

PART 1 - GENERAL

1.1 General Description

- .1 This section specifies requirements for excavating Class "B" underwater materials in areas indicated, and for transporting and disposing of excavated materials at specified locations.

1.2 Definitions

- .1 Dredging: excavating, transporting, disposing of, and shaping the material as specified.
- .2 Class "A" material: solid rock requiring drilling , blasting or hydraulic splitting to loosen and boulders or concrete debris with each unit containing 1.5 cubic metres or more.
- .3 Class "B" material: loose or shale rock, silt, kelp, sand, quicksand, mud, shingle, gravel, clay, gumbo, boulders, hardpan, seaweeds, kelp, debris, or any other material not defined under Class "A".
- .4 Debris: pieces of wood, wood fibre, bark, logs, foreign metal objects, steel cable, tires, wire rope, cable, scrap steel and pieces of concrete.
- .5 Grade: plane or planes above which all material is to be dredged.
- .6 Side slope: inclined surface or plane from grade at side limit of dredging area to intersect of original ground line outside of side limit and to be expressed as a ratio of horizontal to vertical.
- .7 "CMTM": cubic metre truck measurement.
- .8 Chart Datum: a permanently established plane from which soundings or tide heights are referenced, which is Low Normal Tide (L.N.T.) for purposes of this standing offer.
- .9 U.T.M.: Universal Transverse Mercator system of co-ordinates based in 1983.
- .10 Cleared: Finally accepted as complying with plans and specifications.
- .11 CEPA: Canadian Environmental Protection Act.
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1.3 Dredging
Materials

- .1 The material to be dredged is classified as Class "B" material, and is generally at these locations found to be mostly sand with some traces of silt, clay and debris. Soils report or previous boreholes carried out in the dredge areas of the different sites may be viewed at the office of the Departmental Representative. (see item 1.10 in this section for address of Departmental Representative)

1.4 Schedule
of Work

- .1 Submit to Departmental Representative, within two days of a request for dredging, a schedule of work including time periods during which each operation involved in work will be undertaken up to final completion.
- .2 The work shall be done in an expeditious manner as most requests are in response to hazardous navigational conditions.
- .3 Where applicable, notify the Departmental Representative within one (1) working day of the completion of a dredging operation so after dredging sounding surveys can be carried out at the earliest opportunity.

1.5 Interference
to Navigation

- .1 Be familiar with vessel movements and fishery activities in area affected by dredging operations.
- .2 Plan and execute work, in a manner that will not impede navigation, including movement of vessels at marine structures. Implement mitigative measures if required.
- .3 Plan and execute work, in a manner that will not interfere with fishing operation or access to marine structures by land or water. Implement mitigative measures if required.
- .4 The Departmental Representative or vessel owners will not be responsible for loss of time, equipment, material or any other charges related to interference with moored vessels in the harbour or other Contractor's operations.
- .5 Co-operate with the Wharf Managers and ensure that any actions taken are acceptable to the said Managers and the Department.
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1.5 Interference
to Navigation
(Cont'd)

- .6 Keep Departmental Representative informed of dredging operations in order that necessary Notices to Mariners will be issued by Canadian Coast Guard, Fisheries & Oceans Canada.

1.6 Regulatory
Requirements

- .1 Perform work, in accordance with National Building Codes of Canada (NBC) and any other municipal, provincial and national codes and regulations, including the provisions of the Canadian Environmental Protection Act. In any case of conflict or discrepancy, the more stringent requirements will apply.

- .2 For most wharf locations, applications have been made by the Departmental Representative for:

.1 Ocean Disposal permits under the Canadian Environmental Protection Act for disposal on the beach in the tidal zone.

.2 Approvals from the provincial Department of the Environment for dumping on private land.

The copies of the permits will be forwarded to the Contractors where required. The Contractor shall observe and comply with all provisions, conditions and restrictions contained in these permits. The pertinent and anticipated restrictions are listed in item 3.4 of this Section.

- .3 Meet or exceed requirements of specified standards, codes and reference documents.

- .4 Place and maintain buoys, ranges, markers and lights, etc., to the requirements of authorities having jurisdiction.

- .5 Cooperate with and provide assistance to inspectors of these regulatory agencies to board and inspect equipment operations at any time during the project.

1.7 Interface to
Fishery Operation
and Damage to Fish
Gear

- .1 Become familiar with fishery activity. Clearly mark dredging area(s), disposal area(s) and routes to and from dredging and disposal areas, during periods when fishing gear is set.
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- 1.7 Interface to .1 (Cont'd)
The Contractor is responsible for all costs associated with the supply, installation and removal of all necessary temporary aids.
- .2 Execute the work to ensure damage does not occur to fishing gear and interference to fishing operations is minimized, by conducting operations within the areas so marked, either on wharf structures or on water.
- .3 Be responsible for damage to fishing gear outside marked areas and, if damage occurs, assume responsibility for replacement or repair costs and cost of lost fishing opportunity.
- 1.8 Dredging Equipment .1 The Contractor shall determine the required equipment necessary to effectively excavate the material specified and to transport the material to an approved disposal site. The material to be dredged is as described in Paragraph 1.3 of this Section. The dredging equipment is to have a minimum reach of 15 metres from the face of the wharf at a depth ranging to approximately 5 metres below wharf deck elevation.
- .2 The dump trucks used in the transportation of the dredge spoils are to have the containment compartments sealed to prevent the leaking of the materials out of the containment compartments. The Departmental Representative may request that the dump trucks be inspected for leakage. Any vehicles failing to meet these requirements will be rejected.
- .3 The equipment shall be in good condition and be environmentally safe with no leakage of petroleum products into the environment.
- 1.9 Setting Out of Work .1 Assume full responsibility for and execute complete layout of work to locations, lines and elevations indicated.
- .2 Provide devices needed to lay out and construct work.
- .3 Supply stakes and other survey markers required for laying out work.
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1.9 Setting Out
of Work
(Cont'd)

- .4 The Contractor shall verify all dimensions in the field prior to start of work.

1.10 Site
Information

- .1 Plans of previous dredging projects carried out historically at the different sites are available for viewing and inspection at the office of Public Works & Government Services Canada.

Results of soundings from previous years are also available for inspection. These soundings are made available for tendering purposes only. It should be noted that this information may differ from present site conditions.

- .2 The information in 1.10.1 is available for viewing at the Departmental Representative's office during the tender period:

9:00 am to 12:00 noon and from 13:00 to 16:00, Monday to Friday.

Located at: Public Works and Government Services Canada - G.O.C. Building

Fourth Floor 1045 Main Street
Moncton, N.B Telephone: (506)
851-6040

Mailing Address: Public Works and Government Services Canada 1045 Main Street, Unit 100, Moncton, N. B. E1C 1H1

1.11 Measurement
for Payment

- .1 Only material excavated above grade plane and within side slopes and limits indicated at the time of the call-up including the transportation, discharge on the disposal areas, and shaping of the material will be measured. No measurement will be made for material removed below specified grade. Quantities of over dredging will be deducted from the final quantity.

- .2 **Mobilization and Demobilization:** of dredging equipment will be measured by each piece of floated heavy equipment. Floated heavy equipment includes: crane, excavator, dozer and front end loader needed and accepted by
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1.11 Measurement
for Payment
(Cont'd)

- .2 Mobilization and Demobilization: (Cont'd)
the Departmental Representative as deemed necessary to complete the work of the call up. This item will be measured when a crane, excavator, dozer and front end loader is floated in for the completion of the work related to dredging (ex back to back call ups, no mobilization). The moving off the wharf to accommodate wharf users or relocating equipment from one area of the wharf to another is incidental to the work and will not be measured for payment, also any other cost not covered in the other items for payment that are necessary for the work will be included in this item, except those items described in 1.11.7.

The contractor will not be paid mobilization if the equipment is still on site.

The same lump sum amount would apply regardless of the dredge site and its distance to the Contractor's home base.

Half of the sum allocated for mobilization and demobilization, less holdback, shall be payable upon commencement of dredging and the remainder shall be payable after project completion.

- .3 **Dredging:** The method of payment will be measured by the cubic metre truck measurement (CMTM) for the work completed. Measurement will be made according to the distance from the dredge area to the disposal site (one way). The two categories of measurement are as follows:
- .1 The disposal site is located less than two (2) kilometres from the dredge site.
 - .2 Beyond two (2) kilometres the Departmental representative will negotiate a rate to compensate the contractor for additional haulage.
 - .3 Weight Restrictions premium: The Departmental Representative will negotiate a rate to compensate the contractor for the haulage completed when the New Brunswick Department of Transportation Highway Weight Restrictions are in effect during the dredging. This premium would apply in addition to the measurement made under
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1.11 Measurement
for Payment
(Cont'd)

- .3 Dredging: (Cont'd)
- .2 (Cont'd)
- .3 (Cont'd)
above items 1.11.3.1 or 1.11.3.2. This measurement would only apply when trucks are required to haul on routes affected by these restrictions when these restriction are in effect.
- .4 **Excavator, Crane:** The method of payment for an excavator working other than loading trucks will be measured by the hour or part of.
- .5 **Dozer, Front end loader:** The method of payment for an excavator working other than loading trucks will be measured by the hour or part of.
- .6 **Minor Work** : The Departmental representative will negotiate a rate of payment or lump sum amount for the minor additional work listed in section 01 11 00, paragraph 1.2.9 when the contractor is requested to carry-out such work.
- .7 The following items will not be measured for payment but considered incidental to the work:
- .1 the use of the disposal site(s):
preparation of the site, and spreading and grading of the dredge spoils.
- .2 delays due to the fishing industry and vessel traffic.
- .3 the installation of timber platforms (to protect the wharf from damages) if requested by Departmental Representative.
- .4 operations in connection with the field positioning of dredging equipment.
- .5 down time.
- .6 any accumulation of seaweeds and/or kelp which may hamper the dredging operation.
- .7 The disposal of debris at an approved disposal site..
- .8 The area of the wharf affected by the Dredging operation must be cleaned or swept (ex. parking lot, wharf deck).
- .8 Material removed and dumped in the absence of the Department's Inspector will not be considered for payment.
- .9 Material disposed of without obtaining the required written approvals for a disposal site will not be measured for payment. The cost to
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1.11 Measurement
for Payment
(Cont'd)

- .9 (Cont'd)
relocate such material to an approved disposal site will be the Contractor's responsibility.
- .10 After dredging soundings may be taken by the Departmental Representative upon completion of the Contractors's dredging and no dredge area shall be determined complete until after it has been cleared to the specified grade depth or until so directed by the Departmental Representative or by the PWGSC representative on site.
- .11 Removal of obstructions, authorized by the Departmental Representative, will be measured in hours actually used in removal. Dredging equipment used for removal of obstructions will be paid for at a rate negotiated in advance and authorized in writing by the Departmental Representative.
- .12 Additional expenses: Tipping fees, payments made to private land owners for the access to the disposal site and a fee for the use of a disposal site, which have not been included in the unit prices. The Contractor must provide a written letter from the property owner confirming the amounts to be claimed for the Project Departmental Representatives review and approval. The additional expenses must be approved by Departmental Representative. The request for these approved additional expenses will be included with the final request for final payment. Consideration will only be made for those expenses approved by the Departmental Representative. There is no implied payments for payment of expenses other than for those preapproved by the Departmental Representative.

1.12 Restrictions

- .1 Ste.-Marie-St.-Raphaël: The disposal site is located south of the site and the access is via an earth roadway constructed the wharf back up area. The contractors are required to use the access road. There is a buried culvert that discharges south of the existing dredge spoils containment facility into the Gulf of Saint Lawrence that must not be blocked by the dredge spoils. The dredge spoils that blocked the culvert must be removed immediately.
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- 1.12 Restrictions .1 (Cont'd)
- (Cont'd)
- .1 Disposal Site Restrictions:
- .1 The dredged spoils are to be disposed of along the shore below the top of the embankment.
- .2 The material will be spread, graded and sloped toward the sea.
- .3 The final elevation of the top of the dredged material will be lower than the existing top of embankment unless approved by Departmental Representative.
- .4 Any restrictions for other sites will be provided at call-up time if applicable.

PART 2 - PRODUCTS NOT APPLICABLE

PART 3 - EXECUTION

- 3.1 Existing Navigation Buoys .1 The Contractor will make arrangements with the Canadian Coast Guard (CCG) for the removal and re-installation of any existing navigational towers and beacons on wharves, as required to carry out the dredging operations.
- .2 Do not proceed in removing towers until approval to do so has been received from the CCG. Any damages are the responsibility of the Contractor.

- 3.2 Submittal
- .1 If no disposal sites are provided by the Department, submit to Departmental Representative prior to start of work, the following items for review and approval.
- .1 Location(s) of proposed disposal site(s).
- .2 Copy of all approvals and permits from: Property Owner(s), Local, Municipal, Provincial or Federal authorities. Any restrictions imposed by land owners are to be provided.

- 3.3 General
- .1 Maintain and lay out work from bench marks, stations and base lines established by Departmental Representative. Be responsible
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3.3 General
(Cont'd)

- .1 (Cont'd)
for accuracy of work relative to established bench marks, stations, ranges and baselines.
 - .2 Establish accurately and maintain water level gauges tide boards from bench marks shown on drawings in order that the proper depth of dredging can be determined. Locate gauges or tide boards so as to be clearly visible at all times.
 - .3 Establish and maintain on land targets for location and definition of designated dredge area limits. Remove targets upon completion of work.
 - .4 Dredge the specified areas to the grade depths shown on plans submitted at the time of the request or as directed by the Departmental Representative.

Prior to start of work, obtain directions from the Departmental Representative on the areas to be dredged first.
 - .5 Dredge all side slopes to two horizontal to one vertical unless specified otherwise.
 - .6 Remove all materials above specified grade depths, within limits indicated at time of call-up. Material removed from below grade depth or outside specified area or side slope is not part of work. Dredging limits as outlined on the accompanying plan at the time of the request are subject to changes by the Departmental Representative.
 - .7 Remove shoaling which occurs as a result of work. Once dredged, maintain dredged area at grade until entire work is accepted.
 - .8 Casting-over of dredging material on to surrounding area is not permitted.
 - .9 Immediately notify Departmental Representative upon encountering an object which might be classified as an obstruction or solid rock. By-pass the object after clearly marking its location and continue work.
 - .10 If work is to be carried out in other than the daylight hours, it will be the Contractor's responsibility to provide all light and power necessary to carry out the
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3.3 General
(Cont'd)

- .10 (Cont'd)
work. Where directed, dredging may not be carried out outside daylight hours due to site conditions or environmental restrictions.
- .11 It will be the Contractor's responsibility to gain access to the dredge area.
- .12 Berm: Do not dredge within one metre of an existing structure, unless authorized by the Departmental Representative. Intersection of side slope and original bottom line is to be located 1.0 metre from structure at two horizontal to one vertical, as measured in a direction perpendicular to structure face. Distance from toe of slope to structure will vary depending on depth of cut. No excavation is permitted below -1.0 metre over the one metre berm.
- .13 Use extreme care when dredging adjacent to existing structures. Any damage to these structures to be repaired at Contractor's expense.
- .14 Dredging equipment will not be released until grade has been reached in all areas of the specified dredge area unless rock has been confirmed.

3.4 Disposal of
Dredged Material

- .1 The dredging and disposal of the dredged material on beaches in a tidal zone will be carried out in accordance with the terms and conditions set down in permits issued by Environment Canada pursuant to the Canadian Environmental Protection Act and Regulations thereunder.
 - .2 The disposal of dredge material on land and on private property will be carried out in accordance with the conditions and restrictions imposed by the New Brunswick Department of the Environment and by Public Works and Government Services Canada. The conditions applicable for every sites are indicated below. Should there be a requirement to cover the spoils with clean fill, the cost of this work will be reimbursed by the Department for an amount negotiated in advance and authorize in writing by the Departmental Representative.
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3.4 Disposal of
Dredged Material
(Cont'd)

- .3 The dredged spoils disposal site(s) must have the Departmental Representative's approval before the start of work, as per Section 01 11 00.
 - .4 The Department of Public Works and Government Services Canada does not accept any responsibility for damages which result from the Contractors or any of his agents actions during the use of the disposal site(s).
 - .5 Where possible, the dump sites for each area to be dredged will be indicated on a plan attached to the call-up.
 - .6 Layout approved area(s) to be used for disposal with painted survey stakes and maintain this layout at all times during the work. A buffer zone will exist at most of the dump sites. Install and maintain a safety fence if and as required to protect the public from accessing freshly placed dredged spoils. Remove only upon Departmental Representative's approval.
 - .7 Dispose dredge spoils to the approved disposal site(s) within area laid out in 3.4.6.
 - .8 The Contractor is to repair to original condition any road either on or off site, deemed by the Departmental Representative to have been damaged as a result of the specified work at no additional cost.
 - .9 The Contractor will be required to clean off and/or remove daily any material that has leaked onto Municipal, Provincial, Federal, private roads, wharf surfaces or private property as instructed by Project Departmental Representative or authorized authority.
 - .1 At all listed sites in section 01 11 00, Item 1.0, The Contractor will be required to remove immediately any material that has spilled onto the wharf concrete deck and on the paved back area.
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3.4 Disposal of
Dredged Material
(Cont'd)

- .9 (Cont'd)
.1 (Cont'd)

The travelled surfaces, wharf deck and paved wharf back up area must be cleaned at the completion of each days work or sooner if requested by the Departmental Representative. The method to be used must be approved by the Departmental Representative prior to the start of dredging.

- .10 The dredged spoils placed in the approved disposal site(s) must be levelled and graded at the end of each dredging operation. Grade within limits laid out and elevations requested by the Departmental Representative or property owner(s). Do not interrupt drainage. Do not exceed lines, grades, and slopes which the authority requests.
.1 At Ste.-Marie-St.-Rapheal and Miller Brook, the dredge material must be levelled and sloped toward the sea at the end of each days dredging activity. The elevation of the top of the dredge material must be lower then the embankment.
- .11 Where the dredge spoils contain organic material, ensure the finished grade will have all these covered up and left in a condition that is aesthetically pleasing and safe to the public
- .12 Conform with any instructions by land owners associated with the disposal of the material on private property.
- .13 In cases of disposal along the shore in tidal zones, CEPA permits will specify a quantity of dredged material which may not be exceeded. At the time of the request the Departmental Representative will highlight to the Contractor any limits which are to be respected. Where applicable, only the permitted disposal sites listed in the CEPA permit, and shown on the plans from the Departmental Representative can be used for ocean disposal of the material.
- .14 Adhere to disposal restrictions outlined in section 01 35 44.3
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3.4 Disposal of
Dredged Material
(Cont'd)

.15 Conditions on the Provincial Land Base
Disposal Site Permit shall be respected.