

ARCHAEOLOGICAL ASSESSMENT (STAGE 1 - 2)
IN THE CITY OF TORONTO

GIBRALTOR POINT

CITY OF TORONTO – THE TORONTO ISLANDS

CFN 55754.12
PIF P303-0401-2016

ORIGINAL REPORT
NOVEMBER 4, 2016

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Executive Summary

A Stage 1 and 2 archaeological assessment was triggered by internal TRCA policy outlined in the *Archaeology Resource Management Services Guidelines and Procedures* in April 2016 by the proposed Erosion Control Project in the City of Toronto on the Toronto Islands. An erosion control project is proposed along the southern shore of Gibraltar Point on the Toronto Islands.

TRCA's Archaeology Resource Management Services conducted a shovel testing assessment according to Ministry of Tourism, Culture and Sport standards (MTCS 2011) to determine if any cultural heritage resources were present and in danger of being impacted by the proposed Erosion Control Project. A total of 92% of the project area was shovel tested at five metre intervals. The remaining 8% of the project area was visually assessed as disturbed and was avoided. The total area assessed was 7,258 metres squared.

No archaeological material was recovered during the assessment. As a result, no further archaeological assessment of the project area is required.

However, if there is any deviation from the agreed upon project area, additional assessment may be necessary. Furthermore, if any deeply buried deposits or human remains are encountered, all activities will cease and the TRCA Archaeology Resource Management Services as well as the proper authorities will be contacted immediately.

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1.0 PROJECT CONTEXT

1.1 Development Context

A Stage 1 and 2 archaeological assessment was triggered by internal TRCA policy outlined in the *Archaeology Resource Management Services Guidelines and Procedures* in April 2016 by the proposed erosion control project on the Toronto Islands (**Map 1**). The proposed erosion control project includes the construction of an off-shore breakwater to the southwest of Gibraltar Point and the construction of shore-tied groyne to the east of Gibraltar Point (**Map 2**). The total size of the investigated area was approximately 7,258 meters squared.

Permission for this assessment and the right to remove artifacts from the property was granted to TRCA's Archaeology Resource Management Services by the City of Toronto.

1.2 Historical Context

The project area is situated on Gibraltar Point in the City of Toronto. Detailed archival research into historic and modern heritage documents was conducted as a component of this study and a brief historical overview of the local area is provided.

The following chronology was constructed from research contained within *The Archaeology of Southern Ontario to A.D. 1650* (Ellis and Ferris 1990).

PaleoIndian Period – 12,000 to 10,000 BP.

Twelve thousand years ago, as the glaciers retreated from southern Ontario, nomadic peoples gradually moved into areas recently vacated by the massive ice-sheets. These people lived in small family groups and it is presumed that they hunted caribou and other fauna associated with the cooler environment of this time period. It should be remembered that as the glaciers melted at the end of the last ice age, the landscape of southern Ontario was very much like the tundra of the present day eastern sub-arctic. Traditionally, the PalaeoIndian occupation of southern Ontario has been associated with glacial lake shorelines, however recent investigations in the Toronto vicinity indicate that these peoples also exploited interior locations situated inland from the glacial lakes.

Archaic Period – 10,000 to 2800 BP.

As the climate in southern Ontario warmed, Aboriginal populations adapted to these new environments and associated fauna. Thus, many new technologies and subsistence strategies were introduced and developed by the Archaic peoples of this time period. Woodworking implements such as groundstone axes, adzes and gouges began to appear, as did net-sinkers (for fishing), numerous types of spear points and items made from native copper, which was mined from the Lake Superior region. The presence of native copper on archaeological sites in southern Ontario and adjacent areas suggests that Archaic groups were involved in long range exchange and interaction. The trade networks established at this time were to persist between Aboriginal groups until European contact. To harvest the new riches of the warming climate, the Archaic bands of southern Ontario followed an annual cycle, which exploited seasonably available resources in differing geographic locales within watersheds. As the seasons changed, these bands split into smaller groups and moved inland to exploit other resources that were available during the fall and winter such as deer, rabbit, squirrel and bear, which thrived in the forested margins of these areas.

Initial Woodland Period – 2800 BP to A.D. 700

Early in the Initial Woodland period, band size and subsistence activities were generally consistent with the groups of the preceding Archaic Period. Associated with the earliest components of this cultural period is the introduction of clay pots. Additionally, around two thousand years ago a revolutionary new technology, the bow and arrow, was brought into southern Ontario and radically changed the approach to hunting and warfare. These two technological innovations allowed for major changes in subsistence and settlement patterns. As populations became larger, camps and villages with more permanent structures were occupied longer and more consistently. Generally, these larger sites are associated with the gathering of macrobands. Often these larger groups would reside in favourable locations to cooperatively take advantage of readily exploitable resources. It was also during this period that elaborate burial rituals and the interment of numerous exotic grave goods with the deceased began to take place. Increased trade and interaction between southern Ontario populations and groups as far away as the Atlantic coast and the Ohio Valley was also taking place.

Late Woodland Period – A.D. 700 to 1650

Around A.D. 700, maize was introduced into southern Ontario from the south. With the development of horticulture as the predominant subsistence base, the Late Woodland Period gave rise to a tremendous population increase and the establishment of permanent villages. These villages consisted of longhouses measuring six metres wide and high and extending anywhere from three to 15 metres in length. Quite often these villages, some of which are one to four hectares in size, were surrounded by multiple rows of palisades suggesting that defence was a community concern. Aside from villages, Late Woodland peoples also inhabited hamlets and special purpose cabins and campsites that are thought to have been associated with larger settlements. Social changes were also taking place, as reflected in the fluorescence of smoking pipes; certain burial rituals; increased settlement size; and distinct clustering of both longhouses within villages (clan development) and villages within a region (tribal development). One interesting socio-cultural phenomenon that occurred during this period as a result of the shift in emphasis from hunting to horticulture was a movement away from the traditional patrilineal and patrilocal societies of the preceding band-oriented groups to a matrilineal orientation. According to oral traditions, *Anishinaabe* peoples migrated from the Eastern coast into the Great Lakes region around 1400. Living on the Canadian Shield, these groups remained largely nomadic well into the Historic or Euro-Canadian Period. The Late Woodland groups that inhabited the Toronto area eventually moved their villages northward toward Georgian Bay. It was these and other groups in southwest Ontario that eventually evolved into the Aboriginal nations who interacted with and were described by French missionaries and explorers during the early seventeenth century.

PostContact Period – A.D. 1650 to 1805

Also called the Early Historic Period, these years are characterized by the arrival of a small number of Europeans interested in exploration, trade, and establishing missions, coupled with a gradual adoption of European materials by First Nations peoples. In terms of material culture, it is often difficult to distinguish between *Haudenosaunee*, *Anishinaabe*, *Métis* and colonial settler campsites during these early years. This is due to the interaction and adoption of each other's material goods and subsistence strategies which blur cultural boundaries. Such interaction was essential to early explorers and missionaries who relied on local people for survival strategies and knowledge of the local landscape. These permeable boundaries continued until the Crown established segregated reserves in the eighteenth and early nineteenth centuries for the *Haudenosaunee* and *Anishinaabe* communities who remained here while granting properties to European settlers.

Euro-Canadian Period – A.D. 1805 to Present

The Toronto Islands

During the early settlement of York the waterfront at the mouth of the Don River was predominantly a marshy bay, bounded by a sand-spit to the west and a peninsula to the south. Originally believed to be utilized by First Nations people for hunting, fishing and recreation, the peninsula became a favourite resort for European settlers as well. During the mid-nineteenth century the peninsula was broken by several storms, separating what is currently the Toronto Islands from the mainland, at the point now known as the Eastern Gap (**Map 3**). Evidence of industry can be dated to as early as the 1830's in the form of a starch factory and mill, located on what is now known as Ward's Island (Stinson 1990:10).

By 1885 use of the Toronto Islands had begun to shift away from a resource for hunting, fishing and trapping, towards more permanent settlement in the form of cottages. These cottages replaced most of the shacks and boathouses once used by hunters and fishermen (**Map 4**). In 1906 the City of Toronto set aside land for a beach park known as Simcoe Park and two clusters of cottages were built along the sandbar on either side (Stinson 1990:8). Since the late nineteenth century many alterations have altered the landform of the islands, including the construction of Toronto Island Airport on Hanlon's Point, which resulted in considerable filling and development around the point. The airport opened in 1939.

No structures are listed on nineteenth or early twentieth century maps within the project area (**Maps 3 and 4**). Furthermore, there are no structures shown within the 1956 aerial (**Map 5**).

It is possible that previously undocumented structures may be encountered within the current project area that relate to nineteenth century residential and recreational activity areas given that not every aspect of potential interest today would have been illustrated on these maps. Unknown features, such as cottages, outbuildings and shanties likely stood on these properties that are not illustrated on nineteenth century maps. Consequently, the possibility remains that middens or the remnants of these buildings may be encountered.

Present Land Use

The project area has been partially developed and contains a roadway, one structure and a utility generator (**Map 1**).

1.3 Archaeological Context

The general geography and geology, previous archaeological sites registered in the vicinity and site predictive models (Burgar 2003, Toronto 2011) were reviewed to provide archaeological context for the current study area. The project area is situated on Centre Island on the Toronto Islands.

The Toronto Islands are the only islands located on the western end of Lake Ontario. The islands are a popular recreational destination, and are home to a small residential community as well as the Toronto Islands Airport. The area of the islands is approximately 230 hectares (570 acres), not including the Island Airport Lands, and is comprised of several smaller islands including Centre Island, Algonquin Island, Middle Island, Muggs Island, South Island and Forestry Island. The largest of the seven, Centre Island, is crescent-shaped and forms the shoreline of both the Eastern and Western Channels. Algonquin Island and Middle Island form the next largest islands in the group.

The islands were originally a nine kilometre peninsula or sand spit extending from the mainland that was composed of alluvial soil deposited from the erosion of the Scarborough Bluffs. The flow from the Niagara River to the south across Lake Ontario caused a counter-clockwise east-to-west current which has over time, deposited sediments at the south end of the harbour to form a sand spit.

In 1852, a storm flooded sand pits on the peninsula, creating a channel east of Ward's island. The channel was widened and made permanent by a violent storm in 1858 and became known as the *Eastern Gap*, turning the peninsula into the present day Toronto Islands.

Sediment deposition was halted in the 1960s when the Leslie Street Spit was extended beyond the southern edge of the islands. Left to nature, the islands would diminish over time; however this has been slowed due to hard shorelines built to limit erosion. Over the years, land reclamation has contributed to an increase in the size of the islands. For example, Ward's Island was expanded by dredging and Algonquin Island was created from harbour bottom sands which were moved by dredging or suction methods.

The topography within the project area is characterized as flat (**Map 6**) and is situated on alluvial deposits formed by lake currents (OMAFRA 2009).

Previously Identified Sites

The Ontario Archaeological Sites Database (OASD) maintained by the Ministry of Tourism, Culture and Sport (MTCS) indicates that while no archaeological sites have previously been registered within the project area, two sites were located within one kilometre of the project area (**Table 1**). None of these sites were located within 50 metres of the project area.

Table 1 Registered Archaeological Sites within One Kilometre of the Study Area

Borden Number	Site Name	Site Type	Affiliation	Researcher
AjGu-20	CJCL Tower	Midden	Euro-Canadian	Hamilton 1984
AjGu-69	Dodds	Midden	Euro-Canadian	Teichroeb 2011

Archaeological Potential Models

In addition, an application of the TRCA's Archaeological Site Potential Model (**Map 7**) indicates that the project area may be classified as a Medium Probability Area (Burgar 2003) for encountering Aboriginal sites. This is largely based on proximity to water and adequate soil drainage and does not take into account impacts due to previous development. Within the Greater Toronto Area's watersheds, nearly 80% of all Aboriginal archaeological sites have been found within High Probability areas. The City of Toronto archaeological potential model (Toronto Region 2011) shows no available data for the delineated project area (**Map 8**). The Toronto potential model takes into consideration impacts from previous development which may result in the removal of archaeological potential.

Reports Documenting Fieldwork within 50 Metres

No reports documenting fieldwork within 50 metres of the project area were identified by the MTCS.

Date of Fieldwork

Fieldwork was conducted on June 17, 2016.

2.0 FIELD METHODS

2.1 Site Preparation

The project area was situated in areas with heavy brush and manicured lawn (**Image 1** and **2**). As a result, the project area was not ploughed and test pit investigation was the methodology employed. Development plans were provided for the erosion project prior to the start of fieldwork which delineated the project area (**Map 2**).

2.2 Survey Methods

The weather during the investigation was sunny (29°C), with lighting conditions that permitted good visibility of land features. A total of 92% of the project area was shovel tested at five metre intervals (**Image 5**). The remaining 8% of the project area was visually assessed as disturbed and was avoided (**Map 9, Image 4**). Test pit survey was also conducted within one metre of built structures, or until test pits showed evidence of recent ground disturbance” to address Section 2.1.2, Standard 4. The concrete circle visible to the east of the generator was a localized disturbance that did not affect the test pit intervals.

Shovel testing involved crew members excavating 30 centimetre diameter test pits to five centimeters below the depth of sterile subsoil. All excavated material was screened through six millimetre mesh. All test pits were back filled.

In normal practice strategic locations such as project area limits, changes to field methodology, and photo locations, are referenced with Universal Transverse Mercator (UTM) coordinates. These coordinates are recorded using a *Garmin eTrex* global positioning system, NAD 83, 17T, with a plus-minus error of three metres. All field conditions were recorded photographically with a *Canon Powershot G12*, 10 megapixel digital camera (**Images 1 to 6, Map 10**).

3.0 RECORD OF FINDS

No artifactual material or cultural features were located in the project area during the archaeological investigation. All field records and photographs are on file with TRCA's Archaeology Resource Management Services (**Appendix C: Document Inventory**).

4.0 ANALYSIS AND CONCLUSIONS

TRCA's Archaeology Resource Management Services has completed a Stage 1-2 archaeological assessment for the proposed erosion control project on Gibraltar Point. No archaeological material was encountered. No heritage resources will be impacted by the proposed erosion control project.

5.0 RECOMMENDATIONS

It is therefore recommended that:

- The entire project area as tested (**Map 9**) requires no further archaeological assessment.

Advice on Compliance with Legislation

- a) This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines 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 Ministry of Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.
- b) It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- c) Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
- d) The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Bibliography and Sources

Burgar, R.W.C.

2003 *Archaeological Site Predictive Model*. On file with the Toronto and Region Conservation Authority.

Chapman, L.J. and D.F. Putnam

1984 *The Physiography of Southern Ontario*. Ontario Geological Survey, Special Volume 2, 3rd Edition, Government of Ontario.

Ellis, Chris J. and Ferris, Neal

1990 *The Archaeology of Southern Ontario To A.D. 1650*. Occasional Publications of the London Chapter, Ontario Archaeological Society Inc., Publication Number 5, London Ontario.

Ministry of Tourism and Culture

2011 *Standards and Guidelines for Consultant Archaeologists*. Queen's Printer for Ontario, Toronto.

Ontario Ministry of Agriculture and Rural Affairs (OMAFRA)

2009 *Soil Survey Complex (Southern Ontario Soil Survey) (Version 1.0)*. ESRI Shapefile.

Stinson, J.

1990 *The Heritage of the Port Industrial District*, A Report for the Toronto Harbour Commissioners by Jeffery Stinson.

Maps and Aerial Photographs

1860 *Tremaine's Map of the City of Toronto*. G.C. Tremaine, Toronto.

1897 *Toronto Harbour Works*. Temple, Toronto.

1954 Aerial Photograph (Photographic Corp.)

2011 Interim Archaeological Potential. toronto.ca/open accessed on June 17, 2011.

Appendix A: Images



Image 1 Environs facing south



Image 2 Environs facing west



Image 3 Environs facing north



Image 4 Existing structure and roadway facing southeast

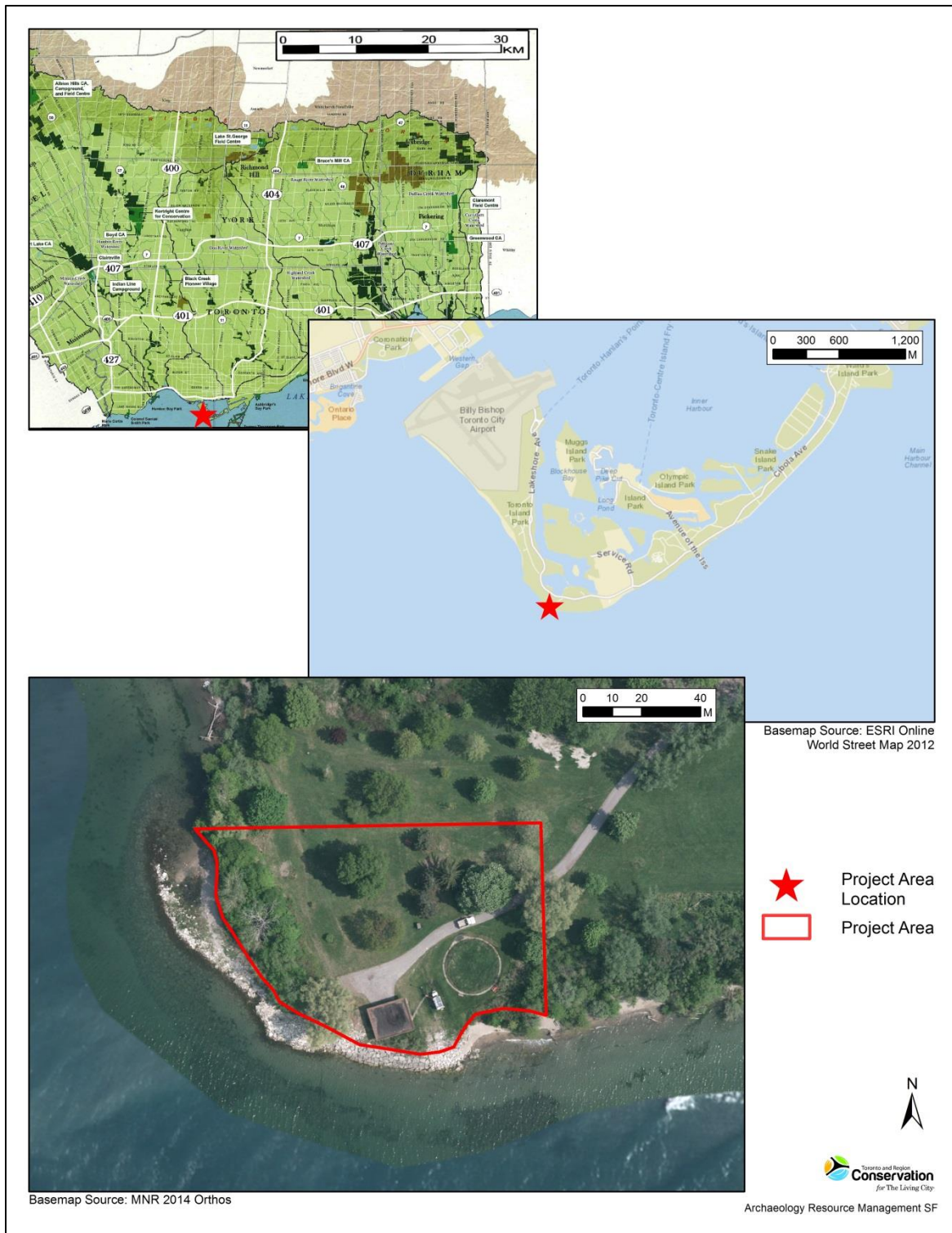


Image 5 Test pitting facing east



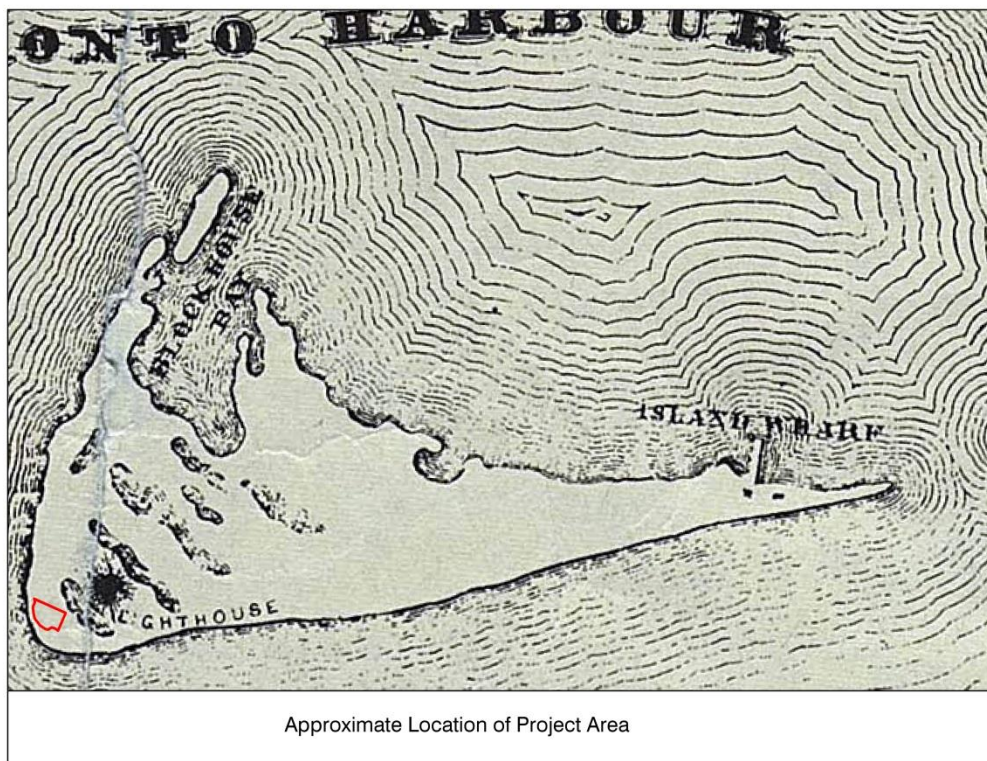
Image 6 Example of a test pit

Appendix B: Maps

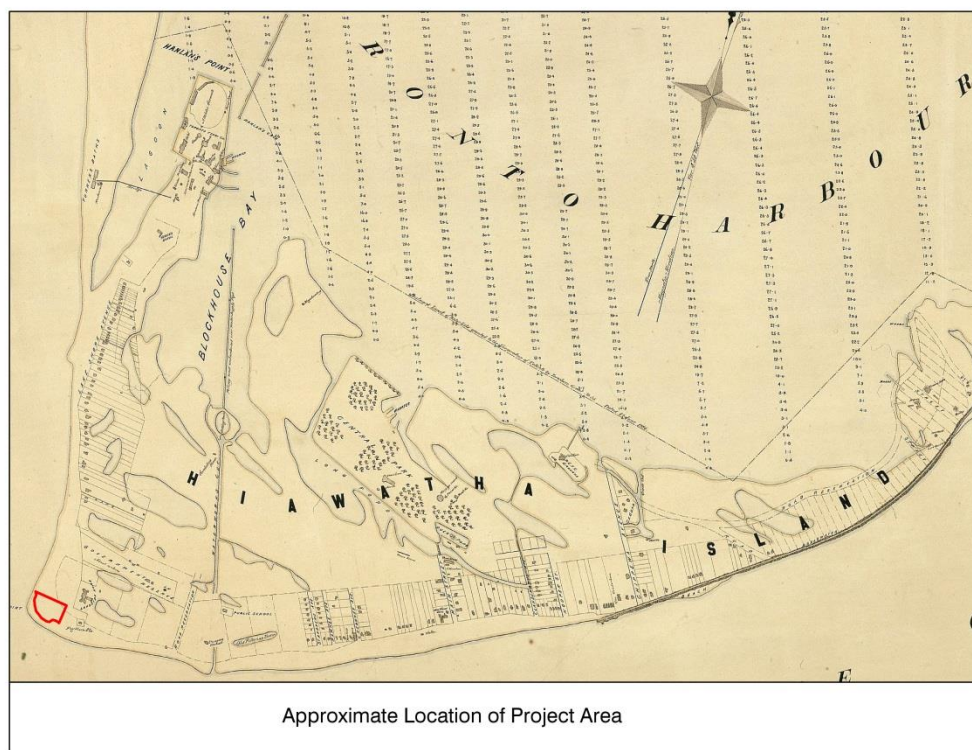


Map 1 General Project Area





Map 3 **Detail of 1860 Tremaine Map – City of Toronto**



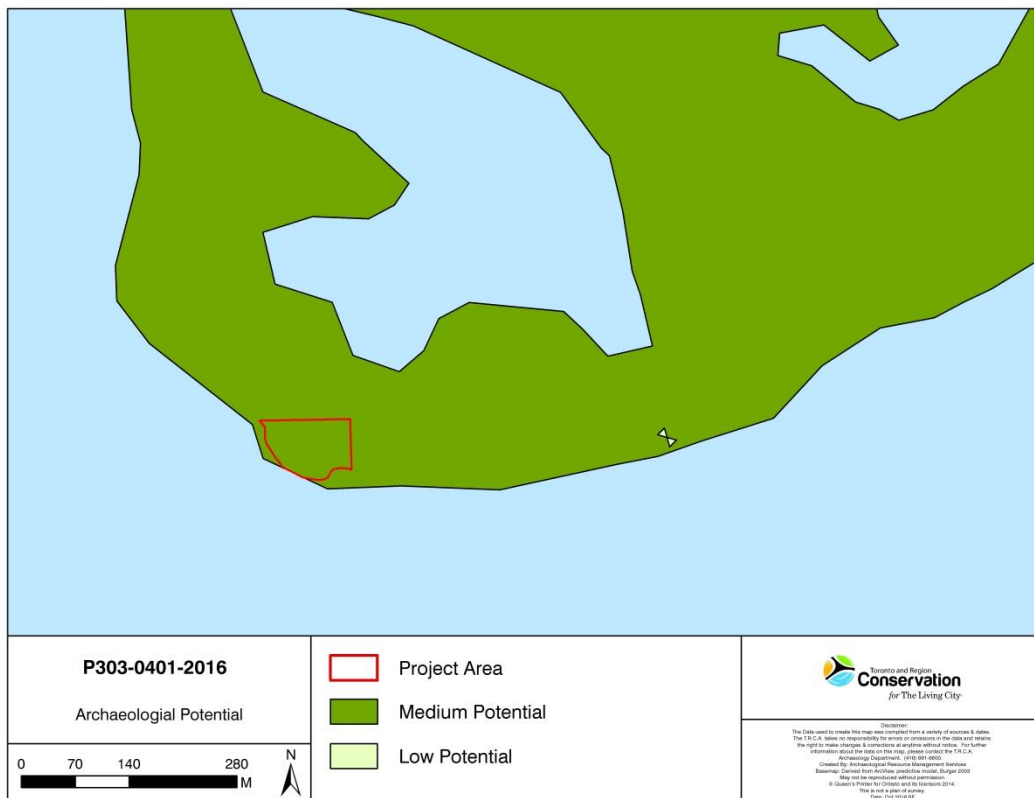
Map 4 **Detail of 1897 Harbour Works Map – City of Toronto**



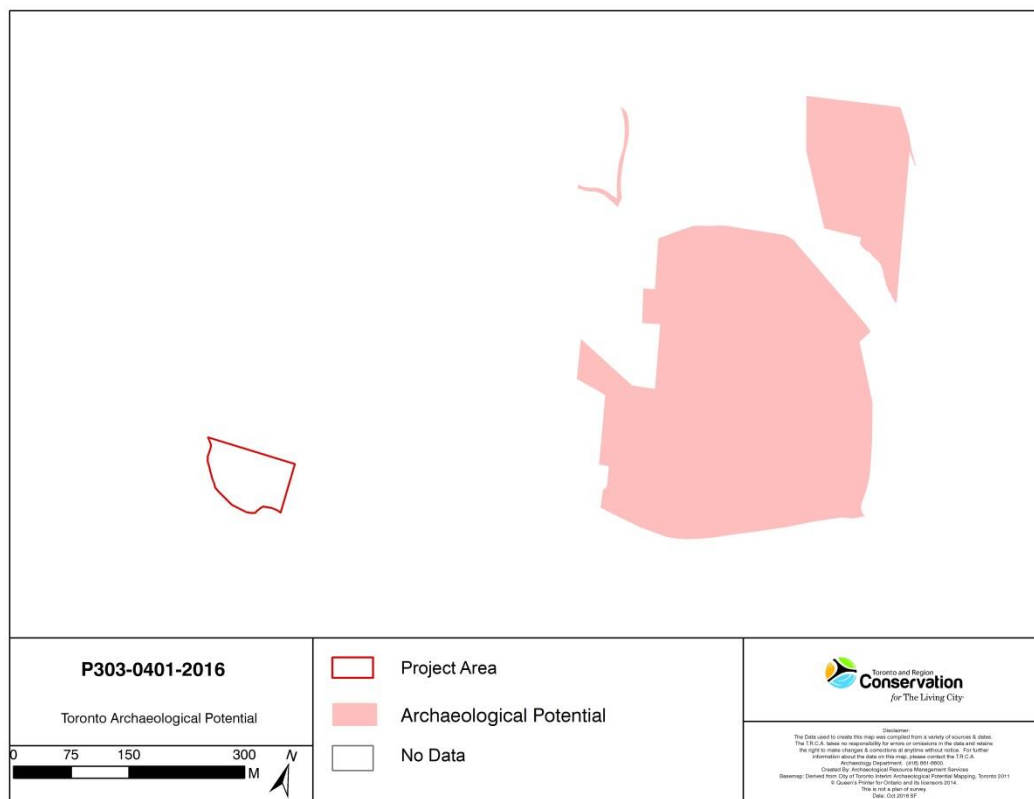
Map 5 1956 Aerial – City of Toronto



Map 6 Local Topography



Map 8 TRCA Archaeological Potential Model



Map 7 City of Toronto Archaeological Potential



Map 9 Project Area as Tested



Map 10 **Location and Direction of Photographs**

Appendix C: Document Inventory

All documentary material is located at the offices of the Archaeology Resource Management Services department of the Toronto and Region Conservation Authority located at 5 Shoreham Drive, Downsview, ON M3N 1S4. All documentation is digitized and stored on the local server.

Date	Document Page #	Digital Photographs	
	Field Notes	Camera	Photo #
17-June-16	1.79	Canon	122-3036 to 3046