

Proposed Burlington Quarry Expansion JART COMMENT SUMMARY TABLE – Archaeology

Please accept the following as feedback from the Burlington Quarry Joint Agency Review Team (JART). Fully addressing each comment below will help expedite the potential for resolutions of the consolidated JART objections and individual agency objections. **Additional, new comments may be provided once a response has been prepared to the comments raised below and additional information provided.**

JART Comments (January 2021)		Reference	Source of Comment	Applicant Response (June 2021)	JART Response (December 2021)
1.	The 2020 Stage 1-2 Archaeological Assessment of the West Extension lands is an interim report. Stage 2 fieldwork and reporting has not been completed for the entirety of the study area and is required. The Golder Report identifies approximately 11.1 ha of lands associated with the golf course lands that require a Stage 2 Archaeological Assessment. What is the status of the Stage 2 Archaeological Assessment?	General	Addressed by September 15, 2020 Submission	Stage 2 archaeological assessment was completed for the outstanding 11.1 ha of land. See Stage 1-2 archaeological assessment report dated 15 September 2020. See attached clearance letter from Ministry of Heritage, Sport, Tourism and Cultural Industries dated May 14, 2021 confirming the Province has reviewed the archaeological assessment and have no further archaeological concern.	MHSTCI is not the approval authority, and the attached letter dated May 14, 2021, does not comprise documentation that the licensing requirements of the subject reports have been met. The letter of review and entry into the Ontario Public Register of Archaeological Reports from the Archaeological Review Officer should be attached for the consideration of the NEC and other JART approval authorities.
2.	The Interim Stage 1-2 AA fails to take into account the study area's location on the Mount Nemo Plateau and incorrectly states the study area's location in relation to the Escarpment.	General	LHC	Data related to the West Extension Lands' proximity to physiographic features was based and consistent with geoscience data provided through the Ministry of Energy, Northern Development and Mines (https://www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearch).	This comment has been addressed.
3.	It is unclear why the earlier archaeological assessments undertaken for the South Extension Lands were not reviewed as part of the assessment and why, although more than 300 m from the current West Extension Lands study area, the previously identified sites were not considered to be indicators of archaeological potential, given the setting and their likely relevance to the archaeological potential of the West Extension Lands.	General	LHC	Per Section 1.1 of the Ministry of Heritage, Sport, Tourism, and Culture Industries' (MHSTCI) 2011 <i>Standards and Guidelines for Consultant Archaeologists</i> , previous archaeological assessments within a radius of 50 m around the project limits are required to be reviewed. The South Extension Lands are greater than 50 m from the West Extension Lands limits. Section 1.3.1 and 1.4 of the MTSTCI (2011), state that previously registered archaeological sites within 300 m are considered features of archaeological potential. The sites within the South Extension Lands are greater than 300 m, and, therefore, do not contribute to the archaeological potential of the West Extension Lands.	This comment has been addressed.
4.	The descriptions of AiGx-238 and AiGx-239 (Table 2) do not correspond with their descriptions in the Stage 4 AA prepared by Archaeologix in 2004. Notwithstanding these omissions, the identification of areas of archaeological potential have captured all undisturbed lands within the study area and the report appears to conform with the <i>Standards and Guidelines for Consultant Archaeologists</i> (S&Gs). It should be stressed that the Interim Stage 1-2 AA was required prior to Stage 2 AA fieldwork being undertaken on 11.1 hectares of the Licence Boundary area along the western boundary of the West Extension Lands (see attached Map 5). Stage 2 fieldwork is still outstanding for this portion of the West Extension Lands and the entire study area has not been cleared of further archaeological concern (this is noted in the report).	General	LHC	The description provided of AiGx-238 and AiGx-239 are consistent with the data provided within the MHSTCI archaeological sites database. Per Section 1.1 of the MHSTCI (2011), the background study must include research information from the following source: <ul style="list-style-type: none">The most up-to-date listing of sites from <u>the MHSTCI's archaeological sites database</u> for a radius of 1 km around the property. Stage 2 archaeological assessment was completed for the outstanding 11.1 ha of land. See Stage 1-2 archaeological assessment report dated 15 September 2020.	This comment has been addressed.
5.	The 2003 Stage 1, 2 & 3 AA predates the S&Gs.	General	LHC	The South Quarry Extension archaeological assessments were reviewed by the Ministry of Culture and in a letter dated November 19, 2004 the Ministry of Culture, as per	This comment has been addressed.
6.	Similar to the 2020 Interim Stage 1-2 AA, the 2003 Stages 1, 2 & 3 AA does not adequately address the setting of the study area nor does it provide a robust pre-contact or historical context.	General	LHC	Section 48 (1) of the Ontario Heritage Act and Ontario Regulation 170/4, confirmed that they had no further concerns for the archaeological site documented within the subject property. In February 2009, JART accepted the sign off by the Ministry of	This comment has been addressed.

7.	Notwithstanding this, the Stage 1 findings are consistent with the current requirements and resulted in Stage 2 survey (test pits at 5-meter intervals) and pedestrian survey of the entirety of the study area. Stage 2 fieldwork methodologies and recommendations, similarly, appear to be generally consistent with the S&Gs.	General	LHC	Culture with respect to the archaeological investigation. See attached excerpt from the February 2009 JART Report.	This comment has been addressed.
8.	The Stage 3 AA fieldwork methodology, although consistent with standard practices at the time, does not conform to Section 3.2.3, Standard 1 (Table 3.1) the S&Gs; however, because all three of the registered sites underwent Stage 4 AA, this would not have resulted in a different outcome under the current S&Gs. The boundaries of the Stage 3 excavation of all three sites are consistent with the current S&Gs.	General	LHC		This comment has been addressed.
9.	<p>The Stage 4 AA documents the full excavation and documentation of registered sites AiGx-238, AiGx- 239, and AiGx-240.</p> <p>The Stage 4 AA report does not appear to be the most up to date version of the report and cites an incorrect "CIF" number on the title page. A search through the MHSTCI Past Portal database identified a 2005 report - <i>A.A. (Stage 4), Nelson Aggregate Quarry Expansion, Lot 17 & 18, Con. 2 NDS, Geo. Twp. of Nelson, City of Burlington, R.M of Halton, Ontario</i> under the Project Information Number (PIF) P001- 160.</p> <p>It is likely that the report includes revisions or additional information requested by the MHSTCI, at the time of their review. As such, the 2005 Stage 4 AA should be submitted as part of the application. As a general note, no Indigenous engagement appears to have been undertaken as part of the Stage 3 or 4 assessment of the cultural heritage value or interest of AiGx-238, AiGx-239, and AiGx-240.</p>	General	LHC	See response above.	This comment has been addressed.
10.	The area is identified as being within historic Anishnaabe and Haudenosaunee territory. Were indigenous communities consulted during the undertaking of any of the archaeological assessments and reviews?	General	Niagara Escarpment Commission	In 2004, consultation with indigenous communities was not undertaken as part of the archaeological assessment. It is our understanding that during the review of the previous application MNRF conducted First Nation circulation and to our knowledge no concerns were identified. Despite this, during the current application, Nelson did conduct indigenous consultation and the entire application package including the August 2004 Stage 4 report was circulated and both Six Nations and Mississaugas of the Credit First Nation have confirmed in writing to Nelson that they have no outstanding concerns with the west and south extension applications. See attached correspondence from Six Nations and Mississaugas of the Credit First Nation.	MNRF circulation associated with a prior application does not preempt the need for First Nations engagement for a new application. First Nations engagement in the archaeology context is scoped to archaeological and not Treaty or Land Claim interests. Clarification on whether comment from the Haudenosaunee/Six Nations Longhouse Council and Huron-Wendat has been sought may confirm that this archaeology licensing criterion has been met.

11.	<p>The following provides a summary of the key findings related to deficiencies with the Stage 1-2 Archaeological Assessment, prepared by Golder Associates Ltd. (Golder) dated September 2020 (herein the Stage 1-2 AA).</p> <p>a) The Interim Stage 1-2 AA fails to take into account the study area's location on the Mount Nemo Plateau and incorrectly states the study area's location in relation to the Escarpment (see Section 1.4.2).</p> <p>b) It unclear why the earlier archaeological assessments undertaken for the South Extension Lands were not reviewed as part of the assessment and why, although more than 300 m from the current West Extension Lands study area, the previously identified sites were not considered to be indicators of archaeological potential, given the setting and their likely relevance to the archaeological potential of the West Extension Lands.</p> <p>c) The descriptions of AiGx-238 and AiGx-239 (Table 3) do not correspond with their descriptions in the Stage 4 AA prepared by Archaeologix in 2004.</p> <p>The identification of areas of archaeological potential appears to have captured all undisturbed lands within the study area in conformance with the <i>Standards and Guidelines for Consultant Archaeologists (S&Gs)</i>.</p> <p>The Stage 1-2 AA resulted in the identification of one (1) Euro-Canadian historical archaeological site dating from circa 1850s to the early 20th century. This site has been registered as Inglehart-Harbottle and assigned the Borden number AiGx-462. A total of 1,074 artifacts were recovered from 18 positive test pits (seven of these being intensified pits at 2.5 m intervals around one of the positive test pits) and one test unit. The positive test pits were distributed over an area measuring approximately 40 m (north-south) by 20 m (east-west). Analysis of the assemblage dated four of the artifacts to the 20th century and a total of 27 artifacts were faunal material.</p> <p>The Stage 1-2 AA applies the MHSTCI's 2014 Rural Historical Farmsteads bulletin (the bulletin) to its determination of the Cultural Heritage Value or Interest (CHVI) of the site, recommending no Stage 3 AA because: approximately 33% of the site dates to before 1870; the site have been continuously occupied since c.1850 (the historical background information presented in Section 4.4.1 of the Stage 1- 2 AA dates the earliest occupation to 1844); additional historical research was presented in the Stage 1- 2 AA; and, the survey was intensified through the excavation of a test unit and eight additional test pits at 2.5 m intervals around one of the positive test pits.</p> <p>Based on our review, LHC identified the following concerns with the report and its findings:</p>	General	LHC	<p>a.) See response to Item 2.</p> <p>b.) See response to Item 3.</p> <p>c.) See response to Item 4.</p>	These comments have been addressed.
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12.	<p>1. Approximately 33% of the site dates before 1870 (Executive Summary and Section 4.5 Conclusions).</p> <p>The Stage 1-2AA determines that no Stage 3AA is required because less than 80% of the assemblage dates to before 1870 and states that 33% of the site dates to pre-1870. Although several diagnostic artifacts and artifact types and their dates of manufacture or popularity are discussed in Section 3.2 of the Stage 1-2AA, very few examples are securely dateable and the analysis that resulted in the determination that approximately 33% of the assemblage is pre-1870 is not presented.</p> <p>Per Section 6.1 of the bulletin some examples of characteristics of an assemblage that might support the argument that the site is of no further CHVI include:</p> <ul style="list-style-type: none"> • Many of the artifacts in the assemblage could be dated to either the 19th or 20th century, but there are only a few artifacts which can be clearly attributed to only the early to mid-19th century • The artifacts are all or mostly from one item (e.g., 20 fragments from one vessel) • The artifacts dateable to the early to mid-19th century are widely spatially dispersed within a larger distribution of later-dated artifacts without evidence of a cluster of the earlier-dated 19th century artifacts within the overall distribution • The earlier-dated 19th century artifacts form a very small proportion of the total assemblage 	General	LHC	<p>The report states, “less than 80% of the site’s occupation dates to before 1870 (approximately 33% of the site dates before 1870). This data was determined based on archival data and the Stage 2 artifact collection. The artifact collection alone was not considered, and occupational dates can often be well determined based on the archival data.</p> <p>The artifact collection dates from the mid-19th century to the early 20th century; therefore, the site can be attributed to the Inglehart, Thomas, Fraser, Eaton, and Harbottle families. The Inglehart family occupied the property from 1844-1876, Thomas family from 1876-1884, Fraser family from 1884-1888, Eaton family from 1888-1910, and the Harbottle family from 1910-1961.</p> <p>Based on the artifact collection (mid-19th century to early 20th century) and settlement of the property by the aforementioned families associated with these artifacts (1844 to 1961), it was determined that less than 80% of the site’s occupation dates to before 1870. The approximate 33% of the site’s occupational date dating to before 1870 was determined based on an 1844 (Inglehart settlement date) to c. 1920s (approximate terminal date of artifacts) timeframe.</p> <p>No early concentrations (pre-1870s) of artifacts were encountered.</p>	This comment has been addressed.
13.	<p>2. ...the site has no further cultural heritage value or interest... Per the bulletin,</p> <p>The ministry expects the available evidence to be incorporated into the report to make a recommendation of no further CHVI. This includes:</p> <ul style="list-style-type: none"> • an analysis of the complete artifact assemblage (see comment 1, above) • all available historical documentation • any information from extant built heritage • the local and regional context • any information regarding site integrity <p>Additional information is missing from the analysis presented in the Stage 1-2 AA which would support the finding that AiGx-462. The conclusions further state that “the Inglehart family is not affiliated with the early settlement of Nelson Township”; however, this assertion has been made without taking into account the historical context of the site with respect to its location on the Mount Nemo Plateau. The local context has thus not been taken into consideration in the determination of the site’s CHVI.</p> <p>Furthermore, the site’s integrity and its dense distribution of the artifacts have not been addressed in the analysis or recommendations, nor does the Stage 1-2 AA</p>	General	LHC	<p>Section 1.3.4.1 of the report provides local context to the settlement of Nelson Township. The initial Euro-Canadian settlement of the Township was in 1800 by the Bates family, and the next influx of settlers arrived in 1807. By 1817, 476 inhabitants and 68 houses, two grist mills, and three sawmills were located in the Township.</p> <p>The site can be attributed to the Inglehart, Thomas, Fraser, Eaton, and Harbottle families. The Inglehart family occupied the property from 1844-1876, Thomas family from 1876-1884, Fraser family from 1884-1888, Eaton family from 1888-1910, and the Harbottle family from 1910-1961.</p> <p>Initial and early settlement of Nelson Township happened in 1800. The Inglehart family, the earliest occupants of the AiGx-462 site, settled the property approximately 44 years after the early settlement of the Township. Therefore, the site is not affiliated with the early settlement of the Township.</p> <p>Based on the Stage 2 assessment data, the site’s integrity (i.e., its cultural layer) appears to remain intact. Artifacts were disturbed over an area measuring 40m by 20m, and no early concentrations were identified.</p> <p>The location of the test unit was selected per MHSTCI (2011), <i>Section 2.1.3, Standard 2, Option A</i>. There are no standards within the MHSTCI (2011) that requires providing a rationale for how the location of the test unit was selected. Nevertheless, the test unit location was selected based on a combination of criteria including, artifact concentration, artifact dates, activities areas, positive test pit distribution, artifact type, and stratigraphy.</p> <p>The site’s Stage 2 boundary was determined per <i>Section</i></p>	This comment has been addressed.

	<p>make any reference to how the location of the test unit was selected or how the boundaries of the site were determined.</p> <p>With respect to the distribution of artifacts, supplemental documentation was not submitted with the Stage 1-2 AA, so test pit locations cannot be cross-referenced with counts from the catalogue. It is, therefore, unclear why this specific positive test pit was selected for intensification and test unit excavation and not one or more of the other ten positive test pits, as this is not addressed in Section 2.0 Field Methods. Although it is not necessary to excavate more than one test unit where multiple positive test pits are encountered, the decision to excavate only one test unit over one positive test pit should be justified in the Stage 1-2 AA. Per the bulletin, Test unit placement should be determined by:</p> <ul style="list-style-type: none"> the distribution of artifacts including concentrations of earlier dating artifacts or activity areas; test pits that provide information about site integrity; and, the most productive test pits. 			<p>2.1.3 of the MHSTCI (2011). The positive test pits were disturbed over an area measuring 40m by 20m. See Section 2.2 and Section 3.2 of the report.</p> <p>A supplementary documentation is not required for sites that do not have further cultural heritage value or interest (CHVI). Site AjGx-462 does not have further CHVI.</p> <p>Per MHSTCI (2011), justification to excavate only one test unit over one positive test pit does not require justification, nor is it a standard.</p>	
14.	<p>Finally, the Stage 1-2 AA provides no commentary on the presence of occupation-specific features, strata or middens. This is particularly of interest given the productivity of the site, proximity to the c. 1844-1851 residence, and the length of continuous occupation.</p>	General	LHC	<p>The Stage 2 archaeological assessment did not identify any occupation-specific features or middens. Also, no early concentration of artifacts was encountered.</p>	<p>This comment has been addressed.</p>
15.	<p>With respect to the Interim Stage 1-2 AA, the reporting has failed to accurately take into account the West Extension Lands study area's location on the Mount Nemo Plateau and has not captured the results of the previous archaeological assessment of the South Extension Lands.</p> <p>The Stage 1-2 AA does not provide analysis to support the finding that only 33% of the artifact assemblage of the Inglehart-Harboottle site (AiGx-462) dates to before 1870 and the subsequent recommendation that the site has no further CHVI and no Stage 3 AA is warranted. It is recommended the report be revised to include the additional analysis used to determine the percentage of the assemblage dating to pre-1870 occupation and to include supplemental information regarding the integrity of the site, distribution of artifacts, the determination of the approximate site dimensions/boundaries, and analysis of the site's CHVI as it relates to its local context.</p> <p>It should be noted that the MHSTCI the authority responsible for licencing archaeologists in the province, and are not an approval authority. The City may – as an approval authority - choose to require Stage 3 AA notwithstanding the baseline requirements outlined in the S&Gs.</p> <p>With respect to the Cultural Heritage Impact Assessment (CHIA), additional information provided in the Stage 1-2 AA as a result of accessing the property, indicates that the property at 2015 No. 2 Side Road has potential CHVI as a built heritage resource. Photographs from the rear of the structure clearly indicate that portions of the c. 1844-1851 one-and-a-half-storey Inglehart farmhouse are extant. As such, 2015 No. 2 Side Road should be included in the CHIA.</p>	General	LHC	<p>See response to Item 2.</p> <p>The determination that less than 80% of the artifact assemblage of AiGx-462 dates to before 1870 is provided within Section 3.2</p>	<p>This comment has been addressed.</p>