**ORIGINAL REPORT**

# Stage 1 Underwater Archaeological Assessment

Sandpoint Beach Park
10300 Riverside Drive East
Part Lots 138, 139, and 140, Concession 1
Geographic Township of East Sandwich
County of Essex
City of Windsor, Ontario

**Prepared For**

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## 1.0 Executive Summary

Matrix Heritage, on behalf of Landmark Engineers, undertook a Stage 1 Underwater Archaeological Assessment (UAA) in-water development impacts within the development area at Sandpoint Beach Park, civically addressed 10300 Riverside Drive East on part of Lots 138, 139, and 140, Concession 1, in the Geographic Township of East Sandwich, County of Essex, now the City of Windsor, Ontario. (Map 1). This UAA assessment was required as a component of the Municipal Class Environmental Assessment (Class EA). The City of Windsor plans to modify the existing shoreline and swimming facilities within the park to improve access and overall public safety. A proposed development plan map of the study area provided by the client was used to delineate the development area (Map 2) and to establish the assessment area.

The Stage 1 Underwater Archaeological Assessment included a review of the updated MCM's archaeological site databases, Save Ontario Shipwreck's Marine Heritage Database, a review of relevant environmental, historical literature, and primary historical research including: aerial imagery, historical maps, and land registry records.

This Stage 1 Underwater Archaeological Assessment concludes that while the study area lies in an area of high archaeological potential, extensive disturbances have removed the potential for finding archaeological sites dating to after the establishment of the current Lake St. Clair, dating from the Middle Woodland to historical Euro-Canadian sites. These disturbances relate to the 21st century cottaging era and later beach park developments that have been documented through the adjacent terrestrial Stage 2 archaeological assessment (AMICK Consultants Ltd. 2022b). The potential for Late Paleo and/or Early Archaic archaeological resources exists in the lakebed area of the study area in deposits now deeply buried from extensive sedimentation of the area.

The current shoreline improvements to the study area consist of landscaping to redirect beachgoers away from the existing beach including the installation of new rock revetments along the west half of the site, and other activities that represent infill rather than excavation. Based on the results of this investigation, the following is recommended:

1. The proposed development impacts consisting of beach infilling and installation of rock revetments at the study area are clear of archeological concern.

and

2. There remains potential for deeply buried archaeological sites in the study area. Any work extending 1 m or greater below current grade (e.g., future excavation, coring, or boreholes) in the study area, should only be undertaken after an Underwater Archaeological Assessment of the study area has cleared the potential for deeply buried archaeological sites.

## 2.0 Table of Contents

## 3.0 Project Personnel

| | |
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# 4.0 Project Context

## 4.1 Development Context

Matrix Heritage, on behalf of Landmark Engineers, undertook a Stage 1 Underwater Archaeological Assessment (UAA) in-water development impacts within the development area at Sandpoint Beach Park, civically addressed 10300 Riverside Drive East on part of Lots 138, 139, and 140, Concession 1, in the Geographic Township of East Sandwich, County of Essex, now the City of Windsor, Ontario. (Map 1). This UAA assessment was required as a component of the Municipal Class Environmental Assessment (Class EA). The City of Windsor plans to modify the existing shoreline and to create swimming facilities within the park to improve access and overall public safety. A proposed development plan map of the study area provided by the client was used to delineate the development area (Map 2). The current development plan includes potential shoreline improvements, including the relocation of the existing beach through infilling and the installation of new rock revetments along the west half of the site. All activities are infill rather than excavation.

At the time of the archaeological assessment, the study area was under the ownership of the City of Windsor.

## 4.2 Historical Context

### 4.2.1 Historic Documentation

The study area falls within the Geographic Township of East Sandwich, County of Essex. As a result of the long history of occupation in the Windsor area there is a great wealth of information available. A few notable references relating to the broader county include: Belden's *Historical Atlas of Essex and Kent Counties* (1881)*;* Frederick Neal's *The Township of Sandwich* (1909) and Lajeunesse's *The Windsor Border Region* (1960)*.*

### 4.2.2 Pre-Contact Period

Southern Ontario was not hospitable to human occupation until the retreat of glaciers, some 12,500 years ago. The Laurentide Ice Sheet of the Wisconsinian glacier blanketed the southwestern Ontario area until about 12,500 B.P. At this time the receding glacial terminus was the southern edge of present-day Georgian Bay, and melt water in the region formed Lake Algonquin, Early Lake Erie and Lake Iroquois (the basin of today's Lake Ontario).

By circa 11,000 B.P., northeastern North America was home to what are commonly referred to as the Paleo people. The Paleo period probably reflects a time when small groups of people moved across the landscape following seasonal game across a landscape similar to the modern subarctic. For Ontario the Paleo period is been divided into the Early Paleo period (11,000 - 10,400 B.P.) and the Late Paleo period (10,500-9,400 B.P.) based on changes in tool technology (Ellis and Deller 1990). The Paleo people, who had moved into hospitable areas of southwest Ontario (Ellis and Deller 1990), likely consisted of small groups of exogamous hunter-gatherers relying on a variety of plants and animals who ranged over large territories (Jamieson 1999). Many Paleo sites appear to occur around glacial features such as kettle ponds and shorelines of glacial lakes. Due to the high mobility and low population density of people in the region at this time, the archaeological resources from these periods are rare and often ephemeral. Although Paleo-Indian sites are among the most uncommon site type, there is a notable concentration of them between Lake Erie and Lake Huron (Wright 1990). The Parkhill National Historic Site of Canada near Parkhill, Ontario is a significantly large archaeological site that was once a Paleo settlement on the shores of ancient glacial Lake Algonquin. The site covers an

area over six hectares and likely represents communal hunting camps that were used for short periods over many generations. The site is significant as the earliest, firmly dated Paleo habitation site in Ontario and also represents one of the largest Clovis artifact inventories of any known site (Ellis and Deller 2000). While no Paleo sites are recorded within the City of Windsor, several are present within Essex County (MCM Archaeological Sites Database; accessed February 2023). Furthermore, Lake St. Clair did not exist during the Late Paleo period leading to the possibility that some sites from this era in the Windsor area are now submerged (CRM Group Ltd et al. 2000:2–5).

In the Archaic Period, as the climate became warmer, people likely practiced more diverse lifeways while remaining seasonally mobile hunter gatherers. The period is divided into Early (10 000-8 000 B.P.), Middle (5500- 4500 B.P.), and Late (4500 – 2800 B.P.) Archaic, which correspond to transitions in technology and resource exploitation patterns (Ellis et al. 1990). Like the Paleo period, the Archaic is broadly similar across most of Southern Ontario and the surrounding Great Lakes region. This period is generally characterized by increasing populations as seen through an increase in the numbers and sizes of sites, developments in lithic technology (e.g., ground stone tools), and emerging trade networks. Archaic populations remained hunter-gatherers with an increasing emphasis on fishing. There are no registered Early Archaic sites in the Windsor area, but a small number of Middle and Late Archaic sites have been identified (MCM Archaeological Sites Database; accessed February 2023). Low water levels in the Lake Huron basin during the Early Archaic raises the potential that these sites have been inundated by Lake St. Clair.

The Woodland Period saw the advent of many technological and social changes, such as the production of pottery and increased sedentism. The Woodland Period is commonly divided into the Early Woodland (1000 – 300 B.C.), Middle Woodland (400 B.C. to A.D. 1000), and the Late Woodland (A.D. 900 – European Contact) periods. The Early Woodland is typically noted via lithic point styles (i.e., Meadowood bifaces) and pottery types (i.e., Vinette I). The identification of pottery traditions or complexes (Laurel, Point Peninsula, Saugeen) within the Northeast Middle Woodland, the identifiers for the temporal and social organizational changes signifying the Late Woodland Period, subsequent phases within in the Late Woodland, and the overall 'simple' culture history model assumed for Ontario at this time (e.g., Ritchie 1969; Wright 1966, 2004) are much debated in light of newer evidence and improved interpretive models (Engelbrecht 1999; Ferris 1999; Hart 2011; Hart and Brumbach 2003, 2005, 2009; Hart and Englebrecht 2011; Martin 2008; Mortimer 2012). Thus, the shift into the period held as the Late Woodland is not well defined. This period is better understood archaeologically than the preceding ones, as populations grew and left greater impacts on the archaeological record. During the Late Woodland, agriculture was introduced to southern Ontario. There are general trends for increasingly sedentary populations, the gradual introduction of agriculture, and changing pottery and lithic styles. However, nearing the time of contact, Ontario was populated with somewhat distinct regional populations that broadly shared many traits. In the southwest, in good cropland areas, groups were practicing corn-bean-squash agriculture in semi-permanent, often palisaded villages which are commonly assigned to Iroquoian peoples (Wright 2004:1297-1304).

By the Late Woodland, a distinct cultural occupation appeared in the western end of Lake Erie known as the Western Basin Tradition. These peoples have been identified as an Algonquian speaking peoples unique to the western drainage basin of Lake Erie, Lake St. Clair and the southern end of Lake Huron. The Western Basin Tradition is distinguished by its numerous pottery styles including the Riviere au Vase (ca. A.D.600-800/900), Younge (ca. A.D. 800/900-1200), and Springwells (ca. A.D. 1200-1400) phases (Murphy and Ferris 1990).

Late in the 16th century, several changes occurred in the distribution of Iroquoian villages in southern Ontario. Prior to contact with Europeans, the Iroquoian communities along the north shore of Lake Ontario and along the Trent River Valley appear to have disappeared, probably mostly relocating to Huronia. These people collectively became known as the Wendats or Hurons by the 17th century missionaries and explorers to the area. The primary reason for this change is usually considered to be greater participation in the fur trade. Likewise, the Late Ontario Iroquoian people who had expanded primarily as far west as the Chatham area in southwestern Ontario with outlier villages further east, suddenly moved east to the Hamilton-Brantford-Niagara Falls area. These people became known as the Attawandaron, later named the "Neutrals" by the French as they remained neutral in the continuous warfare between the Six Nations and the Hurons.

### 4.2.3 Contact Period

The first meetings between Europeans and Indigenous Peoples in the Windsor area likely occurred as the Jesuit priests explored the region of southwestern Ontario. In 1640-1, Fathers Jean de Brébeuf and Pierre Joseph Marie Chaumonot visited the eighteen villages within the Attawandaron Nation, including Khioetoa a mixed Attawandaron and Wenrohronon village, which they renamed the Mission of St. Michel. The 1656 Sanson d'Abbeville map indicates that St. Michel was on the Canadian side of the Detroit River near present-day Windsor (Lajeunesse 1960:xxxi). Other early travellers made note of the Attawandaron village of Skenchioe in the Windsor area. These villages appear to have been abandoned by 1651 (Lajeunesse 1960:xxxii).

One of the first accounts among the Attawandaron from Father Joseph de La Roche Daillon, a Franciscan Récollet, who spent time among the nation in 1626 estimate the population as 40,000. Approximately 14 years later, Brébeuf and Chaumonot indicated a much-reduced population of 12,000 people and 4,000 warriors. The introduction of European diseases decimated Indigenous groups alongside the devastating influence of alcohol, and the increasing pressure to convert to Christianity which massively contributed to the weakening of their social fabric and their traditional culture.

#### Fur Trade and the Haudenosaunee (Iroquois) Wars

When the French arrived, there was already a vast trade network in place linking the Huron and the Attawandaron, extending from the Saguenay to Huronia. This route existed at least from the very early beginnings of agricultural societies in Ontario around A.D. 1000 (Moreau et al. 2016). This trade increased rapidly after the arrival of the Europeans with the introduction of European goods and the demand for furs. The Huron held a highly strategic commercial location controlling the trade to the south and the west, and the Algonquin, Michi Saagiig, and Chippewa were their critical connection to goods from the east, including European products.

By the mid-17$^{th}$ century, the demands of the fur trade had caused major impacts to the traditional way of life including a change in tools, weapons, and a shift in diet to more European as hunting was more for furs and not for food. This dependence on European food, ammunition, and protection tied people to European settlements (McMillan 1995). The summer gathering sites shifted from prominent fishing areas to trading posts. This further spurred social changes in community structure and traditional land distribution and use.

The French, as well as other Europeans like the Dutch and English, were able to align their own political and economic rivalries with those of the native populations. The competitive greed and obsession with expanding the fur trade entrenched the rivalries that were already in place, and these were intensified by European weapons and economic ambition. Little information exists about inter-tribal warfare prior to European contact, however, archaeological evidence indicates

that as early as 1000 Huron, Attawandaron, Tionontati (later named the “Petun” by the French because they were known for cultivating tobacco or petún), and Haudenosaunee villages were fortified by timber palisades. Prior to European contact, the hostilities had been mainly skirmishes and raids, or formal battles that were often highly ritualized and organized to limit casualties, but everything changed as European reinforcement provided deadlier weapons and higher economic stakes with the introduction of the fur trade.

The trading policies of Europeans created and imbalance between these native rivalries as the Haudenosaunee were readily supplied muskets by their Dutch allies, while the French allied with the Huron and their trading partners the Algonquin, Nippissing, Michi Saagiig, and Chippewa only supplied guns to Christian converts. As the Haudenosaunee exhausted the beaver population in their own territory they became the aggressors, pushing into the lands of their rivals with the added strength of Dutch weaponry. Through the 1630s and 40s constant and increased raiding into rival territories by the Haudenosaunee nations had forced many multi-generational residents to leave their lands in seek protection from their French allies in Quebec while others fled to the north.

By 1650 Huronia, the home of the Huron and traditional and treaty territory of the Chippewa, had been destroyed by the Haudenosaunee. The Haudenosaunee then attacked and destroyed the Attawandaron and Tionontati to their north, the Susquehanna to their east, and decimated the Erie and Wenrohronon to their west. The last mention of the Attawandaron as an independent group was a report in 1653 of 800 members of the tribe living in the vicinity of what is now Detroit, Michigan. The remainder of the nation were assimilated into other Indigenous nations (McMillan and Yellowhorn 2009:88).

### 4.2.4 Post-Contact Euro-Canadian History

European settlement in the Windsor area began in 1701 when Antoine de la Mothe, sieur de Cadillac established Fort Pontchartrain du Détroit on the north shore of the river, in what would become Detroit, Michigan. The aim of the fort was to prevent British expansion into the Great Lakes Region and to monopolize the fur trade. Until 1697, Cadillac had been commandant of Fort de Buade, another French outpost in the Straits of Mackinac. When that post was abandoned, Cadillac invited the Huron and Odawa to settle near the new post along the Detroit River. Initially the Huron and Odawa settled on the north side of the Detroit River, near the French outpost, but by 1721 the Odawa village had moved to the south shore and in 1747 the Huron village and associated Jesuit mission of ‘Our Lady of the Assumption among the Hurons of Detroit’ had relocated there as well (CRM Group Ltd et al. 2000:2–15).

French settlement of the south shore began in 1749 as the government of New France sponsored farming families from the lower St. Lawrence River to relocate to the area with the aim of provisioning French expansion into the Ohio Valley. Along with civilians and discharged soldiers from Fort Pontchartrain, they formed the community of La Petite Côte, present day Town of LaSalle. Lots were granted in the typical French fashion of long, narrow strips commonly referred to as ribbon farms that usually measured 3 arpents (1 arpent = 58.47 metres) wide by 40 arpents deep. This system provided each lot access to the water, the primary mode of transportation and homestead were placed at a minimum distance from one another continuous row of houses along the river which created the impression that the settlement was larger than it really was (Lajeunesse 1960:lii–liii).

French authority in the area was short-lived as the British gained control of Detroit in 1760 following the end of the Seven Years’ War. This government change little affected the French settlers in the area at first and the settlement continued to grow. New settlers continued to arrive from the St. Lawrence region and the second generation of the original French settlers were

seeking their own lands. In the 1770s, settlement began to expand towards Lake St. Clair but was slow due to the difficulty in obtaining land grants from the British government who restricted the power of granting lands at Detroit solely to the Governor or the Superintendent of Indian Affairs and restricted the Huron and Odawa from directly selling their own land to settlers (Lajeunesse 1960:lxiii).

In 1774, Lots 133-135 opposite of Peche Island[1] were granted by the Odawas to French settlers under the permission of Major Basset, Commandant at Detroit. A survey in 1780 measured the lots as 3 arpents wide by 80 arpents deep (Lajeunesse 1960:lxiv and 68). By 1782, the census of Detroit indicates that the settlement extended upstream to Hog Island, now Belle Isle, with scattered settlers as far as the entrance to Lake St. Clair opposite Peche Island. Although records are missing from 1784-6, later surveyor's lists show that during this time about forty river frontage lots were occupied in this area and by 1790, settlement was solid along the river front all the way to Lake St. Clair (Lajeunesse 1960:lxv).

Following the American Revolution, an influx of United Empire Loyalists prompted formal surveys of the region for settlement. The area had been part of the Montreal District until 1788, when Lord Dorchester, Sir Guy Carleton formed four new districts west of Montreal. From east to west these were Lunenburg, Mecklenburg, Nassau, and Hesse, reflecting the German origins of the Royal family and the many Germans among the Loyalists. Hesse (renamed the Western District in 1792), comprised the western areas of the province including Detroit, north towards Mackinac, and extending towards the Ohio Territory. In the aftermath of the American Revolution, the British retreated from Detroit in 1796 moving across the river and establishing the Town of Sandwich in 1797, within the township of Sandwich. This became the legislative seat of government of the Western District of Upper Canada.

Early Euro-Canadian land divisions into districts, counties, townships, etc. and the expansion of settlement were facilitated by the Indigenous Nations who agreed to enter formal treaty relationships with the newcomers to share the land and resources. The study area is within the lands of Treaty Number 2, also knows as the McKee purchase signed in 1790. Following the signing of the treaty, Patrick McNiff, deputy surveyor, was assigned to survey and organize the area into a township. Completed in 1793, the plan shows long narrow lots along the river and extensive marshland on the interior. In 1797, Abraham Iredell, who replaced McNiff as the deputy surveyor, resurveyed the area. It was not until 1824 that Lieutenant-Colonel Mahlon Burwell surveyed the interior of Essex Township, using the standard British grid system where amenable (Clarke 2001:92). These interior areas were not settled until the 19th century, as the land was poorly drained and not well suited to agriculture (CRM Group Ltd et al. 2000:2–17). Settlement along Lake St. Clair and the interior of Essex County expanded with the establishment of the Tecumseh Road, which was set back considerably from the shoreline because of erosion concerns, followed by the Great Western Railway in 1854.

In 1858, both Windsor and Sandwich were incorporated as towns. In 1861, the Township of Sandwich was divided into East Sandwich Township and West Sandwich Township. Historical atlases from 1877 and 1881 show the area opposite Peche Island along the shore of Lake St Clair remained largely agricultural (Map 4). The historical county atlas of 1881 notes a total population of 36,258 for Essex County, of which 25,303 inhabitants lived in rural settings, while 10,955 lived in urban settings (Belden 1881:8).

[1] Originally from the French, Isle à la Pêche (Fishing Island), now anglicized and sometimes misspelled Peach Island.

In May 1907, the Sandwich, Windsor & Amherstburg Railway, an electric street rail system that already stretched from Amherstburg to Walkerville, was extended six miles east from Windsor to Tecumseh. The line served as the principle municipal transit provider for Windsor and its associated communities with multiple street stops including through the Riverside area. The Tecumseh route was in service until 1938 when the route was dismantled.

The Town of Riverside was incorporated May 3, 1921, consisting of 2,600 acres of land and 1,155 citizens (Campbell 2022). The area grew rapidly as a non-industrial suburb to Windsor, attracting wealthy Americans to settle on its waterfront and managers from the new Ford plant (Canadian Heritage Rivers System 1998:45). Prohibition also had a sizeable influence on this area as several taverns in Riverside prospered serving American interests to secure alcohol. On January 1, 1966, the City of Windsor annexed Riverside and portions of Sandwich East Township.

### 4.2.5 Study Area Specific History

The study area consists of the water frontage of Lots 138, 139, and 140, Concession 1, Geographic Township of East Sandwich. The first survey maps of the area completed by McNiff in 1793 and Iredell in 1797 (Map 3) indicate only the northern portion of the lots closest to the Detroit River were surveyed. The 1793 McNiff map indicates Lot 138 was owned by Louis Campau (Campeau anglicised), Lot 139 by Antoin Rober (Antoine Robert anglicised), and Lot 140 owned by Simon Molark. By the time of the 1797 Iredell map, only Louis Campeau is depicted on Lot 138. Land registry records indicate Louis Campeau received the patent for Lot 138 on March 9, 1807 and Antoine Robert received his patent for Lot 139 in 1840 (OLR:Essex 12, Sandwich East). Lot 140 was patented in 1850 to Gregoire Hébart, since land speculation was common problem in Essex County in the late 18th and early 19th centuries (Clarke 2001:295–335), it is likely Simon Molark, listed on McNiff's plan, did not actually occupy the lot.

As documented through land registry records, land transactions for these three lots remained within French families throughout the 19th century with surnames like Soulière, Laforet, Ducharme, and Renaud, some of which can be seen on the 1877 Walling map (Map 4) and later 1898 map (Map 5). While the 1881 Belden map does not show landowners or structures (Map 4), this does not indicate lack of ownership on the lots as historical atlases were financed by subscriptions and fees paid by individual landowners to be listed. Notable features on the Belden map include an unnamed creek just to the east of the study area.

In the 20th Century, French surnames still dominated the land transactions of these three lots, with some English surnames such as Miller, Christie, and Wallace noted in the land registries. Mapping from 1912 (Map 5) shows Riverside Drive and the Sandwich, Windsor & Amherstburg Railway to the south of the study area and several structures along the shoreline. The same structures appear on mapping from 1940 (Map 6).

A series of cottages lined the study area in the mid-20th century, visible as early 1947 in aerial imagery (Map 7). A photo from March 25, 1952 (Figure 1) shows nine of these cottages near the western end of the study area with the Monarch Liqueurs building in the background. These cottages were subject to constant floods and ice jambs and were determined to be unfit for human habitation (City Desk 2010). They were eventually demolished but are still mapped along the shoreline in 1962 (Map 6) and are visible on aerial imagery from 1970 (Map 7). Aerial imagery from 1982 indicates the cottages furthest to the west were demolished, and by 1988 the area was essentially configured as it currently exists as the Sandpoint Beach Park (Map 7). Aerial imagery demonstrates minimal changes to the park through the 1990s and early 21st Century, with the exception of exposed lakebed related to the fluctuating lake levels (Map 8).

## 4.3 Archaeological Context

### 4.3.1 Current Conditions

The study area consists of a 50 m in-water buffer from the topographically mapped shoreline within the development area at Sandpoint Beach Park, civically addressed as 10300 Riverside Drive East. Sandpoint Beach is a City of Windsor owned park that provides recreational facilities and public beach access to Lake St. Clair. The study area is comprised of Sandpoint Beach, Ganatchio Park and Stop 26 Park. The three areas are commonly referred to as Sandpoint Beach Park.

### 4.3.2 Physiography

The study area is located within the St. Clair Clay Plain (Map 9), which covers and area of 2, 270 square miles. There is little relief in the region, lying between 575 and 700 feet a.s.l. in most areas. Essex County consists largely of a till plain which have been smoothed by deposits of lacustrine clay which has settled in depressions as a result of proglacial lakes Whittlesey (~14,000 BP) and Warren (~12,700 BP) which covered the whole area (Chapman and Putnam 2007:147).

According to the City of Windsor's archaeological master plan the natural soils in which the study area is situated consist of Colwood Fine Sandy Loam (Map 9). Colwood Fine Sandy Loam consists of black and dark grey sandy loam over mottled and grey fine sand, silt and clay (CRM Group Ltd et al. 2000:4–3).

The surficial geology of the study area consists of littoral-foreshore deposits (Map 9), which consists of modern beach deposits of sand, gravel and cobbles.

### 4.3.3 Previous Archaeological Assessments

Archaeological work in the region has primarily consisted of cultural resource management studies related to specific properties or development projects. In 2000, CRM Group Ltd assessed the Land Side Peche Island Property, legally described as Part of Lot 135, Concession 1 in the former geographic Township of East Sandwich. This assessment revealed that the northern section of the property, adjacent to Riverside Drive, had been extensively altered and buried under a thick deposit of fill. The southern portion of the property was tested on a 5 m grid for high potential archaeological sites. Two isolated flakes were found during the shovel testing but were deemed not archaeologically significant as they were recovered from within the fill deposit. The southern portion of the property was cleared, but it was recommended that the northern portion of the property be assessed at such time as the fill deposits are removed (CRM Group Ltd et al. 2000:3–9).

In 2014, CRM Lab Archaeological Services completed a Stage 1 and 2 archaeological assessment (P244-0066-2013 and P244-0067-2014) of historical Lot 138 Concession 1, located within a large section of designated parkland, known as Riverside Kiwanis Park. The Stage 2 assessment alongside an artifact assemblage collected from the area by a local amateur historian/archaeologist identified the Nicodemo-Dupuis Site (AbHr-19), an Early Archaic to Terminal Woodland Site (CRM Lab Archaeological Services 2016).

In 2015, Golder Associates completed a Stage 1 archaeological assessment of Part Lots 142 and 143, Concession 1, in the former geographic Township of East Sandwich (P 364-0089-2014). This study area was between Little River Boulevard and Riverside Drive, set back

significantly from the river. The assessment along with a site visit determined the study area to have no archaeological potential (Golder Associates Inc 2015).

Most pertinent to this underwater assessment, in 2022, Amick Consultants Ltd. conducted a Stage 1 and 2 archaeological assessment (P058-2079-2022 and P058-2108-2022) of the Sandpoint Beach development area. The Stage 1 assessment indicated potential for archaeological sites (AMICK Consultants Ltd. 2022a), however the Stage 2 found no archaeological sites or resources as it was completely disturbed with mottled soils or gravel fill (AMICK Consultants Ltd. 2022b).

#### 4.3.4 Registered Archaeological Sites, Commemorative Plaques, S.O.S. Marine Heritage Database

A search of the Ontario Archaeological Sites Database (March 2023) indicated that there is one registered archaeological site located within 1 km of the study area, the Nicodemo-Dupuis Site (AbHr-19), an Early Archaic to Terminal Woodland Site (CRM Lab Archaeological Services 2016). The Nicodemo-Dupuis Site falls within an area identified in the City of Windsor's Archaeological Master Plan to be of low archaeological potential however the site itself is considered to be of high cultural heritage value and interest as a potentially rare site type (CRM Lab Archaeological Services 2016:v).

Two isolated flakes were found during the shovel testing of Lot 135, approximately 500 m away, though these were not registered as they were recovered from within fill deposits (CRM Group Ltd et al. 2000:3–9).

No commemorative plaques are located within 1 km of the study area.

A search of the Save Ontario Shipwrecks' Marine Heritage Database indicated many shipwrecks within Lake St. Clair, however since the database is largely compiled from historic newspaper notices and primary records exact locational data is generally absent. Refining the search to include Peche, or Peach, Island identified four shipwrecks in the vicinity. Two of these wrecks: the schooner *Eugenie* (1865) and the tug *Rainbow* (1927) have no further locational data other than Peche Island, while the wreck of the *George F. Rand* (1935) was wrecked on the channel side of the island. The brig *John Dougall* (1844) was stranded at Peche Island, but with no other information the possibility exists that it was refloated.

### 4.4 Archaeological Potential

The 2005 City of Windsor Archaeological Master Plan employed various environmental, geomorphological, and historical criteria to determine the potential for archaeological resources (CRM Group Ltd et al. 2000). According to the Archaeological Master Plan the study area falls within an area of high potential (Map 10).

Potential for finding both Late Paleo and Early Archaic sites exists submerged beneath Lake St. Clair. The post-glacial history of the Great Lakes region was largely affected by the retreating Wisconsinian ice sheet and isostatic rebound. These created fluctuating high and low water levels beyond the current lake levels when melt water drainage channels were opened or closed through removal of ice blockages or rebound of depressed areas. From approximately 9,900 BP to 7,500 BP, glacial Lake Stanley formed in the Lake Huron basin, which straddles the accepted date range of the Late Paleo (9,500 BP to 8,500 BP) and Early Archaic (8,500 BP to 6,500 BP) periods. At this time low lake levels in Lake Stanley were estimated as low as 55–80 m above mean sea level (AMSL), significantly below the current 176 AMSL (O'Shea and Meadows 2009:10120; McCarthy and McAndrews 2010). As the water levels dropped, huge areas of

former lake bottoms were exposed. The exposed land where lake St. Clair now exists provided opportunities for human habitation.

Once the present day St. Clair basin was established, circa the Middle Archaic (5500- 4500 B.P.), potential for pre-contact Indigenous sites can be identified based on physiographic variables that include distance from the nearest source of water, the nature of the nearest source/body of water, distinguishing features in the landscape (e. g. ridges, knolls, eskers, and wetlands), the types of soils found within the area of assessment and resource availability. The study area consists of well drained sandy loam directly on the shores of Lake St. Clair a primary water source and historic transportation and communication network. Furthermore the study area is approximately 800 m east of the Little River and the 1881 Belden map indicates an unnamed creek to the west of the study area. Likewise, the study area is in close proximity to the Nicodemo-Dupuis Site (AbHr-19), an Early Archaic to Terminal Woodland Site and other lithic finds that were not registered with MCM.

Potential for historical Euro-Canadian sites is based on proximity to the historical transportation routes, historical community buildings such as schools, churches, and businesses, and any known archaeological or culturally significant sites. The original French long lot system in the area would have placed homesteads near the shoreline of the river. Later 20$^{th}$ century development in the area in the form of small cottages along the lakeshore likely disturbed any earlier shoreline occupation. The Stage 2 archaeological assessment conducted by Amick Consultants found no archaeological sites or resource and that the area was completely disturbed with mottled soils or gravel fill (AMICK Consultants Ltd. 2022b).

Shipping channel dredging, dyking and draining of wetlands, land clearing and development have all altered the shoreline around Lake St. Clair leading to higher erosion and sedimentation rates. This transient shoreline is seen in historic mapping that indicates a great deal of infill along the study area shoreline since the 1793 McNiff survey (Maps 3-6). Aerial imagery from 1947 and 1970 (Map 7), show a drastic shoreline modification as a result of intentional infilling at the adjacent properties to the west (Map 7). Currently, the study area is a highly active foreshore area with accreting sand along the entire site due to this infill of the westerly property.

Water level fluctuations also result in dramatic shoreline changes in Lake St. Clair's gently sloping lakeplain. These water levels are known to have varied by as much as 1.7 meters since 1898 (Adams 1989:2). The record high water level of 175.78 AMSL was recorded in October 1986, and the record low of 173.71 AMSL in January 1936 (Great Lakes Commission 2006:146). Dredging for the Lake St. Clair navigation channel began in 1886 and has increased the lake's maximum natural depth of 6.4 meters to its current depth of 8.3 meters, and has also redirected the flow of water and sediment through the Lake St. Clair system (Great Lakes Commission 2006:120). At the study area, high water levels are evidenced by the seasonal flooding documented in 1952 (Figure 1) and lowstand levels in recent aerial imagery from 2013 which show the majority the western portion of the study area as exposed dry lakebed (Map 8).

Archaeological potential along the shoreline at the study area has also been altered by regular maintenance by the City of Windsor. The entire sandy area of the beach is regularly groomed on both sides of the pavilion, approximately 5 inches deep to the water's edge (pers. comm. Liz Michaud 2023). Evidence of this grooming activity can be seen in the 2011 aerial imagery (Map 8) where low water levels have exposed large portions of the lakebed in the western side of the study area.

While the study area lies in an area of high archaeological potential, extensive disturbances have removed the potential for finding archaeological sites dating to after the establishment of the current Lake St .Clair, from the Middle Woodland to historical Euro-Canadian sites. These

disturbances relate to the 21st century cottaging era and later beach park developments that have been documented through the terrestrial Stage 2 archaeological assessment. The potential for Late Paleo and/or Early Archaic archaeological resources exists deeply buried in the lakebed area of the study area, a result of extensive sedimentation in the area.

## 5.0 Conclusions and Recommendations

This Stage 1 Underwater Archaeological Assessment concludes that while the study area lies in an area of high archaeological potential, extensive disturbances have removed the potential for finding archaeological sites dating to after the establishment of the current Lake St. Clair, during the Middle Woodland Period through to historical Euro-Canadian sites. These disturbances relate to the 21st century cottaging era and later beach park developments that have been also been documented through the adjacent terrestrial Stage 2 archaeological assessment (AMICK Consultants Ltd. 2022b). The potential for Late Paleo and/or Early Archaic archaeological resources does exist deeply buried in the lakebed area of the study area, covered by sedimentation of the area.

The current shoreline improvements to the study area consist of relocation of the existing beach and the installation of new rock revetments along the west half of the site, activities that represent infill rather than excavation. Based on the results of this investigation, the following is recommended:

1. The proposed development impacts consisting of beach infilling and installation of rock revetments at the study area are clear of archeological concern.

and

1. There remains potential for deeply buried archaeological sites in the study area. Any work extending 1 m or greater below current grade (e.g., future excavation, coring, or boreholes) in the study area, should only be undertaken after an Underwater Archaeological Assessment of the study area has cleared the potential for deeply buried archaeological sites.

## 6.0 Advice on Compliance with Legislation

a. This report is submitted to the *Minister of Citizenship and Multiculturalism* as a condition of licencing 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 Citizenship and Multiculturalism, 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 licenced 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 licenced 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 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

## 7.0 Closure

Matrix has prepared this report in a manner consistent with the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made. The strategies incorporated in this study comply with those identified in the Ministry of Citizenship and Multiculturalism's *Standards and Guidelines for Consultant Archaeologists* (2011) however; archaeological assessments may fail to identify all archaeological resources.

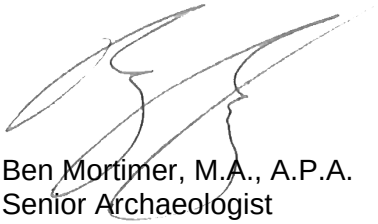
The present report applies only to the project described in the document. Use of this report for purposes other than those described herein or by person(s) other than Landmark Engineers or their agent(s) is not authorized without review by this firm for the applicability of our recommendations to the altered use of the report.



This report is pending Ministry approval.

If you have any questions or we may be of further assistance, please contact the undersigned.

Matrix Heritage Inc.



Ben Mortimer, M.A., A.P.A.
Senior Archaeologist

Nadine Kopp, M.A., A.P.A., C.A.H.P
Senior Archaeologist

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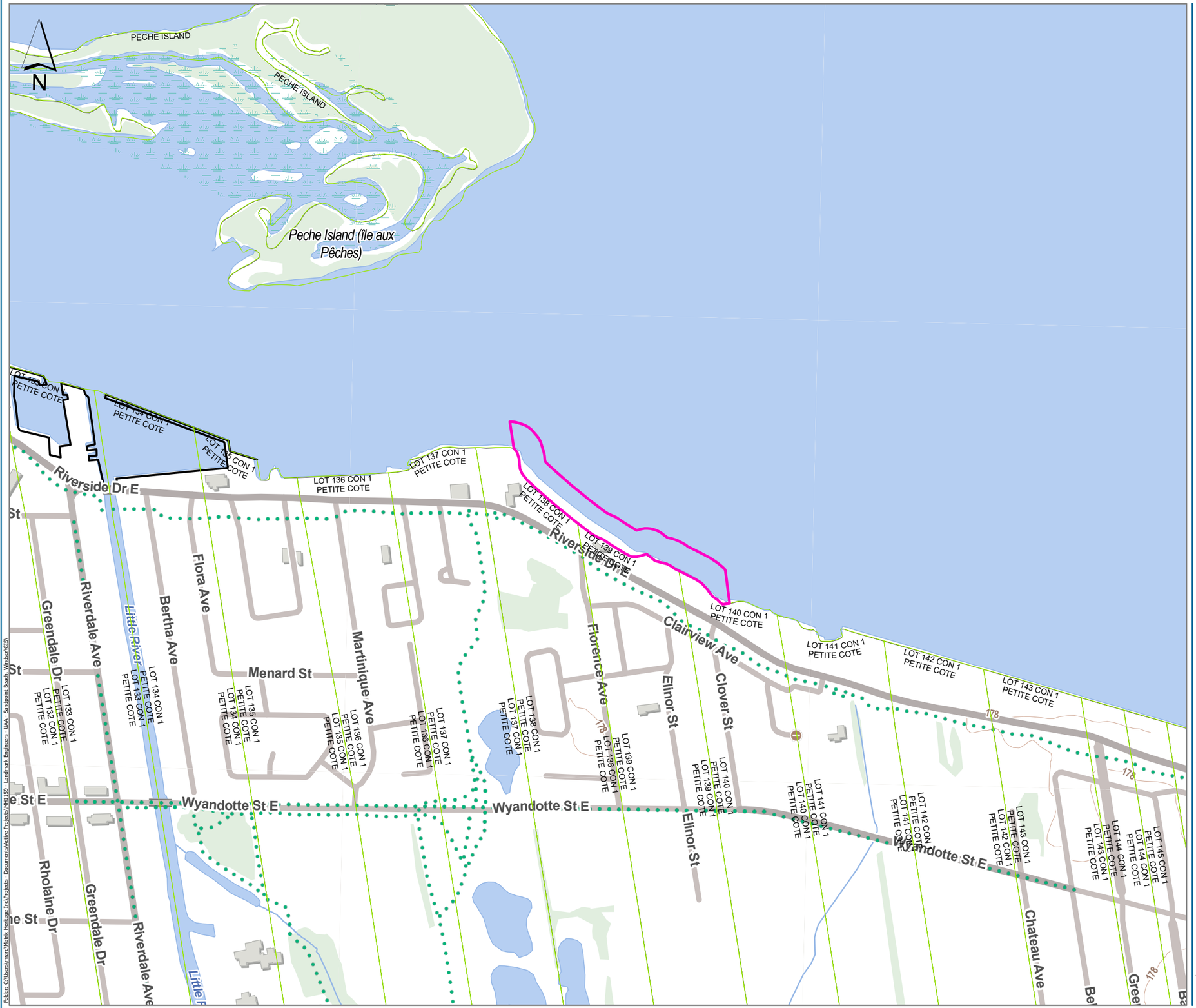
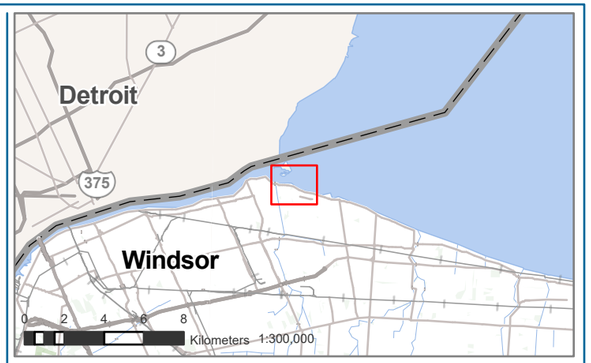
## 9.0 Maps




STUDY AREA

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DATE 2023-02-17
CREATED BY: BM
PROJECTION: NAD 1983 UTM Zone 17N
CHECKED BY:NK

PROJECT
UNDERWATER ARCHAEOLOGICAL ASSESSMENT
SANDPOINT BEACH, WINDSOR

TITLE
**LOCATION**

MAP 1

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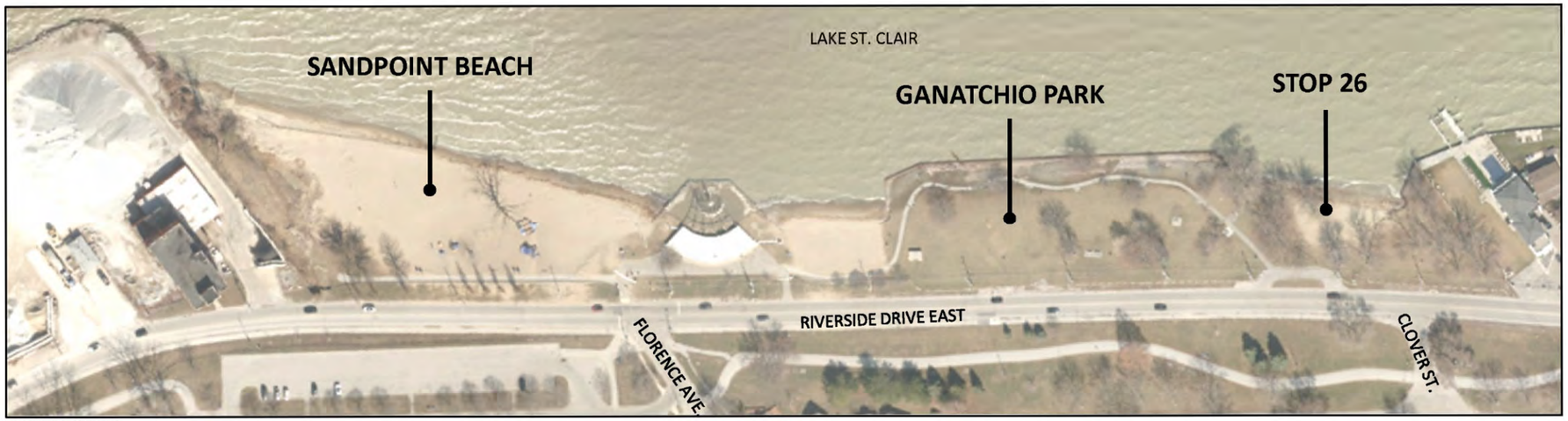


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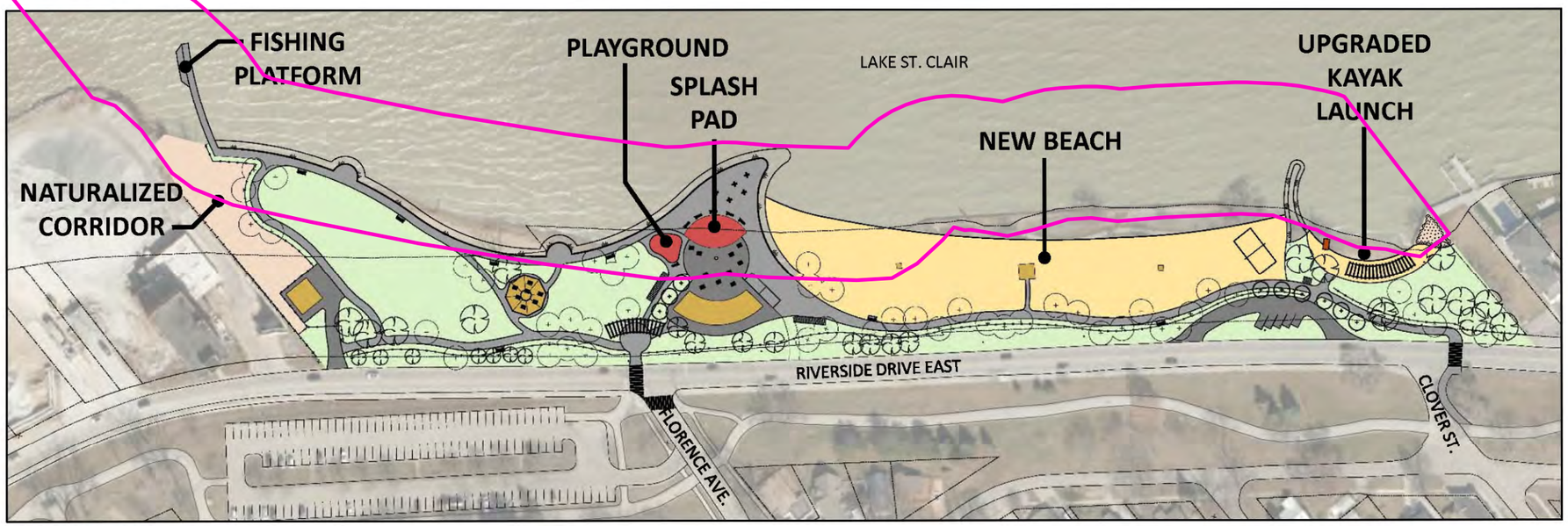


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BP
Bezaire Partners
Planners, Landscape Architects

Landmark Engineers Inc.

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PROJECT
UNDERWATER ARCHAEOLOGICAL ASSESSMENT
SANDPOINT BEACH, WINDSOR

TITLE
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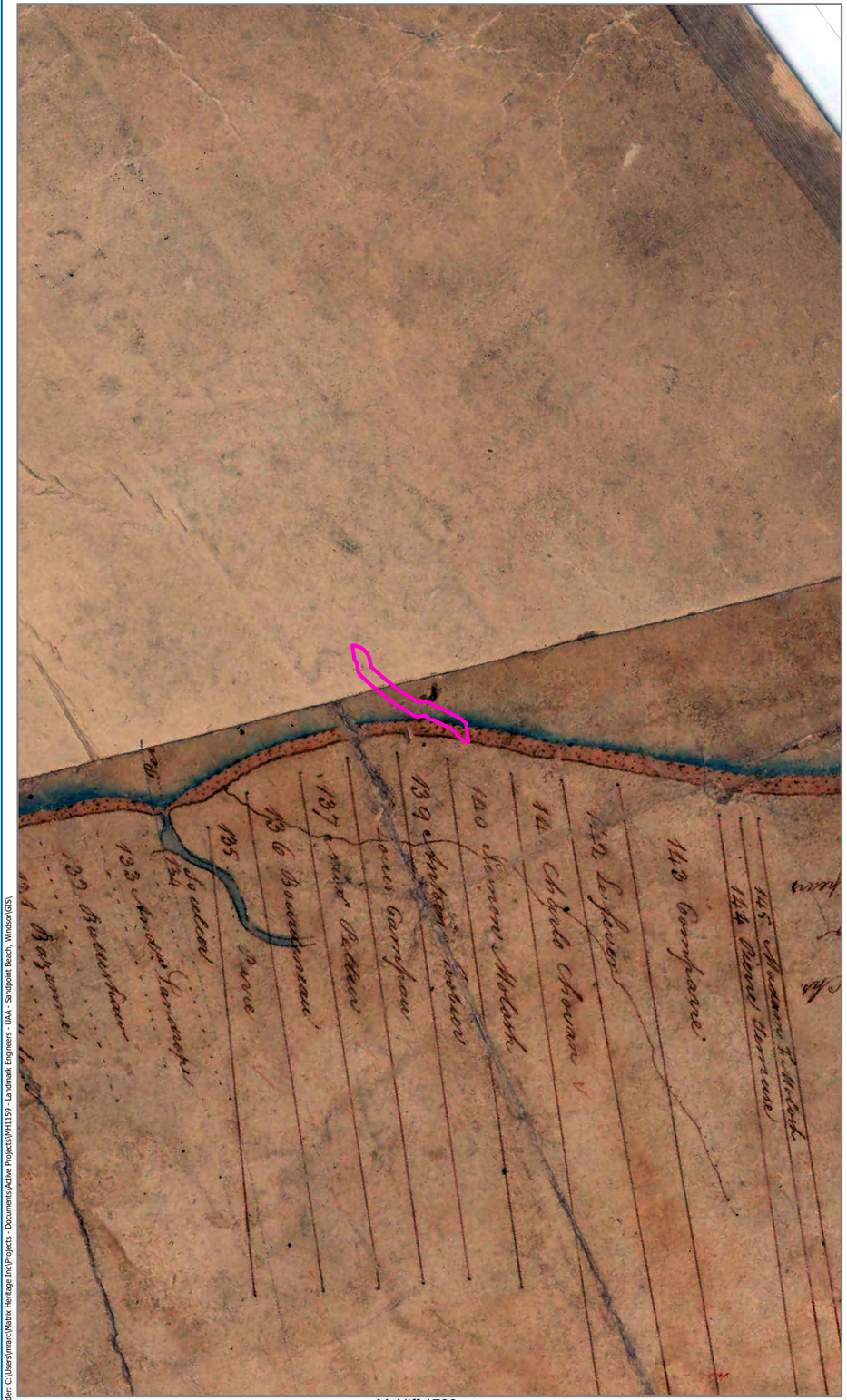

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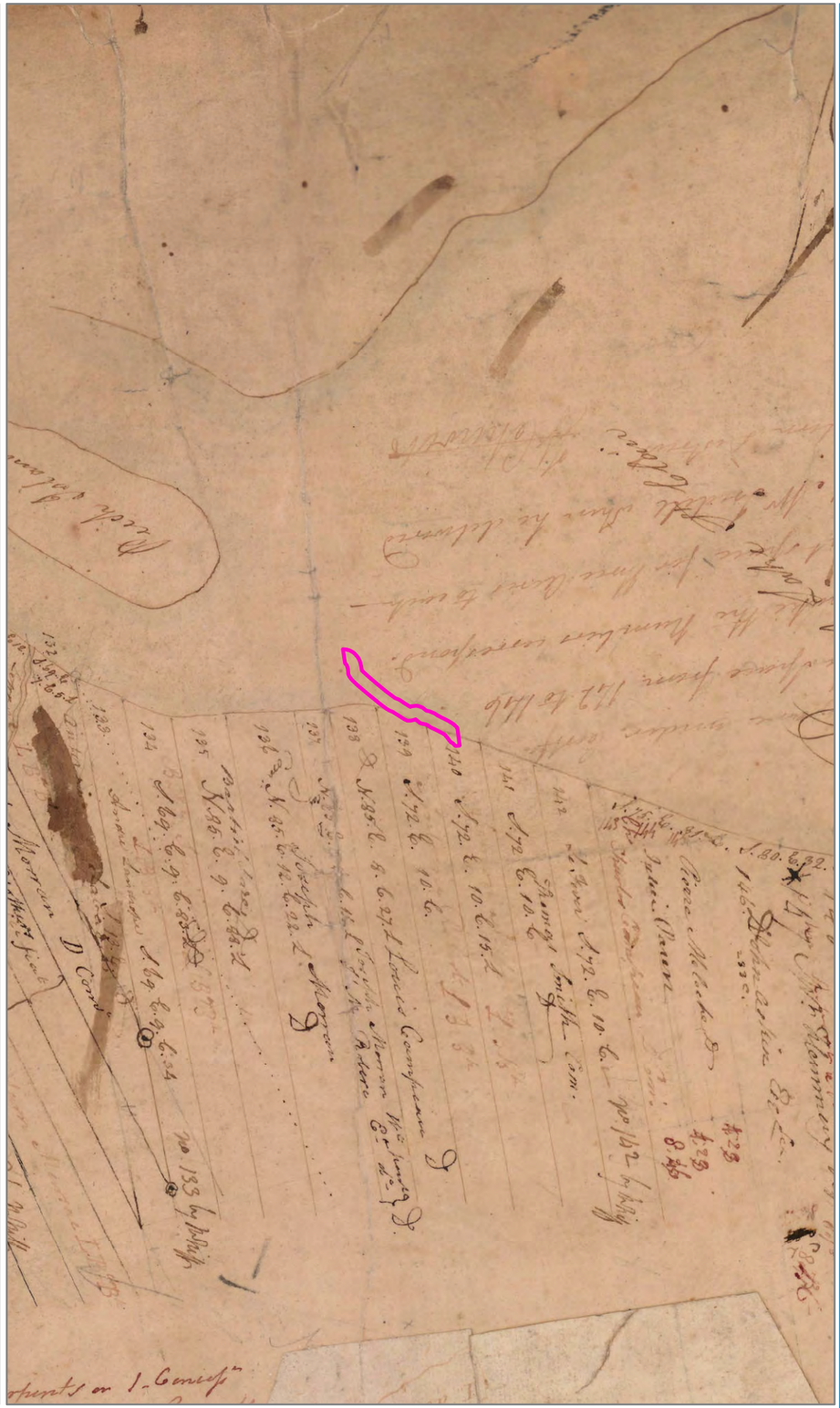

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SEGMENT OF MCNIFF, PATRICK. 1793. MAP A37. SURVEY RECORD NO. 2035 . MINISTRY OF NATURAL RESOURCES, PETERBOROUGH, ONTARIO.
SEGMENT OF IREDELL, ABRAHAM. 1797. MAP A34. SURVEY RECORD NO. 2029 .MINISTRY OF NATURAL RESOURCES, PETERBOROUGH, ONTARIO.

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UNDERWATER ARCHAEOLOGICAL ASSESSMENT
SANDPOINT BEACH, WINDSOR

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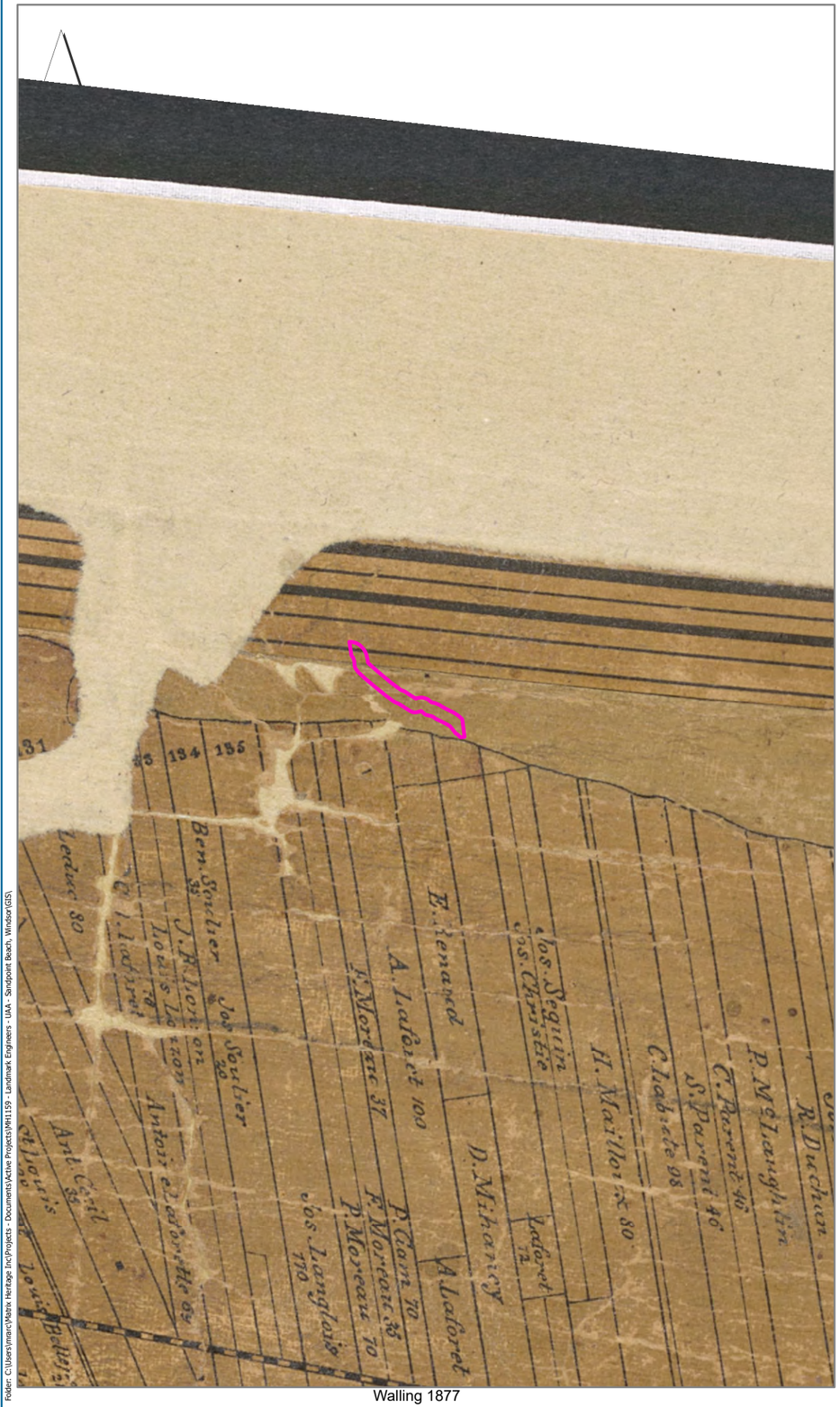


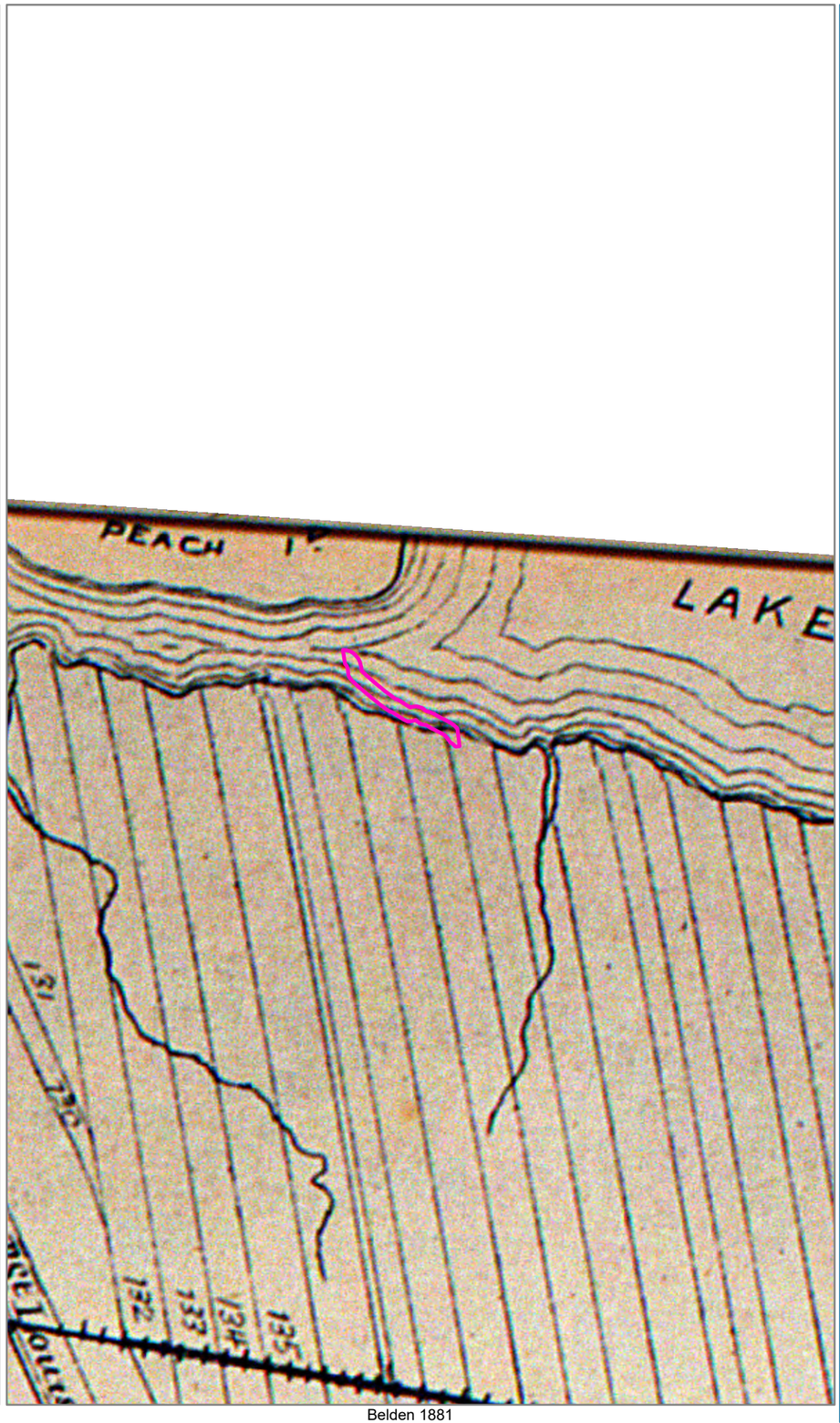



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SANDPOINT BEACH, WINDSOR

TITLE
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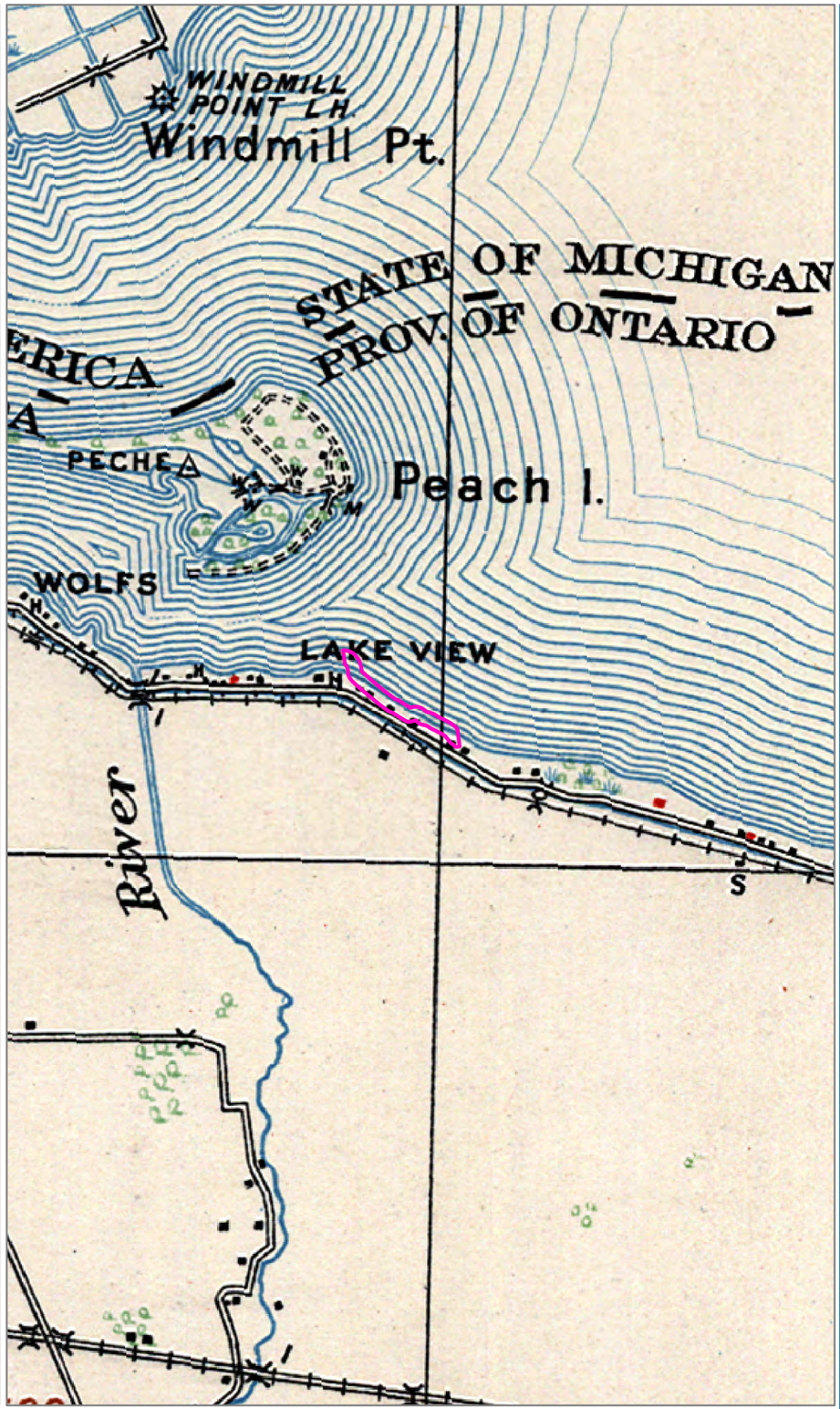


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PROJECT
UNDERWATER ARCHAEOLOGICAL ASSESSMENT
SANDPOINT BEACH, WINDSOR

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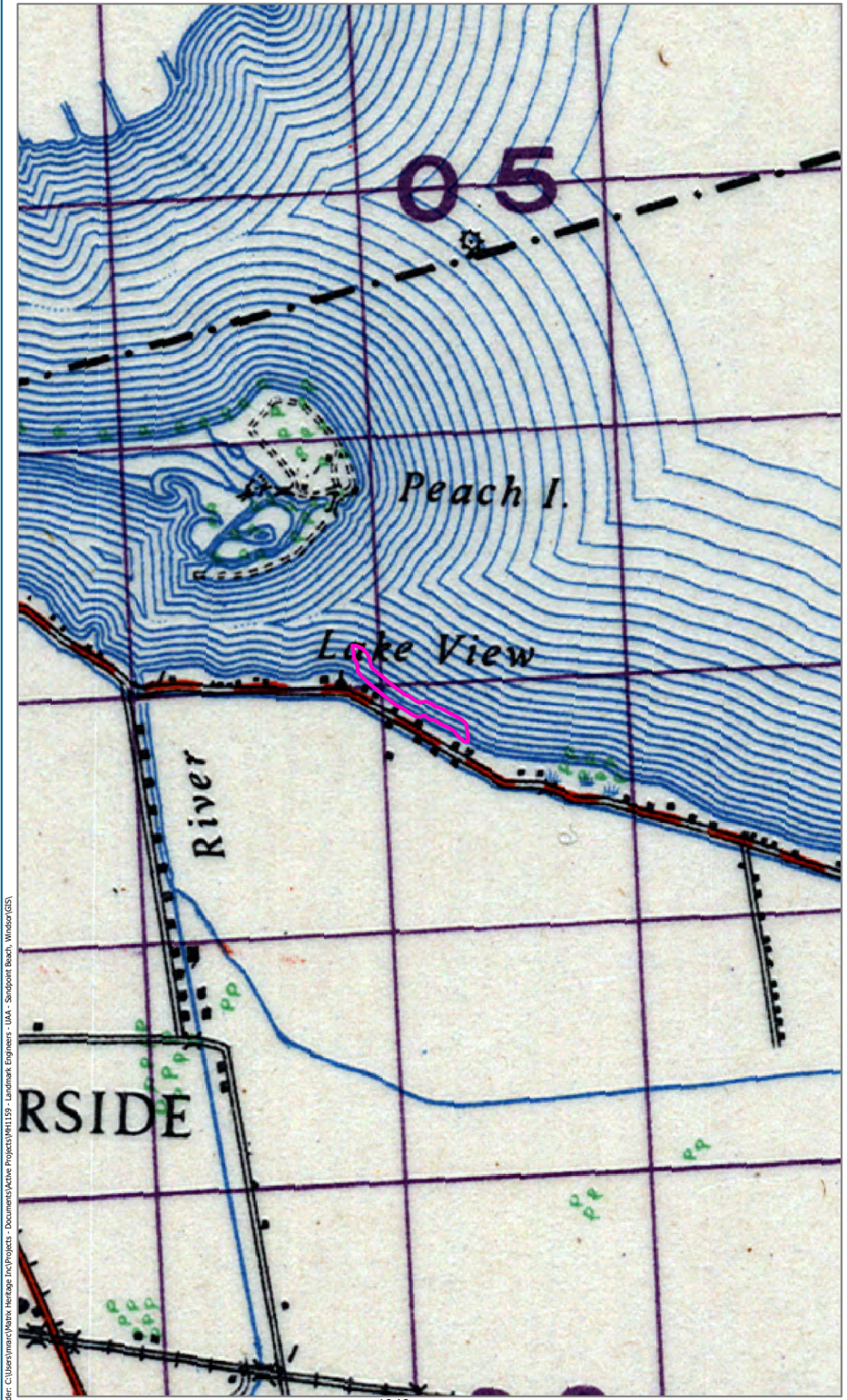


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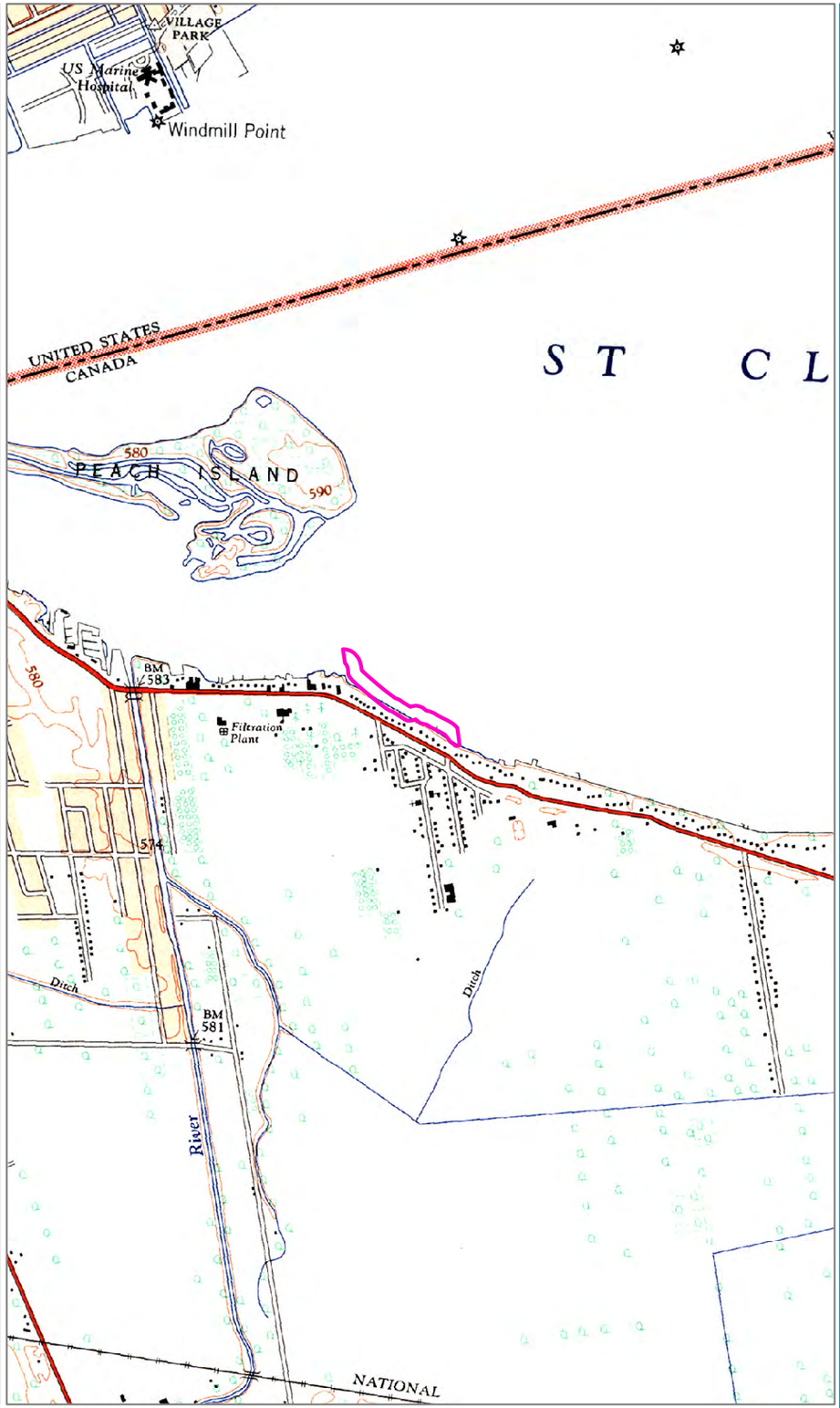


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PROJECT
UNDERWATER ARCHAEOLOGICAL ASSESSMENT
SANDPOINT BEACH, WINDSOR

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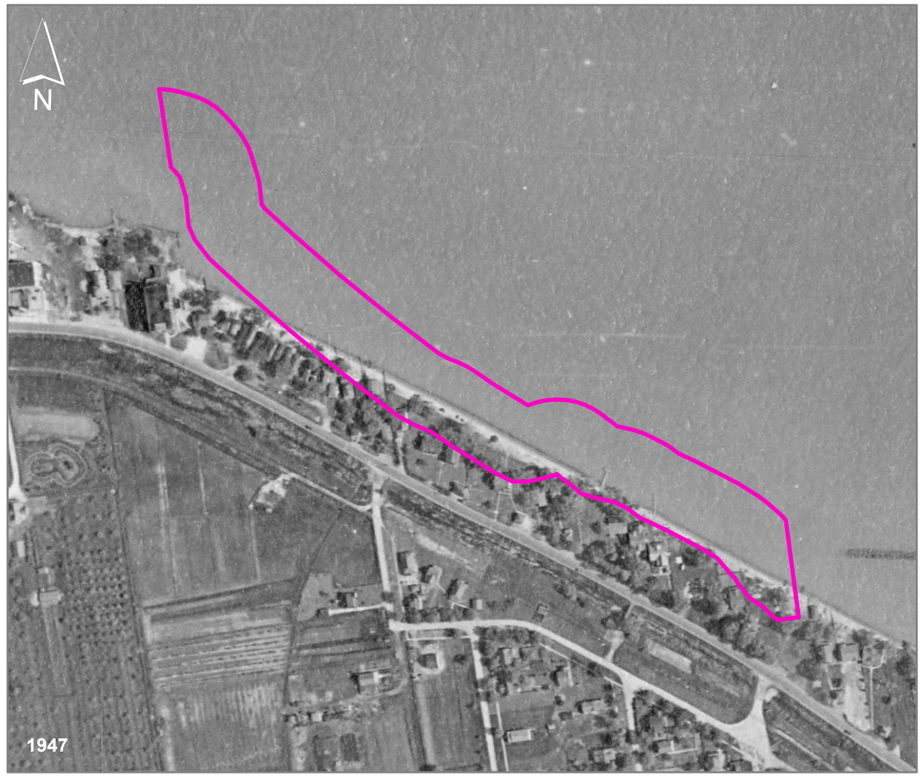


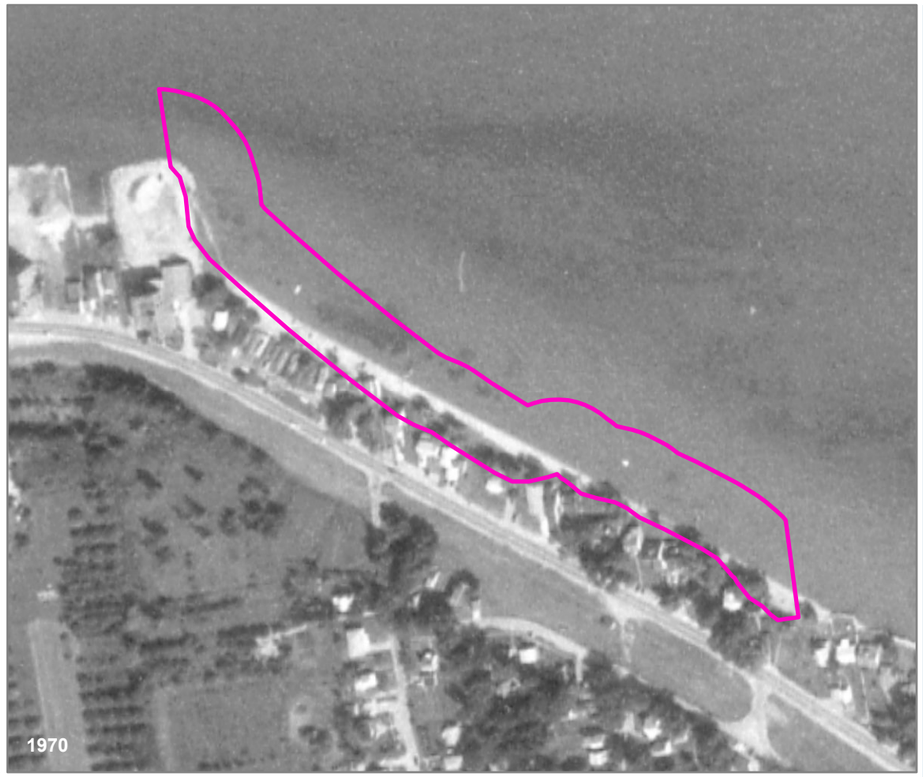



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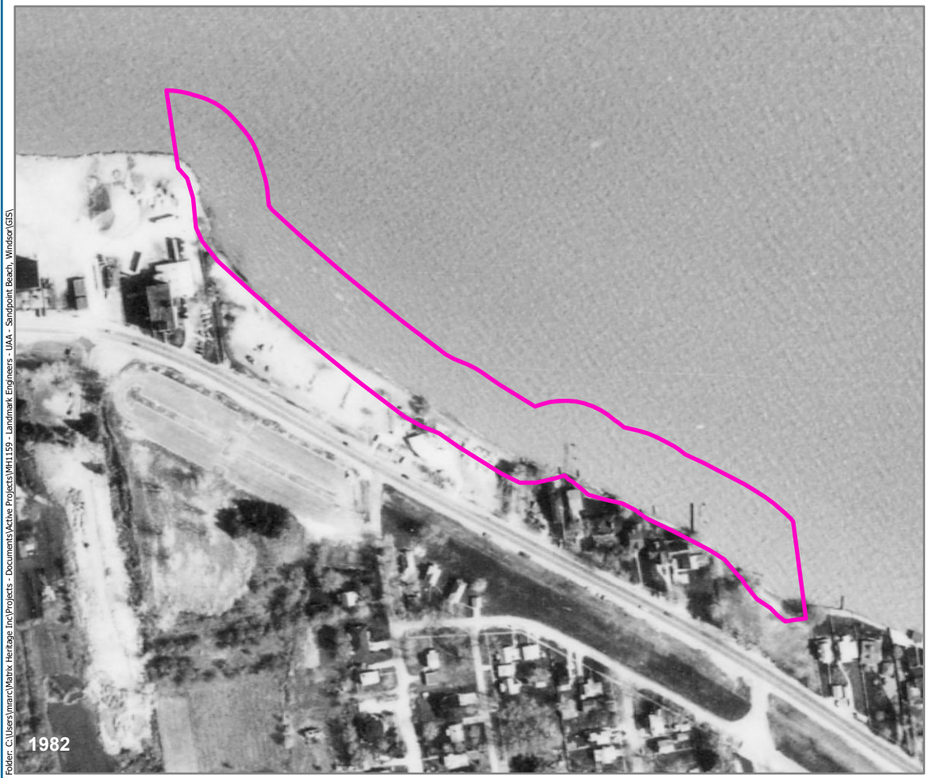



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PROJECT
UNDERWATER ARCHAEOLOGICAL ASSESSMENT
SANDPOINT BEACH, WINDSOR

TITLE
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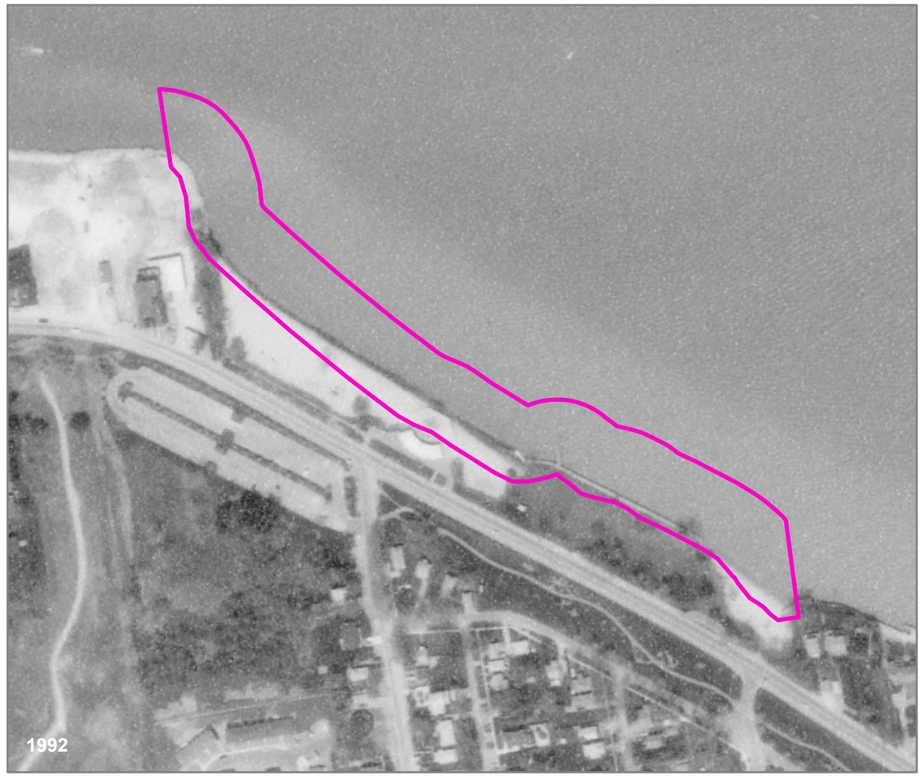
MAP 7



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PROJECT
UNDERWATER ARCHAEOLOGICAL ASSESSMENT
SANDPOINT BEACH, WINDSOR

TITLE
**AERIAL IMAGERY 2**

MAP 8

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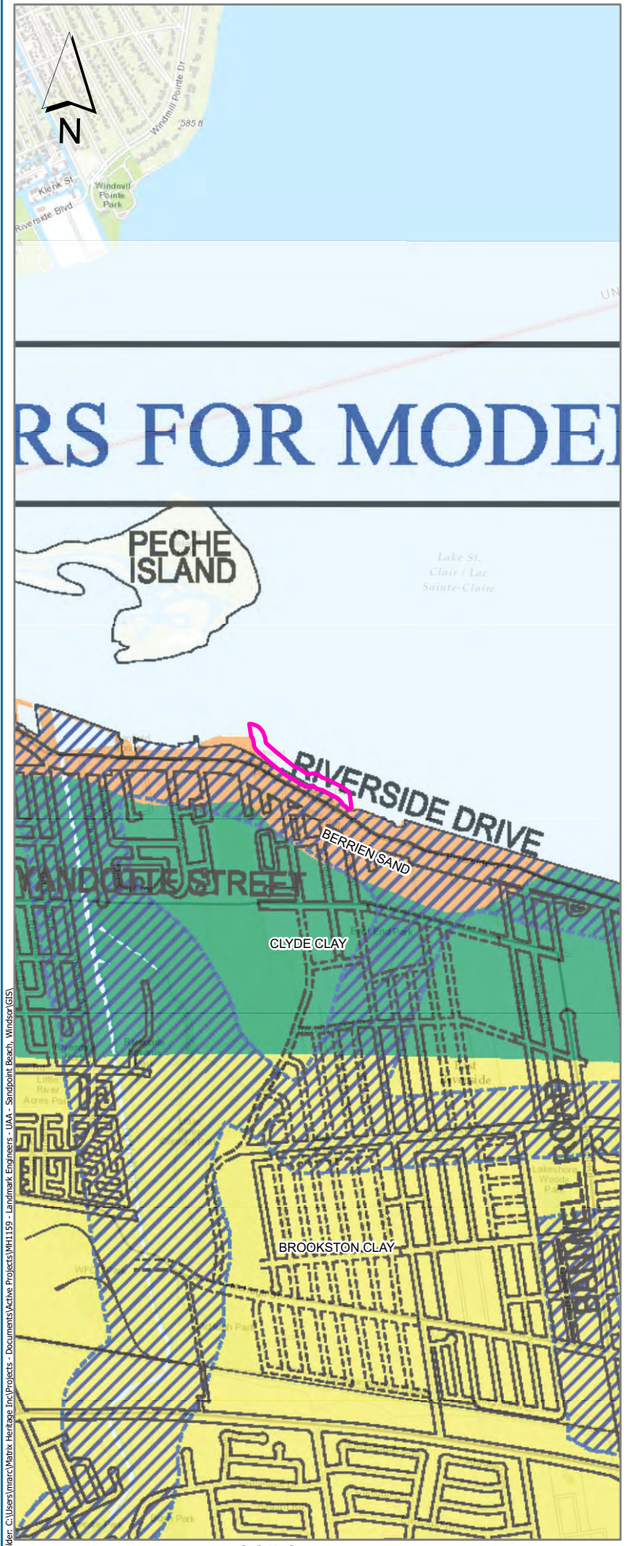
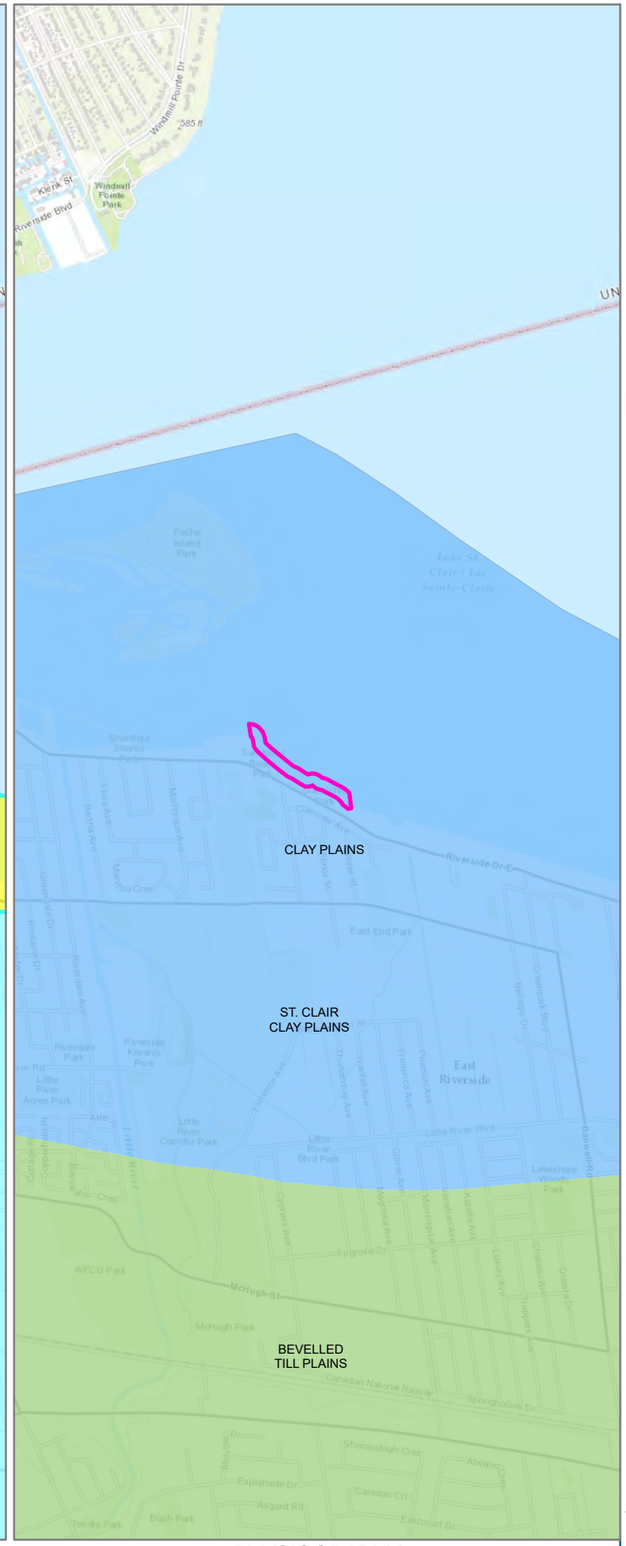



SOILS


SURFICIAL GEOLOGY




PHYSIOGRAPHY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Meters 1:25,000

REFERENCES:
CITY OF WINDSOR, SEMCOG, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, HERE, GARMIN, INCREMENT P, USGS, METI/NASA, EPA, USDA, AAFC, NRCAN, CITY OF WINDSOR, ONTARIO BASE MAP, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, © OPENSTREETMAP CONTRIBUTORS, HERE, GARMIN, USGS, NGA, EPA, USDA, NPS, AAFC, NRCAN
SOIL DATA FROM WINDSOR ARMP 2005
SURFICIAL GEOLOGY OF SOUTHERN ONTARIO 2003
CHAPMAN AND PUTNAM 2007 PHYSIOGRAPHY OF SOUTHERN ONTARIO

FILE MH1159

DATE 2023-03-08

CREATED BY: BM

PROJECTION: NAD 1983 UTM Zone 17N

CHECKED BY:NK

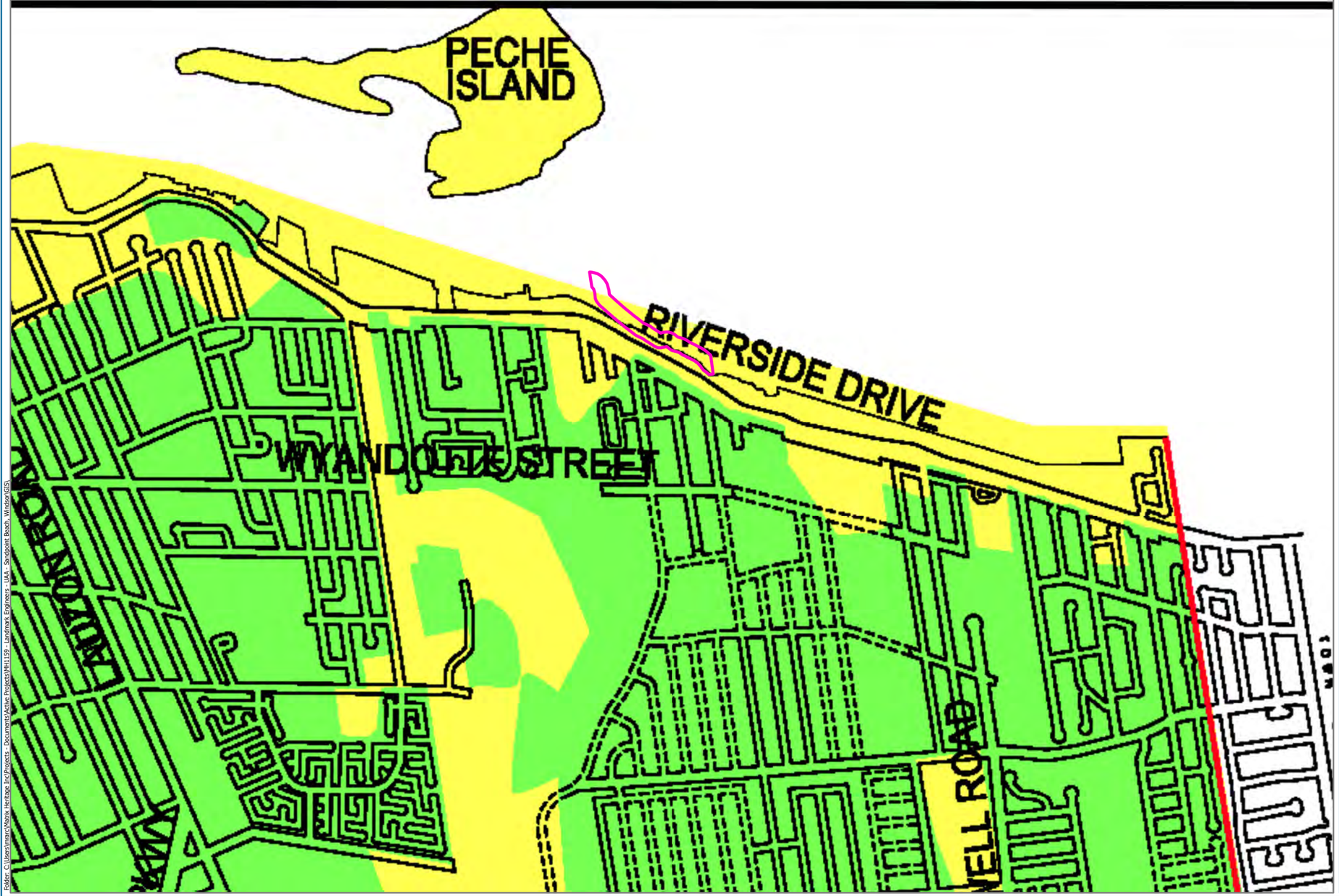
PROJECT
UNDERWATER ARCHAEOLOGICAL ASSESSMENT
SANDPOINT BEACH, WINDSOR

TITLE
**SOILS AND GEOLOGY**

MAP 9

Folder: C:\Users\marc\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1159 - Landmark Engineers - UAA - Sandpoint Beach, Windsor\GIS\

# OLOGICAL POTENTIAL





LEGEND

STUDY AREA

WINDSOR ARCHAEOLOGICAL MASTER PLAN (2005)

LOW POTENTIAL

HIGH POTENTIAL

Matrix

0 250 500 750 1,000
Meters 1:15,000

REFERENCES:
CITY OF WINDSOR, SEMCOG, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, HERE, GARMIN, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA, AAFC, NRCAN, MAXAR

FILE MH1159 DATE 2023-03-07
CREATED BY: BM
PROJECTION: NAD 1983 UTM Zone 17N CHECKED BY:NK

PROJECT
UNDERWATER ARCHAEOLOGICAL ASSESSMENT
SANDPOINT BEACH, WINDSOR

TITLE
**ARCHAEOLOGICAL POTENTIAL**

MAP 10

Folder: C:\Users\marc\Matrix Heritage Inc\Projects - Documents\Active Projects\MH1159 - Landmark Engineers - UAA - Sandpoint Beach, Windsor\GIS\

## 10.0 Images

**Figure 1: March 25 1952 - Nine cottages along Riverside Drive were placarded as unfit for human habitation following flooding. They were eventually demolished, and the area developed into Sandpoint Beach Park. The Monarch Liqueurs building located at 10150 Riverside Drive East can be seen in the background (image from Windsor Star https://windsorstar.com/life/from-the-vault/sandpoint-beach).**

## Appendix A: Map Catalogue

| Map Number | Description | Created By |
|---|---|---|
| 1 | Location | B. Mortimer |
| 2 | Development Area | B. Mortimer |
| 3 | Historic | B. Mortimer |
| 4 | Historic | B. Mortimer |
| 5 | Historic | B. Mortimer |
| 6 | Historic | B. Mortimer |
| 7 | Aerial Imagery 1 | B. Mortimer |
| 8 | Aerial Imagery 2 | B. Mortimer |
| 9 | Soils and Geology | B. Mortimer |
| 10 | Archaeological Potential | B. Mortimer |