



June 29, 2012

Phyllis Beaulieu
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Re: City of Iqaluit Bridge Repairs - Environmental Protection Measures

Dear Ms. Beaulieu:

Please accept the following letter as notification of modification for the repairs to Frobisher Bridge and Road to Nowhere Bridge in Iqaluit, Nunavut.

The City of Iqaluit is preparing to repair the Frobisher Bridge and the Road to Nowhere Bridge during the 2012 construction season. Please see Appendix A for the locations of Frobisher Bridge and Road to Nowhere Bridge

The repair to Frobisher Bridge requires localized repairs to the southwest corner of the Frobisher Bridge concrete deck. The scope of work includes the following:

- Repairing localized areas of top surface concrete deterioration as directed under our supervision. Repair efforts will consist of removing deteriorated concrete, cleaning embedded reinforcing steel, and forming/ placing a concrete patch material.

The repair to Road to Nowhere Bridge requires localized repairs to the sediment approach banks and the replacement of missing/ deteriorated deck boards. The scope of work includes the following:

- Repairing localized areas of sediment washout along the approach banks. Repair efforts will consist of reinstating washed out gravel under our on-site direction/ supervision.
- Replace/ repair missing or deteriorated wood deck boards at localized locations

Environmental Protection Measures:

Bridge maintenance activities have the potential to negatively impact the environment by introducing sediment and construction materials (e.g. grout, paint, solvents, general refuse, oil and grease etc.) into water bodies. In addition, operation of machinery and other construction related activities may impact habitat on the banks and bed of the water body resulting in erosion and sedimentation. Furthermore, bank stabilization techniques may disrupt the natural flow of the waterway.

Formal Specifications regarding water course environmental protection measures will be included in the Tender Packages for both the Frobisher and Road to Nowhere Bridge projects in order to ensure that negative impacts to the environment are eliminated or mitigated to a practicable extent. It will be made clear within the specifications that the successful proponent for each project must comply

with environmental protection measures therein.

Please see a summary of the information that is intended for inclusion in the specifications below:

The Department of Fisheries and Oceans Canada (DFO) provides operational statements that outline the measures required to reduce the negative impacts associated with various construction related activities in or near water bodies. The following (based on DFO guidelines) outlines the environmental protection measures that should be undertaken during planned work at the Frobisher Bridge and the Road to Nowhere Bridge located in the City of Iqaluit, Nunavut.

- If possible, bridge work should be conducted during periods of low flow.
- Wherever possible, access to the sites should be on existing roads and trails.
- To minimize erosion, construction should be halted during periods of heavy precipitation and/or runoff.
- Wherever possible retain existing vegetation thereby reducing the potential for erosion. Removal of vegetation should be kept to a minimum and restricted to the right of way of the bridge.
- Effective bank erosion control measures such as filter cloth, rock, matting, or polyethylene etc. must be installed prior to starting work to prevent the entry of sediment into the water course resulting from the operation of machinery or other activities which may disturb the bank.
- Erosion control measures should be inspected on a regular basis and repairs made as needed.
- When possible all machinery should be operated on land (out of the water) and in a way that minimizes disturbance to the bank. Alternately, machinery could be operated on the water (e.g. from a barge).
- If in water work is required, it should be completed in compliance with DFO Nunavut In-Water Construction Windows for the Protection of Fish and Fish Habitat.
- Eroded sediment should be contained on-site using devices such as silt fences and sediment traps.
- Banks should be restored to their original condition if any disturbance occurs.
- Machinery should arrive on-site in clean condition and in good repair (i.e. free of any leaks).
- All fuelling, washing and servicing of vehicles must be conducted as far as practicable from the water to prevent any substances from entering the water body.
- Storage of fuel, other materials required for the vehicles, and waste oils/lubricants will be stored in leak-proof containers and as far away from the water as practicable to prevent any spills or leaks from impacting the water body. These materials should also be contained in a secure area to prevent vandalism.
- An emergency spill kit should be kept at the site in case of fluid leaks or spills from machinery. Any spills of fuels etc. should immediately be contained and the contaminated soil removed from the site and disposed of at an approved disposal site. Spill kits vary, but at a minimum should contain the following:

- Absorbent pads
 - Absorbent socks
 - Absorbent pillows
 - Granular absorbent
 - Hazardous materials disposal bags
 - Nitrile gloves
 - Spill instruction sheet
- A shroud or barge (if water levels allow) should be installed beneath the bridge to trap and prevent construction materials (concrete, paint flakes, rust, solvents, etc.) from entering the watercourse.
 - All waste construction materials including (but not limited to) grout, wood wastes, paint chips etc. should be removed from the site and disposed of at an approved disposal site.
 - Waste bins for designated for general refuse should be placed at each site.
 - Engineered fill used on the Road to Nowhere Bridge project should not be acid-generating nor break down quickly once exposed to the elements.

If you have any questions or concerns regarding the above, please do not hesitate to contact me.

Sincerely,



Paul Clow
Project Officer
City of Iqaluit

Appendix A

Location of Frobisher Bridge and Road to Nowhere Bridge

