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Parks Canada Agency
1300 - 635 8 Ave SW
Calgary, AB T2P3M3
Bid Fax: (866) 246-6893

AMENDMENT / MODIFICATION

002

Tender To: Parks Canada Agency

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

Soumission aux: l'Agence Parcs Canada
 Nous offrons par la présente de vendre à Sa Majesté la Reine du Chef du Canada, aux conditions énoncées ou incluses par référence dans la présente at aux annexes ci-jointes, les biens, services et construction énumérés ici et sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaries

Vendor/Firm Name and Address
 Raison sociale et adresse du fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Parks Canada Agency
Suite 1300
635 – 8 Ave SW
Calgary, AB T2P3M3

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|--|---|--|
| Title-Sujet Lake Louise Water Reservoir Upgrades – Banff National Park | | |
| Solicitation No. - No. de l'invitation 5P420-18-0061/A | Date: May 17, 2018 | |
| GETS Reference No. – No de reference de SEAG PW-18-00826240 | Amendment No. - N° de la modif. 002 | |
| Solicitation Closes: | | |
| at – á 02:00 PM | on – le May 23, 2018 | Time Zone - Fuseau horaire MDT - HAR |
| F.O.B. - F.A.B. | | |
| Plant-Usine: <input type="checkbox"/> | Destination: <input checked="" type="checkbox"/> | Other-Autre: <input type="checkbox"/> |
| Address Inquiries to: - Adresser toute demande de renseignements à : | | |
| Jen Maheu jennifer.maheu@pc.gc.ca | | |
| Telephone No. - No de téléphone | Fax No. – No de FAX: | |
| (403) 292-8502 | (866) 246-6893 | |
| Destination of Goods, Services, and Construction: Destinations des biens, services et construction: | | |
| See Herein – Voir ici | | |

TO BE COMPLETED BY THE BIDDER (type or print)

| | |
|--|-------------|
| Vendor/Firm Name | |
| Address - Adresse | |
| Name of person authorized to sign on behalf of the Vendor/Firm Nom de la personne autorisée a signer au nom du fournisseur/ de l'entrepreneur | |
| Titale - Titre | |
| Telephone No. - N° de telephone: | _____ |
| Facsimile No. - N° de télécopieur: | _____ |
| Signature | Date |

Amendment 02

This amendment is being raised to distribute the minutes from the optional site visit on May 9, 2018, makes changes to the tender package and provide answers to bidder questions.

A) MEETING RECORD

1. Environmental Briefing

The following summarizes the items brought forward by Parks Canada.

- As indicated in the Tender Documents, the Contractor will be required to retain the services of a Qualified Environmental Professional to prepare their Environmental Protection Plan (EPP)
- The Basic Impact Assessment (BIA) prepared by Parks Canada addresses work for other projects which are not included in this Tender. Therefore, some items in the BIA are not pertinent to this project.
- As indicated in the Tender Documents, management of wildlife attractants (including, but not limited to food, food waste and engine coolant at the project site) is a requirement of the Contractor.
- Canada Thistle, a non- native and invasive plant species, is present at the site. As part of their EPP, the Contractor will be required to address appropriate soil management measures to prevent further spread of this plant species. This may include, but not be limited to, segregating this topsoil and covering with black geotextile fabric to encourage solar desiccation of the invasive species. This segregated material is to be replaced in the same area from where it was stripped.

2. Site Access Briefing

- The tree clearing along the access road noted in the Tender Documents as being done “By Others” will not be undertaken.
- The Contractor will be responsible for site preparation at the reservoir site including, but not limited to stump removal, removal of previously felled trees and other grubbing as per Section 31 11 00 of the Tender Documents. Topsoil stripping will be required for all work areas at the reservoir site.

3. Structural Briefing

The new potable water storage reservoir is a critical piece of infrastructure in the Park and requires special consideration of the following:

- Reservoir structure shall be founded on uniform native subgrade. Geotechnical consultant will review and approve subgrade condition and preparation prior to placement of granular material. Granular fill under the reservoir shall be in accordance with Item 2.1.7 of Section 32 23 33.01.
- Concrete mix design shall be in accordance with Section 03 30 01, with special attention to low-shrinkage requirement detailed in Item 2.2.5. Contractor must provide testing results to confirm conformance prior to placing concrete.
- Sequence of construction, locations of construction joints and details are shown on Drawings. Factory manufactured corner and intersecting pieces of PVC waterstop are required as per Item 2.1.10 of Section 03 30 01.
- Placement of concrete, consolidation, finishing and wet curing are essential to achieve watertight concrete and minimize the potential for cracking and leakage. Surface finishes are defined in Item 3.6 of Section 03 30 01. Reservoir wall interior and column surfaces shall be sack-rubbed to eliminate bug holes. Wet curing is defined in Item 3.7 of Section 03 30 01.
- Hydrostatic testing of the reservoir shall be performed before backfilling in accordance with Section 03 36 00. Minimizing the potential for cracking is critical for successful completion of the hydrostatic test.

- Backfill material around the reservoir shall be placed uniformly around the tank, so not to create unbalanced loads. Only hand operated compaction equipment shall be used within 1m of tank walls (Section 32 23 33.01, Item 3.9.9.).

4. Mechanical Briefing

- As per the Tender Documents, all material in contact with potable water is to be NSF 61 Certified.

B) SITE VISIT QUESTIONS

Q1 Will there be a charge for use of the camping sites at the Lake Louise overflow parking lot for the work crew?

A1 As per Section **01 14 00 WORK RESTRICTIONS**, no.

Q2 Where does excess fill go?

A2 Excess fill, is to be stockpiled at Pit 69 indicated in Section 31 14 13 of the Tender Documents.

Q3 How fast can water be supplied for filling of the new reservoir?

A3 Potable water can be provided at a rate of 22 L/s. This rate allows for filling of the reservoir at the maximum allowable rate indicated in Section 03 36 00.

Q4 Can excess fill material be used for filling of the access road?

A4 No.

Q5 Can a generator be run 24 hours / day at the Lake Louise overflow parking lot?

A5 Posted rules apply to all users of the area.

Q6 Can the Pipestone Trail parking lot be used by the Contractor?

A6 The parking lot may be used by the Contractor for temporary storage of construction material and equipment with the following exceptions:

- No stockpiling of imported granular material
- No stockpiling of material excavated from the project area
- No overnight living accommodation.

Q7 What is the difference between smooth and rough finishing?

A7 As per the Tender Documents, CSA A23.1 defines these finish types.

Q8 Is there a gradation spec for the granular base below the reservoir

A8 Yes, one is provided in the Tender Documents

Q9 Can non-potable water be used for testing of the reservoir?

A9 No

Q10 When will Fortis be onsite doing their work?

A10 This work has not yet been scheduled. Parks Canada will work with Fortis and the Reservoir Contractor to ensure that work at the reservoir site is not disrupted due to this work.

Q11 Can wood chips generated on site be blended with the topsoil?

A11 All wood chips are to be disposed of as per the **Section 31 11 00 CLEARING AND GRUBBING**.

Q12 What are the allowable hours of work?

A12 As per **Section 01 14 00, WORK RESTRICTIONS**.

Q13 Will the completion date be extended?

A13 The Substantial Performance date is revised to June 20, 2019 and the Final Completion date is revised to July 1, 2019. All concrete and yard piping work is to be complete by November 15, 2018. Leakage testing, backfilling and other remaining work is to be completed in 2019 in accordance with the above noted revised dates.

Q14 What are the load restrictions on the new reservoir roof?

A14 Maximum axle load for a service truck allowed on the completed roof of the new reservoir is shown in General Notes on Drawing 3084-01-S-101. No additional loads or vehicles shall be permitted over the existing reservoir roof. Material laydown and stockpile is allowed on the existing reservoir backfill berms, however soil height shall not be greater than the existing top of berm.

C) BIDDER QUESTIONS

Q15 Can we be provided some more specific details for the mixing nozzles on this project? I don't see anything with regards to these Nozzles in the specification documents, can you please provide the following information:

Elastomer material these are to be made out of:

A15 As indicated on Drawing 3084-01-D-101, the nozzles are PVC pipe nipples

Q16 The expected discharge pipe velocity:

A16 Response: 2.6 m/s

Q17 The expected line pressure:

A17 Response: 79 kPa (acting on upstream of nozzle)

Q18 The expected max backpressure that is acting externally on these valves:

A18 Response: 79 kPa (acting on inside of check valves CV1 thru 4).

Q19 On drawing S-301 Detail 5 calls for a Drainage sheet. Can the engineer provide a product or specification for this material?

A19 Drainage sheet shall be propylene dimpled sheet with bonded non woven filter fabric. Acceptable product NuDrain WD-15 by Nile's or approved alternate.

Q20 Typically in water retaining structures we are provided with a specification for the 07 16 00 Cementitious and Reactive Waterproofing and 07 16 16 Crystalline Waterproofing. It is unclear in the specification where the crystalline grout material as specified in section 03 30 01 para 2.1.13 is required. On the drawing we only can find its use on the Drawing 502 detail 2 and drawing S -301 detail 3 We find no other use of cementitious water proofing compound on the base slab or walls.

A20 Cementitious waterproof grout is specified in section 03 30 01. It is only required at construction joints and for filling formwork tie holes. Cementitious (crystalline) waterproofing shall not be applied on base slab, walls or columns.

D) TENDER PACKAGE CHANGES

1) Specifications

1. Delete items 2.1.2 and 2.1.3 in Section 03 35 00.
2. Add the following to Section 31 11 00 – Clearing and Grubbing:
 - 3.3.5 Mulch tree stumps, brush and all felled timber on site to chip sizes no more than 75 mm.
3. Replace Item 3.4 in Section 31 11 00 with the following:
 - 3.4 REMOVAL AND DISPOSAL
 - .1 Mulch shall be delivered to the Lake Louise Wastewater Treatment Plant (WWTP) between the hours of 9:00 a.m. and 4:00 p.m. Contractor must attend a site orientation with WWTP operations staff prior to the stockpiling. Stockpiled mulch becomes the property of Parks Canada Agency.
4. Replace Item 3.1.4.1 in Section 31 14 13 with the following
 - .1 Pit 69, 8 km east of the site.
5. Add the following to Item 1.2 of Section 01 29 00 Payment Procedures:
 - .5 A maximum of 90% may be invoiced against the total value of concrete and underground piping work in 2018. The remaining 10% may be invoiced upon successful completion of testing and backfilling.
6. Delete references to Kryton, Xypex and Permaquick from specification section 03 30 01.
7. Provide a total of 150mm thick rigid polystyrene insulation under the entire footprint of the reservoir base slab including under sumps and pipe encasements. Extend insulation minimum 1000mm horizontally past the base slab to the extent of excavation and for minimum 1500mm along the excavation slopes. When completed, the rigid insulation shall project minimum 2500mm past the outside of the reservoir base slab.

Rigid polystyrene insulation shall have minimum 275KPa compressive strength. Place rigid insulation over levelled and compacted granular base and stagger joints between insulation layers. Gaps between horizontal and sloped insulation boards to be filled with foam insulation to provide continuous thermal protection.

Perforated perimeter drain elevations to be raised by 300mm, so that invert at the low point is at EL. 1586.650 and at EL. 1587.250 at the high point.
8. Add the following to Item 3.8 of Section 32 92 19.16 Seeding:
 - .2 The warranty period for this work shall be 2 years from date of Final Completion.

2) ITT

Delete: BA06 CONSTRUCTION TIME

Replace with:

The Contractor must perform and complete the Work by **July 1, 2019**. Substantial Performance of work must be completed by June 20, 2019.

3) Clarifications

1. The reservoir base slab projects 500 mm beyond the reservoir wall. That dimension is missing from drawing 3084-01-S-301.
2. Further to the presence of Canada thistle at the reservoir site indicated in Addendum 1, Parks Canada will mark the infested areas for the Contractor prior to ground disturbance.

All other terms and conditions remain unchanged.