

**Stage 1 Archaeological Assessment
Preliminary Design,
Rehabilitation or Replacement of the
Argyle Street South Bridge
over the Grand River, Caledonia
Town of Haldimand
(Former Townships of Oneida and Seneca, Haldimand County)
Regional Municipality of Haldimand-Norfolk
Ontario**

GWP: 3805-01-00

Submitted to
Morrison Hershfield
235 Yorkland Boulevard
Suite 600
Toronto, Ontario M2J 1T1
Tel.: 416-499-3110
Fax: 416-499-9658

Prepared by
ARCHAEOLOGICAL SERVICES INC.
528 Bathurst Street
Toronto, Ontario M5S 2P9
Tel.: 416-966-1069
Fax: 416-966-9723
Email: archaeology@sympatico.ca
World Wide Web: archaeologicalservices.on.ca

ASI File 02MT-14
Archaeological Licence P050
MCL CIF P050-014

August 2003

PROJECT PERSONNEL

Project Director:

Mr. Martin Cooper

Report Preparation:

Mr. David Robertson

**Stage 1 Archaeological Assessment
Preliminary Design,
Rehabilitation or Replacement of the
Argyle Street South Bridge
over the Grand River, Caledonia
Town of Haldimand
(Former Townships of Oneida and Seneca, Haldimand County)
Regional Municipality of Haldimand-Norfolk
Ontario**

GWP: 3805-01-00

*Stage 1 Archaeological Assessment Preliminary Design,
Rehabilitation or Replacement of the Argyle Street South Bridge over the Grand River, Caledonia,
Town of Haldimand (Former Townships of Oneida and Seneca, Haldimand County), RM of Haldimand-Norfolk, Ontario
GWP: 3805-01-00* Page 2

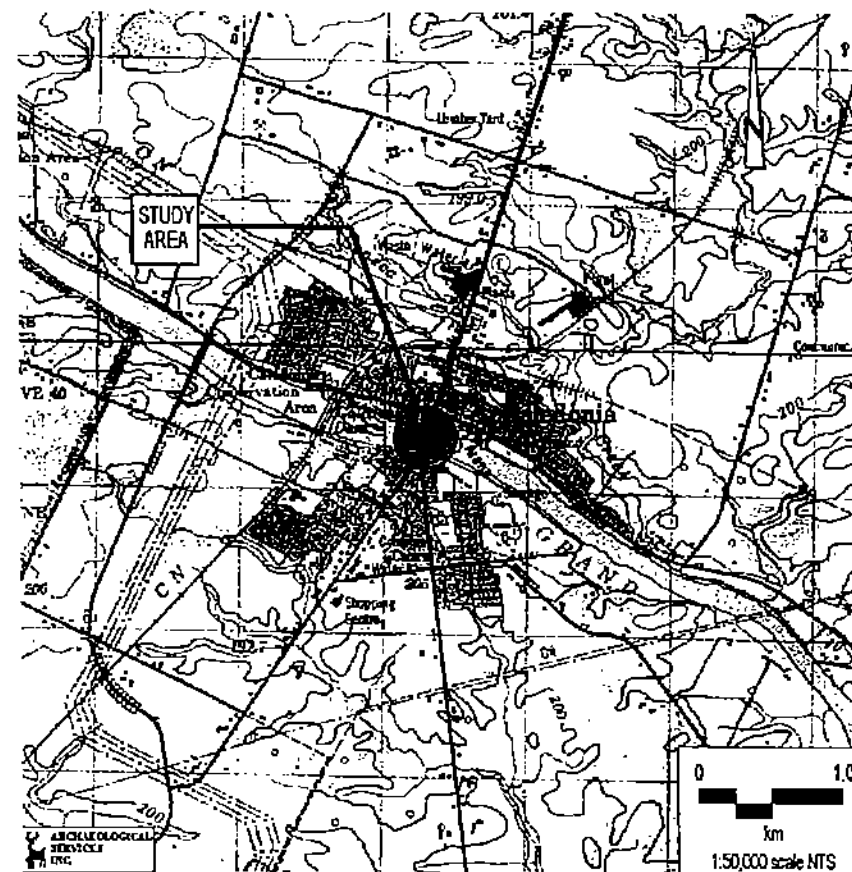


Figure 1: The location of the Caledonia Bridge study area
(NTS Sheet 30 M/4 [Hamilton-Grimsby], ed. 7 1996)

1.0 INTRODUCTION

Archaeological Services Inc. was contracted by Morrison Hershfield of Toronto, Ontario to conduct a Stage 1 archaeological assessment of the rehabilitation/replacement of the Argyle Street South Bridge over the Grand River (Preliminary Design) in Caledonia, Town of Haldimand, Regional Municipality of Haldimand-Norfolk, Ontario (Figure 1). The study area comprises the existing footprint of the bridge and its approaches, and measures less than one hectare in size.

The assessment was conducted under the project direction of Mr. Martin Cooper, of Archaeological Services Inc, under a professional archaeological licence (P050) issued to Mr David Robertson in accordance with the Ontario Heritage Act (1990).

2.0 BACKGROUND RESEARCH

2.1 Previous Archaeological Research

In order that an inventory of archaeological resources could be compiled for the study area, three sources of information were consulted: the site record forms for registered sites housed at the Ontario Ministry of Culture; published and unpublished documentary sources; and the files of Archaeological Services Inc.

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (O.A.S.D.), a database maintained by the Ontario Ministry of Culture. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 kilometres east to west, and approximately 18.5 kilometres north to south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The study area under review is located in Borden Block AgGx.

No archaeological site has been documented within 250 metres of the study area. It must be noted that the paucity of archaeological sites in the immediate vicinity of the study area is not reflective of the scale of previous inhabitation or land use, either before or after European colonization. Detailed surveys of lands in nearby locations have resulted in the discovery of numerous sites from all time periods.

2.2 Physiography

The study area is situated within the Haldimand Clay Plain physiographic region of southern Ontario (Chapman and Putnam 1984:156-159). The Haldimand Clay Plain, which includes all of the Niagara Peninsula south of the Niagara Escarpment, is a large, predominantly flat region of glacial lake sediment

deposits. The majority of the surface material is lacustrine clay, although sand deposits do occur in places, and there are areas where glacial till protrudes above or is interbedded with the clay.

Within this part of the Haldimand Clay Plain, a number of environmental subregions have been defined, and the study area falls within the Lower Grand River Valley physiographic subregion (MacDonald 1980). The distribution and character of these subregions, and the specific environmental features they contain, have influenced land use in the region throughout history and prehistory.

The Lower Grand River Valley is characterized by well-developed riparian landforms such as floodplains, terraces, meander scars and channels, bluffs, banks, shoals, rapids, alluvial islands, levées, and tributary valleys. The biota of the subregion is diverse in the manner of most riparian systems, and includes many western and southern plant species in addition to common wetland taxa (MacDonald 1980:17). The natural environment of the area has been drastically altered over the last 150 years. Clearance of the slope floodplain forests, agricultural development of the floodplain, dam construction, and community development along the banks of the river in places such as Caledonia have created a landscape that bears little resemblance to that which existed prior to Euro-Canadian settlement.

The crossing is located within the floodplain of the Grand, the present channel of which is defined by moderately steep banks.

2.3 Summary Historical Review

Caledonia, situated on the Grand River, was laid out in the 1840s and the town plot at that time took in the village of Seneca. Jacob Turner had built a sawmill in Seneca in 1834 and the two settlements grew side by side, with Caledonia becoming the larger and more important of the two when the Hamilton and Port Dover Plank Road (present day Highway 6) came through and its future growth was further assured by the building of a bridge across the Grand River in 1842. The community was incorporated as a village in 1853, though its name was not changed to Caledonia until 1880.

Caledonia's early growth was directly linked to its location: its position on the Grand River and its position along an important transportation network. Ronald MacKinnon, the first reeve of the village was a central figure in the Caledonia's early development. In 1836 he built a sawmill and store and he also built a dam and lock for the Grand River Navigation Company. In 1844 he erected a gristmill, followed by a woollen factory in 1848. A number of hotels and stores were also constructed during this early period, and they serviced the surrounding community and plank road travellers. Due to its enviable hub position, Caledonia also became a supply centre for the agricultural area. Substantial community buildings were constructed in the 1860s and 1870s, attesting to the local prosperity.

The bridge at Caledonia carries Highway 6 over the Grand River, and it is the third bridge to be constructed at this crossing. The first was wood and it was erected in 1842 to provide permanent and unimpeded passage on the plank road between Hamilton and Port Dover. In 1875, a five-span iron bridge replaced the timber bridge, which was washed away regularly by rising water and swift currents. At this time, adjacent to the bridge, a red and buff brick Gothic revival house was built for the new bridge's toll keeper. Tolls were collected at the bridge until about 1890.

The present bridge was constructed in 1927 by Randolph MacDonald Co. Ltd. of Toronto and designed by A.B. Crealock, bridge engineer with the Department of Public Works.

The *Illustrated Historical Atlas of the Counties of Haldimand and Norfolk* was reviewed to determine the potential for the presence of historic archaeological remains within the study area (Figure 2). This atlas is a combined re-issue of two early atlases, the *Illustrated Atlas of the County of Haldimand*, first published in 1877, and the *Illustrated Historical Atlas of the County of Norfolk*, first published in 1879.

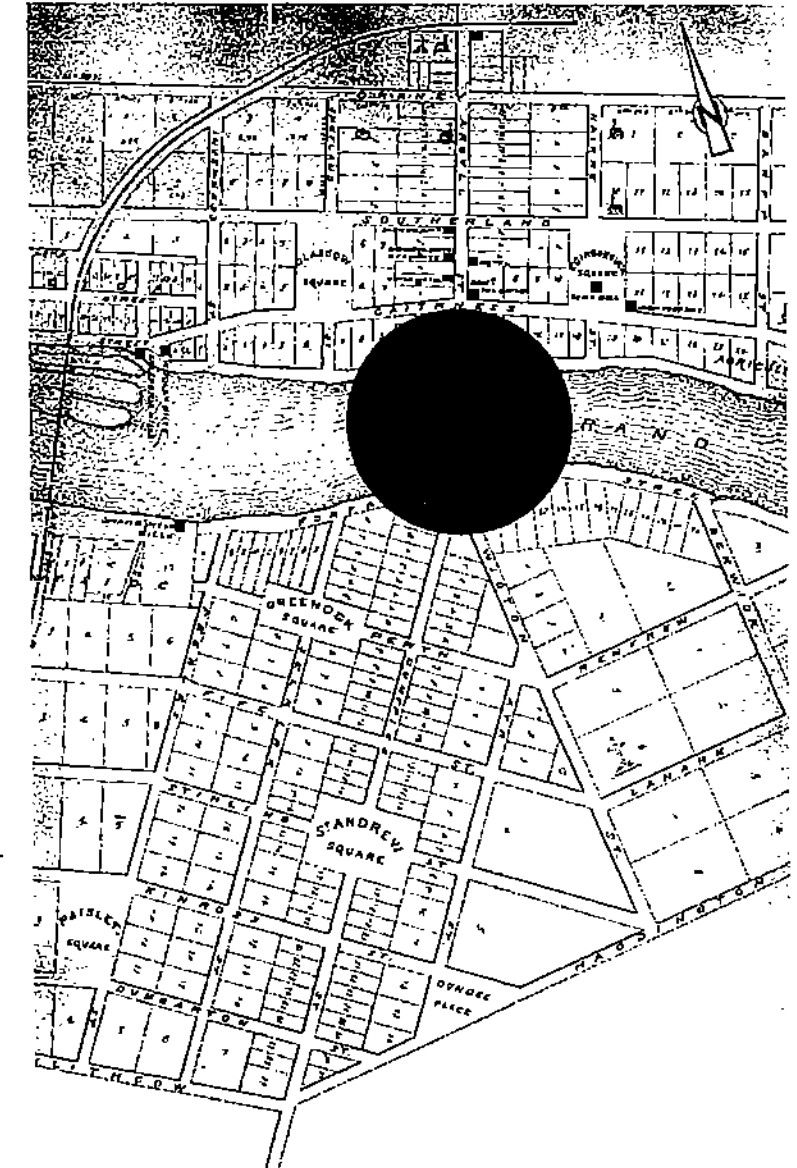


Figure 2: The Grand River crossing in the Village of Caledonia. The bridge depicted is the five-span iron bridge that stood between 1875 and 1927. (Originally published in the 1877 *Illustrated Atlas of the County of Haldimand*.)

Only three structures are specifically identified in the immediate area of the crossing on the map of the village: the post office, on the north side of the river, and two hotels on the south side. It is clear, however, that the lands around both ends of the bridge were more extensively built up by the 1870s. The toll house for instance, is not identified on the village plan.

2.4 Assessment of Archaeological Potential

2.4.1 Precontact Archaeological Potential

Potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in south central Ontario after the Pleistocene era, proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modelling of site location.

The Ontario Ministry of Culture Primer on Archaeology, Land Use Planning and Development in Ontario (1997:12-13) stipulates that undisturbed land within 300 metres of a primary water source (lakeshore, river, large creek, etc.), and undisturbed land within 200 metres of a secondary water source (stream, spring, marsh, swamp, etc.), as well as undisturbed land within 300 metres of an ancient water source (as indicated by remnant beaches, shorecliffs, terraces, abandoned river channel features, etc.) and undisturbed lands within 250 metres of a previously registered archaeological site, are considered to have potential for the presence of precontact archaeological sites.

As noted previously, the study area spans the Grand River, which is a primary water source. The study area therefore falls within lands considered to be of precontact archaeological potential, depending upon the degree to which they have been disturbed by more recent land uses.

2.4.2 Historic Archaeological Potential

As discussed in Section 2.3, the bridges at Caledonia served an important role in the development of local economy and the supporting transportation system. The general area, therefore has Euro-Canadian archaeological potential, depending upon the degree to which more recent land uses have resulted in landscape disturbances.

2.4.3 Existing Conditions

A field review of the study area was completed by Mr. David Robertson on August 26, 2003 in order to confirm the archaeological potential of the area, and to determine the degree to which recent construction disturbances may have affected that potential.

On the north side of the river the approach to the bridge serves as the main street through the central business district of the village (Plate 1). The former toll keeper's house is adjacent to the northeast corner of the bridge. On the south side of the river the approach to the bridge is flanked by an extensively landscaped park, a parking lot, and access roads leading to low density housing.

In general, the study area can be divided into two areas: the typically disturbed right-of-way, and right-of-way lands beyond the typically disturbed right-of-way. The typically disturbed right-of-way of the two-lane Highway 6/Argyle Street South extends outward from the centreline of the road to include the travelled lanes, the shoulders/sidewalks and underlying utilities.

Right-of-way construction disturbance extends beyond the typically disturbed right-of-way area throughout the study area. Such right-of-way disturbances includes additional grading and filling, disturbances related to illumination, electrical supply and traffic management systems, servicing, intensive landscaping and commercial development (Plates 1 and 2).

The banks of the river have been extensively altered by large-scale filling and regrading. Within the footprint of the bridge, these activities are related to the construction of the existing bridge itself, the installation of a stormwater outlet, and the construction of a pedestrian walkways under the structure (Plates 3-7). Similar filling and grading activities were noted along both banks of the river beyond the footprint of the bridge. These were related to the construction of roadways, parking facilities and pedestrian trails and to general efforts to consolidate the banks (e.g., Plate 8).

In view of the magnitude of the various disturbances that have occurred throughout the project area, these lands cannot be deemed to exhibit potential, and construction activities that may be required within them do not represent an archaeological concern.

3.0 CONCLUSIONS AND RECOMMENDATIONS

The research carried out as part of the Stage 1 archaeological resource assessment of the rehabilitation/replacement of the Argyle Street South Bridge over the Grand River (Preliminary Design) in Caledonia, Town of Haldimand, Regional Municipality of Haldimand-Norfolk, Ontario, determined that no archaeological site has been registered previously within the study area.

Review of the general physiography of the study area and local nineteenth century land uses suggested that the study area could be deemed to exhibit archaeological potential, depending upon the degree to which it had been disturbed by recent land use activities.

Field review determined that such disturbances have been extensive and intensive throughout the study area, defined as the footprint of the existing bridge for the purposes of this report.

In light of these results, the following recommendations are made:

1. The study area may be cleared of any archaeological concerns.
2. If additional areas beyond the footprint of the bridge are required for the construction of temporary interchanges, parking lots, staging areas, storage areas, access roads, etc., it is recommended that these lands be subject to archaeological assessment prior to disturbance.
3. Should deeply buried archaeological remains be found on the property during construction activities, the Heritage Operations Unit of MCL should be notified immediately.
4. In the event that human remains are encountered during construction, the proponent should immediately contact both MCL, and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer and Business Services, (416) 326-8392.

The documentation related to the archaeological assessment of this project will be curated by Archaeological Services Inc. until such a time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner, the Ontario Ministry of Culture, and any other legitimate interest groups.

4.0 REFERENCES CITED

- Chapman, L.J. and F. Putnam
1984 *The Physiography of Southern Ontario*. Ontario Geological Survey, Special Volume 2.
- Illustrated Historical Atlas of the Counties of Haldimand and Norfolk*
1877/1879 H.R. Page, Toronto.
- MacDonald, I.D.
1980 Life Science Features of the Haldimand Clay Plain Physiographic Region. Ms. on file, Ontario Ministry of Natural Resources, Richmond Hill, Ontario.
- Ministry of Culture
1997 *Conserving a Future for Our Past: Archaeology, Land Use Planning & Development in Ontario*. Cultural Programmes Branch, Archaeology & Heritage Planning Unit, Toronto.

5.0 PHOTOGRAPHY

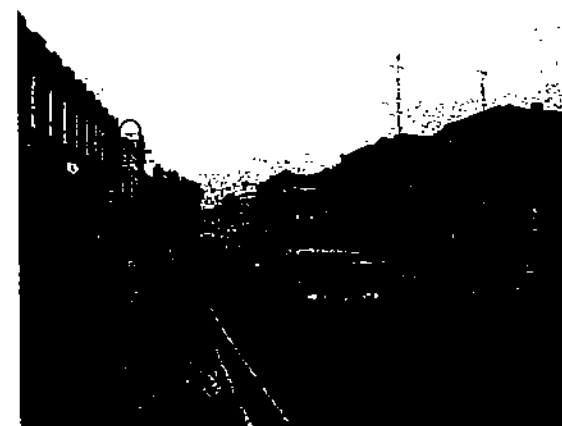


Plate 1: View north to the northern approach to the bridge. All lands flanking the immediate approach to the bridge are built upon.



Plate 2: View south to the southern approach to the bridge. All lands flanking the immediate approach to the bridge are extensively landscaped or disturbed by roadworks and utilities.



Plate 3: View of fill at the southwest corner of the bridge deposited during the construction of the bridge or to consolidate the river bank. Such fill is to be found along both sides of the river throughout and beyond the project area.



Plate 4: View east from under the north end of the bridge. Note the disturbances related to the installation of the storm sewer outlet and filling of the general river bank zone.

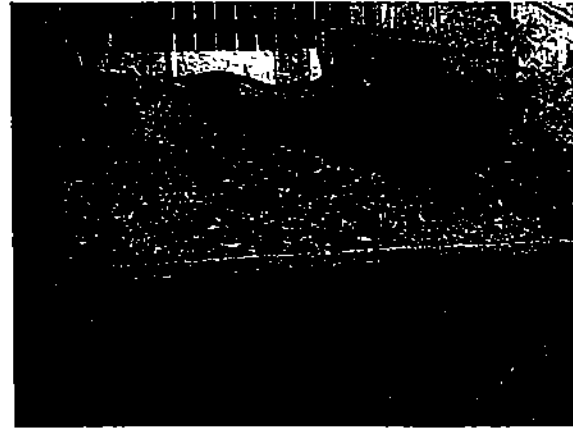


Plate 5: Close up of fill deposited at the northeast corner of the bridge.



Plate 6: View east to the southeast corner of the bridge. All lands have been disturbed by filling, river bank consolidation, landscaping, and the construction of river side amenities.



Plate 7: View west from under the north end of the bridge. Note disturbances related to river bank consolidation and stairway construction.



Plate 8: View west across the south end of the bridge.