



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Parks Canada Agency 3, passage du Chien-d'Or Québec, Qc G1R 3Z8

ADDENDUM #2:

APPEL D'OFFRES INVITATION TO TENDER

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 à: 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 et aux annexes cijointes, les biens, services et construction énumérés ici et sur toute feuille ci-annexée, au(x) prix indiqué(s).

- *Comments Commentaires
- * Documents to attach with your submission

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



Issuing Office - Bureau de distribution

Parks Canada Agency 3, passage du Chien-d'Or Québec, Qc G1R 3Z8

Title-Sujet: Rehabilitation of the Sew	Date :							
Watermain and the Parking Lot of the V and Rehabilitation of the 15,5 Site of th Canal		April 29, 2019						
Solicitation No No. de l'invitation	Client Ref. N	No. – No. de réf du client.						
5P201-19-0012/A	CLAC	1803						
GETS Reference No. – No de reference PW-19-00870803	de SEAG							
Solicitation Closes	Time Zor	-						
L'invitation prend fin –	Fuseau ho	raire -						
at 2:00 on May, 06 2019								
On May, 08 2019	(EDT)							
F.O.B F.A.B.								
Plant-Usine: ☐ Destination: ☐	l Other-A	utre: 🗆						
Address Inquiries to: - Adresser toute de	mande de ren	seignements à :						
Patrice Déry patrice.dery@canada.ca								
Telephone No No de téléphone	Fax No	No de FAX:						
819-536-2638 poste 240	819-53	6-3661						
	Destination of Goods, Services, and Construction: Destinations des biens, services et construction:							
15,5 Site of the Lachine Canal – Parks	Canada							
Vendor/Firm Name and Address								
Raison sociale et adresse du fourn	isseur/de l'e	entrepreneur						
Telephone No No de telephone:								
Facsimile No N° de télécopieur :								
Email - Courriel :								
Name and title of person authorized to sign on behalf of the Vendor/Firm Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur								
Name / Nom	T	Title / Titre						
Signature		Date						







Numéro de projet : 5P201-19-0012/A

THIS ADDENDUM CONSISTS 36 TOTAL PAGES

This *change is an integral part of the contract documents. All information included in this addendum takes precedence over previously issued information.

*See documentations following these and attached plans ALL OTHER CLAUSES AND CONDITIONS REMAIN UNCHANGED.



Rehabilitation of the sewers, the watermain and the parking lot of the workshop and rehabilitation of the 15,5 site of the Lachine Canal

Addendum no 2

Project Number: CLAC-1803



Prepared for: Parks Canada Agency

Prepared by: Stantec Consulting Ltd. Stantec Project Number: 159100406

Addendum no 2

April 26, 2019

Sign-off Sheet

This document entitled "Environmental Rehabilitation of the Parking Lot at the Lachine Canal NHS Workshops, Montreal, Quebec" was prepared by Stantec Consulting Ltd. ("Stantec") for Parks Canada Agency ("the Client"). Any reliance on this document by a third party is strictly prohibited. The material in this document reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions expressed in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

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Project manager

Rehabilitation of the sewers, the watermain and the parking lot of the workshop and rehabilitation of the 15,5 site of the

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THIS ADDENDUM IS AN INTEGRAL PART OF THE BID DOCUMENTS TO WHICH IT REFERS, COMPLETING, AMENDING OR ELIMINATING CERTAIN ELEMENTS.

DETAILS AND CHANGES TO QUOTE AND BORDER

The following clarifications are provided following the written questions received from the bidders.

1. SPECIFICATIONS

1.1 Removal of item 1.4.3 from section 01 11 00 Summary of Work

Item 1.4.3 of section 01 11 00 «Summary of Work» is deleted. See page 3 of the section added to this addendum.

1.2 1.1 Replacement of section 01 29 00 Measurement procedures

Section 01 29 00 « Measurement procedures » is suppressed and replaced by section 01 29 00 « Measurement procedures - revision No. 1 ». See the added section attached to this addendum.

2. SPECIFICATIONS APPENDIX A

2.1 In section A.1, page A.1

Remove the following sentence from the first paragraph: « *The repairs to the underground infrastructure and parking lot will form part of a separate bid invitation..* »

2.2 <u>In section A.2.1, page A.2</u>

Remove the following sentence: « The rehabilitation work is planned for the fall of 2017. »

2.3 <u>In section A.3, page A.9</u>

Remove the entire A.3 section.

2.4 On drawing 3

Remove the access D « new access ».

2.5 <u>In section A.4, page A.10</u>

After the sentence: Excavate soil contaminated exceeding applicable criteria in the zones identified in Figure 2 of Appendix A., add the following point:

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Environmental management of excavated soil (little or no contaminated) as part of the rehabilitation of the sewer, the watermain and the parking lot works.

2.6 In section A.4, page A.11

Remove the table of quantities.

2.7 In section A.4, page A.11

Replace the following paragraph:

It is estimated that the contaminated soil exceeding CCME industrial use criteria covers an area of approximately 3,150 m² and that a total volume of approximately 1,350 m³ of contaminated soil must be removed and disposed of. The soil is contaminated with PAH, metals and/or BTEX. Most of the contamination is likely caused by mixing with waste materials. Such materials were collected in previous surveys.

By : It is estimated that the contaminated soil exceeding CCME industrial use criteria covers an area of approximately 3,150 m² and that a total volume of approximately 1,350 m³ of contaminated soil (according to federal criteria) must be removed and disposed of. The soil is contaminated with PAH, metals and/or BTEX. Most of the contamination is likely caused by mixing with waste materials.

In addition, during the rehabilitation of the sewer, the watermain and the parking lot works, soils whose environmental properties are acceptable for the use of the site must also be excavated and be subject to environmental management.

Finally, although the site is under federal jurisdiction, all excavated and disposed off-site soils will have to be managed according to provincial criteria. Estimated quantities of soil to be excavated, re-used on the site and disposed off-site are indicated, by contamination range (provincial criteria), on the bid form presented in Appendix E of the tender document.

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3. BID FORM

3.1 Replacement of the bid form

The bid form is deleted and replaced by the bid form revision no. 1. See the bid form revision No. 1 attached to this addendum.

4. CIVIL DRAWINGS

4.1 Retention pond

The TBA retention pond option is eliminated.

The retention pond is composed of 1200mm diameter HDPE pipes with smooth inside and outside walls with a minimum stiffness of 250 kPa according to the ASTM F894 standard. The inlet and outlet pipes of the retention pound are 750mm diameter HDPE pipes with smooth inside and outside walls with a minimum stiffness of 320 kPa according to the BNQ 1809-300 standard. The retention pond must have two 900 mm diameter HDPE access chimneys with smooth inside and outside walls. An adjustable 750mm diameter frame and cover is required at the northeast corner of the retention pond and an adjustable 750mm diameter frame and grid is required at the southwest corner of the retention pond.

The contractor must provide the retention pound plan and flotation calculation signed and sealed by a member in good standing from the Ordre des ingénieurs du Québec (OIQ).

4.2 <u>Containers to relocate temporarily offsite and re-install on the site at the location indicated on the drawing 3/5</u>

The container near building # 2 indicated to relocate temporarily offsite on drawing 1/5 contains a large amount of steel. This container is therefore very heavy and content handling can be planned by the Contractor, both for the temporary relocation offsite and the reinstallation on site at the location indicated. The photos of the container near building # 2 are added to this addendum (Photos 1 and 2).

The container near building # 4 indicated to relocate temporarily offsite on drawing 1/5 is empty.

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Photo 1: Content of the container located near building # 2

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Photo 2: Content of the container located near building # 2

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5. ELECTRICAL DRAWINGS

5.1 **Plan E01, Rev 01, sketch CE-01**

- The 53 mm electrical duct for the spillway is eliminated and is extended and used for a charging station. A pulling box is provided at the end of the duct;
- At section view A, the 78 mm HQ feeder is replaced by a 103 mm diameter conduit;
- The entrance of the ducts to building 3 is modified.

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SUMMARY OF WORK

Section 01 11 00 Page 3

- .2 Coordinate Progress Schedule and coordinate occupancy with Canada Parks Representative during construction.
- .3 Maintain fire access/control.
- .4 The Contractor is responsible for obtaining all necessary permits for the realization of the work from the authorities concerned.
- .5 Field work shall not exceed 12 weeks.

1.4 OWNER OCCUPANCY

- .1 Parks Canada Agency (PCA) can occupy the buildings during the entire construction period. However, parking will not be occupied by PCA for this period.
- .2 Cooperate with PCA in scheduling operations to minimize conflict and to facilitate PCA usage.



- To maintain site access for PCA employees, an opening could be made in the fence south of building #2 prior to the commencement of works. This opening must be equipped with a hinged door and a locking system.
- .4 A pedestrian access must always be maintained to building #1, at least two doors must always be accessible. The Contractor can not restrict access to PCA. However, PCA employees must comply with the Contractor's health and safety criteria when accessing the site.

1.5 EXISTING SERVICES

- .1 The Contractor shall establish the location of all public and private underground utilities prior to the commencement of works by calling on specialized firms (Info-excavation and/or other private companies). If deemed necessary, hydrovac shall be used to visually confirm the position of underground utilities prior to digging.
- .2 When necessary, the Contractor shall relocate any existing equipment (underground or otherwise) that could affect the safe execution of the works. The Contractor shall replace, at its own expense, any equipment (underground or otherwise) that was not intended to be dismantled and that was damaged during the execution of works. Upon completion of works, the Contractor shall ensure that all equipment is functional.
- .3 Any works related to disconnecting/reconnecting, securing or temporarily re-routing public utilities (overhead or underground) shall be executed in accordance with applicable codes, standards and regulations, and shall



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DESCRIPTION OF ITEMS IN UNIT PRICE TABLE

1 Civil engineering

1.1 Preparation, securing of premises and general fixed expenses

- 1.1.1 Item 1.1.1: General expenses, mobilization, demobilization, traffic management and signage
- 1.1.1.1 This item includes mobilization and demobilization of personnel and equipment to and from the site, implementation of all health/safety requirements, application for permits, payment of permit fees, arrangements and coordination with the City of Montreal for work in the municipal right-of-way, all board, lodging and subsistence expenses, installation and maintenance of site trailer, chemical toilets, fences, supply and installation of new chain link fence or opening in the existing fence for temporary site access (if required), including concrete, posts, bars, fasteners and grating. This item also includes installation and maintenance of temporary signage in accordance with MTMDET standards, including temporary signage, coordination with authorities, surveying and staking out of structures, and survey expenses not included in other items of the Bid Form, site security services (if necessary), protection of existing public utilities in the work zones and all other items required in the Bid Documents.
- 1.1.1.2 The lump-sum bid price for the work under this item is payable on the following terms:
- 1.1.1.2.1 An initial payment of 30% of the lump-sum bid price for this item is payable once general mobilization is complete;
- 1.1.1.2.2 A second payment of 50% of the lump-sum bid price for this item is payable on a prorated basis according to the work estimate;
- 1.1.1.2.3 The balance of the lump-sum bid price for this item is payable once general demobilization is complete.
- 1.1.2 Item 1.1.2: Environmental procedures
- 1.1.2.1 The price in payment item 1.1.2 of the Bid Form is a lump-sum amount for all expenses incurred by the Contractor for environmental protection, in accordance with the instructions in this contract.
- 1.1.2.2 The price includes but is not limited to the following:



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- 1.1.2.2.1 Everything described in Section 01 35 43, Environmental Procedures, including preparation, presentation and implementation of the environmental protection plan; preparation, presentation and implementation of the location plan for the various site facilities; preparation, presentation and implementation of the work zone plans; preparation, presentation and implementation of the air pollution control plan; preparation, presentation and implementation of the contamination prevention plan; preparation, presentation and implementation of the wastewater management plan; preparation, presentation and implementation of the wetlands and historical, archeological, cultural and biological resources identification and protection plan; measures to protect the existing tree and plants; temporary facilities to prevent pollution; preparation, presentation and implementation of a site historical and heritage value protection plan.
- 1.1.2.3 The lump-sum bid price for this payment item is payable on the following terms:
- 1.1.2.3.1 An initial payment of 20% of the lump-sum bid price for this item is payable once implementation of the protection plans is complete;
- 1.1.2.3.2 The other progress payments under this item will be charged on each invoice at a percentage in line with the general progress of work on that invoice.
- 1.1.3 Item 1.1.3: Winter conditions
- 1.1.3.1 The price for payment item 1.3 in the Bid Form is a global lump-sum amount for all expenses incurred in installing the necessary facilities for performance of the work in cold weather, as well as costs not included in other payment items in the Bid Form, in accordance with the specifications.
- 1.1.3.2 The price includes but is not limited to the following:
- 1.1.3.2.1 Preparation, presentation and correction, if required, of the description of facilities. Snow removal.
- 1.1.3.2.2 Mobilization of labour, tools and equipment required for performance of the work;
- 1.1.3.2.3 Supply, handling and transportation of materials required to build the facilities;
- 1.1.3.2.4 Installation, maintenance during the work and dismantling of temporary facilities upon work completion;
- 1.1.3.2.5 Heating of temporary facilities during the work;
- 1.1.3.2.6 Transportation of materials off-site;
- 1.1.3.2.7 Any incidental expenses.



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- 1.1.3.2.8 Winter conditions are payable only if required, in writing, by the Departmental Representative.
- 1.1.3.2.9 The bid price shall be paid as follows:
- 1.1.3.2.10 60 % of the amount after assembly of facilities to the Departmental Representative's satisfaction;
- 1.1.3.2.11 40 % of the amount after removal from the site of materials used in building the facilities.
- 1.1.4 Item 1.1.4: Support for excavation walls
- 1.1.4.1 This item includes support for the excavation walls, as well as all special measures to ensure integrity of the soil, as well as the structures and infrastructure of neighbouring properties and buildings on the property.
- 1.1.5 Item 1.1.5: Relocation and reinstallation of two (2) steel containers in the work zone
- 1.1.5.1 This item includes temporary relocation off site of two 12.2 m (40') long steel containers and reinstallation of the containers on the proposed concrete slab.
- 1.1.6 Item 1.1.6: Demolition of concrete slabs in the bulk storage area
- 1.1.6.1 This item includes demolition of the concrete slab located in front of Building #4 measuring approximately 1.3 m wide by 16 m long and 250 mm thick, as well as the slab for the bulk storage, saw cutting, excavation, loading, transportation and disposal of excavated materials at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.
- 1.1.7 Item 1.1.7: Mill Street: Demolition of concrete sidewalk (coordination with City of Montreal)
- 1.1.7.1 This item includes coordination with the City of Montreal, saw cutting, excavation, loading, transportation and disposal of excavated materials at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.
- 1.1.8 Item 1.1.8: Mill Street: Street saw cutting for connection of utilities Demolition of pavement (coordination with City of Montreal)
- 1.1.8.1 This item includes coordination with the City of Montreal, saw cutting, excavation, loading, transportation and disposal of excavated materials at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.
- 1.1.9 Item 1.1.9: Demolition of existing curbs



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- 1.1.9.1 This item includes saw cutting, excavation, loading, transportation and disposal of excavated materials at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.
- 1.1.10 Item 1.1.10: Removal of concrete blocks and maintenance and reinstallation of Jersey barriers upon work completion
- 1.1.10.1 This item includes loading, transportation and temporary storage of Jersey barriers at 50 Notre-Dame Street West, Lachine (Parks Canada Agency address), as well as loading, transportation and disposal of concrete blocks at a facility that meets MDDELCC requirements, and any other items required in the Bid Documents.
- 1.1.11 Item 1.1.11: Removal of sanitary and storm sewer pipes of varying diameters and other materials
- 1.1.11.1 This item includes removal and disposal of sewer pipes, excavation and backfilling to the subgrade line, as well as any other items required in the Bid Documents.
- 1.1.12 Item 1.1.12: Abandonment of sanitary and storm sewer pipes of varying diameters and other materials (Mill Street)
- 1.1.12.1 This item includes abandonment of the existing pipe by injecting it with lean concrete, plugging it at both ends with plugs made of the same materials as the pipe being abandoned, excavation and backfilling, surface repairs, as well as any other items required in the Bid Documents.
- 1.1.13 Item 1.1.13: Removal of manholes and/or catch basins
- 1.1.13.1 This item includes excavation, removal, transportation and disposal of manholes and/or catch basins at a facility that meets MDDELCC requirements, drawdown of water from the trenches and diversion of water to pipes, delivery of recoverable materials to a site designated by the Parks Canada Representative, sealing of the pipe ends, as required, as well as any other items required in the Bid Documents.
- 1.1.14 Item 1.1.14: Removal of water supply pipe
- 1.1.14.1 This item includes removal and disposal of the water supply pipe, excavation, sorting of materials, removal, loading, transportation and disposal of existing valves, key-operated valve boxes and accessories at a facility that meets MDDELCC requirements and backfilling to the subgrade line, as well as any other items required in the Bid Documents.
- 1.1.15 Item 1.1.15: Abandonment of water supply pipe (Mill Street)



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- 1.1.15.1 This item includes abandonment of the existing water supply pipe by injecting it with lean concrete, plugging the ends of the existing pipe with plugs made of the same materials as the pipe being abandoned, excavation and backfilling, surface repairs and any other items required in the Bid Documents.
- 1.1.16 Item 1.1.16: Vibration control
- 1.1.16.1 This item includes all costs associated with controlling vibrations as described in section 01 14 00 of the specifications. Such costs include but are not limited to excavation, temporary support, cut and fill to install and recover seismographs, concrete masses, detailed reports and copies of recording film.
- 1.1.17 Item 1.1.17: Loading, placement and compaction of excavated soil piled temporarily on site and deemed to be reusable.
- 1.1.17.1 This item includes handling, transportation, placement in the excavation and compaction in accordance with the instructions found in the Bid Documents.
- 1.1.17.2 Where applicable, the quantity of soil excavated and stored in piles on-site for reuse as backfill will be assessed for volume either by measurement or by survey using a method selected jointly by the Parks Canada Representative and the Contractor.
- 1.1.18 Item 1.1.18: Supply, transportation, placement and compaction of clean material from off-site to the subgrade limit in accordance with specifications.
- 1.1.18.1 This item includes supply, handling, transportation, placement in the excavation and compaction in accordance with the instructions in the Bid Documents.
- 1.1.18.2 All imported soil that will be used to complete the backfilling of the excavation will be billed at the unit price provided under item 1.18 of the Bid Form. The weight tickets issued on supply of the imported soil must clearly indicate the tonnage for each truckload and be submitted to the Parks Canada Representative at the end of each day.

1.2 Road work

Parking lot

- 1.2.1 Item 1.2.1: Subgrade preparation
- 1.2.1.1 This item includes protection of manholes, key-operated valve boxes and catch basins, cut and fill, loading, transportation and disposal of surplus materials at a facility that meets MDDELCC requirements, preparation of the subgrade, grading, compaction of the subgrade, and any other items required in the Bid Documents.



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- 1.2.2 Item 1.2.2: Supply and placement of geotextile
- 1.2.2.1 This item includes supply and placement of geotextile as shown on the plans and in accordance with the supplier's recommendations, including cutting and sewing, overlapping, extra width of 0.5 metre for each side of the pavement, as well as any other items required in the Bid Documents.
- 1.2.3 Item 1.2.3: Supply and placement of MG-56 subbase, 400 mm thick
- 1.2.3.1 This item includes supply and placement of granular material, spreading, grading and compacting of the granular material, adjustment of structures, as well as any other items required in the Bid Documents.
- 1.2.4 Item 1.2.4: Supply and placement of MG-20 base, 200 mm thick
- 1.2.4.1 This item includes supply and placement of granular material, spreading, grading and compacting of the granular material, adjustment of structures, as well as any other items required in the Bid Documents.
- 1.2.5 Item 1.2.5: Supply and placement of ESG-10 asphalt overlay, single course (PG 58-28), 60 mm thick
- 1.2.5.1 This item includes supply and placement of the asphalt overlay, spreading, grading and compacting, adhesive for asphalt joints, as required, chamfer strips, adjustment of frames and covers, cleaning, and any other items required in the Bid Documents.
- 1.2.6 Item 1.2.6: Marking and signage
- 1.2.6.1 This item includes cleaning of surfaces to be marked, supply and coating of paint on the pavement and micro-beads, including supply of templates, temporary signage, supply and installation of signboards in the proposed locations, supply and installation of posts, as required, as well as any other items required in the Bid Documents.
- 1.2.7 Item 1.2.7: Supply and installation of rigid insulation in the area of the universal access
- 1.2.7.1 This item includes supply and installation of rigid insulation, as well as any other items required in the Bid Documents.

Concrete slab

- 1.2.8 Item 1.2.8: Supply and installation of reinforced concrete slab, 300 mm thick, for the containers
- 1.2.8.1 This item includes supply and placement of concrete, reinforcing steel, including excavation, granular material base, forms, supports, accessories, joints and



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- materials necessary to protect and cure the concrete, grading, and any other items required in the Bid Documents.
- 1.2.9 Item 1.2.9: Supply and placement of MG-20 granular base beneath the slab, 300 mm thick
- 1.2.9.1 This item includes supply and placement of granular material, spreading, grading and compacting of the granular material, and any other items required in the Bid Documents.
- 1.2.10 Item 1.2.10: Supply and installation of rigid insulation beneath the concrete slab
- 1.2.10.1 This item includes supply and installation of rigid insulation, as well as any other items required in the Bid Documents.

Mill Street

- 1.2.11 Item 1.2.11: Mill Street: Street saw cutting for connection of utilities Pavement repairs (coordination with City of Montreal)
- 1.2.11.1 This item includes supply and placement of geotextile in accordance with the supplier's recommendations, including cutting and sewing, overlapping, extra width of 0.5 metre for each side of the pavement, supply and placement of granular material, spreading, grading and compacting of the granular material, adjustment of structures, supply and placement of concrete, forms, supports, accessories, joints and materials necessary to protect and cure the concrete, supply and placement of the asphalt overlay, spreading, grading and compacting, adhesive for asphalt joints, as required, supply and installation of binder, chamfer strips, adjustment of frames and covers, cleaning, coordination with City of Montreal, and any other items required in the Bid Documents.

1.3 Concrete sidewalks and curbs

- 1.3.1 Item 1.3.1: Construction of concrete curbs
- 1.3.1.1 This item includes supply and installation of materials to build the concrete curbs, including bedding, reinforcing steel, saw cutting, excavation, granular base, loading, transportation and disposal of excavated materials at a facility that meets MDDELCC requirements, forms, supports, accessories, joints, activities and materials necessary to protect and cure the concrete in accordance with the weather conditions (frost protection), grading at curb height, as well as any other items required in the Bid Documents.



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- 1.3.2 Item 1.3.2: Mill Street: Construction of monolithic sidewalk (coordination with City of Montreal)
- 1.3.2.1 This item includes supply and installation of materials to build the concrete sidewalks, including bedding, reinforcing steel, disabled access ramps, access lanes, saw cutting, excavation, granular base, loading, transportation and disposal of excavated materials at a facility that meets MDDELCC requirements, forms, wire mesh, supports, accessories, joints, activities and materials necessary to protect and cure the concrete in accordance with the weather conditions (frost protection), coordination with City of Montreal, and as any other items required in the Bid Documents.

1.4 Sodding

- 1.4.1 Item 1.4.1: Sodding with turf, including 150 mm of topsoil
- 1.4.1.1 This item includes supply and placement of topsoil, turf slabs, including watering, stakes and accessories, initial maintenance work, and any other items required in the Bid Documents.

1.5 Water supply pipes

- 1.5.1 Item 1.5.1: Supply and placement of soft copper, type K, water supply pipe, 38 mm diameter
- 1.5.1.1 This item includes supply and placement of pipes, including excavation, dewatering of trenches, connections and accessories, sleeves, plugs, valves, restraints and cathodic protection, concrete counterforts, diversions shown on the plans as well as thermal insulation, as required. This item also includes bedding, pipe wrapping and backfilling to the subgrade line, as well as any other items required in the Bid Documents.
- 1.5.2 Item 1.5.2: Supply and installation of key-operated valve box
- 1.5.2.1 This item includes supply and installation of the valve, complete adjustable keyoperated valve box with joints and accessories, restraints and cathodic protection, as well as any other items required in the Bid Documents.
- 1.5.3 Item 1.5.3: Mill Street: Connection to existing water main (coordination with City of Montreal)
- 1.5.3.1 This item includes location and uncovering of the existing pipe, cutting and cleaning of the pipe, connection to the existing water main, including a sleeve or reduced coupling, as necessary, disinfection of the connecting parts, manufacture of watertight seal for connection, supply and installation of all



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other materials necessary for completion of the structure, coordination with City of Montreal, as well as any other items required in the Bid Documents.

1.6 Sanitary sewer

- 1.6.1 Item 1.6.1: Supply and installation of PVC DR-28 sanitary sewer branch connection, 100 mm diameter
- 1.6.1.1 This item includes supply and installation of sanitary sewer pipe, including accessories, plugs, various connection parts, monolithic tees, excavation and dewatering of trenches, bedding, pipe wrapping, backfilling to the subgrade line, transportation and disposal of excavated material at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.
- 1.6.2 Item 1.6.2: Mill Street: Connection to existing combined sewer (coordination with City of Montreal)
- 1.6.2.1 This item includes location and uncovering of the existing pipe, cutting, cleaning, connection of pipe to existing sewer, including a sleeve or reduced coupling, as necessary, manufacture of watertight seal for connection, supply and installation of all other materials necessary for completion of the structure, coordination with City of Montreal, as well as any other items required in the Bid Documents.

1.7 Storm sewer

- 1.7.1 Item 1.7.1: Supply and installation of PVC DR-28 storm sewer branch connection, 150 mm diameter
- 1.7.1.1 This item includes supply and installation of storm sewer pipe, including accessories, plugs, excavation and dewatering of trenches, bedding, pipe wrapping, backfilling to the subgrade line, transportation and disposal of excavated material at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.
- 1.7.2 Item 1.7.2: Supply and installation of PVC DR-35 storm sewer pipe, 200 mm diameter
- 1.7.2.1 This item includes supply and installation of storm sewer pipe, including accessories, plugs, excavation and dewatering of trenches, bedding, pipe wrapping, backfilling to the subgrade line, transportation and disposal of excavated material at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.



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- 1.7.3 Item 1.7.3: Supply and installation of TBA Class IV storm sewer pipe, 300 mm diameter
- 1.7.3.1 This item includes supply and installation of storm sewer pipe, including accessories, plugs, excavation and dewatering of trenches, bedding, pipe wrapping, backfilling to the subgrade line, transportation and disposal of excavated material at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.
- 1.7.4 Item 1.7.4: Supply and installation of TBA Class IV storm sewer pipe, 375 mm diameter
- 1.7.4.1 This item includes supply and installation of storm sewer pipe, including accessories, plugs, excavation and dewatering of trenches, bedding, pipe wrapping, backfilling to the subgrade line, transportation and disposal of excavated material at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.
- 1.7.5 Item 1.7.5: Supply and installation of TBA Class IV storm sewer pipe, 525 mm diameter
- 1.7.5.1 This item includes supply and installation of storm sewer pipe, including accessories, plugs, excavation and dewatering of trenches, bedding, pipe wrapping, backfilling to the subgrade line, transportation and disposal of excavated material at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.



- 1.7.6 Item 1.7.6: Supply and installation of IBA Class IV storm sewer pipe, 600 **750** mm diameter **HDPE pipes with smooth inside and outside walls with a minimum** stiffness of 320 kPa according to the BNQ 1809-300 standard
- 1.7.6.1 This item includes supply and installation of storm sewer pipe, including accessories, plugs, excavation and dewatering of trenches, bedding, pipe wrapping, backfilling to the subgrade line, transportation and disposal of excavated material at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.
- 1.7.7 Item 1.7.7: Supply and installation of TBA Class IV storm sewer pipe, 1200 mm diameter
- 1.7.7.1 This item includes supply and installation of storm sewer pipe, including accessories, plugs, excavation and dewatering of trenches, bedding, pipe wrapping, backfilling to the subgrade line, transportation and disposal of excavated material at a facility that meets MDDELCC requirements, as well as any other items required in the Bid Documents.



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- .7.8 Item 1.7.8: Supply and installation of a retention basin, using pipes 1200 mm in diameter—Option 1: TBA Class IV pipes or Option 2: HDPE pipes with smooth inside and outside walls with a minimum stiffness of 250 kPa according to the ASTM F894 standard, including access chimneys
- 1.7.8.1 The bidder shall enter a price for the supply and installation of a retention basin using 1200 mm diameter pipes of the material of its choice, either Option 1 (TBA Class IV pipes) or Option 2 (HDPE pipes). The bidder shall also indicate which option it has selected in the Bid Form.
- 1.7.8.2 This item includes supply and installation of pipes to form the underground retention basin, the access shafts and their assembly, connecting parts, bedding and pipe wrapping, calculation of hydrostatic forces. The basin and its access shafts must support the passage of trucks, excavation and backfilling, as well as any other items required in the Bid Documents.
- 1.7.9 Item 1.7.9: Supply and installation of circular manhole-catch basin, 1200 mm diameter
- 1.7.9.1 This item includes supply and installation of reinforced concrete manhole-catch basins, with rubber gaskets, channel, access shaft, frame, guide and adjustable cover, grade rings, rungs, protective grates, deflectors, as required, connections to the proposed pipes, backfill around the manhole, geotextile membrane, leak testing, search for and repair of sources of infiltration, as applicable, as well as any other items required in the Bid Documents.
- 1.7.10 Item 1.7.10: Supply and installation of rectangular storm sewer manhole, 1750 mm X 1550 mm
- 1.7.10.1 This item includes supply and installation of reinforced concrete manholes, with rubber gaskets, channel, access shaft, frame, guide and adjustable cover, grade rings, rungs, protective grates, deflectors, as required, connections to the proposed pipes, backfill around the manhole, geotextile membrane, leak testing, search for and repair of sources of infiltration, as applicable, as well as any other items required in the Bid Documents.
- 1.7.11 Item 1.7.11: Supply and installation of a rectangular storm sewer manhole, 2150 mm X 1750 mm
- 1.7.11.1 This item includes supply and installation of reinforced concrete manholes, with rubber gaskets, channel, access shaft, frame, guide and adjustable cover, grade rings, rungs, protective grates, deflectors, as required, connections to the proposed pipes, backfill around the manhole, geotextile membrane, leak



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- testing, search for and repair of sources of infiltration, as applicable, as well as any other items required in the Bid Documents.
- 1.7.12 Item 1.7.12: Supply and installation of a regulation chamber, 2435 mm X 2135 mm, including flow regulator and check valve
- 1.7.12.1 This item includes supply and installation of reinforced concrete manholes, with rubber gaskets, channel, access shafts, frame, guide and adjustable cover, grade rings, rungs, protective grates, deflectors, as required, connections to the proposed pipes, backfill around the manhole, geotextile membrane, leak testing, search for and repair of sources of infiltration, as applicable, supply and installation of a vortex flow regulator, including anchor plate, vent, supply and installation of a check valve and accessories, as well as any other items required in the Bid Documents.
- 1.7.13 Item 1.7.13: Supply and installation of catch basins, 610 mm diameter, including perforated drains, 150 mm diameter
- 1.7.13.1 This item includes supply and installation of a precast, reinforced concrete catch basin, including watertight seals, butyl cords, frame, guide and anticycle grate, cast iron traps, grade rings, opening with grate, concrete slab, supply and complete installation of connecting pipe, watertight connection of pipe to the catch basin, cleaning, encasement around the catch basin using crushed rock, supply and installation of perforated drains and accessories, wrapping of drains and backfilling of trenches with clean stone to the planned subgrade elevation, supply and installation of a geotextile membrane around the clean stone, as well as any other items required in the Bid Documents.
- 1.7.14 Item 1.7.14: Mill Street: Connection to existing combined sewer (coordination with City of Montreal)
- 1.7.14.1 This item includes digging of hole, excavation and backfilling, removal of plug, if necessary, cutting and cleaning the existing pipe, connection of the proposed manhole to the existing pipe, including manufacture of watertight seal for connection, supply and installation of all other materials required for completion of the structure, coordination with City of Montreal, as well as any other items required in the Bid Documents.



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2 Environmental work

2.1 Excavation and management of soil and excavated materials

- .1 The bidder shall indicate the unit prices for the various steps involved in excavation, temporary storage in piles, transportation and disposal of the various categories of soil and materials indicated.
- .2 For the purposes of the cost estimate, the bidder may consider the affected soil that must be disposed of at authorized facilities to contain one or more of the following substances: C10-C50 petroleum hydrocarbons, BTEX compounds (benzene and xylene), metals and/or polycyclic aromatic hydrocarbons (PAH).
- .3 The soil and residual materials removed from the site shall be weighed directly at the authorized disposal facility. Weight tickets issued must clearly indicate the net weight of each truckload of soil or residual materials and must be provided at the end of each day to the Parks Canada Representative on site. The total tonnage indicated on each weight ticket for each category of soil or material taken to the authorized facilities will be used by the Contractor for billing for each category for which a price per tonne is provided in the Bid Form.
- .4 The quantity of excavated soil piled on site for reuse as backfill will be assessed for volume, either by measurement or by surveying, using the method chosen jointly by the Parks Canada Representative and the Contractor. This volume with be used for billing in section 1.1 of the Bid Form.
- .5 Similarly, the quantity of excavated soil piled on site that must be analyzed before disposal will be assessed for volume, either by measurement or by surveying, using the method chosen jointly by the Parks Canada Representative and the Contractor. This volume with be used for billing in section 1.2 of the Bid Form.
- .6 The final dimensions of the excavation will be surveyed if the Parks Canada Representative and the Contractor deem it necessary.
- 2.1.1 Item 2.1.1: Excavation, loading, transportation and temporary storage of soil that may be reused for backfilling the excavation
- 2.1.1.1 This item includes excavation, loading, transportation and temporary storage in piles, on the site of the work, of the soil that may be reused for backfilling the excavation.
- 2.1.2 Item 2.1.2: Excavation, loading, transportation and disposal of soil <B that cannot be reused
- 2.1.2.1 This item includes excavation, loading, transportation and disposal of excavated soil with concentrations below criteria B of the Intervention Guide but which cannot be reused.



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- 2.1.3 Item 2.1.3: Excavation, loading, transportation and disposal of soil B-C
- 2.1.3.1 This item includes excavation, loading, transportation and disposal of excavated soil with concentrations in the B-C criteria range of the Intervention Guide.
- 2.1.4 Item 2.1.4: Excavation, loading, transportation and disposal of soil ≥ C (but ≤ RESC)
- 2.1.4.1 This item includes excavation, loading, transportation and disposal of excavated soil with concentrations greater than criteria C of the Intervention Guide, but below the limits set out in Schedule I of the RESC (Regulation respecting the burial of contaminated soils c. Q-2, r.6.01).
- 2.1.5 Item 2.1.5: Excavation, loading, transportation and disposal of soil ≥ RESC
- 2.1.5.1 This item includes excavation, loading, transportation and disposal of excavated soil with concentrations greater than the limits set out in Schedule I of the RESC (Regulation respecting the burial of contaminated soils c. Q-2, r.6.01).
- 2.1.6 Item 2.1.6: Excavation, transportation and removal of asphalt and concrete
- 2.1.6.1 This item includes removal, loading, transportation and disposal of asphalt and asphalt concrete excavated throughout the site at an authorized facility.
- 2.1.7 Item 2.1.7: Handling, transportation and disposal of non-hazardous residual materials
- 2.1.7.1 This item includes handling, transportation and disposal of residual materials classified as non-hazardous but which cannot be reused.
- 2.1.7.2 Handling includes, excavation, temporary storage of soil on site and supply, installation, cleaning and removal of waterproof membranes.

2.2 Dewatering of excavations, where applicable

- 2.2.1 Item 2.2.1: Pumping of water using a vacuum truck
- 2.2.1.1 This item includes all equipment required to pump water using a vacuum truck, as well as any other items required in the Bid Documents.
- 2.2.2 Item 2.2.2: Supply of tanker truck
- 2.2.2.1 Indicate capacity of proposed truck, in litres.
- 2.2.2.2 This item includes supply of a tanker truck, as well as any other items required in the Bid Documents.
- 2.2.3 Item 2.2.3: Supply of labour and submersible pump and related equipment



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2.2.3.1 This item includes all required equipment, as well as any other items required in the Bid Documents.

2.3 Filling of minor vertical cracks in the foundations, where applicable

- 2.3.1 Item 3.1: Filling of minor vertical cracks
- 2.3.1.1 This item includes filling of minor cracks by injecting a sealant compatible with the foundation materials and installation conditions (including temperature).
- 2.3.1.2 This item includes filling materials as well as equipment and labour required to inject the sealant.
- 2.3.1.3 The unit prices apply if minor cracks are discovered during the work on the building foundations.
- 2.3.1.4 The proposed costs shall include all costs related to raw materials as well as labour and equipment required to carry out the work.

3 Electrical work



- 3.1 Electrical/telecomm entry to Building #1 and spillway / Building #1 to Building #2 / Building #1 to Building #3 / Building #1 to Building #4 / Building #1 to charging station
- 3.1.1 Items 3.1.1, 3.2.1, 3.3.1 and 3.4.1: Trenching, including excavation and backfilling
- 3.1.1.1 This item includes excavation, loading, transportation, disposal of excavated materials at a facility that meets MDDELCC requirements, supply and installation of fill material, backfilling, and any other items required in the Bid Documents.
- 3.1.2 Item 3.1.2: two conduits concrete duct, 104 mm
- 3.1.2.1 The two conduits concrete duct is paid by the linear metre. The price includes supply and installation of concrete, type 2 PVC conduit, supports, fasteners, materials, labour and machinery, excavation and backfilling, rack, including rings, accessories and 90° long radius elbow and fill material. The price also includes transportation of unused excavation material off site, shaft chucking, connection to the existing conduit and manholes, adaptors, marking tape, temporary repairs of all excavated surfaces and any incidental expense incurred in completion of the work.



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- 3.1.2.2 The Contractor shall install marking tape above the conduits midway between the top of the conduit and the finished elevation. The tape should be IDENTOLINE by BRADY be marked "BURIED ELECTRICAL LINE BELOW."
- 3.1.2.3 The conduits used must comply with the requirements set out in the plans.
- 3.1.2.4 If the trenches dug in the pavement and sidewalks cannot be completely backfilled the same day and/or before the road opens to traffic, the Contractor shall install and properly secure steel plates, which must be inspected and approved by the Parks Canada Representative.
- 3.1.2.5 Unless otherwise indicated on the plans, all underground conduits shall be concreted and installed in accordance with CSEM and Hydro-Québec standards.
- 3.1.3 Item 3.1.3: single conduit concrete duct, 104 mm
- 3.1.3.1 The single conduit concrete duct a is paid by the linear metre. The price includes supply and installation of concrete, type 2 PVC conduit, supports, fasteners, materials, labour and machinery, excavation and backfilling, rack, including rings, accessories and 90° long radius elbow and fill material. The price shall also include transportation of unused excavation material off site, shaft chucking, connection to the existing conduits and manholes, adaptors, marking tape, temporary repairs of all excavated surfaces and any incidental expense incurred in completion of the work.
- 3.1.3.2 The Contractor shall install marking tape above the conduits midway between the top of the conduit and the finished elevation. The tape should be IDENTOLINE by BRADY be marked "BURIED ELECTRICAL LINE BELOW."
- 3.1.3.3 The conduits used must comply with the requirements set out in the plans.
- 3.1.3.4 If the trenches dug in the pavement and sidewalks cannot be completely backfilled the same day and/or before the road opens to traffic, the Contractor shall install and properly secure steel plates, which must be inspected and approved by the Parks Canada Representative.
- 3.1.3.5 Unless otherwise indicated on the plans, all underground conduits shall be concreted and installed in accordance with CSEM and Hydro-Québec standards.
- 3.1.4 Item 3.1.4, 3.2.2, 3.3.3 and 3.4.2: Rigid PVC conduit, 104 mm
- 3.1.4.1 Electrical conduit is paid by the linear metre according to the type of conduit supplied and installed.
- 3.1.4.2 The price per linear metre includes materials, labour, equipment and machinery required to supply, install and connect the rigid conduit of the indicated





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diameter, on or below grade, including rings, attachment accessories, 90° long radius elbows, connection boxes, pull boxes and junction boxes, drilling, bases, anchors and any other incidental expense.

- 3.1.5 Item 3.1.5, 3.2.4, 3.3.5 and 3.4.4 3.4.3: Drilling
- 3.1.5.1 The drilling is paid at the unit price. The price shall include supply and installation of all material, labour, equipment, excavation, backfilling, shoring, hardware and accessories, as well as any other expenses inherent in the functional completion of the work.
- 3.1.5.2 The price also includes sealing of the opening after installation of the conduit.
- Building #1 to Building #2 / Building #1 to Building #3 / Building #1 to Building #4 / Building #1 to spillway / Building #1 to charging station
- 3.2.1 Item **3.1.4,** 3.2.3, 3.3.4 and 3.4.3 **3.4.2**: Rigid PVC conduit, 53 mm
- 3.2.1.1 Electrical conduit is paid by the linear metre according to the type of conduit supplied and installed.
- 3.2.1.2 The price per linear metre includes materials, labour, equipment and machinery required to supply, install and connect the rigid conduit of the indicated diameter, on or below grade, including rings, attachment accessories, 90° long radius elbows, connection boxes, pull boxes and junction boxes, drilling, bases, anchors and any other incidental expense.
- 3.2.2 Item 3.2.2 : Rigid PVC conduit, 78mm
- 3.2.2.1 Electrical conduit is paid by the linear metre according to the type of conduit supplied and installed.
- 3.2.2.2 The price per linear metre includes materials, labour, equipment and machinery required to supply, install and connect the rigid conduit of the indicated diameter, on or below grade, including rings, attachment accessories, 90° long radius elbows, connection boxes, pull boxes and junction boxes, drilling, bases, anchors and any other incidental expense.
- 3.3 Building #1 to Building #3
- 3.3.2 Item 3.3.2: Pull pit

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3.3.2.1 The pull pit is paid by the unit price. The price shall include supply and installation of the pit, frame (ductile iron), cover (ductile iron), as well as excavation, backfilling, shoring, protection of excavations, backfilling, disposal of excavated materials, labour, equipment and all expenses inherent in complete and functional installation.



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3.3.2.2 The price also includes connection of the system of conduits and concrete ducts to the pit.

END OF SECTION





	BID FORM					
Item	Description	Quantity	Unit	Unit Price	Amount	
1.	Civil engineering					
1.1	Preparation, securing of premises and general fixed expenses					
1.1.1	General expenses, mobilization, demobilization, traffic management and signage	1	global _	\$		\$
1.1.2	Environmental procedures	1	global _	\$		\$
1.1.3	Winter conditions	1	global _	\$		\$
1.1.4	Support for excavation walls	1	global _	\$		\$
1.1.5	Relocation and reinstallation of two (2) steel containers in the work zone	1	global _	\$		\$
1.1.6	Demolition of concrete slabs in the bulk storage area	1	global _	\$		\$
1.1.7	Mill Street: Demolition of concrete sidewalk (coordination with City of Montreal)	20	m² _	\$		\$
1.1.8	Mill Street: Street saw cutting for connection of utilities – Demolition of pavement (coordination with City of Montreal)	150	m² _	\$		\$
1.1.9	Demolition of existing curbs	20	LM _	\$		\$
1.1.10	Removal of concrete blocks and maintenance and reinstallation of Jersey barriers upon work completion	1	global _	\$		\$
1.1.11	Removal of sanitary and storm sewer pipes of varying diameters and other materials	1	global _	\$		\$
1.1.12	Abandonment of sanitary and storm sewer pipes of varying diameters and other materials (Mill Street)	1	global _	\$		\$
1.1.13	Removal of manholes and/or catch basins	4	unit _	\$		\$
1.1.14	Removal of water supply pipe	1	global _	\$		\$
1.1.15	Abandonment of water supply pipe (Mill Street)	1	global _	\$		\$
1.1.16	Vibration control	1	global _	\$		\$
1.1.17	Loading, placement and compaction of excavated soil piled temporarily on site and deemed to be reusable	1230	m³ _	\$		\$



Item	Description	Quantity	Unit	Unit Price		Amount	
1.1.18	Supply, transportation, placement and compaction of clean material from off-site to the subgrade limit in accordance with specifications	2600	MT		\$		\$
1.2	Road work						
	Parking lot						
1.2.1	Subgrade preparation	3200	m^2		\$		\$
1.2.2	Supply and placement of geotextile	3200	m²		\$		\$
1.2.3	Supply and placement of MG-56 subbase, 400 mm thick	3200	m²		\$		\$
1.2.4	Supply and placement of MG-20 base, 200 mm thick	3200	m^2		\$		\$
1.2.5	Supply and placement of ESG-10asphalt overlay, single course (PG 58-28),60 mm thick	3200	m²		\$		\$
1.2.6	Marking and signage	1	global		\$		\$
1.2.7	Supply and installation of rigid insulation in the area of the universal access	10	m²		\$		\$
	Concrete slab						
1.2.8	Supply and installation of reinforced concrete slab, 300 mm thick, for the containers	160	m²		\$		\$
1.2.9	Supply and placement of MG-20 granular base beneath the slab, 300 mm thick	190	m²		\$		\$
1.2.10	Supply and installation of rigid insulation beneath the concrete slab	240	m²		\$		\$
	Mill Street						
1.2.11	Street saw cutting for connection of utilities – Pavement repairs (coordination with City of Montreal)	150	m²		\$_		\$
1.3	Concrete sidewalks and curbs						
1.3.1	Construction of concrete curbs	80	LM		\$_		\$
1.3.2	Mill Street: Construction of monolithic sidewalk (coordination with City of Montreal)	20	m²		\$_		\$



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Item	Description	Quantity	Unit	Unit Price	Amount	
1.4	Sodding					
1.4.1	Sodding with turf, including 150 mm of topsoil	110	m²	\$	S	\$
1.5	Water supply pipes					
1.5.1	Supply and placement of soft copper, type K, water supply pipe, 38 mm diameter	39	LM		S	\$
1.5.2	Supply and installation of key-operated valve box	1	unit		S	\$
1.5.3	Mill Street: Connection to existing water main (coordination with City of Montreal)	1	unit		S	\$
1.6	Sanitary sewer					
1.6.1	Supply and placement of PVC DR-28 sanitary sewer branch connection, 100 mm diameter	31	LM	\$	S	\$
1.6.2	Mill Street: Connection to existing combined sewer (coordination with City of Montreal)	1	unit		S	\$
1.7	Storm sewer					
1.7.1	Supply and installation of PVC DR-28 storm sewer branch connection, 150 mm diameter	6	LM	\$	S	\$
1.7.2	Supply and installation of PVC DR-35 storm sewer pipe, 200 mm diameter	20	LM		S	\$
1.7.3	Supply and installation of TBA Class IV storm sewer pipe, 300 mm diameter	21	LM		S	\$
1.7.4	Supply and installation of TBA Class IV storm sewer pipe, 375 mm diameter	36	LM		S	\$
1.7.5	Supply and installation of TBA Class IV storm sewer pipe, 525 mm diameter	22	LM	\$	S	\$
_1.7.6	Supply and installation of TBA Class IV storm sewer pipe, 750 mm diameter HDPE pipes with smooth inside and outside walls with a minimum stiffness of 320 kPa according to the BNQ 1809-300 standard	10	LM		S	\$
1.7.7	Supply and installation of TBA Class IV storm sewer pipe, 1200 mm diameter	31	LM		S	\$



Item	Description	Quantity	Unit	Unit Price	Amount
01 1.7.8	Supply and installation of a retention basin, pipes 1200 mm diameter				
	Option 1: TBA Class IV pipes or Option 2: HDPE pipes with smooth inside and outside walls with a minimum stiffness of 250 kPa according to	4	global .	\$	<u> </u>
	the ASTM F894 standard, including the access chimneys	1	global	\$	\$
1.7.9	Supply and installation of circular manhole-catch basin, 1200 mm diameter	1	unit	\$	\$
1.7.10	Supply and installation of rectangular storm sewer manhole, 1750 mm X 1550 mm	1	unit	\$	\$
1.7.11	Supply and installation of rectangular storm sewer manhole, 2150 mm X 1750 mm	1	unit	\$	\$
1.7.12	Supply and installation of a regulation chamber, 2435 mm X 2135 mm, including flow regulator and check valve	1	unit	\$	\$
01 1.7.13	Supply and installation of catch basins, 610 mm diameter, including perforated drains, 150 mm diameter	-4 3	unit	\$	\$
1.7.14	Mill Street: Connection to existing combined sewer (coordination with City of Montreal)	1	unit _	\$	\$



Item	Description	Quantity	Unit	Unit Price	Amount	
2.	Environmental Work					
2.1	Excavation and management of soil and excavated mate	rials				
2.1.1	Excavation, loading, transportation and temporary storage of soil that may be reused for backfilling the excavation	1230	m³	\$		\$
2.1.2	Excavation, loading, transportation and disposal of soil <b be="" cannot="" reused<="" td="" that=""><td>3400</td><td>MT</td><td></td><td></td><td>\$</td>	3400	MT			\$
2.1.3	Excavation, loading, transportation and disposal of soil B-C	1650	MT			\$
2.1.4	Excavation, loading, transportation and disposal of soil \geq C (but \leq RESC)	810	MT			\$
2.1.5	Excavation, loading, transportation and disposal of soil ≥ RESC	100	MT			\$
2.1.6	Excavation, transportation and removal of asphalt and concrete	420	MT			\$
2.1.7	Handling, transportation and disposal of non-hazardous residual materials	200	MT			\$
2.2	Dewatering of excavations, where applicable					
2.2.1	Pumping of water using a vacuum truck	10000	litre			\$
2.2.2	Supply of tanker truck			9	2	\$
	Capacity: Litres	5	day			Ψ
2.2.3	Supply of labour and submersible pump and related equipment	5	day			\$
2.3	Filling of minor vertical cracks in the foundations, where applicable					
2.3.1	Filling of minor vertical cracks by injecting sealant	20	LM			\$



	Item	Description	Quantity	Unit	Unit Price	Amount	
	3.	Electrical work					
01	3.1	Electrical/telecomm entrance, Building #1 and spillway and building #1 and charging station					
	3.1.1	Trenching, including excavation and backfilling	30	LM	\$		\$
	3.1.2	Two conduits concrete duct, 104 mm	30	LM	\$		\$
^	3.1.3	Single conduit concrete duct, 104 mm	30	LM	\$		\$
01	3.1.4	Rigid PVC conduit, 104 53 mm	60 66	LM	\$		\$
	3.1.5	Drilling	5	unit	\$		\$
	3.2	Building #1 to Building #2					
٨	3.2.1	Trenching, including excavation and backfilling	25	LM	\$		\$
01	3.2.2	Rigid PVC conduit, 104 78 mm	30	LM	\$		\$
	3.2.3	Rigid PVC conduit, 53 mm	30	LM	\$		\$
	3.2.4	Drilling	4	unit	\$		\$
	3.3	Building #1 to Building #3					
	3.3.1	Trenching, including excavation and backfilling	40	LM	\$		\$
٨	3.3.2	Pull pit	2	unit	\$		\$
01	3.3.3	Rigid PVC conduit, 104 mm	60 65	LM	\$		\$
01	3.3.4	Rigid PVC conduit, 53 mm	60 65	LM	\$		\$
	3.3.5	Drilling	4	unit	\$		\$



	Item	Description	Quantity	Unit	Unit Price	Amount
01	3.4	Building #1 to Building #4				
	3.2.1 3.4.1	Trenching, including excavation and backfilling	15	LM	\$	\$
	3.2.2	Rigid PVC conduit, 104 mm	20	LM	\$	
	3.2.3 3.4.2	Rigid PVC conduit, 53 mm	20 30	LM	\$	\$
	3.2.4 3.4.3	Drilling	4	unit	\$	\$
		BID TOTAL				\$