

Cape Spear Lightstation
Remediation/Risk Management
Cape Spear, NL

2016-08-20

1.1 SCOPE

- .1 The work consists of the furnishing of all plant, labour, equipment and material for site remediation at the Cape Spear Lightstation site, NL, in strict accordance with specifications and accompanying drawings and subject to all terms and conditions of the Contract.
- .2 Note that all new material brought to this site is to be free of weeds and invasive plant species. Further clarification on this can be provided by contacting the Departmental Representative.

1.2 DESCRIPTION OF WORK

- .1 In general, work under this contract consists of, but will not necessarily be limited to, the following:

Alumni Building:

- Scrape and repair concrete foundation wall and repaint (Note that lead and mercury in the existing paint exceeds landfill disposal guidelines and in this regard, the paint is to be contained and disposed of as hazardous waste).
- Remove and replace the existing siding with new Cape Cod siding. The existing siding (paint and substrate), is to be disposed of as hazardous lead waste. Allow in Bid price for the replacement of 10% of the exterior sheathing on this building, due to rot (Departmental Representative will make final decision on areas of rotted sheathing to be replaced new).
- Scrape the existing two (2) windows down to the original substrate and re-paint. Dispose of paint chips/flakes as hazardous waste. At the Contractor's discretion, the windows may be replaced new (to exactly match the existing), at no additional contract cost.

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- Excavate 3 m³ of non-leachable metals impacted soil and replace with clean fill material, as specified. Intent is to install blasted rock fill as shown on the drawings to control water ponding issues at the site.
- Remove and dispose of the two (2) existing decks (front and back of building). Replace the decks as noted in the drawings, in the same general footprint. All the materials associated with the existing front patio (paint and substrate), are to be considered hazardous for the purposes of transportation and disposal.

Alumni Building Shed:

- Scrape and repair the concrete foundation and repaint. Contain all paint chips/flakes and dispose of as hazardous waste
- Remove and dispose of the former tank cradle, as noted on the drawings.
- Replace rotted sheathing as noted on drawings.

Equipment Building:

- Scrape and repair the concrete foundation and repaint. Contain all paint chips/flakes and dispose of as hazardous waste. If required for the remediation, the concrete steps can be removed, however they are to be reinstated after the remediation (damage to the steps will result in the Contractor having to supply and install new steps at no additional contract cost).
- Temporarily remove the existing buried cable noted on the drawings, and re-instate following remediation. Busting of the existing concrete cover will be required to temporarily remove the cable.

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Reinstate cable with minimum 600mm bury, complete with 150mm concrete all around cable. Do not proceed with any work associated with the electrical systems without approval of the Departmental Representative and NL Power.

- Excavate 5 m³ of leachable metals impacted soil and 11m³ non-leachable metals impacted soil and replace with clean fill material (as specified). Note that the presence of bedrock may limit the depth of excavation and in this regard, the quantities may be less than noted (consult with the Departmental Representative before backfilling, to ensure quantities are well understood. These quantities are likely less due to the amount of bedrock present in the area. All areas currently covered in grass, and to be topped with topsoil or gravel fill, as directed by the Departmental Representative. In areas where grass cover is currently not present, supply/install compacted Class "A" granulars as the top surface.
- Remove all paint from the Fog Horn Pad and repaint. Contain and dispose of paint flakes/chips and any spent abrasives as hazardous lead waste.

Storage Shed:

- Remove and dispose of the complete building, including any concrete foundations and steps.

Do not proceed with any portion of the work until the Departmental Representative has approved the Contractor's written work plan. Note that the site is located adjacent to Parks Canada National Historic Site which is located 10km from the Capital City of St. John's and is frequented daily by visitors/tourists.

1.3 SITE OF WORK

- .1 Work will be carried out at Cape Spear,

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NL.

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| <u>1.4 DATUM</u> | .1 | Datum used for this project is Lowest Normal Tides (LNT). If requested by the Contractor, the Departmental Representative will establish a benchmark prior to the start of work. |
| <u>1.5 FAMILIARIZATION WITH SITE</u> | .1 | Before submitting a bid, it is required 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 means of access to the site, severity, exposure and uncertainty of weather, 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 or costs to do the work. 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 29 - 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. |
| <u>1.6 CODES AND STANDARDS</u> | .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 |

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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.

1.8 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.
- .3 Provide devices needed to layout and construct work.
- .4 Supply such devices required to facilitate Departmental Representative's inspection of work.
- .5 Supply stakes and other survey markers required for laying out work.

1.9 COST BREAKDOWN

- .1 Before submitting first progress claim submit breakdown of Contract price in detail as directed by Departmental Representative and aggregating contract price.
- .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.

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.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. The schedule should allow time for analytical results to be received (after being collected from the open excavation).

.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.

.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. Generally Bar Charts derived from commercially available computerized project management system are preferred but not mandatory.

.4 Submit schedule updates on a minimum bi-

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weekly 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

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.

1.12 SITE OPERATIONS

- .1 Arrange for sufficient space adjacent to project site for conduct of operations, storage of materials and so on. Exercise care so as not to obstruct or damage public or private property in area. All arrangements for space and access will be made by Contractor.

1.13 PROJECT MEETINGS

- .1 Departmental Representative will arrange project meetings and assume responsibility

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- .2 for setting times and recording minutes. Project meetings will take place on site of work unless so directed by the Departmental Representative.
- .3 Departmental Representative will assume responsibility for recording minutes of meetings and forwarding copies to all parties present at the 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 or replace all materials damaged in transit or storage to the satisfaction of 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, and 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.
- .4 Provide temporary services when directed by Departmental Representative to maintain critical facility systems.
- .5 Provide immediate notification to Departmental Representative in the event

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of accidental service interruption to
active aid to navigation.

1.16 DOCUMENTS
REQUIRED

- .1 Maintain at job site, one copy each of the following:
 - .1 Contract Drawings
 - .2 Specifications
 - .3 Addenda
 - .4 Contract and any resulting amendments signed by contracting authority.
 - .5 Test Reports
 - .6 Copy of Approved Work Schedule
 - .7 Site specific Health and Safety Plan and other safety related documents.

1.17 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 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.

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| <u>1.18 CUTTING,
FITTING AND
PATCHING</u> | .1 | Execute cutting, including excavation, fitting and patching required to make work fit properly. |
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| <u>1.19 ACCEPTANCE</u> | .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. |
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| <u>1.20 WORKS
COORDINATION</u> | .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. |
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| <u>1.21 CONTRACTOR'S
USE OF SITE</u> | .1 | 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 |

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Representative.

- .2 Exercise care so as not to obstruct or damage public or private property in the area.
- .3 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.
- .4 This site is occupied by Parks Canada and is a National Historic Site. Abide by all guidelines for working at historic site, where appropriate. Also note that the site is very active in terms of visitors and tourists. Take precautions to protect the public at all times, to the approval of the Departmental Representative.

1.22 WORK COMMENCEMENT

- .1 Mobilization to project site is to commence immediately after acceptance of bid and submission of Site Specific Safety Plan and insurance and bonding documentation, unless otherwise agreed by Departmental Representative.
- .2 Project work on site is to commence as soon as possible, with a continuous reasonable work force, 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 work force to complete the project within the specified completion time.
- .4 Make every effort to ensure that sufficient material and equipment is

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delivered to site at the earliest possible date after acceptance of bid and replenished as required.

- .5 Sufficient notice has to be provided to the Departmental Representative regarding schedule in order to allow sufficient time for the Departmental Representative to make necessary arrangements, etc.