APPENDIX H

Archaeological Assessment

Jacques Whitford

Environmental
Engineering
Scientific
Management
Consultants

Suite 200
2781 Lancaster Road
Ottawa ON
Canada K1B 1A7

Bus 613 738 0708
Fax 613 738 0721

www.jacqueswhitford.com

FINAL REPORT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT, PROPOSED NEW EAST-WEST ROAD CORRIDOR OPTION (HIGHWAY 6 TO BRANT STREET), CITY OF HAMILTON, ONTARIO

Submitted to: The City of Hamilton

November 18, 2008

PROJECT NO. 1037892

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REPORT TO

City of Hamilton
Capital Planning & Implementation
Public Works Department
77 James St. N., Suite 320
Hamilton, ON L8R 2K3

REGARDING

Stage 1 Archaeological Assessment, Proposed New East-West Road Corridor Option (Highway 6 to Brant Street), City of Hamilton, Ontario

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Jacques Whitford
Suite 200, 2781 Lancaster Road
Ottawa, ON K1B 1A7

Phone: 613-738-0708
Fax: 613-738-0721

www.jacqueswhitford.com

Jacques Whitford

EXECUTIVE SUMMARY

A Stage 1 Archaeological Assessment was completed for a new road proposed to be constructed on undeveloped land north of Parkside Drive between Highway 6 and Beeforth Road (Robson Road) and north of Dundas Street between Robson Road and Evans Road, in the City of Hamilton and for proposed widening along Parkside Drive between Centre Road and Robson Road and Dundas Street between Evans Road and Brant Street. The Stage 1 Archaeological Assessment included a review of archival material and a site reconnaissance. Based on the presence of a large number of registered prehistoric period archaeological sites situated near the project area sharing similar physiographic characteristics, undeveloped parts of the project area are rated as having elevated potential for undiscovered prehistoric and historic period archaeological resources. Areas having elevated potential for undiscovered archaeological resources may require Stage 2 Archaeological Assessment, depending upon final project design.

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1.0 INTRODUCTION

The City of Hamilton (the City) and its partners the City of Burlington and Regional Municipality of Halton, have proposed to make improvements to the east-west commuter route between Highway 6 and Brant Street, in the former Village of Waterdown, in the City of Hamilton and the City of Burlington, Ontario (Figure 1.1). As part of the Environmental Assessment process the City required completion of a Stage 1 Archaeological Assessment of the proposed project area which includes undeveloped lands north of Parkside Drive between Highway 6 and Beeforth Road and north of Dundas Street between Beeforth Road and Evans Road and on both sides of Parkside Drive and Dundas Street (Figure 1.1). Under the existing Consultant Services Roster agreement, the City retained Jacques Whitford Limited (Jacques Whitford) to complete a Stage 1 Archaeological Assessment of the project area. The study was completed by Christie Uchiyama, B.A., Assistant Archaeologist with Jacques Whitford. Colin Varley, M.A., R.P.A., Senior Archaeologist and Heritage Planner acted as project director and senior reviewer.

2.0 PROJECT AREA

The project area is composed of two parcels of undeveloped land as well as both sides of the existing roadway along Parkside between Centre Road and Beeforth Road and along Dundas Street between Beeforth Road and Brant Street (Figure 2.1). The project area is an irregularly shaped piece of land measuring approximately 85 ha (210 acres) and composed of Lots 1 through 4, Concession 3, Lots 4 through 13, Concession 4, East Flamborough Township, City of Hamilton and parts of Lots 20 through 24, Concession 1 North, Nelson Township, City of Burlington.

The project area is situated on the margin between the Niagara Escarpment and Norfolk Sand Plain physiographic regions, in a small series of till moraines and spillways (Chapman and Putnam, 1984). Undeveloped land north of Parkside Drive (Concession Road 4) lies in an area of till moraine and spillway. Undeveloped land toward the east of the project area lies almost entirely on a till moraine with the exception of a small percentage of land that lies on the spillway surrounding Grindstone Creek.

The surficial geology of the project area incorporates a variety of soil types. The majority of the project area is composed of a ridge of Oneida Loam which runs parallel to the Niagara Escarpment, a well-drained clay loam often associated with fruit trees. Pockets of poorly and imperfectly draining soils are prevalent throughout the project area. These soils include Chinguacousy Loam, Jeddo Loam and Farmington Loam, the latter being found only in a small area towards the east of the project area. Ridges of imperfectly draining Vineland Sandy Loam are found towards the west of the project area. A small area of Grimsby Sandy Loam, a well-drained soil of fine and medium sand, is found in the west of the project area (Present *et al.*, 1965) (Figure 2.2).

Grindstone Creek intersects the project area from the north between Centre Road and Beeforth Road. A small creek joins with Grindstone Creek before it flows under Dundas Street. Spring Creek runs west along the south side of Dundas Street towards Lot 6, Concession 3, where it joins Grindstone Creek approximately 200 m west of Mill Street South (Figures 1.1 and 2.2). Grindstone Creek flows south though Waterdown, over Grindstone Falls at the edge of the Niagara Escarpment and then empties into Lake Ontario.

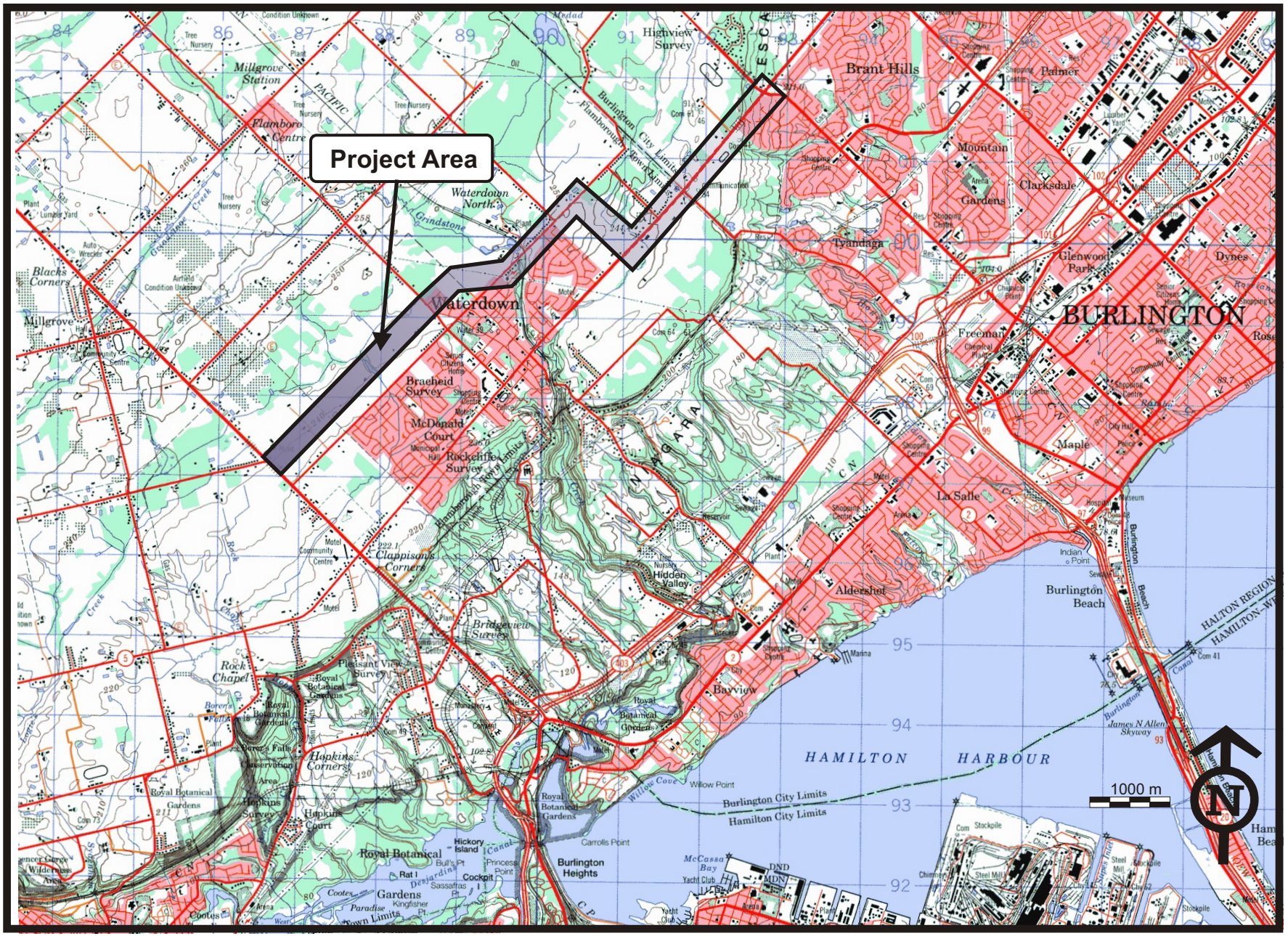

Figure 1.1 - Location of Project Area

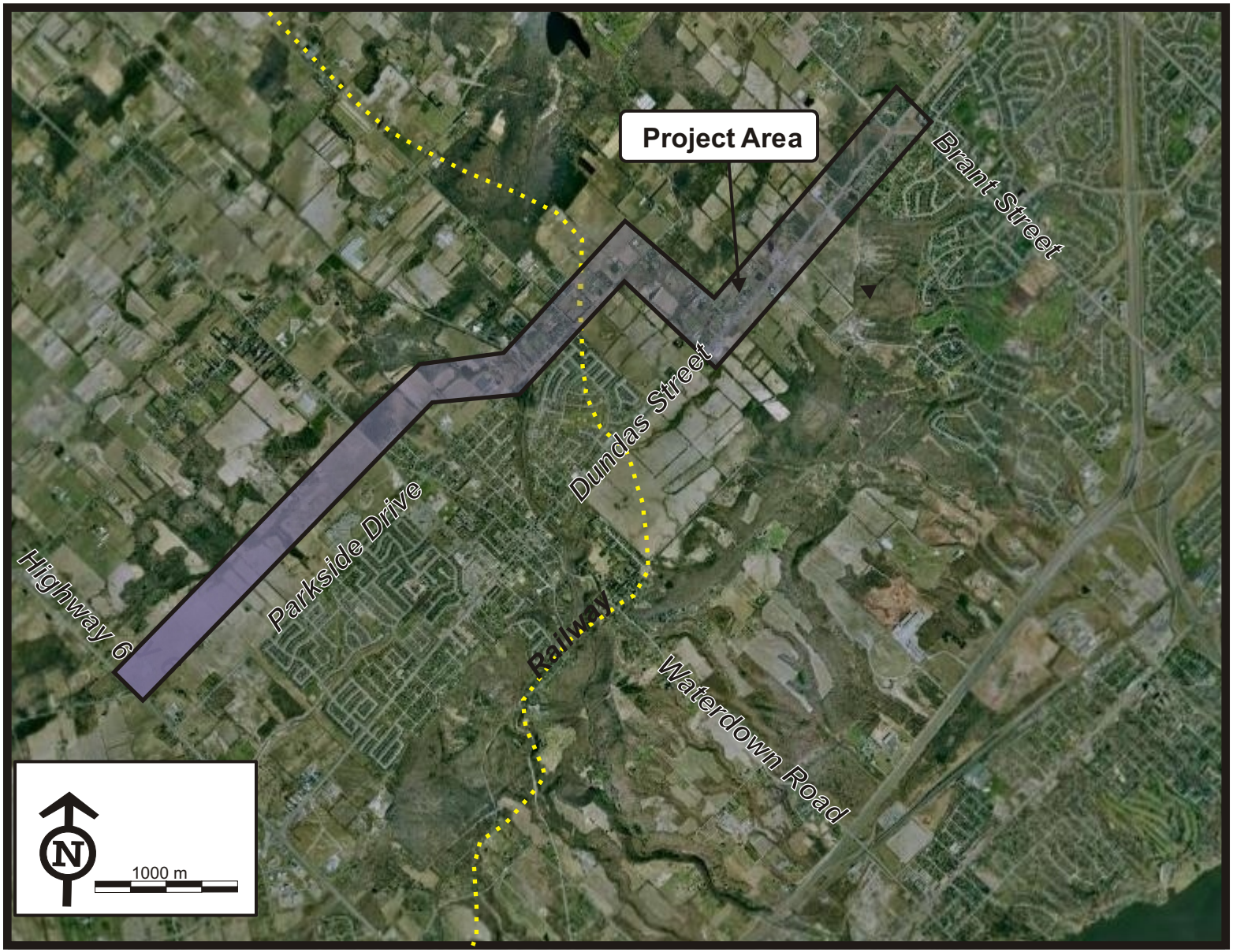

Figure 2.1 - Project Area, Current Conditions

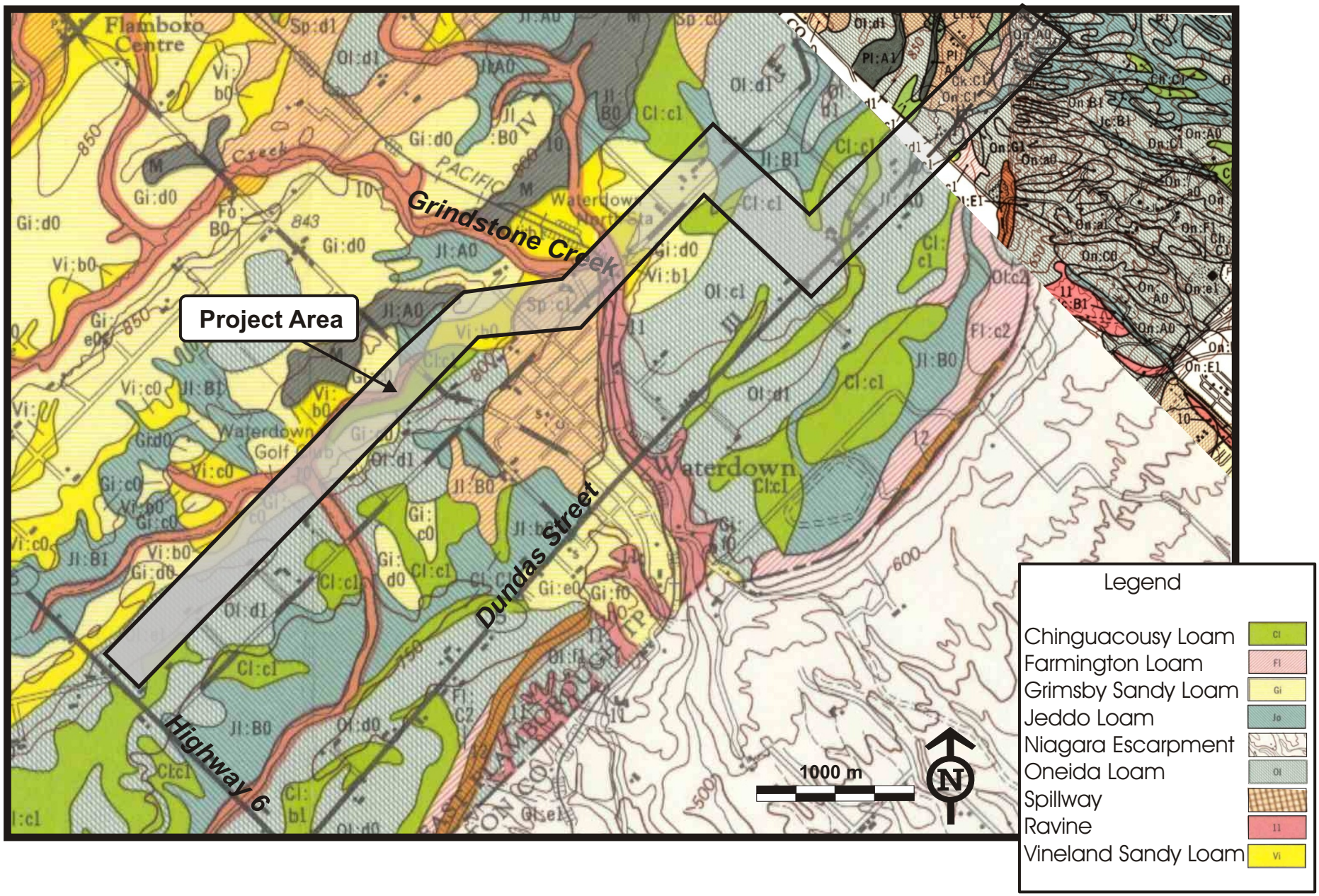

Figure 2.2 - Soil Types In and Near the Project Area

3.0 STAGE 1 ASSESSMENT

3.1 EXISTING CONDITIONS

The assessment of archaeological potential for the site considered both prehistoric and historic period resources. Archaeological potential modeling for prehistoric era sites is based largely on the identification of landscape features which are either known to have attracted past habitation or land use, or which appear to have potential for attracting human use. These features include: navigable rivers and lakes; confluences of watercourses; smaller sources of potable water; ridges or knolls that overlook areas of resource potential; outcrops of high-quality stone for tool making; and, most importantly, combinations of these features. In general it has been demonstrated that areas within 200-300 m of watercourses, or other significant bodies of water (ASI, 1990; Cox, 1989), and in particular those areas with multiple water sources (Young et al., 1995), are considered to be of elevated archaeological potential.

Patterns of land use by historic Euro-Canadians to some extent mirror those of the prehistoric period. This is not surprising, since the same general needs must be met, i.e., proximity to potable water, access to natural resources, and a level, well drained habitation site. On the other hand, the Euro-Canadian conversion of both fertile and more marginal land for agricultural purposes, the development of non-water travel routes, the exploitation of different resources such as subsurface mineral deposits, and other differences in land use patterns make potential modeling of Euro-Canadian and other non-Aboriginal historic sites somewhat less reliable. Fortunately, these sites are more visible than their prehistoric counterparts, which helps offset this lower level of predictive reliability.

With well-drained soils, access to several watercourses, and proximity to a prominent vantage point at the Niagara Escarpment, the project area demonstrates many of the preferred landscape features associated with the presence of archaeological sites.

3.2 ARCHAEOLOGICAL CULTURE HISTORY OF SOUTHERN ONTARIO

The following summary of the prehistoric occupation of Southern Ontario (see Table 3.1 for chronological chart) is based on syntheses in Archaeologix (2008), Ellis and Ferris (1990) and Jacques Whitford (2008).

The first identified human occupation of Ontario begins just after the end of the Wisconsin Glacial period. The first human settlement can be traced back 11,000 years, when this area was settled by Native groups that had been living to the south of the emerging Great Lakes. This initial occupation is referred to as the "Palaeo-Indian" archaeological culture.

Early Palaeo-Indian (EPI) (11,000-10,400 BP) settlement patterns suggest that small groups, or “bands”, followed a pattern of seasonal mobility extending over large territories. Many (although by no means all) of the EPI sites were located on former beach ridges associated with Lake Algonquin, the post-glacial lake occupying the Lake Huron/Georgian Bay basin, and it is likely that the vegetative cover of these areas would have consisted of open spruce parkland, given the cool climatic conditions. Sites tend to be located on well-drained loamy soils, and on elevations in the landscape, such as knolls. The fact that artifact assemblages of EPI sites are composed exclusively of stone, skews our understanding of the general patterns of resource extraction and use. However, the taking of large game, such as

caribou, mastodon and mammoth, appears to be of central importance to the sustenance of these early inhabitants. Moreover, EPI site location often appears to be located in areas which would have intersected with migratory caribou herds.

Table 3.1 - Southern Ontario Prehistoric Cultural Chronology, Years Before Present (BP)

ARCHAEOLOGICAL PERIOD	TIME	CHARACTERISTICS
Early Paleo-Indian	11,000–10,400 BP	Caribou and extinct Pleistocene mammal hunters, small camps.
Late Paleo-Indian	10,400–10,000 BP	Smaller but more numerous sites.
Early Archaic	10,000-8,000 BP	Slow population growth, emergence of woodworking industry, development of specialised tools.
Middle Archaic	8,000–4,500 BP	Environment similar to present, fishing becomes important component of subsistence, wide trade networks for exotic goods.
Late Archaic	4,500-3,100 BP	Increasing site size, large chipped lithic tools, introduction of bow hunting.
Terminal Archaic	3,100-2,950 BP	Emergence of true cemeteries with inclusion of exotic trade goods.
Early Woodland	2,950-2,400 BP	Introduction of pottery, continuation of Terminal Archaic settlement and subsistence patterns.
Middle Woodland	2,400-1,400 BP	Increased sedentism, larger settlements in spring and summer, dispersed smaller settlement in fall and winter, some elaborate mortuary ceremonialism.
Transitional Woodland	1,400-1,100 BP	Incipient agriculture in some locations, seasonal hunting & gathering.
Late Woodland (Early Iroquoian)	1,100-700 BP	Limited agriculture, development of small village settlement, small communal longhouses.
Late Woodland (Middle Iroquoian)	700-600 BP	Shift to agriculture as major component of subsistence, larger villages with large longhouses, increasing political complexity.
Late Woodland (Late Iroquoian)	600- 350 BP	Very large villages with smaller houses, politically allied regional populations, increasing trading network.

The Late Palaeo-Indian (LPI) period (10,400-10,000 BP) is poorly understood compared to the EPI, the result of less research focus than the EPI. As the climate warmed the spruce parkland was gradually replaced and the vegetation of Southern Ontario began to be dominated by closed coniferous forests. As a result many of the large game species that had been hunted in the EPI period either moved north with the more open vegetation, or became extinct. Like the EPI, LPI peoples covered large territories as they moved around to exploit different resources.

The transition from the Palaeo-Indian period to the Archaic archaeological culture of Ontario prehistory is evidenced in the archaeological record by the development of new tool technologies, the result of utilising an increasing number of resources as compared to peoples from earlier archaeological cultures, and developing a broader based series of tools to more intensively exploit those resources. During the Early Archaic period (10,000-8,000 BP), the jack and red pine forests that characterized the LPI environment were replaced by forests dominated by white pine with some associated deciduous elements. Early Archaic projectile points differ from Palaeo-Indian forms most notably by the presence of side and corner notching on their bases. A ground stone tool industry, including celts and axes, also emerges, indicating that woodworking was an important component of the technological development of Archaic peoples. Although there may have been some reduction in the degree of seasonal movement, it is still likely that population density during the Early Archaic was low, and band territories large.

The development of a more diversified tool technology continued into the Middle Archaic period (8,000-4,500 BP). The presence of grooved stone net-sinkers suggests an increase in the importance of fishing in subsistence activities. Another new tool, the bannerstone, also made its first appearance during this period. Bannerstones are ground stone weights that served as a counterbalance for "atlatls" or spear-throwers, again indicating the emergence of a new technology. The increased reliance on local, often poor quality chert resources for chipped stone tools suggests that in the Middle Archaic groups inhabited smaller territories that often did not encompass a source of high quality raw material. In these instances lower quality materials which had been glacially deposited in local tills and river gravels were used.

This reduction in territory size appears to have been the result of gradual region-wide population growth, which forced a reorganization of subsistence practices, as more people had to be supported from the resources of a smaller area. Stone tools especially designed for the preparation of wild plant foods suggest that subsistence catchment was being widened and new resources being more intensively exploited. A major development of the later part of the Middle Archaic period was the initiation of long distance trade. In particular, native copper tools manufactured from sources near Lake Superior were being widely traded.

The trend towards decreased territory size and a broadening subsistence base continued during the Late Archaic (4,500-2,900 BP). Late Archaic sites are far more numerous than either Early or Middle Archaic sites. It appears that the increase in numbers of sites at least partly represents an increase in population. However, around 4,500 BP water levels in the Great Lakes began to take their modern form, rising from lower levels in the Early and Middle Archaic periods. It is likely that the relative paucity of earlier Archaic sites is due to their being inundated under the rising lake levels.

The appearance of the first true cemeteries occurs during the Late Archaic. Prior to this period, individuals were interred close to the location where they died. However, with the advent of the Late Archaic and local cemeteries individuals who died at a distance from the cemetery would be returned for final burial at the group cemetery, often resulting in disarticulated skeletons, occasionally missing minor bone elements (e.g. finger bones). The emergence of local group cemeteries has been interpreted as being a response to both increased population densities and competition between local groups for access to resources, in that cemeteries would have provided symbolic claims over a local territory and its resources.

Increased territoriality and more limited movement are also consistent with the development of distinct local styles of projectile points. The trade networks which began in the Middle Archaic expand during this period, and begin to include marine shell artifacts (such as beads and gorgets) from as far away as the Mid-Atlantic coast. These marine shell artifacts and native copper implements show up as grave goods, indicating the value of the items. Other artifacts such as polished stone pipes and slate gorgets also appear on Late Archaic sites. One of the more unusual of the Late Archaic artifacts is the "birdstone", small, bird-like effigies usually manufactured from green banded slate.

The Early Woodland period (2,900-2,200 BP) is distinguished from the Late Archaic period primarily by the addition of ceramic technology. While the introduction of pottery provides a useful demarcation point for archaeologists, it may have made less difference in the lives of the Early Woodland peoples. The first pots were very crudely constructed, thick walled, and friable. It has been suggested that they were used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil. These vessels were not easily portable, and individual pots must not have enjoyed a long use life.

There have also been numerous Early Woodland sites located at which no pottery was found, suggesting that these poorly constructed, undecorated vessels had yet to assume a central position in the day-to-day lives of Early Woodland peoples.

Other than the introduction of this rather limited ceramic technology, the life-ways of Early Woodland peoples show a great deal of continuity with the preceding Late Archaic period. For instance, birdstones continue to be manufactured, although the Early Woodland varieties have "pop-eyes" which protrude from the sides of their heads. Likewise, the thin, well-made projectile points which were produced during the terminal part of the Archaic period continue in use. However, the Early Woodland variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance. The trade networks which were established in the Middle and Late Archaic also continued to function, although there does not appear to have been as much traffic in marine shell during the Early Woodland period. These trade items were included in increasingly sophisticated burial ceremonies, some of which involved construction of burial mounds.

In terms of settlement and subsistence patterns, the Middle Woodland (2,200 B.C.-1,100 BP) provides a major point of departure from the Archaic and Early Woodland periods. While Middle Woodland peoples still relied on hunting and gathering to meet their subsistence requirements, fish were becoming an even more important part of the diet. Middle Woodland vessels are often heavily decorated with hastily impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of Middle Woodland vessels are easily identifiable.

It is also at the beginning of the Middle Woodland period that rich, densely occupied sites appear along the margins of major rivers and lakes. While these areas had been utilized by earlier peoples, Middle Woodland sites are significantly different in that the same location was occupied off and on for as long as several hundred years. Because this is the case, rich deposits of artifacts often accumulated. Unlike earlier seasonally utilized locations, these Middle Woodland sites appear to have functioned as base camps, occupied off and on over the course of the year. There are also numerous small upland Middle Woodland sites, many of which can be interpreted as special purpose camps from which localized resource patches were exploited. This shift towards a greater degree of sedentism continues the trend witnessed from at least Middle Archaic times, and provides a prelude to the developments that follow during the Late Woodland period.

The relatively brief period of the Transitional Woodland period is marked by the acquisition of cultivar plants species, such as maize and squash, from communities living south of the Great Lakes. The appearance of these plants began a transition to food production, which consequently led to a much reduced need to acquire naturally occurring food resources. Sites were thus occupied for longer periods and by larger numbers of people. Sites of the Transitional Woodland in the Hamilton area are part of the Princess Point Complex, named after the Princess Point site in Cootes Paradise.

The Late Woodland period in southern Ontario is associated with societies referred to as the Ontario Iroquois Tradition. This period is often divided into three temporal components; Early, Middle and Late Iroquoian (see Table 3.1).

Early Iroquoian peoples continued to practice similar subsistence and settlement patterns as the Transitional Woodland. Villages tended to be small, with small longhouse dwellings that housed either nuclear or, with increasingly, extended families. Smaller camps and hamlets associated with villages served as temporary bases from which wild plant and game resources were acquired. Horticulture

appears to have been for the most part a supplement to wild foods, rather than a staple.

The Middle Iroquoian period marks the point at which a fully developed horticultural system (based on corn, bean, and squash) emerged, and at which point cultivars became the staple food source. In this period villages become much larger than in the Early Iroquoian period, and longhouses also become much larger, housing multiple, though related, nuclear families. Food production through horticulture resulted in the abandonment of seasonal mobility that had characterized aboriginal life for millennia. Hunting, fishing, and gathering of wild food activities continued to occur at satellite camps. However, for the most part most Iroquoian people inhabited large, sometimes fortified villages throughout southern Ontario.

The Late Iroquoian period in the Niagara Peninsula, along the north shore of Lake Erie and at the western end of Lake Ontario is marked by the emergence of the Neutral Iroquoians, one of several discrete groups that emerge from the Middle Iroquoian period. Neutral settlements include large villages of several longhouses and a number of associated smaller satellite villages (hamlets), seasonally occupied sites with only one or two small “cabins” (usually associated with working horticultural fields), and camps for specialized extractive activities such as hunting and fishing.

Discrete clusters of politically allied Neutral villages have been identified from the late prehistoric and early historic period, and in the case of the New East-West Road Corridor project area the closest of these is the Spencer-Bronte Creeks group. This cluster of villages and associated sites is located west of the project area and is focused on land near the headwaters of Spencer Creek and Bronte Creek.

3.3 PREHISTORIC PERIOD RESOURCES

There are at present 99 registered prehistoric period archaeological sites within 1 km of the project area (Table 3.2). Forty-seven (47) of the sites are findspots and thirty-five (35) of the sites are lithic scatter or surface collections, mostly resulting from surveys conducted prior to the construction of subdivisions in and near the project area. The distribution of registered sites indicates a pattern of general land use across the landscape, although much of this would have been very short term (e.g. brief tool re-sharpening episodes). Sites from both the Archaic and Woodland periods are represented in the pattern of generalised land usage.

Both Archaic and Woodland campsites have been registered in the project area. The sites were all associated with the sandy knolls common throughout the area. There appears to be little variation in the location of the Archaic and Woodland period sites.

The registered sites, including findspots are generally located on knolls of well drained sandy soil situated within areas of low, imperfectly draining soils. Many of the sites overlook Grindstone Creek or one of its tributaries and are generally located within 750 m of the creek. Undeveloped fields in the project area share similar physiographic features. The western section of the project area has not been as extensively surveyed as the land along Dundas Street. The Joe Sams Sites (AiGx 359, AiGx 360 and AiGx 361) are located just north of the project area along Centre Road (JW, 2008). This group of sites shares similar landscape features and surficial geology with much of the current project area. Another site, the Zumpe site (AiGx 9) is located north of the Joe Sams sites, east of Centre Road and north of the 5th Concession Road.

Table 3. 2 - Registered Prehistoric Period Sites In and Near the Project Area

Period	Number of Sites with Components	Borden #s
Woodland	**9**	AiGx 87 *and below*
Early Woodland	2	AiGx 316, AiGx 288
Middle Woodland	1	AiGx 84
Late Woodland	5	AiGx 79, AiGx 81, AiGx, 183, AiGx 206, AiGx 319
Archaic	**42**	AiGx, 82, AiGx 86, AiGx 87, AiGx 94 *and below*
Early Archaic	14	AiGx 182, AiGx 309, AiGx 311, AiGx 313, AiGx 318, AiGx 322, AiGx 323, AiGx 327, AiGx 330, AiGx 332, AiGx 335, AiGx 337, AiGx 341, AiGx 328
Middle Archaic	12	AiGx 328, AiGx 82, AiGx 278, AiGx 284, AiGx 304, AiGx 308, AiGx 324, AiGx 325, AiGx 333, AiGx 334, AiGx 352, AiGx 361
Late Archaic	16	AiGx 80, AiGx 93, AiGx 196, AiGx 197, AiGx 202, AiGx 206, AiGx 279, AiGx 282, AiGx 290, AiGx 296, AiGx 301, AiGx 304, AiGx 307, AiGx 339, AiGx 340, AiGx 352
Undetermined	**49**	AhGx 284, AhGx 612, AhGx 613, AiGx 85, AiGx 88, AiGx 92, AiGx 164, AiGx 165, AiGx 166, AiGx 184, AiGx 194, AiGx 195, AiGx 198, AiGx 199, AiGx 200, AiGx 201, AiGx 203, AiGx 204, AiGx 205, AiGx 207, AiGx 208, AiGx 209, AiGx 210, AiGx 211, AiGx 283, AiGx 285, AiGx 286, AiGx 289, AiGx 292, AiGx 293, AiGx 294, AiGx 295, AiGx 297, AiGx 298, AiGx 299, AiGx 300, AiGx 302, AiGx 303, AiGx 305, AiGx 310, AiGx 312, AiGx 314, AiGx 315, AiGx 326, AiGx 329, AiGx 331, AiGx 351, AiGx 359, AiGx 360
Total Registered Sites*	**99**	

*sites containing components or two or more periods may appear more than once in the table, but appear only once in the total

Parts of the project area were surveyed prior to the construction of subdivisions on either side of Dundas Street. Most of the registered sites identified through survey are findspots or widely distributed lithic scatter. High concentrations of lithics were identified in sites along Spring Creek, which flows through the project area south of Dundas Street as well as several knolls in fields west of Evans Road, between Dundas Street and Parkside Drive. Further assessment was recommended for a site south of Dundas Street along the creek (AiGx 300) and a site north of Dundas Street (AiGx 211), both within the current project area.

3.4 HISTORIC PERIOD RESOURCES

There are at present four (4) registered historic period archaeological sites within 1 km of the project area (Table 3.3). All of these are homestead sites, one dating to the early 19th century, one mid to late 19th century, one late 19th to early 20th century and the fourth to early 20th century. There is one Ontario Heritage Easements, the Pearson Home (Avonsyde Dairy) in the project area, north of Dundas Street. There are also two Ontario Heritage Easements, the Former Waterdown Post Office and the Rising Sun Hotel located in the vicinity of the project area as well as several buildings included on the Hamilton Inventory of Buildings of Architectural and/or Historic Interest (Table 3.4). The Waterdown Union Cemetery, dating to approximately 1830 lies approximately 75 m north of Dundas Street outside of the project area.

Table 3.3 - Registered Historic Period Sites In and Near the Project Area

Borden #	Name	Period	Type of Site
AhGx 558	none given	Mid-Late 19th Century	Homestead
AhGx 559	none given	Early 19th Century	Homestead
AhGx 422	none given	Early 20th Century	Homestead
AiGx 208	none given	Late 19th Early 20th Century	Homestead

Table 3.4 - Buildings of Heritage Interest In the Project Area

Address	Feature Type	Style
626 Hwy 6	Residence	Vernacular, Frame
25 Parkside Drive	Residence	Vernacular, Brick
63 Parkside Drive	Residence	Demolished?
111 Parkside Drive	Residence	Vernacular, Brick
157 Parkside Drive	Residence	Demolished?
619 Centre Road	Residence	Demolished?
715 Centre Road	Residence	Demolished?
415 Parkside Drive	Residence	Victorian, Brick
423 Parkside Drive	Residence	Vernacular, Frame
475 Parkside Drive	Residence	Vernacular, Stone
487 Parkside Drive	Residence	Gothic Revival, Brick
519 Parkside Drive	Residence	Vernacular, Brick
493 Dundas Street East	Residence	Georgian, Brick
531 Dundas Street East	Residence	Gothic Revival
545 Dundas Street East	Residence	Gothic Revival, Stone
562 Dundas Street East	Residence	Vernacular, Frame
1107 Dundas Street East	Residence	Neo-Classical, Stone
1245 Dundas Street East	Residence	Vernacular, Brick

The first survey of the project area was completed by Augustus Jones in 1793 to allow construction of the Dundas Road, a military road planned by Lieutenant Governor John Graves Simcoe to connect York and Dundas. Simcoe believed in the strategic importance of the route and in order to ensure its success he began granting the land along the road immediately following the clearing of wilderness, before the survey was officially completed (Wray and Green, 1993). A map dated 1791 by Augustus Jones indicates the approximate configuration of what the lots and concessions of East Flamborough looked like before the survey began in earnest (Figure 3.1). Notes at the bottom of the map indicate that it is a copy from an earlier map, likely created for military purposes by Lieutenant John Fredrick Holland. In 1793, the land was laid out with 13 concessions, each with 13 lots. The first to be granted lots along the Dundas Road were Loyalist soldiers. Clearing the land proved slow and difficult and although more than two thirds of the land below the 10th Concession had been granted by 1801, most grantees chose not to take up their grants (Woods *et al.,* 1967).

A map originally created in 1797 by J. Stegmann shows East Flamborough after the Jones survey of 1793. The map identifies crown lands and clergy reserves as well as the names of United Loyalist soldiers to whom lots of land had been granted (Figure 3.2). The map indicates that the majority of the lots were granted. Few, however, chose to take up those grants.

An 1815 map by Nesfield (Figure 3.3) illustrates that although major roads had been forced through and remained cleared by those who chose to take up their land grants, the project area was void of built landmarks with the exception of the Dundas Road. In most cases roads that were cleared remained crude pathways that often included remaining tree stumps. One anecdote relating to the poor road conditions tells of a farmer who spent three days travelling from the 5th Concession Road to Dundas and back, a total distance of about 10 miles (Wray and Green, 1993).

Development of the Village of Waterdown began in earnest around 1831 when Ebenezer Griffin, having purchased Lot 6, Concession 3 from Alexander Brown around 1823, subdivided his land and sold small lots. At about the same time a mill industry, also pioneered by Griffin, developed along Grindstone Creek. The majority of development took place along the creek outside of the project area. The project area itself developed slowly, being the outlying farmland of a small village with a population of only 165 by the 1841 Census. An 1843 map of Flamborough shows very little detail about the project area; even Dundas Street is not included. Of note however, is Lot 10, Concession 4 which is indicated as a clergy reserve (Figure 3.4).

The 1850 de Rottenburg map shows a few details regarding the project area (Figure 3.5). The Dundas Road is illustrated as is present day Centre Road, to the east of the western parcel of the project area. The map also indicates that concession roads north of Dundas and west of Centre Road had been forced through. Including Parkside Drive (Concession Road 4). Spring Creek is indicated on the 1850 map along the north side of the Dundas Road rather than along the south (Figure 3.5).

The 1851 Census indicates that the majority of the land surrounding Waterdown was being cultivated. Ownership of Lot 1, Concession 3 was divided between John Yakes, Mary Irving and William Irving. Lot 2 was divided between Andrew Hall, Philip Johnston, Walter Evans (who was earlier listed as a part owner of Lot 1 as well) and Widow Smoke. Lot 3 appears to have been divided evenly between Hasker Knowles and William Smoke. Lots 4 and 5 were still wholly the property of Alexander Brown.

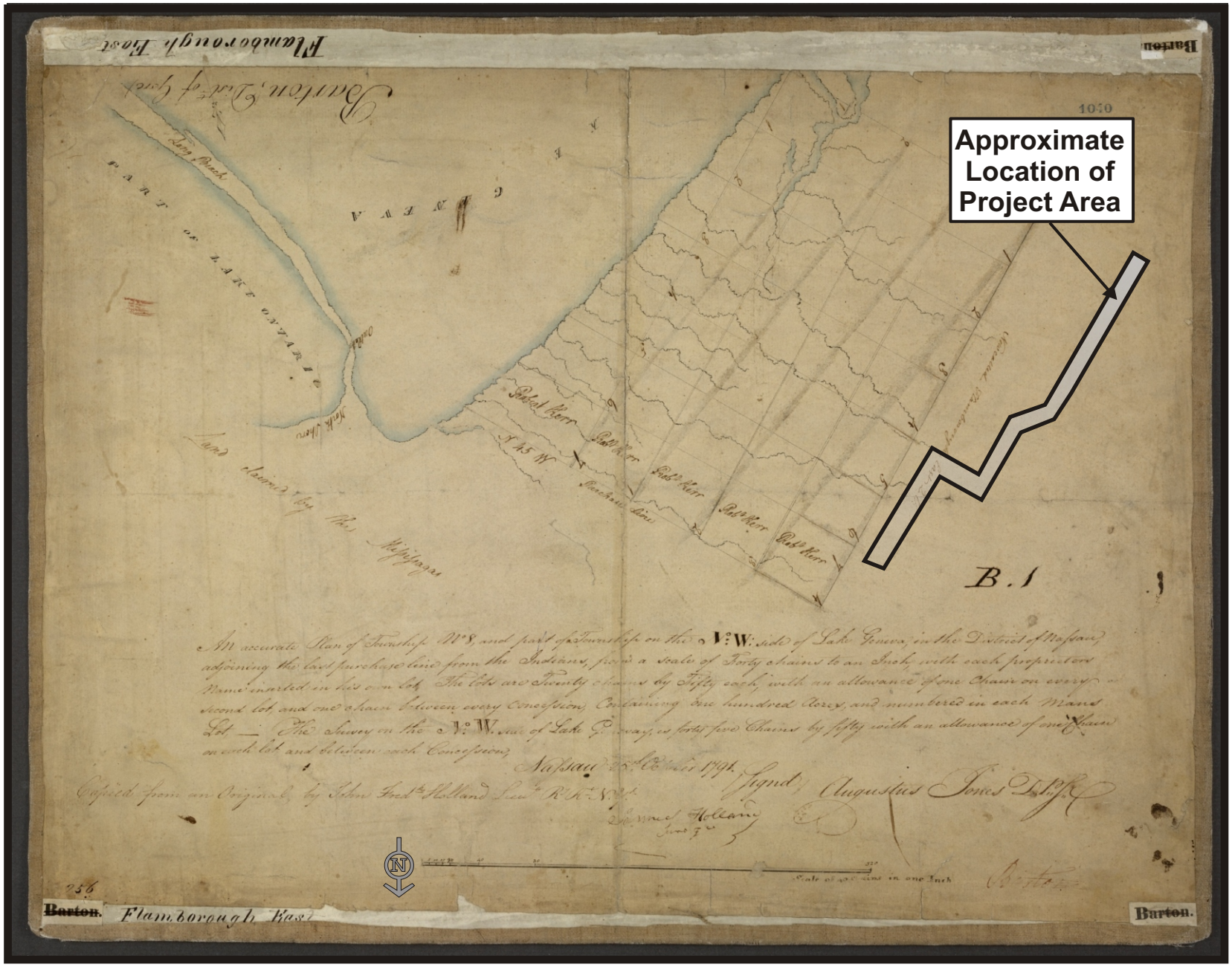

Figure 3.1 - 1791 Map of East Flamborough

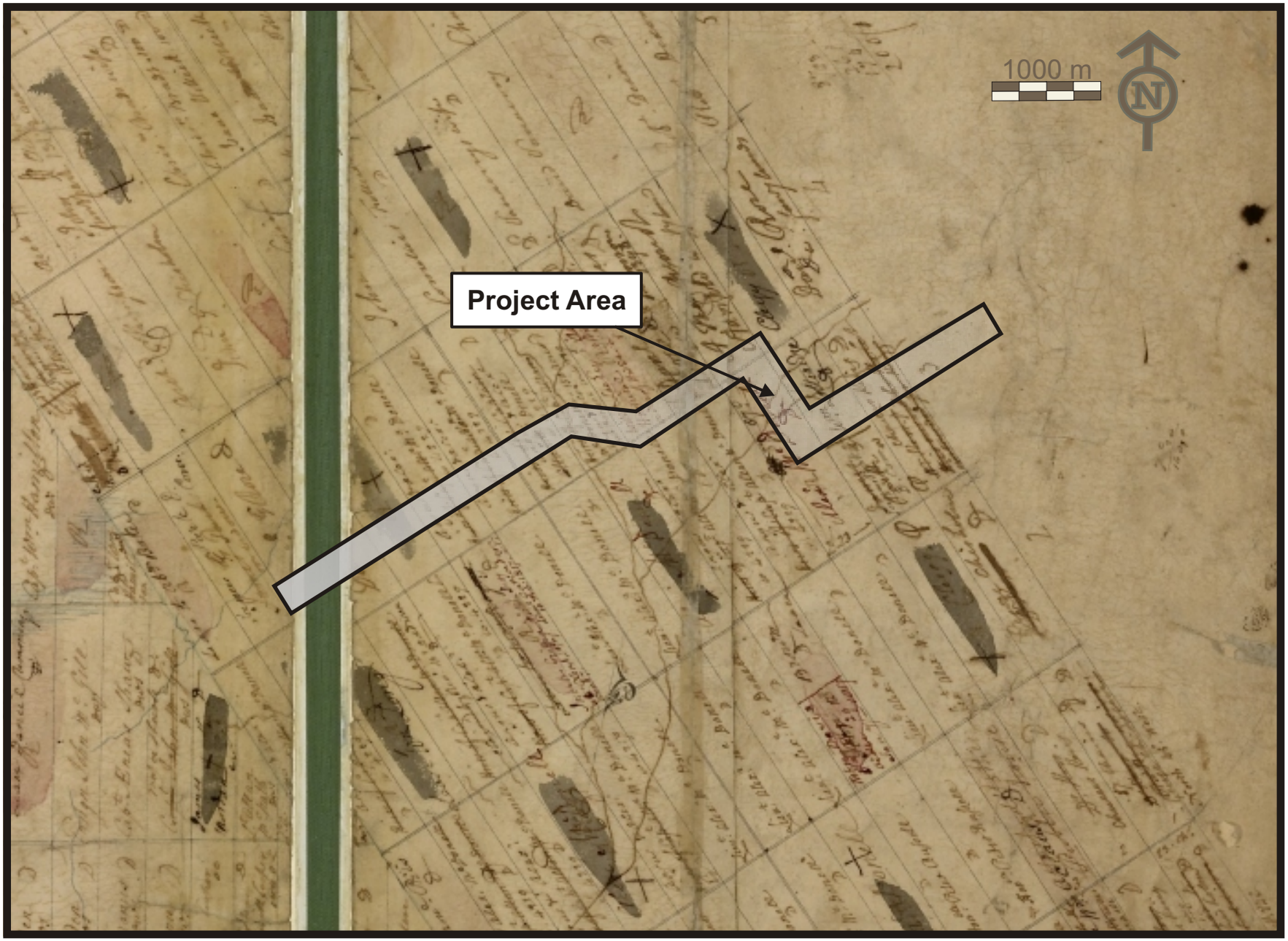

Figure 3.2 -Detail of 1797 Map Showing Project Area

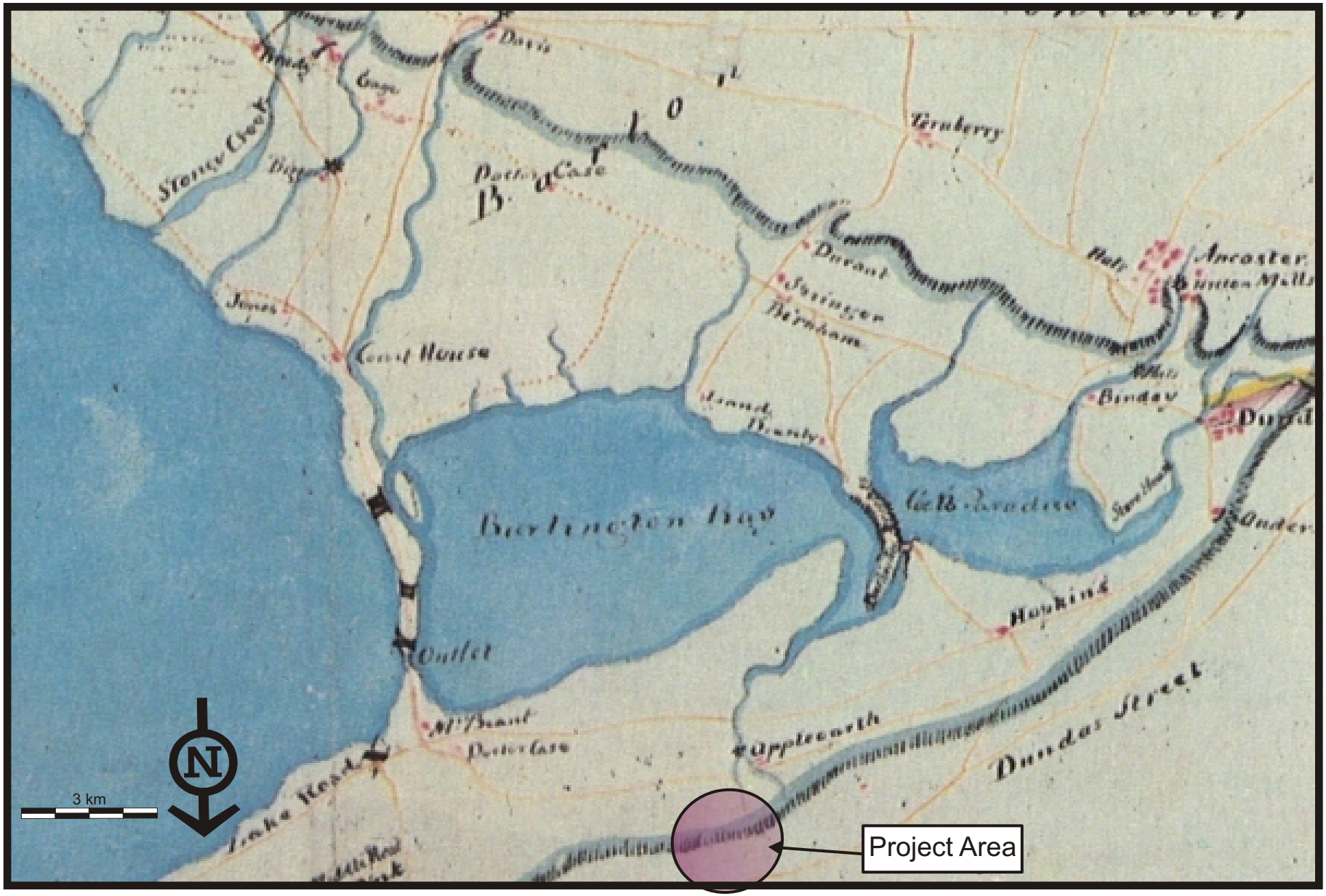

Figure 3.3 - General Location of Project Area on 1815 Nesfield Map

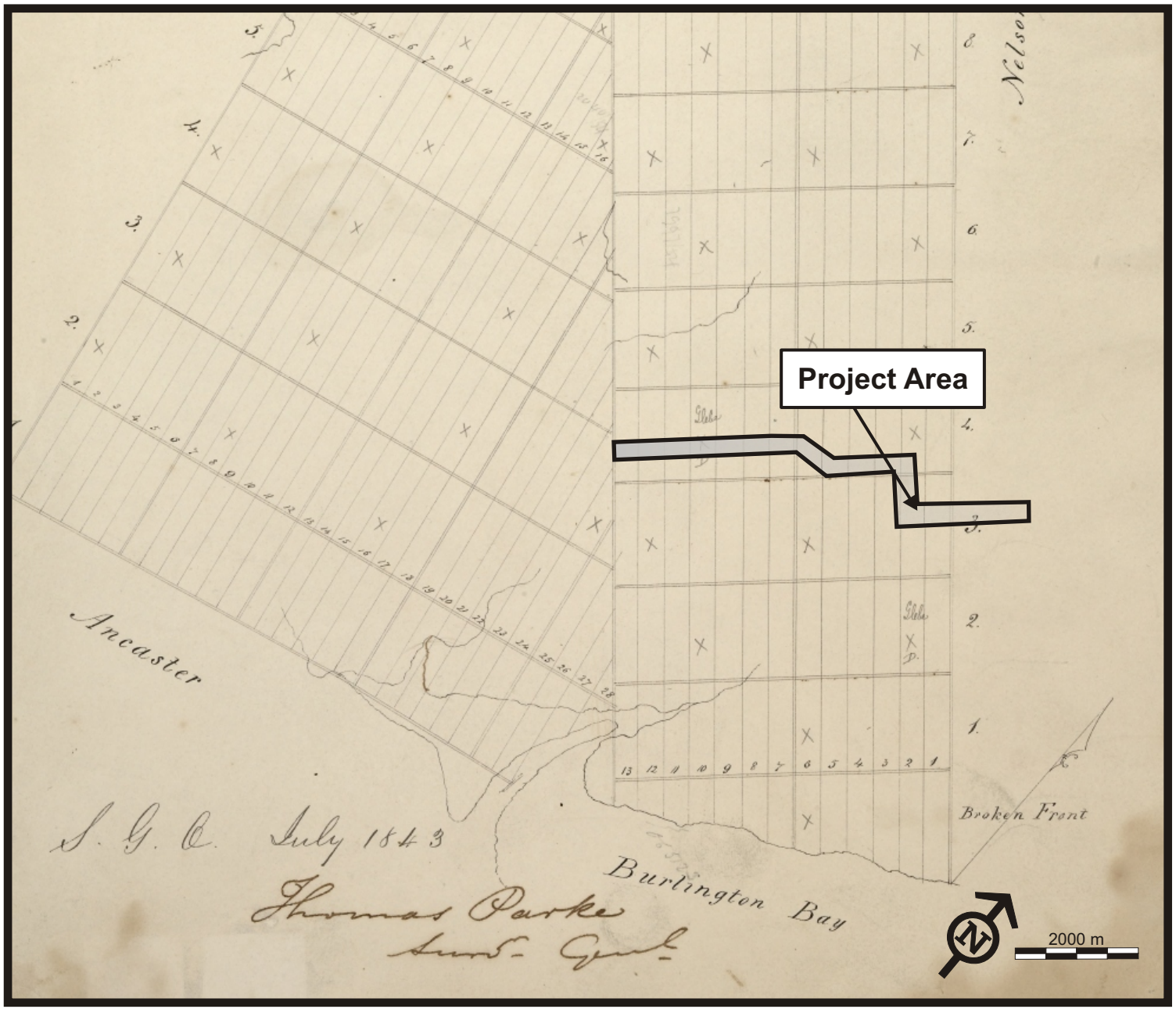

Figure 3.4 - Project Area as Shown on 1843 Survey

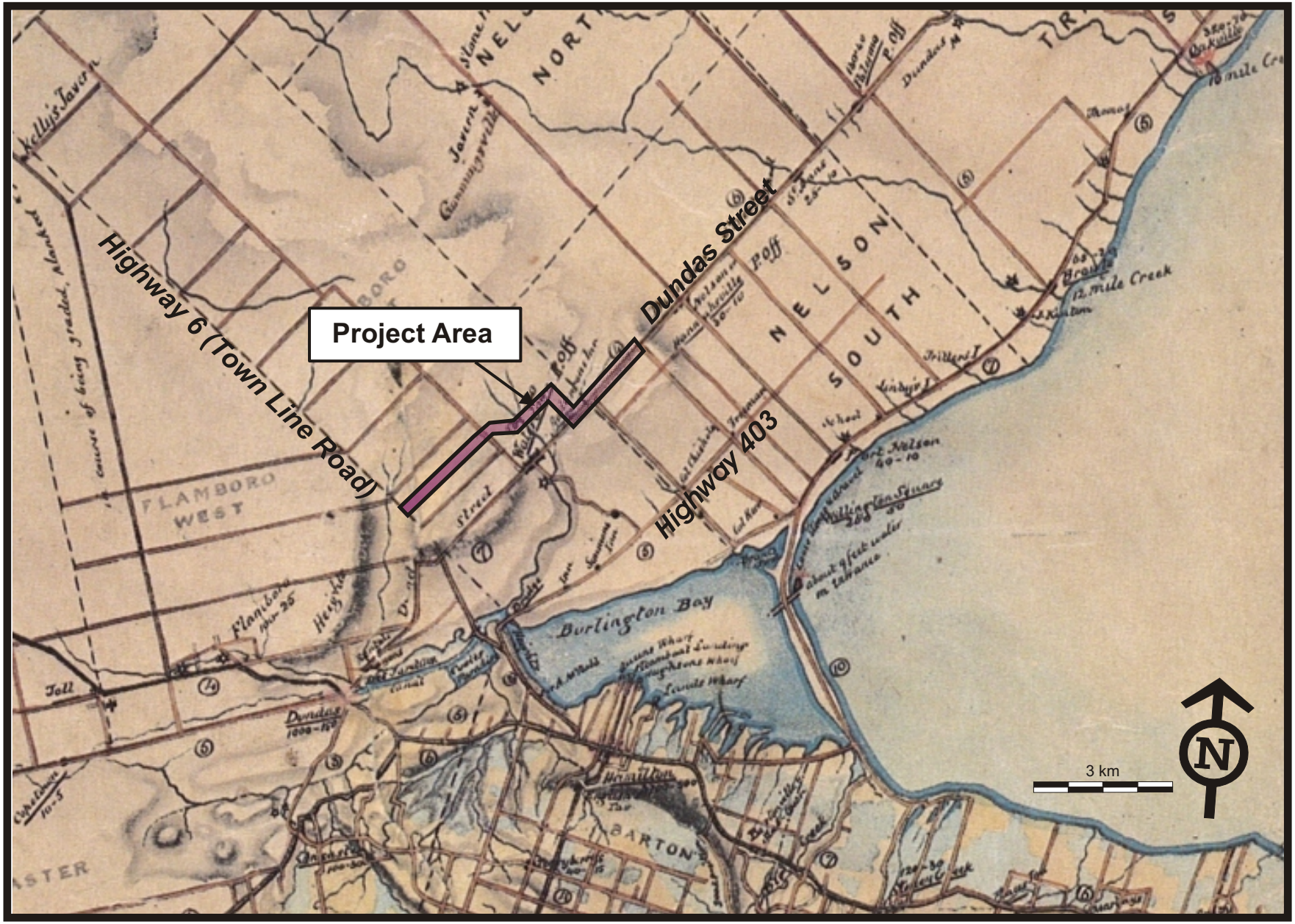

Figure 3.5 - Project Area on ca. 1850 Rottenburg Map

Toward the west of the project area, lots remained relatively intact according to the 1851 Census. Lot 8, Concession 4 was owned almost wholly by Hugh Green. Lot 9 was owned (200 acres) by Edward Evans and all 200 acres of Lot 11 are indicated as being owned by Lewis Rose. While not appearing on the 1851 Census, it seems likely based on later sources that the land in Lot 10 was a clergy reserve. As with the eastern parcel, the western parcel appears to have been largely cultivated. The 1851 Census records for Nelson which indicate lots and concessions no longer exist.

In 1854 Charles Tuck is believed to have built his home on Lot 34, Concession 1 North, Nelson after purchasing 180 acres of land from John Steeple (Byers and McBurney,1982). His large Neo-classical home built in stone still exists at 1107 Dundas Street East. The school and church that were once situated on his land, however, are no longer standing.

The 1859 Surtees map indicates very little change in land-use patterns in the project area (Figure 3.6). Houses and outbuildings certainly existed within the project area, although their locations and exact numbers are not shown on the Surtees map.

Patterns of land-use in the project area remained largely unchanged through the late 19th century. The Historical Atlases of Wentworth (1875) and Halton (1877) Counties indicate that land throughout the project area was a mix of agricultural and residential use. One important difference between the 1875 map and the earlier maps, however, is the number of residences and public buildings indicated within the project area (Figure 3.7). Twelve (12) houses and associated orchards are indicated on the map north of Parkside side in Lots 4 through 13, Concession 4, owned by John Povey, Mrs. Attridge, William Trudgen, William Stewart, Charles McMonies, John Creen, John and Edward Evans, Joseph Arnold, Lawley Langton, Walter Ryckman, L Baker and John Baker respectively. There is a house in the north half of Lot 12, Concession 3 belonging to George Rymal outside of the project area. A residence is indicated along the north side of Dundas Street in Lot 1, Concession 3 owned by James Emery. In Lot 2, Concession 3, there are two residences along the north side of Dundas owned by E.F. Evans (on the east) and Abner Everitt (on the west). In Lot 3, Concession 3 James Forbes is still indicated as the land owner and his home, now 493 Dundas Street East is illustrated along with his orchard to the north of the building (Figure 3.7).

The 1877 Atlas of Nelson Township indicates similar patterns east of Kerns Road. Two buildings, likely a residence and an outbuilding associated with the orchard in which it is situated, belonging to the heirs of Sydney English are shown on the map along the north side of Lot 24, Concession 1 North. In Lot 23, Charles Tuck's house and orchard are shown north of Dundas Street. A structure in Lot 22, likely an outbuilding or possibly a tenant house also belonged to Charles Tuck. A house and orchard belonging to the heirs of Jonathan Harry is shown on the map to the south of Dundas in Lot 23. Two buildings belonging to James Little are shown in Lot 22. Apparently Lewis Campbell had a lime kiln in Lot 21, just south of the escarpment. His home was located on the north side of the road. Interestingly, the map indicates a church on the south side of the road in Lot 21 and a school across the street in Lot 20 (Figure 3.7).

3.5 SITE RECONNAISSANCE

A visit was made to the project area on May 5th, 2008 to assess ground conditions and to investigate areas identified through aerial imagery as potentially attractive to prehistoric habitation. Examination of the site confirmed the presence of several attractive land features within the project area. Sandy knolls were located in fields north of Parkside Drive and on both sides of Dundas Street (Appendix A, Photos 1 and 2).

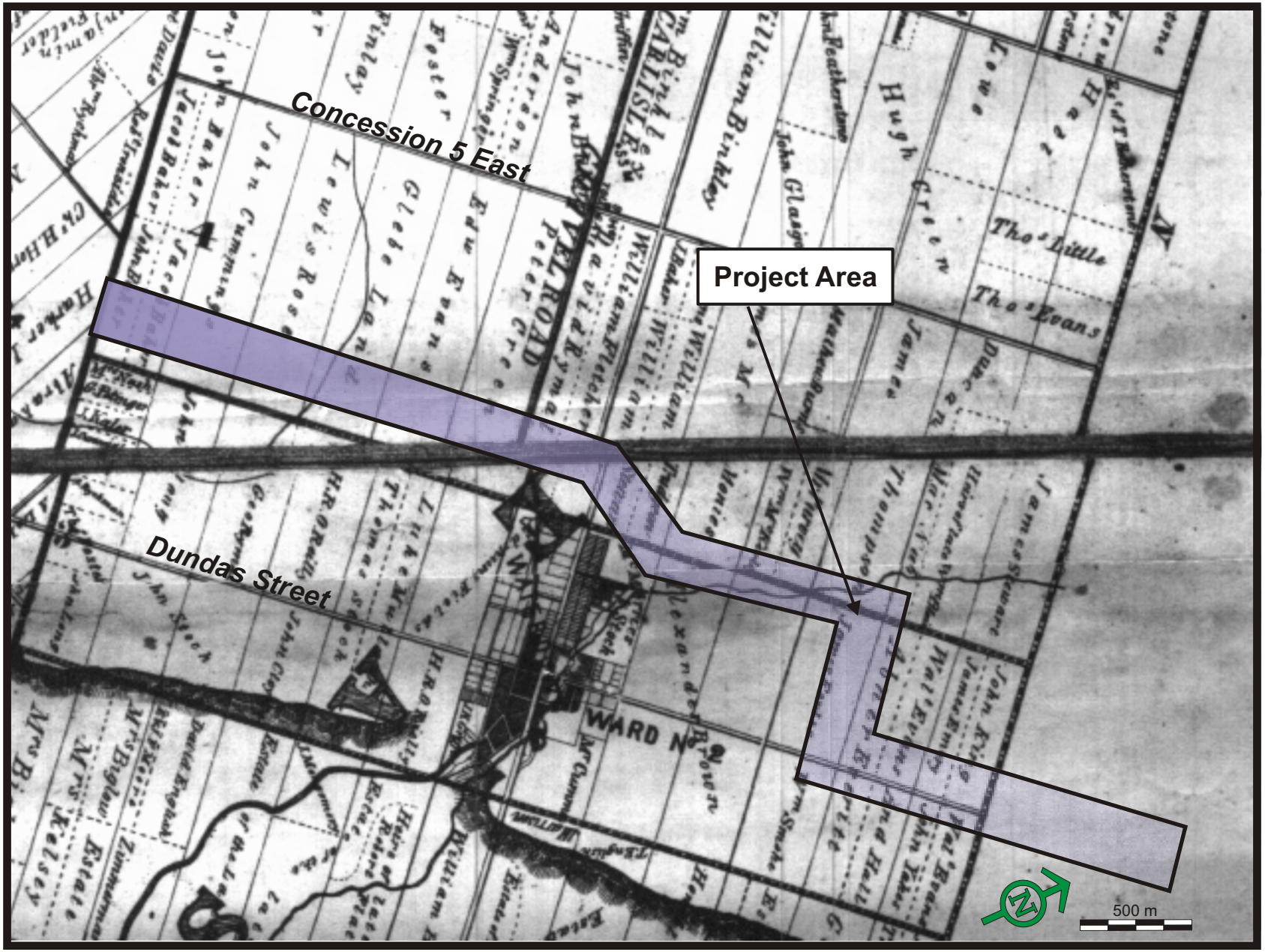

Figure 3.6 - Project Area as Shown on 1859 Surtees Map

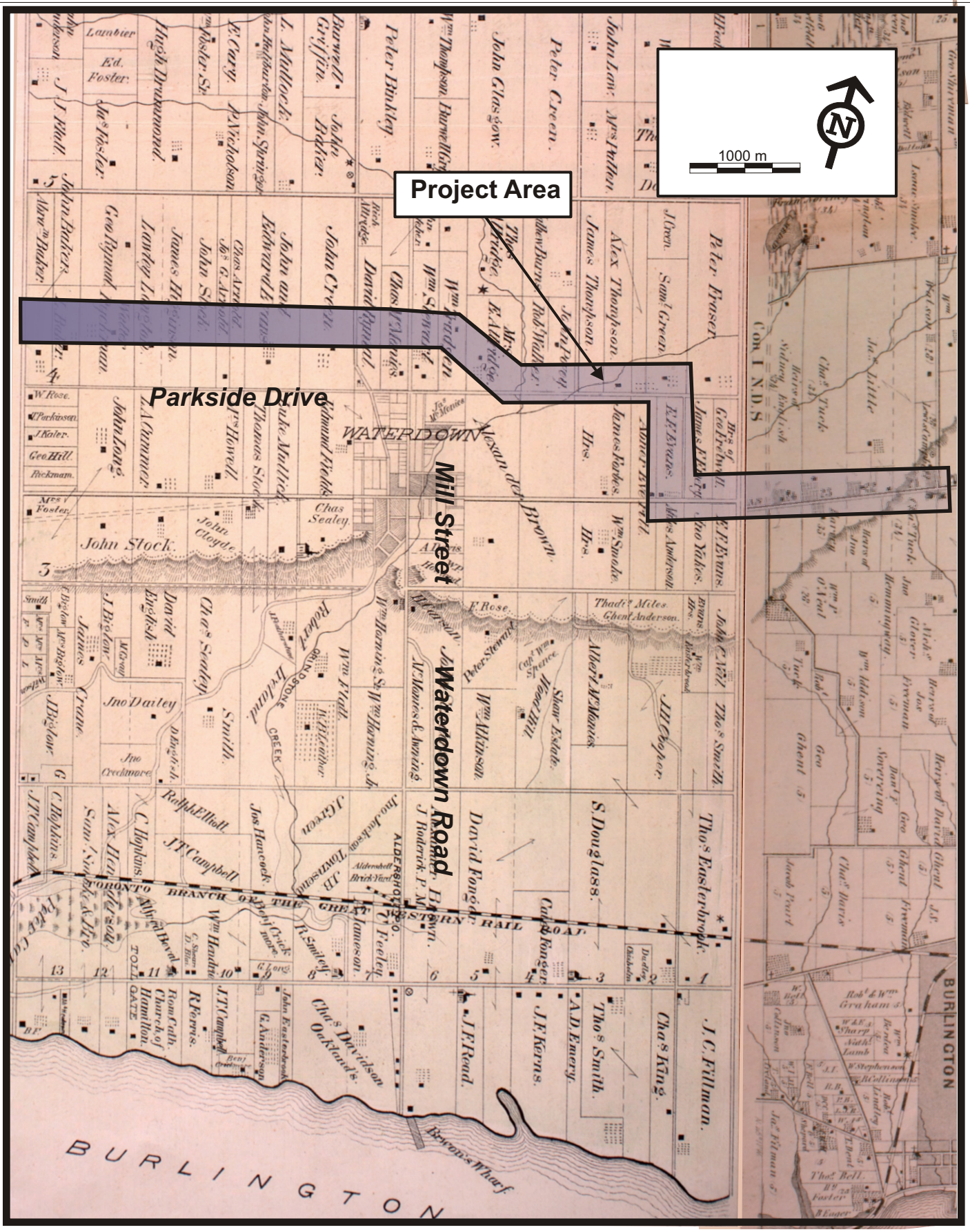

Figure 3.7 - Project Area As Shown on 1875 and 1877 Atlases

(Wentworth Source: Page and Smith, 1875 Halton Source: Walker and Miles, 1877)

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The area was, in general, more developed than aerial imagery suggested. Centre Road, south of Parkside Drive is a mix of commercial and residential development. Dense residential development occurs along the south side of Parkside Drive. Dundas Street is currently a four-lane road with wide shoulders. While the eastern parcel is largely undeveloped, commercial and residential development has occurred along both sides of the roadway. A residential development exists along the western boundary of the eastern parcel (Figure 2.1).

Modern disturbances situated directly along the roadways were identified, including two gas stations; one on Centre Road and one on Dundas Street and a large high school. While not included in the project area proper, activities related with their construction may have had an impact on nearby undiscovered archaeological resources.

4.0 STUDY RESULTS

Based on the presence of attractive landscape features for prehistoric habitation and the presence of a large number of archaeological sites in the immediate vicinity of the project area and in a geographical setting very similar to the project area, undeveloped portions of the project area are rated as having high potential for undiscovered prehistoric period archaeological resources.

Archival research indicates a long history of historic period occupation on and near the project area. While the number of historic residences within the limits of the project area is small, there is the potential that significant historic period deposits could be located within the proposed limits of the project area.

5.0 RECOMMENDATIONS

Given the elevated archaeological potential throughout the undeveloped portions of the project area, it is Jacques Whitford's recommendation that Stage 2 Archaeological Assessment occur in any areas where below grade disturbances (*i.e.* excavation or grading) will occur for any road improvements or the construction of new roadways and associated features such as ditches. Stage 2 Archaeological Assessment will need to be completed using both survey strategies: pedestrian and test pit excavation survey strategies.

All of the project area that is currently under cultivation will require assessment using a pedestrian survey strategy, as mandated by Ontario Ministry of Culture guidelines (MoC, 2006). Pedestrian survey is both more efficient and more accurate than test pit survey. Since the land was historically used for farming most of the land identified as having high archaeological potential has been used for cultivation, and is eligible for pedestrian survey. Pedestrian survey requires that the areas of cleared ground be ploughed and allowed to weather through one hard rainfall or several lighter rainfalls. Once the ground has weathered, the fields are then walked at a slow pace at 5 m intervals. During pedestrian survey if a site is found (*i.e.* a number of artifacts identified in a specific areal context) those artifacts should be left in the field, with the exception of diagnostic artifacts (*e.g.* projectile points, decorated ceramic), but the location marked and recorded on large scale map or by GPS.

In areas where conditions do not allow for pedestrian survey, a test pit survey strategy (i.e. excavating a series of test pits, 40 x 40 cm or larger, and screening all soil for artifacts) will need to be utilised (MoC, 2006). In this situation the artifacts are retained, and the location of the positive test pits

recorded.

6.0 CLOSURE

This report has been prepared for the sole benefit of the City of Hamilton, the City of Burlington and the Regional Municipality of Halton and may not be used by any third party without the express written consent of Jacques Whitford Limited, the City of Hamilton or their partners. Any use which a third party makes of this report is the responsibility of such third party.

This report is filed with the Minister of Culture in compliance with sec. 65 (1) of the Ontario Heritage Act. The ministry reviews reports to ensure that the licensee has met the terms and conditions of the licence and archaeological resources have been identified and documented according to the standards and guidelines set by the Ministry of Culture, ensuring the conservation, protection and preservation of the heritage of Ontario. It is recommended that development not proceed before receiving confirmation that the Ministry of Culture has entered the report into the provincial register of reports.

We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this project.

Yours truly,

JACQUES WHITFORD LIMITED

Christie Uchiyama, B.A.
Assistant Archaeologist

Colin Varley, M.A., R.P.A.
Senior Archaeologist and Heritage Planning Consultant

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APPENDIX A

Photographs

JW Project # 1037892

Photo 1 - Field on the North Side of Parkside Drive, Facing North, 05-05-08

Photo 2 - Field on SouthSide of Dundas Street. Photo Taken From Mountain Brow Road, Facing North, 05-05-08

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