

ARCHAEOLOGICAL MONITORING OF THE FESTIVAL PARK GATEWAY INSTALLATION

submitted to

The Forks North Portage Partnership

**Quaternary
Consultants
Limited**

August, 2000

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1.0 INTRODUCTION

The plans for an entrance feature into Festival Park, at Arrival Square, entailed the construction of a monument which required piling support. Due to the archaeological sensitivity of the area (Kroker and Goundry 1990:29-33), Quaternary Consultants Ltd. was approached by The Forks North Portage Partnership to monitor the sub-surface components. When the appropriate Heritage Permit, A17-00 (Appendix A), was applied for on May 29, 2000, the archaeological monitoring was for five (5) auger holes for pouring piles in place. The locations of the piles had been verbally described as being on the east side of Arrival Square. Several delays occurred and the field operations did not begin until July 14, 2000.

Upon arrival on site the morning of the drilling, surveyors for NorthAm Construction Inc. had marked a total of twelve holes in two parallel rows, perpendicular to Arrival Square (Figure 1). The holes were to be drilled to a depth of 25 feet (760 cm). The drilling was undertaken by AGRA Foundations, with a truck-mounted auger using a 16" (40 cm) diameter bit that measured five feet (150 cm) in length. Arrangements were made with the driller that the bit would be pulled up and the soil on the bit would be inspected by the archaeologist. After inspection, the soil would be spun off in either the dump pile or, if cultural material had been observed, in a separate pile. The drilling started on the south hole, closest to the sidewalk at Arrival Square. The water table was quite high as very wet soil was encountered at a depth of 16 feet (490 cm). The drilling continued to a depth of 32 feet (975 cm) to compensate for collapse of the lower levels. The walls of the hole were not stable and kept collapsing so that the effective depth of the hole was only 18 feet (550 cm). When the engineer, Mr. Radenko Vujadinovic, arrived, he was apprised of the situation and he decided that a different method of underpinning was necessary. Work ceased for the day and the archaeologist and the drilling crew were told that they would be called when the work was to begin again.

On July 24, 2000, the archaeologist called Mr. Radenko Vujadinovic at NorthAm Construction to obtain a date for the continuation of the construction. Mr. Vujadinovic stated that the drilling had occurred on July 20 and 21. At no time had the archaeologist been notified of the rescheduling of the drilling. Mr. David Stones of The Forks North Portage Partnership and Ms. Pat Badertscher of Historic Resources Branch were informed of the situation. Mr. Stones contacted the construction firm (Appendix B) who were able to locate the site at which the extracted soil had been dumped. On July 25, the archaeologist visited this site on Christie Road which contained fill from several other locations, as indicated by the material mixed with the various soil dumps—concrete, brick, trees. The soil that appeared to be most likely from The Forks was examined. No artifacts were located in the portions that were accessible. Quaternary Consultants Ltd. sent a letter to Historic Resources Branch (Appendix B) outlining the situation. Mr. Stones had suggested that the construction firm could drill two additional holes for archaeological inspection. He also noted that there would be three flagpole holes drilled at the vicinity (Figure 1). Quaternary Consultants Ltd. felt that increasing the impact in the area when no major structures will be built would not be a preferred option and suggested that rather than drill inspection holes, the monitoring of the flagpole holes would be the best option. Historic Resources Branch concurred with the recommendation (Appendix B).

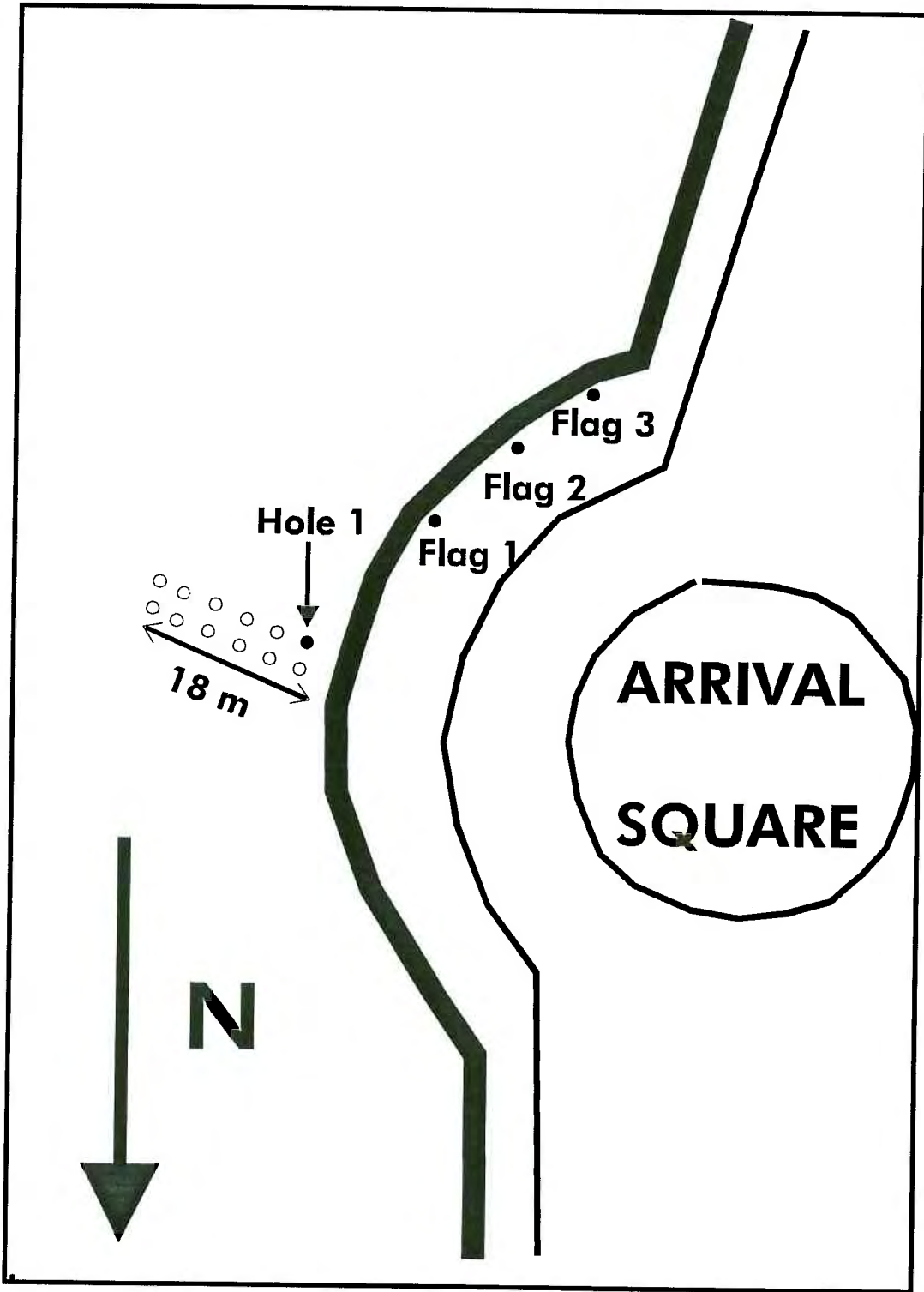


Figure 1: Location of Projected Piling Holes and Flagpole Holes at Arrival Square

2.0 OBSERVATIONS

Previous projects at The Forks have shown that the stratigraphy consists of historic fill overlying sequential layers of riverine-deposited sediments. Within the riverine layers, periods of stable ground are represented by buried soil levels formed during the time between successive flood episodes. It is on these former soil horizons that potential archaeological layers can be found.

The monitoring of the first (and only) deep hole provided some generalized stratigraphic knowledge (Table 1). However, the rotary action of the auger tends to distort or obscure thin layers (less than 0.5 cm), so that only thicker layers of buried soils or different textured sediments (sand versus silt) can be discerned. The auger used had a diameter of 30 inches (76 cm).

DEPTH (cm)	SOIL LAYER	COMMENTS
0 - 90	sand/gravel	recent
90 - 120	disturbed clay	railroad era
120 - 395	brown silty clay	riverine deposits
395 - 398	sand	-
398 - 472	brown silty clay	riverine deposits
472 - 473	charcoal horizon	1 cm thick
473 - 975	brown silty clay	base of excavation

Table 1: Stratigraphic Profile from Hole 1

When the flagpole holes were drilled on August 4, the auger was 16" in diameter and had a 2.5 foot length. The holes were drilled to a depth of 8.5 feet (260 cm). The stratigraphy was relatively consistent (Table 2).

Flagpole 1		Flagpole 2		Flagpole 3		COMMENTS
LAYER	DEPTH	LAYER	DEPTH	LAYER	DEPTH	
sidewalk	0 - 20	sidewalk	0 - 20	sidewalk	0 - 20	brick, concrete
gravel	20 - 52	gravel	20 - 87	gravel	20 - 47	
clay fill	52 - 95	-		disturbed soil	47 - 115	railroad era
brown silt	95 -	brown silt	87 - 245	brown silt	115 -	riverine deposits
		burned soil	245 - 247			natural fire
	260	brown silt	247 - 260		260	excavation base

Table 2: Stratigraphic Profiles from Flagpole Holes

The burned soil observed in Flagpole Hole 2 consisted of a relatively thick (1 to 1.5 cm) charcoal layer overlying a layer of reddish-orange silty clay. Intense heat causes the iron contained in the riverine sediments to oxidize, producing the reddish colour. No artifacts or faunal remains were present within, or adjacent to, the charcoal layer. This would indicate that the fire was natural rather than cultural.

3.0 RECOMMENDATIONS

There are no recommendations based upon observations of the excavation operations, inasmuch as only a minimal portion of the sub-surface activity was monitored. However, Quaternary Consultants Ltd. recommends that it is imperative that the proponent impress upon contractors the necessity of informing the archaeological consultant in order to fully comply with the provisions of The Heritage Act, especially when sub-surface activity is carried out in known archaeologically sensitive areas.

4.0 BIBLIOGRAPHY

Kroker, Sid and Pamela Goundry

1990 *Archaeological Monitoring of the Stage I Construction Program*. The Forks Renewal Corporation, Winnipeg.

APPENDIX A
HERITAGE PERMIT



Heritage Permit No. A17-00

Pursuant to Section/Subsection 53 of *The Heritage Resources Act*:

Name: Quaternary Consultants Ltd.
Address: 130 Fort Street
Winnipeg MB R3C 1C7

ATTENTION: Mr. Sid Kroker

(hereinafter referred to as "the Permittee"),

is hereby granted permission to:

monitor the drilling of 5 auger holes in the vicinity of Arrival Square at The Forks in Winnipeg to determine and record the presence/absence of precontact archaeological horizons

during the period:

June 1 – July 31, 2000.

This permit is issued subject to the following conditions:

- (1) That the information provided in the application for this permit dated the 29th day of May 2000, is true in substance and in fact;
- (2) That the permittee shall comply with all the provisions of *The Heritage Resources Act* and any regulations or orders thereunder; **Please note attachment re custody and ownership of heritage objects**
- (3) That the Permittee shall provide to the Minister a written report or reports with respect to the Permittee's activities pursuant to this permit, the form and content of which shall be satisfactory to the Minister and which shall be provided on the following dates: **October 31, 2000;**
- (4) That this permit is not transferable;
- (5) This permit may be revoked by the Minister where, in the opinion of the Minister, there has been a breach of any of the terms or conditions herein or of any provision of *The Heritage Resources Act* or any regulations thereunder;
- (6) Special Conditions:



- a. All heritage objects are to be deposited with the Manitoba Museum by October 31, 2000, for permanent curation and storage, unless appropriate loan requirements are arranged with the Curator of Archaeology prior to that date;
- b. A complete set of archaeological field records, catalogue sheets, laboratory analysis records, photographs, reports, etc. are to be deposited with the Manitoba Museum of Man and Nature upon completion of the archaeological research, or sooner if required, and any subsequent revisions or additions to these records are to be filed as soon as possible thereafter;
- c. Appropriate arrangements and funds should be made available for the conservation of perishable heritage objects collected from these sites;
- d. In the event that any human remains are encountered during the excavations, all activity in that particular locus will cease immediately, and the Historic Resources Branch notified immediately so that appropriate action can be determined and taken;
- e. The Permittee will be on-site supervising all aspects of the field work;
- f. The Permittee shall be responsible for the conduct of the laboratory analysis of recovered heritage objects and information to be included in the permit report;
- g. The report identified in #3 above shall conform at a minimum to "The Contents and Format of a Heritage Resource Impact Assessment";
- h. Neither the Government of Manitoba nor the party issuing this permit shall be liable for any damages resulting from any activities carried out pursuant to this permit, and the Permittee specifically agrees, in consideration for receiving this permit, to indemnify and hold harmless the Minister and the Government of Manitoba, the Minister and any employees and officials of the Government, against any and all action, liens, demands, loss, liability, cost, damage and expense including, without limitation, reasonable legal fees, which the Government, Minister or any employee or official of the Government may suffer or incur by reason of any of the activities pursuant to or related to this permit.

Dated at the City of Winnipeg, in Manitoba, this 31st day of May 2000.

Donna Dul
Minister of Culture, Heritage and Tourism

APPENDIX B
CORRESPONDENCE CONCERNING THE PROJECT



The Forks North
Portage Partnership

201 - One Forks Market Road
Winnipeg, Manitoba R3C 4L9
Telephone: (204) 943-7752
Direct line: (204) 987-4354
Fax: (204) 943-7915

FAX TRANSMITTAL

DATE: July 24, 2000

TO: Hilderman Thomas Frank Cram
Attention: Jennifer Wagner

Fax No: 957-1467

FROM: David Stones, Manager of Facility Operations and Development, direct
line (204) 987-4354

SUBJECT: ARCHAEOLOGICAL MONITORING

NUMBER OF PAGES: One

Confidentiality Note: The information contained in this facsimile message is legally privileged and confidential information intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, you are hereby notified that any use, dissemination, distribution or copy of this facsimile is strictly prohibited. If you have received this facsimile in error, please immediately notify use by telephone and return the original message to us by mail at the above address. Thank You

COMMENTS:

Sid Kroker of Quaternary Consultants, our archaeological consultant, advised us this morning that he was **not** notified of the piling work done last week for this project. Monitoring of below-grade work is required under Provincial heritage legislation. NorthAm Construction agreed to notify Sid Kroker directly for this

I spoke with Radenko Vujadinovic today of North Am Construction and said the following is required:

- The location of the augered material for our consultant to examine for artifacts and other pertinent information and/or
- The drilling of at least two holes in the work area for our consultant to examine for artifacts and other pertinent information.

Any additional costs incurred by the contractors or by our consultant will be paid by the Contractor.

Copies: NorthAm Construction Inc, Radenko Vujadinovic, fax 772-2236
Quaternary Consultants Limited, Sid Kroker, fax 944-8325

*Quaternary
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Winnipeg, Manitoba
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(204) 944-8325

July 25, 2000

Ms. Pat Badertscher
Impact Assessment Officer
Historic Resources Branch
Manitoba Culture, Heritage and Tourism
213 Notre Dame, Winnipeg, Manitoba
R3B 1N3

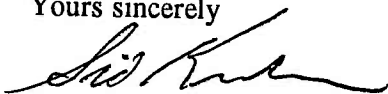
Dear Pat;

Re: Heritage Permit A17-00 - Festival Park Gateway Project

To follow up on our telephone conversation of today, the history of the implementation of this project is as follows. When the permit was applied for in May, 2000, the design called for 5 auger holes on the east side of Arrival Square, running perpendicular to Pioneer Boulevard. The project was postponed and upon its subsequent start up on July 14, the design now called for two parallel rows of 6 holes (12 in all), in the same alignment. These were to be drilled to a 25 foot depth for pouring piles in place. The water table was high and the first hole to be drilled collapsed, leaving only 18 feet effective depth. The engineer, Radenko Vujadinovic of NorthAm Construction, called off work for that day saying that everyone would be notified when the implementation was to begin again. On July 24, I phoned Mr. Vujadinovic to see when the drilling would begin and was informed that it had occurred on July 20 and July 21. He was able to locate the site at which the extracted soil had been dumped and on July 25, I went out to examine it. Fill from several other projects was dumped at the property and, by process of elimination due to material included in the various fill dumps, I was able to identify and examine the soil from the drilling at The Forks. No cultural material was observed during this examination but this does not preclude the possibility that thin layers of Pre-Contact occupations had been encountered.

Discussion of the situation with Mr. David Stones (The Forks North Portage Partnership) resulted in the determination that, if necessary, the construction firm would drill two additional holes for my examination. He also mentioned that three additional holes for flagpole bases will be drilled in about 2-3 weeks, depending upon delivery of components. This is when I discussed with you the desirability of additional impact. A further discussion with Mr. Stones elicited the information that it is extremely unlikely that any additional sub-surface impact will occur in the vicinity of the Festival Park Gateway, beyond the three flagpoles. Accordingly, I recommended to him that, as no large scale sub-surface projects were anticipated, additional impact in the terms of two unnecessary holes should not be undertaken and that the only further archaeological requirement would be the monitoring of the flagpole holes. I did state that I would convey my recommendation to Historic Resources Branch and would await the determination of the regulatory agency.

Yours sincerely



Sid Kroker



August 15, 2000

Mr. Sid Kroker
Quaternary Consultants Ltd.
130 Fort Street
Winnipeg MB R3C 1C7

Dear Sid:

Re: Heritage Permit A17-00 – Festival Park Gateway Project

Thank you for your letter of July 25th, 2000, which summarizes activities that have occurred relative to Heritage Permit A17-00, the monitoring of auger holes to be drilled perpendicular to Pioneer Boulevard on the east side of Arrival Square. It is unfortunate that a breakdown in communications by NorthAm Construction led to your not being able to monitor drilling as originally planned, but your willingness to travel to the dump to examine the extracted soil is certainly appreciated.

I agree with your recommendation that it is not necessary to compensate for the error by drilling additional holes in this location for you to examine, as offered by David Stone of The Forks North Portage Partnership. Monitoring the drilling of three holes for the installation of flagpoles in this area will provide ample opportunity to observe subsurface conditions at this location. The results of this monitoring can be included under activities covered by Heritage Permit A17-00.

Yours truly,

A handwritten signature in cursive script that reads "Pat Badertscher".

Patricia M. Badertscher
Manager
Archaeological Assessment Services