

PART 1 - GENERAL

1.1 SCOPE

- .1 The scope of work for this project is the provision of construction activities to provide safe and reliable berthing facilities at this existing site, as is more specifically described in the Description of Work and the Drawings and Specifications. The work covered consists of the furnishing of all plant, labour, equipment and material for wharf repairs and other improvements at Salton's Brook, Terra Nova National Park, Newfoundland and Labrador, in strict accordance with specifications and accompanying drawings and subject to all terms and conditions of the Contract. Bidders are advised that opportunities and requirements may arise that may warrant changes to the work that are in keeping with this general scope of work. Such changes will be made through the Change Order processes as outlined in the contract documents.

1.2 DESCRIPTION

- .1 In general, the work under this contract consists of, but will not necessarily be limited to, the following:
 1. Headblock Section:
 1. Removal of the vertical fenders, chocks (3 rows), ladders c/w handgrips, wheelguard, wheelguard blocking, mooring rings, and timber enclosures, as shown on the drawings.
 2. Temporary removal and reinstallation of the existing navigational light and cleats, as shown on the drawings.
 3. Installation of new vertical fenders, ladders c/w handgrips (ladder uprights primed and painted), wheelguard (primed and painted), wheelguard blocking (primed, and painted), and timber enclosures, as shown on the drawings.
 4. Reinstatement of all electrical and water lines, as per existing.
 2. Stem Section:
 1. Removal of the vertical fenders, chocks (3 rows), and ladders (handgrips to remain), as shown on the drawings.
 2. Removal of damaged longitudinal crib timbers.
 3. Temporary removal and reinstallation of the existing underwater camera, electrical, and associated hardware.
 4. Installation of new crib timbers c/w blocking, as shown on the drawings. Inform Departmental Representative of any additional damaged crib timbers uncovered during demolition.
 5. Installation of new vertical fenders (closed face at crib repair area, as on the drawings), and ladders uprights (primed and painted), as shown on the drawings.

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1.2 DESCRIPTION (CONT'D)

- .1 (cont'd)
- .2 (cont'd)
 - 6. Cleaning, priming, and painting of existing wheelguard and wheelguard blocking.
 - 7. Reinstatement of all electrical and water lines, as per existing.
- 3. Uplands/Shore Protection:
 - 1. Removal of existing undermined slab-on-grade section, as shown on the drawings.
 - 2. Temporary removal and reinstatement of timber enclosure (electrical conduit) and slab to deck transition piece, as required to facilitate slab repairs and as shown on the drawings.
 - 3. Repair existing concrete approach slab and undermining. Fill void beneath slab with concrete and install a new concrete approach slab section c/w expansion joint connection with existing approach slab, as shown on the drawings.
 - 4. Consolidation of existing large armour stones, scattered along existing slope, within the slope area nearest to the wharf, as shown on the drawings.
 - 5. Placement of 300 mm (min) rip-rap within voids between existing consolidated large armour stone shore protection, as shown on the drawings.
 - 6. Placement of 150mm (min.) rock fill along existing, eroding bank to shape slope to a smooth face. Removal of any debris from the slope face, and placement of geotextile fabric. Placement of two (2) layers of 300mm (min.) rip-rap scour protection, on geotextile fabric, along the new slope face. Placement of one (1) layer of 600 mm – 800 mm rip-rap scour protection above the 300 mm layer. All as depicted on the drawings.

1.3 SITE OF WORK

- .1 Work will be carried out at Salton's Brook, Terra Nova National Park, Newfoundland and Labrador in the locations as shown on the accompanying drawings.

1.4 DATUM

- .1 Datum used for this project is Lowest Normal Tides (L.N.T.) which is assumed to be 2.201 m below the benchmark 90F9033, as shown on the drawings.

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1.4 DATUM
(CONT'D)

- .2 Bidders are advised to consult the Tide Tables issued by Fisheries and Oceans in order to make sure of the tidal conditions affecting work.

1.5 FAMILIARIZATION WITH SITE

- .1 Before submitting a bid, it is recommended that bidders visit the site and its surroundings to review and verify the form, nature and extent of the work, materials necessary for the completion of the works, the means of access to the site, severity, exposure and uncertainty of weather, soil conditions, any accommodations they may require, and in general shall obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. No allowance shall be made subsequently in this connection on account of error or negligence to properly observe and determine the conditions that will apply.
- .2 Contractors, bidders or those they invite to site are to review specification Section 01 35 28 - Health and Safety Requirements before visiting site. Take all appropriate safety measures for any visit to site, either before or after acceptance of bid.

1.6 CODES AND STANDARDS

- .1 Perform work in accordance with the latest edition of the National Building Code of Canada, FCC Standard 373 - Standard for Piers and Wharves (http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/commissioner/373/page00.shtml), and any other code of provincial or local application including all amendments up to project bid closing date provided that in any case of conflict or discrepancy, the more stringent requirements shall apply.
- .2 Materials and workmanship must meet or exceed requirements of specified standards, codes and referenced documents.

1.7 SETTING OUT WORK

- .1 Set grades and layout work in detail from control points and grades established by Departmental Representative.
- .2 Assume full responsibility for and execute complete layout of work to locations, lines and elevations indicated or as directed by Departmental Representative.

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1.7 SETTING OUT WORK
(CONT'D)

- .3 Provide devices needed to layout and construct work.
- .4 Supply such devices as straight edges and templates required to facilitate Departmental Representative's inspection of work.
- .5 Supply stakes and other survey markers required for laying out work.

1.8 COST BREAKDOWN

- .1 Before submitting first progress claim submit breakdown of Contract price in detail as directed by Departmental Representative and aggregating contract price. Departmental Representative will provide the required forms for application of progress payment.
- .2 Provide cost breakdown in same format as the numerical and subject title system used in this specification and thereafter sub-divided into major work components as directed by Departmental Representative.
- .3 Upon approval by Departmental Representative, cost breakdown will be used as basis for progress payment.
- .4 All work items and costs not designated in the unit price table as a measurement for payment, are to be included in the lump sum arrangement, as noted on the Bid and Acceptance Form.

1.9 WORK SCHEDULE

- .1 Submit within seven (7) working days of notification of acceptance of bid, a construction schedule showing commencement and completion of all work within the time stated on the bid and acceptance form and the date stated in the bid acceptance letter.
- .2 Provide sufficient details in schedule to clearly illustrate entire implementation plan, depicting efficient coordination of tasks and resources, to achieve completion of work on time and permit effective monitoring of work progress in relation to established milestones.

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1.9 WORK SCHEDULE
(CONT'D)

- .3 As a minimum, work schedule to be prepared and submitted in the form of bar (GANTT) charts, indicating work activities, tasks and other project elements, their anticipated durations and planned dates for achieving key activities and major project milestones provided in sufficient details and supported by narratives to demonstrate a reasonable plan for completion of project within designated time (e.g., show target dates for completion of each crib, if applicable). Breakdown the wharf elements to indicate target dates for completion of each element. Generally, bar charts derived from commercially available computerized project management systems are preferred but not mandatory.
- .4 Submit schedule updates on a minimum monthly basis and more often, when requested by Departmental Representative, due to frequent changing project conditions. Provide a narrative explanation of necessary changes and schedule revisions at each update.
- .5 The schedule, including all updates, shall be to the Departmental Representative's approval. Take necessary measures to complete work within approved time. Do not change schedule without Departmental Representative's approval.
- .6 All work on the project will be completed within the time indicated on the Bid and Acceptance Form.

1.10 ABBREVIATIONS

- .1 Following abbreviations of standard specifications have been used in this specification and on the drawings:

CGSB - Canadian Government Specifications Board
CSA - Canadian Standards Association
NLGA - National Lumber Grades Authority
ASTM - American Society for Testing and Materials
- .2 Where these abbreviations and standards are used in this project, latest edition in effect on date of bid call will be considered applicable.

1.11 QUARRY AND EXPLOSIVES

- .1 Make own arrangements with Provincial Authorities and Owners of properties, for the quarrying and transportation of rock and all materials and machinery necessary for work over their property, roads or streets as case may be.

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1.12 SITE OPERATIONS

- .1 Arrange for sufficient space adjacent to project site for conduct of operations, storage of materials, etc. Exercise care so as not to obstruct or damage public or private property in area. Do not interfere with normal day-to-day operations in progress at site, including operations at the adjacent visitor centre or any private or public use of the wharf facility (e.g., tour boat operations). All arrangements for space and access will be made by Contractor.
- .2 Remove snow and ice as required to maintain safe access in a manner that does not damage existing structures or interfere with the operations of others.

1.13 PROJECT MEETINGS

- .1 Departmental Representative will arrange project meetings and assume responsibility for setting times and recording minutes.
- .2 Project meetings will take place on site of work unless so directed by Departmental Representative.
- .3 Departmental Representative will assume responsibility for recording minutes of meetings and forwarding copies to all parties present at meetings.
- .4 Have a responsible member of firm present at all Project Meetings.

1.14 PROTECTION

- .1 Store all materials and equipment to be incorporated into work to prevent damage by any means.
- .2 Repair and replace all materials or equipment damaged in transit or storage to the satisfaction of the Departmental Representative and at no cost to Canada.

1.15 EXISTING SERVICES

- .1 Where work involves breaking into or connecting to existing services, carry out work at times directed by governing authorities, with minimum of disturbance to site operations, pedestrian, vehicular traffic, and tenant operations.
- .2 Before commencing work, establish locations and extent of service lines in area of work and notify Departmental Representative of findings.

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1.15 EXISTING SERVICES
(CONT'D)

- .3 Submit schedule to and obtain approval from Departmental Representative for any shutdown or closure of active service or facility. This includes disconnection of electrical power and communication services to tenants operational areas. Adhere to approved schedule and provide notice to affected parties.
- .4 Provide temporary services to maintain critical facility systems.
- .5 Provide adequate bridging over trenches which cross walkways or roads to permit normal traffic.
- .6 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.
- .7 Protect, relocate or maintain existing active services as required. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction over service. Record locations of maintained, re-routed and abandoned service lines.

1.16 DOCUMENTS REQUIRED

- .1 Maintain at job site, one (1) copy each of the following:
 - .1 Contract drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Reviewed shop drawings.
 - .5 List of outstanding shop drawings.
 - .6 Change Orders.
 - .7 Other modifications to contract.
 - .8 Field test reports.
 - .9 Copy of approved work schedule.
 - .10 Site specific Health and Safety Plan and other safety related documents.
 - .11 Permits and Regulatory Approvals and Requirements.
 - .12 Other documents as stipulated elsewhere in the Contract Documents.

1.17 PERMITS

- .1 Obtain and pay for all permits, certificates and licenses as required by Municipal, Provincial, Federal and other authorities.

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**1.17 PERMITS
(CONT'D)**

- .2 Provide appropriate notifications of project to Municipal and Provincial inspection authorities.
- .3 Obtain compliance certificates as prescribed by legislative and regulatory provisions of municipal, provincial and federal authorities as applicable to the performance of work.
- .4 Submit to Departmental Representative, copy of application submissions and approval documents received for above referenced authorities.
- .5 Submit to Departmental Representative, copy of quarry permit, if applicable, prior to start of quarry operations.
- .6 Comply with all requirements, recommendations and advice by all regulatory authorities unless otherwise agreed in writing by Departmental Representative. Make requests for such deviations to these requirements sufficiently in advance of related work.
- .7 See Appendices for Regulatory Approvals and Responses already obtained by Canada for this project.

1.18 CUTTING, FITTING AND PATCHING

- .1 Execute cutting, including excavation, fitting and patching required to make work fit properly.
- .2 Where new work connects with existing and where existing work is altered, cut, patch and make good to match existing work. This includes patching of openings in existing work resulting from removal of existing services.
- .3 Do not cut, bore, or sleeve load-bearing members.
- .4 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.

1.19 EXISTING SUB-SURFACE CONDITIONS

- .1 Information pertaining to the existing sub-surface conditions may be available by contacting the Departmental Representative.

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1.19 EXISTING SUB-SURFACE CONDITIONS
(CONT'D)

- .2 Contractors are cautioned that any previous investigations that may be available for review, were intended to provide general site information only. Any interpolation and/or assumption made relative to any previous investigations is the Contractor's responsibility.

1.20 LOCATION OF EQUIPMENT

- .1 Location of cleats, equipment, fixtures, and outlets, shown or specified shall be considered as approximate. Actual location shall be as required to suit conditions at time of installation and as is reasonable. Obtain approval of Departmental Representative.
- .2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.
- .3 Inform Departmental Representative when impending installation conflicts with other new or existing components. Follow directives for actual location.
- .4 Submit field drawings to indicate relative position of various services and equipment when required by Departmental Representative.

1.21 FISH HABITAT

- .1 This work is being conducted in an area where fish habitat may be affected. Perform work to conform with rules and regulations governing fish habitat and in accordance with authorization for work or undertakings affecting fish habitat.
- .2 Contact the Department of Fisheries and Oceans (DFO) detachment at 1144 Topsail Road, Mount Pearl, NL Attention: John O'Rourke, Tel: (709) 772-7345, at least 48 hours in advance of starting any work on site.
- .3 Maintain on site a copy of DFO's Letter of Advice regarding this project, and abide by all stipulations, unless otherwise agreed in writing by Departmental Representative.

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1.22 NOTICE TO SHIPPING/MARINERS

- .1 Notify the Marine Communications and Traffic Services Centre of Fisheries and Oceans Canada, at (709) 772-2083, 10 days prior to commencement and upon completion of the work in order to allow for the issuances of Notice to Shipping/Mariners.
- .2 During construction any vessels or barges utilized must be marked in accordance with the provisions of the Canada Shipping Act Collision Regulations.

1.23 ACCEPTANCE

- .1 Prior to the issuance of the Certificate of Substantial Performance, in company with Departmental Representative, make a check of all work. Correct all discrepancies before final inspection and acceptance.

1.24 WORKS COORDINATION

- .1 Responsible for coordinating the work of the various trades, where the work of such trades interfaces with each other.
- .2 Convene meetings between trades whose work interfaces and ensure that they are fully aware of the areas and the extent of where interfacing is required. Provide each trade with the plans and specifications of the interfacing trade, as required, to assist them in planning and carrying out their respective work.
- .3 Canada will not be responsible for or held accountable for any extra costs incurred as a result of the failure to carry out coordination work. Disputes between the various trades as a result of their not being informed of the areas and extent of interface work shall be the sole responsibility of the General Contractor and shall be resolved at no extra cost to Canada.

1.25 CONTRACTOR'S USE OF SITE

- .1 Construction operations, including storage of materials, for this contract not to interfere with operations at this facility.
- .2 Responsible for arranging the storage of materials on or off site and any materials stored at the site which interfere with any of the day-to-day activities at or near the site will be moved promptly at the Contractor's expense, upon request by the Departmental Representative.

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1.25 CONTRACTOR'S USE OF SITE
(CONT'D)

- .3 Contractor will take adequate precautions to protect existing concrete deck and asphalt when operating tracked equipment.
- .4 Exercise care so as not to obstruct or damage public or private property in the area.
- .5 At completion of work, restore area to its original condition. Damage to ground and property will be repaired by Contractor. Remove all construction materials, residue, excess, etc., and leave site in a condition acceptable to Departmental Representative.

1.26 WORK COMMENCEMENT

- .1 Mobilization to project site is to commence immediately after acceptance of bid and submission of site specific Safety Plan, unless otherwise agreed by Departmental Representative.
- .2 Project work on site is to commence as soon as possible with a continuous reasonable workforce unless otherwise agreed by Departmental Representative.
- .3 Weather conditions, short construction season, delivery challenges and the location of the work site may require the use of longer working days and additional workforce to complete the project within the specified completion time.
- .4 Make every effort to ensure that sufficient material and equipment is delivered to site at the earliest possible date after acceptance of bid and replenished as required.

1.27 FACILITY SMOKING ENVIRONMENT

- .1 Comply with smoking restrictions.

1.28 INTERPRETATION OF DOCUMENTS

- .1 Supplementary to the General Conditions, the Division 01 sections of the specifications take precedence over technical specification in other divisions of the specifications.

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1.29 ASBESTOS DISCOVERY

- .1 Demolition of spray or trowel-applied asbestos can be hazardous to health. Should material resembling spray or trowel-applied asbestos be encountered in course of work, stop work and notify Departmental Representative immediately. Do not proceed with relevant work until written instructions have been received from Departmental Representative.