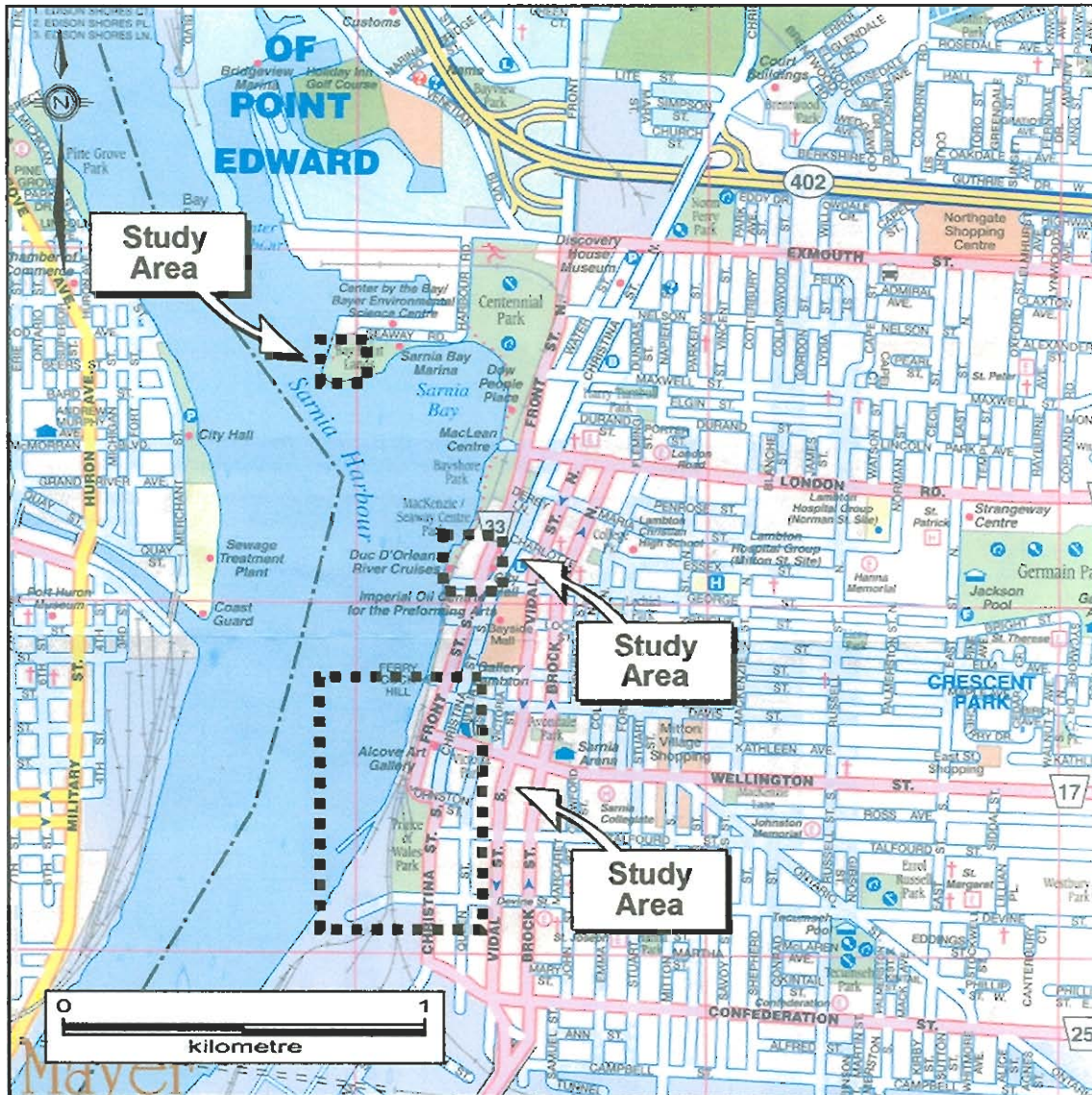


APPENDIX 1

Archaeological Assessment (Stage 1) Waterfront Master Plan City of Sarnia, Lambton County, Ontario



Heritage
Consultants Inc.

Cultural Heritage Assessments and Archaeological Mitigative Excavations

**Archaeological Assessment (Stage 1)
Waterfront Master Plan
City of Sarnia, Lambton County, Ontario**

Submitted to
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- *Robert von Bitter*, Archaeological Data Co-ordinator, Ontario Ministry of Culture.

Archaeological Assessment (Stage 1)

Waterfront Master Plan

City of Sarnia, Lambton County, Ontario

Introduction

Among other matters, the *Planning Act R.S.O. 1990*, establishes that the protection of features of archaeological interest is a matter of provincial concern. As such, an archaeological resource assessment (Stage 1 background research and visual inspection), was conducted to assist the City of Sarnia in planning decisions concerning their waterfront properties.

This assessment was conducted in order to determine the potential of direct and/or indirect impacts of possible construction activities on archaeological resources that might be present. Archaeological resources consist of artifacts (Aboriginal stone tools, pottery and subsistence remains as well as Euro-Canadian objects), subsurface settlement patterns and cultural features (post moulds, trash pits, privies, and wells), and sites (temporary camps and special purpose activity areas, plus more permanent settlements such as villages, homesteads, grist mills and industrial structures).

Stage 1 Background Research

Stage 1 background research was conducted in order to complete the following tasks:

- amass all of the readily available information on any previous archaeological surveys in the area;
- determine the locations of any registered and unregistered sites; and
- develop an historical framework for assigning levels of potential significance to any new sites discovered during fieldwork.

The framework for assigning levels of potential archaeological significance is drawn from provincial guidelines (Weiler 1980). The necessary information includes the identification and evaluation of any feature that has one or more of the following attributes:

- *it has the potential through archaeological exploration, survey or fieldwork to provide answers to substantive questions (i.e. relate to particular times and places) about events and processes that occurred in the past and therefore add to our knowledge and appreciation of history;*
- *it has the potential through archaeological exploration, survey and fieldwork to contribute to testing the validity of general anthropological principles, cultural change and ecological adaptation, and therefore to the understanding and appreciation of our man-made heritage;*
or
- *it is probable that various technical, methodological, and theoretical advances are likely to occur during archaeological investigation of a feature, alone or in association with other features, and therefore contribute to the development of better scientific means of understanding and appreciating our man-made heritage (Weiler 1980:8);*

Natural Environment

The study area is within the St. Clair Clay Plains in the Lambton Clay Plain (Chapman and Putnam 1984). The *Soil Survey of Lambton County* (Matthews, Richards and Wicklund, 1957) indicates that the study area is not surveyed as it is a residential area. However, the surrounding area is made up of Brookston clay, which is clayey till, high in lime and with poor drainage. The topography is very gently sloping and essentially stone-free. The study area is located on the waterfront of the St. Clair River.

Potential for Archaeological Resources

Archaeological potential is defined as the likelihood of finding archaeological sites within a study area. For planning purposes, determining archaeological potential provides a preliminary indication that significant sites might be found within the study area, and consequently, that it may be necessary to allocate time and resources for archaeological survey and mitigation. In predicting the locations of archaeological sites, the *Primer on Archaeology, Land Use Planning and Development in Ontario* (Ministry of Culture 1997:12-13) states that undisturbed lands, or those with minimal disturbance, such as cultivated fields, within 300 metres of a primary water source or 200 metres of a secondary or tertiary water source are considered to have archaeological potential. Other criteria can include location on elevated ground or near distinctive or unusual landforms, and the presence of well-drained sandy soils.

Based upon a published synthesis of Aboriginal cultural occupations (Wright 1968), Table 1 is a general outline of the cultural history of southwestern Ontario that is applicable to the study area. Ellis and Ferris (1990) provide greater detail of the distinctive characteristics of each time period and cultural group. The Ministry of Culture archaeological database coordinator (von Bitter 2004) indicated that there are six previously registered archaeological sites within 2,000 metres of the study area (Table 2).

Table 1: General Cultural Chronology for Southwestern Ontario.

PERIOD	GROUP	TIME RANGE	COMMENTS
Early Paleo-Indian	Fluted Projectiles	9500 - 8500 B.C.	big game hunters
Late Paleo-Indian	Hi-Lo Projectiles	8500 - 7500 B.C.	small nomadic groups
Early Archaic	---	7800 - 6000 B.C.	nomadic hunters and gatherers
Middle Archaic	Laurentian	6000 - 2000 B.C.	territorial settlements
Late Archaic	Lamoka	2500 - 1700 B.C.	polished ground stone tools
"	Broadpoint	1800 - 1400 B.C.	---
"	Crawford Knoll	1500 - 500 B.C.	---
"	Glacial Kame	circa 1000 B.C.	burial ceremonialism
Early Woodland	Meadowood	1000 - 400 B.C.	introduction of pottery
"	Red Ochre	1000 - 500 B.C.	---
Middle Woodland	Western Basin/Saugeen	400 B.C. - A.D. 500	long distance trade networks
"	Princess Point	A.D. 500 - 800	incipient agriculture
Late Woodland	Glen Meyer	A.D. 800 - 1300	transition to village life
"	Uren	A.D. 1300 - 1350	large villages with palisades
"	Middleport	A.D. 1300 - 1400	wide distribution of ceramic styles
"	Neutral/Huron	A.D. 1400 - 1650	tribal warfare
Early Contact	Mississauga plus others	A.D. 1700 - 1875	tribal displacement
Late Contact	Euro-Canadian	A.D. 1800 - present	European settlement

Over their thousands of years of occupation in the general region, Aboriginal people, have left behind, to a greater or lesser degree, physical evidence of their lifeway activities and settlements at many locations. The earliest possible human occupation was during the Paleo-Indian period (*circa* 9000 to 7000 B.C.) wherein small groups of nomadic peoples hunted big game along the shorelines of glacial lakes. These people were few in number and their small, temporary campsites are relatively rare.

People during the Archaic period (*circa* 7000 to 1000 B.C.) were still primarily nomadic hunters but also established territorial settlements, gathered seasonally available resources, and introduced burial ceremonialism. Late Archaic period sites are more numerous and can be quite large due to repeated annual visits.

Sites of the Woodland period (*circa* 1000 B.C. to A.D. 1650) are usually the most numerous because the population levels in southwestern Ontario had significantly increased. The manufacture of ceramic pottery vessels for storage and cooking was introduced along with the establishment of long distance trading networks, horticulture, warfare and large palisaded villages.

Table 2: Registered Archaeological Sites within 2,000 metres of the Study Area.

REGISTRATION #	NAME	TYPE	CULTURAL AFFILIATION
AfHo-17	Siobhan	Campsite	Late Iroquoian
AfHo-19	Chantal	Campsite	Woodland
AfHo-3	Bluewater Bridge Burial	Burial	Euro-Canadian, Middle Woodland
AfHo-4	Baines	Campsite	Middle Archaic
AfHo-8	Voikos	Cache	Early Woodland
AfHo-9	Oak Beach	Campsite	Middle Woodland

Sites of the Contact period (*circa* A.D. 1650 to 1900) include Aboriginal and Euro-Canadian residences and industries. *Jones & Moore's 1873 Map of the County of Lambton* indicates that one section of the study area was owned by CN Railway. Belden's 1880 map of Sarnia Township in the *Illustrated Historical Atlas of the County of Lambton* does not indicate any previous owners of those properties.

Local commercial maps produced in 1927 show that Area C did not exist. The book, *Lambton County's Hundred Years, 1848-1949* (Lauristan) describes that soon after 1926, a new grain elevator was constructed which was no good without rail service and extensive docks. "The harbour work carried out changed the character of the northern area of Sarnia and the adjacent Point Edward. The bay was filled in, much new land was made". Part of this new land would eventually be expanded to include Area A

The *May 1958 Insurance Plan of the City of Sarnia* indicates that part of Area "A" was, at that time, owned by Belton Lumber Co. Ltd. and had 10 structures on it. The remainder of Area A was simply listed as "CNR Railway Lands". Area "B" shows 2 structures, owned by the Canadian Observer. Area "C" still did not exist at all.

Visual Survey

On August 5, 2004, a visual examination was made of the three areas previously described. Area A has clearly had the most history of the three locations. Originally this was the CNR terminal for ferry crossings to the U.S. and schooners and steamships. After this use was discontinued various industries including Belton Lumber and currently Lafarge Ready mix Concrete Plant have occupied portions of this area. There is still a rail line extending through the eastern portion of this property. It has certainly been

disturbed, and large embankments have been built along the rail lines, but there is some potential under these embankments, and in areas where construction had not previously taken place.

Area B is currently a parking lot. When the buildings that had housed the Canadian Observer were torn down, they were removed clear to the foundation. The parking lot was, therefore, built at a different level than the surrounding properties. Any archaeological resources that might have existed at this location have been removed or destroyed previously.

Area A, as explained above, is a manufactured or reclaimed land area. This was constructed sometime after the 1950's in its entirety. Therefore, it has no archaeological potential.

RECOMMENDATIONS

The following recommendations are provided for consideration by The City of Sarnia and by the Ministry of Culture:

1. Additional assessment or mitigative measures are not warranted for Areas B and C because no archaeological potential exists. Area A requires no further assessment, but it is recommended that if destructive excavation were to take place on this property, that a licensed archaeologist would be present to monitor at least the initial excavations. The Ministry of Culture is requested to issue a letter concurring with these recommendations
2. Although every reasonable effort was made to locate all archaeological resources, it is possible that some remain to be discovered within the study area. Should deeply buried archaeological material be found during construction, the Ministry of Culture in London (519-675-7742) and Mayer Heritage Consultants Inc. in London (519-472-8100 or 800-465-9990) should be immediately notified.
3. As on virtually any property in southern Ontario, it is possible that Aboriginal or Euro-Canadian burials could be present within the study area. In the event that human remains are encountered during construction, the proponent should immediately contact both the Ministry of Culture, and the Cemeteries Regulation Unit of the Ontario Ministry of Consumer and Commercial Relations in Toronto (416-326-8392), as well as the appropriate municipal police, the local coroner, and Mayer Heritage Consultants Inc.