

SLSMC Niagara Region (Welland Canal)

Civil Engineering Projects – Request for expression of Contractor Interest

From time to time the SLSMC, Niagara Region hires Civil Engineering Contractors to carryout maintenance work on its behalf.

Experienced Contractors wishing to be considered for inclusion on a tender list should complete the pre-qualification form forms at

http://www.greatlakes-seaway.com/en/aboutus/slsmc_procurement.html.

Contractors who have submitted bids to the SLSMC for work in Niagara during the past five years do not need to submit pre-qualification documents, but may do so if their field of expertise, size of company etc. has changed significantly during that time period.

The following is a brief description of the type of work for which tenders may be called.

Major Areas of Interest

- 1 Concrete demolition and reconstruction
- 2 Canal Bank Rehabilitation
- 3 Road/paving repair (asphalt & gravel)
- 4 Channel Maintenance (Dredging or heavy excavation)
- 5 Timber & steel piling and repairs
- 6 Timber fendering

1 Concrete demolition and reconstruction

1.1 Major Concrete Repairs

The SLSMC is carrying out an ongoing program of major concrete repair works on its lock & approach wall structures on the Welland Canal.

The work, in general, consists of

Concrete demolition up to 750mm thick, installation of steel anchors, reinforcing bars and refacing with fresh concrete.

The work, typically, will be carried out in January & February when freezing condition may be encountered. Extensive heating and hoarding is required and the short construction period requires a high level of scheduling of the work. Contractors doing this work must be familiar with cold weather work.

Areas to be demolished and reconstructed will typically be up to 25 metres above the bottom of the lock, but may be as high as 40 m above the lock floor. Contracts are anticipated in the \$200,000 to \$2,000,000 range. In some cases the use of floating plant may be required for the demolition phase.

1.2 Minor Concrete Repairs

The work, in general, consists of

Concrete demolition, installation of steel anchors, reinforcing bars and replacing with fresh concrete on roads, walking surfaces and other areas both horizontal and vertical.

This type of work may be carried out at any time of the year depending on operational constraints. Some work may be needed during the winter and Contractors doing this work must be familiar with cold weather work.

Contracts are anticipated to be in the \$20,000 to \$200,000 range.

2 Canal Bank Rehabilitation

The work, in general, consists of

Excavation of part of the Canal bank; supplying and placing filter materials and rip rap on excavated slope; supplying and placing Granular "A" road base material for a Service Road.

The work, typically, will be carried out in January & February when freezing condition may be encountered.

Contracts are anticipated to be in the \$500,000 to \$1,000,000 range.

3 Road/paving repair (asphalt & gravel)

The work, in general, consists of

Removal of defective asphaltic paving, removal of granular base material, installation of filters and granular base material and re-asphalting.

Contracts typically are in the \$50,000 to \$200,000 range

4 Channel Maintenance (Dredging or heavy excavation)

The work, in general, consists of

Removal of canal bed material to ensure appropriate lines and grades.

Material to be removed is, largely, recently deposited silty material but may include large stones, rocks and general debris. Material is, typically, mildly contaminated with heavy metals. Parts of the Canal may be considered environmentally sensitive.

Material removed is typically deposited onshore, into containment dykes.

4.1 Dredging

Material may need to be removed underwater using dredging techniques. Depending on operating conditions this work may be done during the winter, non navigation period, or during the navigation period.

4.2 Excavation

Parts of the Welland Canal can be drained and the excess material removed using land based equipment. Although drained, the bottom of the canal, typically, remains in a very soft condition, requiring specialized excavation and haulage equipment. The work, typically, will be carried out in January & February when freezing conditions may be encountered.

Contracts typically are in the \$100,000 to \$1,000,000 range

5 Timber & steel piling and repairs to Tie-Up walls

The work, typically, will be carried out in January & February when freezing conditions may be encountered. Contractors doing this work must be familiar with cold weather work.

The work, in general, consists of;

Major works

Demolition of existing tie-up walls (timber piles and decks, concrete caps). Installation of new steel pipe and H piles; installation of steel, concrete or timber pile caps.

Work may also include extensive excavation of, and backfilling with, granular materials.

Contracts typically are in the \$500,000 to \$2,000,000 range

Minor works

Repairs to existing timber and steel piles, through replacing, splicing, reinforcement and other means;

Contracts typically are in the \$100,000 to \$200,000 range

6 Timber fendering

The work, in general, consists of;

Removal of existing timber fenders from approach walls, lock walls and lock gates

Replacement with new timbers

Work on the approach walls may take place through out the year, Work on the lock walls and gates is, typically, done during the winter non-navigation period.

Contracts may be multi-year and are, typically, in the \$250,000 to \$500,000 per year range

General Information

The St Lawrence Seaway provides a vital marine transportation link permitting the passage of ocean going vessels from the Gulf of St. Lawrence up into the Great Lakes, the heartland of North America.

The Welland Canal is a vital part of that system; linking Lake Ontario to Lake Erie and allowing vessels to by-pass Niagara Falls.

General information regarding the SLSMC and the Welland Canal may be found at

<http://www.greatlakes-seaway.com/>