

- 1.1 SCOPE .1 The work covered under this contract consists of the furnishing of all plant, labour, equipment and material for Breakwater Construction in La Scie, Newfoundland and Labrador. Work to be carried out in strict accordance with specifications, accompanying drawings and subject to all terms and conditions of contract.
- 1.2 DESCRIPTION OF WORK .1 In general, work under this contract consists of but will not necessarily be limited to the following:
- .1 Construction of a 40m extension to the existing rubble mound breakwater.
 - .2 The supply and placement of approximately 9,200 m³ of core stone, 4,100 m³ of filter stone and 9,500 m³ of armour stone.
 - .3 The removal of stone from the existing breakwater to gain access to the new work and the reinstatement of this stone before work concludes.
 - .4 The supply and placement of stone for the substrate buffer.
- 1.3 SITE OF WORK .1 Work will be carried out in La Scie, Newfoundland and Labrador.
- 1.4 DATUM .1 Datum used for this project is Lowest Normal Tides (LNT) and is assumed to be 3.047 metres below Bench Mark PWC 1-95 (bolt set in concrete deck).
- .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 needed for the completion of the work, the

1.5 FAMILIARIZATION .1
WITH SITE
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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. (A wooden boat storage structure and wooden slipway are located between the breakwater location and access road.)

- .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.
- .3 Obtain prior permission from the Departmental Representative before carrying out such site inspection.

1.6 CODES AND
STANDARDS

- .1 Perform work in accordance with the latest edition of the National Building Code of Canada 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 TERM ENGINEER

- .1 Unless specifically stated otherwise, the term Engineer where used in the Specifications and on the Drawings shall mean the Departmental Representative as defined in the General Conditions of the Contract.

1.8 SETTING OUT
WORK

- .1 Set grades and layout work in detail from control points and grades noted on drawings.
- .2 Assume full responsibility for and execute complete layout of work to locations, lines and elevations indicated on drawings.
- .3 Provide all plant, labour and material requirement by the Departmental Representative to inspect the work.
- .4 Supply devices, stakes and other survey markers required for laying out work.

1.9 COST BREAKDOWN

- .1 Before submitting first progress claim submit breakdown of the lump sum portion of the contract price and aggregating contract price in detail as directed by Departmental Representative. 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 project manual 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 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.

1.10 WORK SCHEDULE

- .1 Submit within 7 work 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,

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1.10 WORK SCHEDULE .2
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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.

- .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 the placement of various size stone. Generally Bar Charts derived from commercially available computerized project management system 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 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.

1.11 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
ASTM - American Society for Testing and Materials

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| <u>1.11 ABBREVIATIONS
(Cont'd)</u> | .2 | Where these abbreviations and standards are used in this project, latest edition in effect on date of bid call will be considered applicable. |
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| <u>1.12 QUARRY AND
EXPLOSIVES</u> | .1 | Make own arrangements with Provincial authorities and owners of private 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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| <u>1.13 SITE
OPERATIONS</u> | .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. |
| | .2 | Access to the breakwater location will be limited. A wooden boat storage structure and slipway are located between the breakwater and the roadway. Contractor will address these conditions by constructing temporary access over or around the existing structures without inflicting damage. Any damage to these structures will be repaired at the contractors expense. |
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| <u>1.14 PROJECT
MEETINGS</u> | .1 | Departmental Representative will arrange project meetings and assume responsibility for setting times and recording/distribution of minutes. |
| | .2 | Project meetings will take place on site of work unless so directed by the Departmental Representative. |
| | .3 | Have a responsible member of firm present at all project meetings. |

1.15 PROTECTION

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

1.16 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, tenant operations.
- .2 Before commencing work, establish location and extent of service lines in area of work and notify Departmental Representative of findings.
- .3 Submit schedule to, and obtain approval from, Departmental Representative for any shut-down or closure of active service or facility. This includes disconnection of electrical power and communication services to tenant's operational areas. Adhere to approved schedule and provide notice to affected parties.
- .4 Provide temporary services when directed by Departmental Representative 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.

1.17 DOCUMENTS
REQUIRED

- .1 Maintain at job site, one copy each of the following:
 - .1 Contract Drawings
 - .2 Specifications
 - .3 Addenda
 - .4 Change Orders
 - .5 Other modifications to Contract
 - .6 Field Test Reports
 - .7 Copy of Approved Work Schedule
 - .8 Site specific Health and Safety Plan and other safety related documents
 - .9 Other documents as stipulated elsewhere in the Contract Documents.

1.18 PERMITS

- .1 Obtain and pay for all permits, certificates and licenses as required by Municipal, Provincial, Federal and other Authorities.
- .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 prior to start of quarry operations.
- .6 Comply with all requirements, recommendations and advise 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.

1.19 FITTING

- .1 Remove and salvage armour stone and filter stone as required to make new work fit properly.

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- 1.19 FITTING .2 Where new work connects with existing and
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- 1.20 EXISTING SUB- .1 Information pertaining to the existing
SURFACE CONDITIONS contacting the Departmental Representative.
- .2 Contractors are cautioned that any previous investigations available for review, were intended to provide general site information only. Any interpolation and/or assumptions made relative to any previous investigations is the Contractor's responsibility.
- 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.
- 1.22 NOTICE TO .1 Notify (in writing) the Marine Communications
SHIPPING/MARINERS and Traffic Services' Centre, of Fisheries and Oceans Canada, at (709) 772-2083, ten (10) days prior to commencement in order to allow for the issuance of Notices to Shipping/Mariners. Copy of notification to be forwarded to Departmental Representative.
- .2 During construction any vessels or barges utilized must be marked in accordance with the provisions of the Canada Shipping Act Collision Regulations.
- .3 Notify (in writing) the Marine Communications and Traffic Services Centre, of Fisheries and Oceans Canada, immediately upon completion of work to allow for the issuance of Notice to Shipping/Mariners. Copy of notification to be forwarded to Departmental Representative.
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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 CONTRACTOR'S
USE OF SITE

- .1 Construction operations, including storage of materials for this contract, not to interfere with the fishing activity and/or operations at the facilities within the harbour.
- .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 Departmental Representative.
- .3 Take adequate precautions to protect existing wooden or concrete decks and asphalt when operating any 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 at own expense. Remove all construction materials, residue, excess, etc., and leave site in a condition acceptable to Departmental Representative.

1.25 WORK
COMMENCEMENT

- .1 Mobilization to project site is to commence immediately after acceptance of bid and submission of Site Specific Safety Plan and insurance documentation.
- .2 Project work on site is to commence as soon as possible, with a continuous reasonable work force.
- .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 work force to

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| <u>1.25 WORK
COMMENCEMENT
(Cont.'d)</u> | .3 | (Cont'd)
complete the project within the specified
completion date. |
| | .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. |
| <u>1.26 FACILITY
SMOKING ENVIRONMENT</u> | .1 | Comply with smoking restrictions. |
| <u>1.27 INTERPRETATION
OF DOCUMENTS</u> | .1 | Supplementary to the Order of Precedence
article of the General Conditions of the
Contract, the Division 01 sections take
precedence over the technical specification
sections in other Divisions of the
Specification Manual. |
| <u>1.28 NAVIGATION
LIGHT</u> | .1 | Relocate the navigation light from/to the
locations noted on the drawings. No separate
payment will be made for this work. Include
all costs associated with this relocation
under the lump sum portion of the bid. |