	Ottawa	K1P 5H1		consultations@metisnation.org ; JustinH@metisnation.org	Requires notices sent electronically to the email
Emily	Martin	Infrastructure and Resources Manager	Saugeen Ojibway Nation Environment Office	25 Maadookii Subdivision		Neyaashiingmiing	N0H 2T0		emily.martin@saugeenojibwaynation.ca ; juanita.meekins@saugeenojibwaynation.ca	cc' Juanita Meekins Executive Assistant juanita.meekins@saugeenojibwaynation.ca
Lester	Anoquot	Chief	Saugeen First Nation	6493 Highway 21	R.R. #1	Southampton	N0H 2L0	(519) 797-2781	sfn@saugeen.org	SON
Veronica	Smith	Chief	Chippewas of Nawash Unceded First Nation	135 Lakeshore Blvd.		Neyaashiingmiing	N0H 2T0		chief.veronica@nawash.ca	SON
Utilities										
		Attn: General	Planning Department	Hydro One	16 Graham Street	Woodstock, ON	N4S 6J6	519-537-7122		
			Wasaga Distribution Inc.	950 River Road West	P.O. Box 20	Wasaga Beach, ON	L9Z 1A1		hydro@wasagadist.ca	

Town of Wasaga Beach
Thomas St. and Constance Blvd. Area Drainage - Schedule 'C' Class EA
AGENCY CONTACT LIST

First	Last	Title	Company/Community	Address 1	Address 2	Town	PC	Telephone	Email	Notes
Carol	O'Brien		Bell Canada	136 Bayfield Street	2nd Floor	Barrie, ON	L4M 3B1	705-722-2405	carol.obrien@bell.ca	
Tony	Dominguez		Rogers	1 Sperling Drive		Barrie, ON	L4N 6B8	705-737-4660 xt 6907	tony.dominguez@rci.rogers.com	



TOWN OF Wasaga Beach

WWW.WASAGABEACH.COM



Notice..



TOWN OF WASAGA BEACH Constance Boulevard Drainage Improvements Schedule 'C' Municipal Class Environmental Assessment Notice of Commencement and Public Information Centre No. 1

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Project Coordinator
Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, Ontario L9Z 1A1
Tel: 705-429-2540 ext. 2342
projects@wasagabeach.com

Richard Sloan, P.Eng.
Water Resources Group Lead
Ainley Group
550 Welham Road
Barrie, Ontario L4N 8Z7
Tel: 705-726-3371 ext. 256
Richard.sloan@ainleygroup.com

This notice first issued February 17, 2022.

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Comments Received

Jody Marks

From: EA Notices to CRegion (MECP) <eanotification.cregion@ontario.ca>
Sent: Friday, February 18, 2022 2:47 PM
To: Jody Marks; Jonathan Uylenbroek
Cc: Richard Sloan; Potter, Katy (MECP); Hyde, Chris (MECP)
Subject: RE: Town of Wasaga Beach, MEA Class EA, Constance Boulevard Drainage Improvements
Attachments: 2022-02-18-MECP Comments for Constance Blvd.pdf; Supporting Attachment - Species at Risk Proponents Guide to Preliminary Screening (Draft May 2019).pdf

Please find the attached letter and documents as the ministry's general response to the Notice of Study Commencement for the above project. If you have any questions regarding these comments and information provided, please feel free to contact me directly.

Thank you,

Chunmei Liu | Regional EA and Planning Coordinator

Environmental Assessment Branch, **Ontario Ministry of the Environment, Conservation and Parks** Chunmei.Liu@ontario.ca |

Website: <http://www.ene.gov.on.ca/>

If you have any accommodation needs or require communication supports or alternate formats, please let me know. Si vous avez des besoins en matière d'adaptation, ou si vous nécessitez des aides à la communication ou des médias substitués, veuillez me le faire savoir.

From: Jody Marks <jody.marks@ainleygroup.com>
Sent: February-17-22 2:39 PM
To: EA Notices to CRegion (MECP) <eanotification.cregion@ontario.ca>
Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; Richard Sloan <richard.sloan@ainleygroup.com>
Subject: Town of Wasaga Beach, MEA Class EA, Constance Boulevard Drainage Improvements

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hello,

As per the MECP notification process for Class Environmental Assessments please find attached the Project Information Form and Notice of Commencement/PIC No. 1 for the above noted project.

Thank you.

Regards,

Jody Marks
Environmental Planner



Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM

****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: jody.marks@ainleygroup.com****

The information contained in and/or attached to this transmission is solely for the use of the intended recipient. Any copying, distribution or use by others, without the express written consent of the Ainley Group, is strictly prohibited. The recipient is responsible for confirming the accuracy and completeness of the information with the originator. Please advise the sender if you believe this message has been received by you in error.

Ainley Group is committed to providing accessible customer service. Please inform us if you require this information in an alternative format or require communication supports.

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Ministry of the Environment,
Conservation and Parks

Environmental Assessment Branch

1st Floor
135 St. Clair Avenue W
Toronto [ON M4V 1P5](#)
Tel.: 416 314-8001
Fax.: 416 314-8452

Ministère de l'Environnement, de la
Protection de la nature et des Parcs

*Direction des évaluations
environnementales*

Rez-de-chaussée
135, avenue St. Clair Ouest
Toronto [ON M4V 1P5](#)
Tél. : 416 314-8001
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February 18, 2022

File No.: EA 01-06-04

BY EMAIL ONLY

Jonathan Uylenbroek, C.E.T.
Project Coordinator
Town of Wasaga Beach
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projects@wasagabeach.com

Re: **Constance Boulevard Drainage Improvements
Town of Wasaga Beach
Municipal Class Environmental Assessment
Response to Notice of Commencement**

Dear Jonathan Uylenbroek,

This letter is in response to the Notice of Commencement for the above noted project. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the Town of Wasaga Beach (proponent) has indicated that the study is following the approved environmental planning process for a Schedule C project under the Municipal Class Environmental Assessment (Class EA).

The attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please address all areas of interest in the EA documentation at an appropriate level for the EA study. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule. **Further information is provided at the end of the Areas of Interest document relating to recent changes to the Environmental Assessment Act through Bill 197, Covid-19 Economic Recovery Act 2020.**

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

The proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to the proposed project, **the MECP is delegating the procedural aspects of rights-based consultation to the proponent through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

The project is located within Treaty 18, 1818 with the Chippewas. It also falls within the larger Williams Treaties as well as within the SON territory. These are comprised of seven communities collectively known as the Williams Treaties First Nations. Based on information provided to date and the Crown's preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially affected by the proposed project:

- Beausoleil First Nation
- Chippewas of Rama First Nation
- Chippewas of Georgina Island First Nation
 - Curve Lake First Nation
 - Mississaugas of Scugog Island First Nation
 - Hiawatha First Nation
 - Alderville First Nation(May have interest as covered by the larger Williams Treaties)
- SON
- MNO
- Huron-Wendat- Archaeology only: should any archaeological resources be recovered during any construction or archaeology surveys if any are being carried out, then Huron Wendat should be notified.

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the "[Code of Practice for Consultation in Ontario's Environmental Assessment Process](#)". Additional information related to Ontario's Environmental Assessment Act is available online at: www.ontario.ca/environmentalassessments.

Please also refer to the attached document "A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities" for further information, including the MECP's expectations for EA report documentation related to consultation with communities.

The proponent must contact the Director of Environmental Assessment Branch (EABDirector@ontario.ca) under the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right
- Consultation with Indigenous communities or other stakeholders has reached an impasse
- An Order request is expected on the basis of impacts to Aboriginal or treaty rights

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play should additional steps and activities be required.

A copy of the draft report should be sent directly to me prior to the filing of the final report, allowing a minimum of 30 days for the ministry's technical reviewers to provide comments.

Please also ensure a copy of the final notice and the final report is sent to the ministry's Central Region EA notification email account (eanotification.cregion@ontario.ca) after the draft report is reviewed and finalized.

Should you or any members of your project team have any questions regarding the material above, please contact me at chunmei.liu@ontario.ca.

Yours truly,



Regional Environmental Planner – Central Region

cc Katy Potter, Supervisor, Environmental Assessment Services, MECP
Chris Hyde, Manager, Barrie District Office, MECP

Attach: Areas of Interest

A Proponent's Introduction to the Delegation of Procedural Aspects of Consultation with Aboriginal Communities
The Client's Guide to Preliminary Screening for Species at Risk (Draft May 2019)

AREAS OF INTEREST

It is suggested that you check off each section after you have considered / addressed it.

Planning and Policy

- Projects located in MECP Central Region are subject to [A Place to Grow: Growth Plan for the Greater Golden Horseshoe \(2020\)](#). Parts of the study area may also be subject to the [Oak Ridges Moraine Conservation Plan \(2017\)](#), [Niagara Escarpment Plan \(2017\)](#), [Greenbelt Plan \(2017\)](#) or [Lake Simcoe Protection Plan \(2014\)](#). Applicable plans and the applicable policies should be identified in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.
- Additionally, if the project is located within the boundaries of the Lake Simcoe Protection Plan, we also strongly recommend that the project team review the information and resources available on the province's website related to protecting Lake Simcoe found here: <https://www.ontario.ca/page/protecting-lake-simcoe>, including the Lake Simcoe phosphorus reduction strategy.
- The [Provincial Policy Statement \(2020\)](#) contains policies that protect Ontario's natural heritage and water resources. Applicable policies should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies.
- In addition to the provincial planning and policy level, the report should also discuss the planning context at the municipal and federal levels, as appropriate.

Source Water Protection

The *Clean Water Act*, 2006 (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) and surface water Intake Protection Zones (IPZs). Other vulnerable areas that have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas (SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e. systems that are not municipal residential systems). MEA Class EA projects may include activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. Policies may prohibit certain activities, or they may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.

- In October 2015, the MEA Parent Class EA document was amended to include reference to the Clean Water Act (Section A.2.10.6) and indicates that proponents undertaking a Municipal Class EA project must identify early in their process whether a project is or could potentially be occurring with a vulnerable area. **Given this requirement, please include a section in the report on source water protection.**
 - The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.
 - If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to applicable policies in the local source protection plan. This section should then be used to inform and be reflected in other sections of the report, such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc.
- While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.
- In order to determine if this project is occurring within a vulnerable area, proponents can use this mapping tool: <http://www.applications.ene.gov.on.ca/swp/en/index.php>. Note that various layers (including WHPAs, WHPA-Q1 and WHPA-Q2, IPZs, HVAs, SGRAs, EBAs, ICAs) can be turned on through the “Map Legend” bar on the left. The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.
- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. Please document the results of that consultation within the report and include all communication documents/correspondence.**

More Information

For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to [Conservation Ontario's website](#) where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in [section 1.1 of Ontario Regulation 287/07](#) made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional “local” threat activities, as approved by the MECP.

Climate Change

The document "[Considering Climate Change in the Environmental Assessment Process](#)" (Guide) is now a part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. Proponents should review this Guide in detail.

- **The MECP expects proponents of Class EA projects to:**
 1. Consider during the assessment of alternative solutions and alternative designs, the following:
 - a. the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and
 - b. resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).
 2. Include a discrete section in the report detailing how climate change was considered in the EA.

How climate change is considered can be qualitative or quantitative in nature and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "[Community Emissions Reduction Planning: A Guide for Municipalities](#)" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.

Air Quality, Dust and Noise

- If there are sensitive receptors in the surrounding area of this project, a quantitative 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 and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern. **Please contact this office for further consultation on the level of Air Quality Impact Assessment required for this project if not already advised.**
- If a quantitative Air Quality Impact Assessment is not required for the project, the MECP expects that the report contain a qualitative assessment which includes:
 - A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;
 - A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;
 - A discussion of local air quality impacts that could arise from this project during both construction and operation; and
 - A discussion of potential mitigation measures.
- As a common practice, “air quality” should be used an evaluation criterion for all road projects.

- 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 MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to [Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities](#) report prepared for Environment Canada. March 2005.
- The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

Ecosystem Protection and Restoration

- Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.
- Natural heritage and hydrologic 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:
 - Key Natural Heritage Features: Habitat of endangered species and threatened species, fish habitat, wetlands, areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands; significant wildlife habitat (including habitat of special concern species); sand barrens, savannahs, and tallgrass prairies; and alvars.
 - Key Hydrologic Features: Permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands.
 - Other natural heritage features and areas such as: vegetation communities, rare species of flora or fauna, Environmentally Sensitive Areas, Environmentally Sensitive Policy Areas, federal and provincial parks and conservation reserves, Greenland systems etc.

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.

Species at Risk

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. Information, standards, guidelines, reference materials and technical resources to assist you are found at <https://www.ontario.ca/page/species-risk>.
- The Client's Guide to Preliminary Screening for Species at Risk (Draft May 2019) has been attached to the covering email for your reference and use. Please review this document for next steps.
- For any questions related to subsequent permit requirements, please contact SAROntario@ontario.ca.

Surface Water

- The report must include enough 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, 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 report and utilized when designing stormwater control methods. **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 report should describe how the proposed project and its mitigation measures are consistent with the requirements of this regulation and the OWRA.
- Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the [Water Taking User Guide for EASR](#) for more information. Additionally, an Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.

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 report.
- If the potential construction or decommissioning of water wells is identified as an issue, the report 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 report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that

exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation – O. Reg. 63/16. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the [Water Taking User Guide for EASR](#) for more information.

- Consultation with the railroad authorities is necessary wherever there is a plan to use construction dewatering in the vicinity of railroad lines or where the zone of influence of the construction dewatering potentially intercepts railroad lines.

Excess Materials Management

- In December 2019, MECP released a new regulation under the Environmental Protection Act, titled “[On-Site and Excess Soil Management](#)” (O. Reg. 406/19) to support improved management of excess construction soil. This regulation is a key step to support proper management of excess soils, ensuring valuable resources don’t go to waste and to provide clear rules on managing and reusing excess soil. New risk-based standards referenced by this regulation help to facilitate local beneficial reuse which in turn will reduce greenhouse gas emissions from soil transportation, while ensuring strong protection of human health and the environment. The new regulation is being phased in over time, with the first phase in effect on January 1, 2021. For more information, please visit <https://www.ontario.ca/page/handling-excess-soil>.
- The report should reference that activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the MECP’s current guidance document titled “[Management of Excess Soil – A Guide for Best Management Practices](#)” (2014).
- All waste generated during construction must be disposed of in accordance with ministry requirements

Contaminated Sites

- Any current or historical waste disposal sites should be identified in the report. 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. We recommend referring to the [MECP’s D-4 guideline](#) for land use considerations near landfills and dumps.
 - Resources available may include regional/local municipal official plans and data; provincial data on [large landfill sites](#) and [small landfill sites](#); Environmental Compliance Approval information for waste disposal sites on [Access Environment](#).
- Other known contaminated sites (local, provincial, federal) in the study area should also be identified in the report (Note – information on federal contaminated sites is found on the Government of Canada’s [website](#)).
- The location of any underground storage tanks should be investigated in the report. 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.
- Since the removal or movement of soils may be required, 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 appropriate MECP District Office for further consultation if contaminated sites are present.

Servicing, Utilities and Facilities

- The report should identify any above or underground utilities in the study area such as transmission lines, telephone/internet, oil/gas etc. The owners should be consulted to discuss impacts to this infrastructure, including potential spills.
- The report should identify any servicing infrastructure in the study area such as wastewater, water, stormwater that may potentially be impacted by the project.
- 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 MECP's Environmental Permissions Branch to determine whether a new or amended ECA will be required for any proposed infrastructure.
- We recommend referring to the ministry's [environmental land use planning guides](#) and [proposed land use compatibility guidelines](#) 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.

Mitigation and Monitoring

- 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 report 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.
- 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.
- The proponent's construction and post-construction monitoring plans must be documented in the report, as outlined in Section A.2.5 and A.4.1 of the MEA Class EA parent document.

Consultation

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The report should also include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments (as directed by the Class EA to include full documentation).
- Please include the full stakeholder distribution/consultation list in the documentation.

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**, 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 a Section 16 Order request under the *Environmental Assessment Act*, although the plan itself would

not be. **Please include a description of the approach being undertaken (use Appendix 4 as a reference).**

- If this project is a Master Plan: Any identified projects should also include information on the MCEA schedule associated with the project.
- The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.
- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment (including planning, natural, social, cultural, economic, technical). The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments, cultural heritage 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 report.
- Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, MTO permits and approvals under the *Impact Assessment Act*, 2019.
- Ministry guidelines and other information related to the issues above are available at <http://www.ontario.ca/environment-and-energy/environment-and-energy>. We encourage you to review all the available guides and to reference any relevant information in the report.

Amendments to the EAA through the Covid-19 Economic Recovery Act, 2020

Once the EA Report is finalized, the proponent must issue a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the proponent. The Notice of Completion must be sent to the appropriate MECP Regional Office email address (for projects in MECP Central Region, the email is eanotification.cregion@ontario.ca).

The public has the ability to request a higher level of assessment on a project if they are concerned about potential adverse impacts to constitutionally protected Aboriginal and treaty rights. In addition, the Minister may issue an order on his or her own initiative within a specified time period. The Director (of the Environmental Assessment Branch) will issue a Notice of Proposed Order to the proponent if the Minister is considering an order for the project within 30 days after the conclusion of the comment period on the Notice of Completion. At this time, the Director may request additional information from the proponent. Once the requested information has been received, the Minister will have 30 days within which to make a decision or impose conditions on your project.

Therefore, the proponent cannot proceed with the project until at least 30 days after the end of the comment period provided for in the Notice of Completion. Further, the proponent may not proceed after this time if:

- an order request has been submitted to the ministry regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, or
- the Director has issued a Notice of Proposed order regarding the project.

Please ensure that the Notice of Completion advises that outstanding concerns are to be directed to the proponent for a response, and that in the event there are outstanding concerns regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, the order request(s) on those matters should be addressed in writing to:

Minister
Ministry of the Environment, Conservation and Parks

777 Bay Street, 5th Floor
Toronto ON M7A 2J3
minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto ON, M4V 1P5
EABDirector@ontario.ca

The s.16 order request information has officially been updated on the Ontario Class EA Website:

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

This should help provide greater clarity on the s.16 order request processes and scope.

A PROPONENT'S INTRODUCTION TO THE DELEGATION OF PROCEDURAL ASPECTS OF CONSULTATION WITH ABORIGINAL COMMUNITIES

DEFINITIONS

The following definitions are specific to this document and may not apply in other contexts:

Aboriginal communities – the First Nation or Métis communities identified by the Crown for the purpose of consultation.

Consultation – the Crown's legal obligation to consult when the Crown has knowledge of an established or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. This is the type of consultation required pursuant to s. 35 of the *Constitution Act, 1982*. Note that this definition does not include consultation with Aboriginal communities for other reasons, such as regulatory requirements.

Crown – the Ontario Crown, acting through a particular ministry or ministries.

Procedural aspects of consultation – those portions of consultation related to the process of consultation, such as notifying an Aboriginal community about a project, providing information about the potential impacts of a project, responding to concerns raised by an Aboriginal community and proposing changes to the project to avoid negative impacts.

Proponent – the person or entity that wants to undertake a project and requires an Ontario Crown decision or approval for the project.

I. PURPOSE

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that may adversely impact that right. In outlining a framework for the duty to consult, the Supreme Court of Canada has stated that the Crown may delegate procedural aspects of consultation to third parties. This document provides general information about the Ontario Crown's approach to delegation of the procedural aspects of consultation to proponents.

This document is not intended to instruct a proponent about an individual project, and it does not constitute legal advice.

II. WHY IS IT NECESSARY TO CONSULT WITH ABORIGINAL COMMUNITIES?

The objective of the modern law of Aboriginal and treaty rights is the *reconciliation* of Aboriginal peoples and non-Aboriginal peoples and their respective rights, claims and interests. Consultation is an important component of the reconciliation process.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. For example, the Crown's duty to consult is triggered when it considers issuing a permit, authorization or approval for a project which has the potential to adversely impact an Aboriginal right, such as the right to hunt, fish, or trap in a particular area.

The scope of consultation required in particular circumstances ranges across a spectrum depending on both the nature of the asserted or established right and the seriousness of the potential adverse impacts on that right.

Depending on the particular circumstances, the Crown may also need to take steps to accommodate the potentially impacted Aboriginal or treaty right. For example, the Crown may be required to avoid or minimize the potential adverse impacts of the project.

III. THE CROWN'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS

The Crown has the responsibility for ensuring that the duty to consult, and accommodate where appropriate, is met. However, the Crown may delegate the procedural aspects of consultation to a proponent.

There are different ways in which the Crown may delegate the procedural aspects of consultation to a proponent, including through a letter, a memorandum of understanding, legislation, regulation, policy and codes of practice.

If the Crown decides to delegate procedural aspects of consultation, the Crown will generally:

- Ensure that the delegation of procedural aspects of consultation and the responsibilities of the proponent are clearly communicated to the proponent;
- Identify which Aboriginal communities must be consulted;
- Provide contact information for the Aboriginal communities;
- Revise, as necessary, the list of Aboriginal communities to be consulted as new information becomes available and is assessed by the Crown;
- Assess the scope of consultation owed to the Aboriginal communities;
- Maintain appropriate oversight of the actions taken by the proponent in fulfilling the procedural aspects of consultation;
- Assess the adequacy of consultation that is undertaken and any accommodation that may be required;
- Provide a contact within any responsible ministry in case issues arise that require direction from the Crown; and
- Participate in the consultation process as necessary and as determined by the Crown.

IV. THE PROPONENT'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS

Where aspects of the consultation process have been delegated to a proponent, the Crown, in meeting its duty to consult, will rely on the proponent's consultation activities and documentation of those activities. The consultation process informs the Crown's decision of whether or not to approve a proposed project or activity.

A proponent's role and responsibilities will vary depending on a variety of factors including the extent of consultation required in the circumstance and the procedural aspects of consultation the Crown has delegated to it. Proponents are often in a better position than the Crown to discuss a project and its potential impacts with Aboriginal communities and to determine ways to avoid or minimize the adverse impacts of a project.

A proponent can raise issues or questions with the Crown at any time during the consultation process. If issues or concerns arise during the consultation that cannot be addressed by the proponent, the proponent should contact the Crown.

a) What might a proponent be required to do in carrying out the procedural aspects of consultation?

Where the Crown delegates procedural aspects of consultation, it is often the proponent's responsibility to provide notice of the proposed project to the identified Aboriginal communities. The notice should indicate that the Crown has delegated the procedural aspects of consultation to the proponent and should include the following information:

- a description of the proposed project or activity;
- mapping;
- proposed timelines;
- details regarding anticipated environmental and other impacts;
- details regarding opportunities to comment; and
- any changes to the proposed project that have been made for seasonal conditions or other factors, where relevant.

Proponents should provide enough information and time to allow Aboriginal communities to provide meaningful feedback regarding the potential impacts of the project. Depending on the nature of consultation required for a project, a proponent also may be required to:

- provide the Crown with copies of any consultation plans prepared and an opportunity to review and comment;
- ensure that any necessary follow-up discussions with Aboriginal communities take place in a timely manner, including to confirm receipt of information, share and update information and to address questions or concerns that may arise;
- as appropriate, discuss with Aboriginal communities potential mitigation measures and/or changes to the project in response to concerns raised by Aboriginal communities;
- use language that is accessible and not overly technical, and translate material into Aboriginal languages where requested or appropriate;
- bear the reasonable costs associated with the consultation process such as, but not limited to, meeting hall rental, meal costs, document translation(s), or to address technical & capacity issues;
- provide the Crown with all the details about potential impacts on established or asserted Aboriginal or treaty rights, how these concerns have been considered and addressed by the

proponent and the Aboriginal communities and any steps taken to mitigate the potential impacts;

- provide the Crown with complete and accurate documentation from these meetings and communications; and
- notify the Crown immediately if an Aboriginal community not identified by the Crown approaches the proponent seeking consultation opportunities.

b) What documentation and reporting does the Crown need from the proponent?

Proponents should keep records of all communications with the Aboriginal communities involved in the consultation process and any information provided to these Aboriginal communities.

As the Crown is required to assess the adequacy of consultation, it needs documentation to satisfy itself that the proponent has fulfilled the procedural aspects of consultation delegated to it. The documentation required would typically include:

- the date of meetings, the agendas, any materials distributed, those in attendance and copies of any minutes prepared;
- the description of the proposed project that was shared at the meeting;
- any and all concerns or other feedback provided by the communities;
- any information that was shared by a community in relation to its asserted or established Aboriginal or treaty rights and any potential adverse impacts of the proposed activity, approval or disposition on such rights;
- any proposed project changes or mitigation measures that were discussed, and feedback from Aboriginal communities about the proposed changes and measures;
- any commitments made by the proponent in response to any concerns raised, and feedback from Aboriginal communities on those commitments;
- copies of correspondence to or from Aboriginal communities, and any materials distributed electronically or by mail;
- information regarding any financial assistance provided by the proponent to enable participation by Aboriginal communities in the consultation;
- periodic consultation progress reports or copies of meeting notes if requested by the Crown;
- a summary of how the delegated aspects of consultation were carried out and the results; and
- a summary of issues raised by the Aboriginal communities, how the issues were addressed and any outstanding issues.

In certain circumstances, the Crown may share and discuss the proponent's consultation record with an Aboriginal community to ensure that it is an accurate reflection of the consultation process.

c) Will the Crown require a proponent to provide information about its commercial arrangements with Aboriginal communities?

The Crown may require a proponent to share information about aspects of commercial arrangements between the proponent and Aboriginal communities where the arrangements:

- include elements that are directed at mitigating or otherwise addressing impacts of the project;
- include securing an Aboriginal community's support for the project; or
- may potentially affect the obligations of the Crown to the Aboriginal communities.

The proponent should make every reasonable effort to exempt the Crown from confidentiality provisions in commercial arrangements with Aboriginal communities to the extent necessary to allow this information to be shared with the Crown.

The Crown cannot guarantee that information shared with the Crown will remain confidential. Confidential commercial information should not be provided to the Crown as part of the consultation record if it is not relevant to the duty to consult or otherwise required to be submitted to the Crown as part of the regulatory process.

V. WHAT ARE THE ROLES AND RESPONSIBILITIES OF ABORIGINAL COMMUNITIES' IN THE CONSULTATION PROCESS?

Like the Crown, Aboriginal communities are expected to engage in consultation in good faith. This includes:

- responding to the consultation notice;
- engaging in the proposed consultation process;
- providing relevant documentation;
- clearly articulating the potential impacts of the proposed project on Aboriginal or treaty rights; and
- discussing ways to mitigate any adverse impacts.

Some Aboriginal communities have developed tools, such as consultation protocols, policies or processes that provide guidance on how they would prefer to be consulted. Although not legally binding, proponents are encouraged to respect these community processes where it is reasonable to do so. Please note that there is no obligation for a proponent to pay a fee to an Aboriginal community in order to enter into a consultation process.

To ensure that the Crown is aware of existing community consultation protocols, proponents should contact the relevant Crown ministry when presented with a consultation protocol by an Aboriginal community or anyone purporting to be a representative of an Aboriginal community.

VI. WHAT IF MORE THAN ONE PROVINCIAL CROWN MINISTRY IS INVOLVED IN APPROVING A PROPONENT'S PROJECT?

Depending on the project and the required permits or approvals, one or more ministries may delegate procedural aspects of the Crown's duty to consult to the proponent. The proponent may contact individual ministries for guidance related to the delegation of procedural aspects of consultation for ministry-specific permits/approvals required for the project in question. Proponents are encouraged to seek input from all involved Crown ministries sooner rather than later.

Jody Marks

From: Emily Martin <manager.ri@saugeenojibwaynation.ca>
Sent: Friday, February 18, 2022 12:23 PM
To: Jody Marks; Jonathan Uylenbroek; Richard Sloan
Subject: Re: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class EA - Notice of Commencement/PIC No. 1

Hello and thank you for your email,

At this point, the Saugeen Ojibway Nation's Environment Office does not have the resources to engage in consultation on this project. We have no further comments on this project. If at any point anything of archeological interest is revealed on site, please contact the SON Environment Office immediately.

If at any point this work involves or contemplates shoreline development or infrastructure, please be in touch. SON has significant concerns about shoreline development in SON Territory.

You can learn more about the Saugeen Ojibway Nation and SON territory here:

<https://www.saugeenojibwaynation.ca/resources>

Please do not respond to this email unless you have specific follow up questions.

Thank you,
Emily

Emily Martin
Resources and Infrastructure Associate
T: (867)687-2697



**Environment
Office**

**Saugeen Ojibway
Nation.**

25 Maadookii Subdivision
Neyaashiinigiing
Ontario, N0H 2T0
[saugeenojibwaynation.ca](https://www.saugeenojibwaynation.ca)

Emily Martin
Resources and Infrastructure Manager
manager.ri@saugeenojibwaynation.ca
T: (519) 379-0849



Environment Office

**Saugeen Ojibway
Nation.**

25 Maadookii Subdivision
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Emily Martin

Resources and Infrastructure Manager
manager.ri@saugeenojibwaynation.ca
T: (519) 379-0849



Environment Office

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Emily Martin

Resources and Infrastructure Manager
manager.ri@saugeenojibwaynation.ca
T: (519) 379-0849

I am grateful to live, work, and benefit from the Territorial lands and waters of the Saugeen Ojibway Nation.



Environment Office

**Saugeen Ojibway
Nation.**

25 Maadookii Subdivision
Neyaashiinigmiing
Ontario, N0H 2T0
saugeenojibwaynation.ca

On Thu, Feb 17, 2022 at 2:27 PM Jody Marks <jody.marks@ainleygroup.com> wrote:

Dear Emily Martin,

The Town of Wasaga Beach has retained the services of Ainley Group to undertake a Municipal Class Environmental Assessment (Class EA) to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change.

A virtual Public Information Centre (PIC) will be held on **Thursday, March 3, 2022 from 6:00pm to 8:00pm**. To participate in the virtual PIC please join via Zoom at the following link on the specified PIC date and time:
<https://us02web.zoom.us/j/87586494923>

Please see the attached *Notice* for further details. Thank you.

Regards,

Jody Marks

Environmental Planner



Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM

****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: jody.marks@ainleygroup.com****

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Ainley Group is committed to providing accessible customer service. Please inform us if you require this information in an alternative format or require communication supports.

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Jody Marks

From: Richard Sloan
Sent: Friday, February 18, 2022 1:09 PM
To: Jody Marks
Subject: FW: [REDACTED] Constance Blvd

FYI.

Richard Sloan, P. Eng.

Water Resources Group Lead



Tel: [\(705\) 726-3371 Ext. 256](tel:(705)726-3371)

Cell: [\(705\) 794-1754](tel:(705)794-1754)

Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: richard.sloan@ainleygroup.com

WWW.AINLEYGROUP.COM

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Ainley Group is committed to providing accessible customer service. Please inform us if you require this information in an alternative format or require communication supports.

----- Original

message

From:

Date: 2022-02-18 1:06 p.m. (GMT-05:00)

To: projects@wasagabeach.com, Richard Sloan <richard.sloan@ainleygroup.com>, [REDACTED]

Subject: [REDACTED] Blvd

Hi 

My husband [REDACTED] (cc'ed above) & I just received your information re the drainage improvements on Constance Blvd. We are very interested in the progress as we are about to start our dream home right there on the waterfront side. We have seen the scary water levels in the ditch during dry times and we're jokingly telling our builder to put our home on stilts already!

Please always keep us in the

loop, Thank you,

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Study Area



- The study area (outlined roughly red) is located in the western end of the Town of Wasaga Beach, close to Georgian Bay.
- The study area is focused around the corridors of Thomas Street, Bayswater Drive, and the section of Constance Boulevard that runs parallel to the shore of Georgian Bay.

*The Town is undertaking a 2D hydraulic model specific to the area of George Avenue, Marilyn Avenue South, and Robert Street South. This undertaking (area boundary outlined roughly yellow and beyond) is a separate project and being conducted under the Drainage Master

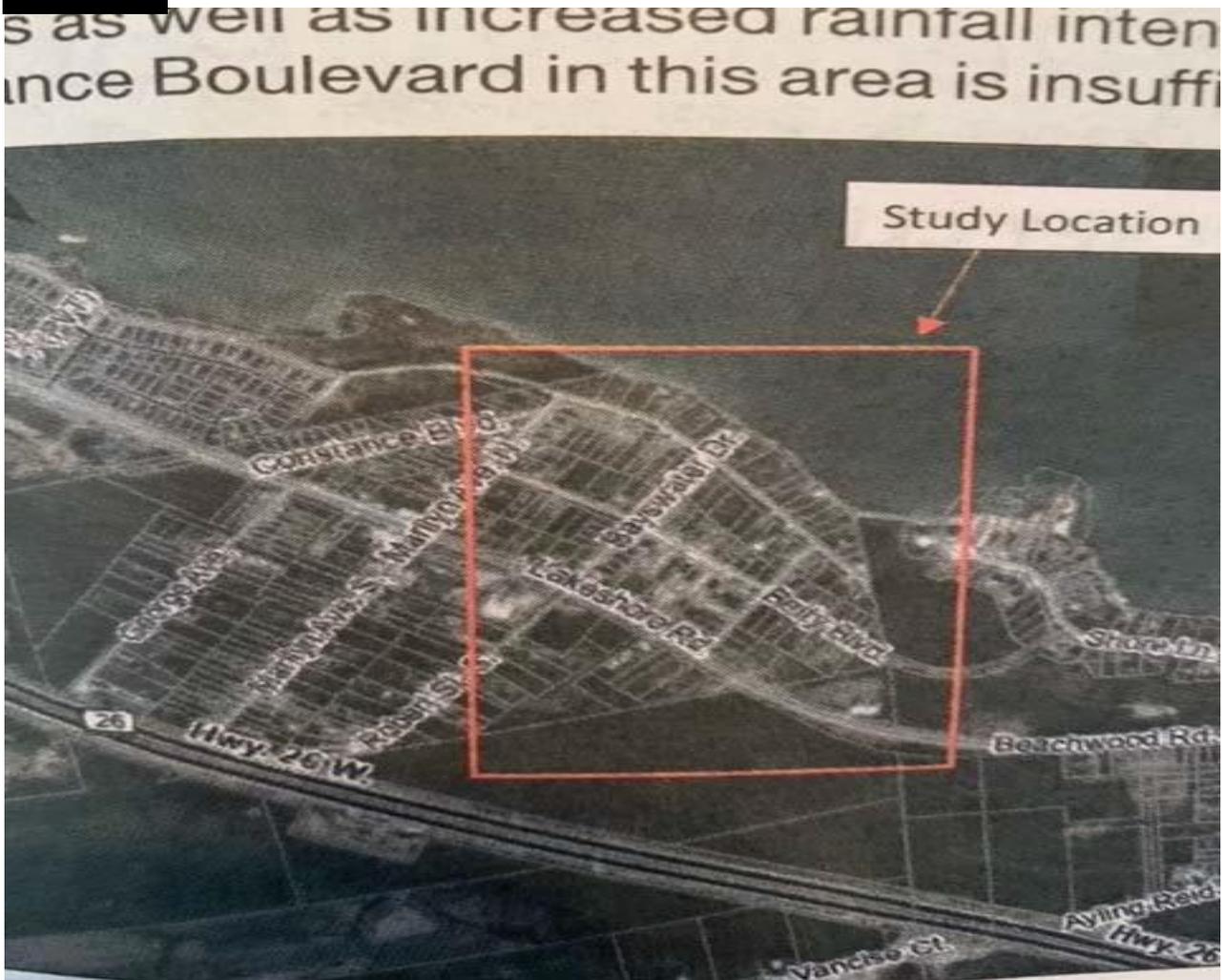
From: [REDACTED]
Sent: Saturday, February 26, 2022 5:39 PM
To: Kevin Lalonde <publicworksdirector@wasagabeach.com>
Subject: Drainage Improvements on Constance Boulevard

[CAUTION: Outside email]

It's alarming to see in the Sun Newspaper this week and last that Constance Blvd., Drainage Improvements will soon be underway. The study location shown partially overlaps our area of concern however Marilyn Avenue South parts of Beachwood Road and George Avenue are not in this study. Tatham Engineering is the company to undertake the study between January to March 2022. Is this still happening and why is there a partial overlap with another engineering company conducting another water drainage study? The only information on Drainage Improvements don't show anything being done before the year 2024 on your website for our area. Please advise as to what is going on!

On behalf of myself and the other 50 petitioners.

[REDACTED]





TOWN OF WASAGA BEACH
Constance Boulevard Drainage Improvements
Schedule 'C' Municipal Class Environmental Assessment
Notice of Commencement and Public Information Centre No. 1

The Project
 The Town of Wasaga Beach has retained the services of Anley Group to undertake a Municipal Class Environmental Assessment (Class EA) to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change. The current capacity of the side road ditch along Constance Boulevard in this area is insufficient to contain large stormwater events and results in flooding. This project will follow the Schedule 'C' planning and design process in accordance with the Municipal Class Environmental Assessment (Oct. 2000, as amended 2007, 2011 & 2015).

Public Information Centre

A virtual Public Information Centre (PIC) will be held on **Thursday, March 3, 2022 from 6:00pm to 8:00pm**. The purpose of the PIC will be to provide information on the project and to allow interested parties an opportunity to review proposed alternative solutions. To participate in the virtual PIC please join via Zoom at the following link on the specified PIC date and time: <https://us02web.zoom.us/j/87588494923>

Comments Invited

Public input is encouraged throughout the process and will be given consideration during the planning and design of this project. If you are unable to attend the live PIC a recording of the PIC presentation and copy of presentation material will be available on the Town's website at www.wasagabeach.com. Comments on the information presented will be received until **March 17, 2022**. To obtain additional information or to provide input, please contact either of the following members of the study team:



Jonathan Uyenbroek, C.E.T.
Project Coordinator
Town of Wasaga Beach
 30 Lewis Street
 Wasaga Beach, Ontario L9Z 1A1
 Tel: 705-429-2540 ext. 2342
projects@wasagabeach.com

Richard Sloan, P. Eng.
Water Resources Group Lead
Anley Group
 550 Welham Road
 Barre, Ontario L4N 8Z7
 Tel: 705-726-3371 ext. 256
Richard.Sloan@anleygroup.com

Jody Marks

From: Jonathan Uylenbroek <projects@wasagabeach.com>
Sent: Monday, March 14, 2022 9:24 AM
To: Jody Marks; Richard Sloan
Cc: Mike Pincivero
Subject: FW: Public Information Meeting March 3, 2022

Hello Richard and Jody, please find below question and response for your EA records.

Regards,

Jonathan Uylenbroek, C.E.T.

Project Coordinator
Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, ON, L9Z 1A1
Tel: (705) 429-2540, x2342



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If you have any accommodation needs or require communication supports or alternate formats, please let me know.

Si vous avez des besoins en matière d'adaptation, ou si vous nécessitez des aides à la communication ou des médias substitués, veuillez me le faire savoir.

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From: Jonathan Uylenbroek
Sent: March 14, 2022 9:13 AM

To: [REDACTED]
Subject: RE: Public Information Meeting March 3, 2022

Hello [REDACTED],

Thank you for reaching out and sharing the videos, I understand your concerns identified below regarding any additional flows being directed to the ditching along Bayswater Dr.

As Mike mentioned during the PIC meeting, any new developments are required to complete a Storm Water Management Report as part of the approval process. Among various items the SWM Report, it also identifies the site's existing condition, and how the proposed final condition will be maintaining the same runoff or lower as preconstruction conditions.

In terms of existing flooding conditions to be alleviated on the south side of Beachwood, it is not yet determined the alignment and means to convey those flows. We will take your comments and videos into consideration when evaluating the potential solutions.

Regards,

Jonathan Uylenbroek, C.E.T.
Project Coordinator
Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, ON, L9Z 1A1
Tel: (705) 429-2540, x2342



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la vie privée. Si vous avez reçu ce message par inadvertance, veuillez en aviser immédiatement l'expéditeur et supprimer ce message de votre ordinateur.

From: [REDACTED] >
Sent: March 10, 2022 1:41 PM
To: Jonathan Uylenbroek <projects@wasagabeach.com>
Subject: Public Information Meeting March 3, 2022

[CAUTION: Outside email]

Jonathan Uylenbroek, C.E.T.
Project Coordinator
Town of Wasaga Beach

We participated in the on-line public information meeting on March 3 re drainage improvement in the Constance Boulevard and Shorelane area in west Wasaga Beach.

Thank you for an informative and comprehensive presentation, with discussion of options for drainage issues in our neighbourhood.

We purchased our home at [REDACTED] in May 2017 and have enjoyed living in Wasaga Beach. As Bruce commented at the meeting, we have been concerned about drainage issues on Bayswater, which has similar volume flows to Thomas Street during heavy rainfall and snow melt. Mike Pincivero of the Engineering Department mentioned during the meeting that future development of Robert Street south of Beachwood may involve diverting “more water down Bayswater Drive.” This is of particular concern to the residents of Bayswater, as during peak flow the ditch is at capacity, there is significant erosion of the banks, and the turbulent water is a danger to young children. Attached are two videos that were taken on Sunday March 6 in front of our house. At one point an ice dam blocked the pipe under our driveway, and we had to break up ice to prevent flooding. Note that this was ice melt flow only – on other occasions when rain is added to the mix, the water level has risen to the top of the bank.

As future plans are made for growth in the area and in light of climate change issues, we would like assurances that no further water will be diverted to Bayswater Drive.

Regards,

[REDACTED]



Jody Marks

From: [REDACTED]
Sent: Monday, June 6, 2022 1:00 PM
To: 'Jonathan Uylenbroek'
Cc: Richard Sloan; Jody Marks; Mike Pincivero
Subject: RE: Public Information Meeting - Drainage Improvement

Thank you for your response Jonathan

Gratefully

[REDACTED]

From: Jonathan Uylenbroek <projects@wasagabeach.com>
Sent: Monday, June 6, 2022 11:21 AM
To: [REDACTED]
Cc: 'Richard Sloan' <richard.sloan@ainleygroup.com>; 'Jody Marks' <jody.marks@ainleygroup.com>; Mike Pincivero <pwengineer@wasagabeach.com>
Subject: RE: Public Information Meeting - Drainage Improvement

Hello [REDACTED],

I can confirm that PIC#2 for the EA is planned for June 23rd, where the identified preferred solution will be reviewed with the public for comment. Notice of this meeting is planned to be provided in the paper this week and next week.

As the environmental assessment is ongoing, there is no finalized EA summary/report available for review yet. Once the EA is completed, the report will be available for public review and posted to our website.

I trust this answers your questions, any further questions or concerns please don't hesitate to reach out.

Regards,

Jonathan Uylenbroek, C.E.T., CAN-CISEC
Project Coordinator
Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, ON, L9Z 1A1
Tel: (705) 429-2540, x2342



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From: [REDACTED]
Sent: June 6, 2022 10:59 AM
To: Jonathan Uylenbroek <projects@wasagabeach.com>; Mike Pincivero <pwengineer@wasagabeach.com>
Cc: 'Richard Sloan' <richard.sloan@ainleygroup.com>; 'Jody Marks' <jody.marks@ainleygroup.com>
Subject: RE: Public Information Meeting - Drainage Improvement

[CAUTION: Outside email]

Thank you Jonathan

- 1- Can you confirm that Option 2 has been definitively adopted as the solution
- 2- This document is a summary report of the PIC but not an environmental assessment, is there such a document?

Cordially

[REDACTED]

From: Jonathan Uylenbroek <projects@wasagabeach.com>
Sent: Monday, June 6, 2022 9:48 AM
To: [REDACTED] Mike Pincivero <pwengineer@wasagabeach.com>

Cc: 'Richard Sloan' <richard.sloan@ainleygroup.com>; 'Jody Marks' <jody.marks@ainleygroup.com>

Subject: RE: Public Information Meeting - Drainage Improvement

Hello [REDACTED],

Please see the attached summary of PIC#1 as requested.

Regards,

Jonathan Uylenbroek, C.E.T., CAN-CISEC

Project Coordinator

Town of Wasaga Beach

30 Lewis Street

Wasaga Beach, ON, L9Z 1A1

Tel: (705) 429-2540, x2342



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From: [REDACTED]

Sent: June 2, 2022 12:18 PM

To: Mike Pincivero <pwengineer@wasagabeach.com>

Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; 'Richard Sloan' <richard.sloan@ainleygroup.com>; 'Jody Marks' <jody.marks@ainleygroup.com>

Subject: RE: Public Information Meeting - Drainage Improvement

[CAUTION: Outside email]

Hello Mike

I noticed that topic on May 16 Coordinated Committee

Would you be able to share the environmental assessment summary document and memorandum for information ?

Cordially

4.5.4. Environmental

**Constance Boulevard Drainage
Improvements Schedule 'C'
Municipal Class Environmental
Assessment-Summary of Public
Information Centre No. 1**

RESOLVED THAT the Public Works Section of Coordinated Committee does hereby receive the Constance Boulevard Drainage Improvements Schedule 'C' Environmental Assessment Summary of PIC No. 1 Memorandum for information.

[REDACTED]

From: Mike Pincivero <pwengineer@wasagabeach.com>

Sent: Wednesday, March 9, 2022 9:27 AM

To: [REDACTED]

Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; 'Richard Sloan' <richard.sloan@ainleygroup.com>; 'Jody Marks' <jody.marks@ainleygroup.com>

Subject: RE: Public Information Meeting - Drainage Improvement

Hi [REDACTED].

The process for a Schedule C Municipal Class EA includes that now, we receive public / stakeholders comments for consideration and response, through which we confirm if the recommended preferred solution is in fact the solution that we will proceed with. Following that confirmation, we get more into the details of how that solution will work / look (i.e. we look at various design options for that solution). We then will have a second public information centre (PIC) to present the findings, and obtain further comments etc. before we close the EA. Following the EA, we will complete detailed design as required for construction. We will also have to acquire privately owned lands (if/as applicable) for the works.

Please note that the above noted process is for a Schedule C EA (which we are following for this project). If it were a Schedule B, we would only have the one public meeting, then go into detailed design.

Regards,

Mike Pincivero, P.Eng.
Manager of Engineering Services, RMO/RMI

Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, Ontario
L9Z 1A1

Office: (705) 429-2540, ext. 2307
Fax: (705) 429-8226
Cell: (705) 441-4123
m.pincivero@wasagabeach.com



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If you have any accommodation needs or require communication supports or alternate formats, please let me know.

Si vous avez des besoins en matière d'adaptation, ou si vous nécessitez des aides à la communication ou des médias substitués, veuillez me le faire savoir.

From: [REDACTED] >
Sent: March 8, 2022 10:13 AM
To: Mike Pincivero <pwengineer@wasagabeach.com>
Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; 'Richard Sloan' <richard.sloan@ainleygroup.com>; 'Jody Marks' <jody.marks@ainleygroup.com>
Subject: RE: Public Information Meeting - Drainage Improvement

[CAUTION: Outside email]

Thank you Mike

Based on the presentation, Option 2 is preferred, do that mean it will definitely be the one selected and the design work will be done for option 2?

Looking forward to see the final design on the second Public Information Meeting.

Gratefully

[REDACTED]

From: Mike Pincivero <pwengineer@wasagabeach.com>

Sent: Tuesday, March 8, 2022 9:59 AM

To: [REDACTED]

Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; 'Richard Sloan' <richard.sloan@ainleygroup.com>; 'Jody Marks' <jody.marks@ainleygroup.com>

Subject: RE: Public Information Meeting - Drainage Improvement

Hi [REDACTED].

The video is now on our website under the link I provided below.

Regards,

Mike Pincivero, P.Eng.
Manager of Engineering Services, RMO/RMI

Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, Ontario
L9Z 1A1

Office: (705) 429-2540, ext. 2307

Fax: (705) 429-8226

Cell: (705) 441-4123

m.pincivero@wasagabeach.com



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possible. Thank you for your cooperation. For updates visit www.wasagabeach.com and our [COVID-19 Information Page](#).

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Si vous avez des besoins en matière d'adaptation, ou si vous nécessitez des aides à la communication ou des médias substitués, veuillez me le faire savoir.

From: [REDACTED] >
Sent: March 7, 2022 2:51 PM
To: Mike Pincivero <pwengineer@wasagabeach.com>
Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; 'Richard Sloan' <richard.sloan@ainleygroup.com>; 'Jody Marks' <jody.marks@ainleygroup.com>
Subject: RE: Public Information Meeting - Drainage Improvement

[CAUTION: Outside email]

Thank you for your response Mike

Please let me know when it will be online so I can share with a few interested neighbours.

You could post on public streaming platforms such as Vimeo or Youtube or the same platform you use for the Council meetings.

Gratefully

[REDACTED]

From: Mike Pincivero <pwengineer@wasagabeach.com>
Sent: Monday, March 7, 2022 2:34 PM
To: [REDACTED]
Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; Richard Sloan <richard.sloan@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>
Subject: RE: Public Information Meeting - Drainage Improvement

Hi [REDACTED].

The materials are being posted on our website here: <https://www.wasagabeach.com/en/town-and-government/engineering-services.aspx#Environmental-Assessment-Studies>

We do not have the video saved there yet as it is a very large file and we are sorting out the correct platform for people to be able to access it without having to download the whole file.

Regards,

Mike Pincivero, P.Eng.
Manager of Engineering Services, RMO/RMI

Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, Ontario
L9Z 1A1

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From: [REDACTED] >

Sent: March 5, 2022 5:39 PM

To: Mike Pincivero <pwengineer@wasagabeach.com>

Subject: Public Information Meeting - Drainage Improvement

[CAUTION: Outside email]

Hello Mike

Would you please share the link to the recording of March 3, Public Information Meeting about Drainage Improvement in the area of Constance Boulevard.

I could not find it on wasagabeach.com

Thank you

[Redacted signature block]



Jody Marks

From: Jonathan Uylenbroek <projects@wasagabeach.com>
Sent: Thursday, March 3, 2022 5:22 PM
To: Mike Pincivero; Jody Marks; Richard Sloan
Subject: FW: PIC March 3, 2022

Please see below communication from 24 Constance Blvd.

Regards,

Jonathan Uylenbroek, C.E.T.

Project Coordinator
Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, ON, L9Z 1A1
Tel: (705) 429-2540, x2342



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From: [REDACTED] >
Sent: March 3, 2022 5:18 PM
To: Jonathan Uylenbroek <projects@wasagabeach.com>
Subject: PIC March 3, 2022

[CAUTION: Outside email]

To Whom it May Concern

Re: Class EA for local flooding at Constance Blvd. and Thomas St.

First in my opinion Ainley Group is in conflict of interest to conduct this Class EA. Ainley was the company responsible for engineering and subsequently awarded Contract #9B, (c. 2005). A project, besides water and sanitary sewer installation in the area, also included enlarging ditches and oversized culverts along Thomas and Constance to Bayswater. Result - Worst flooding ever occurred in 2006!

The problem is the converging water from "upstream" between Beechwood to Hwy 26 and beyond. A proper Class EA has to include All the widened area between Robert St. and 75th St.

Solution: SWM ponds upstream. Or does that make too much common sense?

Yours truly

A black rectangular redaction box covering the signature area.

Jody Marks

From: Jonathan Uylenbroek <projects@wasagabeach.com>
Sent: Monday, March 7, 2022 7:37 AM
To: [REDACTED]
Cc: Richard Sloan; Jody Marks; Mike Pincivero
Subject: RE: Looking for a recorded PIC

Hello [REDACTED],

Sorry to hear you could not attend, glad to share the link to the EA page for reference:
<https://www.wasagabeach.com/en/town-and-government/engineering-services.aspx#Environmental-Assessment-Studies>

The presentation slides and notice are available for the Constance Blvd Drainage Improvements EA, and the video of the meeting will be up linked shortly once we finish working through the upload with IT.

Regards,

Jonathan Uylenbroek, C.E.T.

Project Coordinator
Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, ON, L9Z 1A1
Tel: (705) 429-2540, x2342



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From: [REDACTED] >
Sent: March 5, 2022 4:20 PM
To: Jonathan Uylenbroek <projects@wasagabeach.com>
Subject: Looking for a recorded PIC

[CAUTION: Outside email]

Hello, I received a notice in the mail for a PIC on March 3, 2022 for the Constance Blvd Drainage Improvements. Unfortunately I was unable to attend.

The notice says I can watch a recording of the PIC on your website but I am unable to find it, even when I do a specific search for it.

Can you send me the link for it please?

Thank you so much,

[REDACTED]

Get [Outlook for iOS](#)

Jody Marks

From: Jonathan Uylenbroek <projects@wasagabeach.com>
Sent: Friday, March 18, 2022 9:07 AM
To:
Cc: Jody Marks; Richard Sloan
Subject: RE: Constance blvd/ Thomas st storm water overflow information

Hello,

Please find the link to the page which hosts further information on this EA, including the video of the PIC and slides.

<https://www.wasagabeach.com/en/town-and-government/engineering-services.aspx#Environmental-Assessment-Studies>

Any further information or questions please don't hesitate to ask.

Regards,

Jonathan Uylenbroek, C.E.T.

Project Coordinator
Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, ON, L9Z 1A1
Tel: (705) 429-2540, x2342



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From: [REDACTED]
Sent: March 16, 2022 7:32 AM
To: Jonathan Uylenbroek <projects@wasagabeach.com>
Subject: Constance blvd/ Thomas st storm water overflow information

[CAUTION: Outside email]

Hello

I am a resident in the Constance/Thomas neighbourhood and I am curious to see more information about the proposed project. I was not able to attend the live zoom meeting on March 3, and I would like to see the presentation. However I am unable to find the video on the Wasagabeach.com website.

Can you forward me the appropriate information or an accurate link?

Thank you

[REDACTED]

Jody Marks

From: Mike Pincivero <pwengineer@wasagabeach.com>
Sent: Monday, March 7, 2022 3:08 PM
To: Richard Sloan; Jody Marks
Cc: Kevin Lalonde
Subject: FW: Flooding

FYI / for the EA file / records. Kevin has already replied to [REDACTED].

Regards,

Mike Pincivero, P.Eng.
Manager of Engineering Services, RMO/RMI

Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, Ontario
L9Z 1A1

Office: (705) 429-2540, ext. 2307
Fax: (705) 429-8226
Cell: (705) 441-4123
m.pincivero@wasagabeach.com



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From: [REDACTED]

Sent: March 6, 2022 4:13 PM

To: Kevin Lalonde <publicworksdirector@wasagabeach.com>; Mike Pincivero <pwengineer@wasagabeach.com>

Subject: Flooding

[CAUTION: Outside email]

We are experiencing flooding at [REDACTED]

The town will need to do something ASAP!

My parents place is flooding inside

Please respond

[REDACTED]

Jody Marks

From: Jonathan Uylenbroek <projects@wasagabeach.com>
Sent: Thursday, March 3, 2022 8:36 AM
To: [REDACTED]
Cc: [REDACTED]; Kevin Lalonde; Mike Pincivero
Subject: RE: flooding PIC session

Hi [REDACTED],

Thanks for reaching out. This EA study area is North of Beachwood Road, as shown below in one of tonight's slides. It is specific to the Stormwater flows down Tomas Street that cause flooding on Constance Blvd, and require a better outlet. Please note that surface water runoff from George St, Marilyn Ave and Robert St. cross Beachwood Road at Robert St. and run down Bayswater Dr. out to the Bay. This is a different conveyance corridor than the Thomas St flooding issue.

Evaluation of the George Ave, Marilyn Ave S, and Robert St S drainage area South of Beachwood Road is being completed within the Drainage Master Plan using 2D hydraulic modeling. Following completion of the Drainage Master Plan, priority areas will be defined and a public meeting will be held to satisfy the E.A. criteria for those defined projects.

Any further questions or concerns please feel free to let us know.

Study Area



- The study area (outlined roughly red) is located in the western end of the Town of Wasaga Beach, close to the beach.
- The study area is focused around the corridors of Thomas Street, Bayswater Drive, and the section of Constance Boulevard that runs parallel to the shore of Georgian Bay.

*The Town is undertaking a 2D hydraulic model specific to the area of George Avenue, Marilyn Avenue South, and Robert Street South. This undertaking (area boundary outlined roughly yellow and beyond) is a separate project and is being conducted under the Drainage Master

Town of Wasaga Beach | Constance Boulevard Drainage Improvements Class EA



Regards,

Jonathan Uylenbroek, C.E.T.

Project Coordinator

Town of Wasaga Beach

30 Lewis Street

Wasaga Beach, ON, L9Z 1A1

Tel: (705) 429-2540, x2342



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From: [REDACTED]
Sent: March 1, 2022 12:18 PM
To: Jonathan Uylenbroek <projects@wasagabeach.com>
Cc: George Vadeboncoeur <cao@wasagabeach.com>; Kevin Lalonde <publicworksdirector@wasagabeach.com>; Mike Pincivero <pwengineer@wasagabeach.com>
Subject: FW: flooding PIC session

Hi Jonathan:

Please see the media inquiry we received below from [REDACTED].

Thx.

Mike

Michael Gennings
Communications Officer
Town of Wasaga Beach
www.wasagabeach.com
705-429-3844, ext. 2237



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From: [REDACTED]
Sent: March 1, 2022 11:42 AM
To: Michael Gennings <communications@wasagabeach.com>
Subject: flooding PIC session

[CAUTION: Outside email]

Hey Mike – can you check something with Jonathan Uylenbroek... the EA that Ainley is doing for the Constance Boulevard drainage improvements, would the study area affect those on both sides of Beachwood, including the folks on Marilyn who were raising concerns about flooding back in November?

Thanks!

--

[REDACTED]

[REDACTED]



Responses to Comments Received

Jody Marks

From: Jonathan Uylenbroek <projects@wasagabeach.com>
Sent: Thursday, March 3, 2022 8:36 AM
To: [REDACTED]
Cc: Kevin Lalonde; Mike Pincivero
Subject: RE: Drainage Improvements on Constance Boulevard

Hello [REDACTED],

Thanks for reaching out and sorry for the delay in response. I wanted to clarify with you that this EA study area is North of Beachwood Road, as shown below in one of tonight's slides. It is specific to the Stormwater flows down Tomas Street that cause flooding on Constance Blvd, and require a better outlet. Please note that surface water runoff from George St, Marilyn Ave and Robert St. cross Beachwood Road at Robert St. and run down Bayswater Dr. out to the Bay. This is a different conveyance corridor than the Thomas St flooding issue.

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Any further questions or concerns please feel free to let us know.

Jody Marks

From: Mike Pincivero <pwengineer@wasagabeach.com>
Sent: Monday, March 7, 2022 3:10 PM
To: Richard Sloan; Jody Marks
Cc: Kevin Lalonde
Subject: FW: Took more

Further to my message I just sent you, here is the response from Kevin to [REDACTED].

Regards,

Mike Pincivero, P.Eng.
Manager of Engineering Services, RMO/RMI

Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, Ontario
L9Z 1A1

Office: (705) 429-2540, ext. 2307
Fax: (705) 429-8226
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From: Kevin Lalonde <publicworksdirector@wasagabeach.com>

Sent: March 7, 2022 3:04 PM

To: Mike Pincivero <pwengineer@wasagabeach.com>

Subject: FW: Took more

fyi

Regards,

--

Kevin Lalonde, P.Eng.

Director of Public Works

Town of Wasaga Beach

T: 705-429-2540 ext. 2302

C: 705-443-7540

E: publicworksdirector@wasagabeach.com

30 Lewis Street

Wasaga Beach, ON L9Z 1A1

Web: www.wasagabeach.com



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From: Kevin Lalonde

Sent: Monday, March 7, 2022 8:30 AM

To: [REDACTED]

Subject: RE: Took more

Hi [REDACTED],

I'm sorry to hear about this.

Yes, staff were on site at 3:30pm and indicated that, although water was flowing without obstruction, the volume of runoff from the melt simply overwhelmed the drainage systems.

Regards,

--

Kevin Lalonde, P.Eng.
Director of Public Works
Town of Wasaga Beach

T: 705-429-2540 ext. 2302

C: 705-443-7540

E: publicworksdirector@wasagabeach.com

30 Lewis Street
Wasaga Beach, ON L9Z 1A1
Web: www.wasagabeach.com



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From: [REDACTED]
Sent: Sunday, March 6, 2022 6:28 PM
To: Kevin Lalonde <publicworksdirector@wasagabeach.com>
Subject: Fwd: Took more

[CAUTION: Outside email]

[REDACTED]

[REDACTED]

----- Forwarded message -----

From: [REDACTED]

Date: March 6, 2022 at 5:03:20 PM EST

Subject: Took more

To: [REDACTED]

Jody Marks

From: Jody Marks
Sent: Wednesday, March 30, 2022 1:42 PM
To: [REDACTED]
Cc: Jonathan Uylenbroek; Richard Sloan
Subject: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class Environmental Assessment
Attachments: Letter to [REDACTED] March 30, 2022.pdf

Dear [REDACTED],

We are responding on behalf of the Town of Wasaga Beach to your email received on March 3, 2022 regarding the Constance Boulevard Drainage Improvements Class Environmental Assessment. Please find attached a formal response letter to your comments.

Regards,

Jody Marks
Environmental Planner



Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM

****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: jody.marks@ainleygroup.com****

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VIA EMAIL

March 30, 2022

File No. 221057

[REDACTED]

Re: Constance Boulevard Improvements Class Environmental Assessment
Response to Comments Received

Dear [REDACTED]:

We are responding on behalf of the Town of Wasaga Beach to your comment received on March 3, 2022 responding to the Notice of Public Information Centre. We have highlighted your main comment below:

“First in my opinion Ainley (sic) Group is in conflict of interest to conduct this Class EA. Ainley was the company responsible for engineering and subsequently awarded Contract #9B, (c. 2005). A project, besides water and sanitary sewer (sic) installation in the area, also included enlarging ditches and oversized culverts along Thomas and Constance to Bayswater. Result - Worst flooding ever occurred in 2006! The problem is the converging water from "upstream" between Beechwood to Hwy 26 and beyond. A proper Class EA has to include All the widened area between Robert St. and 75th St. Solution: SWM ponds upstream. Or does that make too much common sense?”

RESPONSE:

The study area for the project has been selected based on potential improvements which can be implemented in the area north of Beachwood Road to accommodate the expected flows from the watercourse which contributes directly to Thomas Street. As identified in our presentation this watercourse originates within Clearview Township approximately 2.5 km south of Beachwood Road. As part of the natural heritage assessment, completed as part of this study, it was determined that any modifications to this tributary could result in harmful alteration, disruption or destruction of fish habitat. As a result, a single pond could not be placed in an area sufficient to capture the entire tributary area, which would necessitate implementation of several ponds, some of which would be located outside of the Town limits. The property acquisition and coordination of these ponds would be impractical and, as such, did not meet the criteria for our short list of options included in the presentation. We note that, the area east of this watercourse, was considered as part of the design for the proposed outlet channel associated with the future development of the West End Public Works Depot. The area to the west, extending to George Avenue, will be analyzed in more detail as part of the Town’s ongoing work completed as part of the Town wide Drainage Study.

If you have any questions or require further assistance with this matter, please feel free to contact the undersigned.

Yours truly,

AINLEY & ASSOCIATES LIMITED



Richard Sloan
Water Resources Group Lead

cc: Jonathan Uylenbroek – Town of Wasaga Beach (By Email)

PIC Presentation Material



Town of Wasaga Beach Constance Boulevard Drainage Improvements Schedule 'C' Municipal Class Environmental Assessment

Public Information Centre No. 1

March 3, 2022



Introduction

Richard Sloan, P.Eng.
Water Resources Group Lead

- Project Manager
- Engineering Lead



Jody Marks
Environmental Planner

- Class Environmental Assessment Lead



Agenda

1. Project Background and Study Area
2. The Municipal Class Environmental Assessment Process
3. Existing Conditions
4. Alternative Solutions Considered
5. Comment Period 1
6. Evaluation of Alternative Solutions
7. Next Steps
8. Comment Period 2

Project Background

- The Town of Wasaga Beach has retained the services of Ainley Group to undertake a Municipal Class Environmental Assessment (Class EA) to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change.
- The current capacity of the side road ditch along Constance Boulevard in this area is insufficient to contain larger stormwater events and results in flooding.
- The origin of the drainage watercourse is from lands south of Beachwood Road. The watercourse flows north along Thomas Street and crosses under Thomas Street to the south side of Constance Blvd. The water is directed west towards Bayswater Drive where it flows through a culvert under Constance Blvd. and then north in a channel to Georgian Bay.



Study Area



- The study area (outlined roughly in red) is located in the western end of the Town of Wasaga Beach, close to Brocks Beach.
- The study area is focused around the corridors of Thomas Street, Bayswater Drive, and the segment of Constance Boulevard that runs parallel to the shoreline of Georgian Bay.

*The Town is undertaking a 2D hydraulic model specific to the area of George Avenue, Marilyn Avenue South, and Robert Street South. This undertaking (area boundary outlined roughly in yellow and beyond) is a separate project and being conducted under the Drainage Master Plan.

Municipal Class EA Process

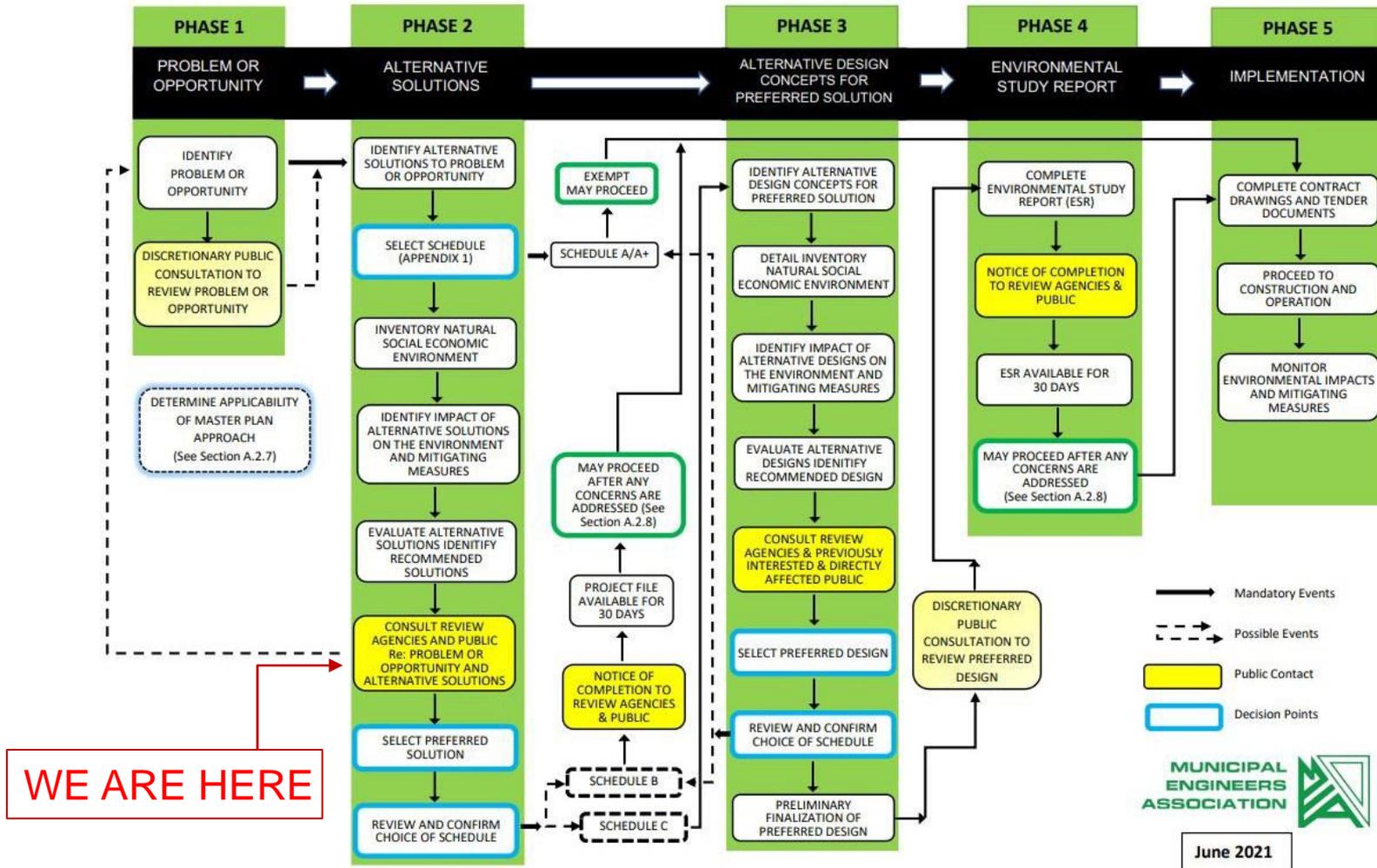
- A municipality is required to conduct a Municipal Class Environmental Assessment before this type of infrastructure improvement project can proceed to construction. A Municipal Class Environmental Assessment follows an approved planning process designed to protect the environment and to ensure compliance with the *Environmental Assessment Act* (EA Act).
- The purpose of the EA Act is to provide for “...the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment.” The term ‘environment’ is broadly defined and includes the built, natural, socio-economic and cultural environments.
- The process requires the evaluation of potential solutions and design concepts so as to select a suitable approach that will address the problem/opportunity, but also keep impacts to a minimum.
- This project is classified as a Schedule ‘C’ in accordance with the Municipal Class Environmental Assessment (Oct. 2000, as amended 2007, 2011 & 2015) and requires completion of Phases 1 to 4 of the process.

Municipal Class EA Process

- The Problem/Opportunity statement is described below:

“The purpose of this study is to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change. The current capacity of the side road ditch along Constance Boulevard in this area is insufficient to contain larger stormwater events and results in flooding.”

Municipal Class EA Process



Existing Conditions

Various field studies have been completed to determine existing environmental conditions as well as to identify any potential impacts the alternative solutions pose to the environment.

▪ PHYSICAL ENVIRONMENT

- The existing roadside ditch is approximately 1m deep and is relatively flat.
- Drainage area is approximately 328 ha and is made up of road drainage and residential areas.
- The culvert at Constance Blvd. and Thomas St. conveys flows under from Thomas St. west towards the outlet condition.
- Flooding occurs most often at the low point in the road in front of 12 and 18 Constance Boulevard.



The top photo is the view along the southern side of Constance Blvd. looking east. The bottom photo is showing the watercourse crossing under Constance

flow direction of the watercourse.

Blvd. at Bayswater Drive. The arrows indicate the

flow direction of the watercourse.

Existing Conditions

▪ NATURAL ENVIRONMENT

- The majority of the study area is comprised of residential lots with a wooded area located in the easterly area. The majority of the project area is regulated by the Nottawasaga Valley Conservation Authority (NVCA) owing to the watercourse and low-lying floodplain along the Georgian Bay shoreline.
- According to the Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNR) Natural Heritage Information Centre (NHIC) database, no known occurrences of terrestrial Species at Risk (SAR) are present within the study area.
- Endangered Bat species have the potential to occur within treed areas of the study area. Suitable habitat is found within the woodlot habitat of the study area.
- The drainage feature within the study area is a Tributary to the Nottawasaga Bay that originates approximately 2.5km to the south, and crosses Highway 26 and Beachwood Road before entering the roadside ditches of the project area.
- Considering the flow permanency, water depths, aquatic plants present and connectivity to Georgian Bay, the tributary and connecting ditches in the study area are considered fish habitat, protected under the Federal *Fisheries Act*.

Existing Conditions

- CULTURAL ENVIRONMENT

- There are no known archaeological resources within the study area.
- There are areas that have been previously disturbed, due to development or Town/Capital servicing of sewer/water, that no longer exhibit archeological potential.
- Other areas have been identified to have archeological potential and require further field investigation to confirm archaeological potential.
- Review of the project area has determined the presence of a Cultural Heritage Landscape, this being the beach/shoreline.

- SOCIAL AND ECONOMIC ENVIRONMENT

- The lands within the project study area are classified as 'Residential' and 'Natural Hazards' under the Town of Wasaga Beach's Official Plan.
- The beach/shoreline within the project area is a private access beach and not open to the public, with the exception of municipal road allowances leading to waters edge.

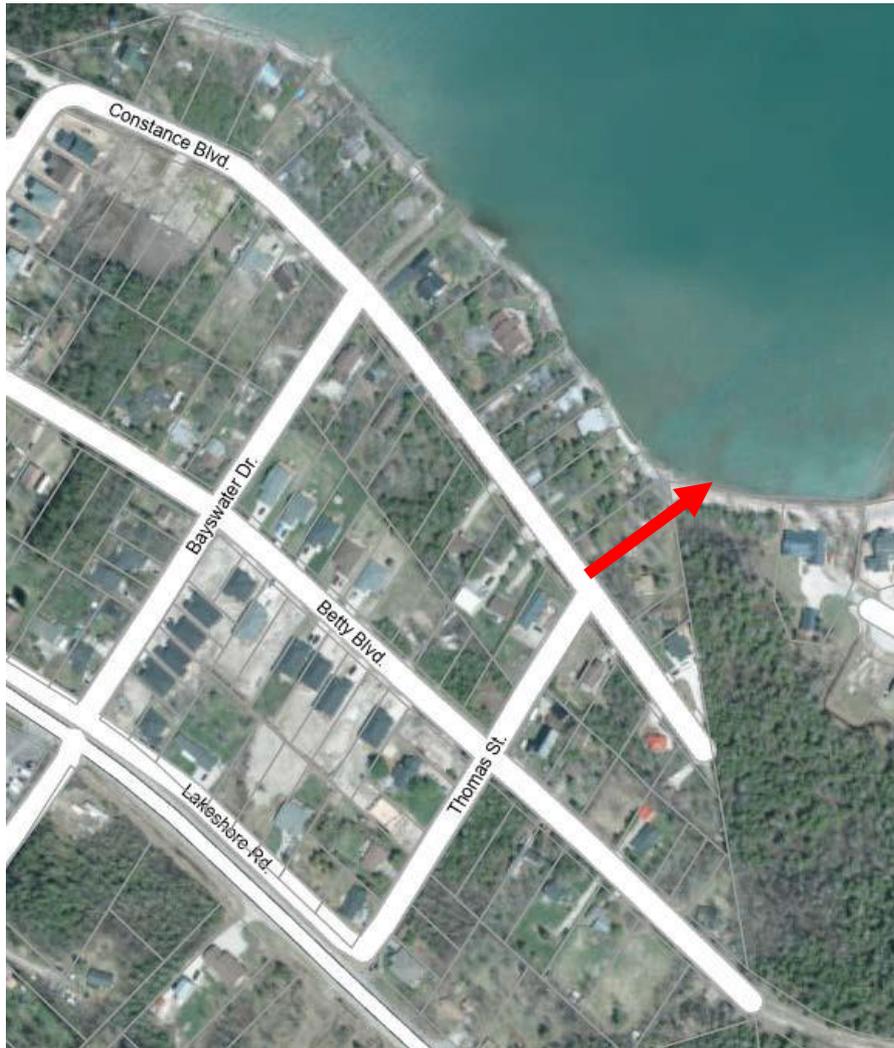
Alternative Solutions

As part of Phase 2 of the Class EA process, several alternative solutions were developed to address the problem/opportunity.

- **Option 1 - “Do Nothing”/Status Quo**

The “Do-Nothing” option considers no improvements and/or modifications. This alternative does not address the problem/opportunity statement and is provided as a benchmark to gauge the potential impacts of the other options being considered.

Alternative Solutions



- ***Option 2 - Create New Outlet to the Bay through Property at 18 Constance Boulevard***

This option includes a new drainage outlet constructed through private residence at 18 and 24 Constance Boulevard. A new outlet to Georgian Bay would be constructed and the current outlet would continue to convey the flows from west of Thomas Street along Constance Boulevard.

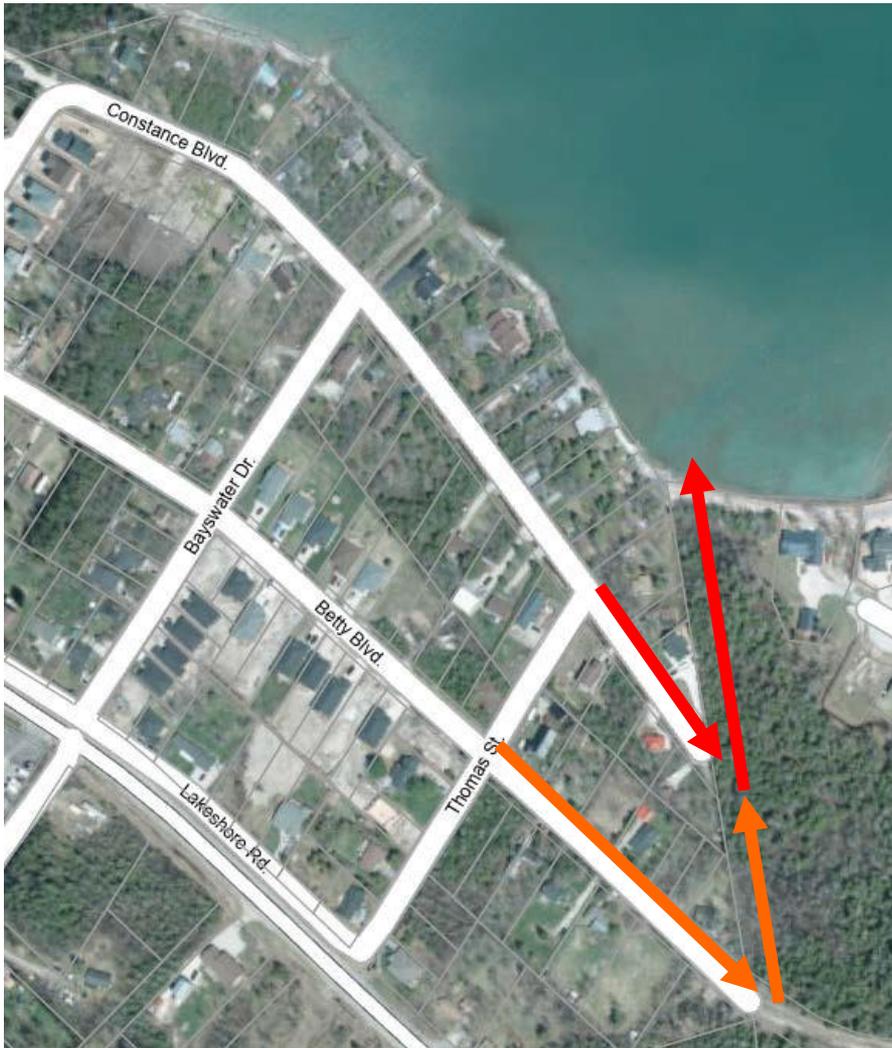
Alternative Solutions



- ***Option 3 - Increase Capacity of Constance Boulevard Ditch to Outlet North of Bayswater Drive***

This option proposes to increase the capacity of the ditch along the south side of Constance Boulevard between Bayswater Drive and Thomas Street. To increase capacity, the current ditch would be regraded and the existing culverts would be replaced. The work proposed under this option would be maintained within the current road right of way (ROW).

Alternative Solutions



- ***Option 4A - Redirect Drainage to Other Private Lands***

Under this option the flows along Thomas Street would be diverted easterly along Constance Boulevard to a connection point in the proposed West End Depot ditch.

- ***Option 4B - Redirect Drainage to Other Private Lands***

Under this option the flows along Thomas Street would be diverted easterly along Betty Boulevard to a connection point in the proposed West End Depot ditch.

Comment Period 1

Evaluation of Alternative Solutions

- Each of the alternatives were evaluated based on their potential impact to the study area environment (physical, natural, cultural, and socio-economic).
- The evaluation is presented in a table or matrix to provide a simplified, visual comparison.

Legend:

Positive	Positive Neutral	Neutral	Negative Neutral	Negative
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- Green represents the most preferred option, as it will address the key concerns, but create the least amount of environmental impact.
- Red is indicative of a least preferred option as it has a higher potential to impact the environment.
- A blank space indicates that the impact is considered neutral

Evaluation of Alternative Solutions

EVALUATION CRITERIA	OPT 1	OPT 2	OPT 3	OPT 4	DESCRIPTION OF IMPACTS
PHYSICAL ENVIRONMENT					
Increases Capacity to Reduce Flooding	Red	Green	Light Green	Red	Option 2 provides additional capacity by creating a new outlet. Option 3 will allow for increased capacity along Constance Blvd. which will help reduce flooding but not to the same extent as Option 2. Option 4 is not feasible due to constructability and grading issues as identified below, therefore no increase to conveyance capacity and no improvements to flooding issues are provided.
Constructability	White	Green	Green	Red	Option 2 and 3 help improve deficiencies in the site and are constructable. Option 4 cannot be constructed as the connection location within the proposed West End Depot ditch is higher then the existing elevations within the Thomas Street ditch.
Erosion Potential	White	Green	Light Orange	Light Orange	Increased erosion is possible where the conveyance route turns. Options 3 and 4 have several 90° bends, or sharper, at road intersections. Option 2 provides the straightest flow pathway for flows from Thomas St.
Sufficient Grade	White	Green	Red	Red	Higher grades within the conveyance route allow for more capacity. Option 3 is the longest route and has the flattest grade. The diversions to the east considered in Option 4 go against the natural contours in the area creating flat or negative grades. Option 2 follows the natural contours in the area over the shortest pathway providing the best option for grading purposes.
Required Footprint	White	Green	Red	Light Orange	Given the existing capacity issues Option 3 would require a significant increase in the width of the ditch impacting several properties from Thomas St. to Bayswater Dr. Although the proposed West End Depot ditch could remain unchanged to accommodate the diversion an issue similar to that described for Option 3 would be expected where a new route would be constructed adjacent to private properties. Option 2 allows for the most efficient cross section.
Expected Performance	White	Green	Red	Light Orange	The potential for increased capacity along the route proposed for Option 3 is limited by the potential impact to private properties, limiting the opportunity to reduce flooding. The amount which can be diverted to the proposed West End Depot ditch is limited by the expected capacity required to convey flow from the Depot and surrounding properties per the original design of that system. Option 2 is the most efficient and can allow for the diversion of the most flow. The channel can be placed to allow for future severance of this lot and maximizing the development potential while provided a positive outlet.

Evaluation of Alternative Solutions

EVALUATION CRITERIA	OPT 1	OPT 2	OPT 3	OPT 4	DESCRIPTION OF IMPACTS
PHYSICAL ENVIRONMENT					
Impacts to Existing Utilities					Option 2 proposed work is on private property and may impact private utility services. Option 3 proposes work within the existing ROW, there are hydro poles/lines on the southern side of Constance Blvd. that may be impacted by improvements. Option 4 proposes work within the ROW of Constance Blvd. easterly and there are hydro poles/lines present that may be impacted by the construction of the diversion ditch.
NATURAL ENVIRONMENT					
Terrestrial Vegetation (Includes SAR)					The work proposed under Option 2 may include tree removals dependent on size of channel. No tree removals are anticipated under Options 3, as the surrounding land is manicured lawns no impacts are anticipated to vegetation. Options 4 involves the construction of a diversion channel within a woodlot, vegetation removal is required. No SAR tree species have been identified within the project study area.
Wildlife (Includes SAR)					The woodlot to the east of the project area contains potential habitat for Endangered bats, construction work proposed under Option 4 in this area may impact this wildlife habitat.
Fish Habitat (Includes SAR)					While the alignment of Option 2 and Option 4 doesn't currently include fish habitat constraints the options involve fisheries considerations. If the Tributary in the current alignment were altered or eliminated, the impacts may constitute the harmful alteration, disruption or destruction of fish habitat. Option 3 would maintain the existing drainage alignment and substrate may even be improved.
Ground Water					The project area is within a highly vulnerable aquifer zone. Further geotechnical studies will be conducted during the detailed design stage. It is not anticipated that any of the work proposed under the options would impact ground water conditions. There are approximately 10 residential wells located within the study area. Residents are connected to municipal water.
SOCIAL ENVIRONMENT					
Noise					Options 2, 3 and 4 would have temporary noise disturbances due to construction activity. There are numerous residential dwellings in close proximity.

Evaluation of Alternative Solutions

EVALUATION CRITERIA	OPT 1	OPT 2	OPT 3	OPT 4	DESCRIPTION OF EFFECTS
SOCIAL ENVIRONMENT					
Archaeological					The work proposed under Options 2 and 4 have the potential to impact archaeological resources, however further field investigation is required to confirm. Option 3 involves work within areas that are designated as previously disturbed and there is no anticipated impact to archaeological resources.
Cultural and Built Heritage					The beach/shoreline is identified as a Cultural Heritage Landscape and the construction of a new channel outlet as proposed under Options 2 and 4 may have a negative impacted on the CHL. As the existing outlet will continue to be used as part of Option 3, no additional impacts to the CHL are anticipated.
Property Impacts					Under Option 1 private property will continue to be at risk for flooding. Option 2 would have major property impacts to construct a new outlet. Options 3 and 4 will have impacts associated with the construction or ditch improvements along Constance Blvd ROW.
Climate Change					As Option 1 does not address flooding, adaptation to climate change and increased flooding events will not occur. Options 2 to 4 propose work to increase drainage capacity and the ability to convey larger storm events, with Option 2 providing the greatest increase in capacity.
ECONOMIC ENVIRONMENT					
Construction Costs					The construction cost associated with Option 4 are substantially higher than Options 2 and 3 as the length of the drainage channel and land clearing is a significant factor in determining cost.
Operating and Maintenance Costs					Option 1 involves continued maintenance associated with flooding, road closures, and potential damages. Options 2 to 4 would not require regular maintenance and are considered a positive impact to existing costs incurred.
TOTALS					
					The Options have been ranked using the evaluation of all criteria to select a suitable approach that will address the problem/opportunity but also keep impacts to a minimum.

Preliminary Preferred Solution

- ***Option 2 - Create New Outlet to the Bay through Property at 18 Constance Boulevard***

Given the results of the preliminary evaluation, it is recommended that Option 2 be selected as the Recommended Solution.

Next Steps

- All PIC material will be available on the Engineering Services – Environmental Assessment Studies page of www.wasagabeach.com
- The Project Team will receive comments for consideration until **March 17, 2022**. The project team will then confirm the Preferred Solution and the project will move into Phase 3 of the Class EA process.
- During Phase 3, alternative design concepts for the Preferred Solution will be identified and evaluated.
- A second Public Information Centre will be scheduled at a future date to present the alternative design concepts developed to implement the Preferred Solution.
- Advanced notification of the second Public Information Centre will be provided.

Comments

- We invite you to provide any comments in writing via email.
- All comments are to be submitted by **March 17, 2022** to one of the following members of the Project Team:

Jonathan Uylenbroek, C.E.T.
Project Coordinator
Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, Ontario L9Z 1A1
Tel: 705-429-2540 ext. 2342
projects@wasagabeach.com

Richard Sloan, P.Eng.
Water Resources Group Lead
Ainley Group
550 Welham Road
Barrie, Ontario L4N 8Z7
Tel: 705-726-3371 ext. 256
Richard.sloan@ainleygroup.com

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

MUNICIPAL FREEDOM OF INFORMATION & PROTECTION OF PRIVACY ACT

Comments and information regarding this project are being collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act for the purpose of meeting environmental assessment requirements. With the exception of personal information, all comments received will become part of the public record.

The Town of Wasaga Beach hosted a Public Information Centre (PIC) as part of the Constance Boulevard Drainage Improvements Class EA on March 3, 2022. The PIC presentation had 2 comment periods, 1 mid-way through the presentation material and the 2nd at the end of the presentation. A comment period post PIC presentation was open until March 17, 2022. This document is a record of the question-and-answer session from the live PIC presentation.

Comment Period #1

Q1: Will this PowerPoint presentation be available to download from a link? And if so which link?

A1: This presentation is being recorded. The entire recording as well as the presentation boards will be available on the Town's website shortly after this meeting.

Q2: There is a considerable amount of flow retained on the west side of Beachwood Road, once that is corrected, water will flow to the Bay and potentially through this area. Is that additional flow of water taken into account as part of this project?

A2: The area to the west is covered by a separate study, as part of the master drainage plan. The flows that come from the area of George Street and Robert Street cross Highway 26 at a culvert under Robert Street, then flow straight up Bayswater Drive and outlet to the Bay. It is unlikely that the results of the study would recommend directing more water down Thomas Street, a drainage area that is already having drainage issues. Rather the study will look at directing the flows to the Bay in the most direct route as possible without impacted already flooded drainage areas.

Q3: There are two big developments planned in this area on each side of Beachwood Road. The potential flow of water coming from these developments, did your study take into consideration something like 500 units being built in this area?

A3: Any new developments of residential and/or commercial mixed uses, where there would be an increase to surface run off, the developer would be required to control their post development run off rates to match the pre development rates. The flows that they should be discharges after development would match what is existing today. After development those new developments have to match pre development outflow rate. Its not that we (Town) aren't considering increased run off from those development, but knowing that developers will be required to provide stormwater management controls that meet the Town standard. Further, subdivision development is controlled through Planning Act and has its own legislative approval process.

Q4: Have you explored ways to encourage residents to retain storm water at the lot level, ie: remove hardened surfaces, greening, soakways, LIDs etc.?

A4: This point we (Project Team) haven't looked at that as a main factor, generally those types of things are encouraged in Town development standards, the Conservation Authority has been working on plans to promote such practices. We (Project Team) are trying to look at are the larger events and to provide more capacity on that scale, where those individual efforts at the lot level provide a cumulative benefit its really up to the private land owner. Further, this is a very large drainage catchment area that extends south of highway 26 with much of the land being undeveloped lots. This means that there is already a large amount of flow coming from

upstream where there is no opportunity for Low Impact Development (LID) inclusion or lot level controls.

Q5: I spearheaded the Marilyn Ave. S, George Ave., Robert St. and Beachwood St. petition. Why are 2 engineering firms operating on overlapping areas and not one? Will these complicate decisions by either engineering companies?

A5: This current EA is based on a long-standing project to improve the outlet capacity at Constance and Thomas Street. The Drainage Master Plan (for the entire Town) was awarded to a different consulting firm, under which is the best means to incorporate details for the George, Marilyn, Robert Street areas. Outcomes of these two projects / EA processes should not be complicated by two different consulting firms working towards the best solution for the two projects.

Q6: With option 4a and 4b what you are proposing is to have water flow end at Betty Blvd. and then down into the Bay, however the reality is the Betty Blvd trail, the part that is not paved is actually just going down to Share Lane and the houses in front of the end of the trail are flooded every year. How do you plan to manage and stop the water there and take it down to the Bay without the water just keep flowing along the trail.

A6: The next section of the presentation we look at these scenarios in some detail so hopefully we (Project Team) will be able to address your comment at that time and if the information provided does not, please feel free to raise additional questions during the second comment period.

Comment Period #2:

Q7: Moving more water down Bayswater Drive concerns me, much like Thomas Street there is a huge rush of water with increasing rainfall and more development on Robert Street. There is a very small pipe under Betty Boulevard which tends to back up and the rate of flow is very dangerous, especially when there are small children around. Is this area being studied by the Town?

A7: The Town is currently undertaking a Town wide drainage master plan, including topographical surveys gathered by lidar. We (Town) are identifying everywhere throughout the Town where there are flooding issues. In the particular areas the Town is also completing 2D models to understand the direction and location of water flows/flooding and to evaluate potential solutions to address surface water south of Beachwood and then determine best location to improve existing culvert and/ or add culverts. The drainage master plan will be discussed among Town staff, consultants, and MTO (Ministry of Transportation). With that study we will have a public meeting similar to this PIC, where the Town will speak about all the projects coming out of master plan and seek consultation at that time.

Q8: Option 4 the watershed goes through the TC energy lot, have you talked to them do they approve? Running very high voltage station there.

A8: TC energy has given us (Town) permission to construct a channel through property as part of the West End Depot project. Option 4 would be discharging to channel that we have already received approval for.

Q9: Option 4, this watershed water will arrive to a small shallow bay with residents. Did you look and investigate the impact on water quality on outlet to this shallow Bay?

A9: Part of the West End Depot work will construct a stormwater management pond that will have permanent storage and proposed to accommodate some of the residential property to the north. With the stormwater management pond, water will sit in the pond for a while and allow for sedimentation to occur, to achieve an environment performance target. Further any development would have quality controls as well and the goal is to discharge clean water through the outlet.

Q10: In your presentation under climate change, you indicate doing nothing would result in likely increase flooding. Earlier you indicated that development is responsible to ensure the flow is maintained to pre development levels but is that over time? So, if climate change does result in increase flow over time, is that developer to maintain flow original pre development levels. It may be an equal flow at the end of the initial development but a couple years later that may not be the case.

A10: We (Town) have accounted for future flows in our current engineering design standards. The latest design standards of 2021 increased parameters for stormwater events, these parameters are used to calculate IDF and were increased by 20%. The increase accounts for more intense storms in the future. We (Town) worked with NVCA (Nottawasaga Valley Conservation Authority) and selected a more conservative approach for addressing future flow increase, and developing IDF design parameters that will over control flows in the short term but in the long-term flows will be matching post to pre.

Q11: What is the timeline of the project once a decision is made, for operation and construction?

A11: The construction is slightly different timeline. Conclusion of Class EA process is targeted for this summer to complete the four phases. And then from there the construction phase will begin. The construction timeline will also take into account timing windows for specific work associated with tree removals and fisheries habitat as they have to be completed at a specific time of year. As part of this Class EA we (Town) will have a second PIC and at that time have a better estimate for timing.

Appendix F

Notice of Public Information Centre No. 2



TOWN OF WASAGA BEACH

Constance Boulevard Drainage Improvements

Schedule 'C' Municipal Class Environmental Assessment

Notice of Public Information Centre No. 2

The Project

The Town of Wasaga Beach has retained the services of Ainley Group to undertake a Municipal Class Environmental Assessment (Class EA) to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change. The current capacity of the side road ditch along Constance Boulevard in this area is insufficient to contain larger stormwater events and results in flooding. This project will follow the Schedule 'C' planning and design process in accordance with the *Municipal Class Environmental Assessment (Oct. 2000, as amended 2007, 2011 & 2015)*.

A virtual Public Information Centre (PIC) No. 1 was hosted on March 3, 2022. The PIC provided an opportunity for all interested parties to review the alternatives developed for the Constance Boulevard Drainage Improvements project and submit questions and comments to the study team. Concluding the PIC No. 1 period and review of comments received, the Preferred Solution is Option 2: Create New Outlet to the Bay through Private Property at Constance Boulevard.

Public Information Centre No. 2

As part of Phase 3 of the Class EA process, a virtual PIC will be held on **Thursday, June 23, 2022 from 6:00pm to 7:00pm**, with a presentation commencing for 6:00pm. The purpose of the PIC will be to provide interested parties an opportunity to review the design concepts developed to implement the Preferred Solution. To participate in the virtual PIC please join via Zoom at the following link on the specified PIC date and time:

<https://us02web.zoom.us/j/86481552182>

Comments Invited

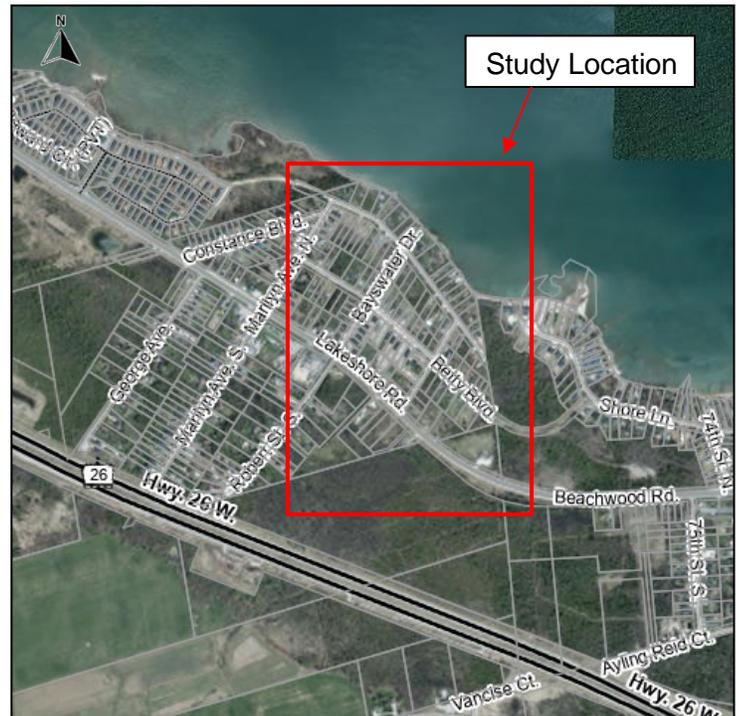
Public input is encouraged throughout this process and will be given consideration during the planning and design of this project. If you are unable to attend the live PIC a recording of the PIC presentation and copy of presentation material will be available on the Town's website at www.wasagabeach.com.

Comments on the information presented will be received until **July 7, 2022**. To obtain additional

information or to provide input, please contact either of the following members of the study team:

Jonathan Uylenbroek, C.E.T.
Project Coordinator
Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, Ontario L9Z 1A1
Tel: 705-429-2540 ext. 2342
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Barrie, Ontario L4N 8Z7
Tel: 705-726-3371 ext. 256
Richard.sloan@ainleygroup.com



This notice first issued June 9, 2022.

Information will be collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

Town of Wasaga Beach
Thomas St. and Constance Blvd. Area Drainage - Schedule 'C' Class EA
AGENCY CONTACT LIST

First	Last	Title	Company/Community	Address 1	Address 2	Town	PC	Telephone	Email	Notes
Provincial & Federal Agencies										
Chunmei	Liu	Environmental Resource Planner & EA Coordinator - Air, Pesticides and Environmental Planner (Barrie, Orillia & County of Simcoe)	Central Region Ministry of Environment, Conservation and Parks	5775 Yonge Street	8th Floor	North York, ON	M2M 4J1	416-326-4886	chunmei.liu@ontario.ca	
Cindy	Hood	District Manager	Barrie District Office Ministry of Environment, Conservation and Parks	54 Cedar Point Drive	Unit 1201	Barrie, ON	L4N 5R7	705-739-6436	cindy.hood@ontario.ca	
Ken	Mott	District Manager, Midhurt	Ministry of Northern Development, Mines, Natural Resources and Forestry	2284 Nursery Road		Minesing, ON	L0L 1Y2	705-725-7546	Ken.mott@ontario.ca	
Becky	Cudmore	Senior Science Advisor - Bayfield Institute	Department of Fisheries and Oceans	867 Lakeshore Road	P.O. Box 5050	Burlington, ON	L7R 4A6		becky.cudmore@dfo-mpo.gc.ca	
Karla	Barboza	Team Lead, Heritage	Ministry of Heritage, Sport, Tourism and Culture Industries	401 Bay Street	Suite 1700	Toronto, ON	M7A 0A7	416-314-7120	karla.barboza@ontario.ca	
Annelies	Eckert	Rural Planner	Ontario Ministry of Agriculture, Food and Rural Affairs	6484 Wellington Road 7	Unit 10	Elora, ON	N0B 1S0	519-827-6040	anneleis.eckert@ontario.ca	
Alejandra	Perdomo	Municipal Planning Advisor - Team Lead Central Ontario	Ministry of Municipal Affairs and Housing	777 Bay Street	13th Floor	Toronto, ON	M5G 2E5		Alejandra.perdomo@ontario.ca	
Francois	Lachance	Senior Advisor, Indigenous Relations Branch	Ministry of Indigenous Affairs	160 Bloor St. East	9th Floor	Toronto, ON	M7A 2E6	416-326-4754		
Teepu	Khawja	Regional Director	Ministry of Transportation, Central Region	1201 Wilson Avenue		Toronto, ON	M3M 1J8	416-235-5400	teepu.khawja@ontario.ca	
Local Government, Adjacent Municipalities & Other Agencies										
Christian	Meile	Director, Transportation and Engineering	County of Simcoe	1110 Highway 26 West		Midhurst, ON	L0L 1X0	705-726-9300	christian.meile@simcoe.ca	
Nathan	Westendorp	Director, Planning and Chief Planner	County of Simcoe	1110 Highway 26 West		Midhurst, ON	L0L 1X0	705-726-9300	nathan.westendorp@simcoe.ca	
Chris	Hibberd	Director, Watershed Management Services	Nottawasaga Valley Conservation Authority	John Hix Conservation Administration Centre	8195 8th Line	Utopia, ON	L0M 1T0	705-424-1479	c.hibberd@nvca.on.ca	
Brad	Krul	Manager, Planning Services	Nottawasaga Valley Conservation Authority	John Hix Conservation Administration Centre	8195 8th Line	Utopia, ON	L0M 1T0		bkul@nvca.on.ca	
Meagan	Kieferle	Senior Regulations Technician	Nottawasaga Valley Conservation Authority	John Hix Conservation Administration Centre	8195 8th Line	Utopia, ON	L0M 1T0		mkieferle@nvca.on.ca	
George	Vadeboncoeur	CAO	Town of Wasaga Beach	30 Lewis Street		Wasaga Beach, ON	L9Z 1A1			
Doug	Herron	Director of Planning and Economic Initiatives	Town of Wasaga Beach	30 Lewis Street		Wasaga Beach, ON	L9Z 1A1			
Kevin	Lalonde	Director of Public Works	Town of Wasaga Beach	150 Westbury Road		Wasaga Beach, ON	L9Z 0C8		publicworksdirector@wasagabeach.com	
Mike	McWilliam	Director of Emergency Services and Fire Chief	Town of Wasaga Beach	966 River Road West		Wasaga Beach, ON	L9Z 2K7			
Sonya	Skinner	CAO	Town of Collingwood	97 Hurontario Street	P.O. Box 157	Collingwood, ON	L9Y 3Z5			
John	Ferguson	CAO	Clearview Township	217 Gideon Street		Stayner, ON	L0M 1S0		jferguson@clearview.ca	
		Simcoe County District Health Unit		280 Pretty River Parkway		Collingwood, ON	L9Y 4J5	705-445-6498		
Earl	Elliott	President	Simcoe County Historical Association		P.O. Box 144	Barrie, ON	L4M 4S9	705-796-7649	earl.elliott@rogers.com	
Emergency Services										
JC	Gilbert	Deputy Chief Operations	County of Simcoe Paramedic Services	1110 Highway 26		Midhurst, ON	L0L 1X0	705-726-9300	ic.gilbert@simcoe.ca	
Donna	Danyluk	Communications Representative	Royal Victoria Regional Health Centre	201 Georgian Drive		Barrie, ON	L4M 6M2	705-728-9090 ext. 41610	danylukd@rvh.on.ca	
Paula	Brown	Operational Policy & Strategic Planning	Ontario Provincial Police	777 Memorial Ave., 2nd Floor		Orillia, ON	L3V 7V3			
		Attn: General	Nottawasaga OPP Detachment Office	4601 Industrial Pkwy		Alliston, ON	L9R 1V2	705 434 1939	Fax: 705 434 9109	(Prefer to receive Fax)
Indigenous Consultation - As per MECP direction Feb. 4 2022										
Donna	Big Canoe	Chief	Chippewas of Georgina Island*	R.R. #2	P.O. Box N-13	Sutton West	L0E 1R0	705-437-1337	donna.bigcanoe@georginaisland.com	
Ted	Williams	Chief	Chippewas of Rama First Nation *	5884 Rama Road	Suite 200	Rama	L3V 6H6	705 325-3611	tedw@ramafirstnation.ca	
Sharday	James	Community Consultation	Chippewas of Rama First Nation *	5884 Rama Road	Suite 200	Rama	L3V 6H6		shardayj@ramafirstnation.ca	
Susan	Copegog	Consultation	Beausoleil First Nation*	11 O'Gema Miikaans		Christian Island	L9M 0A9		consultations@chimissing.ca	
Keith	Knott	Chief	Curve Lake First Nation*	22 Winookeedaa Road		Curve Lake	K0L 1R0			
Kelly	LaRocca	Chief	Mississaugas of Scugog Island First Nation*	Administration Building	22521 Island Road	Port Parry	L9L 1B6	905-985-3337	info@scugogfirstnation.com	
Dave	Mowat	Chief	Alderville First Nation*	11696 Second Line Rd		Alderville	K0K 2X0	905-352-3000	dmowat@alderville.ca	
Laurie	Carr	Chief	Hiawatha First Nation*	431 Hiawatha Line		Hiawatha	K9J 0E6	705-295-4421	chiefcarr@hiawathafn.ca	
*cc Karry Sandy-McKenzie on all correspondence sent to the above 7 FN (Williams Treaty Communities)										
Karry	Sandy- McKenzie	Barrister & Solicitor	Williams Treaties Communities	8 Creswick Court		Barrie	L4M 2J7	705-792-5087	k.a.sandy-mckenzie@rogers.com	
Remy	Vincent	Grand Chief	Huron-Wendat Nation	255 Place Chef Michel Laveau		Wendake	G0A 4V0		administration@cnhw.qc.ca	
Dave	Dusome	Regional Councillor, Region 7	Métis Nation of Ontario	66 Slater Street	Suite 1100, 11th Floor	Ottawa	K1P 5H1		DavidD@metisnation.org	
		Attn: Lands, Resources and Consultations Branch	Métis Nation of Ontario	66 Slater Street	Suite 1100, 11th Floor	Ottawa	K1P 5H1		consultations@metisnation.org ; JustinH@metisnation.org	Requires notices sent electronically to the email
Emily	Martin	Infrastructure and Resources Manager	Saugeen Ojibway Nation Environment Office	25 Maadookii Subdivision		Neyaashiingmiing	N0H 2T0		emily.martin@saugeenojibwaynation.ca ; juanita.meekins@saugeenojibwaynation.ca	cc' Juanita Meekins Executive Assistant juanita.meekins@saugeenojibwaynation.ca
Lester	Anoquot	Chief	Saugeen First Nation	6493 Highway 21	R.R. #1	Southampton	N0H 2L0	(519) 797-2781	sfn@saugeen.org	SON
Veronica	Smith	Chief	Chippewas of Nawash Unceded First Nation	135 Lakeshore Blvd.		Neyaashiingmiing	N0H 2T0		chief.veronica@nawash.ca	SON
Utilities										
		Attn: General	Planning Department	Hydro One	16 Graham Street	Woodstock, ON	N4S 6J6	519-537-7122		
			Wasaga Distribution Inc.	950 River Road West	P.O. Box 20	Wasaga Beach, ON	L9Z 1A1		hydro@wasagadist.ca	

Town of Wasaga Beach
Thomas St. and Constance Blvd. Area Drainage - Schedule 'C' Class EA
AGENCY CONTACT LIST

First	Last	Title	Company/Community	Address 1	Address 2	Town	PC	Telephone	Email	Notes
Carol	O'Brien		Bell Canada	136 Bayfield Street	2nd Floor	Barrie, ON	L4M 3B1	705-722-2405	carol.obrien@bell.ca	
Tony	Dominguez		Rogers	1 Sperling Drive		Barrie, ON	L4N 6B8	705-737-4660 xt 6907	tony.dominguez@rci.rogers.com	



Notice...



TOWN OF WASAGA BEACH Constance Boulevard Drainage Improvements Schedule 'C' Municipal Class Environmental Assessment Notice of Public Information Centre No. 2

The Project

The Town of Wasaga Beach has retained the services of Ainley Group to undertake a Municipal Class Environmental Assessment (Class EA) to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change. The current capacity of the side road ditch along Constance Boulevard in this area is insufficient to contain larger stormwater events and results in flooding. This project will follow the Schedule 'C' planning and design process in accordance with the *Municipal Class Environmental Assessment (Oct. 2000, as amended 2007, 2011 & 2015)*.

A virtual Public Information Centre (PIC) No. 1 was hosted on March 3, 2022. The PIC provided an opportunity for all interested parties to review the alternatives developed for the Constance Boulevard Drainage Improvements project and submit questions and comments to the study team. Concluding the PIC No. 1 period and review of comments received, the Preferred Solution is Option 2: Create New Outlet to the Bay through Private Property at Constance Boulevard.

Public Information Centre No. 2

As part of Phase 3 of the Class EA process, a virtual PIC will be held on **Thursday, June 23, 2022 from 6:00pm to 7:00pm**, with a presentation commencing for 6:00pm. The purpose of the PIC will be to provide interested parties an opportunity to review the design concepts developed to implement the Preferred Solution. To participate in the virtual PIC please join via Zoom at the following link on the specified PIC date and time: <https://us02web.zoom.us/j/86481552182>

Comments Invited

Public input is encouraged throughout this process and will be given consideration during the planning and design of this project. If you are unable to attend the live PIC a recording of the PIC presentation and copy of presentation material will be available on the Town's website at www.wasagabeach.com. Comments on the information presented will be received until **July 7, 2022**. To obtain additional information or to provide input, please contact either of the following members of the study team:

Jonathan Uylenbroek, C.E.T.
Project Coordinator
Town of Wasaga Beach
30 Lewis Street
Wasaga Beach, Ontario L9Z 1A1
Tel: 705-429-2540 ext. 2342
projects@wasagabeach.com

Richard Sloan, P.Eng.
Water Resources Group Lead
Ainley Group
550 Welham Road
Barrie, Ontario L4N 8Z7
Tel: 705-726-3371 ext. 256
Richard.sloan@ainleygroup.com



This notice first issued June 9, 2022.

Information will be collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

Comments Received

Jody Marks

From: [REDACTED]
Sent: Thursday, June 9, 2022 4:27 PM
To: Jody Marks
Cc: Jonathan Uylenbroek; Richard Sloan
Subject: Re: Town of Wasaga Beach Constance Boulevard Improvements Class EA - Notice of PIC No. 2

Hello jody

Thank you for the email but as previously noted, could you please resend the pdf in Accessible Word format as my Screen reader does not access pdf's.

Thanking you in advance.

Regards
[REDACTED]

From: Jody Marks <jody.marks@ainleygroup.com>
Sent: June 9, 2022 7:46 PM
Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; Richard Sloan <richard.sloan@ainleygroup.com>
Subject: Town of Wasaga Beach Constance Boulevard Improvements Class EA - Notice of PIC No. 2

Hello,

The Town of Wasaga Beach has retained the services of Ainley Group to undertake a Municipal Class Environmental Assessment (Class EA) to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change.

As part of Phase 3 of the Class EA process, a virtual PIC will be held on **Thursday, June 23, 2022 from 6:00pm to 7:00pm**, with a presentation commencing for 6:00pm. The purpose of the PIC will be to provide interested parties an opportunity to review the design concepts developed to implement the Preferred Solution. Please refer to the attached Notice of PIC No. 2 for further details.

Regards,

Jody Marks
Environmental Planner



Tel: (705) 726-3371 Ext. 227
Cell: (416) 576-2233
Email: jody.marks@ainleygroup.com

WWW.AINLEYGROUP.COM

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Ainley Group is committed to providing accessible customer service. Please inform us if you require this information in an alternative format or require communication supports.

Jody Marks

From: [REDACTED]
Sent: Thursday, July 7, 2022 11:17 AM
To: Jody Marks; Jonathan Uylenbroek
Subject: PIC - June 23, 2022

To Whom it Should Concern
Re: EA Constance Blvd Flooding

Thank you first for your reply to my submission of PIC #1 but you did not professionally address my points nor did you provide details of Contract #9B as requested.

To start this submission, first review pictures of last major flooding taken by and circulated by town engineer Mike Pinceviro which occurred during the week of March 8-12, 2021 (16 months ago).

Yes, in addition to the flooding, note the number of traffic hazard cones aligning the road. Noticeably absent is town Backhoes digging out the ditches! These pics were taken 3-4 days following Environment Canada's forecast of Above normal temperatures (mid teens). So your statement of flooding caused by global warming is unsubstantiated but instead, could it be concluded flooding due to inactive works Dept. staff and equipment?

Solution Option 1 - The obvious solution is a 1200mm overflow storm sewer paralleling the existing ditch along Constance to Bayswater 33ft outlet to the Bay. The gradient and flow is already established here. This is the engineering which should have been included in Contract #9B (c2005). Again in my opinion, Ainley and Associates are in conflict of interest to conduct this EA.

Option 2 - Better yet is replacing the ditch with a properly sized boxed concrete culvert Which can be located within the existing ditch / boulevard without disturbing existing asphalt. This would eliminate the need for town backhoes! removing the ice chunks left from snowplow windrows during the winter. We have been property owners in the area for over 30 years and the above almost annual spring flooding and absence of Works Dept. equipment has been the norm, not the rarity!

More important is the safety factor - by covering the open ditch removes the hazards of dangerous fast flowing water to neighbourhood kids, grandkids and pets. Does this not make a little bit of common sense?

In summary, it is our properties which have suffered the most damage due to the Town's three decades of negligence of not resolving this matter, going back to my first hand written letter notification to then mayor Walter Borthwick.

In conclusion, my submissions are complimentary, without prejudice, and of no costs to the taxpayers of Wasaga Beach. Thank you for your time and attention to this matter once again.

Regards
[REDACTED]

E&OE

Jody Marks

From: [REDACTED]
Sent: Monday, August 8, 2022 9:05 PM
To: Jonathan Uylenbroek; WB CAO
Cc: Jody Marks; Richard Sloan; Fung, Simon
Subject: Fw: PIC - June 23, 2022
Attachments: 221057 FINAL Response to Mr. Baron (Jul 27).docx

First, thanks Jody for once again sending documents in accessible Word format. Very much appreciated. I have also advised the Town of Wasaga Beach (Carrie) that their wevsite is not accessible to persons whom are blind.

To Whom it Should Concern including Mayor and Members of Council. Urgent matter for Council Mtg. August 18th. Please circulate.

Thank you for your response to my further points in my submission of July 7th PIC. We do however disagree with some of your conclusions regarding choices of options but will reserve further comments at this time.

We do take issue with the statement of "twelve years of failed negotiations. First it took six years for the Town to agree that a piped culvert in a 4m easement is doable instead of the original 6m open ditch. The Town's proposed Dev. Agreement in 2016 was an absolute insult, not worth the paper it was printed on and would not even cover our legal and professional expenses at that point.

In November 2012 when we submitted variance application A04/12 for 24 Constance, R. Kelso's manner of negotiations was "give us the easement and we will support your variance". That was not negotiation - it was blackmail! Good riddance Kelso and non too soon..

Fast forward to March 2021 following major flooding, we provided M. Pinceviro, on or about March 28th, an MoU to which he was to take to Council for considerations. We note there were two Council meetings including a Special in April 2021. Our solicitor could not find agenda minutes where our matter was brought before Council for discussion. We received No follow-up proposal. That does Not constitute negotiations. Note that that MoU is now irrelevant.

Instead in June 2021, we were advised by Kevin Lalonde that Council had requested an EA be undertaken. Please provide the staff report (in accessible Word format) on which the Mayor and Council based this decision. This decision further prevented us from moving forward by another 15 months. This is Not negotiating..

How much did this EA cost the taxpayers of Wasaga Beach? Why was this EA not requested in 2006 - 09 following so-called ditch "improvements" in 2005?

It has now been 13 years that Wasaga Beach has held our property at ransom and has caused us several missed financial opportunities. So to level the playing field, on June 15th we withdrew our boundary application B12/09 from C of A files. We have also submitted revised site plans for both [REDACTED] and [REDACTED] Constance Blvd. as per original lot boundaries and is currently being circulated at NVCA. for their comments.

In conclusion if the Town of Wasaga Beach still wish to proceed with the drainage through our property, there are two options for all or part of the property. Neither will involve the easement alone.

- Negotiate in good faith on our terms or
- Expropriate

Should either of the above two be chosen then an interim payment of \$1.5 million payable to the ownersbe will be required upon initiation of agreement.

If either of the above is not doable then we respectfully request at your earliest convenience, that a release registered on title of our properties at 18 and 24 Constance Blvd. that neither is required in whole or in part for public purposes. Said release to be registered on title by Friday August 26, 2022.

Your prompt procedural discisions to this matter would be appreciated. Thank you

Yours truly

[REDACTED]

From: Jody Marks <jody.marks@ainleygroup.com>

Sent: August 2, 2022 7:54 PM

To: [REDACTED] >

Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; Richard Sloan <richard.sloan@ainleygroup.com>

Subject: RE: PIC - June 23, 2022

Hello [REDACTED],

Thank you for providing your input. Please find attached a letter with further project information and a response to your concerns/comments.

Thank you.

Regards,

Jody Marks
Environmental Planner



Tel: (705) 726-3371 Ext. 227

Cell: (416) 576-2233

Email: jody.marks@ainleygroup.com

WWW.AINLEYGROUP.COM

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Ainley Group is committed to providing accessible customer service. Please inform us if you require this information in an alternative format or require communication supports.

From: [REDACTED]
Sent: Thursday, July 7, 2022 11:17 AM
To: Jody Marks <jody.marks@ainleygroup.com>; Jonathan Uylenbroek <projects@wasagabeach.com>
Subject: PIC - June 23, 2022

To Whom it Should Concern

Re: EA Constance Blvd Flooding

Thank you first for your reply to my submission of PIC #1 but you did not professionally address my points nor did you provide details of Contract #9B as requested.

To start this submission, first review pictures of last major flooding taken by and circulated by town engineer Mike Pinceviro which occurred during the week of March 8-12, 2021 (16 months ago).

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Solution Option 1 - The obvious solution is a 1200mm overflow storm sewer paralleling the existing ditch along Constance to Bayswater 33ft outlet to the Bay. The gradient and flow is already established here. This is the engineering which should have been included in Contract #9B (c2005). Again in my opinion, Ainley and Associates are in conflict of interest to conduct this EA.

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More important is the safety factor - by covering the open ditch removes the hazards of dangerous fast flowing water to neighbourhood kids, grandkids and pets. Does this not make a little bit of common sense?

In summary, it is our properties which have suffered the most damage due to the Town's three decades of negligence of not resolving this matter, going back to my first hand written letter notification to then mayor Walter Borthwick.

In conclusion, my submissions are complimentary, without prejudice, and of no costs to the taxpayers of Wasaga Beach. Thank you for your time and attention to this matter once again.

Regards
[REDACTED]

Jackie Trumpe

From: Sandra [REDACTED]
Sent: Monday, September 12, 2022
1:05 PM
To: Kevin Lalonde <publicworksdirector@wasagabeach.com>
Cc: 'bri_black@hotmail.com' <bri_black@hotmail.com>
Subject: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class EA - Notice of Commencement/PIC No. 1

[CAUTION: Outside email]

Good afternoon Kevin,

My parents have just completed work on their seasonal cottage so that as my father's dementia worsens they can live there year round.

The issue is if the flooding continues as it has historically over the past several years, all that work and the cost they have incurred will be for nothing.

Please provide an update on the plan to improve drainage on Constance Boulevard and the timeline.

I look forward to your response.

[REDACTED]

"Dedicated to serving our community."
[Facebook](#) | [Twitter](#)

[REDACTED]

----- Forwarded message -----

From: Kevin Lalonde <publicworksdirector@wasagabeach.com>
Date: February 17, 2022 at 3:32:20 PM EST
Subject: FW: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class EA - Notice of Commencement/PIC No. 1
To: Sandra Black <SBlack@oshawa.ca>

FYI

Regards,

Kevin Lalonde, P.Eng.
Director of Public Works
Town of Wasaga Beach

T: 705-429-2540 ext. 2302

C: 705-443-7540
E: publicworksdirector@wasagabeach.com

30 Lewis Street
Wasaga Beach, ON
L9Z 1A1 Web:
www.wasagabeach.com



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If you have any accommodation needs or require communication supports or alternate formats, please let me know.

Town facilities are OPEN to the public from 8:30 a.m. to 4:30 p.m., Monday to Friday. Masks must be worn inside in public areas and in offices and meeting rooms when physical distancing is not possible. Thank you for your cooperation. For updates visit www.wasagabeach.com and our [COVID-19 Information Page](#).

From: Jody Marks <jody.marks@ainleygroup.com> Sent: Thursday, February 17, 2022 2:11 PM

Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; Richard Sloan <richard.sloan@ainleygroup.com>

Subject: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class EA - Notice of Commencement/PIC No. 1

[CAUTION: Outside email]

Hello,

The Town of Wasaga Beach has retained the services of Ainley Group to undertake a Municipal Class Environmental Assessment (Class EA) to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change.

A virtual Public Information Centre (PIC) will be held on Thursday, March 3, 2022 from 6:00pm to 8:00pm. To participate in the virtual PIC please join via Zoom at the following link on the specified PIC date and time: <https://us02web.zoom.us/j/87586494923>

Please see the attached *Notice* for further details. Thank you.

Regards,

Jody Marks
Environmental
Planner



Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM

****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: jdv.marks@ainlevgroup.com****

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Responses to Comments Received

Jody Marks

From: Jody Marks
Sent: Thursday, June 9, 2022 5:02 PM
To: [REDACTED]
Cc: Jonathan Uylenbroek; Richard Sloan
Subject: RE: Town of Wasaga Beach Constance Boulevard Improvements Class EA - Notice of PIC No. 2
Attachments: 221057 - Town of Wasaga Beach_Notice of PIC No. 2.docx

Hello [REDACTED],

I sincerely apologize, I had confused the document formatting. Attached is the accessible Word version of the Notice.
Thank you.

Regards,

Jody Marks
Environmental Planner



Tel: (705) 726-3371 Ext. 227
Cell: (416) 576-2233
Email: jody.marks@ainleygroup.com

WWW.AINLEYGROUP.COM

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From: [REDACTED]
Sent: Thursday, June 9, 2022 4:27 PM
To: Jody Marks <jody.marks@ainleygroup.com>
Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; Richard Sloan <richard.sloan@ainleygroup.com>
Subject: Re: Town of Wasaga Beach Constance Boulevard Improvements Class EA - Notice of PIC No. 2

Hello jody

Thank you for the email but as previously noted, could you please resend the pdf in Accessible Word format as my Screen reader does not access pdf's.

Thanking you in advance.

Regards
[REDACTED]

From: Jody Marks <jody.marks@ainleygroup.com>

Sent: June 9, 2022 7:46 PM

Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; Richard Sloan <richard.sloan@ainleygroup.com>

Subject: Town of Wasaga Beach Constance Boulevard Improvements Class EA - Notice of PIC No. 2

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Regards,

Jody Marks
Environmental Planner



Tel: (705) 726-3371 Ext. 227

Cell: (416) 576-2233

Email: jody.marks@ainleygroup.com

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Jody Marks

From: Jody Marks
Sent: Tuesday, August 2, 2022 3:55 PM
To: [REDACTED]
Cc: Jonathan Uylenbroek; Richard Sloan
Subject: RE: PIC - June 23, 2022
Attachments: 221057 FINAL Response to Mr. Baron (Jul 27).docx

Hello [REDACTED],

Thank you for providing your input. Please find attached a letter with further project information and a response to your concerns/comments.

Thank you.

Regards,

Jody Marks
Environmental Planner



Tel: (705) 726-3371 Ext. 227
Cell: (416) 576-2233
Email: jody.marks@ainleygroup.com

WWW.AINLEYGROUP.COM

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From: [REDACTED]
Sent: Thursday, July 7, 2022 11:17 AM
To: Jody Marks <jody.marks@ainleygroup.com>; Jonathan Uylenbroek <projects@wasagabeach.com>
Subject: PIC - June 23, 2022

To Whom it Should Concern

Re: EA Constance Blvd Flooding

Thank you first for your reply to my submission of PIC #1 but you did not professionally address my points nor did you provide details of Contract #9B as requested.

To start this submission, first review pictures of last major flooding taken by and circulated by town engineer Mike Pinceviro which occurred during the week of March 8-12, 2021 (16 months ago).

Yes, in addition to the flooding, note the number of traffic hazard cones aligning the road. Noticeably absent is town Backhoes digging out the ditches! These pics were taken 3-4 days following Environment Canada's forecast of Above normal temperatures (mid teens). So your statement of flooding caused by global warming is unsubstantiated but instead, could it be concluded flooding due to inactive works Dept. staff and equipment?

Solution Option 1 - The obvious solution is a 1200mm overflow storm sewer paralleling the existing ditch along Constance to Bayswater 33ft outlet to the Bay. The gradient and flow is already established here. This is the engineering which should have been included in Contract #9B (c2005). Again in my opinion, Ainley and Associates are in conflict of interest to conduct this EA.

Option 2 - Better yet is replacing the ditch with a properly sized boxed concrete culvert Which can be located within the existing ditch / boulevard without disturbing existing asphalt. This would eliminate the need for town backhoes! removing the ice chunks left from snowplow windrows during the winter. We have been property owners in the area for over 30 years and the above almost annual spring flooding and absence of Works Dept. equipment has been the norm, not the rarity!

More important is the safety factor - by covering the open ditch removes the hazards of dangerous fast flowing water to neighbourhood kids, grandkids and pets. Does this not make a little bit of common sense?

In summary, it is our properties which have suffered the most damage due to the Town's three decades of negligence of not resolving this matter, going back to my first hand written letter notification to then mayor Walter Borthwick.

In conclusion, my submissions are complimentary, without prejudice, and of no costs to the taxpayers of Wasaga Beach. Thank you for your time and attention to this matter once again.

Regards

A large black rectangular redaction box covering the signature of the sender.

VIA EMAIL

July 27, 2022

File No. 221057



**Re: Constance Boulevard Improvements Class Environmental Assessment
Response to Comments Received**

Dear 

We are responding on behalf of the Town of Wasaga Beach to your comment received on July 7, 2022 responding to the Notice of Public Information Centre. We have highlighted your main comment below:

“Solution Option 1 - The obvious solution is a 1200mm overflow storm sewer paralleling the existing ditch along Constance to Bayswater 33ft outlet to the Bay. The gradient and flow is already established here. This is the engineering which should have been included in Contract #9B (c2005). Again in my opinion, Ainley and Associates are in conflict of interest to conduct this EA.

Option 2 - Better yet is replacing the ditch with a properly sized boxed concrete culvert Which can be located within the existing ditch / boulevard without disturbing existing asphalt. This would eliminate the need for town backhoes! removing the ice chunks left from snowplow windrows during the winter. We have been property owners in the area for over 30 years and the above almost annual spring flooding and absence of Works Dept. equipment has been the norm, not the rarity!

More important is the safety factor - by covering the open ditch removes the hazards of dangerous fast flowing water to neighbourhood kids, grandkids and pets.”

RESPONSE:

Thank you for your interest and feedback regarding this study.

At the outset, please be advised that we (the Ainley Group) and the Town of Wasaga Beach hereby confirm that there is no conflict of interest for the Ainley Group to complete this Drainage Improvements Environmental Assessment (EA). Contract #9B that you refer to, which was completed in 2006, was a municipal sanitary sewer and watermain servicing project, not a drainage improvement project. The intent of that project was to provide area residents with municipal sanitary sewer and water services, in order to eliminate the need for private wells and septic systems. A major driving factor of proceeding with that project was the Town had received external Provincial and Federal funding to apply to the servicing project costs. At the time of the project proceeding, select drainage improvements were installed along Thomas Street and Constance Boulevard at the same time as the servicing construction to convey

surface stormwater within the Town owned right-of-way to the Bay via open ditch and culverts sized as large as would fit in an open ditch. There was not a detailed analysis of the drainage catchment area, as this was not a drainage-focussed project. Notwithstanding, the introduction of the deep ditch was agreed upon by the Nottawasaga Valley Conservation Authority and a permit was issued. The ditch provided relief of the existing flooding issues, but did not resolve the flooding entirely.

In 2009 the Town commenced negotiations with yourselves ([REDACTED]) to obtain an easement through your lot at [REDACTED] Constance Boulevard in order to create a new storm drainage outlet. This was further to your lot line adjustment application to the Town – file #B12/09. Acquisition of drainage easements through private property via Planning applications is a typical practice. The Town acknowledges that after 12 years negotiations were unsuccessful. Drainage improvements are however still necessary for the catchment area to mitigate flooding and therefore the Town initiated this Class EA to develop and review alternatives solutions.

Establishing a preferred solution to address the long history of flooding in the area is the purpose for undertaking the current Class EA Study. These two options that you have presented for consideration are simply variations of the Alternative Solution Option 3, as presented in Public Information Centre Number 1, hosted on March 3, 2022. Option 3 was not selected as the Preferred Solution due to the evaluation of this solution with respect to the expected impact on the Physical Environment. Most notably due to the lack of sufficient grade, the available capacity within the existing road allowance, and the required footprint, which would impact several private properties, to convey a similar capacity achieved with the Preferred Solution.

To assist with the evaluation of the currently proposed options we have reviewed the Record Drawings for the *Plan and Profile of Constance Boulevard, Bayswater Drive to STA 0+540*, dated July 2004, revised January 2007.

Regarding Option 1, it would not be possible to construct a new storm sewer parallel to the existing ditch on the south side of Constance Boulevard due to inadequate separation between the existing sanitary sewer and the proposed storm sewer. There would be difficulties in accommodating a storm sewer on the north side of Constance Boulevard due to a lack of grade for the proposed storm sewer, the design high water level of 177.5 m for Georgian Bay in comparison to the expected sewer inverts, conflicts with at least nine pairs of sanitary and water services, and two fire hydrants along the north side of Constance Boulevard, and the lack of cover to accommodate a 1200 mm diameter pipe.

For Option 2 replacing the existing ditch with a box culvert would not provide sufficient capacity to convey the major storm events. The Preferred Solution relies on the combined capacity of the proposed culvert and outlet in addition to conveyance within the existing ditch. Given the cover limitations in the area, it is expected that the maximum sized culvert which could be accommodated along the length of Constance Boulevard to the outlet at Bayswater Drive would have a span of 2.4m. A culvert of this size would require an expansion of the road allowance and property acquisitions along the south side of Constance Boulevard. The increased costs of the additional property acquisition and additional length of culvert in comparison to the Preferred

Solution, would be too significant to recommend this alternative over the Preferred Solution.



Constance
Improvements
Environmental
Response to
Received

Boulevard
Class
Assessment
Comments

If you have any questions or require further assistance with this matter, please feel free to contact the undersigned.

Yours truly,

AINLEY & ASSOCIATES LIMITED

A handwritten signature in black ink that reads 'Richard Sloan'. The signature is fluid and cursive, with the first name 'Richard' and last name 'Sloan' clearly distinguishable.

Richard Sloan
Water Resources Group Lead

cc: Jonathan Uylenbroek – Town of Wasaga Beach (By Email)

Jody Marks

From: Mike Pincivero <pwengineer@wasagabeach.com>
Sent: Monday, August 22, 2022 12:42 PM
To: Richard Sloan; Jody Marks
Cc: Jonathan Uylenbroek
Subject: FW: PIC - June 23, 2022

FYI

Regards,

Mike Pincivero, P.Eng.
Manager of Engineering Services, RMO/RMI

Town of Wasaga Beach 30
Lewis Street
Wasaga Beach, Ontario
L9Z 1A1

Office: (705) 429-2540, ext. 2307
Fax: (705) 429-8226
Cell: (705) 441-4123
m.pincivero@wasagabeach.com



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Si vous avez des besoins en matière d'adaptation, ou si vous nécessitez des aides à la communication ou des médias substitués, veuillez me le faire savoir.

From: Kevin Lalonde <publicworksdirector@wasagabeach.com>

Sent: August 15, 2022 8:31 AM

To: [REDACTED]

Cc: Laura Borland <deputyclerk@wasagabeach.com>; George Vadeboncoeur <cao@wasagabeach.com>; Dina Lundy <clerk@wasagabeach.com>; Mike Pincivero <pwengineer@wasagabeach.com>

Subject: FW: PIC - June 23, 2022

[REDACTED]

[REDACTED]

Thank you for your email and inquiries below. As you have requested, this has been sent to Council.

You have sought information that was addressed in closed sessions of Council. We are not able to disclose information from closed sessions of Council.

The concerns that you have expressed with the Class Environmental Assessment have been considered by our external consultants and we understand that they have responded to you.

Your remarks with respect to compensation issues can be addressed as part of the process in the event that interests in your property are acquired. We understand that you have engaged external legal counsel to assist with this process.

Regards,

--

Kevin Lalonde, P.Eng.
Director of Public Works
Town of Wasaga Beach

T: 705-429-2540 ext.

2302 C: 705-443-7540

E: publicworksdirector@wasagabeach.com

30 Lewis Street
Wasaga Beach, ON L9Z 1A1
Web:
www.wasagabeach.com



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From: [REDACTED]
Sent: Wednesday, August 10, 2022 3:34 PM
To: Laura Borland <deputyclerk@wasagabeach.com>
Cc: George Vadeboncoeur <cao@wasagabeach.com>; Dina Lundy <clerk@wasagabeach.com>
Subject: Re: PIC - June 23, 2022

[CAUTION: Outside email]

Hello Laura

Thanks for your prompt reply and information.

I would appreciate if you could forward to Council.

I would have thought it was urgent enough that Jonathan or George would have circulated as I requested in the email.

And no, i'm not interested in making a deputation. I believe my email is quite self explanatory.

The matter is up to Mayor and Council.

Thanks again for your assistance.

Regards
[REDACTED]

From: Laura Borland <deputyclerk@wasagabeach.com>
Sent: August 10, 2022 7:16 PM
To: [REDACTED]
Cc: George Vadeboncoeur <cao@wasagabeach.com>; Dina Lundy <clerk@wasagabeach.com>
Subject: RE: PIC - June 23, 2022

Good Afternoon [REDACTED]

This email was not circulated to the Clerk's Department nor was a Deputation request received to our department from you if you wished to attend/present at the August 18, 2022 meeting to provide a deputation on the matter. This is procedure in order to attend and present at a meeting.

This is the first I am hearing of this matter. Any items intended for Council agendas need to be copied/sent to the Clerk's Department for review.

Unfortunately the agenda for the August 18th meeting is already finalized and will be posted to the public Monday at 9am.

If you would like to complete the deputation form I would be happy to receive it back from you and look to schedule at the September 15, 2022 meeting.

You can however always email Council as a whole pertaining to any matters that you have by sending an email to council@wasagabeach.com. This address sends it to all members of Council.

If you would like I can certainly forward your email below to them today for their information, unless you would prefer to do that yourself.

Thank you for your time and attention in this matter.

Laura Borland

Deputy Clerk and Cemetery Custodian
Town of Wasaga Beach 30
Lewis Street
Wasaga Beach, Ontario L9Z
1A1
Tel: (705) 429-3844 Ext:2224
Fax: (705) 429-6732
Email: deputyclerk@wasagabeach.com

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The next municipal election will be held on **Monday, October 24, 2022**. Nomination and registration period commenced on **Monday, May 2, 2022**. Learn more here: [Elections 2022](#)



From: [REDACTED]
Sent: Wednesday, August 10, 2022 3:07 PM
To: Laura Borland
<deputyclerk@wasagabeach.com> **Cc:** George Vadeboncoeur
<cao@wasagabeach.com>
Subject: Fw: PIC - June 23, 2022

[CAUTION: Outside email]

Good Afternoon Laura

Thank you for your reply back.

Can you please tell me if the below made it to next week's meeting. I did also send to the CAO.

We feel it is a very urgent matter that has to be addressed asap.

Thanks
Regards
[REDACTED]

From: [REDACTED] >
Sent: August 9, 2022 1:05 AM
To: Jonathan Uylenbroek <projects@wasagabeach.com>; WB CAO <cao@wasagabeach.com>
Cc: Jody Marks <jody.marks@ainleygroup.com>; Richard Sloan <richard.sloan@ainleygroup.com>; Fung, Simon
<SFung@blg.com>
Subject: Fw: PIC - June 23, 2022

First, thanks Jody for once again sending documents in accessible Word format. Very much appreciated. I have also advised the Town of Wasaga Beach (Carrie) that their website is not accessible to persons whom are blind.

To Whom it Should Concern including Mayor and Members of Council. Urgent matter for Council Mtg. August 18th. Please circulate.

Thank you for your response to my further points in my submission of July 7th PIC. We do however disagree with some of your conclusions regarding choices of options but will reserve further comments at this time.

We do take issue with the statement of "twelve years of failed negotiations. First it took six years for the Town to agree that a piped culvert in a 4m easement is doable instead of the original 6m open ditch. The Town's proposed Dev. Agreement in 2016 was an absolute insult, not worth the paper it was printed on and would not even cover our legal and professional expenses at that point.

In November 2012 when we submitted variance application A04/12 for [REDACTED] Constance, R. Kelso's manner of negotiations was "give us the easement and we will support your variance". That was not negotiation - it was blackmail! Good riddance Kelso and non too soon..

Fast forward to March 2021 following major flooding, we provided M. Pinceviro, on or about March 28th, an MoU to which he was to take to Council for considerations. We note there were two Council meetings including a Special in April 2021. Our solicitor could not find agenda minutes where our matter was brought before Council for discussion. We received No follow-up proposal. That does Not constitute negotiations. Note that that MoU is now irrelevant.

Instead in June 2021, we were advised by Kevin Lalonde that Council had requested an EA be undertaken. Please provide the staff report (in accessible Word format) on which the Mayor and Council based this decision. This decision further prevented us from moving forward by another 15 months. This is Not negotiating..

How much did this EA cost the taxpayers of Wasaga Beach? Why was this EA not requested in 2006 - 09 following so-called ditch "improvements" in 2005?

It has now been 13 years that Wasaga Beach has held our property at ransom and has caused us several missed financial opportunities. So to level the playing field, on June 15th we withdrew our boundary application B12/09 from C of A files. We have also submitted revised site plans for both 18 and 24 Constance Blvd. as per original lot boundaries and is currently being circulated at NVCA. for their comments.

In conclusion if the Town of Wasaga Beach still wish to proceed with the drainage through our property, there are two options for all or part of the property. Neither will involve the easement alone.

- Negotiate in good faith on our terms or
- Expropriate

Should either of the above two be chosen then an interim payment of \$1.5 million payable to the ownersbe will be required upon initiation of agreement.

If either of the above is not doable then we respectfully request at your earliest convenience, that a release registered on title of our properties at 18 and 24 Constance Blvd. that neither is required in whole or in part for public purposes. Said release to be registered on title by Friday August 26, 2022.

Your prompt procedural discisions to this matter would be appreciated. Thank you Yours

truly

[Redacted signature]

From: Jody Marks <jody.marks@ainleygroup.com>
Sent: August 2, 2022 7:54 PM
To: glenn and eileen Baron <baron_ge@hotmail.com>
Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; Richard Sloan <richard.sloan@ainleygroup.com>
Subject: RE: PIC - June 23, 2022

Hello [REDACTED],

Thank you for providing your input. Please find attached a letter with further project information and a response to your concerns/comments.

Thank you.

Regards,

Jody Marks
Environmental Planner



Tel: (705) 726-3371 Ext. 227
Cell: (416) 576-2233
Email: jody.marks@ainleygroup.com

WWW.AINLEYGROUP.COM

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From [REDACTED] >
Sent: Thursday, July 7, 2022 11:17 AM
To: Jody Marks <jody.marks@ainleygroup.com>; Jonathan Uylenbroek <projects@wasagabeach.com>
Subject: PIC - June 23, 2022

To Whom it Should Concern

Re: EA Constance Blvd Flooding

Thank you first for your reply to my submission of PIC #1 but you did not professionally address my points nor did you provide details of Contract #9B as requested.

To start this submission, first review pictures of last major flooding taken by and circulated by town engineer Mike Pinceviro which occurred during the week of March 8-12, 2021 (16 months ago).

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More important is the safety factor - by covering the open ditch removes the hazards of dangerous fast flowing water to neighbourhood kids, grandkids and pets. Does this not make a little bit of common sense?

In summary, it is our properties which have suffered the most damage due to the Town's three decades of negligence of not resolving this matter, going back to my first hand written letter notification to then mayor Walter Borthwick.

In conclusion, my submissions are complimentary, without prejudice, and of no costs to the taxpayers of Wasaga Beach. Thank you for your time and attention to this matter once again.

Regards



Jackie Trumpe

From: Mike Pincivero
Sent: September 29, 2022
To: 8:10 AM Richard Sloan
Cc: Kevin Lalonde; Jonathan Uylenbroek
Subject: FW: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class EA - Notice of Commencement/PI(No. 1

Please append this to the ESR as well (if not too late).

Regards,



Mike Pincivero, P.Eng.
Manager of Engineering Services, RMO/RMI Public
Works - Engineering
705.429.2540 x2307

Town of Wasaga Beach 30
Lewis Street,
Wasaga Beach ON L9Z 1A1

If you have any accommodation needs or require communication supports or alternate formats, please let me know.

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From: Jonathan Uylenbroek
projects@wasagabeach.com

Sent: September 13, 2022 3:38 PM
To: Sandra Black <SBlack@oshawa.ca>
Cc: Mike Pincivero <pwengineer@wasagabeach.com>
Subject: RE: Town of Wasaga Beach, Constance Boulevard Drainage Improvements
Class EA - Notice of Commencement/PIC No. 1

The design needs to be finalized but is close to tender ready. Finalization of the ESR and property acquisition are required before tendering though, so although it is expected to be included in the 2023 budget, exact timing in 2023 is unknown at this time.

Regards,



Jonathan Uylenbroek, C.E.T., CAN-CISEC
Project Coordinator
Public Works - Engineering
705.429.2540 x2342

Town of Wasaga Beach
30 Lewis Street,
Wasaga Beach ON L9Z 1A1

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From: Sandra Black <SBlack@oshawa.ca>

Sent: September 13, 2022 3:25 PM

To: Jonathan Uylenbroek <projects@wasagabeach.com> Cc: Mike Pincivero <pwengineer@wasagabeach.com>

Subject: RE: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class EA - Notice of Commencement/Pie No. 1

[CAUTION: Outside email]

Do you know when in 2023?



"Dedicated to serving our community."

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From: Jonathan Uylenbroek <projects@wasagabeach.com>

Sent: Tuesday, September 13, 2022 3:23

PM To: [Redacted]

[Redacted]

Cc: Mike Pincivero <pwengineer@wasagabeach.com>

Subject: FW: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class EA - Notice of Commencement/Pie No. 1

Hello [Redacted],

Thank you for reaching out regarding the drainage around the area of your parents cottage. As part of the Environmental Assessment process, the Town held two online Public Information Centers which brought forth alternative options and solutions that were reviewed to reduce the frequency and severity of flooding events in the study area.

The Environmental Study Report is in the process of being finalized now that the comment period after PIC#2 has been completed. Once the ESR is finalized, a notice of study completion will be advertised in the Town newspaper and then the last 30 day comment period will commence. Anticipating no delays during the completion of the EA, construction of the preferred design (Creation of a new outlet to the bay through a box culvert at 18 Constance Boulevard) is scheduled to

commence in 2023 according to the 10 year capital plan.

The PIC slides are available for review at the Town Environmental Assessments Studies webpage :

<https://www.wasagabeach.com/en/town-and-government/engineering-services.aspx#Environmental-Assessment-Studies>

I trust this is what you're looking for, if you have any further questions or concerns please let me know.

Regards,



Jonathan Uylenbroek, C.E.T., CAN-CISEC Project
Coordinator
Public Works - Engineering
705.429.2540 x2342

Town of Wasaga Beach 30
Lewis Street,
Wasaga Beach ON L9Z 1A1

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From: Kevin Lalonde <publicworksdirector@wasagabeach.com>

Sent: September 12, 2022 4:00 PM

To: Jonathan Uylenbroek <projects@wasagabeach.com> Cc: Mike Pincivero

<pwengineer@wasagabeach.com>

Subject: FW: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class EA - Notice of Commencement/Pie

No. 1 Hi Jonathan,

Can you please follow up with [REDACTED] and provide an update.

Thanks,



Kevin Lalonde, P.Eng.
Director of Public Works
Public Works Department
705.429.2540 x2302

Town of Wasaga Beach
30 Lewis Street,
Wasaga Beach ON L9Z 1A1

If you have any accommodation needs or require communication supports or alternate formats, please let me know.

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From: Sandra [REDACTED]

Sent: Monday, September 12, 2022

1:05 PM

To: Kevin Lalonde <publicworksdirector@wasagabeach.com>

Cc: 'bri_black@hotmail.com' <bri_black@hotmail.com>

Subject: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class EA - Notice of Commencement/PIC No. 1

CAUTION: Outside email]

Good afternoon Kevin,

My parents have just completed work on their seasonal cottage so that as my father's dementia worsens they can live there year round.

The issue is if the flooding continues as it has historically over the past several years, all that work and the cost they have incurred will be for nothing.

Please provide an update on the plan to improve drainage on Constance Boulevard and the timeline.

I look forward to your response.

[REDACTED]

"Dedicated to serving our community."
[Facebook](#) | [Twitter](#)

[REDACTED]
Community Centre

----- Forwarded message -----

From: Kevin Lalonde <publicworksdirector@wasagabeach.com>

Date: February 17, 2022 at 3:32:20 PM EST

Subject: FW: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class EA - Notice of Commencement/PIC No. 1

To: Sandra Black <SBlack@oshawa.ca>

FYI

Regards,

Kevin Lalonde, P.Eng.
Director of Public Works
Town of Wasaga Beach

T: 705-429-2540 ext. 2302

C: 705-443-7540

E: publicworksdirector@wasagabeach.com

30 Lewis Street

Wasaga Beach, ON L9Z 1A1

Web: www.wasagabeach.com



Visit WB-legacy.ca

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Town facilities are OPEN to the public from 8:30 a.m. to 4:30 p.m., Monday to Friday. Masks must be worn inside in public areas and in offices and meeting rooms when physical distancing is not possible. Thank you for your cooperation. For updates visit www.wasagabeach.com and our [COVID-19 Information Page](#).

From: Jody Marks
<jody.marks@ainleygroup.com>

Sent: Thursday, February 17, 2022 2:11 PM

Cc: Jonathan Uylenbroek <projects@wasagabeach.com>; Richard Sloan <richard.sloan@ainleygroup.com>

Subject: Town of Wasaga Beach, Constance Boulevard Drainage Improvements Class EA - Notice of Commencement/PIC No. 1

[CAUTION: Outside email]

Hello,

The Town of Wasaga Beach has retained the services of Ainley Group to undertake a Municipal Class Environmental Assessment (Class EA) to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change.

A virtual Public Information Centre (PIC) will be held on Thursday, March 3, 2022 from 6:00pm to 8:00pm. To participate in the virtual PIC please join via Zoom at the following link on the specified PIC date and time: <https://us02web.zoom.us/j/87586494923>

Please see the attached *Notice* for further details. Thank you.

Regards,

Jody Marks
Environmental Planner



Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM

****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: iodv.marks@ainlevgroup.com****

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Jackie Trumpe

From: Mike Pincivero
Sent: September 29, 2022 8:09 AM
To: Richard Sloan
Cc: Kevin Lalonde; Jonathan Uylenbroek FW: Water issues ■
Subject: Constance

Hi Richard.

It is not too late, perhaps the email below should be appended to the ESR under correspondence?

Regards,



Mike Pincivero, P.Eng.
Manager of Engineering Services, RMO/RMI
Public Works - Engineering
705.429.2540 x2307

Town of Wasaga Beach
30 Lewis Street,
Wasaga Beach ON L9Z 1A1

If you have any accommodation needs or require communication supports or alternate formats, please let me know,

Si vous avez des besoins en matière d'adaptation, ou si vous avez besoin d'aides à la communication ou des médias substituts, veuillez me le faire savoir.

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From: Kevin Lalonde
<publicworksdirector@wasagabeach.com>

Sent: September 27, 2022 9:22 AM

To: Mike Pincivero <pwengineer@wasagabeach.com>; Jonathan Uylenbroek
<projects@wasagabeach.com> Subject: FW: Water issues ■ Constance

FYI, as it relates to Constance/Thomas.

Also, I seem to recall a recent update provided to ■ as to the status of this project? Can you please confirm your recent discussion with her on this? I can relay that to ■ as well.

Regards,



Kevin Lalonde, P.Eng.
Director of Public Works
Public Works Department
705.429.2540 x2302

Town of Wasaga Beach
30 Lewis Street,
Wasaga Beach ON L9Z 1A1

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From: [REDACTED]
Sent: Tuesday, September 27, 2022 9:18 AM
To: Kevin Lalonde <publicworksdirector@wasagabeach.com >
Cc: Joyce Coulson <dscoulson@aol.com >
Subject: Water issues [REDACTED] Constance

CAUTION: Outside email]

Good Morning,

We own a cottage at [REDACTED] Constance in Wasaga Beach.

For many years the town has used our property as a runoff for the water from the ditches etc coming from higher properties. We would like to have it on record that we have spent substantial money to have our property insulated and braces put under the cottage. The reason we had to do the braces is a direct result of the rushing water every year moving through our property.

We have often contacted the city and asked that this be corrected. We are not being unreasonable to ask, once again, that something be done to rectify this situation. We have been told many times over the years that this issue was to be remedied. It has not been!!

Thanking you in advance for coming to a solution for this problem.

Yours truly

[REDACTED]
[REDACTED]
[REDACTED]

Sent from my iPhone

Comments and Responses after Question Deadline

From: Richard Sloan <richard.sloan@ainleygroup.com>

Sent: November 25, 2022 10:57 AM

To: [REDACTED]

Cc: Laura Borland <deputyclerk@wasagabeach.com>; Mike Pincivero <pwengineer@wasagabeach.com>; Tammy Kalimootoo <tammy.kalimootoo@ainleygroup.com>

Subject: RE: Thomas Constance Drainage EA

[REDACTED],

Thank you for your inquiry. It is our understanding that the PIC information has been provided to you separately, so we will focus on the requested measurements relative to the corners of the property for each of the alternatives. Please note that at this stage we have not retained a certified Legal surveyor, which is typically done at the detailed design stage rather than as part of the Municipal Class EA. As a result these measurements are based off the most current property information available from the Town. On this basis, we provide the following:

Alternative 1: The ingress offset from the southwest property corner is 7.30m, and 21.71m from the southeast property corner. The egress offset is 12.88m from the northwest property corner, and 20.19m from the northeast property corner.

Alternative 2: There is no ingress offset from the southwest property corner since the easement extends onto the adjacent property. The ingress offset from the southeast property corner is 18.7m. The egress offset is 2.26m from the northwest property corner, and 16.95m from the northeast property corner.

Alternative 3: The ingress offset from the southwest property corner is 9.65m, and 16.55m from the southeast property corner. The egress offset is 7.28m from the northwest property corner, and 22.04m from the northeast property corner.

Alternative 4: The ingress offset from the southwest property corner is 3.79m, and 20.2m from the southeast property corner. The egress offset is 9.09m from the northwest property corner, and 18.57m from the northeast property corner.

Alternative 5: The ingress offset from the southwest property corner is 3.56m, and 20.38m from the southeast property corner. The egress offset is 8.85m from the northwest property corner, and 18.76m from the northeast property corner.

From the southwest property corner the boundary extends at a bearing of S 52 degrees, 39 minutes and 56.27 seconds W. From the southeast corner the property line extends at a bearing of S 52 degrees, 47 minutes and 2.23 seconds W.

Alternatives 1,2,4 and 5 extend at a bearing of S 57 degrees, 30 minutes, 40 seconds W.
Alternative 3 extends at a bearing of N 49 degrees, 6 minutes and 6.13 seconds E.

The culvert crossing Constance Boulevard is the same for all alternatives at a bearing of N 26 degrees, 52 minutes and 35 seconds E.

The ditch on the east side of Thomas Street is on a bearing of N 30 degrees, 59 minutes, and 23.7 seconds E.

The ditch on the south side of Constance is at a bearing of S 36 degrees, 5 minutes and 27.05 seconds E.

In addition, based on your latest inquiry, we provide the following:

The existing 1200mm diameter corrugated steel culvert which crosses Thomas Street from the south side ditch has an upstream invert of 177.42m, and outlets on the north side of Thomas in the west side Constance ditch having a downstream invert of 177.29m.

The existing 400mm diameter pipe on the south side of Thomas in the west side Constance ditch (that crosses Thomas northward) has an upstream invert of 177.97m (we believe this culvert tees in to the 1200mm culvert within the road allowance such that there is only the one outlet elevation of 177.29m as stated above.)

For the Proposed Box Culvert:

Alternatives 1 and 3 both have a proposed upstream invert of 177.31 and proposed downstream invert of 176.97m. These culverts are significantly longer, 68m and 66m respectively, in comparison to the other alternatives.

Alternatives 2, 4 & 5 all have the same; proposed upstream invert of 177.31 and proposed downstream invert of 177.16m. These are all proposed to be 19m in length.

We trust this information is sufficient. However, should you require any additional information please feel free to contact us.

Richard Sloan
Water Resources Group Lead



Tel: (705) 726-3371 Ext. 256

Cell: (705) 794-1754

Email: richard.sloan@ainleygroup.com

WWW.AINLEYGROUP.COM

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Ainley Group is committed to providing accessible customer service. Please inform us if you require this information in an alternative format or require communication supports.

From: [REDACTED] baron_ge@hotmail.com

Sent: November 24, 2022 10:58 AM

To: Tammy Kalimootoo <tammy.kalimootoo@ainleygroup.com>; Richard Sloan <richard.sloan@ainleygroup.com>; Jonathan Uylenbroek <projects@wasagabeach.com>

Cc: Laura Borland <deputyclerk@wasagabeach.com>

Subject: Fw: Thomas Constance Drainage EA

Again, To whom it Should Concern

Note: Third request in 3 weeks as no response yet.

in addition to the two below requests for further information I would also appreciate the following:

- Invert elevation of both culverts, the existing crossing Thomas at Constance and
- Proposed culvert crossing Constance at # [REDACTED].

I would appreciate this info at your earliest convenience.

I am also copying Deputy Clerk Laura Borland on this correspondence should there be a problem with my email contact information. Thank you

Regards

[REDACTED]

From: [REDACTED] >
Sent: November 10, 2022 7:55 PM
To: tammy.kalimootoo@ainleygroup.com <tammy.kalimootoo@ainleygroup.com>; Richard Sloan <richard.sloan@ainleygroup.com>; Jonathan Uylenbroek <projects@wasagabeach.com>
Subject: Fw: Thomas Constance Drainage EA

To Whom it Should Concern

I am re sending my letter sent a week ago (nov 3rd).

Since it has yet to be responded to, I would appreciate in addition to the previous requested information below, the following:

- Bearings of the 5 proposed box culverts crossing Constance in front of # [REDACTED].
- Also, the Bearings of both Thomas roadside ditch as well as Constance roadside ditch.

You may disregard my request for the video as Deputy Clerk Laura Borland located for me by the end of that day. It was not on the Town website as was stated.

I would appreciate your immediate response to my requested information at your earliest convenience. Thank you so much.

Regards
Glenn Baron

From: [REDACTED]
Sent: November 3, 2022 6:53 PM
To: Jody Marks <jody.marks@ainleygroup.com>
Cc: Jonathan Uylenbroek <projects@wasagabeach.com>
Subject: Thomas Constance Drainage EA

Re: PIC #1 (Mar 3) and PIC #2 (Jun 23)

Good Afternoon Jody

Hope you are doing well.

I have located the video of your presentation of PIC #2 but unsuccessful finding same for PIC #1. I would appreciate if you could send me the link.

In regards to your presentation in PIC #2, the audio of the five routes through our property at [REDACTED] Constance Blvd. other than the various widths, was uninformative to me as a blind person.

The following information would be appreciated and very helpful:

- Distance of left and right easement boundary alignments from corner survey stakes at ingress to property line, (road) for each of the five routes shown.
- Distance of same from rear corner survey stakes at egress from rear property line.
- Compass bearing of each of the five routes in relation to the bearings of the side yard property boundaries of ■ Constance.

Thank you very much for your assistance to this matter. Should you require any clarification please do contact me.

Regards

■

PIC Presentation Material



Town of Wasaga Beach Constance Boulevard Drainage Improvements Schedule 'C' Municipal Class Environmental Assessment

Public Information Centre No. 2

June 23, 2022



Introduction

Richard Sloan, P.Eng.
Water Resources Group Lead

- Project Manager
- Engineering Lead



Jody Marks
Environmental Planner

- Class Environmental Assessment Lead



Agenda

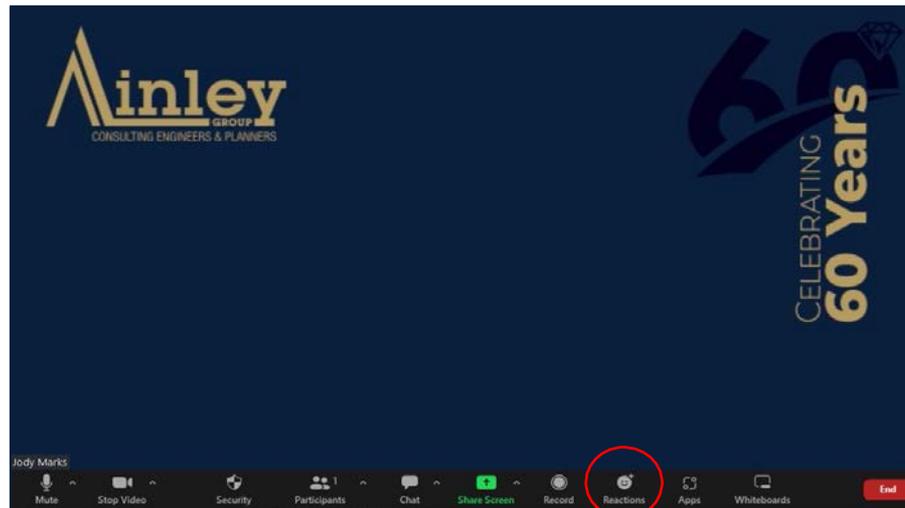
1. Virtual Engagement
2. Purpose of Public Information Centre (PIC) No. 2
3. Project Overview
4. Results of Phase 2 Evaluation
5. Design Concepts
6. Comment Period 1
7. Evaluation of Design Concepts
8. Next Steps
9. Comment Period 2

Virtual Engagement



Chat Feature

- TO: Everyone
- Type and send your comment or question
- A project team member will read out loud on your behalf.

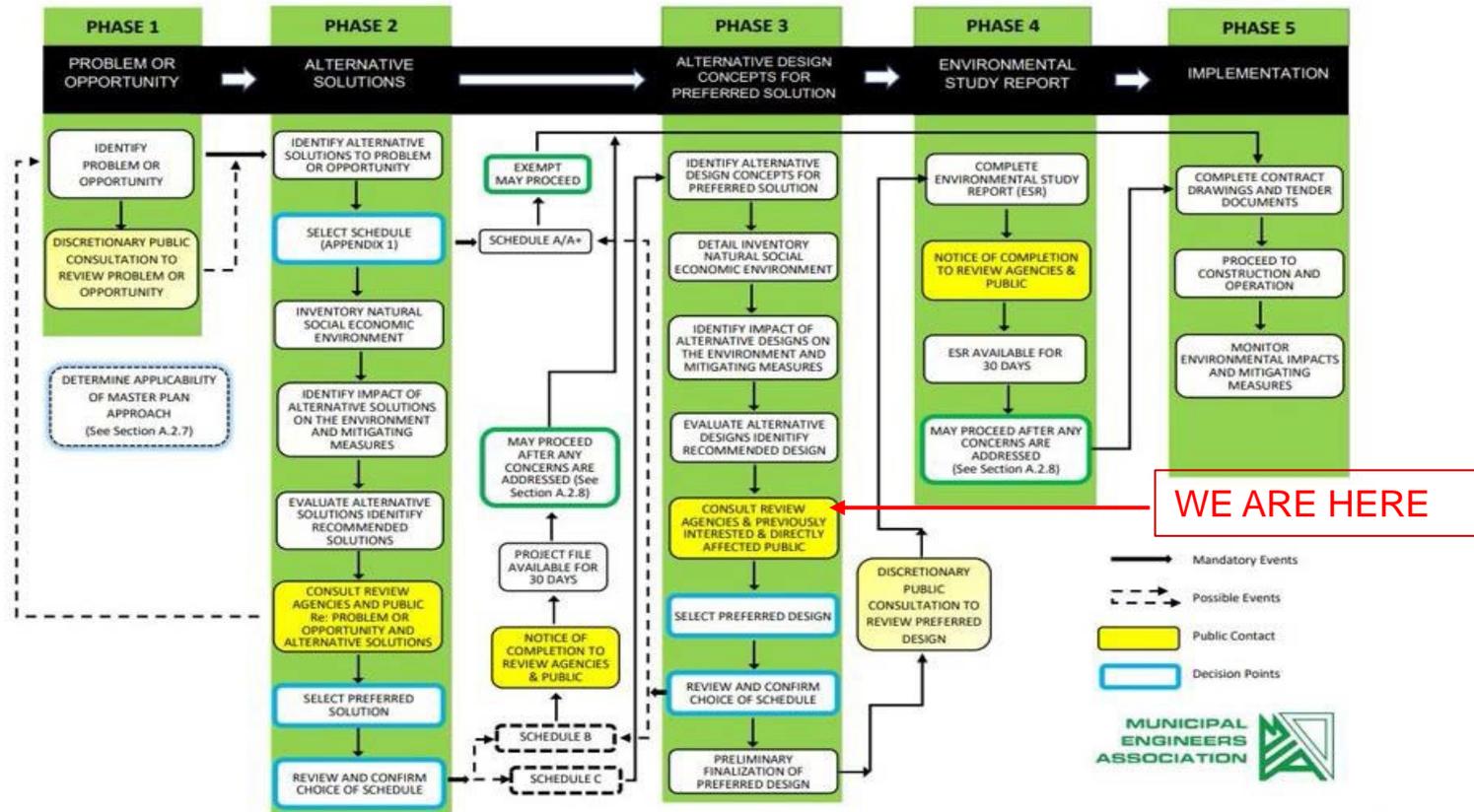


Raise Hand Feature

- A hand icon will appear on your video for the host to see.
- Indicates you would like to ask a question directly.
- The host will unmute your microphone when you are called on.

Purpose

The purpose of this PIC is to present various design concepts that have been developed to implement the Preferred Solution selected during Phase 2. Consultation is an important part of the Class Environmental Assessment process, public input is encouraged and will be considered throughout the project process.



Project Overview

- The Town of Wasaga Beach has undertaken a Municipal Class Environmental Assessment (Class EA) to identify a suitable solution for reducing the probability of flooding events in the area of Constance Boulevard and Thomas Street to Bayswater Drive, particularly in consideration of snow melt occurrences as well as increased rainfall intensities expected due to climate change.



- The current capacity of the side road ditch along Constance Boulevard in this area is insufficient to contain larger stormwater events and results in flooding.
- The study area (outlined roughly in red) is focused around the corridors of Thomas Street, Bayswater Drive, and the segment of Constance Boulevard that runs parallel to the shoreline of Georgian Bay.

*The Town is undertaking a 2D hydraulic model specific to the area of George Ave., Marilyn Ave. South, and Robert St. South. This undertaking (area boundary outlined roughly in yellow and beyond) is a separate project and being conducted under the Drainage Master Plan.

Project Overview

- The Class EA process requires the evaluation of potential alternative solutions and design concepts so as to select a suitable approach that will address the problem or opportunity, but also keep impacts to a minimum.
- During Phase 2, various background field studies were completed to determine existing environmental conditions to assist with identify any potential impacts from the alternative solutions proposed.
 - Cultural Heritage Resource Assessment
 - Stage 1 Archaeological Assessment
 - Natural Heritage Preliminary Constraints Investigation
- As part of Phase 2, the Town hosted a virtual PIC No. 1 on March 3, 2022. This PIC presented alternative solutions under consideration for consultation and input from stakeholders and interested parties.
- The PIC No. 1 material can be reviewed at the following link, please note that the comment period on the material has since closed.
<https://www.wasagabeach.com/en/town-and-government/engineering-services.aspx#Environmental-Assessment-Studies>

Results of Phase 2 Evaluation

- The alternative solutions developed for consideration under Phase 2 to address the problem or opportunity:
 - Option 1 - “Do Nothing”/Status Quo
 - **Option 2 - Create New Outlet to the Bay through Property at 18 Constance Boulevard**
 - Option 3 - Increase Capacity of Constance Boulevard Ditch to Outlet North of Bayswater Drive
 - Option 4A - Redirect Drainage to Other Private Lands
 - Option 4B - Redirect Drainage to Other Private Lands
- Each of the alternatives were evaluated based on their potential impact to the study area environment (physical, natural, cultural, and socio-economic).
- Given the results of the evaluation and review of input received, Option 2 has been selected as the Preferred Solution.



Design Concepts

As part of Phase 3 of the Class EA process, several design concepts have been developed for consideration to implement the Preferred Solution.

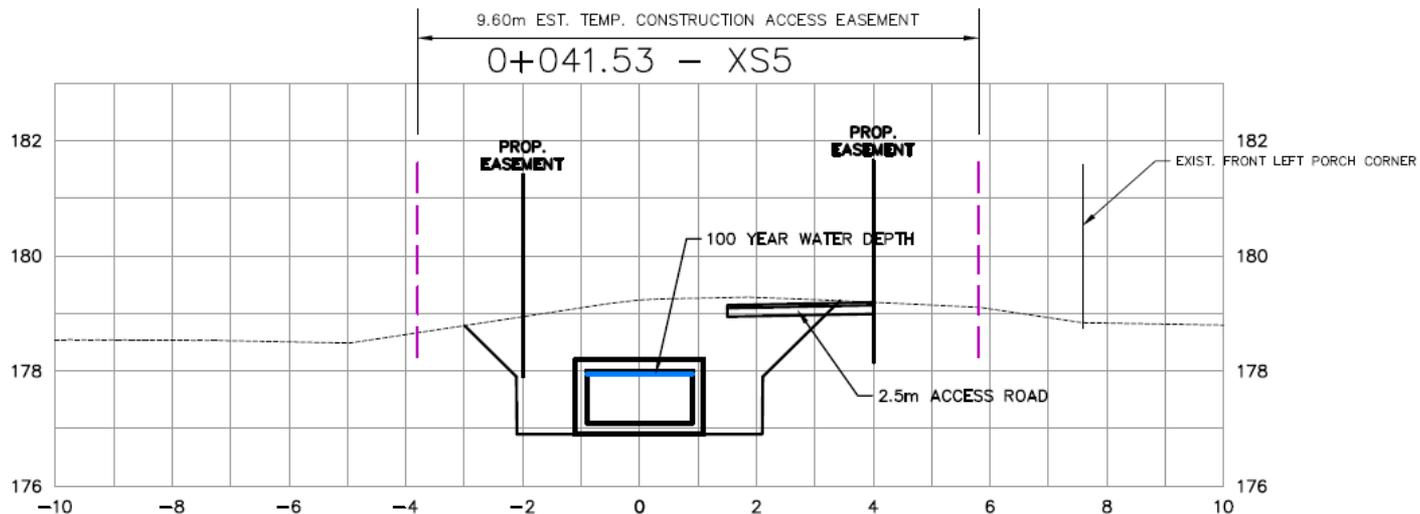
- Alternative 1 – Skewed Alignment with a Culvert Extension
- Alternative 2 – Skewed Alignment with Open Channel, Slope of 3:1
- Alternative 3 – Straight Alignment with Culvert Extension
- Alternative 4 – Skewed Alignment with Open Channel, Slope of 2:1
- Alternative 5 – Skewed Alignment with Open Channel and Retaining Wall, Slope of 2:1

Further details of each concept will be discussed in the follow slides.

Design Concepts

Alternative 1 – Skewed Alignment with a Culvert Extension

- A concrete culvert installed under Constance Boulevard. The current culvert under Thomas Street that outlets to the Constance Boulevard ditch will remain in place.
- New concrete box culvert extension 1800 x 900mm (width and height).
- Access road for maintenance would be adjacent to the culvert extension.
- Total easement width required would be approximately 9.6m for construction, with the possibility post construction the easement width reduced 6m.



Design Concepts

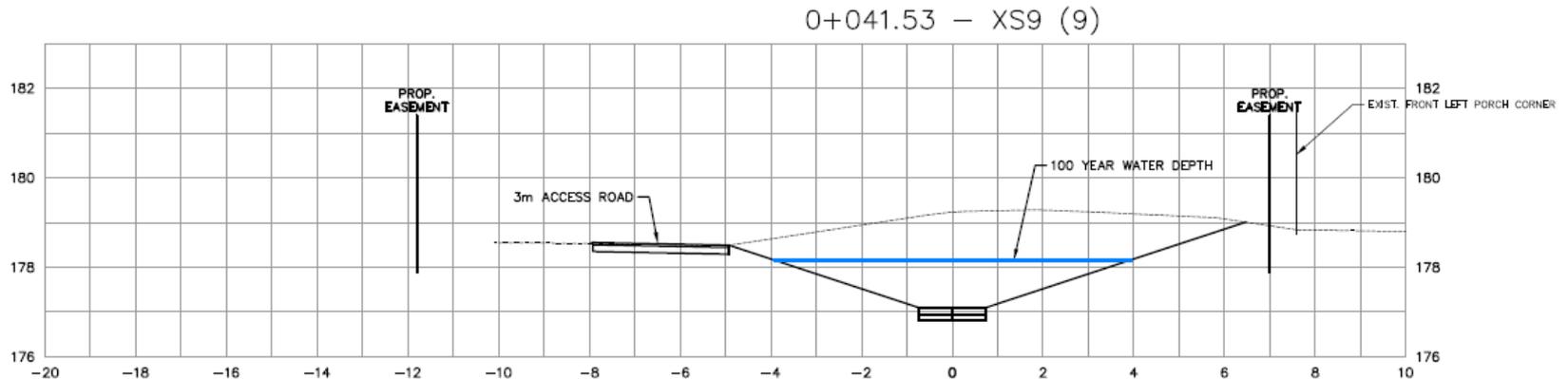
Alternative 1 – Skewed Alignment with a Culvert Extension



Design Concepts

Alternative 2 – Skewed Alignment with Open Channel Slope of 3:1

- A concrete culvert installed under Constance Boulevard. The current culvert under Thomas Street that outlets to the Constance Boulevard ditch will remain in place.
- 1.5m flat bottom channel with a 3:1 side slope
- Access road for maintenance would be adjacent to channel.
- Total easement width required would be approximately 18.8m.
- Perimeter fencing installed around perimeter for public safety.



Design Concepts

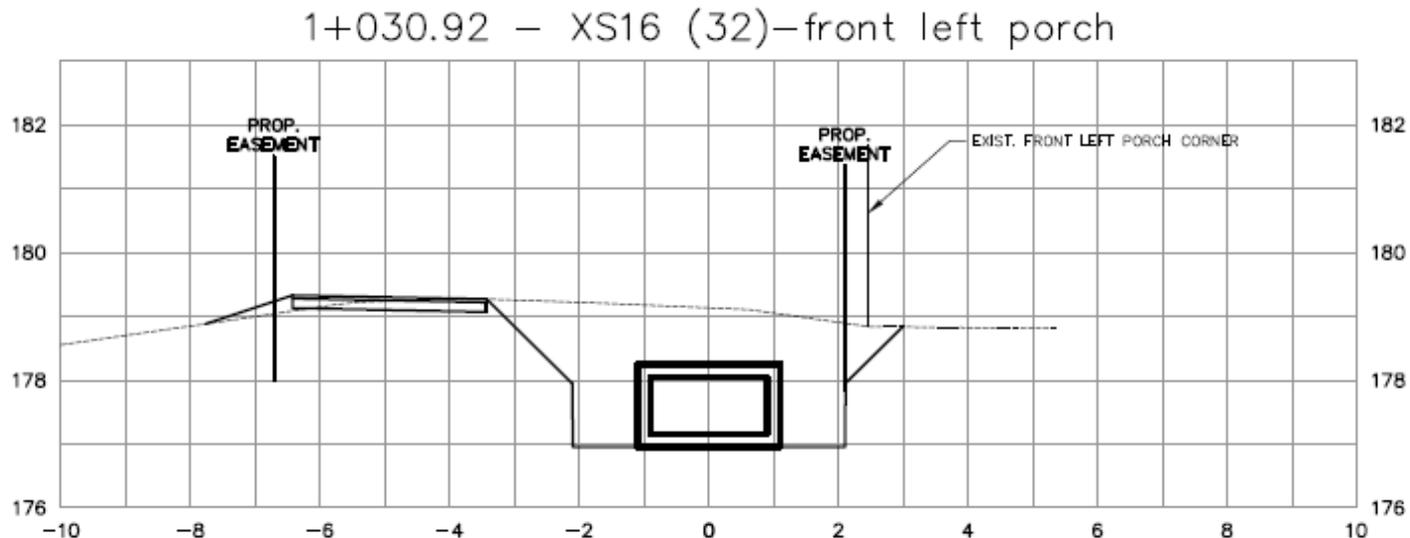
Alternative 2 – Skewed Alignment with Open Channel Slope of 3:1



Design Concepts

Alternative 3 – Straight Alignment with Culvert Extension

- Concrete culvert installed under Constance Boulevard. Current culvert under Thomas Street that outlets to the Constance Boulevard ditch will remain in place.
- New concrete box culvert extension 1800 x 900mm (width and height)
- Access road for maintenance would be adjacent to the culvert extension
- Total easement width required would be approximately 8.8m.



Design Concepts

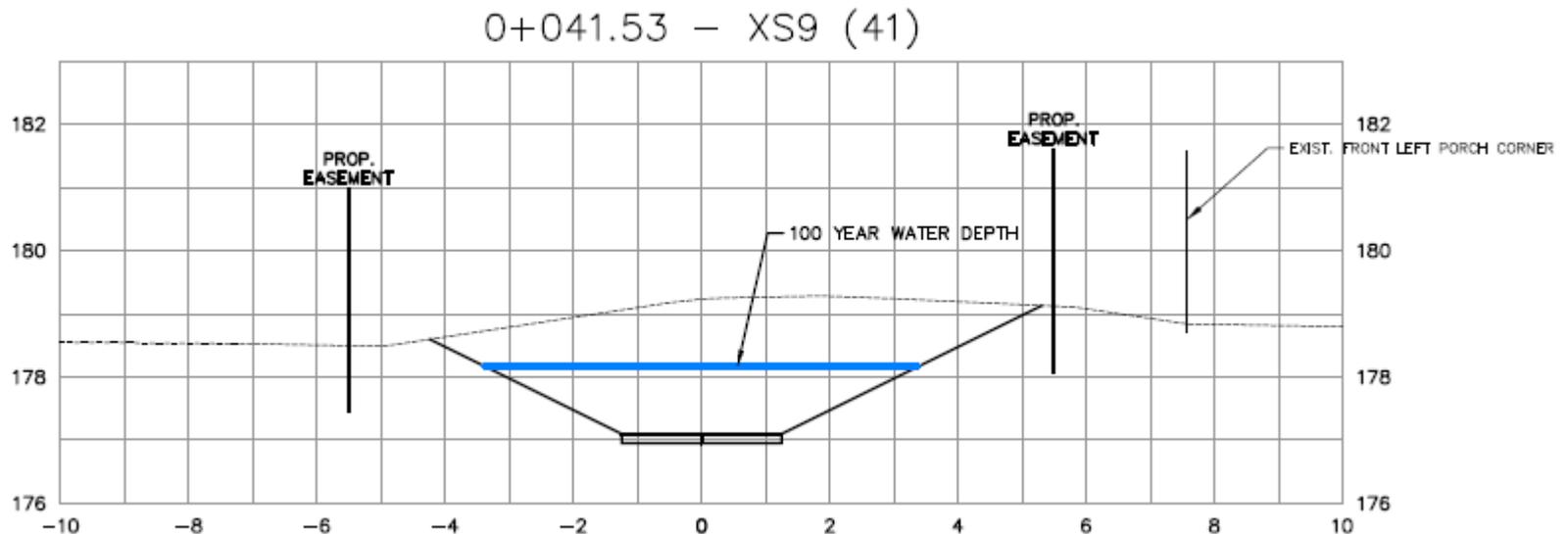
Alternative 3 – Straight Alignment with Culvert Extension



Design Concepts

Alternative 4 – Skewed Alignment with Open Channel Slope of 2:1

- Concrete culvert installed under Constance Boulevard. Current culvert under Thomas Street that outlets to the Constance Boulevard ditch will remain in place.
- 2.5m flat bottom channel with a 2:1 side slope.
- Access road for maintenance would be accommodated inside the channel.
- Total easement width required would be approximately 11m.
- Perimeter fencing installed around perimeter for public safety.



Design Concepts

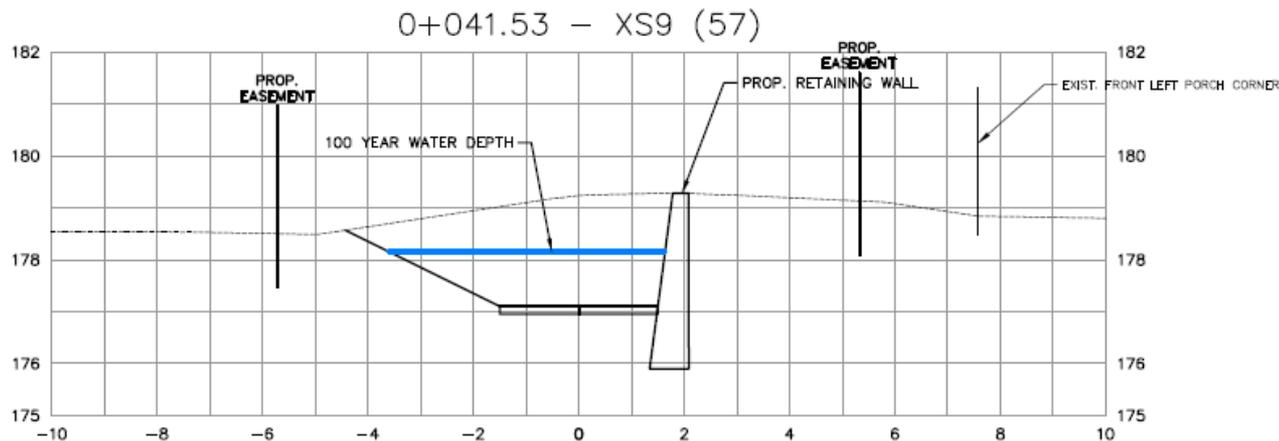
Alternative 4 – Skewed Alignment with Open Channel Slope of 2:1



Design Concepts

Alternative 5 – Skewed Alignment with Open Channel and Retaining Wall Slope of 2:1

- Concrete culvert installed under Constance Boulevard. Current culvert under Thomas Street that outlets to the Constance Boulevard ditch will remain in place.
- 3.0m flat bottom channel with a 2:1 side slope
- Access road for maintenance would be accommodated inside the channel
- A retaining wall would be constructed on the south eastern side of the channel for the section of channel in proximity to the existing structure.
- Total easement width required would be approximately 11m.
- Perimeter fencing installed around perimeter for public safety.



Design Concepts

Alternative 5 – Skewed Alignment with Open Channel and Retaining Wall Slope of 2:1



Comment Period 1

Evaluation of Design Concepts

- Each of the alternatives were evaluated based on their potential impact to the study area environment (physical, natural, cultural, and socio-economic).
- The evaluation is presented in a table or matrix to provide a simplified, visual comparison.

Legend:

Positive	Positive Neutral	Neutral	Negative Neutral	Negative
----------	------------------	---------	------------------	----------

- Green represents the most preferred option, as it will address the key concerns, but create the least amount of environmental impact.
- Red is indicative of a least preferred option as it has a higher potential to impact the environment.
- A blank space indicates that the impact is considered neutral

Evaluation of Design Concepts

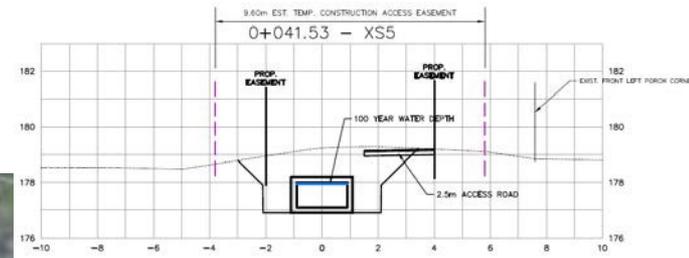
EVALUATION CRITERIA	ALT 1	ALT 2	ALT 3	ALT 4	ALT 5	DESCRIPTION OF IMPACTS
PHYSICAL ENVIRONMENT						
Expected Performance						All design alternatives are expected to perform equally. The 100-year water depth at the critical cross-section for each of the alternatives are comparable as the depth is within in <2cm difference for culvert designs and open channel designs.
Constructability						An open channel design is considered easier to construct than a culvert design. Alternatives 3, 4, and 5 will be subject to the Ontario Building Code to protect the existing structure.
Erosion Potential						Under Alternatives 1 and 3 erosion along the length of the culvert extension is not likely as the box culvert is underground. There is potential for erosion at the outlet to the bay due to the velocity of water exiting the culvert, however mitigation measures can be implemented to reduce the impacts. Under Alternatives 2, 4 and 5 there is potential for erosion of the exposed channel side slopes.
Required Easement						The open channel design of Alternative 2 will require the largest easement width. While the designs of Alternatives 1 and 3 have the smallest easement width, the alignment of Alternative 3 brings the limit of the easement within the closest proximity to the existing structure. The required easement to implement Alternatives 4 and 5 are considered mid-range when compared to the other Alternatives.
Safety						The design of the culvert extension as part of Alternatives 1 and 3 places the culvert underground, with no exposed water flow or depth. Alternatives 2, 4 and 5 propose an open channel that could potential be a safety concern, however secure fencing will be installed around the perimeter of the open channel to ensure safety.
Maintenance						Alternative 1 is on a skewed alignment, creating a 'bend' in the flow of water from the culvert under Constance Boulevard, which may create blockages and require more frequent maintenance. Alternative 3 has a straight alignment, however underground culverts still can pose challenges to maintenance. Alternatives 2, 4 and 5 have an open channel design allowing for ease of maintenance and visual inspection.
NATURAL ENVIRONMENT						
Terrestrial (Includes SAR)						No Species at Risk (SAR) habitat is present within the project area. Under Alternative 2, tree removal will be required and potentially as part of Alternatives 4 and 5. It is anticipated that tree removal would not be required as part of Alternatives 1 and 3.

Evaluation of Design Concepts

EVALUATION CRITERIA	ALT 1	ALT 2	ALT 3	ALT 4	ALT 5	DESCRIPTION OF IMPACTS
NATURAL ENVIRONMENT						
Fish Habitat (Includes SAR)						Under all Alternatives the project will require submission to Fisheries and Oceans Canada for review. The project is not anticipated to negatively impact fish or fish habitat.
SOCIAL ENVIRONMENT						
Cultural Heritage & Archaeological						Each alternative is considered to have potential to impact possible archaeological resources, further field investigation is required to confirm. The area of the shoreline (classified as a Cultural Heritage Landscape) is beyond the scope of this project and mitigation measures have been addressed through the proposed West End Depot ditch.
Property Impacts						Alternative 1 proposes a design that has the smallest easement in comparison and utilizes the existing driveway. Alternatives 2 and 3 propose designs that, at the critical cross section, are the closest to the existing structure. Alternatives 4 and 5 propose the same easement width, however the retaining wall of Alternative 5 minimize the proximity of the channel to the existing structure on private property.
Climate Change						All of the Alternatives are expected to provide flood relief and create a more resilient system to the affects of climate change within the local community.
ECONOMIC ENVIRONMENT						
Construction Costs						Construction costs associated with the concrete box culvert under Alternatives 1 and 3 creates an overall higher cost, compared to the construction material and complexity of the open channel as part of Alternatives 2, 4 and 5. Alternative 5 includes the construction of a retaining wall, which will somewhat increase costs in comparison.
Operating and Maintenance Costs						Alternative 1 is on a skewed alignment, creating a 'bend' in the flow of water from the culvert under Constance Boulevard and may require more frequent maintenance to remove blockages. Alternatives 4 and 5 may require more frequent maintenance due to the steeper slope of 2:1.
TOTALS						
						The Design Concepts have been ranked using the evaluation of all criteria to select a design that will implement the Preferred Solution, but also keep impacts to a minimum.

Preliminary Preferred Design

- The results of the initial evaluation have identified the preliminary preferred design as **Alternative 1: Skewed Alignment with a Culvert Extension**



Next Steps

- All PIC material will be available on the Engineering Services – Environmental Assessment Studies page of www.wasagabeach.com
- The Project Team will receive comments for consideration until **July 7, 2022**. The project team will review input received and select the Preferred Design Solution. The project will move into Phase 4 of the Class EA process.
- During Phase 4, an Environmental Study Report (ESR) will be published that will document the Class EA process for this project and include the selected Preferred Design Solution and any mitigation measures. The ESR will be available for public and stakeholder comment.
- A Notice of Completion will be published to advise the public of the completion of the ESR and provide information on how to access the report and provide comment.

Comments

We invite you to provide any comments in writing via email.

All comments are to be submitted by **July 7, 2022** to one of the following members of the Project Team:

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

MUNICIPAL FREEDOM OF INFORMATION & PROTECTION OF PRIVACY ACT

Comments and information regarding this project are being collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act for the purpose of meeting environmental assessment requirements. With the exception of personal information, all comments received will become part of the public record.