

DRAGADOS CANADA

July 23, 2015

Muskrat Falls Corporation c/o Nalcor Energy 350 Torbay Road Plaza, Suite 2 St. John's, NL, Canada A1A AE1

Dear Mr. Over

We acknowledge receipt of your email dated July 21, 2015 relating to CH009 Interface Issues.

The first question was:

The need to share a portion of Laydown Area J, and to allow unobstructed access across Area J. A roadway of approximately 10 meters width must be shared with other project contractors. All maintenance of the roadway will be responsibility of Bidder.

Response:

We do not see any issue with allowing access across Area J. This will have to be coordinated to minimize interruptions as we will have a lot of truck traffic to and from the North Dam.

The access road construction and maintenance will be done on a "fit for purpose" standard for our requirements. This does not include any maintenance for shut down periods for winters, diversion delays causing us to demobilize, etc. Should you require us to do the maintenance during these shut down periods, we would do so on a cost reimbursable basis.

We also would like to point out the following:

The access to Area J will change once the existing cofferdams and rock section is removed. Please refer to Annex 13-4 and 13-11 drawings. A copy of each has been attached.

We are building the access road to suit our anticipated vehicle loads only. Should any third party require heavier load requirements, they would have to compensate us to make the structural modifications required.

The second question was:





The need to give up access to the area immediately East of the Intake Cofferdam. Minor adjustments to the cofferdam layout may be possible to facilitate access to the upstream temporary bridge.

Response:

We have reviewed this requirement and we can minimize our impact to this area by realigning the upstream bridge. We will now utilize the intake cofferdam as the launching pad. However we will require some fill on the east side of the cofferdam in order to allow a straight launch. The construction of the Intake cofferdam will have to be completed in the fall of 2015 in order to accommodate a bridge installation in the spring of 2016. This will cause some access interference to the intake area of the powerhouse however we will do our best to minimize this disruption.

The additional cost for this adjustment at the bridge abutments and launching area is \$300,000.00. This cost is based on the realignment we have chosen. If a different alignment is required that lengthens the span then there would be additional costs for the extra length of bridge and potential extra pier installation and removal. This cost could be substantial.

We have also attached an updated execution plan for the temporary bridge.

We respectfully remind Nalcor that the Tender Validity Period ends on July 31, 2015.

We trust this satisfactory and we are available at any time to discuss these responses.

Leonard Knox

Executive Vice President

H.J. O'CONNELL CONSTRUCTION LIMITED

1. TEMPORARY BRIDGE DESIGN AND INSTALLATION

The temporary bridge across the spillway approach channel will consist of one 80m span and one 20m (+/-) span as illustrated on the attached drawing. We will realign the bridge to match up closer to the intake cofferdam. This will minimize any encroachment into the intake area as requested in your email to Mr. Leonard Knox dated July 21, 2015. We may require some fill on the inside of the cofferdam in order to create a straight launching area. This can be removed after the bridge is installed.

In order to utilize the cofferdam as the launching area, we will advance the construction of the intake cofferdam to the fall (September and October) of 2015.

Originally the 20m span was going to be either a truss system or steel girder system, however we will now have to adjust the pier design to allow for a flared 20m section in order for the bridge to align properly with the starter groins. Therefore the 20m section will now consist of steel girders rather that a truss system.

The south abutment will be established in an area of competent rock with minimal overbreak. This may require some realignment of the bridge. It will consist of a concrete retaining wall structure on the edge of the spillway channel. The area between the south abutment and the transition dam will be filled with rock fill. The existing bank in-situ rock will be structurally secured with rock bolts.

An intermediate pier will be established on the north edge of the spillway channel. This will consist of structurally securing the existing rock with rock bolts. A concrete foundation will be poured. A steel pier will be designed and fabricated off site which will be bolted to the concrete. The steel pier now will be in a wedge shape to allow for the flare of the bridge. When the bridge is eventually removed, the steel pier will be unbolted and removed. The concrete abutments and retaining wall will be installed outside of the limits of the spillway approach channel and therefore will remain in place.



Figure 1: Spillway Bridge, Long-Sault Rapids, ON (Algonquin Bridge)

The existing RCC cofferdam will be utilized for the north abutment.

The bridge will utilize Mabey Universal panels or equivalent in a double-double reinforced configuration for the 80m span. The width will be 5m with a wooden deck. Concrete for the abutment and pier foundation will be obtained from a local supplier in Goose Bay or from the existing on-site concrete batch plant (if available).

The bridge will be assembled on rollers on the access ramp and pushed across the channel with a launching nose into position. It is imperative that the access ramp and bridge line up in a straight line to facilitate launching of the bridge.

The assembly crew will primarily consist of:

- 1 80T crane
- 1 Cat 336 excavator
- 1 Foreman
- 4 Ironworkers
- 2 Labourers

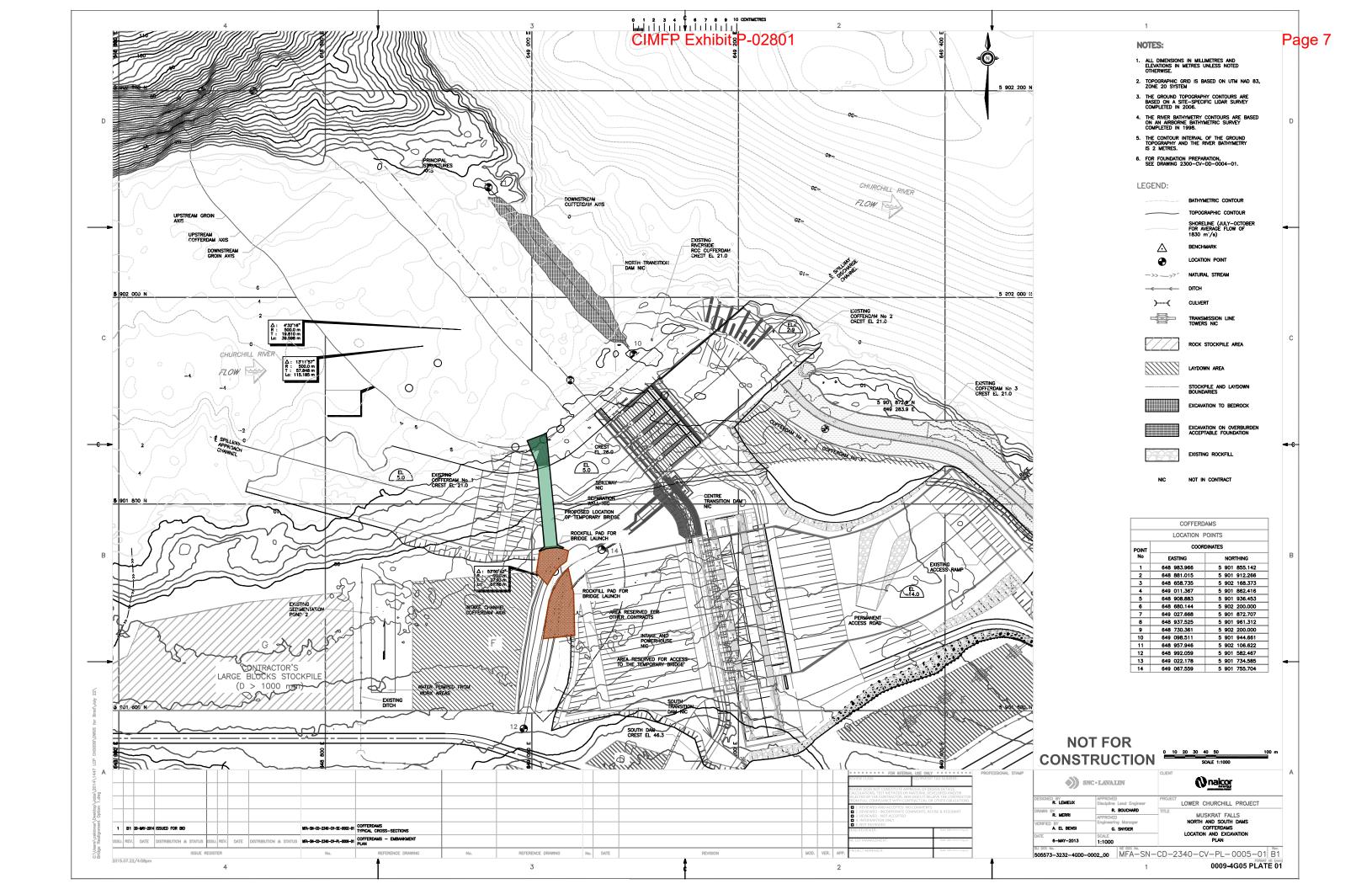
The bridge will have a 75T capacity, but will have the potential for higher capacities for future shorter spans.

The upstream spillway bridge will be removed in the same manner in which it was launched. A nose section will be installed and the bridge will be placed on rollers. The bridge will be pulled back on the intake cofferdam and dismantled. The final disassembly and storage will be done

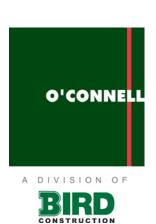
on site. There will be additional costs to the Company should the bridge have to be transported off of the project site.

During the dismantling of the bridge the steel section only of the intermediate pier will be removed as explained earlier.

Once the dismantling of the bridge is complete, the intake cofferdam will be removed. The material will be excavated with 75t excavator and loaded into 40T articulated trucks. A 35t excavator will assist with machine cleaning. The material will be hauled to disposal.





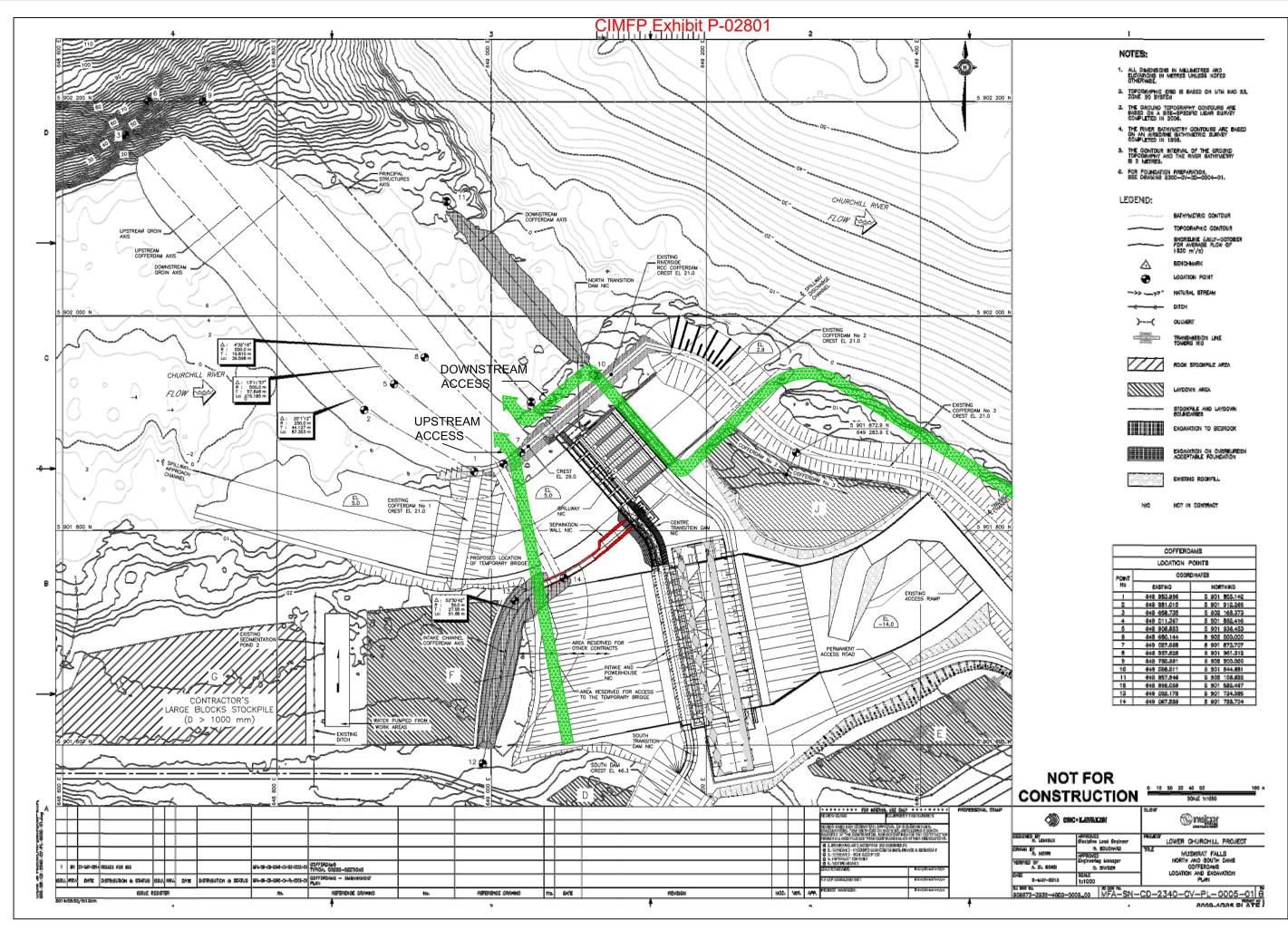




CH0009 – CONSTRUCTION OF NORTH AND SOUTH DAMS

Request for Proposal

Annex A13-11









CH0009 – CONSTRUCTION OF NORTH AND SOUTH DAMS

Request for Proposal

Annex A13-4

