APPENDIX A

Stage 2 Archaeological Assessment
The Stage 2 Archaeological Assessment
For the Municipal Class EA for
Harvie Road/Big Bay Point Road/Highway 400,
City of Barrie, Simcoe County
(Parts of Lots 7 and 8, Concessions 12 and 13, Geo. Twp. of Innisfil (now City of Barrie))

Prepared for
John Grebenc
Morrison Hershfield Limited
Suite 600, 235 Yorkland Boulevard
Toronto, ON M2J 1T1
(416) 499 3181 x 1011810 fax (416) 499-9658
JGrebenc@morrisonhershfield.com

A. M. Archaeological Associates
Andrew Murray
88 Marchmount Road
Toronto, ON M6G 2B1
am@archaeological.ca
416-652-2141

Original Licence Report
Licence P035
P.I.F. # P035-0203-2013
13-Nov-2013
The Stage 2 Archaeological Assessment for the Municipal Class EA for Harvie Road/Big Bay Point Road/Highway 400, City of Barrie, Simcoe County

PROJECT PERSONNEL

Project Director Andrew Murray, P035
Field Supervisor Andrew Murray
Field Technician Jackie Dolling
Report Graphics/ Preparation Andrew Murray
Editor Jackie Dolling, P158

ACKNOWLEDGEMENTS

Morrison Hershfield Limited arranged for property access and project limit plans through the Ministry of Transportation. Ontario Ministry of Tourism, Culture and Sport provided the archaeological sites data and some of the report titles. Special thanks to Philip Woodley for providing a copy of the New Directions Archaeology Ltd. report.

A. M. Archaeological Associates
EXECUTIVE SUMMARY

This report discusses the rationale, methods and results of the Stage 2 archaeological assessment for the lands around Harvie Road/Big Bay Point Road/Highway 400, City of Barrie, Simcoe County. The study is part of a Municipal Class Environmental Assessment triggered under the Environmental Assessment Act (RSO 1990). The purpose of this study is to identify archaeological potential for the location of any Aboriginal and Euro-Canadian archaeological sites that may be impacted by a proposed redesign and assess these areas prior to purchase of the property. The project was conducted pre-purchase during Phase 3 and 4 of the Environmental Assessment for the road connection and possible highway ramps. The archaeological assessment was conducted for Morrison Hershfield Limited on behalf of the City of Barrie.

The road plans impact three areas east of Highway 400 and one area west of the highway (Figure 1). The three areas east of the highway include an area determined by a previous Stage 1 to have no archaeological potential because it was the site of a former brewery. The other two eastern areas are east and west of Fairview Road encompassing 1.3 and 1.9 hectares of land north of the Big Bay Point Road right-of-way. The western study area encompassed five hectares of land north of Harvie Road and Highway 400.

Based on these findings, portions of the study lands required for Harvie Road/Big Bay Point Road/Highway 400 was determined to have archaeological potential for significant archaeological remains. A total of 52 percent of the 11.15 hectare of the lands required for changes to the Harvie Road and Big Bay Point Road alignments and Highway 400 ramps was subject to Stage 2 assessment through test pit survey 5 metre intervals. The remaining area was not subject to physical testing due to disturbances (39%), low and wet conditions (5%) and steep slopes (4%).

Two archaeological sites were identified during the test pit assessment of the lands required for the project. Site 1 consists of the recovery of 11 artifacts from six shovel test pits across 135 metre long area. The artifacts are ceramic body sherds and Onondaga chert flakes that indicate a Late Woodland occupation. Site 2 consists of a single small bifacial tool fragment. No intensified test pitting was conducted around the finds and Stage 3 test excavation is recommended to define the limits and nature of the archaeological deposits.
Based on the above information, the following recommendations can be made:

1. Stage 3 site specific assessment through the excavation of one-metre square test excavation units should be conducted at Site 1, BcGw-93.
2. Stage 3 site specific assessment through the excavation of one-metre square test excavation units should be conducted at Site 2.
3. The remaining areas required for the proposed redesign of Highway 400/ Harvie Road and Big Bay Point Road outside of the two areas defined by Site 1 and Site 2 has been completely assessed through test pit survey. The Stage 2 did not identify any additional archaeological sites requiring further assessment or mitigation of impacts, therefore, no further Stage 2 archaeological assessment of the property is required.
TABLE OF CONTENTS

1.0 PROJECT CONTEXT 1
   1.1 Development Context 1
   1.2 Historic Context 1
   1.3 Archaeological Context 1
       1.3.1 Environmental Setting 2
       1.3.2 Registered Archaeological Sites 2
       1.3.3 Past Projects 2
2.0 METHODOLOGY 3
   2.1 GIS Methods 3
   2.2 Field Methods 3
   2.3 Property Inspection and Assessment 3
       2.3.1 West side of Highway 400 north of Harvie Road 3
       2.3.2 East side of Highway 400, West of Fairview Road 4
       2.3.3 East side of Highway 400, East of Fairview Road 5
   2.4 Record of Finds 5
       2.4.1 Inventory of Documentary Record 6
3.0 ANALYSIS AND CONCLUSIONS 7
   3.1 Archaeological Potential 7
   3.2 Conclusions 7
4.0 RECOMMENDATIONS 8
5.0 ADVICE ON COMPLIANCE WITH LEGISLATION 8
6.0 BIBLIOGRAPHY AND SOURCES 9
7.0 IMAGES 11
8.0 MAPS 15
LIST OF IMAGES

Plate 1: Test pit assessment in partially wet area west of creek at west end of Harvie Road impacts. 11
Plate 2: Disturbed landscape around satellite dish compound. 11
Plate 3: Surface disturbance east of satellite compound tested at five metre intervals. 11
Plate 4: Surface disturbance east of satellite compound tested at five metre intervals. 11
Plate 5: Former residential property lawn tested at five metre intervals. 11
Plate 6: Intact soil profile. 11
Plate 7: Test pit excavation in forested area north of Harvie Road. 12
Plate 8: Intact soil profile. 12
Plate 9: Partially disturbed capped original topsoil. 12
Plate 10: Conditions in wet area. 12
Plate 11: Conditions in wet area. 12
Plate 12: Conditions in wet area. 12
Plate 13: Partially disturbed capped original topsoil. 13
Plate 14: Crushed gravel in partially disturbed test pit. 13
Plate 15: Slightly more open conditions along west side of Highway 400 at north end of assessed area. 13
Plate 16: Disturbed conditions immediately east of Highway 400 at Whiskey Creek. 13
Plate 17: Test pit assessment near Whiskey Creek west of Fairview Road. 13
Plate 18: Test pit assessment east of Fairview Road. 13
Plate 19: Artifacts from Site 1 and Site 2. 14

LIST OF MAPS

Figure 1: Location of the Highway 400 Harvie Road Big Bay Point Road study area, 31D05 Barrie (Natural Resources Canada 2010). 15
Figure 2: Location of study area on Soil Map of Simcoe County, South Sheet adjusted to 1:10,000 scale with current contours, creek and roads from Ontario Basic Mapping (CDA 1959; MNR 2004). 16
Figure 3: Study limits assessment methodology and photo views. Note: Site 1 and 2 location information in Supplementary Documentation only in order to protect sites. 17
1.0 PROJECT CONTEXT

1.1 Development Context
This report discusses the rationale, methods and results of the Stage 2 archaeological assessment for the lands around Harvie Road/Big Bay Point Road/Highway 400, City of Barrie, Simcoe County. The study is part of a Municipal Class Environmental Assessment triggered under the Environmental Assessment Act (RSO 1990). The purpose of this study is to identify archaeological potential for the location of any Aboriginal and Euro-Canadian archaeological sites that may be impacted by a proposed redesign and assess these areas prior to purchase of the property. The project was conducted pre-purchase during Phase 3 and 4 of the Environmental Assessment for the road connection and possible highway ramps. The archaeological assessment was conducted for Morrison Hershfield Limited on behalf of the City of Barrie.

All archaeological assessment activities were performed according to the Standards and Guidelines for Consultant Archaeologists (MTC 2011). All work was done under the archaeological consulting license, P035, issued to Andrew Murray of A. M. Archaeological Associates under the Ontario Heritage Act. All records and artifacts pertaining to this project will be curated at the offices of A. M. Archaeological Associates. Permission to enter the subject property was arranged by Morrison Hershfield.

The road plans impact three areas east of Highway 400 and one area west of the highway (Figure 1). The three areas east of the highway include a three hectare area determined by a previous Stage 1 to have no archaeological potential because it was the site of a former brewery. The other two eastern areas are east and west of Fairview Road encompassing 1.3 and 1.9 hectares of land north of the Big Bay Point Road right-of-way. The western study area encompassed five hectares of land north of Harvie Road and Highway 400.

1.2 Historic Context
The previous Stage 1 did not identify any specific features of nineteenth century Euro-Canadian occupations that would indicate potential for historic archaeological sites.

1.3 Archaeological Context
The proposed changes to Harvie Road and Big Bay Point Road require a realignment of the current roads approximately 100 metres north of the current location in order to accommodate connecting ramps with Highway 400 (Figure 3). The requirements on the west side of the
Highway 400 are entirely on the north side of Harvie Road in an area that is forested. The requirements on the east side of the highway include forested areas on either side of Fairview Road north of Big Bay Point Road. They also include disturbed areas around a former brewery and associated railway spur.

1.3.1 Environmental Setting
Well-drained Tioga Sandy Loam and the Whiskey Creek drainage were the two features of archaeological potential by the preceding Stage 1 background research. All of the areas potentially impacted by the proposed design are within the buffer zones around these features.

1.3.2 Registered Archaeological Sites
The previous Stage 1 background research of the archaeological sites database at the Ministry of Culture revealed 12 registered sites within two kilometres of the study area but none of the registered sites were within the study limits. Two new archaeological sites were discovered during the Stage 2 and Stage 3 archaeological assessment of the Highway 400 Barrie Service Centre by A. M. Archaeological Associates in 2012 (Murray 2012 b, c & d). The artifacts recovered from the two sites, BcGw-86 and BcGw-87, indicated a village and a small camp affiliated with the Late Woodland Middleport period (1330-1400 A.D.).

1.3.3 Past Projects
The preceding Stage 1 study made the recommendations below:
1. The undisturbed lands along both the north and south sides of Harvie Road and Big Point Road should be subject to a Stage 2 archaeological assessment by a licensed archaeologist using the appropriate methods described in the SGCA 2011 prior to any construction impacts.
2. The existing right-of-way of Harvie Road, Big Bay Road and Highway 400 is intensively and extensively disturbed and no further assessment is required.
3. The area around the former Molson brewery and associated rail spur is intensively and extensively disturbed and no further assessment is required. (Murray 2012a:8)
2.0 METHODOLOGY

2.1 GIS Methods
In addition to detailed survey plans, mapping information was used from the Ministry of Natural Resources 1:10,000 scale Ontario Base Map (OBM) downloaded from the Geography Network Canada and ortho-imagery from ESRI. The georeferenced study limits, contours and other geographic details were uploaded to a handheld GPS (WAAS enabled ASUS a696 PDA using CMT-Field GIS v.9) to assist with the determination of the study limits in the field.

2.2 Field Methods
A. M. Archaeological Associates conducted the Stage 2 archaeological assessment for the study area using the shovel test pit method as described the Standards and Guidelines for Consultant Archaeologists - 2.1.2 Test pit Survey (MTCS 2011:31). Test pits were spaced at five metre intervals to within one metre of built structures. All test pits were at least 30 cm in diameter and excavated 5 cm into subsoil. All soil was screened through 6 mm mesh prior to backfilling of test pits.

Mapping was carried out using a handheld GPS (WAAS enabled ASUS a696 PDA using CMT-Field GIS v.9). Point locations were recorded by 60 one-second intervals recordings were made using UTM 17T NAD 83 under overcast skies. Position Dilution of Precision (PDOP) was between 1.4 and 1.6 providing between one and two metre accuracy (2DRMS - twice the distance root mean square).

All positive test pits where artifacts were recovered have been marked in the field using labelled flagging tape both buried in the test pit and from above ground (e.g. an overhanging branch or nearby tree).

Current conditions for the study area were photographed and the locations were logged by GPS (Figure 3; Plates 1-5). The property inspection and Stage 2 assessment was carried out between August 8th and October 25th, 2013 under clear to cloudy skies and temperatures between 5º and 25 ºC.

2.3 Property Inspection and Assessment
2.3.1 West side of Highway 400 north of Harvie Road
The Stage 1 background research had indicated that the Harvie Road right-of-way had no archaeological potential but the lands to the north of Whiskey Creek and steep slope had high potential for archaeological remains. One 620 m² disturbed area around satellite dishes and
outbuildings belonging to the property owner was mapped and photographed during this Stage 2 assessment (Plate 2). Two low and wet areas encompassing 2750 m$^2$ of the proposed right-of-way around Whiskey Creek not assessed due to low potential. Another 4850 m$^2$ area was not tested because it was low and wet during the Stage 1 assessment in 2010 although there was no surface water during the assessment in 2013 (Plates 10 - 12). Deep test pits were excavated on either side of this wet area that indicated that there had been some fill brought into this area to improve the surface conditions (Plates 9 and 13). Test pits were continued in this until soil was waterlogged. The steep 0.42 hectare slope overlooking Whiskey Creek was greater than 20° so it was not subject to Stage 2 testing. This slope may not be completely natural since it is around the channelized portions of the creek.

A 3.3 hectare area north of the bluff overlooking Whiskey Creek and Harvie Road was shovel tested at five metre intervals. The area immediately east of the satellite dish compound and in the lawn of a former house were partially disturbed by the five metre test pit interval was maintained. A smaller 0.6 hectare north of the wet area was also tested at five metre intervals despite some evidence of disturbance (Plate 14). This area was a narrow triangle immediately west of the highway fenceline so the partial disturbance may be related to highway construction (Plate 15).

2.3.2 East side of Highway 400, West of Fairview Road

The proposed road realignment and ramp design will impact a large area south of Big Bay Point Road determined to extensively and intensively disturbed by a large brewery complex by the previous Stage 1 study (Murray 2012). Another disturbed 0.9 hectare area north of Big Bay Point Road and close to Highway 400 was identified during this Stage 2 assessment (Plate 16; Figure 3). The disturbance is related to the channelization of Whiskey Creek, steep filled banks from the original Highway 400 construction, construction of the service centre off-ramp and the closing of the west end of Big Bay Point Road.

The lands immediately around Whiskey Creek were considered to have low potential due to low and wet conditions. This 0.3 hectare area was not subject to Stage 2 test pits and partially overlaps with the disturbance noted above.

A 0.9 hectare area consisting of mixed hardwood bushlot was assessed by shovel test pits at five metre intervals. The topography of this area varied from gradual to slightly steeper slopes downwards towards Whiskey Creek. No archaeological remains were encountered in this area.
2.3.3 East side of Highway 400, East of Fairview Road

The Stage 1 study determined that the area east of a railway spur to the former brewery was extensively and intensively disturbed. This area encompasses approximately 0.25 hectares of the proposed new roadway. Another 0.1 hectare disturbance was noted around the corner of Fairview Road and Big Bay Point Road where there are buried services including a water main, gas line and buried communication cables.

The one hectare area between these two disturbed areas was assessed by shovel test pits at five metre intervals. The topography of this area consisted of a gradual to the edge of a steeper ravine downwards towards Whiskey Creek. The north edge of the proposed right-of-way roughly corresponds to the edge of this bluff. No archaeological remains were encountered.

2.4 Record of Finds

Two archaeological sites were identified during the test pit assessment of the lands required for the project. Site 1 consists of the recovery of 11 artifacts from six shovel test pits across 135 metre long area. Nine of the artifacts are ceramic body sherds that indicate a Late Woodland occupation. Two of the artifacts are chunky fragments of Onondaga chert shatter. This chert debitage is not diagnostic of a specific time period or culture but the chunky pieces are consistent with the Late Woodland affiliation. These finds were catalogued under registered site designation BcGw-93.

Site 2 consists of a single small bifacial tool fragment. The colour and potlids indicate the tool has been burnt. The knapping qualities of Onondaga chert do not benefit from heat treatment so it is likely this tool was disposed in a hearth. The test pit was 135 metres from the concentration of artifacts of Site 1 so it is considered a separate archaeological site. Since this site could be an isolated find or part of BcGw-93, it has not been registered at this time.
Table 1: Descriptive catalogue of artifacts

<table>
<thead>
<tr>
<th>TP</th>
<th>Freq</th>
<th>Type</th>
<th>Material</th>
<th>Easting</th>
<th>Northing</th>
<th>L</th>
<th>W</th>
<th>Th</th>
<th>Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.01</td>
<td>1</td>
<td>Body sherd</td>
<td>Ceramic</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.6</td>
</tr>
<tr>
<td>1.02</td>
<td>4</td>
<td>Body sherd</td>
<td>Ceramic</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5.3</td>
</tr>
<tr>
<td>1.03</td>
<td>1</td>
<td>Flake</td>
<td>Onondaga</td>
<td>19.2</td>
<td>10.3</td>
<td>7.6</td>
<td>0.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.04</td>
<td>3</td>
<td>Body sherd</td>
<td>Ceramic</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.5</td>
</tr>
<tr>
<td>1.05</td>
<td>1</td>
<td>Body sherd</td>
<td>Ceramic</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.2</td>
</tr>
<tr>
<td>1.06</td>
<td>1</td>
<td>Flake</td>
<td>Onondaga</td>
<td>24.8</td>
<td>10.8</td>
<td>12.1</td>
<td>2.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.01</td>
<td>1</td>
<td>Biface</td>
<td>Onondaga</td>
<td>21.4</td>
<td>11.5</td>
<td>5.1</td>
<td>0.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No intensified test pitting around any of the finds was carried out since the assessment was being carried out on private property for which there was only temporary permission to enter. Furthermore, both sites may have subsoil features that could be impacted by the lack of stratigraphic control offered by the shovel test pit survey method. Additional assessment has been deferred until Stage 3 excavation of one metre test units can be used to evaluate the sites in a more controlled manner.

2.4.1 Inventory of Documentary Record

The documentary record of the project consists of 8 GPS tracks, 4 GPS location files, 52 geo-tagged digital photographs and one digital Stage 1 and 2 assessment form. The artifact collection has been labelled, bagged and catalogued and is stored in one 4” by 6” six millimetre plastic zip-lock bag. The artifact and documentary record will be stored at the office of A. M. Archaeological Associates until they can be deposited at a long-term storage facility with the approval of the Ministry of Tourism, Culture and Sport.

A. M. Archaeological Associates
3.0 ANALYSIS AND CONCLUSIONS

3.1 Archaeological Potential
The proximity to water and registered archaeological sites indicated the study area had archaeological potential. Permanent wet conditions made 0.57 hectares unsuitable for human habitation around Whiskey Creek on both sides of Highway 400 and a portion of the field on the west side of the highway. Major disturbances including the existing road and highway, former brewery and rail spur detailed during the Stage 1 assessment. Additional disturbances observed during the Stage 2 resulted in 4.36 hectares being exempted from Stage 2 testing. Steep slopes made up 0.42 hectares of the study area. The remaining 5.8 hectares was sufficiently close to features of archaeological potential so Stage 2 assessment was required.

3.2 Conclusions
Based on these findings, portions of the study lands required for the Harvie Road/Big Bay Point Road/Highway 400 road works was determined to have archaeological potential for significant archaeological remains. A total of 52 percent of the 11.15 hectare of the lands required for changes to the Harvie Road and Big Bay Point Road alignments and Highway 400 ramps was subject to Stage 2 assessment through test pit survey 5 metre intervals. The remaining area was not subject to physical testing due to disturbances (39%), low and wet conditions (5%) and steep slopes (4%).

Two archaeological sites were identified during the test pit assessment of the lands required for the project. Site 1 consists of the recovery of 11 artifacts from six shovel test pits across 135 metre long area. The artifacts are ceramic body sherds and Onondaga chert flakes that indicate a Late Woodland occupation. This site has been registered in the Ontario Archaeological Sites Database maintained by MTCS as BeGw-93. Site 2 consists of a single small bifacial tool fragment. No intensified test pitting was conducted around the finds and site specific assessment through the excavation of one-metre square test excavation units is recommended to further define the limits and nature of the archaeological deposits.
4.0 RECOMMENDATIONS

Based on the above information, the following recommendations can be made:

1. Stage 3 site specific assessment through the excavation of one-metre square test excavation units should be conducted at Site 1, BcGw-93.
2. Stage 3 site specific assessment through the excavation of one-metre square test excavation units should be conducted at Site 2.
3. The remaining areas required for the proposed redesign of Highway 400/ Harvie Road and Big Bay Point Road outside of the two areas defined by Site 1 and Site 2 has been completely assessed through test pit survey. The Stage 2 did not identify any additional archaeological sites requiring further assessment or mitigation of impacts, therefore, no further Stage 2 archaeological assessment of the property is required.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

1. Advice on compliance with legislation is not part of the archaeological record. However, for the benefit of the proponent and approval authority in the land use planning and development process, the report must include the following standard statements:

2. This report is submitted to the Minister of Culture as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18. The report is reviewed to ensure it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism and Culture, 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.

3. It is an offence under Sections 48 and 69 of the Ontario Heritage Act for any party other than a licensed archaeologist to make any alteration to a known archaeological site or 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 field in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the Ontario Heritage Act.

4. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.


Contacts: Heritage and Operations Unit, Ministry of Tourism and Culture: (416) 314-7148 Registrar of Cemeteries, Cemeteries Regulation Unit: Michael D’Mello (416) 326-8404 or (416)-326-8393

A. M. Archaeological Associates
6.0 BIBLIOGRAPHY AND SOURCES

Bevers, Cameron

Canada Department of Agriculture (CDA)
1959 Soil Map of Simcoe County, South Sheet. Compiled drawn and published by the Soil Research Institute.

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

Government of Ontario
2000 Class Environmental Assessment for Provincial Transportation Facilities. Queen’s Printer, Toronto.

Hoffman, D. W., R. E. Wicklund and N. R. Richards

Ministry of Tourism, Culture and Sport
2013 Sites within a Three Kilometre Radius of the Project Area Provided from the Ontario Archaeological Sites Database, 29-Jan-2013.

Ministry of Natural Resources (MNR)
2004 Ontario Basic Mapping (WMS Service). Published by ESRI Canada. Accessed at:

Murray, Andrew
2010 The Stage 1 Archaeological Assessment for the Barrie Service Centre on Highway 400, Simcoe County. Report prepared for Morrison Hershfield on behalf of MTO on file at MTC: P035-099-2010.
2012a The Stage 1 Archaeological Assessment for the Municipal Class EA for Harvie Road/Big Bay Point Road/Highway 400, City of Barrie, Simcoe County. Report prepared for Morrison Hershfield on behalf of the City of Barrie on file at P035-128-2012.

A. M. Archaeological Associates
2012c  The Stage 3 Archaeological Assessment for BcGw-86 at the Highway 400 Barrie Service Centre, City of Barrie, Simcoe County. P038-172-2012.
2012d  The Stage 3 Archaeological Assessment for BcGw-87 at the Highway 400 Barrie Service Centre, City of Barrie, Simcoe County. P038-173-2012.

Natural Resources Canada

Spence, Michael W., Robert H. Pihl and Carl R. Murphy

Warrick, Gary
1985  The Iroquoian Occupation of Southern Simcoe County Archaeological Project, MCC HO.
Plate 1: Test pit assessment in partially wet area west of creek at west end of Harvie Road impacts.

Plate 2: Disturbed landscape around satellite dish compound.

Plate 3: Surface disturbance east of satellite compound tested at five metre intervals.

Plate 4: Surface disturbance east of satellite compound tested at five metre intervals.

Plate 5: Former residential property lawn tested at five metre intervals.

Plate 6: Intact soil profile.
Plate 7: Test pit excavation in forested area north of Harvie Road.

Plate 8: Intact soil profile.

Plate 9: Partially disturbed capped original topsoil.

Plate 10: Conditions in wet area.

Plate 11: Conditions in wet area.

Plate 12: Conditions in wet area.
Plate 13: Partially disturbed capped original topsoil.

Plate 14: Crushed gravel in partially disturbed test pit.

Plate 15: Slightly more open conditions along west side of Highway 400 at north end of assessed area.

Plate 16: Disturbed conditions immediately east of Highway 400 at Whiskey Creek.

Plate 17: Test pit assessment near Whiskey Creek west of Fairview Road.

Plate 18: Test pit assessment east of Fairview Road.
Plate 19: Artifacts from Site 1 and Site 2.
8.0 MAPS

Figure 1: Location of the Highway 400 Harvie Road Big Bay Point Road study area, 31D05 Barrie (Natural Resources Canada 2010).

A. M. Archaeological Associates
Figure 2: Location of study area on Soil Map of Simcoe County, South Sheet adjusted to 1:10,000 scale with current contours, creek and roads from Ontario Basic Mapping (CDA 1959; MNR 2004).
Figure 3: Study limits assessment methodology and photo views. Note: Site 1 and 2 location information in Supplementary Documentation only in order to protect sites.