

PART 1 - GENERAL

1.1 DESCRIPTION

- .1 This specification section includes requirements for dredging, as noted on the drawings. There will be no distinction between Class "A" dredging and Class "B" dredging in this contract.
- .2 There has been an underwater probe investigation completed at this site, which is shown on the drawings.

1.2 DEFINITIONS

- .1 Dredging: excavating, transporting and disposing of underwater materials.
- .2 Class A material: solid rock requiring drilling and blasting to loosen, and boulders or rock fragments of individual volumes 1.5 m³ or more.
- .3 Class B material: loose or shale rock, silt, sand, quick sand, mud, shingle, gravel, clay, sand, gumbo, boulders, hardpan and debris of individual volumes less than 1.5 m³.
- .4 Obstructions: material other than Class A, having individual volumes of 1.5 m³ or more.
- .5 CMPM: cubic metres place measurement.
- .6 Debris: pieces of wood, wire rope, scrap steel, pieces of concrete and other waste materials.
- .7 Estimated quantity:
 - .1 Volume of material calculated to be above grade and within specified side slopes unless otherwise specified.
- .8 Chart Datum: permanently established plane from which soundings or tide heights are referenced, usually Lowest Normal Tide (LNT).

- .9 Lowest Normal Tide (LNT): plane so low that tide will seldom fall below it.
- .10 Cleared Area: area of dredging accepted as achieving the required grade and verified by a PWGSC survey.

1.3 BLASTING OPERATION.

- .1 Submit to Departmental Representative and local authorities having jurisdiction for review, written proposal of operations for blasting. Proposal to be submitted, for review, to Departmental Representative at least two (2) weeks before any blasting is to take place. Departmental Representative's review does not relieve the Contractor from any damages that result from the blasting.
- .2 Indicate proposed method of carrying out work, types and quantities of explosives to be used, loading charts and drill hole patterns, type of caps, blasting techniques, blast protection measures for items such as flying rock, vibration, dust and noise control. Include details on protective measures, time of blasting and other pertinent details.
- .3 Submit to Departmental Representative complete photographic and descriptive record of buildings, roads and structures in general area of Project Work, before blasting is started. Describe buildings both inside and out. Record existing cracks in walls or structural components.

1.4 REGULATORY REQUIREMENTS

- .1 There are strict environmental procedures that must be followed during the Work.
- .2 Comply with municipal, provincial and national codes and regulations relating to project.
- .3 Mark floating equipment with lights in accordance with the provisions of the Canada

Shipping Act Collision Regulations and
Notices to Mariners.

1.5 PROTECTION

- .1 Prevent damage to surroundings and injury to persons. Erect fencing, post guards, sound warnings and display signs when blasting to take place.
- .2 Do not dredge material from areas lying within 2.5 m of existing structure unless authorized by Departmental Representative.

1.6 SCHEDULING

- .1 Submit to Departmental Representative, within 2 weeks after acceptance of bid, schedule of work including time periods during which each operation involved in Work will be undertaken. At time of submission of schedule, meet with Departmental Representative to review schedule.
- .2 Adhere to schedule and take immediate action to correct any slippage by effectively altering existing dredging operations or mobilizing other equipment. Notify Departmental Representative of corrective action to be taken.

1.7 LOCATION

- .1 Work comprises dredging of areas as indicated on drawings.

1.8 INTERFERENCE TO
NAVIGATION

- .1 Be familiar with vessel movements and fishery activities in area affected by dredging operations. Plan and execute Work in manner that will not interfere with fishing operations, marine operations and construction activities at wharf site. Contractor will not be allow to bar/close off entire channel or access to the existing wharf infrastructure during dredging operations.
- .2 Departmental Representative will not be responsible for loss of time, equipment, material or any other cost related to interference with moving vessels throughout

the harbour or due to other Contractor's operations.

- .3 Keep the Marine Communications and Traffic Services' Centre, Fisheries and Oceans Canada, informed of dredging operations in order that necessary Notices to Mariners will be issued.
- .4 The contractor will be responsible for working closely with the Harbour Authority in arranging vessel movement. Certain areas may have to be dredged first to accommodate vessels moored in the harbour.

1.9 DATUM, WATER GAUGES AND TARGETS

- .1 Elevations used in this specification and contract drawings are in metres referred to Canadian Hydrographic Services Survey datum. An updated sounding topographic survey and bench mark will be provided to the Contractor prior to construction.
- .2 Areas to be dredged are to be referenced to vertical bench marks for each location of dredging as indicated.

1.10 FLOATING PLANT

- .1 Dredges or other floating plants to be employed on this Work, to be of Canadian registry, make or manufacture, or, must receive certificate of qualification from Industry Canada, Aerospace, Defence and Marine Branch and this certificate to accompany bid submission.
- .2 Requests for certification in format of form PWGSC-TPSGC 2843 (06/2007) attached to the Bid and Acceptance Form to be directed to Mr. Emile Rochon, Aerospace, Defence and Marine Branch, Industry Canada, CD Howe Building - Room 733C, 235 Queen Street, Ottawa, Ontario, K1A 0H5, and to be received there not less than 14 days prior to bid closing.

1.11 SITE INFORMATION

- .1 Results of an underwater probe investigation in the area of dredging are shown on the drawings.
- .2 Results of most recent soundings are included on the drawings (note that an updated survey will be provided by PWGSC prior to the start of work). If the contractor wishes to perform own survey, a written notice must be submitted to the Departmental Representative (at least 7 days notice) so the Departmental Representative can verify the sounding survey before the commencement of any work.
- .3 Take necessary steps to become fully familiar with potential inclement weather and sea conditions in this area.

1.12 SURVEY REQUIREMENTS

- .1 Provide, at own expense, survey vessel, equipment and crew to set up and maintain control for location of dredge limits and to sound areas immediately after dredging to verify that grade depth has been attained. Areas are to be sounded to provide sounding printout display of at least 2 x 2 m UTM grid to approval of Departmental Representative.

1.13 SURVEYS AND ACCEPTANCE OF WORK

- .1 No area will be dredged prior to Departmental Representative and Contractor's mutual acceptance of the existing sounding and topographical survey data (note that PWGSC will provide an updated survey prior to the start of construction).
- .2 Contractor to re-blast as necessary to remove all material which is found to be above grade using the least of minimum mode elevations as specified herein.

1.14 MEASUREMENT FOR PAYMENT

- .1 Dredging: Dredging will be measured in cubic metres, determined from existing seabed

elevation established from the approved PWGSC sounding survey down to grade depth elevation within pay limits/side slopes shown on drawings. Note that there is no distinction between Class "A" and Class "B" dredging in this contract. Quantities will be determined by a sounding survey performed by the PWGSC Survey Crew after dredging survey is completed by using electronic sounding and DPGS positioning equipment. The Departmental Representative will verify that the Contractor has performed dredging to the specified grade depth. No payment will be made for over-dredging. PWGSC will conduct an interim and final survey. The Contractor will formally request at least seven (7) days in advance that the final after-dredging survey be performed upon completion of dredging. The survey will be dependent on the weather. If the survey and inspection shows that all material has not been removed, the Contractor is to re-dredge to obtain grade depth. The Contractor will perform a sounding survey, using a method approved by the Departmental Representative to verify that the specified dredge depth has been obtained. The Departmental Representative will then perform a third survey for final verification of dredge depth. This third sounding survey and any subsequent surveys will be at the cost of the Contractor. Payment will include disposal of dredged material, using water tight boxes, at the approved disposal site in the community of Seldom.

- .2 Removal of obstructions, authorized by Departmental Representative will be measured in hours actually used in removal. Dredging equipment used for removal of obstructions will be paid for at rate computed from average hourly earnings of equipment for preceding two weeks negotiated in advance and authorized in writing by Departmental Representative submitted with unit prices

included with bid.

- .3 Payment will include disposal of all dredge material at (2) locations, the prime location will be at DFO slipway in Seldom, where at least 2000m³ will be disposed of as identified on the drawing. At the site in Seldom. the Contractor is to remove the existing armour stone and re-install as identified on the drawings. Any additional armour stone will be supplied by the Contractor and will be included in the Lump Sum portion of the project. The contractor is to cap the dredged material at the completion with 150mm of Class "A" material. This material also will not be measured and will be included in the Lump Sum portion of the project. The 2nd prime location (if required) is in Joe Batt's Arm and will be identified by the Departmental Representative after the first disposal site is completed.
- .4 Contractor responsible for any required temporary works (backfilling, culvert installation, etc.) at the approved disposal site in Seldom, where load restrictions may impede the use of heavy truck traffic along existing access roads.
- .5 No separate payment will be made for Contractor's survey vessel, equipment and crew or diving services.
- .6 There will be no additional payment for delays and/or downtime for vessel traffic, fishery operations, marine operations, during periods when no dredging is permitted. Contractor should contact the Harbour Authority to determine schedules of operations.
- .7 There will be no additional payment for downtime and for delays caused by vessel traffic or other activities associated with

the site operations.

- .8 Removal of infilling material will not be measured for payment.
- .9 No separate payment will be made for sweeping. Sweep dredged areas on completion of dredging to confirm that grade depth has been achieved. Sweeping equipment to consist of heavy steel beam suspended from scow or any necessary equipment to sweep at required grade depth or other approved method. Beam to be capable of adjustment and calibration and approved by Departmental Representative.
- .10 Base contract unit price on location of disposal site in Seldom, as outlined on the drawings. Unit price will be adjusted up or down, subject to prior negotiation with Departmental Representative for significant change in location of disposal site.
- .11 Remove material cast-over on surrounding area and dispose of it as dredged material. Do not cast-over material unless authorized by Departmental Representative.
- .12 Immediately notify Departmental Representative upon encountering object which might be classified as obstruction. By-pass object after clearly marking its location and continue Work.