Appendix 'E' Stage 3 Archaeological Assessment

Stage 3 Archaeological Assessment
Location 3 (AfHj-532) and Location 4 (AfHj-533)
For the Proposed Development of
Parts 1-15, Plan 33R-19731
Part of Lots 19 and 20, Concession 4 SER
Geographic Township of Adelaide
Now the Municipality of Strathroy-Caradoc
Middlesex County, Ontario

Revised Report

Submitted to:

Ministry of Heritage, Sport, Tourism and Culture Industries

Prepared for:

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PIF No: P324-0689-2021 and P324-0690-2021

Project No: 2021-327

Dated: September 29, 2022



EXECUTIVE SUMMARY

A Stage 3 archaeological assessment has been conducted for two sites for a proposed development in the community of Strathroy, Ontario. The property is irregularly shaped and located within part of Lots 19 and 20, Concession 4 South of Egerton Road (SER) in the Geographic Township of Adelaide, Middlesex County, Ontario. The property is roughly 35.0 ha (86.5 ac) in size and consists of ploughed agricultural fields, grassed and overgrown areas, a channelized drain and manicured lawn fronting Albert Street. TMHC Inc. (TMHC) was contracted by SLD Group Inc. to carry out the assessment, which was conducted in accordance with the provisions of the *Planning Act* (R.S.O. 1990) and *Provincial Policy Statement* (2020).

A Stage I and 2 archaeological assessment was conducted in 2020 (TMHC 2020) to determine whether there were archaeological resources present within the subject property. The Stage I-2 assessment identified 2I archaeological sites, including Location 3 (AfHj-532) and Location 4 (AfHj-533) which were recommended for further Stage 3 testing. A Stage 3 assessment was subsequently carried out for Location 3 (AfHj-532) and Location 4 (AfHj-533) in October and November 2021. The purpose of the Stage 3 assessment was to inform and determine the need for Stage 4 Strategies. This report provides the results of the Stage 3 assessments.

Location 3 (AfHi-532) Stage 4 Recommendations and Mapping

The Stage 3 archaeological assessment carried out at Location 3 (AfHj-532) included the excavation of 35 I m² test units, which resulted in the recovery of 143 pieces of chipping detritus, two pottery fragments that were likely out of context, and two ecofacts. As one or more of the test units yielded 10 or more artifacts (Section 3.4.1 Standard 1a, MTC 2011) and a sub-surface cultural feature was discovered (Section 3.4.1 Standard 1d, MTC 2011), Location 3 (AfHj-532) is recommended for Stage 4 mitigation. Two options are available: 1) long-term protection and avoidance; and 2) excavation. Long-term avoidance and protection are always the preferred mitigation strategy. In this case, avoidance and protection are not possible due to the site's location and the nature of the planned development; therefore, mitigation through excavation is the favored strategy. The recommended Stage 4 mitigation is the complete excavation of the site following Section 4.2.2. of the MTC's 2011 Standards and Guidelines for Consultant Archaeologists. This would involve:

- The hand-excavation of units around units 625N 280E:1, 590N 260E:1, 585N 265E:1 and 580N 265E:1 until there are yields of fewer than 10 artifacts from units at the edge of the block excavation and until there are fewer than two formal tools, diagnostic artifacts, or burnt artifacts;
 - Hand excavation must be completed in 1 m by 1 m units, by cultural layer or strata. All soil
 must be screened through mesh with an aperture of no greater than 6mm, and excavation
 must extend 5 cm into subsoil unless a cultural feature is encountered
- The hand-excavation of units until they are at least 2 m from any cultural features; and,
- any identified cultural features should be documented and excavated following Section 4.2.2, Standard 7 (MTC 2011:77).



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

Location 4 (AfHi-533) Stage 4 Recommendations and Mapping

The Stage 3 archaeological assessment carried out at Location 4 (AfHj-533) included the excavation of 93 I m² test units, which resulted in the recovery of 1,522 artifacts, including 954 lithic artifacts, 223 pieces of pottery, one bone artifact, and 343 ecofacts. As the site has been determined to be a Woodland period site (Section 3.4 Standard Ie, MTC 2011), Location 4 (AfHj-533) is recommended for Stage 4 mitigation. Two options are available: I) long-term protection and avoidance; and 2) excavation. Long-term avoidance and protection are always the preferred mitigation strategy. In this case, avoidance and protection us not possible due to the site's location and the nature of the planned development; therefore, mitigation through excavation is the favored strategy. The recommended Stage 4 mitigation strategy is to complete hand excavation followed by mechanical topsoil removal of the site following Section 4.2.4 of the MTC's 2011 Standards and Guidelines for Consultant Archaeologists. This would involve:

- minimal block excavation to collect a larger sample of artifacts. The excavation block should focus around 725N 325E: I to target areas of higher artifact concentrations and to collect a larger sample of artifacts;
- as the site dates to the Woodland period and potential cultural features were identified during the Stage 3 unit excavations, the site should be subject to mechanical topsoil stripping following Section 4.2.3 of the Standards and Guidelines (MTC 2011:78-79) to expose any cultural features;
 - Mechanical topsoil removal should be conducted by an excavator with a flat-edged ditching bucket that exposes the topsoil/subsoil interface.
 - The mechanical topsoil removal should extend across the site area and at least 10 m beyond any cultural features until the property boundaries or disturbance areas are encountered.
 - The exposed surface will be cleaned by shovel and examined to identify any potential cultural features.
- any identified cultural features should be documented and excavated following Section 4.2.2, Standard 7 (MTC 2011:77).

Our recommendations are subject to the conditions laid out in Section 7.0 of this report and to the MHSTCI's review and acceptance of this report into the provincial registry.



TABLE OF CONTENTS

Executive Summary	
Table of Contents	ii
List of Images	v
List of Maps	V
List of Tables	
Project Personnel	
Acknowledgements	
Territorial Acknowledgement	
Indigenous Participants	
About TMHC	
Key Staff Bios	
Statement of Qualifications and Limitations	
Quality Information	
I Project Context	
I.I. Development Context	
I.I.2 Purpose and Legislative Context	
I.2 Project Context: Archaeological Context	
1.2.1 Subject Property: Overview and Physical Setting	
I.2.2 Summary of Registered or Known Archaeological Sites	
I.2.3 Summary of Past Archaeological Investigations within 50 m	
I.2.4 Dates of Archaeological Fieldwork	
I.3 Project Context: Historical Context	
I.3.1 Indigenous Settlement in Middlesex County	
I.3.2 Treaty History	
1.3.3 Nineteenth-Century and Municipal Settlement	
2 Field Methods	
2.1 Location 3 (AfHj-532)	13
2.2 Location 4 (AfHj-533)	14
3 Record of Finds	
3.1 Location 3 (AfHj-532)	
3.1.1 Location 3 (AfHj-532) Settlement Pattern	
3.1.2 Location 3 (AfHj-532) Artifact Assemblage	
3.1.3 Location 3 (AfHj-532) Documentary Records	
3.2 Location 4 (AfHj-533)	
3.2.1 Location 4 (AfHj-533) Settlement Pattern	
3.2.2 Location 4 (AfHj-533) Artifact Assemblage	
3.2.3 Location 4 (AfHj-533) Documentary Records	
4 Analysis and Conclusions	
4.1 Location 3 (AfHj-532)	
4.2 Location 4 (AfHj-533) 5 RECOMMENDATIONS	
5.1 Location 3 (AfHj-532)	
5.1 Location 5 (An ij-532)	



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

5.	.2 Location 4 (AfHj-533)	29
6	Summary	
7	Advice on compliance with legislation	
8	Bibliography	
9	Images	
10	Maps	
app	endix a: Grid Referencing System	
	pendix B: Feature Digitizations	
	pendix C: Location 3 (AfHj-532), Stage 3 Artifact Catalogue	
	pendix D: Location 4 (AfHj-533), Stage 3 Artifact Catalogue	
	pendix E: Artifact Glossary	
	Chipping Detritus	
С	Thert Types	104
	PPLEMENTARY DOCUMENTATION	
	ocation 3 (AfHj-532); PIF# P324-0689-2021	
Lo	ocation 4 (AfHj-533); PIF# P324-0690-2021	109
	ummary of Indigenous Engagement: Location 3 (AfHi-532) and Location 4 (AfHi-533)	



LIST OF IMAGES

Image I: Grid Stakes Being Set ar	nd Recorded3	37
-	xcavation in Progress3	
Image 3: Location 3 (AfHj-532) E	xcavation in Progress3	38
Image 4: Location 3 (AfHj-532) T	ypical Unit Profile3	38
Image 5: Location 3 (AfHj-532) T	ypical Unit Profile3	39
	ypical Unit Profile3	
Image 7: Location 3 (AfHj-532) P	lan View of Feature in 580N 285E:I4	10
Image 8: Location 4 (AfHj-533) E	xcavation in Progress4	10
Image 9: Location 4 (AfHj-533) E	xcavation in Progress ²	1 I
Image 10: Location 4 (AfHj-533)	Excavation in Progress2	4 I
• • • • • • • • • • • • • • • • • • • •	Typical Unit Profile4	
	Typical Unit Profile4	
	Typical Unit Profile4	
• • • • • • • • • • • • • • • • • • • •	Plan View of Layer 2 in unit 725N 315E:1	
	Plan View of Features in 710N 370E:14	
	Plan View of Features in 715N 370E:1	
	Plan View of Features in 720N 350E:1	
	Plan View of Feature in 725N 320E:1	
	Plan View of Features in 725N 350E:1	
	Plan View of Features in 725N 380E:1	
• • • • • • • • • • • • • • • • • • • •	Plan View of Features in 730N 355E:1	
\ , , /	Plan View of Feature in 735N 345E:14	
	Plan View of Features in 735N 350E:14	
- , , ,	Plan View of Feature in 740N 330E:14	
•	over Feature	
	Lithic Tools5	
	Indigenous Ceramic Fragments (cat 70)5	
` ' '	Projectile Points5	
` ' '	Bifaces5	
` ' '	Other Lithics5	
` ', '	Vessel A (cat 227, 228 and 229)5	
Image 32: Location 4 (AfHj-533)	Pipe Fragments5	55



LIST OF MAPS

Map 1: Location of the Subject Property in the City of London, ONON	57
Map 2: Aerial Photograph Showing the Location of the Subject Property	
Map 3: Physiography Within the Vicinity of the Subject Property	
Map 4: Soils Within the Vicinity of the Subject Property	60
Map 5: Drainage Within the Vicinity of the Subject Property	
Map 6: Previous Assessment Results	
Map 7: Location of the Subject Property Shown on the 1862 Tremaine Map	63
Map 8: Location of the Subject Property on an 1878 Map of Middlesex County	64
Map 9: Location 3 (AfHj-532), Stage 2 and 3 Assessment Results: Artifact Distribution	
Map 10: Location 3 (AfHj-532), Stage 2 and 3 Assessment Results: Formal Tools	66
Map 11: Location 4 (AfHj-533), Stage 2 and 3 Assessment Results: Artifact Distribution by Layer	67
Map 12: Location 4 (AfHj-533), Stage 2 and 3 Assessment Results: Formal Tools	
Map 13: Location 4 (AfHj-533), Stage 4 Recommendations	69
Table I: Registered Archaeological Sites within I km of the Subject Property	
Table 1: Registered Archaeological Sites within 1 km of the Subject Property	4
Table 2: Dates of Fieldwork, Weather Conditions and Field Director	
Table 3: Cultural Chronology for Indigenous Settlement in Middlesex County	
Table 4: Location 3 (AfHj-532), Stage 3 Artifact Summary	15
Table 5: Location 3 (AfHj-532), Stage 3 Chipping Detritus	16
Table 6: Location 3 (AfHj-532), Stage 3 Lithic Tool Metrics	16
Table 7: Location 3 (AfHj-532), Stage 3 Documentary Records	17
Table 8: Location 4 (AfHj-533), Feature Metrics	18
Table 9: Location 4 (AfHj-533), Post Metrics	19
Table 10: Location 4 (AfHj-533), Stage 3 Artifact Summary	
Table 11: Location 4 (AfHj-533), Chipping Detritus	21
Table 12: Location 4 (AfHj-533), Projectile Point Metrics	
Table 13: Location 4 (AfHj-533), Biface Metrics	
Table 14: Location 4 (AfHj-533), Drills, Gravers, Perforators and Wedges Metrics	
Table 15: Location 4 (AfHj-533), Rim Fragment Metrics	
Table 16: Location 4 (AfHi-533). Documentary Records	26



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Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

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TMHC would like to acknowledge the assistance of:

Paul Van Bree, Partner of SLD Group Inc.



TERRITORIAL ACKNOWLEDGEMENT

The project area is encompassed by the Longwoods Treaty No. 21 which was originally signed March 9, 1819 between the British Crown and the Chippewa Nation. This earliest treaty was considered provisional and negotiations continued through two more agreements: Treaty No. 280 ½ and Treaty No. 25. Treaty No. 25 is considered the confirmatory treaty for the area (Canada 1891a, 1891b). Chippewas of the Thames First Nation was the sole Indigenous nation signatory of the Longwoods Treaty. This land continues to be home to diverse Indigenous peoples (e.g., First Nations, Métis and Inuit) whom we recognize as contemporary stewards of the land and vital contributors of our society.



INDIGENOUS PARTICIPANTS

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ABOUT TMHC

Established in 2003, with a head office in London, Ontario, TMHC provides a broad range of archaeological assessment heritage planning and consultation services throughout the Province of Ontario, founded on over forty years of progressive and responsible experience. We provide consulting services for Indigenous communities, municipal heritage planning and training, public outreach and educational programs, and have established specialties in community engagement, cemetery investigations, faunal analysis and ground penetrating radar surveys. Since TMHC's inception, we have evolved with the needs of our clients, the demands of the regulatory environment, and the growth in the industry.

Since 2004, TMHC has held retainers with Infrastructure Ontario (formerly the Ontario Realty Corporation), Hydro One, the Ministry of Transportation and the City of Hamilton. Presently, TMHC was successfully added to the Infrastructure Ontario, Ministry of Transportation, Hydro One, Metrolinx, and Niagara Parks retainers. In addition, TMHC has successfully managed a wider variety of highly sensitive, large, and complicated projects and have a proven track record in successfully managing and navigating them to completion. In 2013, TMHC earned the Ontario Archaeological Society's award for Excellence in Cultural Resource Management.

KEY STAFF BIOS

Matthew Beaudoin, PhD., Principal, Manager - Archaeological Assessments

Matthew Beaudoin received a Ph.D. in Anthropology from Western University in 2013 and became a Principal at TMHC in 2019. During his archaeological career, Matthew has conducted extensive field research and artifact analysis on Indigenous and Settler sites from Labrador and Ontario. In addition, Matthew has also conducted ethnographic projects in Labrador. Since joining TMHC in 2008, Matthew has been involved with several notable projects, such as the Imperial Oil's Waterdown to Finch Project, the Camp Ipperwash Project, and the Scugog Island Natural Gas Pipeline Project.

Matthew is an active member of the Canadian Archaeological Association, the Ontario Archaeological Association, the Ontario Historical Society, the World Archaeology Congress, the Council for Northeastern Historical Archaeology, the Society for American Archaeology, and the Society for Historical Archaeology.



STATEMENT OF QUALIFICATIONS AND LIMITATIONS

The attached Report (the "Report") has been prepared by TMHC Inc. (TMHC) for the benefit of the Client (the "Client") in accordance with the agreement between TMHC and the Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations and conclusions contained in the Report (collectively, the "Information"):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations");
- represents TMHC's professional judgment in light of the Limitation and industry standards for the preparation of similar reports;
- may be based on information provided to TMHC which has not been independently verified;
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued;
- must be read as a whole and sections thereof should not be read out of such context; and
- was prepared for the specific purposes described in the Report and the Agreement.

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This Statement of Qualifications and Limitations is attached to and forms part of the Report and any use of the Report is subject to the terms hereof.



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Principal/Manager of Archaeological Assessment



I PROJECT CONTEXT

I.I Development Context

I.I.I Introduction

A Stage 3 archaeological assessment has been conducted for two sites for a proposed development in the community of Strathroy, Ontario. The property is irregularly shaped and located within part of Lots 19 and 20, Concession 4 South of Egerton Road (SER) in the Geographic Township of Adelaide, Middlesex County, Ontario. The property is roughly 35.0 ha (86.5 ac) in size and consists of ploughed agricultural fields, grassed and overgrown areas, a channelized drain and manicured lawn fronting Albert Street. TMHC Inc. (TMHC) was contracted by SLD Group Inc. to carry out the assessment, which was conducted in accordance with the provisions of the *Planning Act* (R.S.O. 1990) and *Provincial Policy Statement* (2020).

A Stage I and 2 archaeological assessment was conducted in 2020 (TMHC 2020) to determine whether there were archaeological resources present within the subject property. The Stage I-2 assessment identified 2I archaeological sites, including Location 3 (AfHj-532) and Location 4 (AfHj-533) which were recommended for further Stage 3 testing. A Stage 3 assessment was subsequently carried out for Location 3 (AfHj-532) and Location 4 (AfHj-533) in October and November 2021 as part of the phased development process. The purpose of the Stage 3 assessment was to inform and determine the need for Stage 4 Strategies. This report provides the results of the Stage 3 assessments.

All archaeological assessment activities were performed under the professional archaeological license of Matthew Beaudoin, Ph.D. (P324) and in accordance with the Standards and Guidelines for Consultant Archaeologists (MTC 2011, "Standards and Guidelines"). Permission to enter the property and carry out all required archaeological activities, including collecting artifacts when found, was given by Paul Van Bree of SLD Group Inc.



1.1.2 Purpose and Legislative Context

The Ontario Heritage Act (R.S.O. 1990) makes provisions for the protection and conservation of heritage resources in the Province of Ontario. Heritage concerns are recognized as a matter of provincial interest in Section 2.6.2 of the Provincial Policy Statement (PPS 2020) which states:

development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.

In the PPS, the term conserved means:

the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment and/or heritage impact assessment that has been approved, accepted or adopted by the relevant planning authority and/or decision-maker. Mitigative measures and/or alternative development approaches can be included in these plans and assessments.

Sections 2 (d) and 3.5 of the *Planning Act* (R.S.O. 1990) stipulate that municipalities shall have regard for their conservation of features of significant architectural, cultural, historical, archaeological or scientific interest. Therefore, the purpose of a Stage I background study is to determine if there is potential for archaeological resources to be found on a property for which a change in land use is pending. It is used to determine the need for a Stage 2 field assessment involving the search for archaeological sites. In accordance with *Provincial Policy Statement* 2.6, if sites of further cultural heritage value or interest are found, a strategy (usually avoidance, preservation or excavation) must be put forth for their mitigation.



1.2 Project Context: Archaeological Context

1.2.1 Subject Property: Overview and Physical Setting

The subject property is located in the western periphery of the community of Strathroy and measures approximately 35.0 ha (86.5 ac) in size. It comprises part of Lots 19 and 20, Concession 4 SER in the Geographic Township of Adelaide, Middlesex County, Ontario (Maps I and 2). The property consists of ploughed agricultural fields, grassed and overgrown areas, a channelized drain and manicured lawn fronting Albert Street. The subject property is bounded to the south by Albert Street (also known as County Road 39), existing residential development and the Strathmere Lodge long term care home, on the east by existing residential structures, on the west and north by agricultural fields.

The subject property falls within the Caradoc Sand Plains (and London Annex) physiographic region, as defined by Chapman and Putnam (1984:146; Map 3). The Caradoc Sand Plains are characterized by light-textured, waterlain deposits that were laid down as a delta within an extensive spillway associated with what is now the Thames River (Chapman and Putnam 1984:146). For the most part, the lands within the Caradoc Sand Plain are level except near Strathroy and Mount Brydges where numerous low knolls and ridges are characteristic.

Three soil types are present within the subject property, from north to south they are Perth silty clay loam, Waterin loamy fine sand and Walsingham loamy fine sand (Map 4). Perth silty clay loam is a moderately well to imperfectly drained soil developed on glacial till deposits from Lake Huron (Hagerty and Kingston 1992:24). Waterin loamy fine sand is a poorly drained soil developed on eolian deposits. It is associated with the drain that runs through the subject property. Walsingham loamy fine sand, a rapid- to imperfectly-draining soil developed on eolian deposits (Hagerty and Kingston 1992:25).

The subject property falls within the Sydenham River watershed and its tributaries drain the general vicinity (Map 5). The subject property includes a relic water channel, now partially channelized called the Cable Drain Extension, which runs northeast to southwest through the center of the property. This drain flows into the Sydenham River, which at its closest point is approximately 600 m southeast of the subject property.



1.2.2 Summary of Registered or Known Archaeological Sites

According to PastPortal (accessed October 20, 2021) there are ten registered archaeological sites within I km of Location 3 (AfHj-532) and Location 4 (AfHj-533) (Table I). Six sites are identified as Indigenous, three are identified as I9th-century homesteads, and one is a multi-component Indigenous and I9th-century site. The sites listed below in bold are located within the subject property and were identified during the Stage I-2 assessment.

Table 1: Registered Archaeological Sites within 1 km of the Subject Property

Borden Number	Site Name	Time Period	Affinity	Site Type	Status
AfHj-114	Wooley	Middle Archaic	Indigenous	-	No Further CHVI
AfHj-134	Holden Site	Post-Contact	19 th Century	Homestead	No Further CHVI
AfHj-520	Strathroy Location 2	Post-Contact, Pre-Contact	-	Unknown, Farmstead	No Further CHVI
AfHj-532	Location 3	Pre-Contact	Indigenous	Unknown	Further CHVI
AfHj-533	Location 4	Woodland	Indigenous	Unknown	Further CHVI
AfHj-534	Location 10	Woodland	Indigenous	Unknown	Further CHVI
AfHj-535	Location 15	Pre-Contact	Indigenous	Scatter	No Further CHVI
AfHj-536	Location 17	Woodland	Indigenous	Unknown	Further CHVI
AfHj-537	Location 2	Post-Contact	19 th Century	Homestead	No Further CHVI
AfHj-538	Location 12	Post-Contact	19 th Century	Homestead	Further CHVI



1.2.3 Summary of Past Archaeological Investigations within 50 m

During the course of this study, five previous archaeological investigations within 50 m of the project area were identified (Map 6). However, it should be noted that the MHSTCI currently does not provide an inventory of archaeological assessments to assist in this determination.

1.2.3.1 Stage 1, 2 and 3 Archaeological Assessment - The Wooley/Healy Subdivision - Archaeologix 2003a and 2003b

In 2003, Archaeologix conducted a Stage I & 2 archaeological assessment for a 5-ac subdivision on part of Lot 19, Concession 4 S.E.R. The Stage 2 assessment consisted of pedestrian survey at a 5 m interval. One archaeological site (AfHj-II4) was identified during the assessment, consisting of a 10 by 20 m scatter of 10 pieces of chipping detritus. AfHj-II4 was recommended for Stage 3 assessment.

The Stage 3 assessment consisted of a controlled surface pickup (CSP) and the excavation of 16 1 m² units. The Stage 3 assessment resulted in the collection of 278 pieces of chipping detritus. Unit counts ranged from zero to 130 artifacts. Based on the quantity of artifacts recovered, AfHj-114 was recommended for Stage 4 mitigation. The results of the Stage 1, 2 and 3 archaeological assessment are presented in a report entitled Archaeological Assessment (Stage 1, 2 & 3), The Wooley/Healy Subdivision, Part of Lot 19, Concession 4 S.E.R, Geo. Twp. Of Adelaide, Middlesex County, Ontario (Archaeologix 2003a; Licensee Jim Wilson, PIF# P001-0028-2003 and P001-0031-2003).

1.2.3.2 Stage 4 Archaeological Assessment - The Wooley/Healy Subdivision - Archaeologix 2003b

Also in 2003, Archaeologix conducted the Stage 4 excavation of AfHj-114. A total of 159 1 m² unit were excavated, which resulted in the collection of 5,275 artifacts. The Stage 4 assemblage consisted of 5,238 pieces of chipping detritus, three projectile points, 11 bifaces, one drill, 17 utilized flake, one celt fragment, one core and two faunal remains. Two cultural features were also documented in the centre of the excavation block. The site is interpreted as a multi-component activity area or campsite that dates from the Middle Archaic Period (3500-2500 BC) to Middle Ontario Iroquoian period (1330-1400 AD). The results of the Stage 4 mitigation are presented in a report entitled Archaeological Assessment (Stage 4), Wooley Site (AfHj-114), The Wooley/Healy Subdivision, Part of Lot 19, Concession 4 S.E.R, Geo. Twp. Of Adelaide, Middlesex County, Ontario (Archaeologix 2003b; Licensee Jim Wilson, PIF# P001-0062-2003).

1.2.3.3 Archaeological Assessment of Former Strathmere Lodge – Archaeological Consultants and Contractors 2009a, 2009b, 2011

In 2009, Archaeological Consultants and Contractors (ACC) conducted a Stage I & 2 archaeological assessment of the former Strathmere Lodge property on Lot 19, Concession 4 South of Egremont Road in the Municipality of Strathroy-Caradoc. The Stage I assessment resulted in the documentation of one historic structure on the property, as well the use of the property as the County of Middlesex House of Refuge built in 1880. The Stage 2 assessment consisted of test pitting at a 5 m interval, followed by stripping of 16 test trenches to look for undocumented burials on the property. Two archaeological sites were identified during the Stage 2 assessment: an isolated piece of chipping detritus and a mid-19th century site (AfHj-134). AfHj-134 consisted of 13 artifacts from eight test pits. The site dated to the early to mid-19th century and was recommended for Stage 3 assessment. Following the test pit survey 16 test trenches were excavated across the subject property to look for deeply buried archaeological remains under building footprints and undocumented burials. No deeply buried archaeological remains or burials were documented during the test trenching. The results of the Stage I-2 assessment are presented in a report entitled *Stage I and 2*



Archaeological Resource Assessment of Part of Lot 19, Concession 4 South of Egremont Road (Former Strathmere Lodge), Township of Adelaide, Regional Municipality of Strathroy-Caradoc, County of Middlesex, Strathroy, Ontario. (ACC 2009a; Licensee George Clark, PIF# P120-088-2009).

Also in 2009, ACC conducted the Stage 3 assessment of AfHj-134. The Stage 3 assessment consisted of the excavation of 36 units across the site with a total of 77 artifacts collected, including ceramic tableware and architectural artifacts. The site dates between 1830 to 1880 based on the artifacts recovered and relates to the occupation of the Holden family. The results of the Stage 3 assessment are presented in a report entitled Stage 3 Archaeological Assessment of the Holden Site (AfHj-134), Part of Lot 19, Concession 4 South of Egremont Road (Former Strathmere Lodge), Township of Adelaide, Regional Municipality of Strathroy-Caradoc, County of Middlesex, Strathroy, Ontario. (ACC 2011; Licensee George Clark, PIF# P120-095-2009).

The Stage 4 mitigation of AfHj-134 involved the block excavation of 267 units followed by mechanical topsoil removal. Two features were identified during the Stage 4 assessment. Feature 1 was interpreted as a root cellar based on its size and shape. Feature 2 was interpreted as a pit feature based on its size and shape. A total of 2,336 artifacts were collected during the Stage 4 and the majority of artifacts were ceramic tableware, bottle glass and architectural artifacts. Based on the artifacts recovered the site dates from 1830 to 1850. The results of the Stage 4 mitigation are presented in a report entitled Stage 4 Archaeological Investigation of the Holden Site (AfHj-134), Part of Lot 19, Concession 4 South of Egremont Road (Former Strathmere Lodge), Township of Adelaide, Regional Municipality of Strathroy-Caradoc, County of Middlesex, Strathroy, Ontario. (ACC 2009b; Licensee George Clark, PIF# P120-096-2009).

1.2.3.4 Stage I & 2 Archaeological Assessment Strathroy Development Application – AECOM 2016a

In 2015, AECOM conducted a Stage 1 & 2 archaeological assessment for an approximately 61 ac land development application in the Town of Strathroy within part of Lot 20, Concession 4 SER. The Stage 2 assessment consisted of pedestrian survey and test pitting at a 5 m interval. Three archaeological sites were identified during the assessment: Location 1, AfHj-520 and Location 3. Location 1 consisted of seven lithic artifacts (six pieces of chipping detritus and one projectile point). AfHj-520 is a multicomponent mid to late 19th century and Indigenous site consisting of 17 historic ceramics sherds, 16 pieces of glass, two pieces of recent material, 12 pieces of chipping detritus and one biface. AfHj-520 was recommended for Stage 3 assessment. Location 3 consisted of eight pieces of chipping detritus, one projectile point and one scraper. Location 1 and 3 were not recommended for further assessment. The results of the Stage 1 and 2 archaeological assessment are presented in a report entitled Stage 1-2 Archaeological Assessment Strathroy Development Application, Part of Lot 20, Concession 4 S.E.R., Geographic Township of Adelaide, now the Municipality of Strathroy-Caradoc, Middlesex County, Ontario (AECOM 2016a; Licensee Samantha Markham, PIF# P438-0038-2015).

1.2.3.5 Stage 3 Archaeological Assessment Strathroy Development Application – AECOM 2016b

Later in 2015, AECOM conducted the Stage 3 assessment of AfHj-520, consisting of a CSP and excavation of 48 I m² units. The Stage 3 assessment resulted in the collection of 1,628 late 19th and 20th century material, 48 faunal remains and 21 Indigenous artifacts. The majority of artifacts were glass (n=658), followed by structural (n=538), metal (n=185), ceramics (n=123). The majority of artifacts post-dated 1880 and a significant amount of mid-20th century artifacts and modern material were also recovered. The Indigenous artifacts consisted of 21 pieces of chipping detritus. Due to its late 19th century to 20th century date, the site was not recommended for Stage 4 mitigation. The results of the Stage I and 2 archaeological assessments are presented in a report entitled Stage 3 Archaeological Assessment Strathroy Development Application, Strathroy Location 2 (AfHj-520), Part



of Lot 20, Concession 4 S.E.R., Geographic Township of Adelaide, now the Municipality of Strathroy-Caradoc, Middlesex County, Ontario (AECOM 2016b; Licensee Samantha Markham, PIF# P438-0053-2015).

1.2.3.6 Stage 1-2 Archaeological Assessment Proposed Development Parts 1-15, Plan 33R-19731 – TMHC Inc. 2020

In 2020, TMHC Inc. conducted a Stage I-2 Assessment for the proposed development of Parts I-15 of Plan 33R-1973I for a 35-hectare development in Strathroy, within Part of Lots I9 and 20, Concession 4 SER. The Stage 2 assessment consisted of pedestrian survey and test pit survey. Twenty-one archaeological sites were identified during the assessment, five of which were recommended for further assessment. These include Location 3 (AfHj-532), Location 4 (AfHj-533), Location I0 (AfHj-534), Location I2 (AfHj-535) and Location I5 (AFHj-535). The results of the Stage I and 2 archaeological assessments are presented in a report entitled *Proposed Development Parts I-15, Plan 33R-1973 I Part of Lots 19 and 20, Concession 4 SER Geographic Township of Adelaide Now the Municipality of Strathroy-Caradoc Middlesex County, Ontario.* (TMHC 2020, Licensee Jim Sherratt, PIF# P074-0078-2021).

1.2.4 Dates of Archaeological Fieldwork

The Stage 3 fieldwork was conducted in October and November 2021, in varying weather conditions under the direction of Patryk Weglorz, M.Sc. (R1170) and Kelly Gostick, M.A. (R1189).

Table 2: Dates of Fieldwork, Weather Conditions and Field Director

Dates of Fieldwork	Weather Conditions	Field Director
October 26, 2021	Cool, mix of sun and cloud, sporadic rain	Weglorz (R1170)
October 27, 2021	Cool, mix of sun and cloud	Weglorz (R1170)
October 28, 2021	Cool, mix of sun and cloud	Weglorz (R1170)
November 2, 2021	Cool, mix of sun and cloud	Weglorz (R1170)
November 3, 2021	Cool, mix of sun and cloud	Weglorz (R1170)
November 4, 2021	Cool, mix of sun and cloud	Weglorz (R1170)
November 5, 2021	Cool and sunny	Weglorz (R1170)
November 8, 2021	Mild and sunny	Weglorz (R1170)
November 9, 2021	Cool and overcast	Gostick (R1189)
November 10, 2021	Cool and sunny	Weglorz (R1170)
November 12, 2021	Cool and sunny	Weglorz (R1170)



1.3 Project Context: Historical Context

1.3.1 Indigenous Settlement in Middlesex County

Our knowledge of Indigenous occupation of the general area is incomplete. Nevertheless, using province-wide and region-specific data, a generalized cultural chronology for Indigenous settlement in the area can be proposed (Table 3). A summary of the themes and temporal periods of occupation is provided below.

Table 3: Cultural Chronology for Indigenous Settlement in Middlesex County

	Period		Time Range	Diagnostic Features	Archaeological Complexes
Paleo	Early		9000 - 8400 B.C.	fluted projectile points	Gainey, Barnes, Crowfield
	Late		8400 - 8000 B.C.	non-fluted and lanceolate points	Holcombe, Hi-Lo, Lanceolate
A walaa i a	Early		8000 - 6000 B.C.	serrated, notched, bifurcate base points	Nettling
Archaic	Middle		6000 - 2500 B.C.	stemmed, side & corner notched points	Brewerton, Otter Creek, Stanly/Neville
	Late		2000 - 1800 B.C.	narrow points	Lamoka
	Late		1800 - 1500 B.C.	broad points	Genesee, Adder Orchard, Perkiomen
			1500 - 1100 B.C.	small points	Crawford Knoll
	Terminal		1100 - 950 B.C.	first true cemeteries	Hind
	Early		950 - 400 B.C.	expanding stemmed points, Vinette pottery	Meadowood
	Middle		400 B.C A.D. 500	dentate, pseudo- scallop pottery	Saugeen/Couture
Woodland	Transitional		A.D. 500 - 900	first corn, cord- wrapped stick pottery	Princess Point/Riviere au Vase
	Late	Early	A.D. 900 - 1300	first villages, corn horticulture, longhouses	Glen Meyer/Younge
	Late	Middle	A.D. 1300 - 1400	large villages and houses	Uren, Middleport/Springwells
		Late	A.D. 1400 - 1650	tribal emergence, territoriality, first Europeans	Neutral Iroquois/Wolf
Contact		Indigenous	A.D. 1700 - present	treaties, mixture of Indigenous & Settler items	Chippewa, Ojibway, Oneida, Delaware
		Settler	A.D. 1796 - present	Settler goods, homesteads	European settlement, pioneer life



I.3.1.1 Paleo Period

The first human populations to inhabit the area came to the region between 12,000 and 10,000 years ago, coincident with the end of the last period of glaciation. Climate and environmental conditions were significantly different then they are today; local environs would not have been welcoming to anything but short-term settlement. Ontario first peoples would have crossed the landscape in small groups (i.e. bands or family units) searching for food, particularly migratory game species. In the area, caribou may have provided the staple of Paleo diet, supplemented by wild plants, small game, birds and fish.

Given the low density of populations on the landscape at this time and their mobile nature, Paleo sites are small and ephemeral. They are sometimes identified by the presence of fluted projectile points manufactured on a highly distinctive white-gray chert named "Fossil Hill" after the geological formation, or "Collingwood." Located near the escarpment on "Blue Mountain," this source was exploited by populations from as far south as the London area, who would have traveled here as part of their seasonal round.

I.3.I.2 Archaic Period

The archaeological record of early Indigenous life in Southern Ontario indicates a change in lifeways beginning circa 8000 B.C. at the start of what archaeologists call the Archaic Period. The Ontario populations are better known than their Paleo predecessors, with numerous sites found throughout the area. The characteristic projectile points of early Archaic populations appear similar in some respects to early varieties and are likely a continuation of early trends. Archaic populations continued to rely heavily on game, particularly caribou, but diversified their diet and exploitation patterns with changing environmental conditions. A seasonal pattern of warm season riverine or lakeshore settlements and interior cold weather occupations has been documented in the archaeological record. Since the large cold weather mammal species that formed the basis of the Paleo subsistence pattern became extinct or moved northward with the onset of warmer climate, Archaic populations had a more varied diet, exploiting a range of plant, bird, mammal and fish species. Reliance on specific food resources like fish, deer and nuts becomes more pronounced through time and the presence of more hospitable environs and resource abundance led to the expansion of band and family sizes. In the archaeological record, this is evident in the presence of larger sites and aggregation camps, where several families or bands would come together in times of resource abundance. The change to more preferable environmental circumstances led to a rise in population density. As a result, Archaic sites are more abundant than those from the earlier period. Artifacts typical of these occupations include a variety of stemmed and notched projectile points, chipped stone scrapers, ground stone tools (e.g., celts, adzes) and ornaments (e.g., bannerstones, gorgets), bifaces or tool blanks, animal bone and waste flakes, a by-product of the tool making process.

1.3.1.3 Early, Middle and Transitional Woodland Periods

Significant changes in cultural and environmental patterns are witnessed in the Woodland Period (circa 950 B.C to historic times). The coniferous forests of earlier times were replaced by stands of mixed and deciduous species. Occupations became increasingly more permanent in this period, culminating in major semi-permanent villages by I,000 years ago. Archaeologically, the most significant changes by Woodland times are the appearance of artifacts manufactured from modeled clay and the construction of house structures. The Woodland Period is often defined by the occurrence of pottery, storage facilities and residential areas similar to those that define the incipient agricultural or Neolithic period in Europe. The earliest pottery was rather crudely made by the coiling method and house structures were simple enclosures.



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

Early and Middle Woodland peoples are also known for a well-developed burial complex and ground stone tool industry. Unique Early Woodland ground stone items include pop-eyed birdstones and gorgets. In addition, there is evidence of the development of widespread trading with groups throughout the northeast. The recovery of marine shells from the Lake Superior area indicates that exchanges of exotic materials and finished items from distant places were common place.

1.3.1.4 Late Woodland Period

During the Late Woodland Period, much of Southwestern Ontario was occupied by two groups: Iroquoians and what are thought by archaeologists to be Algonquin speaking populations (the term "Western Basin Tradition" has been used to describe this cultural complex). In the east, the Iroquoian occupants were the Attawandaron or Neutral Nation, a tribal group described by European missionaries and whose historic homeland was significantly further east. Like other known Iroquoian groups including the Huron (Wendat) and Petun (Tionontati), the Attawandaron practiced a system of intensive horticulture based on three primary subsistence crops (corn, beans and squash). Their villages incorporated a number of longhouses, multi-family dwellings that contained several families related through the female line. The Jesuit Relations describe several Neutral centres in existence in the 17th century, including a number of sites where missions were later established. While precontact Neutral sites may be identified by a predominance of well-made pottery decorated with various simple and geometric motifs, triangular stone projectile points, clay pipes and ground stone implements, sites post-dating European contact are recognized through the appearance of various items of European manufacture. The latter include materials acquired by trade (e.g., glass beads, copper/brass kettles, iron axes, knives and other metal implements) in addition to the personal items of European visitors and Jesuit priests (e.g., finger rings, stoneware, rosaries, glassware). The Neutral were dispersed and their population decimated by the arrival of epidemic European diseases and inter-tribal warfare. Many were adopted into other Iroquoian communities.

Archaeologists have also documented the in-situ development of Late Woodland archaeological traditions from Middle Woodland precedents that are believed to have an Algonquin cultural origin, quite distinct from Iroquoian populations who lived to the east. The archaeological record of these groups has been labeled the "Western Basin Tradition." During the Late Woodland period complex settlements are characteristic of these people and, at their peak, are characterized by fortified villages containing large, likely extended family, structures. Some of the villages are surrounded by earthworks. There is evidence for the cultivation of corn and beans by roughly A.D. 900. The pottery traditions of these people varied significantly from those of their Iroquoian neighbors. Early vessels, called Wayne ware, are small, thin-walled pots covered with vertical cord marking and tool impressions. Vessels become more elaborate through time, incorporating multiple bands of tool impressions, castellated rims and incised decoration. Late pottery is characteristically bag-shaped and often incorporates dentate stamping as well as appliqué strips and strap handles, similar to some Mississippian tradition pottery. As was not the case with much Iroquoian pottery, clay fabrics were mixed with shell temper.



1.3.2 Treaty History

The subject property is encompassed by the Longwoods Treaty No. 21 which was originally signed March 9, 1819 between the British Crown and the Chippewa Nation. This earliest treaty was considered provisional and negotiations continued through two more agreements: Treaty No. 280 ½ and Treaty No. 25. Treaty No. 25 is considered the confirmatory treaty for the area (Canada 1891a, 1891b). The Chippewas of the Thames First Nations was the sole Indigenous nation signatory of the Longwoods Treaty.

Two reserves were set aside as part of the Longwoods Treaty. The existing reserve at Delaware and, what was referred to as the Big Bear Reserve along the Sydenham River. Big Bear had been the location of a Chippewa village that had relocated from the lower Thames in the late-18th century (Ferris 2009). The Crown, however, mistakenly sold the Big Bear Reserve and the remaining Big Bear families moved to the Chippewas of the Thames reserve at Delaware in 1832 (Curnoe 1996:18-19; Ferris 2009; Jones 1860,1861). It was not until 2013, that the Government of Canada compensated the Chippewas of the Thames for this mistake with a settlement worth over \$119 million (COTTFN 2019).

1.3.3 Nineteenth-Century and Municipal Settlement

The subject property is situated within part of Lots 19 and 20, Concession 4 South Egerton Road in the Geographic Township of Adelaide, Middlesex County, Ontario. A brief discussion of early 19th century settlement in this area is provided below, together with a consideration of features that would otherwise indicate historic era archaeological potential.

It was Lieut.-Governor John Graves Simcoe who first drew attention to the bounties of the wilderness that is now Middlesex County. On his journey to Detroit from Niagara, Simcoe came to admire the countryside, stopping at such places as Westminster Ponds and Munceytown. In fact, Simcoe was so taken by the Thames River and its environs that he aspired to establish the capital of Canada here. Although Simcoe's vision was never realized, the Thames River attracted settlement early in the 19th century.

1.3.3.1 Adelaide Township

Adelaide Township was surveyed by Peter Carroll in 1832 (ATHG 2001:6). Settlement began shortly thereafter, with the influx of families of largely Irish and British descent (ATHG 2001:7). The settlement of the township was assisted by the efforts of the Petworth Emigration Society, operating from Petworth Parish in England. Faced with poverty from unemployment, over population and industrialization, English families were prompted by the Society to emigrate to Canada and take advantage of the Earl of Egremont's generous offer to pay all travel expenses (ATHG 2001:8). The earliest community in the township was Adelaide Village on the Egremont Road (H.R. Page & Co. 1878:11). The construction of Egremont Road (Highway 22) was an important event in the settlement of the township and the establishment of the community of Strathroy. The road was built in 1832 and connected London and Sarnia (Campbell 1990:5).

1.3.3.2 Town of Strathroy

One of the first settlers in what was to become the Town of Strathroy was John Buchanan, an Irishman who received the deed for 12,000 acres of pine forest along the Sydenham River (or Bear Creek as they called it then). In 1832, Buchanan earned both landholding and water rights for the parcel and used this to his advantage when he built a small sawmill and tannery on Lot 23, Concession 4 (now the St. Clair Conservation Area on Head Street). In so doing, he established the earliest industries in the town. In 1836, Buchanan went



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

on to erect a grist mill. By 1840, 14 people had settled near Buchanan's mill sites and Hiram Dell, another early town resident, opened the town's first store in the same area (Campbell 1990:6). By 1848, this small community also included a tavern, blacksmith shop, shoe shop and post office (Campbell 1990:7). Within two years, the town's industries grew to include a steam carding machine, tannery, distillery, wagonry and coopery (Campbell 1990:8). The population of Strathroy grew with the construction of the Sarnia branch of the Great Western Railway in 1856 (now called the Canadian Railroad) (H.R. Page & Co. 1878:9) and led to a growth in population to 758 people by 1859 (Campbell 1990:10). In 1860, Strathroy earned village status and in 1871 it was incorporated as a town, with Mr. James D. Dewan as its first mayor (H.R. Page & Co. 1878:9).

The subject property, located on part of Lots 19 and 20, Concession 4 SER, is depicted on the 1862 map of Adelaide Township as being located west of the Town of Strathroy (Map 7). By this time Lot 19 has been divided into four smaller parts, with James Holden located on the southeastern portion and Thomas Holden on the northeastern portion. No structures are located on either portion of this lot. Lot 20 is divided into two portions, with Richard Saul on the larger western portion. A structure labelled Appleby House is located in the western portion of Lot 20, just outside of the subject property. A watercourse is present running through Lots 19 and 20, roughly in the same location as the modern Cable Drain Extension. Albert Street and Pike Road are depicted as open at this time.

The 1878 map of Adelaide Township shows numerous changes to Lots 19 and 20, Concession 4 SER (Map 8). J. Holden is still shown on the southeast portion of the lot, but it has been further subdivided, with three smaller lots fronting Albert Street. A structure and orchard are shown on this portion of the lot, just west of the subject property. Rebecca Mann is shown on the northeast portion of Lot 19, with a structure and orchard located at the northern portion of the lot within the subject property. Another structure and orchard are present within a smaller lot fronting Albert Street, but no name is shown associated with this smaller lot.

At this time Lot 20 has been further divided, with W. Armstrong depicted on the western most portion and William Saul on the central portion of the lot within the subject property. A structure and orchard are present within the portion associated with William Saul fronting Albert Street. This structure is not in the same location as the 1862 map, which could be a mapping error or indicating that it is a new structure. Just east of the subject property the lot has been further subdivided, with multiple lots and new streets present. An unnamed street is depicted bisecting the centre of Lots 19 and 20 within the subject property, but this street was never constructed. The watercourse running through Lots 19 and 20 is still present at this time, also in the same location as the modern Cable Drain Extension. Albert Street and Pike Road are still shown as open at this time.



2 FIELD METHODS

The Stage 2 site locations were re-identified through GPS coordinates, landscape features, and details and information provided in the Stage 2 field notes and mapping. All fieldwork was undertaken in good weather and lighting conditions. No conditions were encountered that would hinder the identification or recovery of artifacts.

Grid stakes were established in the vicinity of the Stage 2 artifact locations at both sites using a high precision E-Survey E-600 GPS/Glonass Network Rover unit and measuring tapes (Image I). Grid stakes were used to mark 5 m intervals along the east-west and north-south transect lines. Each 5 m by 5 m grid unit was assigned a unique alphanumeric identifier based on north and east grid references of the southwest corner. Each 5 m grid unit was then subdivided into 25 individual I m² units that were given sub-unit designations of I to 25 working sequentially from west to east along each row, then moving northward (Appendix A).

Two site datums were established at Location 3 (AfHj-532) at 595N 250E and 565N 250E and two site datums were established at Location 4 (AfHj-533) at 745N 350E and 695N 350E. The locations of significant landscape and grid markers were recorded using an E-Survey E-600 GPS/Glonass Network Rover, a high precision survey unit that advertises subcentimetre accuracy.

The topsoil from each I m² unit was excavated by hand and passed through 6 mm hardware cloth; the same process was carried out for the first 5 cm of subsoil, although it was anticipated that subsoil excavations would cease if subsurface features were identified. Any features identified would be mapped and photographed, covered with geotextile and not excavated, with the unit containing the feature subsequently backfilled. Artifacts were bagged by I m provenience units and observed soil layer (when appropriate) and taken to the laboratory for processing. For each I m² unit, artifacts belonging to the same class were grouped and given a single catalogue number. When unit excavation was completed, the squares were backfilled. Photographs of representative Stage 3 units were also taken.

Map 9 – Map 12 present the results of Stage 3 testing, and include the distribution of lithic tool types and location of cultural features. Map 13 presents the Stage 4 recommendations for Location 4 (AfHj-533). The Stage 3 unit locations are shown within their broader geographic context on SD Map 1, and SD Map 2 shows the same results on proponent mapping.

2.1 Location 3 (AfHj-532)

Location 3 (AfHj-532) is a large Indigenous site with no confirmed cultural or temporal affiliation. A Stage 2 pedestrian survey and Stage 3 CSP were performed and resulted in the collection of 45 Indigenous lithic artifacts across 118 m (north-south) by 60 m (east-west), which consisted of 44 lithic artifacts and one faunal remain. The Stage 3 excavations followed the established strategy for large sites where it is not yet evident that the level of CHVI will result in a recommendation to proceed to Stage 4 mitigation (Table 3.1, MTC 2011:52). Typically, this involves the excavation of 1 m² units across a 10 m grid throughout the site, with an additional 40% of infill units placed in targeted areas of interest. This was conducted by excavating infill units on a 5 m grid in areas of high concentration where further information was required to make appropriate Stage 4 recommendations.

A total of 35 I m² units were excavated across a 125 m (north-south) by 70 m (east-west) site area encompassing the Stage 2 and Stage 3 CSP location (Images 2 and 3). Stage 3 units generally contained



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

between 17 and 40 cm of brown sandy loam topsoil over yellow sandy loam subsoil (Images 4, 5 and 6). One partial feature was uncovered in unit 580N 265E: I (Image 7). This feature has been photo-documented and drawn, and covered with geotextile fabric and backfilled. All units were backfilled upon completion.

2.2 Location 4 (AfHj-533)

Location 4 (AfHj-533) is a large Indigenous site with a Woodland Period affiliation. A Stage 2 pedestrian survey and Stage 3 CSP were performed and resulted in the collection of three Indigenous pottery sherds, and 76 Indigenous lithic artifacts across a 175 m (north-south) by 70 m (east-west) area. The Stage 3 excavations followed the established strategy for large sites where it is evident that the level of CHVI will result in a recommendation to proceed to Stage 4 mitigation (Table 3.1, MTC 2011:52). Typically, this involves the excavation of 1 m² units across a 10 m grid throughout the site, with an additional 40% of infill units placed in targeted areas of interest. This was conducted by excavating infill units on a 5 m grid in areas of high concentration where further information was required to make appropriate Stage 4 recommendations.

A total of 93 m² units were excavated across a 180 m (north-south) by 95 m (east-west) site area encompassing the Stage 2 and Stage 3 CSP locations (Images 8, 9 and 10). Stage 3 units generally contained between 20 and 56 cm of brown sandy loam topsoil over yellow sandy loam subsoil (Images 11, 12 and 13). Grey subsoil was noted along the western edge of Location 4 (AfHj-533), likely indicative of seasonal flooding associated with the cable drain located within the subject property. A second layer was noted in unit 725N 315E:1 which contained 42 artifacts. Layer 2 is located approximately 20 cm below the surface and is 24 cm thick (Image 13). It is a dark brown, mottled layer containing Indigenous and modern 20th-century debris. The modern debris was not collected. This is the only location on the site a separate stratigraphic layer was encountered.

Fourteen sub-surface features and 14 posts were identified during the Stage 3 excavation (Images 15-24). All features were photo-documented and drawn, and covered with geotextile fabric and backfilled (Image 25). All units were backfilled upon completion.



3 RECORD OF FINDS

Two archaeological locations were evaluated during the Stage 3 assessment. A general description of each location and its findings are provided below. More precise information regarding the geographic location of each site is provided in the SD section of this report. Feature illustrations are presented in Appendix B, and complete artifact catalogs are presented in Appendix C and Appendix D. An artifact glossary is presented in Appendix E.

3.1 Location 3 (AfHj-532)

3.1.1 Location 3 (AfHj-532) Settlement Pattern

One feature was noted in the southeast corner of unit 580N 265E: I at 31 cm depth below surface. The feature is round on its visible edges, and the feature fill is a dark brown/black sandy loam. The use of this feature is unknown at this time, and will require further assessment to determine function.

3.1.2 Location 3 (AfHj-532) Artifact Assemblage

A total of 35 I m² units were excavated, resulting in the recovery of 145 Indigenous and two ecofacts. The Indigenous artifact assemblage consists of 140 pieces of chipping detritus, one scraper, one biface, and two fragmentary sherds of pottery (Table 4). A more detailed discussion of the artifact categories is below

Artifact % Lithics 97% 143 Chipping detritus 140 94.5 Scraper 2 1.5 **Biface** 2 1.5% **Ceramics** 2 1.5 Fragmentary Sherd **Ecofacts** 2 1.5% Fragment 2 1.5 TOTAL 147 100

Table 4: Location 3 (AfHj-532), Stage 3 Artifact Summary

3.1.2.1 Lithic Artifacts

The lithic collection recovered from Location 3 (AfHj-532) includes 140 pieces of chipping detritus, one scraper, and two bifaces. The detritus is made on Onondaga, Kettle Point, and unknown chert, and only one piece of shatter was identified as heat treated. Table 5 below further breaks down the collection of chipping detritus by type and material.



	F	lake Materia		
Flake Type	Kettle Point	Onondaga	Unknown	Total
Fragment	52	14	2	68
Secondary	38	13		5 I
Shatter	16	I		17
Primary	4			4
Total	110	28	2	140

Table 5: Location 3 (AfHj-532), Stage 3 Chipping Detritus

The chipping detritus assemblage from Location 3 (AfHj-532) is comprised primarily of flake fragments (n=61; 48.5%), and secondary flakes (n=51; 36.5%), followed by a small collection of shatter, and four primary flakes. This is typical of lithic assemblages where the intermediate stages of the reduction sequence are taking place on site.

Three lithic tools were collected from Location 3 (AfHj-532) including two biface fragments and one complete scraper (Image 26). Metrics are presented in Table 6 below.

Cat	Context	Artifact	Material	L (mm)	W (mm)	Th (mm)
59	585N 260E:I	Biface Fragment	Kettle Point	n/a	n/a	6. 4 6
78	575N 265E:I	Scraper	Kettle Point	19.57	17.98	7.74
89	595N 265E:I	Biface Fragment	Onondaga	n/a	21.15	7.96

Table 6: Location 3 (AfHj-532), Stage 3 Lithic Tool Metrics

The first biface (cat. 59) is a small fragment of the top of a tool. It is made of Kettle Point chert. The second biface (cat. 89) consists of the lateral edge, notch and basal tang of a partially finished biface or projectile point. The lateral edge is straight, the notch is wide and the base is expanding with a slightly convex basal shape. There may have been a larger tang on the portion of the base present, that has been broken off. The biface is biconvex in cross-section and the flaking pattern is rough and inconsistent.

The scraper (cat. 78) recovered is made of Kettle point chert. It is worked on the dorsal surface on the left lateral and distal edges. The left lateral edge is slightly concave whereas the distal edge is convex and rounded. The proximal surface and right lateral edge are blunt and covered in cortex.

3.1.2.2 Ceramic Artifacts

The analysis of ceramic sherds used classifications required by the Standards and Guidelines (MTC 2011:102-103). The ceramic assemblage includes two fragments that are too small to be of any further analytical value (Image 27). However, their presence at Location 3 (AfHj-532) suggests that at least part of the site occupation took place during the Woodland period.



3.1.2.3 Ecofacts

The faunal collection includes two fragments of mammal bone. One appears to be the end of a small long bone, and one is a flat fragment. Neither can be identified to species.

3.1.3 Location 3 (AfHj-532) Documentary Records

The Stage 3 artifact catalog is presented in Appendix C. Table 7 provides an inventory of the documentary records generated during the Stage 3 assessment. All artifacts and files are currently being stored at the TMHC corporate office located at 1108 Dundas Street, Unit 105, London, ON, N5W 3A7.

Table 7: Location 3 (AfHj-532), Stage 3 Documentary Records

Date	Field Notes	Field Maps	Digital Images
October 26, 2021	Digital and Hard Copies	Digital and Hard Copies	None
November 2, 2021	Digital and Hard Copies	Digital and Hard Copies	31 Images
November 3, 2021	Digital and Hard Copies	Digital and Hard Copies	3 Images
November 9, 2021	Digital and Hard Copies	Digital and Hard Copies	2 Images
November 10, 2021	Digital and Hard Copies	Digital and Hard Copies	40 Images



3.2 Location 4 (AfHj-533)

3.2.1 Location 4 (AfHj-533) Settlement Pattern

Of the 14 features uncovered, 12 were determined to be cultural and two were determined to be non-cultural stains resulting from natural causes. Table 8 details the location, metrics, and interpretation for each feature. Four burn pits, one hearth, two refuse pits, one ash pit, and four features with an unknown use were identified during the Stage 3 excavation.

Table 8: Location 4 (AfHj-533), Feature Metrics

Context	Туре	Length (cm)	Width (cm)	Soil
715N 370E:1	Burn Pit	n/a	n/a	Brown Sandy-Loam with Ash Inclusions
725N 320E:I	Refuse Pit	n/a	n/a	Dark Brown/Black Sandy Loam
725N 350E:I	Unknown	n/a	n/a	Brown Sand with Dark Brown and White Mottles
725N 360E:I	Hearth	n/a	n/a	Reddish Sandy Loam
730N 330E:I	Refuse Pit	45	31	Brown/Dark Brown Sandy Loam with White Mottles
730N 355E:I	Burn Pit	31	27	Brown Sandy Loam with Dark Brown and White Mottles
735N 345E:I	Burn Pit	n/a	n/a	Brown/Dark Brown Sandy Loam with Ash Inclusions
735N 350E:I	Unknown	n/a	n/a	Brown Sandy Loam
735N 350E:I	Unknown	16	8	Brown Sandy Loam
735N 350E:I	Ash Pit	10	9	Silty White Ash
735N 350E:I	Unknown	20	20	Brown Sandy Loam
740N 330E:I	Burn Pit	n/a	n/a	Dark Brown Sandy Loam with Ash Inclusions

The specific function of features can be difficult to establish since pits could be re-used over time, typically for refuse disposal, which makes the original function of a feature difficult to infer. White pits may not have been initially excavated by the site occupants for house refuse, refuse may have been deposited in them over time coincidentally, or when features were reused for a secondary purpose (Bendremer et al. 1991:331; DeBoer 1988:4; Hayden and Canon 1983:159; Wilson 1985:79). Feature profiles can be indicators of the primary or intended functions of features (Dickens 1985; Green and Sullivan 1997:2; Stewart 1975:149). Typically, basin shaped profiles have been associated with caching, food preparation and temporary storage and conical shaped features are typically associated with smudge pits, pot holders, curing pits or short-term cache-like functions (Stewart 1975:89). Given that only partial plan views of most of the features can be observed during the Stage 3 archaeological assessment, the determination of feature function at this stage is preliminary.

Table 9 details the metrics and soils for the posts recovered. Most of the posts recorded during the Stage 3 assessment were found adjacent to each other, suggesting that structures are present at Location 4 (AfHj-533). Further excavation and investigation of settlement patterning will yield more information.



Table 9: Location 4 (AfHj-533), Post Metrics

Context	Diameter (cm)	Length (cm)	Width (cm)	Soil
715N 370E:1	9	n/a	n/a	Brown Sandy-Loam
720N 350E:I	n/a	32	П	Brown/Red Sandy Loam
720N 350E:I	n/a	55	26	Brown Sandy Loam
710N 380E:1	8	n/a	n/a	Brown Sandy Loam
710N 380E:1	8	n/a	n/a	Brown Sandy Loam
720N 370E:I	10	n/a	n/a	Brown Sandy Loam
720N 370E:I	9	n/a	n/a	Brown Sandy Loam
710N 370E:1	7	n/a	n/a	Brown Sandy Loam with Dark Brown Mottles
710N 370E:1	20	n/a	n/a	Brown Sandy Loam with Dark Brown Mottles
710N 370E:1	17	n/a	n/a	Reddish Sandy Loam
725N 360E:I	6	n/a	n/a	Brown Sandy Loam
725N 360E:I	15	n/a	n/a	Brown Sandy Loam
730N 355E:I	6	n/a	n/a	Brown Sandy Loam
730N 355E:I	6	n/a	n/a	Brown Sandy Loam
735N 350E:I	10	n/a	n/a	Brown Sandy Loam
745N 360E:I	6	n/a	n/a	Brown Sandy Loam

3.2.2 Location 4 (AfHj-533) Artifact Assemblage

A total of 93 I m² units were excavated, resulting in the recovery of 1,178 Indigenous and 343 ecofacts. The Indigenous artifact assemblage consists of 918 pieces of chipping detritus, 37 lithic tools, 221 sherds of pottery and two pipe fragments, 331 faunal artifacts, 12 pieces of shell, and one bone artifact (Table 10). A more detailed discussion of the artifact categories is below.



Table 10: Location 4 (AfHj-533), Stage 3 Artifact Summary

Artifact	n	%	
Lithics	955	63%	
Chipping Detritus	918	60	
Biface	11	<	
Utilized Flake	7	<	
Retouched Flake	6	<	
Projectile Point	5	<	
Core	2	<	
Perforator	2	<	
Drill	2	<	
Graver	I	<	
Wedge	I	< I	
Ceramics	223	15%	
Fragmentary Sherd	177	12	
Fragmentary Rim Sherd	17	<	
Body Sherd	10	<	
Neck Sherd	6	<	
Fragmentary Neck Sherd	5	<	
Fragmentary Neck Sherd, Decorated	2	<	
Fragmentary Sherd, Decorated		<	
Neck Sherd, Decorated		<	
Fragmentary Pipe Bowl		<	
Fragmentary Pipe Stem	I	<	
Shoulder Sherd, Decorated	I	<	
Ecofacts	343	22%	
Bone Artifact	I	<1%	
TOTAL	1522	100%	

3.2.2.1 Lithic Artifacts

The lithic collection recovered from Location 4 (AfHj-533) includes 918 pieces of chipping detritus, 12 bifaces, six retouch flakes, five projectile points, two cores, two perforators, one drill, one graver, and one wedge. A total of 155 lithic artifacts are heat treated, including 151 pieces of chipping detritus, two bifaces, one perforator and one projectile point, comprising 16% of the lithic assemblage.

Chipping Detritus

The detritus is made on Kettle Point, Onondaga, Selkirk, Flint Ridge and unknown chert. Table 11 below further breaks down the collection of chipping detritus by type and material, and an Artifact Glossary is presented in Appendix D.

4



Flake	Flake Material					Total
Туре	Kettle Point	Onondaga	Unknown	Selkirk	Flint Ridge	i Otai
Fragment	258	99	55	I	I	414
Secondary	224	82	32	3		341
Shatter	100	23	19			142
Primary	14	6				20

106

I

211

Table II: Location 4 (AfHj-533), Chipping Detritus

Of note in the detritus assemblage are one cobble of Onondaga chert. Chert cobbles are large, blocky and often unworked pieces of chert that were presumably brought to site to be reduced into cores or lithic tools, and were either forgotten or discarded (Woodley 1993:3). Two cores were also recovered. Cores are the centre of worked chunks of chert, from which primary flakes have been removed. Generally, cores are not manufactured into tools but that is not to say that this does not occur (Woodley 1993:3). The cores recovered here have been worked in a random flake pattern and have been exhausted. Interestingly, one flake fragment made of Flint Ridge chert was recovered. Flint Ridge chert is often recovered from outcrops in Ohio, Pennsylvania, West Virginia and Kentucky (Yerkes 1988).

The high percentage of secondary and fragmentary flakes indicates that the primary lithic activities occurring on site included the rejuvenation of finished tools, and the manufacture of tools from preforms. The limited quantity of shatter and minimal number of primary flakes suggests that core reduction was not the main lithic production activity taking place on site.

Utilized and Retouched Flakes

Cobble

Total

596

A total of 13 utilized and retouched flakes (Image 30) were recovered during the Stage 3 excavation of Location 4 (AfHj-533). Flakes or shatter with use-wear are called utilized flakes, or can be identified as having small areas that have been worked and retouched for use. Flakes that have been reworked into tools are typed above as gravers and perforators, and those with an unidentifiable function are catalogued either as utilized or retouched (Woodley 1993:6). Many flake tools cannot be ascribed a certain tool type because they are usually modified, used once, and discarded (Woodley 1993:6).

Projectile Points and Bifaces

Five projectile points (Image 28) and 12 bifaces (Image 29) were recovered during the Stage 3 excavation of Location 4 (AfHj-533). None of the projectile points recovered are complete; four are made on Onondaga chert and one has been heat altered, and one is made on Kettle Point.

I

918



Cat	Context	Material	L (mm)	W (mm)	Th (mm)	Completeness
142	735N 360E:I	Onondaga	n/a	n/a	n/a	Base Fragment
162	725N 320E:I	Onondaga	n/a	15.9	5.9	Missing Tip
246	730N 355E:I	Kettle Point	n/a	16.3	4.7	Missing Base
310	720N 350E:I	Onondaga	n/a	16.0	4.5	Missing Tip
311	720N 350E:I	Onondaga	n/a	17.6	5.7	Missing Tip

Table 12: Location 4 (AfHj-533), Projectile Point Metrics

Three of the projectile points recovered are almost complete; two are missing a small portion of their tip, and one is missing the base. The first point (cat 162) is relatively small and has been heat treated. It has straight lateral edges, one defined and one very shallow side notch, and has a slightly concave base. Basal grinding is evident, and the point is roughly made with a biconvex cross-section.

The second point (cat 246) has been broken at the neck and is missing the entire base. The lateral edges are straight and appear resharpened and roughly reworked along one surface resulting in an alternately beveled cross-section.

The third point (cat 310) is missing a very small portion of its tip, and a very small portion of one basal tang. The lateral edges are straight and have been finely resharpened. The notches are wide and the base is expanding, with a slightly concave basal edge. The point is manufactured with parallel flaking, resulting in a median ridge cross-section.

The last point (cat 311) is missing a small portion of the tip, and has been typed as Middleport, indicating manufacture between 1250-1400 CE (MOA n.d.). The lateral edges are slightly convex. The notches are wide and the base is expanding/corner notched and the basal shape is convex. The point is manufactured with parallel flaking resulting in a slight median-ridge observed in cross-section.

The bifaces recovered include four complete bifaces, three tip fragments, four fragments, and biface with one edge/notch missing. Metrics are listed in Table 13 below.

Table 13: Location 4 (AfHj-533), Biface Metrics

Cat	Context	Material	(mm)	(mm)	Th (mm)	Completeness	Comments
106	705N 350E:I	Onondaga	n/a	n/a	4.3	Fragment	
115	725N 330E:I	Selkirk	n/a	n/a	n/a	Tip	
148	745N 330E:I	Kettle Point	n/a	n/a	n/a	Tip	
191	715N 370E:I	Kettle Point	14.8	17.7	4.6	Complete	Small, round/trapezoidal, roughly worked
204	725N 340E:I	Kettle Point	46.6	n/a	11.4	Edge Missing	Side notched, very rough
206	725N 370E:I	Onondaga	35.2	24.7	11.5	Complete	Very rough
211	730N 325E:I	Kettle Point	n/a	n/a	n/a	Fragment	Heat altered
219	705N 355E:I	Onondaga	n/a	n/a	n/a	Fragment	Heat altered
247	730N 355E:I	Kettle Point	n/a	n/a	n/a	Fragment	
254	735N 355E:I	Kettle Point	27.7	17.8	7.7	Complete	Base edge is cortex
260	740N 330E:I	Kettle Point	n/a	n/a	4.4	Tip	
300	720N 320E:I	Onondaga	39.4	21.8	4.6	Complete	Teardrop shaped



The first complete biface (cat 191) is small and slightly trapezoidal in shape with rounded edges. One of the surfaces has a small area of cortex still intact, and both sides have been randomly flaked. The proximal edge of the biface is rough and smashed, and slightly ground. Its function is indeterminate as the biface is small and rough, and the shape and size indicate potential use as a scraper.

The second complete biface (cat 206) is very rough and ovular in shape. Large flakes have been removed from both surfaces in a random flaking pattern. There are no refined edges and there is some cortex on one of the sides of the biface.

The third complete biface (cat 254) is made with oblique parallel flaking, and is triangular in shape. The base of the biface is entirely covered in cortex and very flat. It is not possible to determine whether the cortex base was intentional, or a break that occurred during finishing.

The fourth complete biface (cat 300) is made with a random flaking pattern resulting in a thin, teardrop shaped biface with slight retouching around the tip. The base slightly narrows to a very shallow stem.

A larger, rough biface was also recovered that is broken along one edge (cat 204). The top edge and one surface of the biface are still covered in cortex, and the biface has been manufactured with large oblique flakes. One finished side notch and ground basal tang are present, indicating that the tool may have been in the finishing process when the edge broke.

Drills, Gravers, Perforators and Wedges

Two drills, one graver, two perforators, and one wedge (Image 30) were recovered during the Stage 3 excavation of Location 4 (AfHj-533). Metrics are presented in Table 14.

L. W Th Cat Context Artifact **Material** Completeness Comments (mm) (mm) (mm) 180 755N 370E:I Drill Onondaga n/a 20.3 n/a Base Straight base 316 725N 315E:1 Drill Kettle Point n/a n/a n/a Tip Secondary 237 17.8 19.6 715N 360E:1 Graver Onondaga 4.9 Complete Flake 116 725N 330E:1 Perforator Onondaga 16 14.4 5.9 Complete Heat altered 163 725N 320E:1 Perforator Onondaga 17.4 20.9 6.5 Complete Complete Wedge 184 695N 360E:1 Onondaga 20.4 23.4 8.4

Table 14: Location 4 (AfHj-533), Drills, Gravers, Perforators and Wedges Metrics

Neither of the drills recovered are complete. The graver (cat 237) is made on a secondary flake, and the graver tip is made on the proximal end of the flake, and is sharpened along the right lateral and distal edges, on the ventral face of the flake.

The first perforator (cat 116) is complete, and made of a flake fragment. The tip is flaked and sharpened on both lateral edges, on the dorsal face of the flake. The second perforator (cat 163) is flaked and sharpened on both lateral edges, on the dorsal and ventral faces of the flake. It is also made using a flake fragment.

The wedge recovered (cat 184) is worked unifacially, and one edge has been very roughly worked. The edges are straight and the wedge angle is 45 degrees.



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

3.2.2.2 Ceramic Artifacts

The analysis of ceramic sherds used classifications required by the *Standards and Guidelines* (MTC 2011:102-103). A total of 221 ceramic vessel sherds and two pipe fragments were recovered from Location 4 (AfHj-533). The assemblage is comprised mainly of undetermined sherds that are too fragmentary for further analysis (n=177; 80%), followed by rim sherds that are too fragmentary for further analysis (n=17; 7%) and body sherds (n=10; 4.5%). The remaining sherds include six neck sherds, five fragmentary neck sherds, two fragmentary decorated neck sherds, one decorated neck sherd, one decorated fragment sherd, and one rim sherd.

Interior and exterior decorative technique and motif was noted where possible. Fragmentary sherds with obvious decoration were still analyzed in order to gain as much information from the collection as possible. One fragmentary sherd is large enough that decoration is observed on the exterior surface, and includes two small stamps.

The body sherds indicate some variability within the collection, even though only 10 body sherds can be analyzed. Five of the body sherds are buff colored and thin, evenly-fired and tempered with a fine grit mixture containing mica (cat 130, 134 and 196). A sixth sherd is similar in paste and temper, but appears burnished or slipped on the exterior surface (cat 308). Two of the sherds are heavily fired to the point that they are completely reduced and black (cat 145 and cat 258). Four sherds are thick and more orange-red, with a large grained grit temper and a less well-packed paste (cat 160, 282 and 323).

The neck sherds recovered include two fragmentary sherds with decoration, and one full neck sherd with decoration. The remainder are either too fragmentary for further analysis, or no decoration was observed on the sherd. One of the fragmentary neck sherds with decoration (cat 147) is decorated with exterior horizontal lines, and the other (cat 172) is decorated with exterior punctates. The full neck sherd is decorated with a row of small stamps. One of the undecorated neck sherds mends with two fragmentary rims, and has been identified as part of Vessel A.

The shoulder sherd recovered has a horizontal line of small, tightly-spaced punctates above two horizontal trailed lines. The sherd is constructed using the paddle and anvil technique, and the temper is very fine grained and evenly spaced. The sherd is very thick and appears to belong to a small vessel, perhaps made by a less experienced potter.

The collection of fragmentary rim sherds includes 12 two mending sherds that are identified as part of Vessel A, and 10 other small rim fragments with some identifiable decoration. Table 15 below lists the metrics and decorative styles observed on the rim fragments recovered.



Table 15: Location 4 (AfHj-533), Rim Fragment Metrics

Cat	Context	Exterior Decoration	Interior Decoration	Lip Form	Lip Thick. (mm)	Collar Height (mm)
104	705N 350E:I	L Obliques over Horizontals	L Obliques	Flat	5.4	n/a
120	735N 320E:I	Verticals	Smoothed	Flat	3.9	n/a
124	735N 330E:I	Lip Notches over Horizontals	Lip Notches	Flat	10.8	n/a
139	735N 360E:I	n/a	n/a	Flat	n/a	n/a
140	735N 360E:I	R Horizontals	Smoothed	Flat	7.8	n/a
144	745N 330E:I	n/a	n/a	Flat	n/a	n/a
155	725N 320E:1	Punctate	Smoothed	Flat	7.9	n/a
156	725N 320E:1	Verticals	Smoothed	Flat	3.4	n/a
194	725N 310E:1	L Obliques	Smoothed	Flat	3.9	n/a
227	715N 310E:1	Verticals	Smoothed	Flat	7.9	12.7
229	715N 310E:1	Verticals	Smoothed	Flat	8	12.7
335	750N 370E:I	R Obliques over Horizontals	n/a	Flat	n/a	16.4

The small fragment recovered (cat 139) is a very small fragment of a vessel lip that is smoothed on both surfaces. The orientation of the fragment is not possible to determine, and no metrics can be recorded. The small fragment recovered (cat 144) is a fragment of part of a lip and wall of the vessel. There is one right oblique stamp on one side of the sherd, although it is too small to determine whether it is the exterior or interior of the vessel. No further metrics can be recorded. The fragment recovered (cat 335) is exfoliated on the interior.

Two rim sherds are similar in appearance, decoration and temper, and are decorated on the exterior with vertical lines (cat 120 and cat 156). The fragments are too exfoliated and short to determine whether they are from the same vessel, but it is clear that more than one of the same vessel styles is present on site.

One vessel was identified in the ceramic assemblage, and is named as Vessel A (Image 31). Vessel A consists of one neck sherd with no observable decoration (cat 228) and two fragmentary rim sherds (cat 227 and cat 229). The sherd is constructed with the paddle and anvil technique, and the vessel surface is smoothed on both the interior and exterior. The temper is abundant and evenly distributed throughout the sherd and includes high quantities of mica, shell and quartzite. The collar is well defined and decorated on the exterior with vertical incised lines. The lip is flat, and the interior of the vessel has a small number of encrustations. The sherd has been heavily fired and is almost entirely reduced, aside from the collar which is a buff light brown. Interestingly, the neck sherd is also buff light brown on the exterior.

3.2.2.3 Pipes

Two undecorated pipe fragments were recovered from the Stage 3 excavation of Location 4 (AfHj-533): one pipe stem and one pipe bowl (Image 32). The stem is circular in cross section and is too fragmentary to determine shape. The bowl is missing its lip and too fragmentary to assign a shape.



Ceramics Summary and Analysis

One vessel was identified within the assemblage and a small collection of rim sherd fragments had small areas of analyzable decoration. The decorative style observed on Vessel A is likely a Lawson Incised vessel type, indicating site occupation during the Middle Late Woodland period, between 1300-1400 CE (MacNeish 1952; Wright 1977). This period is described as the Springwells phase of occupation in the Western Basin, and the Middle Late Woodland period, divided into the Uren and Middleport substages.

3.2.2.4 Ecofacts

The faunal assemblage includes 343 fragments of bone and teeth, and 12 small fragments of shell. Alterations were noted on 147 of the faunal remains recovered (43%); one sawn bone, 46 burnt remains (13%), and 100 calcined remains (29%).

One small bone fragment was recovered from the Stage 3 excavation of Location 4 (AfHj-533). It is small and flat, and has been polished on all sides.

3.2.3 Location 4 (AfHj-533) Documentary Records

The Stage 3 artifact catalog is presented in Appendix C. Table 16 provides an inventory of the documentary records generated during the Stage 3 assessment. All artifacts and files are currently being stored at the TMHC corporate office located at 1108 Dundas Street, Unit 105, London, ON, N5W 3A7.

Table 16: Location 4 (AfHj-533), Documentary Records

Date	Field Notes	Field Maps	Digital Images
October 26, 2021	Digital and Hard Copies	Digital and Hard Copies	None
October 27, 2021	Digital and Hard Copies	Digital and Hard Copies	27 Images
October 28, 2021	Digital and Hard Copies	Digital and Hard Copies	40 Images
November 2, 2021	Digital and Hard Copies	Digital and Hard Copies	28 Images
November 3, 2021	Digital and Hard Copies	Digital and Hard Copies	32 Images
November 4, 2021	Digital and Hard Copies	Digital and Hard Copies	38 Images
November 5, 2021	Digital and Hard Copies	Digital and Hard Copies	36 Images
November 8, 2021	Digital and Hard Copies	Digital and Hard Copies	33 Images
November 9, 2021	Digital and Hard Copies	Digital and Hard Copies	34 Images
November 10, 2021	Digital and Hard Copies	Digital and Hard Copies	38 Images



4 ANALYSIS AND CONCLUSIONS

4.1 Location 3 (AfHj-532)

The Stage 3 archaeological assessment at Location 3 (AfHj-532) included the excavation of 35 I m² units, which resulted in the recovery of 145 Indigenous and two faunal artifacts. The Indigenous artifact assemblage consists of 140 pieces of chipping detritus, one scraper, one biface, and two fragmentary sherds of pottery. Two small fragments of pottery were recovered from a small distinct area at the north end of the site. This may be a small activity area, but is more likely the result of years of intense ploughing resulting in small artifacts being dragged out of their original context. In order to fully investigate this potential, hand excavation around 625N 280E:I is recommended, as is hand excavation around 590N 260E:I, 585N 265E:I and 580N 265E:I to increase the chances of recovering diagnostic artifacts. This has been determined in consultation with Indigenous communities both during field excavations, and the reporting and analysis process.

One feature was partially uncovered during the Stage 3 excavation, and the function of this feature is yet to be determined. None of the lithic artifacts recovered during the Stage 3 excavation can be dated; therefore, the specific occupation period of Location 3 (AfHj-532) is undetermined.

4.2 Location 4 (AfHj-533)

The Stage 3 archaeological assessment at Location 4 (AfHj-533) included the excavation of 93 I m² units, which resulted in the recovery of 1178 Indigenous and 343 ecofacts. The Indigenous artifact assemblage consists of 918 pieces of chipping detritus, 37 lithic tools, 221 sherds of pottery, two pipe fragments, 331 faunal artifacts, 12 pieces of shell, and one bone artifact. The distribution of artifacts has likely been impacted by years of ploughing, although it is clear that the main concentration lies between 705N to 745N and 310E to 370E. This area contains the highest concentration of tools, the main cluster of features, and the majority of the heat-treated lithic artifacts. Interestingly, a higher concentration of pottery within 725N 315E:1 and 725N 320E:1 coincides with a higher concentration of heat-treated debitage, and lies within the area on site where the most artifacts were recovered per unit.

One of the lithic tools recovered is a Middleport projectile point, which indicates site occupation between 1250-1400 CE (MOA n.d.). The decorative styles identified within the ceramic assemblage narrow this date, given that Vessel A has been identified as a Lawson Incised ceramic type, which indicates occupation between 1300-1400 CE (MacNeish 1954; Wright 1967).

These dates, combined with the location of the site within the area associated with the Western Basin Tradition, suggest occupation of the site during the Springwells Phase of the Western Basin Tradition (Murphy and Ferris 1990). The Springwells phase is characterized by vessels with collars and castellations displaying a number of motifs, a complete lack of interior and lip decoration, and the "bag shaped" vessel form that continues to be utilized in the subsequent Wolfe phase (Murphy and Ferris 1990). Interrupted linear designs on a pronounced collar, and the "net impressed" design are clear ceramic traits of the Springwells phase. The lithic assemblages recovered from these sites are similar to that of the Younge phase, and include few bifaces and triangular shaped projectile points (Murphy and Ferris 1900). Settlement-subsistence strategies during the Springwells phase continue from the Younge phase, but become more formalized, with warm season camps being more intensively occupied, multiple house structures being constructed, and an increased reliance on maize cultigens observed (Murphy and Ferris 1990).



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

Fourteen features and 16 posts were identified and recorded during the Stage 3 excavation of Location 4 (AfHj-533). This includes a number of burn pits, one hearth, and some unknown features that require further investigation to determine their function. Most of the posts are small and round, and found adjacent to at least one other post. The features identified during the Stage 3 assessment indicate the presence of structures and refuse pits and hearths indicate longer-term site occupation beyond the typical seasonal round. The manufacture of pottery was also conducted on site, likely for cooking and food storage. Given this, it is likely that Location 4 (AfHj-533) is a small habitation site. This increase in a more sedentary lifestyle is consistent with the increased agricultural use of sites during the Springwells phase.

The limits of the site have been determined based on the combined results from the Stage 2 and Stage 3 results, indicating the limits of the surface scatter and the artifact counts achieved during Stage 3 test unit excavation. Prior to MTR, hand excavation has been proposed around 725N 325E:I in order to recover a larger sample of artifacts from an area on site that contained diagnostic artifacts at the surface, and in a concentration of high yielding units. The minimum limit of MTR is based on the presence of archaeological features and the main concentration of the site where excavation counts exceed a count of I0 (Table 4.I, MTCS 2011). This has been determined in consultation with Indigenous communities both during field excavations, and the reporting and analysis process.



5 RECOMMENDATIONS

5.1 Location 3 (AfHj-532)

As one or more of the test units yielded 10 or more artifacts (Section 3.4.1 Standard 1a, MTC 2011) and a sub-surface cultural feature was discovered (Section 3.4.1 Standard 1d, MTC 2011), Location 3 (AfHj-532) is recommended for Stage 4 mitigation. Two options are available: 1) long-term protection and avoidance; and 2) excavation. Long-term avoidance and protection are always the preferred mitigation strategy. In this case, avoidance and protection us not possible due to the site's location and the nature of the planned development; therefore, mitigation through excavation is the favored strategy. The recommended Stage 4 mitigation is the complete excavation of the site following Section 4.2.2. of the MTC's 2011 Standards and Guidelines for Consultant Archaeologists. This would involve:

- The hand-excavation of units around units 625N 280E:1, 590N 260E:1, 585N 265E:1 and 580N 265E:1 until there are yields of fewer than 10 artifacts from units at the edge of the block excavation and until there are fewer than two formal tools, diagnostic artifacts, or burnt artifacts;
 - Hand excavation must be completed in 1 m by 1 m units, by cultural layer or strata. All soil
 must be screened through mesh with an aperture of no greater than 6 mm, and excavation
 must extend 5 cm into subsoil unless a cultural feature is encountered
- The hand-excavation of units until they are at least 2 m from any cultural features; and,
- any identified cultural features should be documented and excavated following Section 4.2.2, Standard 7 (MTC 2011:77).

5.2 Location 4 (AfHj-533)

As the site has been determined to be a Woodland period site (Section 3.4 Standard 1e, MTC 2011), Location 4 (AfHj-533) is recommended for Stage 4 mitigation. Two options are available: I) long-term protection and avoidance; and 2) excavation. Long-term avoidance and protection are always the preferred mitigation strategy. In this case, avoidance and protection us not possible due to the site's location and the nature of the planned development; therefore, mitigation through excavation is the favored strategy. The recommended Stage 4 mitigation strategy is to complete hand excavation followed by mechanical topsoil removal of the site following Section 4.2.4 of the MTC's 2011 Standards and Guidelines for Consultant Archaeologists. This would involve:

- minimal block excavation to collect a larger sample of artifacts. The excavation blocks should focus around 725N 325E:I to target areas of higher artifact concentrations and to collect a larger sample of artifacts;
- as the site dates to the Woodland period and potential cultural features were identified during the Stage 3 unit excavations, the site should be subject to mechanical topsoil stripping following Section 4.2.3 of the Standards and Guidelines (MTC 2011:78-79) to expose any cultural features;
 - Mechanical topsoil removal should be conducted by an excavator with a flat-edged ditching bucket that exposes the topsoil/subsoil interface.
 - The mechanical topsoil removal should extend across the site area and at least 10 m beyond any cultural features until the property boundaries or disturbance areas are encountered.



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

- The exposed surface will be cleaned by shovel and examined to identify any potential cultural features.
- any identified cultural features should be documented and excavated following Section 4.2.2, Standard 7 (MTC 2011:77).



6 SUMMARY

A Stage 3 archaeological assessment has been conducted for two sites for a proposed development in the community of Strathroy, Ontario. The property is irregularly shaped and located within part of Lots 19 and 20, Concession 4 South of Egerton Road (SER) in the Geographic Township of Adelaide, Middlesex County, Ontario. The property is roughly 35.0 ha (86.5 ac) in size and consists of ploughed agricultural fields, grassed and overgrown areas, a channelized drain and manicured lawn fronting Albert Street. A Stage 3 archaeological assessment was conducted at Location 3 (AfHj-532) and Location 4 (AfHj-533), including the excavation of I m² units across both sites which resulted in the recovery of Indigenous lithics and pottery, and cultural features. Given the results of the Stage 3 excavations, Stage 4 mitigation is recommended for both Location 3 (AfHj-532) and Location 4 (AfHj-533).



7 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the MHSTCI 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 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 MHSTCI, 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.

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 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.

Should previously undocumented (i.e., unknown or deeply buried) 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 Section 48(1) of the *Ontario Heritage Act*.

The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and Crystal Forrest, A/Registrar of Burial Sites, Ontario Ministry of Government and Consumer Services. Her telephone number is 416-212-7499 and e-mail address is Crystal.Forrest@ontario.ca.

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



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9 IMAGES



Image I: Grid Stakes Being Set and Recorded

Looking Southeast



Image 2: Location 3 (AfHj-532) Excavation in Progress

Looking Southwest





Image 3: Location 3 (AfHj-532) Excavation in Progress

Looking West



Image 4: Location 3 (AfHj-532) Typical Unit Profile





Image 5: Location 3 (AfHj-532) Typical Unit Profile

Looking Down



Image 6: Location 3 (AfHj-532) Typical Unit Profile





Image 7: Location 3 (AfHj-532) Plan View of Feature in 580N 285E:I

Looking Down



Image 8: Location 4 (AfHj-533) Excavation in Progress

Looking South





Image 9: Location 4 (AfHj-533) Excavation in Progress

Looking East



Image 10: Location 4 (AfHj-533) Excavation in Progress

Looking Southwest





Image II: Location 4 (AfHj-533) Typical Unit Profile



Image 12: Location 4 (AfHj-533) Typical Unit Profile





Image 13: Location 4 (AfHj-533) Typical Unit Profile



Image 14: Location 4 (AfHj-533) Plan View of Layer 2 in unit 725N 315E:1





Image 15: Location 4 (AfHj-533) Plan View of Features in 710N 370E:1

Looking Down



Image 16: Location 4 (AfHj-533) Plan View of Features in 715N 370E:1





Image 17: Location 4 (AfHj-533) Plan View of Features in 720N 350E:I



Image 18: Location 4 (AfHj-533) Plan View of Feature in 725N 320E:1

Looking Down





Image 19: Location 4 (AfHj-533) Plan View of Features in 725N 350E:1



Image 20: Location 4 (AfHj-533) Plan View of Features in 725N 380E:I

Looking Down





Image 21: Location 4 (AfHj-533) Plan View of Features in 730N 355E:I



Image 22: Location 4 (AfHj-533) Plan View of Feature in 735N 345E:I

Looking Down





Image 23: Location 4 (AfHj-533) Plan View of Features in 735N 350E:I



Image 24: Location 4 (AfHj-533) Plan View of Feature in 740N 330E:I

Looking Down





Image 25: Geotextile and Backfill over Feature





Image 26: Location 3 (AfHj-532) Lithic Tools

A) Scraper, Burnt Kettle Point Chert (cat 59); B) Biface, Onondaga Chert (cat 89)

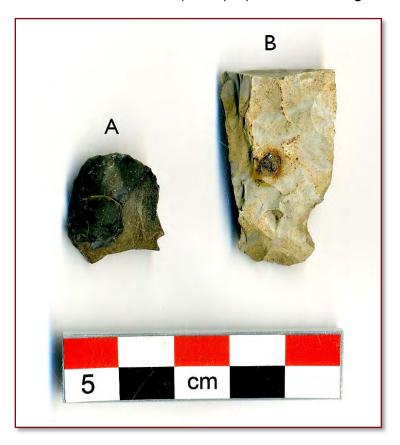


Image 27: Location 3 (AfHj-532) Indigenous Ceramic Fragments (cat 70)





Image 28: Location 4 (AfHj-533) Projectile Points

A) Broken Projectile Point (PPO), Burnt Onondaga Chert (cat 162); B) Broken PPO, Kettle Point Chert (cat 256); C) Broken PPO, Kettle Point Chert (cat 310); D) Middleport PPO, Onondaga Chert (cat 311)

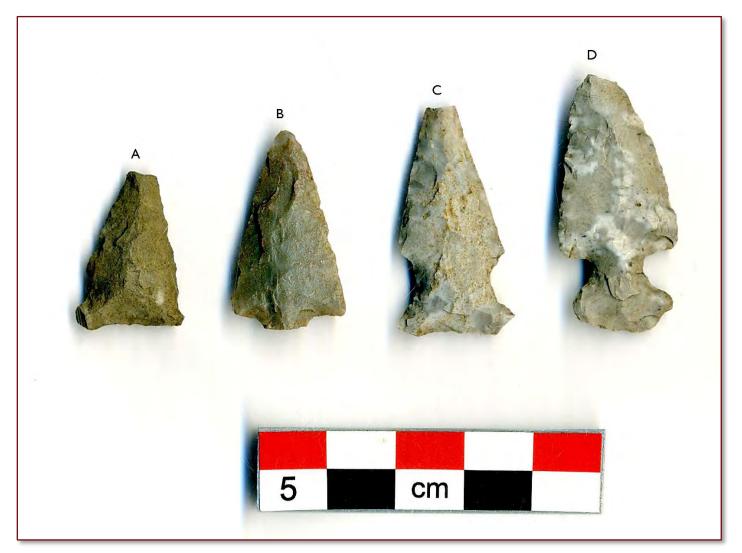




Image 29: Location 4 (AfHj-533) Bifaces

A) Complete Biface, Onondaga Chert (cat 300); B) Biface, Kettle Point Chert (cat 254); C) Biface Tip, Selkirk Chert (cat 115); D) Biface, Kettle Point Chert (cat 204)





Image 30: Location 4 (AfHj-533) Other Lithics

A) Utilized Flake (UFL), Kettle Point Chert (cat 92); B) Retouched Flake, Kettle Point Chert (cat 98); C) Drill Base, Onondaga Chert (cat 180); D) Perforator, Onondaga Chert (cat 163); E) Graver, Onondaga Chert (cat 237)

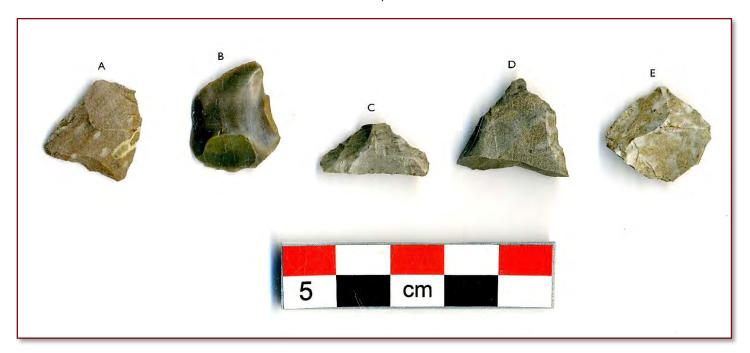




Image 31: Location 4 (AfHj-533) Vessel A (cat 227, 228 and 229)





Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

Image 32: Location 4 (AfHj-533) Pipe Fragments

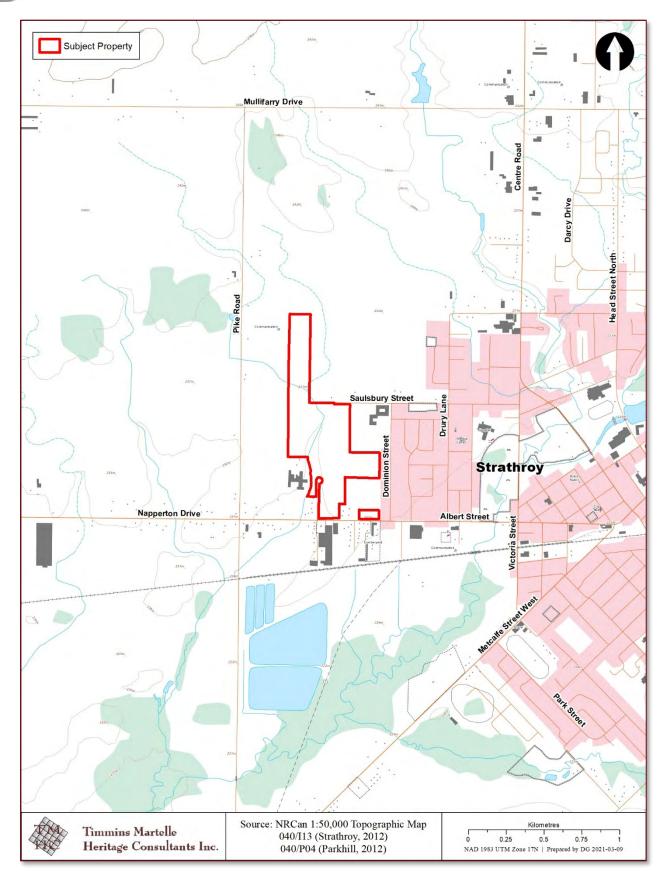
A) Pipe Stem (cat 250); B) Pipe Bowl (cat 328)





IO MAPS





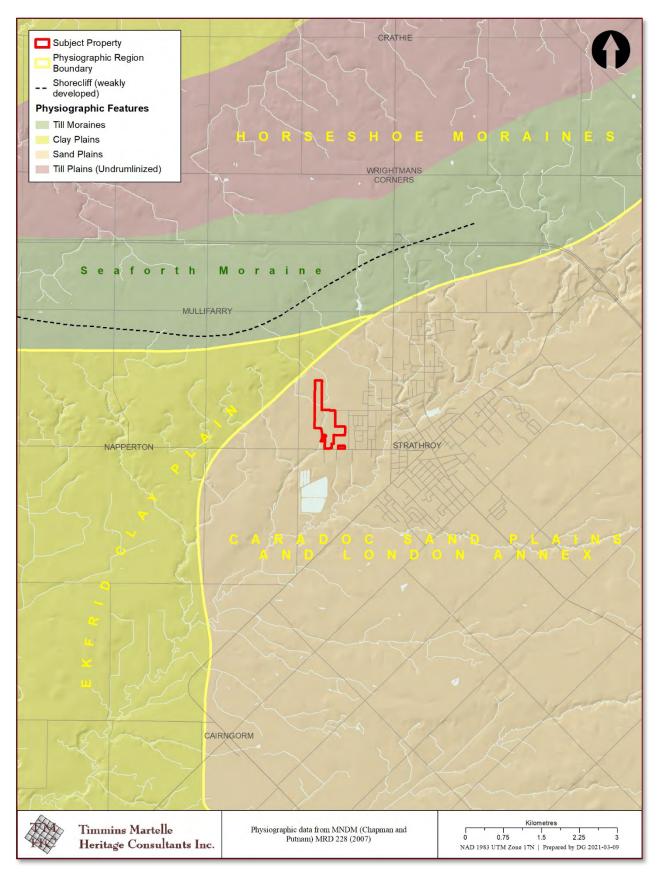
Map I: Location of the Subject Property in the City of London, ON





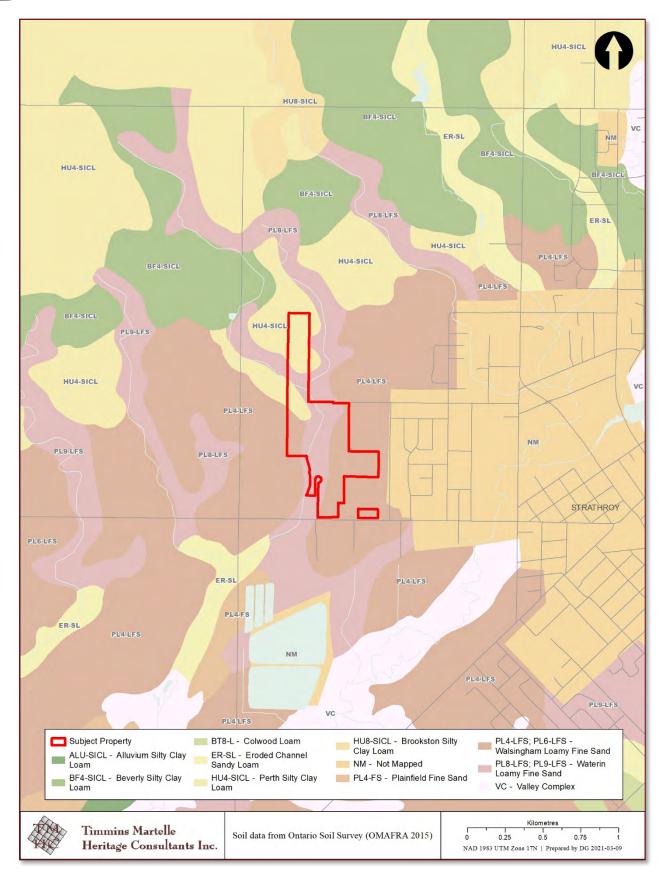
Map 2: Aerial Photograph Showing the Location of the Subject Property





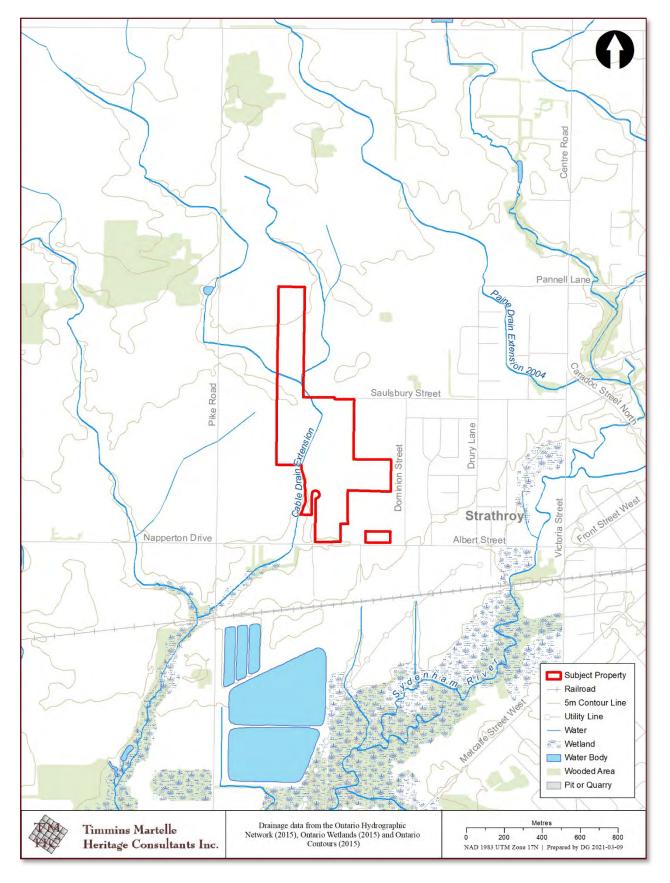
Map 3: Physiography Within the Vicinity of the Subject Property





Map 4: Soils Within the Vicinity of the Subject Property





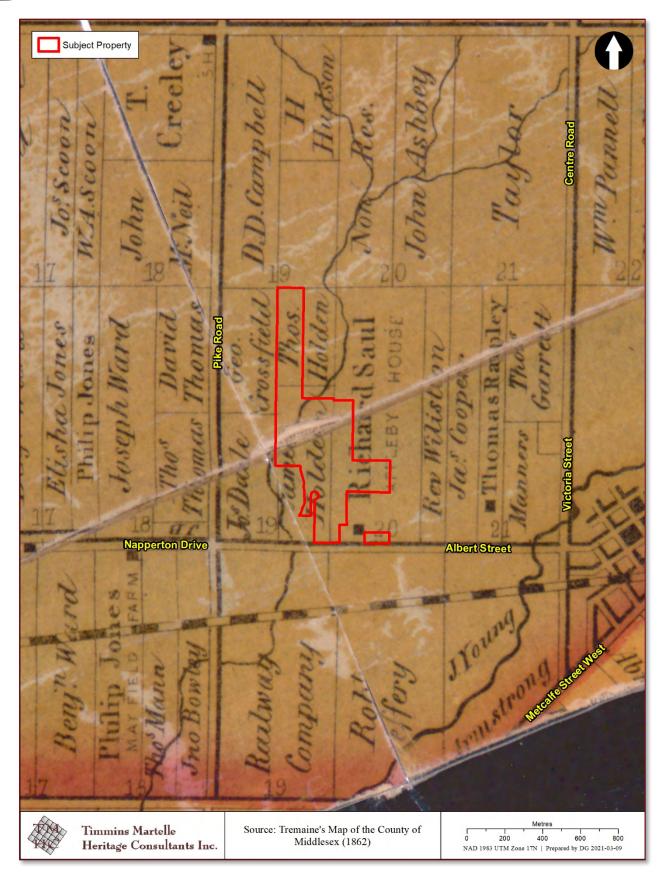
Map 5: Drainage Within the Vicinity of the Subject Property





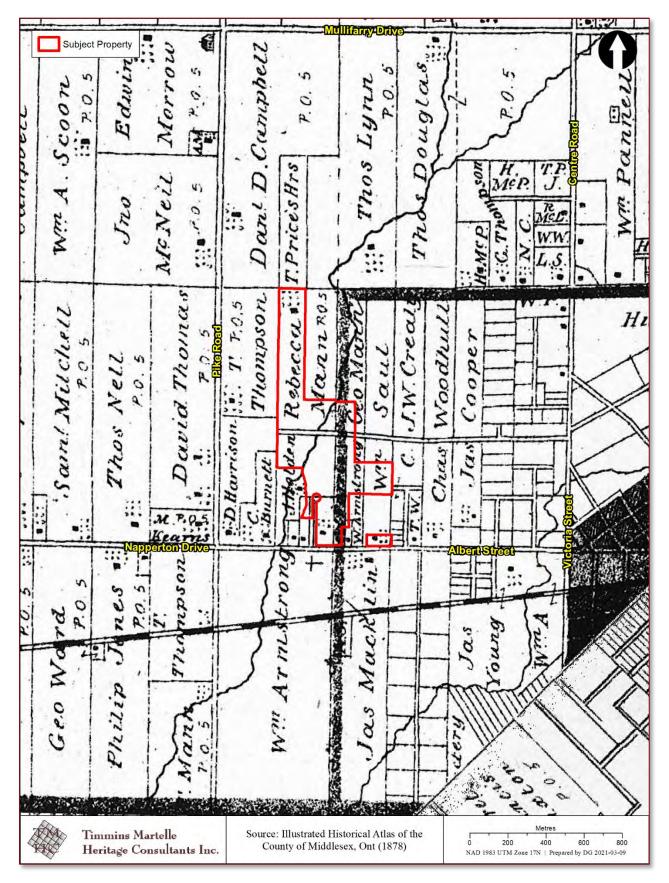
Map 6: Previous Assessment Results





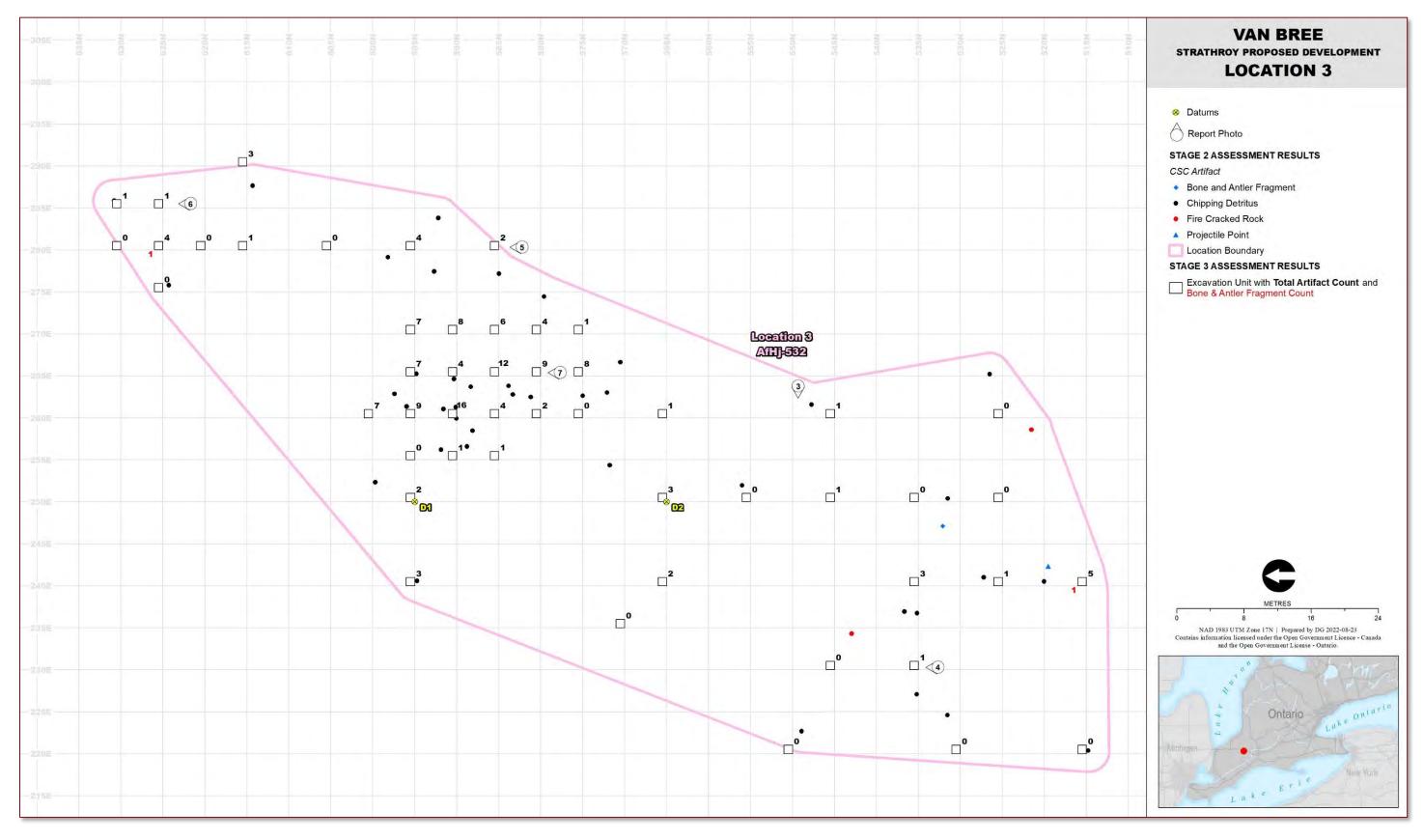
Map 7: Location of the Subject Property Shown on the 1862 Tremaine Map





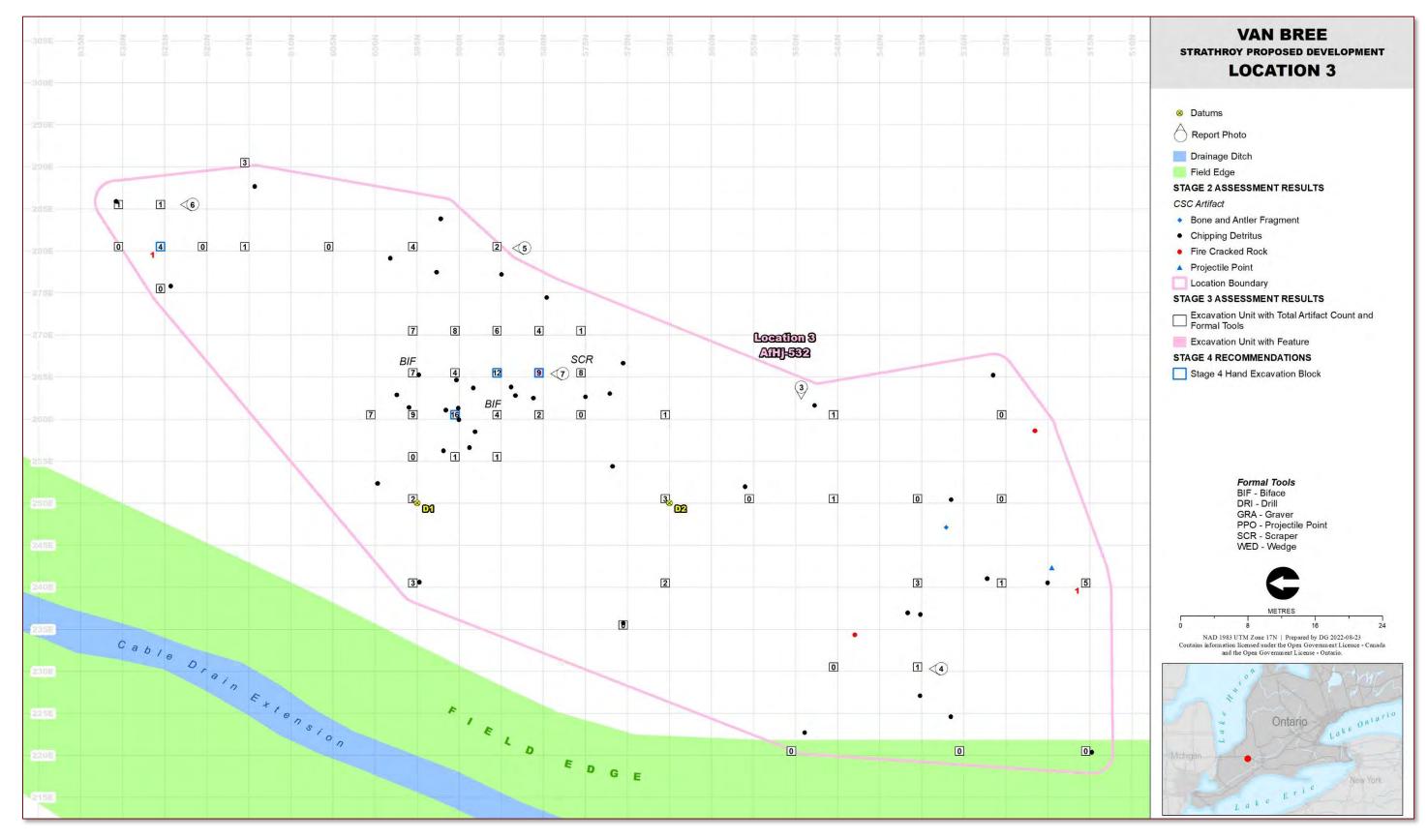
Map 8: Location of the Subject Property on an 1878 Map of Middlesex County





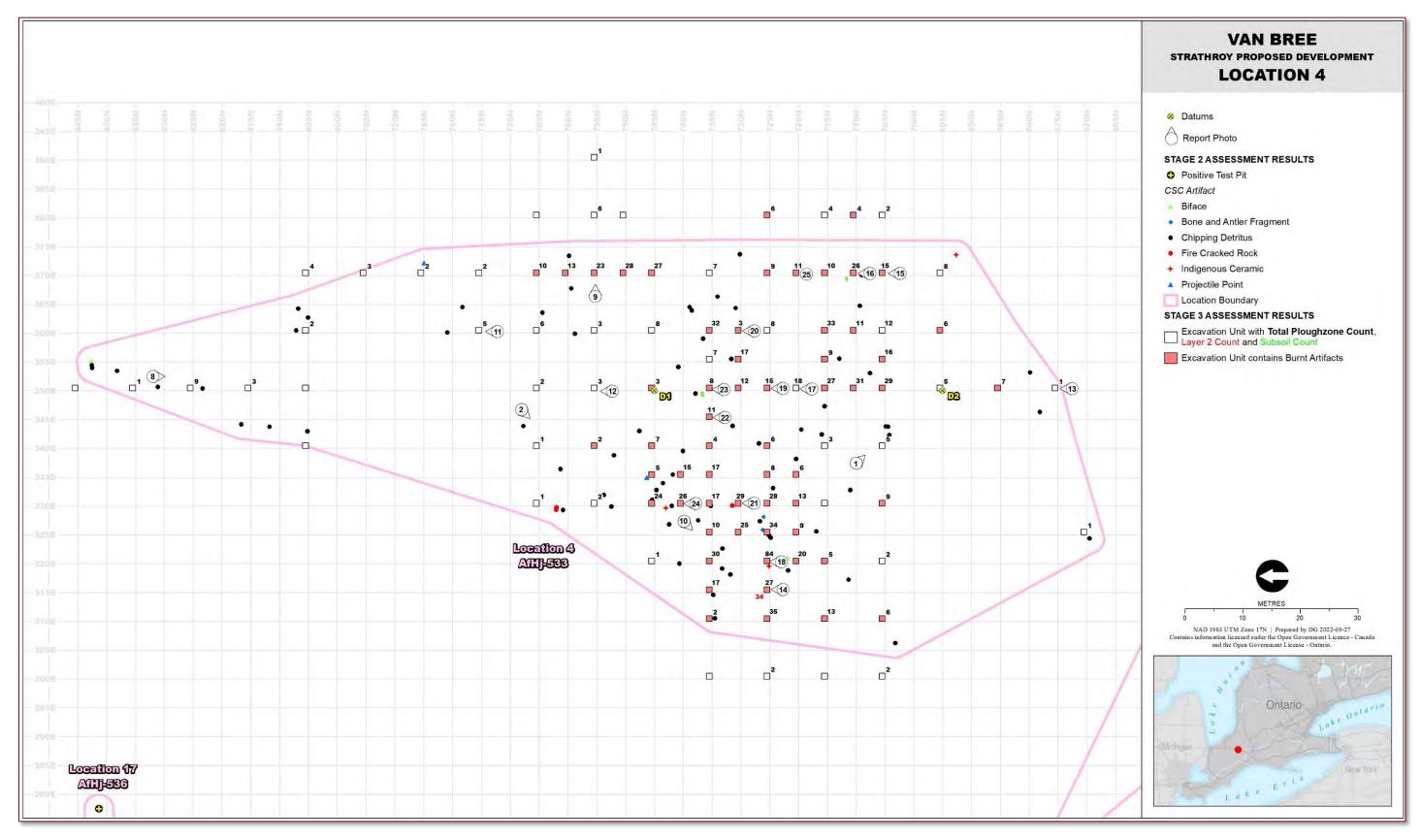
Map 9: Location 3 (AfHj-532), Stage 2 and 3 Assessment Results: Artifact Distribution





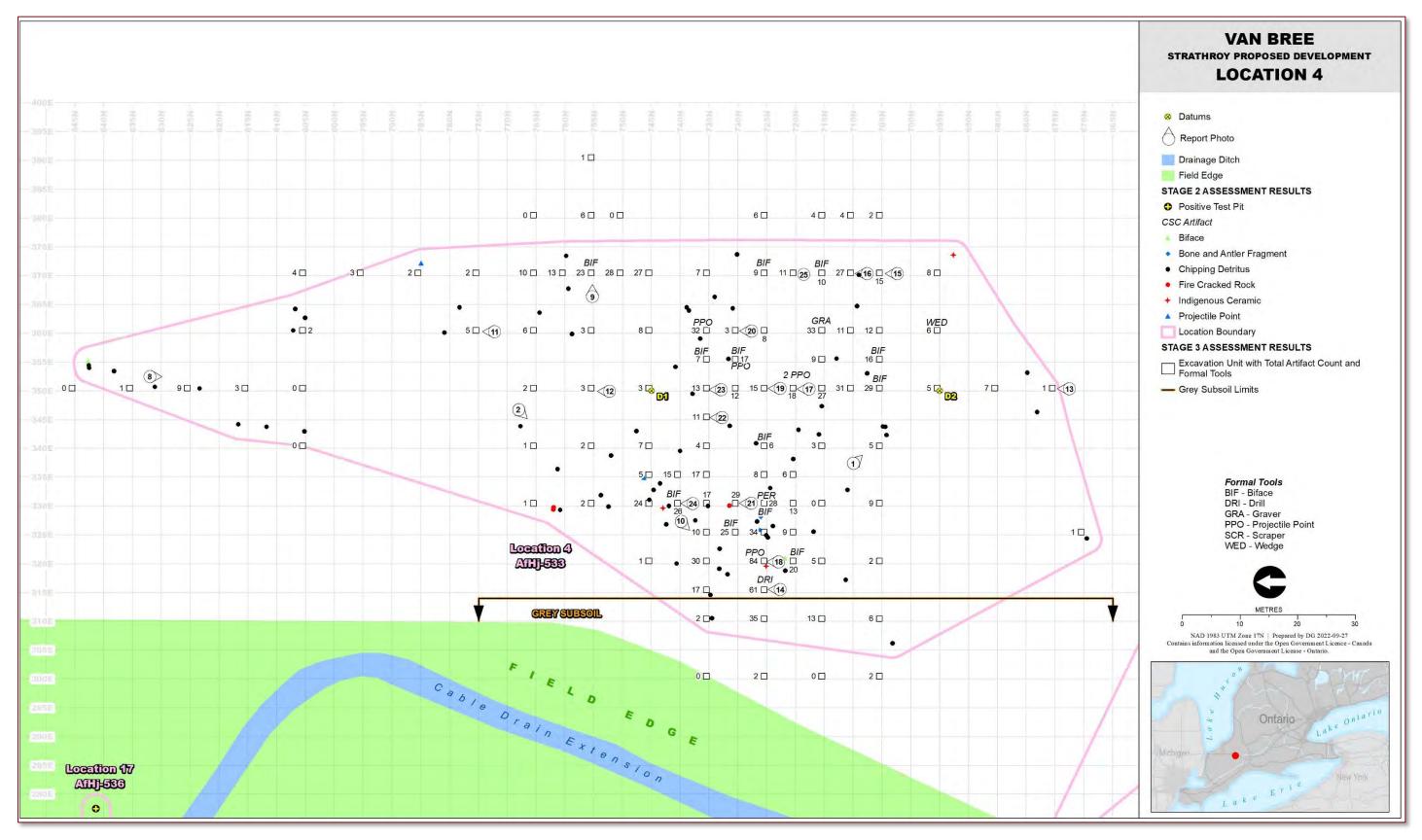
Map 10: Location 3 (AfHj-532), Stage 2 and 3 Assessment Results: Formal Tools





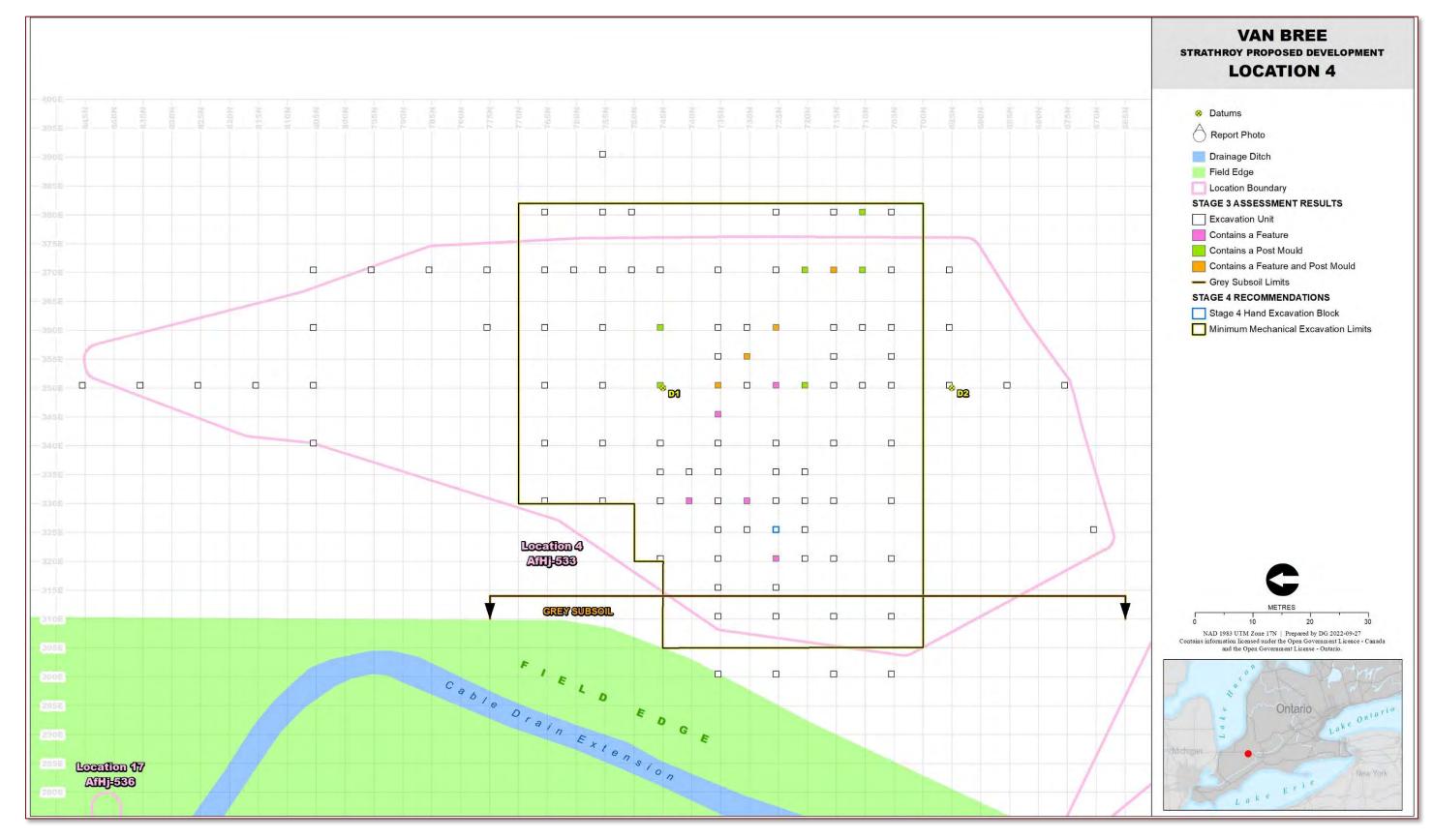
Map 11: Location 4 (AfHj-533), Stage 2 and 3 Assessment Results: Artifact Distribution by Layer





Map 12: Location 4 (AfHj-533), Stage 2 and 3 Assessment Results: Formal Tools





Map 13: Location 4 (AfHj-533), Stage 4 Recommendations



APPENDIX A: GRID REFERENCING SYSTEM

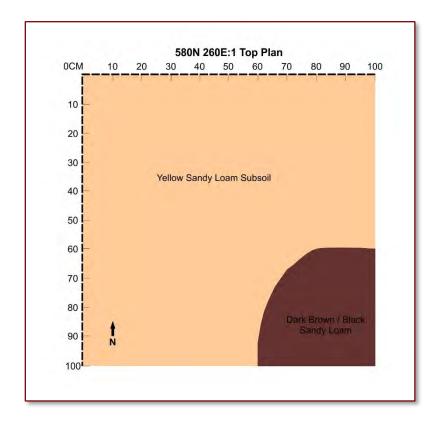
21	22	23	24	25
16	17	18	19	20
11	12	13	14	15
6	7	8	9	10
1	2	3	4	5

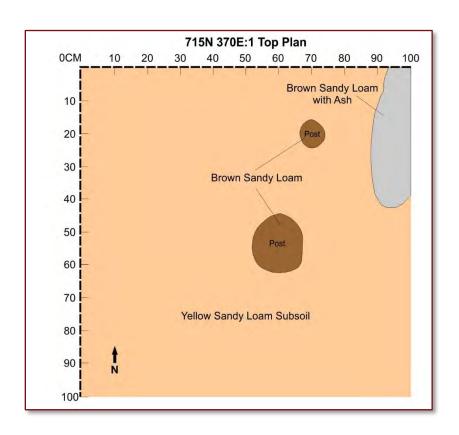
example: subsquare 25 in five by five metre grid unit would be labelled 500N 300E:25

500N 300E



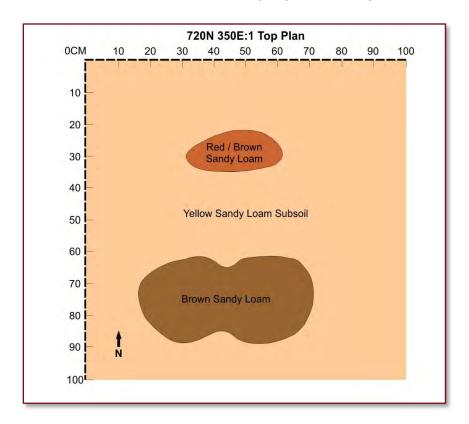
APPENDIX B: FEATURE DIGITIZATIONS

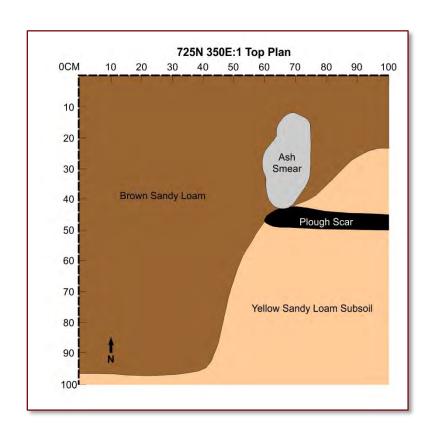






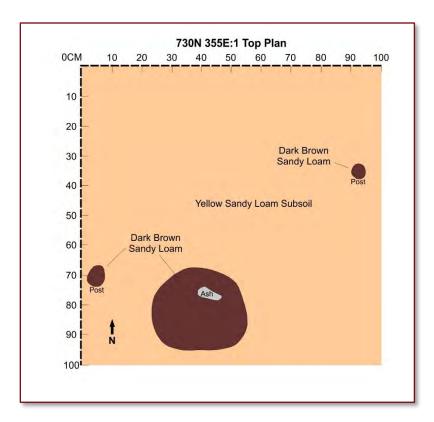
Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

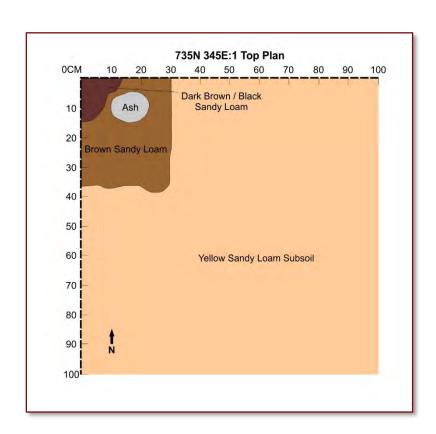






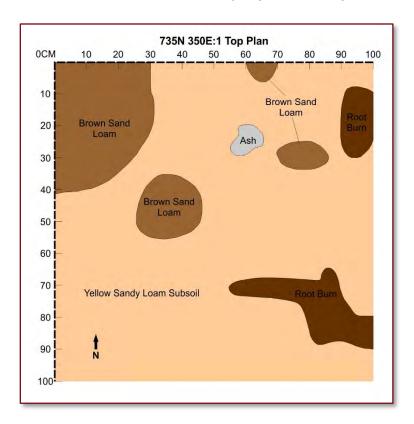
Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

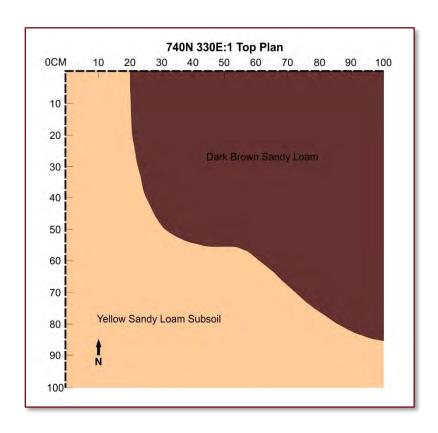






Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON







APPENDIX C: LOCATION 3 (AFHJ-532), STAGE 3 ARTIFACT CATALOGUE

Cat.	Context	Layer/Depth	Artifact	n	Comments
51	515N 240E:1	pz, 0-25cm	chipping detritus	5	3 secondary Onondaga; I secondary Kettle Point; I shatter Kettle Point
52	515N 240E:1	pz, 0-25cm	faunal remains		
53	525N 240E:I	pz, 0-20cm	chipping detritus	I	fragmentary Onondaga
54	535N 230E:I	pz, 0-30cm	chipping detritus	I	secondary Kettle Point?; possibly Flint Ridge?
55	535N 240E:I	pz, 0-36cm	chipping detritus	3	I secondary Onondaga; I fragmentary Onondaga; I fragmentary unknown
56	545N 250E:I	pz, 0-30cm	chipping detritus	I	fragmentary Kettle Point
57	565N 250E:I	pz, 0-25cm	chipping detritus	3	I secondary Kettle Point; 2 fragmentary Kettle Point
58	565N 260E:I	pz, 0-23cm	chipping detritus	-	shatter Kettle Point
59	585N 260E: I	pz, 0-28cm	biface	ı	Kettle Point; fragment
60	585N 260E:I	pz, 0-28cm	chipping detritus	3	2 secondary Kettle Point; I fragmentary Kettle Point
61	595N 260E:1	pz, 0-24cm	chipping detritus	9	I secondary Kettle Point; 5 fragmentary Kettle Point; 2 shatter Kettle Point; I shatter burnt Kettle Point
62	595N 270E:I	pz, 0-25cm	chipping detritus	7	I primary Kettle Point; I secondary Kettle Point; 3 fragmentary Kettle Point; 2 shatter Kettle Point
63	595N 280E:I	pz, 0-23cm	chipping detritus	4	3 secondary Kettle Point; I fragmentary Kettle Point
64	565N 240E:I	pz, 0-23cm	chipping detritus	2	I secondary Onondaga; I fragmentary Onondaga
65	585N 270E:I	pz, 0-25cm	chipping detritus	6	I fragmentary Onondaga; I primary Kettle Point; I secondary Kettle Point; 3 fragmentary Kettle Point
66	595N 240E:I	pz, 0-40cm	chipping detritus	3	I secondary Kettle Point; I fragmentary Kettle Point; I fragmentary unknown
67	595N 250E:I	pz, 0-19cm	chipping detritus	2	I secondary Kettle Point; I fragmentary Kettle Point
68	615N 280E:I	pz, 0-21cm	chipping detritus	I	fragmentary Onondaga
69	615N 290E:1	pz, 0-24cm	chipping detritus	3	2 fragmentary Kettle Point; I shatter Kettle Point



Cat.	Context	Layer/Depth	Artifact	n	Comments
70	625N 280E:I	pz, 0-21cm	fragmentary sherd	2	in 2 pieces each
71	625N 280E:I	pz, 0-21cm	chipping detritus	2	I primary Kettle Point; I shatter Kettle Point
72	625N 280E:1	pz, 0-21cm	faunal remains	I	
73	630N 285E:1	pz, 0-25cm	chipping detritus	I	secondary Kettle Point
74	580N 260E:I	pz, 0-26cm	chipping detritus	2	fragmentary Kettle Point
75	590N 260E:1	pz, 0-27cm	chipping detritus	13	I fragmentary Onondaga; 3 secondary Kettle Point; 7 fragmentary Kettle Point; 2 shatter Kettle Point
76	590N 260E:I	ss, 27-37cm	chipping detritus	3	2 secondary Onondaga; I secondary Kettle Point
77	545N 260E:I	pz, 0-30cm	chipping detritus	I	secondary Kettle Point
78	575N 265E: I	pz, 0-30cm	scraper	I	Kettle Point
79	575N 265E:1	pz, 0-30cm	chipping detritus	7	I secondary Onondaga; 3 fragmentary Onondaga; I shatter Onondaga; I secondary Kettle Point; I fragmentary Kettle Point
80	575N 270E:I	pz, 0-30cm	chipping detritus	I	fragmentary Onondaga
81	580N 265E:I	pz, 0-31cm	chipping detritus	9	2 secondary Onondaga; 3 secondary Kettle Point; 3 fragmentary Kettle Point; 1 shatter Kettle Point
82	580N 270E:I	pz, 0-27cm	chipping detritus	4	2 secondary Onondaga; I fragmentary Onondaga; I secondary Kettle Point
83	585N 255E:I	pz, 0-28cm	chipping detritus	I	fragmentary Kettle Point
84	585N 265E:1	pz, 0-20cm	chipping detritus	12	I secondary Onondaga; 2 fragmentary Onondaga; 4 secondary Kettle Point; 4 fragmentary Kettle Point; I shatter Kettle Point
85	585N 280E:I	pz, 0-20cm	chipping detritus	2	I secondary Kettle Point; I fragmentary Kettle Point
86	590N 255E:I	pz, 0-20cm	chipping detritus	I	fragmentary Kettle Point
87	590N 265E:I	pz, 0-17cm	chipping detritus	4	2 secondary Kettle Point; 2 fragmentary Kettle Point
88	590N 270E:I	pz, 0-25cm	chipping detritus	8	I fragmentary Onondaga; 3 secondary Kettle Point; 4 fragmentary Kettle Point
89	595N 265E:1	pz, 0-30cm	biface	I	Onondaga; fragment
90	595N 265E:1	pz, 0-30cm	chipping detritus	6	3 secondary Kettle Point; 2 fragmentary Kettle Point; I shatter Kettle Point



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

Cat.	Context	Layer/Depth	Artifact	n	Comments
91	600N 260E:1	pz, 0-25cm	chipping detritus	7	I primary Kettle Point (in 2 pieces); I secondary Kettle Point; 4 fragmentary Kettle Point; I shatter Kettle Point
92	625N 285E:I	pz, 0-22cm	chipping detritus	ı	shatter Kettle Point



APPENDIX D: LOCATION 4 (AFHJ-533), STAGE 3 ARTIFACT CATALOGUE

Cat.	Context	Layer/Depth	Artifact	n	Comments
79	765N 340E:I	pz, 0-25cm	chipping detritus	I	secondary Onondaga
80	765N 350E:I	pz, 0-38cm	chipping detritus	2	shatter Kettle Point
81	765N 360E:I	pz, 0-52cm	fragmentary sherd	3	
82	765N 360E:I	pz, 0-52cm	chipping detritus	3	I fragmentary Onondaga; I secondary Kettle Point; I fragmentary unknown
83	765N 370E:I	pz, 0-40cm	neck sherd	ı	
84	765N 370E:I	pz, 0-40cm	fragmentary sherd	5	
85	765N 370E:I	pz, 0-40cm	chipping detritus	4	I secondary Onondaga; 2 fragmentary Kettle Point; I fragmentary burnt unknown
86	765N 370E:I	pz, 0-40cm	faunal remains	3	I saw cut
87	775N 360E:I	pz, 0-25cm	chipping detritus	5	3 secondary Kettle Point; 2 fragmentary Kettle Point
88	775N 360E:I	pz, 0-25cm	faunal remains	I	
89	785N 370E:I	pz, 0-25cm	chipping detritus	2	fragmentary Kettle Point
90	805N 360E:I	pz, 0-25cm	fragmentary sherd	ı	in 2 pieces
91	805N 360E:I	pz, 0-25cm	chipping detritus	I	fragmentary Kettle Point
92	805N 370E:I	pz, 0-30cm	utilized flake	I	secondary Kettle Point
93	805N 370E:I	pz, 0-30cm	chipping detritus	3	I fragmentary Onondaga; I secondary Kettle Point; I fragmentary Kettle Point
94	815N 350E:1	pz, 0-20cm	chipping detritus	3	I fragmentary Kettle Point; 2 shatter Kettle Point



Cat.	Context	Lavor/Donth	Artifact		Comments
Cal.	Context	Layer/Depth	Artifact	n	Comments
95	825N 350E:1	pz, 0-25cm	chipping detritus	9	3 secondary Kettle Point; 6 fragmentary Kettle Point
96	835N 350E:I	pz, 0-20cm	chipping detritus	I	fragmentary Kettle Point
97	675N 350E:I	pz, 0-50cm	chipping detritus	I	secondary unknown
98	685N 350E:I	pz, 0-25cm	retouched flake	I	Kettle Point
99	685N 350E:1	pz, 0-25cm	chipping detritus	6	I fragmentary Onondaga; 3 fragmentary Kettle Point; 2 fragmentary burnt unknown
100	695N 350E:I	pz, 0-25cm	chipping detritus	5	2 secondary Kettle Point; 2 fragmentary Kettle Point; I shatter Kettle Point
101	705N 330E:I	pz, 0-29cm	fragmentary sherd		
102	705N 330E:1	pz, 0-29cm	chipping detritus	8	3 fragmentary Onondaga; I primary Kettle Point; 2 fragmentary Kettle Point; I secondary burnt Kettle Point; I shatter burnt unknown
103	705N 340E:I	pz, 0-21cm	chipping detritus	5	I fragmentary Onondaga; I secondary Kettle Point; 2 fragmentary Kettle Point; I fragmentary unknown
104	705N 350E:I	pz, 0-25cm	fragmentary rim sherd	I	interior obliques; exterior obliques over horizontals
105	705N 350E:I	pz, 0-25cm	fragmentary sherd	I	
106	705N 350E:I	pz, 0-25cm	biface	I	Onondaga; edge fragment



Cat.	Context	Layer/Depth	Artifact	n	Comments
107	705N 350E:I	pz, 0-25cm	faunal remains	I	calcined
108	705N 350E:I	pz, 0-25cm	chipping detritus	26	2 fragmentary Onondaga; I shatter Onondaga; 7 secondary Kettle Point; 8 fragmentary Kettle Point; 2 shatter Kettle Point; I secondary burnt Kettle Point; 2 shatter burnt Kettle Point; 3 fragmentary unknown
109	705N 360E:I	pz, 0-25cm	fragmentary sherd	2	
110	705N 360E:I	pz, 0-25cm	chipping detritus	10	I secondary Onondaga; I fragmentary Onondaga; 3 secondary Kettle Point; 5 fragmentary Kettle Point
111	705N 360E:I	pz, 0-25cm	faunal remains	I	
112	705N 370E:I	pz, 0-28cm	chipping detritus	15	I secondary Onondaga; I fragmentary Onondaga; 8 secondary Kettle Point; 4 fragmentary Kettle Point; I fragmentary burnt Kettle Point
113	725N 330E:I	pz, 0-25cm	fragmentary neck sherd	I	
114	725N 330E:I	pz, 0-25cm	fragmentary sherd	5	
115	725N 330E:I	pz, 0-25cm	biface	I	Selkirk; tip fragment
116	725N 330E:I	pz, 0-25cm	perforator	I	burnt Onondaga



Cat.	Context	Layer/Depth	Artifact	n	Comments
117	725N 330E:1	pz, 0-25cm	chipping detritus	20	2 secondary Onondaga; I fragmentary Onondaga; 2 secondary Kettle Point; 6 fragmentary Kettle Point; I shatter Kettle Point; I fragmentary Flint Ridge; 2 secondary burnt unknown; 5 fragmentary burnt unknown
118	725N 330E:I	pz, 0-25cm	faunal remains	5	I burnt; I calcined
119	735N 310E:1	pz, 0-35cm	chipping detritus	2	I secondary Kettle Point; I shatter burnt Kettle Point
120	735N 320E:I	pz, 0-25cm	fragmentary rim sherd	I	exterior verticals
121	735N 320E:I	pz, 0-25cm	fragmentary sherd	8	
122	735N 320E:I	pz, 0-25cm	chipping detritus	21	2 secondary Onondaga; 3 fragmentary Onondaga; 4 shatter Onondaga; 2 secondary burnt Onondaga; I primary Kettle Point; 2 secondary Kettle Point; I shatter Kettle Point; I fragmentary burnt Kettle Point; I shatter burnt Kettle Point; I secondary Selkirk; 3 secondary unknown
123	735N 320E:I	pz, 0-25cm	faunal remains	6	3 burnt; I calcined
124	735N 330E:I	pz, 0-28cm	fragmentary rim sherd	I	interior lip notches; exterior lip notches over horizontals
125	735N 330E:I	pz, 0-28cm	fragmentary sherd	5	



Cat.	Context	Layer/Depth	Artifact	n	Comments
126	735N 330E:I	pz, 0-28cm	chipping detritus	11	2 secondary Kettle Point; 2 fragmentary Kettle Point; 4 shatter Kettle Point; I fragmentary burnt Kettle Point; I shatter burnt Kettle Point; I fragmentary burnt unknown
127	735N 340E:I	pz, 0-23cm	neck sherd	I	
128	735N 340E:I	pz, 0-23cm	chipping detritus	3	I primary Kettle Point; 2 fragmentary Kettle Point
129	735N 340E:I	pz, 0-23cm	faunal remains	3	I calcined
130	735N 350E:I	pz, 0-25cm	body sherd	I	in 2 pieces
131	735N 350E:I	pz, 0-25cm	fragmentary sherd	2	
132	735N 350E:I	pz, 0-25cm	chipping detritus	5	I fragmentary Onondaga; I shatter Onondaga; I secondary Kettle Point; 2 fragmentary Kettle Point
133	735N 350E:I	pz, 0-25cm	faunal remains	3	l burnt
134	735N 350E:I	ss, 25-30cm	body sherd	I	in 2 pieces
135	735N 350E:I	ss, 25-30cm	fragmentary sherd	I	
136	735N 350E:I	ss, 25-30cm	chipping detritus	3	I secondary Kettle Point; 2 fragmentary Kettle Point
137	735N 350E:I	ss, 25-30cm	faunal remains	9	I calcined
138	735N 370E:I	pz, 0-38cm	chipping detritus	7	I fragmentary Onondaga; 3 secondary Kettle Point; I fragmentary Kettle Point; 2 shatter Kettle Point
139	735N 360E:I	pz, 0-26cm	fragmentary rim sherd	I	lip fragment



Cat.	Context	Layer/Depth	Artifact	n	Comments
140	735N 360E:I	pz, 0-26cm	fragmentary rim sherd	I	exterior obliques
141	735N 360E:I	pz, 0-26cm	fragmentary sherd	3	
142	735N 360E:I	pz, 0-26cm	projectile point	l	Onondaga?; base fragment
143	735N 360E:I	pz, 0-26cm	chipping detritus	26	I secondary Onondaga; I fragmentary Onondaga; I shatter Onondaga; 4 secondary Kettle Point; I0 fragmentary Kettle Point; 3 shatter Kettle Point; I fragmentary burn tkp; 2 fragmentary unknown; I secondary burnt unknown; I fragmentary burnt unknown; I shatter unknown
144	745N 330E:I	pz, 0-22cm	fragmentary rim sherd	I	lip notch
145	745N 330E:I	pz, 0-22cm	body sherd	ı	
146	745N 330E:I	pz, 0-22cm	fragmentary sherd	7	
147	745N 330E:I	pz, 0-22cm	fragmentary neck sherd, decorated	I	horizontals
148	745N 330E:I	pz, 0-22cm	biface	I	Tip; Kettle Point
149	745N 330E:I	pz, 0-22cm	faunal remains	4	I burnt; 2 calcined
150	745N 330E:1	pz, 0-22cm	chipping detritus	13	I secondary Onondaga; I secondary Kettle Point; 3 fragmentary Kettle Point; I shatter Kettle Point; 2 secondary unknown; 3 fragmentary unknown; 2 shatter burnt unknown



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

Cat.	Context	Layer/Depth	Artifact	n	Comments
151	755N 330E:1	pz, 0-28cm	chipping detritus	2	I secondary Kettle Point; I secondary unknown
152	765N 330E:I	pz, 0-30cm	chipping detritus	I	fragmentary Kettle Point
153	755N 350E:I	pz, 0-25cm	chipping detritus	3	fragmentary Kettle Point
154	775N 370E:I	pz, 0-32cm	chipping detritus	2	secondary Kettle Point
155	725N 320E:I	pz, 0-28cm	fragmentary rim sherd	I	exterior punctate
156	725N 320E:I	pz, 0-28cm	fragmentary rim sherd	I	exterior verticals
157	725N 320E:I	pz, 0-28cm	neck sherd, decorated	I	exterior punctates
158	725N 320E:I	pz, 0-28cm	shoulder sherd, decorated	I	exterior punctates and horizontals
159	725N 320E:I	pz, 0-28cm	fragmentary neck sherd	I	
160	725N 320E:I	pz, 0-28cm	body sherd	2	
161	725N 320E:I	pz, 0-28cm	fragmentary sherd	17	
162	725N 320E:1	pz, 0-28cm	projectile point	I	Onondaga; burnt?; triangular; nearly complete
163	725N 320E:I	pz, 0-28cm	perforator	I	Onondaga
164	725N 320E:I	pz, 0-28cm	retouched flake	I	Onondaga
165	725N 320E:I	pz, 0-28cm	shell	ı	



Cat.	Context	Layer/Depth	Artifact	n	Comments
166	725N 320E:I	pz, 0-28cm	chipping detritus	57	7 secondary Onondaga; 7 fragmentary Onondaga; I shatter Onondaga; I secondary burnt Onondaga; I fragmentary burnt Onondaga; I shatter burnt Onondaga; 9 secondary Kettle Point; 13 fragmentary Kettle Point; 2 shatter Kettle Point; 3 fragmentary burnt Kettle Point; 2 shatter burnt Kettle Point; 4 fragmentary unknown; I shatter unknown; I shatter unknown; 2 fragmentary burnt unknown; 2 shatter burnt unknown
167	725N 320E:1	pz, 0-28cm	faunal remains	92	21 burnt; 30 calcined
168	745N 320E:I	pz, 0-40cm	chipping detritus	I	fragmentary Onondaga
169	745N 360E:I	pz, 0-22cm	fragmentary sherd	2	
170	745N 360E:I	pz, 0-22cm	chipping detritus	6	3 fragmentary Onondaga; 2 secondary Kettle Point; I fragmentary Kettle Point
171	745N 360E:I	pz, 0-22cm	faunal remains	2	
172	745N 370E:I	pz, 0-27cm	fragmentary neck sherd, decorated	I	exterior punctates
173	745N 370E:I	pz, 0-27cm	fragmentary sherd	5	
174	745N 370E:I	pz, 0-27cm	utilized flake	I	fragmentary unknown



Cat.	Context	Layer/Depth	Artifact	n	Comments
175	745N 370E:1	pz, 0-27cm	chipping detritus	13	I secondary Onondaga; 2 primary Kettle Point; 3 secondary Kettle Point; 2 fragmentary Kettle Point; 3 shatter Kettle Point; I shatter burnt Kettle Point; I shatter unknown
176	745N 370E:I	pz, 0-27cm	faunal remains	2	I calcined
177	755N 360E:I	pz, 0-22cm	fragmentary sherd	3	I in 2 pieces
178	745N 370E:1	pz, 0-27cm	chipping detritus	7	I primary Onondaga; I fragmentary Onondaga; 3 secondary Kettle Point; I fragmentary Kettle Point; I fragmentary burnt Kettle Point
179	755N 370E:I	pz, 0-31cm	fragmentary sherd	5	
180	755N 370E:1	pz, 0-31cm	drill	I	Onondaga; possible drill base fragment
181	755N 370E:1	pz, 0-31cm	chipping detritus	17	I primary Onondaga; 2 secondary Onondaga; 2 fragmentary Onondaga; 4 secondary Kettle Point; 4 fragmentary Kettle Point; I shatter Kettle Point; I fragmentary burnt Kettle Point; I shatter burnt Kettle Point; I shatter burnt Kettle Point; I fragmentary unknown
182	755N 370E:I	pz, 0-31cm	faunal remains	4	



Cat.	Context	Layer/Depth	Artifact	n	Comments
183	670N 325E:I	pz, 0-39cm	chipping detritus	I	primary Kettle Point
184	695N 360E:I	pz, 0-21cm	wedge	I	Onondaga; possible wedge
185	695N 360E:1	pz, 0-21cm	chipping detritus	5	I fragmentary Onondaga; I secondary Kettle Point; 2 fragmentary Kettle Point; I fragmentary Selkirk
186	695N 360E:I	pz, 0-21cm	faunal remains	I	burnt
187	695N 370E:1	pz, 0-25cm	chipping detritus	8	2 fragmentary Onondaga; 3 secondary Kettle Point; I fragmentary Kettle Point; 2 shatter Kettle Point
188	705N 320E:1	pz, 0-25cm	chipping detritus	2	I primary Kettle Point; I fragmentary Kettle Point
189	705N 380E:1	pz, 0-23cm	chipping detritus	2	I primary Kettle Point; I fragmentary Kettle Point
190	715N 320E:1	pz, 0-25cm	chipping detritus	5	2 secondary Kettle Point; I fragmentary Kettle Point; I secondary burnt Kettle Point; I secondary unknown
191	715N 370E:I	pz, 0-35cm	biface	l	Kettle Point
192	715N 370E:1	pz, 0-35cm	chipping detritus	9	2 secondary Onondaga; 4 secondary Kettle Point; 2 fragmentary burnt Kettle Point; I secondary burnt unknown



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

Cat.	Context	Layer/Depth	Artifact	n	Comments
193	715N 380E:1	pz, 0-25cm	chipping detritus	4	I fragmentary Onondaga; I secondary Kettle Point; I fragmentary Kettle Point; I shatter Kettle Point
194	725N 310E:1	pz, 0-45cm	fragmentary rim sherd	I	exterior obliques
195	725N 310E:1	pz, 0-45cm	fragmentary neck sherd	2	
196	725N 310E:1	pz, 0-45cm	body sherd	l	
197	725N 310E:1	pz, 0-45cm	fragmentary sherd	8	
198	725N 310E:1	pz, 0-45cm	chipping detritus	23	6 fragmentary Onondaga (I in 2 pieces); 4 secondary Kettle Point; 2 fragmentary Kettle Point; 2 shatter Kettle Point; 3 secondary burnt Kettle Point; I fragmentary burnt Kettle Point; 2 shatter burnt Kettle Point; 2 fragmentary burnt unknown (I in 2 pieces); I shatter burnt unknown
199	725N 310E:1	pz, 0-45cm	faunal remains	25	I burnt; I4 calcined
200	725N 325E:I	pz, 0-28cm	fragmentary sherd	4	
201	725N 325E:I	pz, 0-28cm	utilized flake	I	fragmentary Kettle Point



Cat.	Context	Layer/Depth	Artifact	n	Comments
202	725N 325E:1	pz, 0-28cm	chipping detritus	29	I secondary Onondaga; 2 fragmentary Onondaga; I shatter Onondaga; 9 secondary Kettle Point; 6 fragmentary Kettle Point; I shatter Kettle Point; 2 secondary burnt Kettle Point; 2 fragmentary burnt Kettle Point; I shatter burnt unknown; I shatter burnt unknown
203	725N 325E:I	pz, 0-28cm	faunal remains	15	calcined
204	725N 340E:1	pz, 0-26cm	biface	I	Kettle Point; side notched; incomplete
205	725N 340E:1	pz, 0-26cm	chipping detritus	5	I primary Onondaga; I secondary Onondaga; 2 fragmentary Kettle Point; I fragmentary burnt unknown
206	725N 370E:I	pz, 0-31cm	biface	I	Onondaga; crude
207	725N 370E:I	pz, 0-31cm	chipping detritus	8	2 fragmentary Onondaga; I shatter burn tono; 2 fragmentary Kettle Point; 2 shatter Kettle Point; I fragmentary burnt Kettle Point
208	725N 370E:I	pz, 0-31cm	faunal remains	I	calcined



Cat.	Context	Layer/Depth	Artifact	n	Comments
209	725N 380E:I	pz, 0-24cm	chipping detritus	6	I fragmentary Onondaga; I secondary Kettle Point; I fragmentary Kettle Point; 2 shatter Kettle Point; I secondary burnt Kettle Point
210	730N 325E:I	pz, 0-2 4 cm	fragmentary sherd	2	
211	730N 325E:I	pz, 0-24cm	biface	I	burnt Kettle Point; fragment
212	730N 325E:I	pz, 0-24cm	chipping detritus	22	3 secondary Onondaga; I shatter Onondaga; 6 secondary Kettle Point; 7 fragmentary Kettle Point; 4 shatter Kettle Point; I secondary unknown
213	730N 325E:I	pz, 0-24cm	faunal remains	4	I calcined
214	755N 380E:I	pz, 0-23cm	fragmentary sherd	I	
215	755N 380E:I	pz, 0-23cm	chipping detritus	5	I primary Onondaga; I fragmentary Onondaga; 2 secondary Kettle Point; I shatter Kettle Point
216	755N 390E:I	pz, 0-22cm	chipping detritus	I	secondary Onondaga
217	795N 370E:I	pz, 0-28cm	chipping detritus	3	I secondary Onondaga; 2 secondary Kettle Point
218	795N 370E:I	pz, 0-28cm	faunal remains	I	
219	705N 355E:I	pz, 0-28cm	biface	I	burnt Onondaga; fragment



Cat.	Context	Layer/Depth	Artifact	n	Comments
220	705N 355E:I	pz, 0-28cm	chipping detritus	15	2 fragmentary Onondaga; 7 secondary Kettle Point; 6 fragmentary Kettle Point
221	710N 350E:1	pz, 0-25cm	fragmentary sherd	2	
222	710N 350E:1	pz, 0-25cm	retouched flake	I	secondary Kettle Point
223	710N 350E:1	pz, 0-25cm	chipping detritus	28	3 secondary Onondaga; 2 fragmentary Onondaga; 5 secondary Kettle Point; 9 fragmentary Kettle Point; 2 shatter Kettle Point; I secondary burnt Kettle Point; 2 fragmentary burnt Kettle Point; I secondary burnt unknown; 3 fragmentary burnt unknown
224	710N 350E:1	pz, 0-25cm	faunal remains	6	I calcined
225	710N 360E:1	pz, 0-30cm	chipping detritus	П	I secondary Onondaga; I secondary burnt Onondaga; I secondary Kettle Point; 7 fragmentary Kettle Point; I shatter Kettle Point
226	710N 360E:1	pz, 0-30cm	faunal remains	I	
227	715N 310E:1	pz, 0-56cm	fragmentary rim sherd	I	exterior verticals; mends with cat. 228 & 229
228	715N 310E:1	pz, 0-56cm	neck sherd	I	mends with cat. 227 & 229



Cat.	Context	Layer/Depth	Artifact	n	Comments
229	715N 310E:1	pz, 0-56cm	fragmentary rim sherd	I	exterior verticals; mends with cat. 227 & 228
230	715N 310E:1	pz, 0-56cm	chipping detritus	10	2 fragmentary Onondaga; 2 secondary Kettle Point; 2 fragmentary Kettle Point; 2 shatter Kettle Point; 2 fragmentary burnt Kettle Point
231	715N 340E:1	pz, 0-22cm	chipping detritus	3	I fragmentary Onondaga; I secondary Kettle Point; I fragmentary Kettle Point
232	715N 350E:1	pz, 0-25cm	fragmentary sherd	4	
233	715N 350E:1	pz, 0-25cm	chipping detritus	23	2 secondary Onondaga; 3 fragmentary Onondaga; 7 secondary Kettle Point; 7 fragmentary Kettle Point; 2 shatter Kettle Point; I secondary unknown; I shatter burnt unknown
234	715N 350E:I	pz, 0-25cm	faunal remains	8	5 calcined
235	715N 360E:I	pz, 0-25cm	fragmentary sherd, decorated	I	exterior punctates?
236	715N 360E:I	pz, 0-25cm	fragmentary sherd	4	
237	715N 360E:1	pz, 0-25cm	graver	I	secondary Onondaga



Cat.	Context	Layer/Depth	Artifact	n	Comments
238	715N 360E:1	pz, 0-25cm	chipping detritus	27	I secondary Onondaga; 2 fragmentary Onondaga; I shatter Onondaga; 7 secondary Kettle Point; 10 fragmentary Kettle Point; 2 shatter Kettle Point; 4 fragmentary burnt Kettle Point
239	715N 360E:I	pz, 0-25cm	faunal remains	5	I burnt; I calcined
240	725N 300E:I	pz, 0-23cm	chipping detritus	2	fragmentary Kettle Point
241	725N 350E:I	pz, 0-30cm	fragmentary sherd	5	
242	725N 350E:I	pz, 0-30cm	chipping detritus	10	I secondary Onondaga; 2 fragmentary Onondaga; 3 secondary Kettle Point; 3 fragmentary Kettle Point; I shatter Kettle Point
243	725N 350E:I	pz, 0-30cm	faunal remains	ı	calcined
244	725N 360E:I	pz, 0-25cm	chipping detritus	8	I secondary Onondaga; 2 fragmentary Onondaga; 4 secondary Kettle Point; I shatter Kettle Point
245	730N 355E:I	pz, 0-25cm	fragmentary sherd	6	
246	730N 355E:I	pz, 0-25cm	projectile point	I	Kettle Point; missing base
247	730N 355E:I	pz, 0-25cm	biface	I	Kettle Point; fragment



Cat.	Context	Layer/Depth	Artifact	n	Comments
248	730N 355E:I	pz, 0-25cm	chipping detritus	9	3 fragmentary Onondaga; I secondary Kettle Point; 2 fragmentary Kettle Point; I shatter Kettle Point; 2 fragmentary burnt unknown
249	730N 355E:I	pz, 0-25cm	faunal remains	3	2 burnt
250	730N 360E:I	pz, 0-23cm	pipe stem fragment		
251	730N 360E:I	pz, 0-23cm	chipping detritus	2	I secondary Kettle Point; I secondary burnt unknown
252	735N 345E:I	pz, 0-25cm	chipping detritus	11	2 secondary Onondaga; I shatter Onondaga; 3 secondary Kettle Point; 2 fragmentary Kettle Point; I shatter Kettle Point; I fragmentary burnt Kettle Point; I secondary burnt unknown
253	735N 355E:I	pz, 0-31cm	fragmentary sherd	ı	
254	735N 355E:I	pz, 0-31cm	biface	l	Kettle Point
255	735N 355E:I	pz, 0-31cm	utilized flake	l	fragmentary Kettle Point
256	735N 355E:I	pz, 0-31cm	chipping detritus	4	2 secondary Onondaga; I fragmentary Onondaga; I fragmentary Kettle Point
257	740N 330E:I	pz, 0-25cm	neck sherd	I	
258	740N 330E:I	pz, 0-25cm	body sherd	I	in 2 pieces
259	740N 330E:I	pz, 0-25cm	fragmentary sherd	10	•
260	740N 330E:I	pz, 0-25cm	biface	I	Kettle Point; tip fragment



Cat.	Context	Layer/Depth	Artifact	n	Comments
261	740N 330E:1	pz, 0-25cm	chipping detritus	13	2 secondary Onondaga; 3 fragmentary Onondaga; 2 secondary Kettle Point; 4 fragmentary Kettle Point; 2 shatter Kettle Point
262	740N 330E:I	pz, 0-25cm	faunal remains	18	8 calcined
263	745N 335E:I	pz, 0-25cm	fragmentary sherd	I	
264	745N 335E:1	pz, 0-25cm	chipping detritus	4	I secondary Onondaga; I fragmentary Kettle Point; I secondary burnt Kettle Point; I shatter burnt Kettle Point
265	745N 335E:I	pz, 0-25cm	faunal remains	I	
266	745N 340E:I	pz, 0-20cm	fragmentary sherd	2	
267	745N 340E:I	pz, 0-20cm	retouched flake	I	fragmentary Kettle Point
268	745N 340E:1	pz, 0-20cm	chipping detritus	4	I secondary Onondaga; I shatter Onondaga; I secondary burnt Onondaga; I fragmentary burnt Kettle Point
269	745N 340E:I	pz, 0-20cm	faunal remains	7	
270	745N 350E:I	pz, 0-21cm	chipping detritus	3	2 secondary Kettle Point (I in 2 pieces); I fragmentary burnt Kettle Point
271	755N 340E:I	pz, 0-29cm	chipping detritus	2	I fragmentary Kettle Point; I shatter Kettle Point
272	755N 340E:I	pz, 0-29cm	faunal remains		calcined
273	705N 300E:1	pz, 0-30cm	chipping detritus	2	I fragmentary Kettle Point; I secondary unknown



Stage 3 Archaeological Assessment, Location 3 (AfHj-532) and Location 4 (AfHj-533) Plan of 33R-19731, Municipality of Strathroy-Caradoc, Middlesex County, ON

Cat.	Context	Layer/Depth	Artifact	n	Comments
274	705N 310E:1	pz, 0-33cm	chipping detritus	6	3 secondary Kettle Point; I fragmentary unknown; I shatter unknown; I fragmentary burnt unknown
275	720N 330E:I	pz, 0-25cm	fragmentary sherd	3	
276	720N 330E:1	pz, 0-25cm	chipping detritus	10	I primary Onondaga; 3 fragmentary Onondaga; 2 shatter Kettle Point; 2 secondary burnt Kettle Point; I secondary unknown; I fragmentary unknown
277	720N 330E:I	pz, 0-25cm	faunal remains	3	l burnt
278	725N 335E:I	pz, 0-30cm	utilized flake	I	fragmentary Kettle Point
279	725N 335E:I	pz, 0-30cm	chipping detritus	7	2 secondary Onondaga; 2 secondary Kettle Point; 2 fragmentary Kettle Point; I secondary burnt unknown
280	730N 330E:I	pz, 0-27cm	neck sherd	ı	
281	730N 330E:I	pz, 0-27cm	fragmentary neck sherd	I	
282	730N 330E:I	pz, 0-27cm	body sherd		
283	730N 330E:I	pz, 0-27cm	fragmentary sherd	13	



Cat.	Context	Layer/Depth	Artifact	n	Comments
284	730N 330E:1	pz, 0-27cm	chipping detritus	13	2 secondary Onondaga; 2 fragmentary Onondaga; I shatter Onondaga; 3 fragmentary Kettle Point; I shatter Kettle Point; I fragmentary unknown; I fragmentary burnt unknown; 2 shatter burnt unknown
285	730N 330E:I	pz, 0-27cm	faunal remains	7	2 calcined
286	735N 325E:I	pz, 0-25cm	chipping detritus	10	I secondary Onondaga; 4 secondary Kettle Point; I fragmentary Kettle Point; I shatter Kettle Point; I secondary burnt Kettle Point; I secondary unknown; I fragmentary burnt unknown
287	740N 335E:1	pz, 0-27cm	fragmentary sherd	6	
288	740N 335E:I	pz, 0-27cm	chipping detritus	9	2 secondary Onondaga; I fragmentary Onondaga; I fragmentary burnt Onondaga; 3 fragmentary Kettle Point; I shatter Kettle Point; I secondary burnt Kettle Point
289	740N 335E:I	pz, 0-27cm	faunal remains	14	2 burnt
290	710N 370E:1	pz, 0-29cm	fragmentary sherd	I	



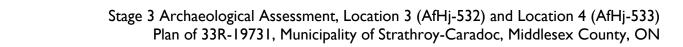
Cat.	Context	Layer/Depth	Artifact	n	Comments
291	710N 370E:1	pz, 0-29cm	chipping detritus	25	2 fragmentary Onondaga; I primary Kettle Point; 5 secondary Kettle Point; 5 fragmentary Kettle Point; 4 shatter Kettle Point; 2 fragmentary burnt Kettle Point; I shatter burnt Kettle Point; 4 fragmentary burnt unknown; I shatter burnt unknown
292	710N 370E:1	pz, 0-29cm	faunal remains	18	3 burnt; 4 calcined
293	710N 370E:1	pz, 0-29cm	shell	5	
294	710N 370E:1	ss, 29-34cm	fragmentary sherd	l	
295	710N 380E:1	pz, 0-28cm	chipping detritus	4	I secondary Onondaga; 2 fragmentary Kettle Point; I fragmentary burnt unknown
296	710N 380E:1	pz, 0-28cm	shell	ı	
297	715N 355E:1	pz, 0-23cm	core	I	Kettle Point; fragment
298	715N 355E:1	pz, 0-23cm	chipping detritus	8	I secondary Onondaga; I shatter Onondaga; 2 secondary Kettle Point; I fragmentary Kettle Point; I shatter Kettle Point; I primary burnt Kettle Point; I secondary burnt unknown
299	720N 320E:I	pz, 0-27cm	fragmentary sherd	2	
300	720N 320E:I	pz, 0-27cm	biface	I	Onondaga; complete



Cat.	Context	Layer/Depth	Artifact	n	Comments
301	720N 320E:1	pz, 0-27cm	chipping detritus	17	2 secondary Onondaga; 2 shatter Onondaga; 7 secondary Kettle Point; I fragmentary Kettle Point; I shatter Kettle Point; I shatter burnt Kettle Point; I secondary unknown; I secondary burnt unknown; I shatter burnt unknown
302	720N 320E:I	pz, 0-27cm	faunal remains	3	l burnt
303	720N 325E:I	pz, 0-22cm	fragmentary sherd	2	
304	720N 325E:I	pz, 0-22cm	chipping detritus	7	I secondary Kettle Point; 2 fragmentary Kettle Point (I in 2 pieces); I shatter Kettle Point; I fragmentary burnt Kettle Point; I shatter burnt Kettle Point; I fragmentary burnt unknown
305	720N 325E:I	pz, 0-22cm	miscellaneous bone artifact	I	polished?
306	720N 335E:I	pz, 0-29cm	utilized flake	I	secondary Kettle Point
307	720N 335E:I	pz, 0-29cm	chipping detritus	5	I fragmentary Onondaga; 2 secondary Kettle Point; 2 shatter burnt Kettle Point
308	720N 350E:I	pz, 0-26cm	body sherd	I	
309	720N 350E:I	pz, 0-26cm	fragmentary sherd	3	
310	720N 350E:I	pz, 0-26cm	projectile point	I	Onondaga; missing tip
311	720N 350E:I	pz, 0-26cm	projectile point	I	Onondaga; missing tip



Cat.	Context	Layer/Depth	Artifact	n	Comments
312	720N 350E:1	pz, 0-26cm	chipping detritus	12	3 fragmentary Onondaga; 2 secondary Kettle Point; 3 fragmentary Kettle Point; 3 shatter Kettle Point; I fragmentary unknown
313	720N 370E:I	pz, 0-31cm	faunal remains	I	
314	720N 370E:1	pz, 0-31cm	chipping detritus	11	I shatter Onondaga; 4 secondary Kettle Point; 3 fragmentary Kettle Point; I shatter Kettle Point; I secondary burnt Kettle Point; I fragmentary burnt unknown
315	725N 315E:I	pz, 0-20cm	fragmentary sherd	3	
316	725N 315E:1	pz, 0-20cm	drill	I	Kettle Point; tip fragment
317	725N 315E:1	pz, 0-20cm	chipping detritus	22	5 secondary Onondaga; 2 fragmentary Onondaga; 2 secondary Kettle Point; 5 fragmentary Kettle Point; I shatter Kettle Point; I secondary burnt Kettle Point; I fragmentary burnt Kettle Point; I shatter burnt Kettle Point; 2 secondary burnt unknown; I fragmentary burnt unknown; I shatter burnt unknown

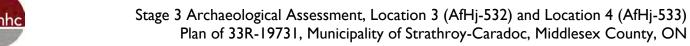




Cat.	Context	Layer/Depth	Artifact	n	Comments
318	725N 315E:I	pz, 0-20cm	utilized flake	I	secondary Kettle Point
319	725N 315E:1	2, 20-44cm	neck sherd	ı	
320	725N 315E:1	2, 20-44cm	fragmentary sherd	6	
321	725N 315E:I	2, 20-44cm	chipping detritus	27	2 secondary Onondaga; 4 fragmentary Onondaga; 2 shatter Onondaga; 8 secondary Kettle Point; 4 fragmentary Kettle Point; I shatter Kettle Point; I secondary burnt Kettle Point; 2 fragmentary burnt Kettle Point; I shatter burnt unknown; I shatter burnt unknown
322	725N 315E:1	2, 20-44cm	faunal remains	8	I burnt; 2 calcined
323	730N 350E:I	pz, 0-28cm	body sherd	ı	
324	730N 350E:I	pz, 0-28cm	fragmentary sherd		
325	730N 350E:I	pz, 0-28cm	core	I	Kettle Point; possible core fragment
326	730N 350E:I	pz, 0-28cm	chipping detritus	9	2 secondary Onondaga; 2 fragmentary Onondaga; 3 secondary Kettle Point; I shatter Kettle Point; I fragmentary burnt unknown
327	730N 350E:I	pz, 0-28cm	faunal remains	ı	
328	735N 315E:1	pz, 0-33cm	pipe bowl fragment	l	



Cat.	Context	Layer/Depth	Artifact	n	Comments
329	735N 315E:1	pz, 0-33cm	chipping detritus	13	3 secondary Onondaga; 3 fragmentary Onondaga; I shatter Onondaga; I secondary Kettle Point; 2 fragmentary Kettle Point; I secondary burnt Kettle Point; I fragmentary burnt Kettle Point; I fragmentary burnt unknown
330	735N 315E:1	pz, 0-33cm	fragmentary sherd	3	
331	735N 315E:1	pz, 0-33cm	faunal remains	4	3 calcined
332	735N 335E:I	pz, 0-27cm	chipping detritus	17	2 secondary Onondaga; I primary Kettle Point; 5 secondary Kettle Point; 3 fragmentary Kettle Point; I shatter Kettle Point; I secondary burnt Kettle Point; 2 fragmentary burnt Kettle Point; I secondary Selkirk; I secondary unknown
333	735N 335E:I	pz, 0-27cm	faunal remains	5	I burnt
334	735N 335E:I	pz, 0-27cm	shell	4	
335	750N 370E:I	pz, 0-28cm	fragmentary rim sherd	I	exterior obliques over horizontals
336	750N 370E:I	pz, 0-28cm	fragmentary sherd	П	-
337	750N 370E:I	pz, 0-28cm	retouched flake	I	fragmentary Onondaga





Cat.	Context	Layer/Depth	Artifact	n	Comments
338	750N 370E:1	pz, 0-28cm	chipping detritus	15	I primary Onondaga; 2 secondary Onondaga; 2 fragmentary Onondaga; 3 secondary Kettle Point; 2 fragmentary Kettle Point; I shatter Kettle Point; I secondary unknown; I secondary burnt unknown; I fragmentary burnt unknown; I shatter burnt unknown
339	750N 370E:I	pz, 0-28cm	faunal remains	26	
340	760N 370E:I	pz, 0-28cm	fragmentary sherd	2	I in 2 pieces
341	760N 370E:1	pz, 0-28cm	chipping detritus	11	4 secondary Onondaga; I fragmentary Onondaga; 3 primary Kettle Point; I fragmentary Kettle Point; I fragmentary burnt Kettle Point; I secondary burnt unknown
342	760N 370E:I	pz, 0-28cm	faunal remains	7	l calcined
343	760N 370E:I	pz, 0-28cm	shell	I	



APPENDIX E: ARTIFACT GLOSSARY

Chipping Detritus

The chipping detritus was analyzed using the flake typology employed by Lennox et al. (1986:79-81) which includes Primary, Secondary, Bipolar, Shatter and Flake Fragments.

Primary flakes are derived from cores. Primary flakes may exhibit a large cortical striking platform, a platform that appears on a fresh but otherwise unmodified flake scar, or simply a crushed flake margin. The striking platform surface angle approximates 90 degrees. Ventral surface attributes are usually well pronounced while the dorsal surface usually bears the negative attributes of previous primary flake removals or remnants of the cortical chert nodule surface.

Secondary flakes are the result of shaping and thinning bifaces by percussion or pressure flaking. They are characterized by their generally small size, diffuse bulb of percussion and by their striking platform that can be small and faceted by flake scars or may consist simply of a crushed flake margin. The striking platform ventral surface angle is obtuse, and the platform dorsal surface angle is acute. Cortex is rarely observed on the dorsal surface.

Fragmentary flakes are flakes that could not be identified to a specific flake type because they are incomplete and are missing their striking platform.

Shatter usually consists of thick, blocky pieces of chert which lack striking platforms and ventral flake surface attributes. This category of debitage is thought to be the by-product of the initial stages of reduction and the uncontrolled breaking of the raw material along structural faults or irregularities. A relatively high incidence of shatter is usually associated with the bipolar technique.

Chert Types

Flint Ridge: varieties of Flint Ridge chert have been observed as part of the Vanport Formation of the Allegheny Group of Pennsylvanian fresh-water and marine limestones, clays and coals (Yerkes, 1988). The beds formed as a result of the coastal movement of a large shallow sea that covered parts of Ohio, Pennsylvania, West Virginia and Kentucky approximately 320 million years ago, producing non-homogenous flints with morphological, mineralogical and chemical variation; this is observed in the wide array of colours that can be exhibited in Flint Ridge Chert (Yerkes, 1988).

Kettle Point Chert: The Kettle Point formation unevenly covers the Ipperwash Formation on the shore of Lake Huron (Eley and von Bitter 1989:15). A very thin band of Kettle Point chert resides in minor interbeds within the larger shale formation, and is variable in colour with a broad range of browns, blues and blacks observed (Eley and von Bitter 1989:15). A yellow-brown waxy patina is often a characteristic of Kettle Point chert, however thin lines of various colours are a key feature of this chert type (Eley and von Bitter 1989: 15).

Onondaga: Onondaga chert is recovered from the Onondaga Escarpment, which runs north of the Lake Erie Shore, or from glacial till deposits in this area (Eley and von Bitter 1989: 17); the Onondaga Escarpment extends from southern Ontario north of Lake Erie to northwestern New York State south of Lake Ontario. Onondaga Chert would have been most likely collected from streambeds and secondary deposits north of the Lake Erie shore (Eley and von Bitter 1989: 17). Onondaga chert ranges from light to dark grey, blueish grey, brown or black, and is often mottled (Eley and von Bitter 1989: 17).



Selkirk Chert: Selkirk chert can be recovered from nodules, beds and lenses found within the Dundee Formation (Eley and von Bitter 1989:16-17). Two quarries in Norfolk and near Port Dover, one beach outcrop on Lake Erie, and one hillside outcrop above Dry Creek contain Selkirk chert, which is white in colour with various dark grey to grey brown inclusions (Eley and von Bitter 1989: 16). Selkirk chert is dull, lusterless and is often quite dense with a high limestone content.

Stage 3 Archaeological Assessment
Location 3 (AfHj-532) and Location 4 (AfHj-533)
For the Proposed Development of
Parts 1-15, Plan 33R-19731
Part of Lots 19 and 20, Concession 4 SER
Geographic Township of Adelaide
Now the Municipality of Strathroy-Caradoc
Middlesex County, Ontario

SUPPLEMENTARY DOCUMENTATION

NOT FOR PUBLIC CIRCULATION



Licensee: Matthew Beaudoin, Ph.D., P324

PIF No: P324-0689-2021 and P324-0690-2021

Project No: 2021-327

Dated: September 29, 2022



Location 3 (AfHj-532); PIF# P324-0689-2021

The Stage 3 archaeological assessment at Location 3 (AfHj-532) included the excavation of 35 I m² units, which resulted in the recovery of 145 Indigenous and two ecofacts. The Indigenous artifact assemblage consists of 140 pieces of chipping detritus, one scraper, one biface, and two fragmentary sherds of pottery. Two small fragments of pottery were recovered from a small distinct area at the north end of the site. This may be a small activity area, but is more likely the result of years of intense ploughing resulting in small artifacts being dragged out of their original context.

One feature was partially uncovered during the Stage 3 excavation, and the function of this feature is yet to be determined. None of the lithic artifacts recovered during the Stage 3 excavation can be dated, therefore the specific occupation period of Location 3 (AfHi-532) is undetermined.

As one or more of the test units yielded 10 or more artifacts (Section 3.4.1 Standard 1a, MTC 2011) and a sub-surface cultural feature was discovered (Section 3.4.1 Standard 1d, MTC 2011), Location 3 (AfHj-532) is recommended for Stage 4 mitigation. Two options are available: I) long-term protection and avoidance; and 2) excavation. Long-term avoidance and protection are always the preferred mitigation strategy. In this case, avoidance and protection us not possible due to the site's location and the nature of the planned development; therefore, mitigation through excavation is the favored strategy. The recommended Stage 4 mitigation is the complete excavation of the site following Section 4.2.2. of the MTC's 2011 Standards and Guidelines for Consultant Archaeologists. This would involve:

- The hand-excavation of units around units 625N 280E:1, 590N 260E:1, 585N 265E:1 and 580N 265E:1 until there are yields of fewer than 10 artifacts from units at the edge of the block excavation and until there are fewer than two formal tools, diagnostic artifacts, or burnt artifacts;
 - Hand excavation must be completed in I m by I m units, by cultural layer or strata. All soil
 must be screened through mesh with an aperture of no greater than 6mm, and excavation must
 extend 5 cm into subsoil unless a cultural feature is encountered
- The hand-excavation of units until they are at least 2 m from any cultural features; and,
- any identified cultural features should be documented and excavated following Section 4.2.2, Standard 7 (MTC 2011:77).



SD Table I: Location 3 (AfHj-532), GPS Coordinates

Location	Zone	UTM	Accuracy	Elevation (m asl)
North Boundary	I7T	447234.6E 4756603.75N	<1 m	194m
East Boundary	I7T	447245.6E 4756588.75N	<1 m	194m
South Boundary	I7T	447174.6E 4756487.75N	<1 m	194m
West Boundary	I7T	447174.6E 4756487.75N	<1 m	192m
Centre Point	I7T	447210.1E 4756545.75N	<1 m	193m
Datum I (595N 250E)	I7T	447204.6E 4756567.75N	<1 m	193m
Datum 2 (565N 250E)	I7T	447204.6E 4756537.75N	<1 m	193m



Location 4 (AfHj-533); PIF# P324-0690-2021

The Stage 3 archaeological assessment at Location 4 (AfHj-533) included the excavation of 93 I m² units, which resulted in the recovery of 1178 Indigenous and 343 faunal artifacts. The indigenous artifact assemblage consists of 918 pieces of chipping detritus, 37 lithic tools, 221 sherds of pottery and two pipe fragments, 343 ecofacts, and one bone artifact. Fourteen features and 16 posts were identified and recorded during the Stage 3 excavation of Location 4 (AfHj-533). This includes a number of burn pits, one hearth, and some unknown features that require further investigation to determine their function. Most of the posts are small and round, and found adjacent to at least one other post. The features identified during the Stage 3 assessment indicate the presence of structures and refuse pits and hearths indicate longer-term site occupation beyond the typical seasonal round. The manufacture of pottery was also conducted on site, likely for cooking and food storage. Given this, it is likely that Location 4 (AfHj-533) is a small habitation site.

As the site has been determined to be a Woodland period site (Section 3.4 Standard 1e, MTC 2011), Location 4 (AfHj-533) is recommended for Stage 4 mitigation. Two options are available: 1) long-term protection and avoidance; and 2) excavation. Long-term avoidance and protection are always the preferred mitigation strategy. In this case, avoidance and protection us not possible due to the site's location and the nature of the planned development; therefore, mitigation through excavation is the favored strategy. The recommended Stage 4 mitigation strategy is to complete hand excavation followed by mechanical topsoil removal of the site following Section 4.2.4 of the MTC's 2011 Standards and Guidelines for Consultant Archaeologists. This would involve:

- minimal block excavation to collect a larger sample of artifacts. The excavation block should focus around 725N 325E:I to target areas of higher artifact concentrations and to collect a larger sample of artifacts;
- as the site dates to the Woodland period and potential cultural features were identified during the Stage 3 unit excavations, the site should be subject to mechanical topsoil stripping following Section 4.2.3 of the Standards and Guidelines (MTC 2011:78-79) to expose any cultural features;
 - Mechanical topsoil removal should be conducted by an excavator with a flat-edged ditching bucket that exposes the topsoil/subsoil interface.
 - The mechanical topsoil removal should extend across the site area and at least 10 m beyond any cultural features until the property boundaries or disturbance areas are encountered.
 - The exposed surface will be cleaned by shovel and examined to identify any potential cultural features.
- any identified cultural features should be documented and excavated following Section 4.2.2, Standard 7 (MTC 2011:77).



SD Table 2: Location 4 (AfHj-533), GPS Coordinates

Location	Zone	UTM	Accuracy	Elevation (m asl)
North Boundary	I7T	447304.6E 4756818.75N	<1 m	194m
East Boundary	I7T	447345.6E 4756728.75N	<1 m	195m
South Boundary	I7T	447279.6E 4756642.75N	<1 m	194m
West Boundary	I7T	447254.6E 4756677.75N	<1 m	192m
Centre Point	I7T	447300.1E 4756730.75N	<1 m	194m
Datum I (745N 350E)	I7T	447304.6E 4756717.75N	<1 m	194m
Datum 2 (695N 350E)	I7T	447304.6E 4756667.75N	<1 m	194m



Summary of Indigenous Engagement: Location 3 (AfHj-532) and Location 4 (AfHj-533)

Chippewas of the Thames First Nation

Good afternoon Ayla,

It's nice to meet you, I am sure we will have a future opportunity to put some faces to the names.

I have reviewed the Stage 4 mitigation strategy I have no concerns or recommendations at this time. However, I do ask that as this strategy is carried out that you keep us notified as well as provide Chippewas of the Thames First Nation the opportunity to actively participate as this assessment progresses by providing a Field Liaison on behalf of our First Nation.

We look forward to continuing this open line of communication, if you have any questions please feel free to contact me.

Thank you,

Fallon



Fallon Burch

Consultation Coordinator, Chippewas of the Thames First Nation 320 Chippewa Rd Muncey, ON N0L IY0 | 519-289-5555 | www.cottfn.com/consultation

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From: Ayla Mykytey amykytey@tmhc.ca>

Sent: January 11, 2022 1:41 PM

To: Fallon Burch < formall Smith | S

<rsmith@cottfn.com>

Cc: Matthew Beaudoin < mbeaudoin@tmhc.ca > Subject: VanBree Strathroy Stage 3 AA Update

Some people who received this message don't often get email from amykytey@tmhc.ca. Learn why this is important

Good Afternoon Fallon, Carolyn and Rochelle,

My name is Ayla Mykytey and I am a recent addition to the Archaeology Team at TMHC Inc. I have been working in archaeology since 2010, with the bulk of my experience on sites in and around the GTA. I am excited to expand my range of knowledge to include London and the surrounding lands, and look forward to working with you on this project, and in the future!

I am working with Matt on the analysis and reporting for the Stage 3 assessments conducted at Location 3 (AfHj-532) and Location 4 (AfHj-533) for the VanBree Strathroy development project that we did in the fall, and have put together a summary of results and proposed Stage 4 Strategy for your review and comment. That document is attached here, and includes site mapping indicating proposed areas for Stage 4 mitigation.

Both sites are large, sparse scatters that have been heavily impacted by decades of ploughing, although there are concentration areas at both locations. The Stage 3 AA at Location 3 resulted in the recovery of two small pottery fragments at the northern tip of the site, indicating a distinct occupation area where we are recommending Stage 4 hand excavation to determine whether the site was occupied during the Woodland Period, or if heavy plough drag has resulted in the intrusion of these sherds into the Location 3 assemblage. We are also recommending Stage 4 hand excavation around the two units where lithic counts exceeded 10 artifacts.

The Stage 3 AA at Location 4 resulted in the recovery of lithic tools and ceramic vessels indicating occupation between 1250 – 1400 AD, during the mid-Late Woodland period. As with Location 3, heavy ploughing has resulted in the artifact scatter being very sparse to the north and south of the main cluster of artifacts and features. We are recommending conducting Stage 4 hand excavation for five days in the area of heaviest artifact concentration, followed by Mechanical Topsoil Removal to investigate features. It is likely that Location 4 is a small habitation site given the posts and refuse pits already discovered.

If you could please review and provide comment on the proposed Stage 4 strategy it would be greatly appreciated. Please feel free to reach out to me or Matt should you have any questions or concerns.



Kind regards,

Ayla Mykytey



Ayla Mykytey (she/them)
Staff Archaeologist/Jr Project Manager
amykytey@tmhc.ca
519-282-9024

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Oneida of the Thames

Good Afternoon Ayla,

Thank you for the update. On behalf of the On^yota a:ka Lotiyaneshu please ensure Bear is involved.

Take care

ΑI

From: Ayla Mykytey amykytey@tmhc.ca>

Sent: January 11, 2022 1:41 PM

To: jerseydevil777@hotmail.com; Al Day aday@namerind.on.ca; environment@oneida.on.ca

Cc: Matthew Beaudoin < mbeaudoin@tmhc.ca > Subject: VanBree Strathroy Stage 3 AA Update

Good Afternoon Al, Brandon and Bear,

My name is Ayla Mykytey and I am a recent addition to the Archaeology Team at TMHC Inc. I have been working in archaeology since 2010, with the bulk of my experience on sites in and around the GTA. I am excited to expand my range of knowledge to include London and the surrounding lands, and look forward to working with you on this project, and in the future!

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Kind regards,

Ayla Mykytey



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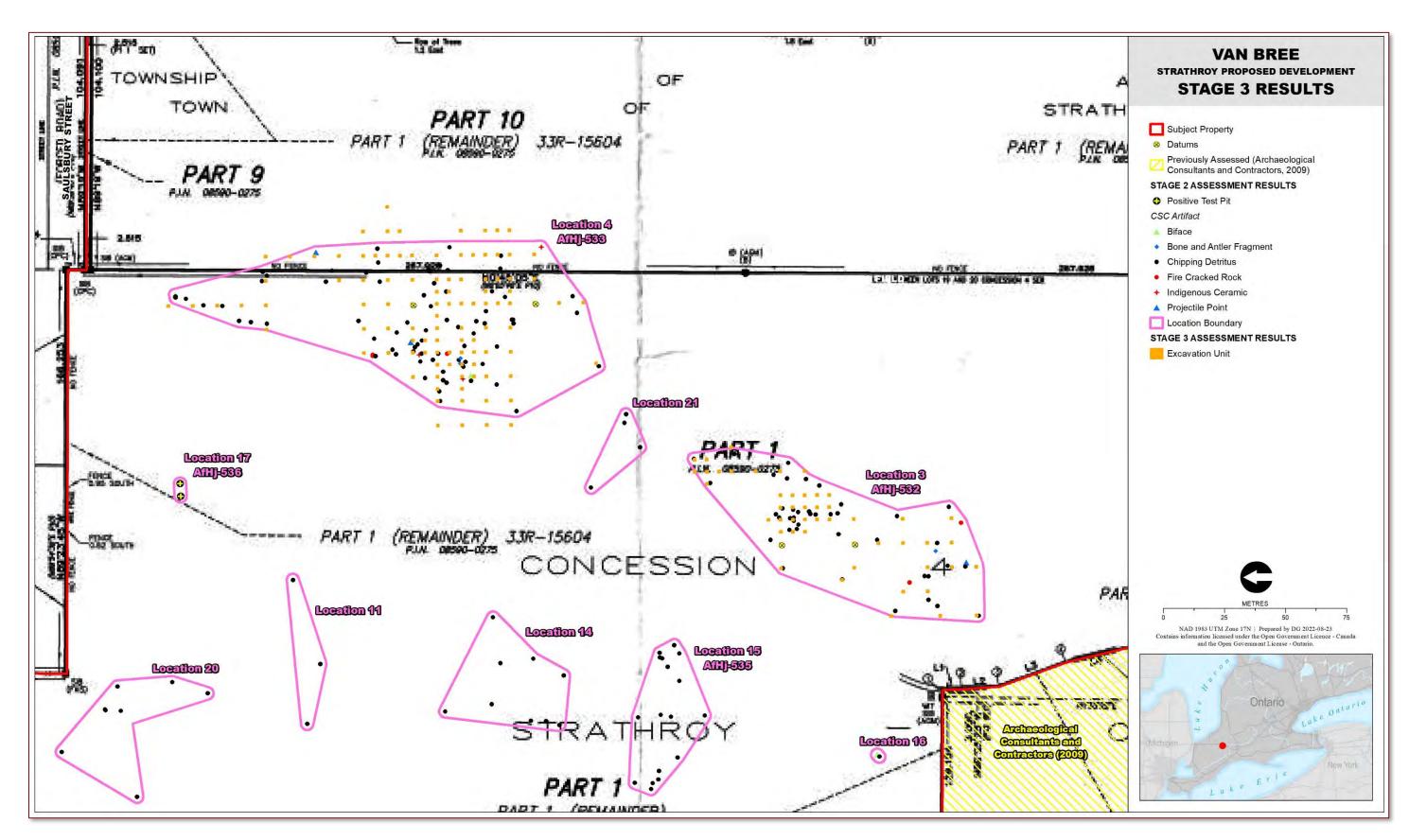
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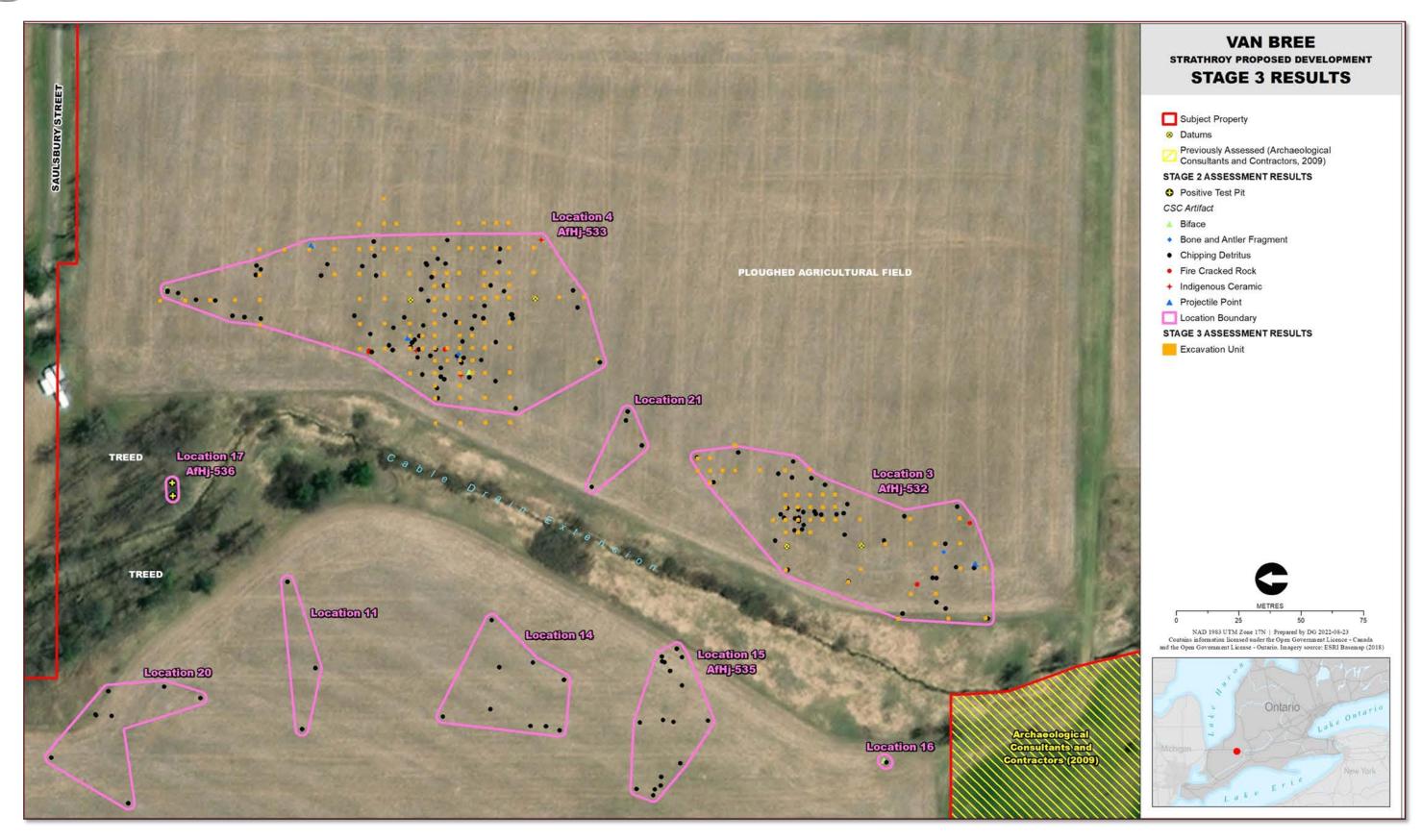
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SD Map 1: Stage 2 and 3 Results on Proponent Mapping





SD Map 2: Stage 2 and Stage 3 Assessment Results on Aerial Imagery