



Parks Canada Basic Impact Analysis

1. PROJECT TITLE & LOCATION

120 Halifax Heritage Exhibit

2. PROPONENT INFORMATION

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3. PROPOSED PROJECT DATES

Planned commencement: 2018-05-01
Planned completion: 2018-08-01

4. INTERNAL PROJECT FILE

MNSFU-06-2018-HDC

5. PROJECT DESCRIPTION

This phase of project work involves upgrading an underground exhibit space at the Halifax Citadel National Historic Site. The base building requires the space be prepared for a future exhibit installation. Elements of work will include but not limited to: Mechanical, electrical and architectural work. Construction is intended to be complete by July 2018.

A short electrical trench, about 20m long by 1m deep, will be dug to connect the exhibit space in the West Curtain Wall to the Cavalier Building via external conduits.

6. VALUED COMPONENTS LIKELY TO BE AFFECTED

This project will potentially effect *Natural Resources*. This project may also affect *Cultural Resources* and *Visitor Experience*.

7. EFFECTS ANALYSIS

Natural Resources

Most environmental effects from noise, dust, waste generation or equipment use should be covered by standard project specifications which ensure adherence to provincial and federal regulations. However excavation in this context is not covered by these specifications nor by currently available BMPs.

Impacts will be limited to erosion and sedimentation during excavation of the utility trench.





Cultural Resources

The Parade is a Cultural Resource of National Significance (Level 1) and all digging must be monitored by an archaeologist. The West Curtain Wall, which houses the exhibit, is a FHBRO "Recognized" Building but there will be no impact on its cultural fabric.

Visitor Experience

The Halifax Citadel receives high visitation year round; utilized daily by resident joggers and walkers and large numbers of tourists from around the world. Construction activities and equipment, re-routing traffic, noise, dust, and temporary closures can impact their experience.

8. MITIGATION MEASURES

Natural Resources

1. Erosion and Sediment Control
 - a. When excavation is required, schedule work to avoid wet, windy and rainy periods that may increase erosion and sedimentation.
 - b. Backfill and compact excavations as soon as possible. Optimize degree of compaction to minimize erosion.
 - c. Excavated material may be stored on hardened surfaces, geo-textile material or directly on undisturbed vegetation.
 - d. Cover all stockpiled material with heavy-duty plastic or filter cloth to prevent erosion during precipitation events.
 - e. All drainage from site should be filtered by means of geotextile cloth and/or filter medium.

2. Fill and resurfacing materials
 - a. Fill and resurfacing materials must be free of contaminants and be geologically stable (i.e. crushed rock should not be subject to Acid Rock Drainage and fill should not be sourced from contaminated sites)
 - b. Fill must be free of weed seeds and living plant tissue
 - c. All material removed from site must be disposed of in an environmentally sound way in accordance with Provincial and Federal regulations

3. Fueling Equipment- Fuel storage and refuelling will be done in accordance with Best Management Practices developed for Parks Canada as follows:
 - a. All equipment shall be properly tuned, free of leaks, in good operating order and equipped with standard air emissions control devices. Vehicles found leaking petroleum products at the site will be ordered off site.
 - b. Petroleum product storage shall be off-site in secure areas.
 - c. A Spill Response Plan will be prepared and detail the containment and storage, security, handling, use and disposal of empty containers, surplus product or waste generated in the application of these products in accordance with all applicable federal and provincial legislation. The Plan shall include a list of products and materials to be used or brought to the construction site that are considered or defined as hazardous or toxic to the environment.





- d. Spill kits shall be provided at re-fuelling, lubrication, and repair locations that are capable of dealing with 110 % of the largest potential spill and shall be maintained in good working order. Site staff shall be informed of the location of the spill response kit(s) and be trained in its use.
- e. Machinery (e.g., excavators, bobcats) must be stored, maintained and refuelled on a flat surface,
- f. Refueling must take place on a tarp or portable berm, or on compacted ground.
- g. Timely and effective action shall be taken to stop, contain and clean-up all spills.
- h. Project Manager, Robie Gourd (902-402-2851) must be notified immediately of any spill. Spills may also be reported to the Environment Canada oil spill and pollution (24 hr) reporting line: 1 800.565.1633. In the event of a major spill, all other work shall be stopped and all personnel devoted to spill containment and clean-up. The Project manager will notify the Environmental Surveillance Officer (ESO) of any spills and provide documentation and pictures of remedial action.
- i. The costs involved in a spill incident (the control, clean up, disposal of contaminants and site remediation to pre-spill conditions) shall be the responsibility of the proponent. The site will be inspected to ensure completion to the expected standard and to the satisfaction of Parks Canada.

Cultural Resources

1. Monitoring is required for excavation of an electrical trench (20m long, 1m deep) in the Parade from the Curtain Wall to the Cavalier Building via conduits outside those two buildings. An Archaeological Overview Assessment (AOA) will be prepared by a Parks Canada archaeologist to mitigate this phase of the project. An archaeologist must be engaged at least two weeks ahead of digging. **Operations will halt immediately** should any cultural or archaeological resources be discovered in the Parade. The discovery of such historical resources will be reported to the Project Manager (Robie Gourd, 902-426-7516) and Cultural Resource Manager (Keith Mercer, 902-426-1992) immediately and will not be disturbed prior to an archaeological assessment of those items' nature and significance.
2. Contractors, and the Parks Canada team, should take care not to impact the heritage value of the Curtain Wall. The project drawings and plan call for no impact to the building's 19th-century stone and brick fabric. Should issues arise, work should cease until the Project Manager and Cultural Resource Manger are consulted.
3. Heritage conservation is part of Park Canada's core mandate. The Parade is a Cultural Resource of National Significance (Level 1), while the West Curtain Wall is a FHBRO "Recognized" Building. Protecting both is key. To that end, the contractors and the Parks Canada team should be guided by this BIA, the AOA, the Halifax Citadel's Commemorative Integrity Statement, the Curtain Wall's Heritage Character Statement, as well as general policy documents such as Parks Canada's Cultural Resource Management Policy and the *Standards and Guidelines for the Conservation of Historic Places in Canada*.
4. Cultural and archaeological resource protection requires isolating operations to the footprint of the immediate construction area.





Visitor Experience

Direct and indirect effects to Visitor Experience can be mitigated by project timing and safety Measures as follows:

1. Project should be completed in a short of period as practicable, to allow for the renewed public use of Parade Square.
2. Safety risks to tourists and the public during construction work must be minimized (e.g. post appropriate bilingual signs at entrance points and strategic locations, traffic control for pedestrians and vehicles on site and restrict access using traffic barriers, temporary gates, caution tape, project work phasing, fencing of the site, etc).

9. OTHER Considerations

Check all that apply

- Public/stakeholder engagement
- Aboriginal engagement or consultation
- Surveillance
- Follow-up monitoring, required to evaluate effectiveness of mitigation measures and/or assess restoration success
- Follow-up monitoring, required by legislation or policy (indicate basis of requirement e.g. required by the *Species at Risk Act*)
- SARA Notification

Environmental Surveillance Officer, Troy Pretzlaw will conduct project surveillance, either directly, or as assigned/delegated to the Project Manager, Robie Gourd, or other Parks Canada personnel who are knowledgeable with the project and these mitigation measures. Surveillance intensity will be scaled to the risks associated with project phases.

10. SIGNIFICANCE OF RESIDUAL ADVERSE EFFECTS

Environmental effects are deemed not significant and should be suitably mitigated as per the implementation of this BIA. This is a highly modified non-natural site. The project involves minor earthworks in Parade Square which has been excavated and backfilled several times in recent history.

Cultural impacts should be negated through monitoring of the trench in the Parade, guided by an Archaeological Overview Assessment.





11. EXPERTS CONSULTED

Department/Agency/Institution: Parks Canada	Date of Request: 29/03/2018
Expert's Name & Contact Information: Keith Mercer, Ph.D. P.O. Box 9080, Station A, Halifax NS B3K 5M7 Keith.Mercer@pc.gc.ca Telephone 902-426-1992	Title: Cultural Resource Manager, Parks Canada
Expertise Requested: Cultural Resource Management Process, Archaeological and FHBRO requirements.	
Response: Mitigation in this BIA and forthcoming AOA.	

12. DECISION

Taking into account implementation of mitigation measures outlined in the analysis, the project is:

- not likely to cause significant adverse environmental effects.
- likely to cause significant adverse environmental effects.

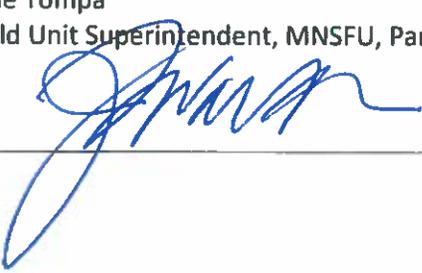
NOTE: If the project is identified as likely to cause significant adverse effects, CEAA 2012 prohibits approval of the project unless the Governor in Council (Cabinet) determines that the effects are justified in the circumstances. A finding of significant effects therefore means the project CANNOT go ahead as proposed.

FOR SARA REQUIREMENTS:

- There are no residual adverse effects to species at risk and therefore the SARA-Compliant Authorization Decision Tool was not required

13. RECOMMENDATION AND APPROVAL

(Add additional blocks as required)

Prepared by: Troy Pretzlaw Resource Management Officer- Impact Assessment, MNSFU, Parks Canada	Date: April 18, 2018
Recommended by: Functional Manager of the Project (FMP): Mark Garnett Asset Manager, MNSFU, Parks Canada	Date: April 18, 2018
Approval signature: Julie Tompa Field Unit Superintendent, MNSFU, Parks Canada 	Date: May 11/18



March 2018



14. ATTACHMENTS/APPENDICES

Appendix 1: Project Schematic

15. NATIONAL IMPACT ASSESSMENT TRACKING SYSTEM

- Project registered in tracking system
- Not yet registered (*CEAA 2012 requires PCA submit a report to Parliament annually. EIAs must be entered in the tracking system by the end of April to enable reporting.*)





Appendix 1. Project Schematic



Figure 1. Image showing location of proposed trench

