

Canada Parks Agency
REHABILITATION LACHINE CANAL WALLS
CROWNING WALL REPAIRS AND REPLACEMENT
(SECTORS I8 & I9 – Basin N°4)
Project N° CLAC-1455-05
Addendum n° 02

THIS ADDENDUM COMPLETES, MODIFIES OR ELIMINATES CERTAIN ELEMENTS OF THE TENDER DOCUMENTS, WHICH THE ADDENDUM REFERS TO. IT IS AN INTEGRAL PART OF THE TENDER DOCUMENTS.

MODIFICATIONS ON PLANS AND SPECIFICATIONS

The current precisions are provided, following questions received from contractors during the site visit, and other written questions received.

1. EXTENTION OF THE BID'S CLOSING DATE

- 1.1 The closing date of bid's invitation is postponed to Tuesday, July 18th, 2017 at 2 p.m. HAE.

1. PLANS

1.1 Modifications on plans, sheet 01 revision 01 is cancelled and replaced by sheet 01 revision 02:

Added to the list of drawings and modification of the total page number of the drawings.
See plans in annex of this addenda.

1.2 Modifications of plans, sheet 05 is cancelled and replaced by sheet 05 revision 01:

See plans in annex of addenda.

1.3 Modifications of plans, sheet 09 is cancelled and replaced by sheet 09 revision 01:

See plans in annex of addenda.

1.4 Modifications of plans, Addition of sheet 24A annex - Survey:01:

See plans in annex of addenda.

1.5 Modifications of plans, sheet 25 is cancelled and replaced by sheet 25 revision 01:

See plans in annex of addenda.

1.6 Precision of plan 5

For the removal of the concrete bases (photo P5) and conducts of Hydro-Québec (photo P6), 5 m³ excavation is required.

1.7 Precision of plan 15

The conduct must be filled with concrete . The concrete will be paid in section 2.10 Concrete for support pad (Concrete 1 MPa).

N/Ref. : CLAC-1455-05

Stantec inc.

Canada Parks Agency
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1.8 Precision of plan 19

Precision to details of bollard keys. Concrete will be paid to m³ and steel to kg.

2. SPECIFICATIONS

2.1 Precision of article 1.9 of section 01 11 00 Summary of work:

Organization of work:

The location of the construction site offices must be provided within the work area and outside the railway track.

Railroad

The presence of railroad **flagman is not required** to the railway between sections B4-S-32 and B4-S-34. In no case must the track be occupied. Train passes are made as the railway is functional. The railway belongs to the CP. See section in annex of this addendum.

2.2 Precisions of article 1.5 of section 01 35 43 Environmentale Procedures:

There is no specific material for the turbidity curtain. The curtain must prevent suspended sediments from spreading over a wider area. A plan of a bathymetric survey is provided. The current of the canal is slow without waves

2.3 Precisions of article 2.13 of section 01 29 00 Payment:

The price for Hydroseeding included the first land mowing.

2.4 Precisions of article 3.6 of section 01 29 00 Payment:

The price for Laying Sod included the first land mowing.

3. TENDER FORM

3.1 Replacement of tender form:

The tender form revision 01 is cancelled and replace by the tender form revision 02. See tender on Annex.

As a result of the changes in Plans 5 and 9, Adjustments were made to the following items:

- Poste 1 - ORGANISATION DE CHANTIER, BUREAU DU SURVEILLANT, ET ARTICLES GÉNÉRAUX / SITE OFFICE, ENVIRONNEMENT AND GENERAL ITEMS
- Poste 2 - REMPLACEMENT DU MUR DE COURONNEMENT / REPLACEMENT OF THE CROWNING WALLS

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- Poste 3 - RÉPARATION SANS SURÉPAISSEUR DU MUR DE COURONNEMENT / REPAIR OF THE CROWING WALL

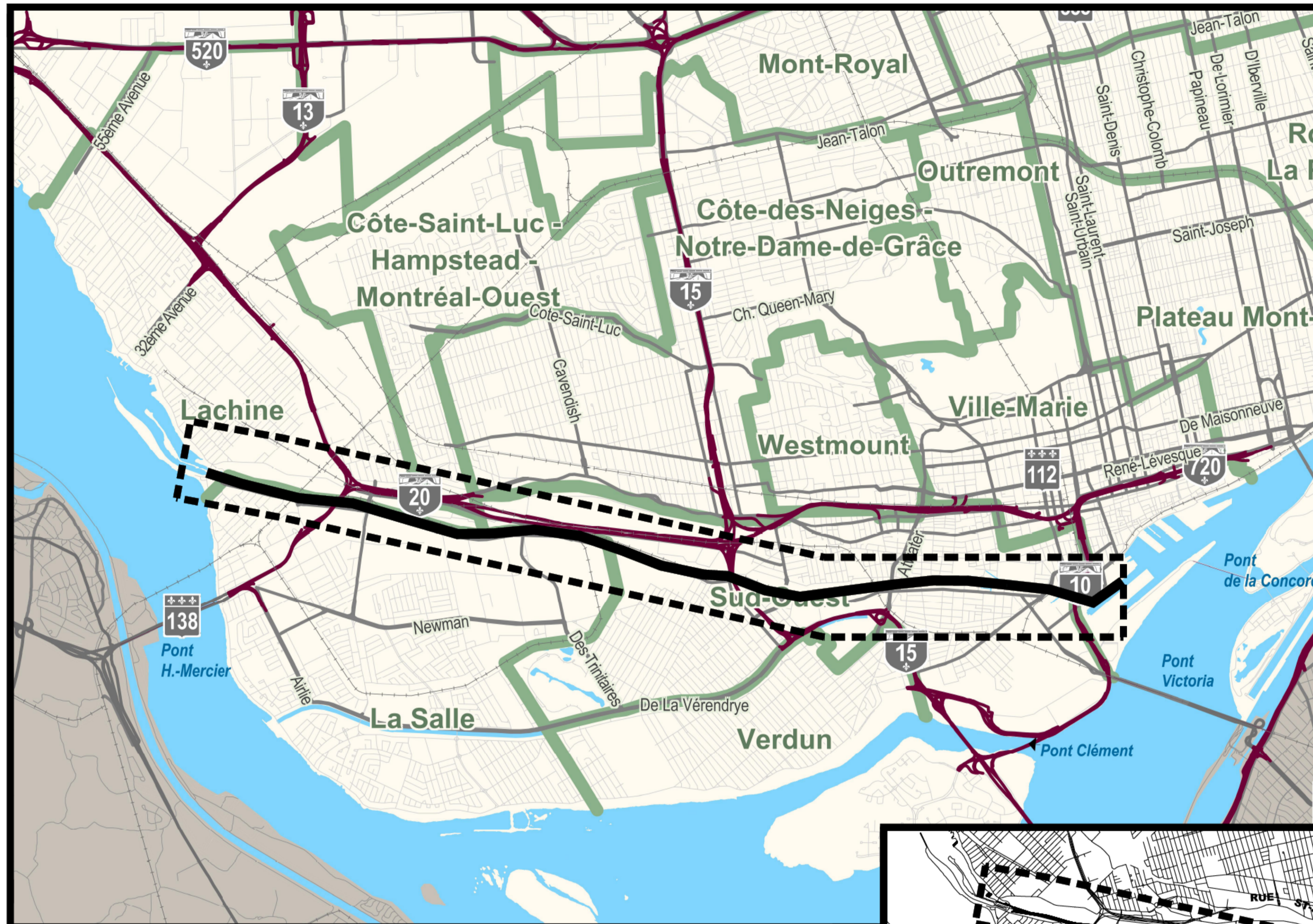
4. QUESTIONS FROM BIDDERS

4.1 Is a pedestrian trail required (according to specifications) if yes please specify the passage provided in the drawing?

No pedestrian paths are required.

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Plans



PLAN DE LOCALISATION / LOCATION PLAN

LISTE DES DESSINS:

- 01 PAGE FRONTISPICE
- 02 NOTES GÉNÉRALES
- 03 LÉGENDE ET PLAN CLÉ
- 04 PLAN DE LOCALISATION DES DIFFÉRENTES INTERVENTIONS BIEF 4
- 05 BIEF 4 - PHOTOS ET VUE EN PLAN AGRANDIE 1/2
- 06 BIEF 4 - PHOTOS ET VUE EN PLAN AGRANDIE 2/2
- 07 ESCALIER ET MURET EXISTANT À DÉMOLIR
- 08 ORTHOPHOTO
- 09 TABLEAUX
- 10 RÉPARATION TYPE 2 - DÉMOLITION
- 11 RÉPARATION TYPE 2 - CONSTRUCTION
- 12 RÉPARATION TYPE 2A - DÉMOLITION
- 13 RÉPARATION TYPE 2A - CONSTRUCTION
- 14 DÉTAILS TYPIQUES - COURONNEMENT EFFONDRE
- 15 DÉTAILS TYPIQUES - CONDUIT ET JOINT
- 16 DÉTAILS TYPIQUES - RÉPARATION ESCALIER
- 17 DÉTAILS TYPIQUES - DRAIN
- 18 DÉTAILS TYPIQUES - PROTECTION DE DRAIN ET BOLLARD
- 19 DÉTAILS TYPIQUES - CLÉ ET BOLLARD
- 20 DÉTAILS TYPIQUES - ÉCHELLONS
- 21 DÉTAILS TYPIQUES - TRANSITION ET JOINT DE CONTRÔLE
- 22 COUPES MONTRANT LE CHEMIN DE FER - DÉMOLITION
- 23 COUPES MONTRANT LE CHEMIN DE FER - CONSTRUCTION

ANNEXE

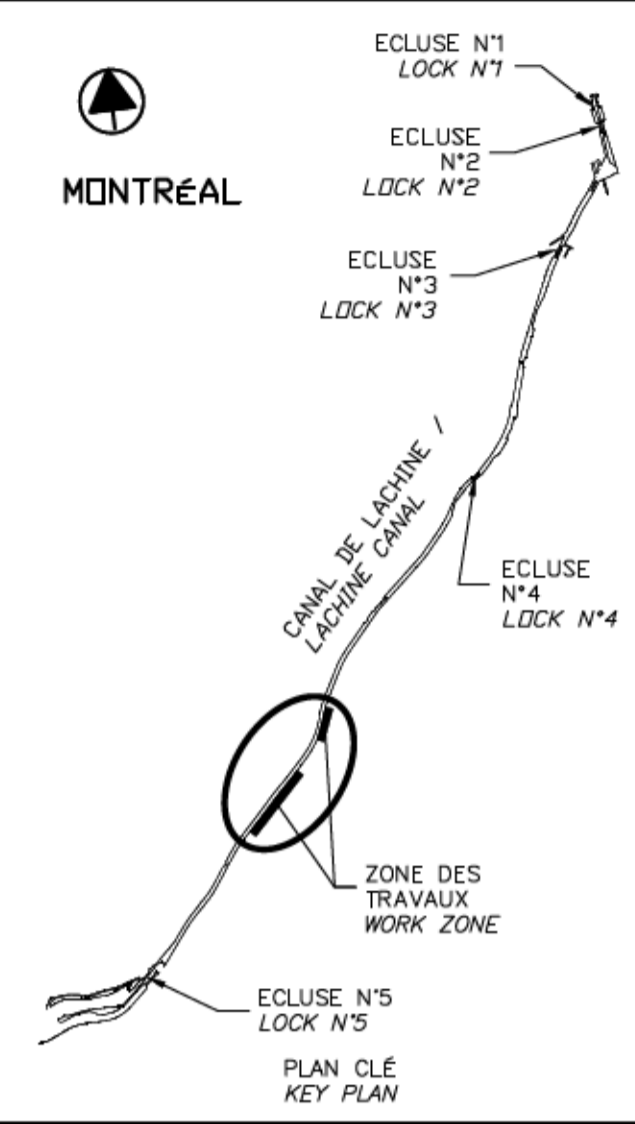
- 24 ARPENTAGE
- 24A ARPENTAGE
- 25 NIVEAUX D'EAU ET TIRANTS D'AIR
- 26 INVENTAIRE DES ARBRES
- 27 RELEVÉ 3D - 1/3
- 28 RELEVÉ 3D - 2/3
- 29 RELEVÉ 3D - 3/3
- 30 BATHYMETRIE - 1/3
- 31 BATHYMETRIE - 2/3
- 32 BATHYMETRIE - 3/3

DRAWING LIST:

- 01 FRONT PAGE
- 02 GENERAL NOTES
- 03 LEGEND AND KEY PLAN
- 04 LOCATION PLAN FOR THE DIFFERENT INTERVENTIONS REACH 4
- 05 REACH 4 - PICTURES AND ENLARGED PLAN VIEW 1/2
- 06 REACH 4 - PICTURES AND ENLARGED PLAN VIEW 2/2
- 07 EXISTING STAIR AND WALL TO DEMOLISH
- 08 ORTHOPHOTO
- 09 TABLES
- 10 TYPE 2 REPAIR - DEMOLITION
- 11 TYPE 2 REPAIR - CONSTRUCTION
- 12 TYPE 2A REPAIR - DEMOLITION
- 13 TYPE 2A REPAIR - CONSTRUCTION
- 14 TYPICAL DETAILS - COLLAPSED CROWNING
- 15 TYPICAL DETAILS - CONDUIT AND JOINT
- 16 TYPICAL DETAILS - STAIR REPAIR
- 17 TYPICAL DETAILS - DRAIN
- 18 TYPICAL DETAILS - DRAIN PROTECTION AND BOLLARD
- 19 TYPICAL DETAILS - KEY AND BOLLARD
- 20 TYPICAL DETAILS - GRAB BAR
- 21 TYPICAL DETAILS - TRANSITION AND CONTROL JOINT
- 22 SECTIONS SHOWING THE RAILROAD - DEMOLITION
- 23 SECTIONS SHOWING THE RAILROAD - CONSTRUCTION

ANNEX

- 24 SURVEY
- 24A SURVEY
- 25 WATER LEVEL AND VERTICAL CLEARANCES
- 26 INVENTORY OF TREES
- 27 3D SURVEY - 1/3
- 28 3D SURVEY - 2/3
- 29 3D SURVEY - 3/3
- 30 BATHYMETRY - 1/3
- 31 BATHYMETRY - 2/3
- 32 BATHYMETRY - 3/3



SCEAUX SEALS

02	EMIS POUR ADDENDA #2 ISSUED FOR ADDENDUM #2	2017-07-10
01	EMIS POUR ADDENDA #1 ISSUED FOR ADDENDUM #1	2017-06-29
00	EMIS POUR SOUMISSION ISSUED FOR SUBMISSION	2017-06-09
révisions		date

PARCS CANADA
PARKS CANADA
RÉPARATION ET REMPLACEMENT DE MURS DE COURONNEMENT (SECTEURS I.8 ET I.9 - BASSIN No 4)
REPAIR AND REPLACEMENT OF THE CROWNING WALLS (AREAS I.8 AND I.9 - REACH No 4)

STRUCTURE
STRUCTURE
PAGE FRONTISPICE
FRONT PAGE

Conçu par Martin Champagne, ing.	2017-06-09	Designed by Date
Dessiné par Caroline Plouffe, Gabriel Blanchette	2017-06-09	Drawn by Date
Approuvé par Jérôme Aubin, ing.	2017-06-09	Approved by Date
Soumission Dominic Pierre, ing. Administrateur de projets APC	2017	Tender 2017 PCA Project Manager
No de projet 1455-05	Project number 1455-05	No de contrat Contract number
Nom du fichier CLAC-(1455-05)	File name CLAC-(1455-05)	No de classement File no
No de plan ou dessin CL-32-121.01	File name CL-32-121.01	No feuillet Drawing no 01/33

CANAL DE LACHINE
LACHINE CANAL

RÉPARATION ET REMPLACEMENT DE MURS DE COURONNEMENT (SECTEURS I.8 ET I.9 - BASSIN No 4)

REPAIR AND REPLACEMENT OF THE CROWNING WALLS (AREAS I.8 AND I.9 - REACH No 4)

CE DOCUMENT NE DOIT PAS ÊTRE UTILISÉ À DES FINS DE CONSTRUCTION

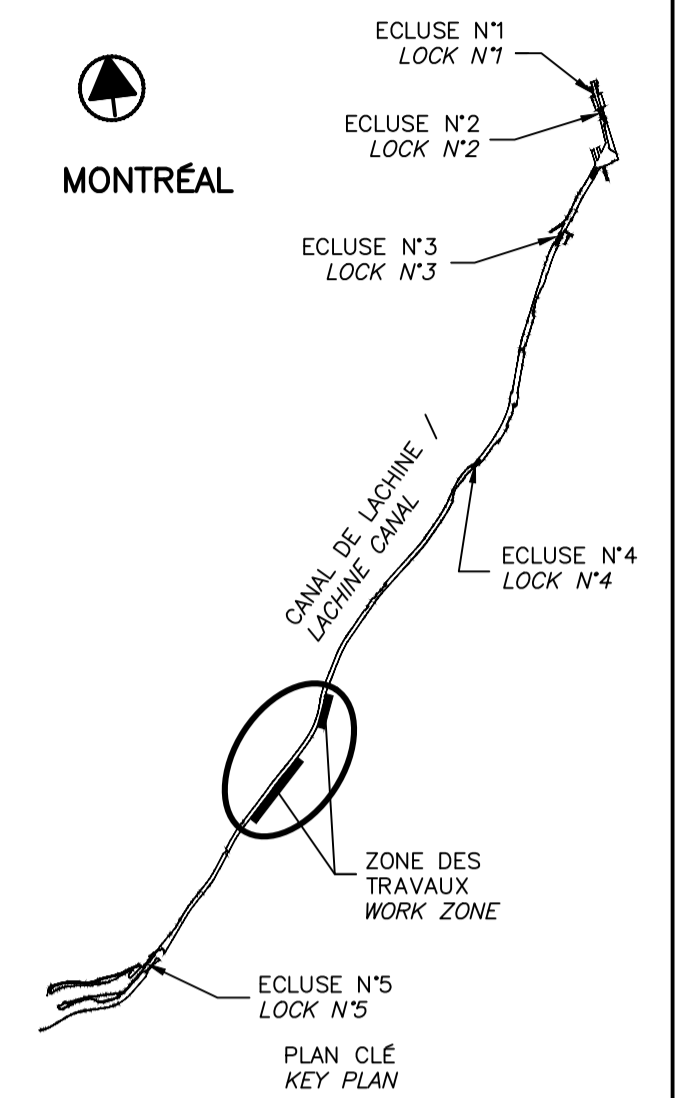
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SOUS-SECTION SUB-SECTION	ITEMS SPÉCIFIQUES SPECIFIC ITEMS	SOUS-SECTION SUB-SECTION	ITEMS SPÉCIFIQUES SPECIFIC ITEMS	SOUS-SECTION SUB-SECTION	ITEMS SPÉCIFIQUES SPECIFIC ITEMS
B4-S-20-D	1 X ⊕, 2 X ■, 1 X ☒	B4-S-28-B		B4-S-31-B	3 X ⊕, 1 X ●, 1 X ▲
B4-S-21-A	2 X ⊕, 1 X ■, 1 X ●	B4-S-28-C	4 X ⊕, 1 X ●	B4-S-31-C	3 X ⊕, 1 X ☒
B4-S-21-B	4 X ⊕, 1 X ☒	B4-S-28-D	3 X ⊕, 1 X ●, 1 X ☒	B4-S-31-D	1 X ⊕
B4-S-21-C	1 X ●	B4-S-29-A	3 X ⊕	B4-S-32-A	4 X ⊕, 1 X ●
B4-S-21-D	2 X ⊕, 1 X ☒, 1 X ●	B4-S-29-B	3 X ⊕, 1 X ●	B4-S-32-B	3 X ⊕, 1 X ●, 1 X ▲
B4-S-22-A	3 X ⊕	B4-S-29-C	3 X ⊕, 1 X ■, 1 X ☒	B4-S-32-C	3 X ⊕
B4-S-22-B	2 X ⊕, 1 X ●	B4-S-29-D	3 X ⊕, 1 X ●	B4-S-32-D	1 X ⊕, 1 X ☒, 1 X ■
B4-S-26-B	4 X ⊕, 1 X ☒, 1 X ●	B4-S-30-A	4 X ⊕, 1 X ●		
B4-S-26-C	2 X ⊕	B4-S-30-B	3 X ⊕		
B4-S-26-D	3 X ⊕, 1 X ●	B4-S-30-C	3 X ⊕, 1 X ●, 2 X ☒		
B4-S-27-A	2 X ⊕, 1 X ▲, 1 X ●, 1 X ☒ 2 X ☒	B4-S-30-D	3 X ⊕, 1 X ●		
		B4-S-31-A	3 X ⊕, 1 X ☒, 2 X —E—		

LÉGENDE / LEGEND:

- xx.xxx ÉLÉVATION DU DESSUS DE MUR EN MÈTRE (m)
ELEVATION OF TOP OF WALL IN METER (m)
 - BOLLARD EXISTANT
EXISTING BOLLARD
 - ▲ CONDUITE EXISTANTE
EXISTING OUTLET
 - DRAIN EXISTANT
EXISTING DRAIN
 - ⊕ * ÉCHELONS EXISTANTS
EXISTING GRAB BAR
 - ==== CHEMIN DE FER
RAILROAD TRACK
 - ⊙ ARBRE
TREE
 - GARDE-CORPS EXISTANT
EXISTING RAILING
 - ⊞ ESCALIER EXISTANT
EXISTING STAIR
 - ☒ DRAIN COLMATÉ
SEALED DRAIN
 - E— CÂBLE ÉLECTRIQUE
ELECTRIC CABLE
- * LE NOMBRE DE RANG PAR ÉCHELLON EST ÉGAL À CINQ RANGS (QUATRE RANGS SUR LA FACE APPARENTE ET UN SUR LE DESSUS)
THE NUMBER OF RANKS PER GRAB BAR IS EQUAL AT FIVE (FOUR RANKS ON THE RELATIVE FACE AND ONE ON THE TOP)

TABLEAU DES ITEMS SPÉCIFIQUES
TABLE OF SPECIFIC ITEMS
 NON À L'ÉCHELLE
 NOT TO SCALE



SCEAUX SEALS

SOUS-SECTION SUB-SECTION	LONGUEUR LENGTH	SOUS-SECTION SUB-SECTION	LONGUEUR LENGTH	SOUS-SECTION SUB-SECTION	LONGUEUR LENGTH	SOUS-SECTION SUB-SECTION	LONGUEUR LENGTH
	REPLACEMENT REPLACEMENT 2		REPLACEMENT REPLACEMENT 2		REPLACEMENT REPLACEMENT 2		RÉPARATION REPAIR 2A
B4-S-20-D	±30m	B4-S-28-D	±39m	B4-S-31-A	±39m	B4-S-20-D	±4m
B4-S-21-A	±38m	B4-S-29-A	±39m	B4-S-31-B	±39m	B4-S-26-B	±39m
B4-S-21-B	±39m	B4-S-29-B	±39m	B4-S-31-C	±39m	B4-S-26-C	±39m
B4-S-21-C	±39m	B4-S-29-C	±39m	B4-S-31-D	±39m	B4-S-26-B	±39m
B4-S-21-D	±39m	B4-S-29-D	±39m	B4-S-32-A	±35m	B4-S-27-A	±19m
B4-S-22-A	±39m	B4-S-30-A	±30m	B4-S-32-B	±35m	B4-S-32-C	±36m
B4-S-27-B	±23m	B4-S-30-B	±39m			B4-S-32-D	±13m
B4-S-28-B	±38m	B4-S-30-C	±39m				
B4-S-28-C	±39m	B4-S-30-D	±39m				

TABLEAU DES LONGUEURS DE REMPLACEMENT ET DE RÉPARATION
TABLE OF REPLACEMENT AND REPAIR LENGTHS
 NON À L'ÉCHELLE
 NOT TO SCALE

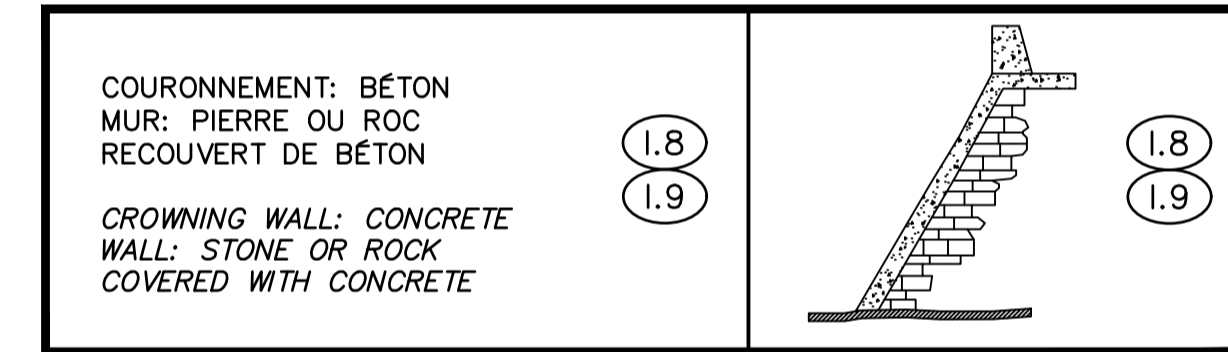


TABLEAU DES CARACTÉRISTIQUES DES MURS
TABLE OF WALLS SECTION PROPERTIES
 NON À L'ÉCHELLE
 NOT TO SCALE

- NOTES:
- PÉRIODE DE NAVIGATION: VENDREDI PRÉCÉDENT LA FÊTE DE LA REINE JUSQU'AU LUNDI DE L'ACTION DE GRÂCE
 - NIVEAU D'EAU NAVIGATION = ±19.90m
 - NIVEAU D'EAU HORS NAVIGATION = ±16.50m
 - PRÉVOIR 3 À 5 JOURS D'ABAISSEMENT ET DE REHAUSSEMENT DES EAUX ENTRE LES PÉRIODES
- 1- NAVIGATION PERIOD: PREVIOUS FRIDAY OF THE QUEEN'S DAY TO MONDAY OF THE THANKSGIVING
- 2- WATER LEVEL NAVIGATION = ±19.90m
- 3- WATER LEVEL OFF NAVIGATION = ±16.50m
- 4- PLAN 3 AT 5 DAYS FOR INCREASE OR DECREASE OF WATER LEVEL BETWEEN THE PERIODS

TABLEAU DES PÉRIODE DE NAVIGATION
TABLE OF NAVIGATION PERIOD
 NON À L'ÉCHELLE
 NOT TO SCALE

CE DOCUMENT NE DOIT PAS ÊTRE UTILISÉ À DES FINS DE CONSTRUCTION

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02	EMIS POUR ADDENDA #2 ISSUED FOR ADDENDUM #2	2017-07-10
00	EMIS POUR SOUMISSION ISSUED FOR SUBMISSION	2017-06-09
révisions revisions		date

Projet
**PARCS CANADA
 PARKS CANADA**
 RÉPARATION ET REMPLACEMENT DE MURS DE COURONNEMENT (SECTEURS 1.8 ET 1.9 - BASSIN No 4)
 REPAIR AND REPLACEMENT OF THE CROWNING WALLS (AREAS 1.8 AND 1.9 - REACH No 4)

Dessin
**STRUCTURE
 STRUCTURE**
 TABLEAUX
 TABLES

Conçu par Martin Champagne, ing.	2017-06-09	Designed by Date
Dessiné par Caroline Plouffe, Gabriel Blanchette	2017-06-09	Drawn by Date
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Soumission Dominic Pierre, ing. Administrateur de projets APC	2017	Tender PCA Project Manager
No de projet 1455-05	Project number APC	No de contrat Contract number PCA
Nom du fichier CLAC-(1455-05)	File name	No de classement File no
No de plan ou dessin CL-32-121.09	File name	No feuillet Drawing no 09/33

Canada Parks Agency
REHABILITATION LACHINE CANAL WALLS
CROWNING WALL REPAIRS AND REPLACEMENT
(SECTORS I8 & I9 – Basin N°4)
Project N° CLAC-1455-05
Addendum n° 02

Specifications

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 02 41 99- *Demolition for minor works*
- .2 Section 03 10 00 - *Concrete Forming and Accessories*
- .3 Section 03 20 00 – *Concrete Reinforcing*
- .4 Section 03 30 00 – *Cast-in-Place Concrete*
- .5 Section 03 30 03 – *Concrete Repair*
- .6 Section 05 50 00 – *Metal Fabrications*
- .7 Section 09 97 17 – *Painting Exterior Metal Surfaces*
- .8 Section 31 04 31 – *Historic Subgrade, Shoring and Bracing*
- .9 Section 31 05 16 – *Aggregate Materials*
- .10 Section 31 11 00 – *Clearing and Grubbing*
- .11 Section 31 23 33.01 – *Excavating, Trenching and Backfilling*
- .12 Section 31 32 19 – *Geotextiles*
- .13 Section 32 91 19.13 – *Topsoil Placement and Grading*
- .14 Section 32 92 19.16 – *Hydraulic Seeding*
- .15 Section 35 59 29 – *Mooring Devices*

1.2 DEFINITIONS

- .1 Navigation period: from the Friday preceding Victoria day until thanksgiving.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- .1 The Work covered by this contract includes the restoration of the Lachine Canal walls on the section(s) indicated in the Tender Form and on drawings.
 - .1 The restoration works can include one or more of the following activities, without limitation:
 - .1 Replacement or rehabilitation of crowning walls (Retaining wall) and seats;
 - .2 Any other repair details shown on drawings and proposed in the current contract,
 - .3 Perform a detailed list of walls to be repaired or replaced. Validate precise dimensions, and profiles of walls subject to the current contract. Perform all required survey.
 - .4 Provide detailed shop drawings, showing existing profiles of wall that must be repaired or replaced in addition to final profiles, for the

- Departmental Representative's approval. Submitted profiles must be consistent with existing profiles.
- .5 Note all existing drains, pipes, scales, bollards and railings in the work zone and locate them in the shop drawings. These items must be reinstalled or conserved as existing.
 - .6 The Contractor is responsible for providing appropriate platforms and temporary supports, required to undertake work shown on the plans, specifications, and tender form. No additional fees will be allotted to the contractor if he must modify his access system during work.
 - .7 Provide and install confinement chambers to allow concrete pouring in winter conditions,
 - .8 The Contractor is responsible to provide, at his own expenses, all required shelters, and heating systems, to be able to perform work in winter conditions.
 - .9 The Departmental Representative will film certain stages of work. By bidding on this contract, the Contractor is aware of this circumstance and can in no case oppose the films being recorded during the execution of work.
 - .10 Perform landscaping work.
 - .11 A navigation corridor will have to be put in place on the encroachment line in the canal (ref plan 8#24) Contractor must install navigation buoy at the end of each work zone and an additional one in the middle. The navigation buoys must be all green on the port (left) side when moving upstream direction and red on the starboard (right) side when moving upstream direction. In addition to the navigation buoys, security buoys (yellow) must be put in place to maintain a cable up flow. Installation of buoys must be in accordance with Transport Canada regulation.**
- .2 All construction, demolition, and related temporary work, must be performed in accordance with standards, including the security code for construction S-2.1, r.6, CSA S350 and other applicable safety regulations put in place by the owner.
 - .3 The Contractor must provide all required labour, materials, and equipment to perform work shown in the drawings.
 - .4 Perform demolition work as shown on the drawings. The section shown in the drawings specify either additional demolition, removal of loose concrete or cleaning cavities.
 - .5 In zones affected by the demolition works, the contractor assumes all responsibilities in regards to the protection against dust, the danger of demolition, and others.
 - .6 Provide, for verification purposes, the drawings, graphics, and details indicating the dismantling order of the work, shoring parts, and temporary work.
 - .7 All temporary work drawings must be certified by a competent engineer, recognized in the province of Quebec.

- .8 Take all necessary precautions to prevent any movement or collapse of structures that must be conserved to avoid any damage. Provide and install all parts required for shoring and reinforcement. Perform all necessary remedial work as required. Put in place all necessary precautions to ensure the safety of workers throughout the work.
- .9 Anchors must be installed in accordance with the recommendation of the Departmental Representative in the presence of his authorised representative.
- .10 The Contractor must coordinate his work in accordance with the existing dimensions and profiles, and must provide profiles adapted to the existing ones for the Departmental Representative's approval. The Contractor must provide shop drawings showing final profiles and variants for comment.

1.4 Marking required for any encroachment in the canal during the navigation period.CONTRACT METHOD

- .1 Construction work is under lump-sum contract and unit price contract, in accordance with the articles presented in the Tender Form.

1.5 WORK BY OTHERS

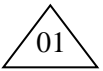
- .1 Not used.

1.6 FUTURE WORK

- .1 Not used.

1.7 WORK SEQUENCE

.1 Deadlines



- .1 The works under this contract including planning of banks, lands and paths used by the contractor must be completed 22 weeks after the receipt of the award letter. **Construction holidays, from July 23, 2017 to August 5, 2017, are excluded from the work duration.**
- .2 The final demobilization must be completed ten (10) opening day after the acceptance by the owner of the declaration of substantial completion of works.
- .3 All other activities must be completed within the deadlines.
- .4 The normal water level in the Canal will be lowered between October 18th, 2017 to December 17th, 2017 inclusively. The water level in the Canal will be raised on December 17th, 2017 and this date cannot be changed in any circumstances.

.2 Scheduling

.1 Construction Facilities

- .1 At the kick-off meeting, the Contractor must submit the Construction Facilities Layout Plan to the Departmental Representative for approval.
 - .1 In the five (5) days following of submittal of the layout plan, the Departmental Representative shall return a reviewed copy of the plan, along with any comments to the Contractor.

- .2 Within five (5) days following the acceptance of the Construction Facilities Layout Plan, the Contractor shall have completed the installation of the construction trailers.
- .2 Restoration of the Lachine Canal Walls
 - .1 At the kick-off meeting, the Contractor must submit to the Departmental Representative the Work Sequence for the wall restoration with a justification for each phase of the works.
 - .1 The Work Sequence for the wall restoration shall be prepared by prioritizing certain work to allow the execution of other work, in favour of the execution time.
 - .2 In the five (5) days following the submittal of the Work Sequence for the restoration work, the Departmental Representative shall return to the Contractor, a reviewed copy of the document, along with any comments.
 - .2 At the kick-off meeting, the Contractor must submit to the Departmental Representative the Construction Schedule, considering the information contained in the Work Sequence.
 - .1 Prepare the Construction Schedule in accordance with the timeframes specified in the present specifications section and in the Tender Form.
 - .2 In the five (5) days following the submittal of the Construction Schedule, the Departmental Representative shall return to the Contractor a reviewed copy of the schedule, along with any comments.
 - .3 Perform all repair works in accordance with the Work Sequence and the Construction Schedule approved by the Departmental Representative.
 - .4 At the kick-off meeting, submit to the Departmental Representative the Temporary Signage drawings for traffic management during the execution of the wall restoration work.
 - .1 In the five (5) days following the submittal of the Temporary Signage drawings for traffic management, the Departmental Representative shall return to the Contractor a reviewed copy of the drawings, along with any comments.
 - .2 Within five (5) days following the acceptance of Temporary Signage drawings, the Contractor shall have completed the installation of these drawings on the site.
 - .5 At the kick-off meeting, submit to the Departmental Representative the shop drawings of the Temporary Access System for the execution of the wall restoration works.
 - .1 In the five (5) days following the submittal of the Temporary Access System shop drawings, the Departmental Representative shall return to the Contractor a reviewed copy of the drawings, along with any comments.
 - .2 Immediately after having received the acceptance of the Temporary Access System shop drawings, and once the

temporary signage has been installed and approved by the Departmental Representative, the Contractor shall implement the Temporary Access System on the site.

- .6 In the seven (7) days following the kick-off meeting, submit to the Departmental Representative the shop drawings required for the execution of the wall restoration works.
 - .1 In the five (5) days following the submittal of the shop drawings, the Departmental Representative shall return to the Contractor a reviewed copy of the drawings, along with any comments.
 - .2 Within five (5) days following the acceptance of the shop drawings, the Contractor shall deliver the necessary materials to the site.

1.8 INSTRUCTIONS TO THE CONTRACTOR

- .1 By accepting this Contract, the Contractor accepts all the responsibilities normally assigned to the Prime Contractor under the workplace health and safety regulations. Before starting the works, the Contractor must perform the following activities:
 - .1 Submit to the Departmental Representative a Health and Safety Plan and a mechanical inspection certificate for each piece of machinery used on site.
 - .2 Ensure that workers on the site have received the training and information required to perform the work safely and that all required tools and protective equipment are available, in compliance with all standards, laws, and regulations.
 - .3 Comply at all times with the provisions of the occupational health and safety regulations and safety codes.
 - .4 Inform your employees of their right to refuse any work that is dangerous to their health or safety.
 - .5 Identify and barricade the work area and control access to the site.
 - .6 In the case of an unforeseen incident, take all necessary measures, including stopping work, to protect the health and safety of the workers and the public, and immediately contact the Departmental Representative.
- .2 Execute the work to provide for continuous public usage. Maintain access to the public places as long as an alternative has not been developed when the progress of the works is an impediment to the free movement of the public.

1.9 CONTRACTOR USE OF PREMISES

- .1 The work area can be used continuously until substantial completion. The construction sites are restricted to the areas mentioned on the plans.
- .2 The use of the premises is restricted to the areas necessary for the execution of the work and those areas made available to the Contractor for the installation of the Construction Facilities and for the storage of the equipment and materials required for the works. The Contractor shall allow access to these areas outside the work zones to the PCA to allow:
 - .1 Maintenance of equipment;
 - .2 Partial Owner occupancy, if required;

- .3 Work by other contractors.
- .3 Coordinate use of premises under direction of the Departmental Representative.
- .4 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.
- .5 Remove or alter existing work to prevent injury or damage to portions of existing work which remain.
- .6 Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as directed by the Departmental Representative.
- .7 The Contractor cannot use existing structures for the execution of his work. He shall take the necessary precautions to protect existing structures and shall assume complete responsibility of any claims resulting in the damages that are attributed to him. An authorization from the Departmental Representative is necessary before any installation (fixations etc.) on an existing structure. Upon completion of the work, the existing structure must be in an equivalent or superior state than it was at the beginning of the work.
- .8 Navigation for construction purpose must be restrained to the encroachment specify on plan 8. If the contractors need to use the canal for occasional transport purposes, a specific request and procedure of implementation will need to be address for approval. All transport request within the canal need to respect Transport Canada norms.**
- .9 Railroad: The presence of railroad flagman is not required to the railway between sections B4-S-32 and B4-S-34. In no case must the track be occupied. Train passes are made as the railway is functional. The railway belongs to the CP.**
- .10 Organization of work: The location of the construction site offices must be provided within the work area and outside the railway track.**

01

02

1.10 OWNER OCCUPANCY

- .1 The Owner will occupy the premises (outside the work zones) during the entire construction period for execution of normal operations.
- .2 Co-operate with Owner in scheduling operations to minimize conflict and to facilitate Owner usage.

1.11 PARTIAL OWNER OCCUPANCY

- .1 Schedule and substantially complete designated portions of Work for Owner's occupancy prior to Substantial Performance of entire Work.
- .2 Execute Certificate of Substantial Performance for each designated portion of Work prior to Owner occupancy. The Contractor must allow access to the premises to the Owner at all times.
- .3 On occupancy, Owner will provide for occupied areas:
 - .1 Maintenance.
 - .2 Security.

- .4 Execute Partial Interim Certificate of Completion for each designated portion of Work prior to partial Owner occupancy. Following, allow access to the premises to the Owner.

1.12 PRE-PURCHASED EQUIPMENT

- .1 Not used.

1.13 OWNER FURNISHED ITEMS

- .1 Not used.

1.14 ALTERATIONS, ADDITIONS, OR REPAIRS TO EXISTING BUILDING

- .1 Not used.

1.15 EXISTING SERVICES

- .1 Submit schedule to and obtain approval from the Departmental Representative at least seven (7) days in advance for any shut-down or closure of active services or facilities including power and communications services. Adhere to approved schedule and provide notice to affected parties.
- .2 Establish location and extent of service lines in area of work before starting Work. Notify Departmental Representative of findings.

1.16 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy each document as follows:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Reviewed Shop Drawings.
 - .5 List of Outstanding Shop Drawings.
 - .6 Change Orders.
 - .7 Other Modifications to Contract.
 - .8 Field Test Reports.
 - .9 Copy of Approved Work Schedule.
 - .10 Health and Safety Plan and Other Safety Related Documents.
 - .11 Other documents as specified.

Part 2 Products

2.1 Specialized supply

- .1 Probe for measuring water level
 - Submit required data sheets and manufacturer's specifications and documentation for the product. Provide a model with the following spectra:
 - .1 Telemetry system;

- .2 Modem GMS;
 - .3 Batch of electric al material (Connectors, clip, etc.);
 - .4 Software STS 9100;
 - .5 Levelogger edge of reading 20M;
 - .6 Nul-modem cable;
 - .7 Sensor STS connection casing ;
 - .8 12 volt battery, direct charger to plug in 120V outlet;
 - .9 Barologger edge of reading 10M.
- .2 Installation: Provide and install a probe to measure the water level of the Lachine Canal at the location indicated by the Supervisor. The probe will be at the Gauron Lafleur bridge.
- .3 Payment: The probe is payable in accordance with section 01 29 00 - Payment to item 4.1

Part 3 Execution

3.1 NOT USED

- .1 Not used.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Not used.

Part 2 Explanation of the Bid Form prices

2.1 Item 1. – Government Representative Site Office, Environment, and General Items

.1 Item 1.1 – Construction Facilities

- .1 Payment item 1.1 of the *Schedule of Prices* is a fixed lump sum amount to compensate all necessary expenses incurred in the execution of the works as well as any other expenses not included in the other *Schedule of Prices* items, in accordance with the requirements of the specifications.

- .2 The amount includes, but is not limited to, the following:

- .1 All that is described in Section 01 52 00, *Construction Facilities*, such as:

.1 Electricity, water, and lighting on site.

.2 Construction site offices; Furnishings, telephone and related services (internet, pagers, fax, etc.), microwave and small refrigerator (9 cubic feet minimum), cold and hot water dispenser, including drinking water, heating and air conditioning of the site offices.

.3 Access roads including the necessary deforestation, clearing-up, removal of scrub, vines, dead wood, trees and shrub whose trunk diameter is less than 50 mm (measured from the diameter at chest height), **removal of all scrub at the junction of the crowning walls and seat**, the removal of fences and vines on the edge of the crowning wall, sanitary facilities, site fencing, warehouse, scaffolding, site signs and maintenance, in accordance with the requirements of the specifications and drawings, and as directed by the Government Representative.

.4 The required coordination with the City of Montreal and other stakeholders, including obtaining all necessary permits to carry out the work.

.5 The maintenance of the worksite and of its access routes.

.6 All that is required in the following sections and is not directly attributed or related to one of the other items of the Bid Form:

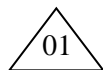
Section 01 11 00 Summary of Work

Section 01 31 19 Project Meetings

Section 01 32 16.07 Construction Progress Schedule

Section 01 33 00 Submittal Procedures

Section 01 35 29.06 Health and Safety Requirements



- Section 01 52 00 Construction Facilities
- Section 01 52 00 Construction Facilities
- Section 01 56 00 Temporary Barriers and Enclosures
- Section 01 73 00 Execution
- Section 01 74 11 Cleaning
- Section 01 74 21 Construction/Demolition Waste Management and Disposal
- Section 01 77 00 Closeout Procedures
- Section 07 78 00 Closeout Submittals
- .7 All costs associated with surveying and staking the works and all other site take-offs and measurements that are not allocated to any of the other items of the *Schedule of Prices* .
- .8 The costs of providing a security guard or other means of supervision for the site (if required).
- .9 Rental costs of land and/or space for the storage of materials.
- .10 The protection of existing public utilities within the work site during construction. If the Contractor damages these installations during his work, he must replace them at his expense.
- .11 All fees pertaining to the supply of water and electricity for the duration of the work.
- .12 Expenses for all means taken to minimize damage to earthworks, trees, shrubs, paving, bed of the river and its banks, etc.
- .13 The rehabilitation of the premises:
 - .1 All work to restore the temporary sites used (access road, storage area, etc.) to their natural state;
 - .2 All work to restore street furniture (benches, tables, garbage cans, etc.) to their original condition;
 - .3 All work to restore vegetation by grassing of sites damaged by work;
 - .4 All work permitting the repair of all other damages and damages that the Contractor caused to the site of the works, to the public or private property affected by its works.
- .14 The Contractor shall repair all damage caused in the performance of its work to the satisfaction of the Owners concerned and that of the Government Representative. The work site must be returned in a similar or better condition to that existing before the work begins.
- .3 A portion equal to 20 % of the total amount bid for this item will be paid with the first progress claim, provided that the work has begun.
- .4 Other progress payments under this item will be paid to a percentage consistent with the general progress of work for each progress claim period except for the

- last payment which shall be paid to an amount up to 85% of the general progress of the work.
- .5 The last progress claim equivalent to 15% shall be paid with the payment emitted during the "*Substantial Performance of the Work*".
- .2 Item 1.2 – Environmental Protection Measures
- .1 Payment item 1.2 of *Schedule of Prices* is a fixed lump sum amount to compensate all necessary expenses incurred for measures to protect the environment in accordance with the requirements of the specifications.
- .2 The amount includes, but is not limited to, the following:
- .1 All that is described in Section 01 35 43, *Environmental Procedures* such as the preparation, presentation, and implementation of the environmental protection plan;
- .2 The preparation, presentation, and implementation of :
- .1 The emergency spill plan;
- .2 The construction facilities location plan location;
- .3 The work zone plans;
- .4 The air pollution prevention plan;
- .5 The contamination prevention plan;
- .6 The wastewater management plan;
- .7 The plan for the designation and protection of wetlands and historical, archaeological, cultural, and biological resources;
- .8 The preparation, presentation, and implementation of a plan to protect the historical and heritage character of the site.
- .3 Plant protection measures;
- .4 Temporary facilities for pollution prevention;
- .3 A portion equal to 20 % of the total amount bid for this item will be paid with the first progress claim, provided that the work has begun.
- .4 Other progress payments under this item will be paid to a percentage consistent with the general progress of work for each progress claim period.
- .3 Item 1.3 - Sediment Barrier
- .1 Payment item 1.3. of the *Schedule of Prices* is per linear meter (m. Lin.) for all costs incurred for the installation of sediment barrier in accordance with the requirements of the plans and specifications
- .2 Price includes, but is not limited to, the following:
- .1 The preparation, presentation, and correction, if required, of the Work Plan;
- .2 Mobilization of labor, tools and equipment required for the execution of the work;
- .3 Supply including geotextile, transportation, handling, warehousing and placing;
- .4 Servicing and maintenance of barriers for the duration of the work;

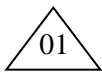
- .5 Dismantling of the sediment barrier;
 - .6 Cleaning of the premises at the end of work;
 - .7 Any incidental expense.
- .4 Item 1.4 - Turbidity curtain (confinement)
- .1 Payment item 1.4 of the *Schedule of Prices* is per linear meter (m. Lin.) for all costs incurred for the installation of a turbidity curtain in accordance with the requirements of the plans and specifications
 - .2 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation, and correction, if required, of the Work Plan and shop drawings;
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 The supply, transportation, handling, storage, and operation;
 - .4 Maintenance and retention of the curtain for the duration of the work;
 - .5 Dismantling of the curtain;
 - .6 Cleaning of premises at the end of work;
 - .7 Any incidental expense.
- .5 Item 1.5 – Deforestation of the excavation zone
- .1 Payment items 1.5.1 to 1.5.2 – Deforestation of trees with diameters superior to 200 mm (measured from the diameter at chest height)
 - .1 Payment items 1.5.1 to 1.5.2 of the *Schedule of Prices* are priced per unit for all the costs incurred for the deforestation of trees according to their dimensions, in accordance with the requirements of the plans and specifications.
 - .2 This item applies only to trees in the excavation area.
 - .3 The price includes, but is not limited to, the following:
 - .1 Preparation, presentation, and correction, if required, of the Work Plan;
 - .2 The mobilization of labour, tools, and equipment required to carry out the work;
 - .3 Supply, transport, handling, maintenance, and removal of access required for clearing works;
 - .4 The clearing of areas identified by the Government Representative;
 - .5 Loading, transporting and disposing of debris to a site in accordance with current policies;
 - .6 Cleaning at the end of the works;
 - .7 Any incidental expenses.

.6 Item 1.6 - Removal, Painting and Repositioning of Guardrails

.1 Payment item 1.6 of the *Schedule of Prices* is priced per linear meter (m. Lin.) for the removal, painting and repositioning of guardrails in accordance with the requirements of the plans and specifications.

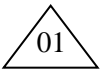
.2 Price includes, but is not limited to, the following:

- .1 The preparation, presentation, and correction, if required, of shop drawings, the painting procedure, samples, and technical data sheets required;
- .2 Mobilization of labor, tools and equipment required for the execution of the work;
- .3 Removal, transportation, handling, storage of guardrails;
- .4 The supply, handling, transport and use of materials;
- .5 All costs incurred in the surface preparations;
- .6 Painting of guardrails;
- .7 The restoration of the guardrails, including the new anchors of the same size as the existing one;
- .8 Leveling the guardrails, if necessary, with cementitious grout;
- .9 In the event of damage, immediately repair the affected items and at the Contractor's expense;
- .10 Any incidental expenses.



.3 **The guardrail must be removed, completely repainted, and put back in place. The rails are made of galvanised steel and the post are made of cast-iron. The paint does not contain lead.**

.7 Posts 1.7 - Platforms and Access System



.1 Payment item 1.7 of the *Schedule of Prices* is priced per linear meter (m. Lin.) of wall intervention for the supply, installation and removal of the access platforms and system in accordance with the requirements of plans and specifications. The unit price for the gateway item (in linear meter) includes the equivalent of the intervention length, regardless of the number of vertical displacements required. Only the equivalent of the intervention length will be paid. If the Contractor puts two platforms at two different heights on the same repair section of 1 m, only one platform of 1 m will be paid and not 2 m.

.2 Price includes, but is not limited to, the following:

- .1 The preparation, presentation, and correction, if required, of shop drawings and design calculations;
- .2 Mobilization of labor, tools and equipment required for the execution of the work;
- .3 The supply, transport, handling, installation, maintenance and removal of platforms and access systems;
- .4 Any incidental expenses.

2.2 Item 2. – Replacement of the Crowning Walls

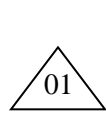
- .1 Item 2.1 – Excavations (2nd Class Excavated Material)
 - .1 Payment item 2.1 of the *Schedule of Prices* is priced per cubic meter (m³) for excavated, stored and backfilled material. The volume shall be calculated based on a joint statement of the excavations in accordance with the requirements of the plans and specifications.
 - .2 Price includes, but is not limited to, the following:
 - .1 Mobilization of labor, tools and equipment required for the execution of the work;
 - .2 Removal of stumps and roots at least 200 mm below ground level, their scrapping and re-leveling of the land;
 - .3 Complete removal of roots in excavation areas;
 - .4 Drying and drainage of the excavation bottom;
 - .5 Excavation, loading, transport and storage of cuttings;
 - .6 Loading, transport, and installation of embankments with excavated material;
 - .7 Compaction of materials;
 - .8 Cleaning of premises;
 - .9 Any incidental expenses.
- .2 Item 2.2 – Disposal of Contaminated Soil
 - .1 Payment items 2.2.1 to 2.2.3 of the *Schedule of Prices* are priced per tonnes (t) of evacuated soil for the disposal of different types of contaminated soils, in accordance with the requirements of the specifications and drawings, and as directed by the Government Representative.
 - .2 The amount includes, but is not limited to, the following:
 - .1 Disposal of contaminated soil contaminated soils A-B, B-C,C+, as directed by the Government Representative.
 - .2 Transport off site and treatment as prescribed by Section 01 74 21 *Construction / Demolition Waste Management and Disposal*;
 - .3 Stockpiling and off-site disposal
 - .4 Clean-up;
 - .5 Any incidental expenses.
- .3 Items 2.3, –Demolition and/or removal of collapsed walls
 - .1 The line item 2.3 of the *Schedule of Prices* are priced per cubic meter (m³) of concrete demolished, in accordance with the requirements of the specifications and drawings, and as directed by the Government Representative.
 - .2 The amount includes, but is not limited to, the following:
 - .1 Preparation, presentation, and correction, if required, of the Work Plan regarding the demolition of the wall;
 - .2 The mobilization of labour, tools, and equipment required to carry out the work;

- .3 All required saw cuts;
 - .4 The demolition of defective and sound concrete as directed by the Government Representative;
 - .5 Cleaning and surface preparation,
 - .6 Cleaning the reinforcing steel to be retained;
 - .7 Cleaning of the concrete substrate;
 - .8 The collection and treatment of demolition materials as prescribed by Section 01 74 21 *Construction / Demolition Waste Management and Disposal*;
 - .9 Any incidental expenses.
- .4 Item 2.4 - Galvanized reinforcement
- .1 The price to the payment item 2.4, of the *Schedule of Prices* is priced per kilogram (kg) of steel according to the quantities placed in the formwork, in accordance with the requirements of the drawings and specifications.
 - .2 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation and correction, if required, of the Work Plan for the Installation of Steel Bars;
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 The preparation, presentation, and correction, if required, of the shop drawings and the slip of the frames;
 - .4 The supply of reinforcing bars and the shaping thereof,
 - .5 Galvanization where stipulated in the plans and specifications;
 - .6 Installation of reinforcing steel required;
 - .7 Any incidental expenses.
- .5 Items 2.5 - Chemical anchorage
- .1 The price to the payment item 2.5 of the Schedule of Prices is priced per unit of chemical anchor, in accordance with the requirements of the plans and specifications.
 - .2 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation, and correction, if required, of shop drawings and anchor chemical technical sheet;
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 Drilling and cleaning of holes for the installation of chemical anchors;
 - .4 The supply, handling, transport and installation of steel anchor rods and anchor chemicals;
 - .5 The execution of tests on control anchorages, in accordance with Section 03 30 03;
 - .6 Any incidental expenses.

- .3 The following items are excluded from this item:
 - .1 Anchors, used to replace the formwork tie-rods, used to hold the formwork in place, and which are required for placing concrete on existing concrete, are not covered by any item in the slip. All costs incurred by the Contractor for the construction of these works are included in the price of the formwork;

- .6 Positions 2.6 – Cast-in-Place Concrete
 - .1 The price in item 2.6 of the Schedule of Prices is priced per cubic meter (m³) of wall concrete, the quantities shall be calculated according to the theoretical dimensions in accordance with the requirements of the plans and specifications.
 - .2 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation, and correction, if required, of shop drawings, the concreting procedure, the descriptions of the mixtures and the technical data sheets required;
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 Supply, installation and dismantling of formwork;
 - .4 Supply and installation of chamfers;
 - .5 The supply and application of mold release agent;
 - .6 Supply and installation of formwork ties;
 - .7 The supply and application of repair mortar to the location of the formwork ties;
 - .8 The anchors, used to replace the formwork tie-rods, used to hold the formwork in place and required for the placement of concrete on existing concrete.
 - .9 Supply and installation of steel wire;
 - .10 The supply, transport, handling and placing of the drain 150 mm x 150 mm;
 - .11 The supply, transport, handling and placing of the steel components incorporated in the concrete, as shown in the drawings;
 - .12 Treatment of substrate before concreting;
 - .13 Supply, installation, vibration, finishing, wet curing of concrete;
 - .14 The execution of the saw-strokes shown in the drawings;
 - .15 Cleaning of concrete surfaces adjacent to the concreting area;
 - .16 At the end of the work, off-site evacuation of the formwork materials and correction of defective repairs;
 - .17 Concrete Finishing
 - .18 Treatment of surplus materials in accordance with Section 01 74 21, *Construction / Demolition Waste Management and Disposal*;
 - .19 Any incidental expenses.

- .7 Position 2.7 - Bollards
- .1 The price at item 2.7 of the Schedule of Prices is unit priced for the removal, painting and replacing of the bollards in accordance with the requirements of the drawings and specifications.
 - .2 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation, and correction, if required, of shop drawings, the painting procedure, samples and technical data sheets required;
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 Removal, transportation, handling, storage of bollards;
 - .4 The supply, handling, transport and use of materials;
 - .5 All costs incurred in the preparation of surfaces;
 - .6 Painting of the bollards
 - .7 Repositioning bollards, including new anchors of the same size as the existing one;
 - .8 In the event of damage, immediately repair the affected items and at the Contractor's expense;
 - .9 All costs related to the work in section 35 59 29 - Mooring equipment;
 - .10 Any incidental expenses.
- .8 Posts 2.8 - Rungs
- .1 The price at item 2.8 of the Schedule of Prices is unit priced for the establishment of a series of steps in accordance with the requirements of the plans and specifications.
 - .2 The unit rungs include steps similar to the existing conditions. The sets of steps are composed with holes for the feet and galvanized reinforced steel in front and on top of the walls as described on the plans. The price also includes the support to hold the bars.
 - .3 The existing conditions is composed of four ranks on the front face and one on the top. In case of variation, the rungs will be paid proportionally.
 - .4 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation, and correction, if required, of shop drawings, samples, and technical data sheets;
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 The supply, transport, handling and setting of the echelons, such as the existing ones;
 - .4 Any incidental expenses.
- .9 Item 2.9- Type 1 borrowing materials, MG-20
- .1 The price at item 2.9 of the Schedule of Prices is priced per tonne (t) for the borrowed materials in accordance with the requirements of the plans and specifications.



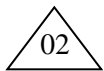
- .2 Price includes, but is not limited to, the following:
 - .1 This item covers materials that replace materials deemed unsuitable by the Government Representative.
 - .2 Transportation of loan materials to the site.
 - .3 Purchase and installation of borrowed materials in accordance with the plans, specifications, and instructions of the Government Representative.
 - .4 Compaction;
 - .5 Cleaning of premises;
 - .6 Any incidental expenses.
- .10 Item 2.10 - Concrete for support pad (Concrete 1 MPa)
 - .1 The price at item 2.10 of the Schedule of Prices is priced per cubic meter (m³) for the backfill concrete in accordance with the requirements of the plans and specifications and the instructions of the Government Representative.
 - .2 **The concrete for the slab need to have a minimum resistance of 1 Mpa. There is no specific type for this type of mix. For implementation purpose the mix should be able**
 - .3 to be put in place by a concrete pump truck Price includes, but is not limited to, the following:
 - .1 The preparation, presentation, and correction, if required, of shop drawings, the concreting procedure, the descriptions of the mixtures and the technical data sheets required;
 - .2 Supply, installation and dismantling of formwork;
 - .3 Carrying concrete for the support pad to the site.
 - .4 Purchase and installation of support pad per plans and specifications.
 - .5 Treatment of surplus materials in accordance with Section 01 74 21, *Construction / Demolition Waste Management and Disposal*
 - .6 Cleaning of premises;
 - .7 Any incidental expenses.
- .11 Item 2.11 - Perforated drain 200 mm and geotextile, PVC (type 1) or PVC COEX (type 1) or PE (type 2), 180 kPa min.
 - .1 The price at item 2.11 of the Schedule of Prices is priced per linear meter (m. Lin.) for the perforated drain in accordance with the requirements of the plans and specifications.
 - .2 **The drainage system to be place behind the wall must be 200mm.**
 - .3 Price includes, but is not limited to, the following:
 - .1 The supply of materials, the installation of drains including the installation of the geotextile, the preparation of the foundation, the clear stone support cushion, the connection of the elements and all accessories required for the installation Such as joints between the various sections;
 - .2 Cleaning of premises;
 - .3 Any incidental expenses.

.12 Item 2.12- Topsoil

- .1 The price at item 2.12 of the Schedule of Prices is priced per square meter (m²), based on the area covered in accordance with the requirements of the plans and specifications.
- .2 Price includes, but is not limited to, the following:
 - .1 Stripping, loading, transport and storage of topsoil;
 - .2 The supply of the material, loading, transport, spreading, leveling, stripping, removal of woody debris and waste, and any amendments necessary to make the material conform to plans and specifications;
 - .3 The preparation of the ground for the placement of the topsoil;
 - .4 Loading, transport and use of topsoil;
 - .5 Any incidental expenses.

.13 Item 2.13 - Hydraulic Seeding

- .1 The price at item 2.13 of the Schedule of Prices is priced per square meter (m²) for hydraulic seeding and shall be used to measure the maintenance of the seeded area during the guarantee period in square meters in accordance with the requirements of the plans and specifications.
- .2 Measure hydraulic seeding in square meters of seeded area for each mix.
- .3 Price includes, but is not limited to, the following:
 - .1 The supply, implementation of materials in accordance with the plans and directives of the Government Representative;
 - .2 Recovery of sodding of portions of covered surfaces by less than 75% shoot height 150 mm
 - .3 Areas where the mixture will be incorporated into the existing lawn will not be considered for payment purposes.
 - .4 Cleaning of premises;
 - .5 First lawn moving;**
 - .6 Any incidental expense
- .4 It is noted that only the area above the excavated trench is included in this payment item. Costs related to all other areas damaged by the work are considered miscellaneous and are included in the reclamation price.



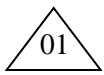
.14 Posts 2.14 - Geotextile

- .1 The price at item 2.14 of the Schedule of Prices is priced per square meter (m²) based on the actual surface area covered, without addition for overlap, for the geotextile required for the excavations, in accordance with the requirements of the plans and specifications.
- .2 Price includes, but is not limited to, the following:
 - .1 The provision of warehousing, handling, transport, laying, assembling of slicks, fixing anchorages, and the use of materials in accordance with drawings and specifications;
 - .2 Cleaning and shimming;
 - .3 Any incidental expenses.

2.3 Post 3. - Repair of the crowning wall without overlay

.1 Item 3.1 - Cast -in-Place Concrete; Type XIV-R or XIV-S (self-consolidating)

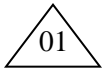
.1 The price at item 3.1 of the Schedule of Prices is priced per cubic meter (m³) of wall concrete, the quantities are calculated according to the actual quantities put in place, in accordance with the requirements of the plans and specifications.



.2 **Repairs of type 2A are repairs carried out continuously over the entire length of the sections covered by this type of repairs.**

.3 Price includes, but is not limited to, the following:

- .1 The preparation, presentation and correction, if required, of the Work Plan for the demolition of the wall;
- .2 Mobilization of labor, tools and equipment required for the execution of the work;
- .3 The demolition of defective and sound concrete, as directed by the Government Representative;
- .4 The 300 mm excavation at the back of the wall, if applicable;
- .5 Loading, transport and storage of excavated material;
- .6 Loading, transport and installation of the embankment with the excavated material;



- .7 Saw lines required;
- .8 **The demolition of the crowning wall type 2A**
- .9 Cleaning of reinforcing steel to be retained;
- .10 Cleaning and surface preparation,
- .11 Supply, installation and dismantling of formwork;
- .12 Supply and installation of chamfers;
- .13 The supply and application of mold release agent;
- .14 Supply and installation of formwork ties;
- .15 The supply, transport, handling and placing of the steel components incorporated in the concrete, as shown in the drawings;
- .16 Supply, installation, vibration, finishing, wet curing of concrete;
- .17 The collection of demolition materials, their disposal outside the building site and their treatment in accordance with the requirements of Section 01 74 21, *Construction/Demolition Waste Management and Disposal*;
- .18 Any incidental expenses.

.2 Item 3.2 - Galvanized reinforcement

.1 The price to the payment item 3.2 of the *Schedule of Prices* is priced per kilogram (kg) of steel according to the quantities placed in the formwork, in accordance with the requirements of the drawings and specifications.

.2 Price includes, but is not limited to, the following:

- .1 The preparation, presentation and correction, if required, of the Work Plan for the Installation of Steel Bars;

- .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 The preparation, presentation, and correction, if required, of the shop drawings and the slip of the frames;
 - .4 The supply of reinforcing bars and the shaping thereof,
 - .5 Galvanization where stipulated in the plans and specifications;
 - .6 Installation of reinforcing steel required;
 - .7 Any incidental expenses.
- .3 Items 3.3 - Chemical anchorage
- .1 The price to the payment item 3.3 of the Schedule of Prices is priced per unit of chemical anchor, in accordance with the requirements of the plans and specifications.
 - .2 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation, and correction, if required, of shop drawings and anchor chemical technical sheet;
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 Drilling and cleaning of holes for the installation of chemical anchors;
 - .4 The supply, handling, transport and installation of steel anchor rods and anchor chemicals;
 - .5 The execution of tests on control anchorages, in accordance with Section 03 30 03;
 - .6 Any incidental expenses.
 - .3 This item excludes the following items:
 - .1 Anchors, used to replace formwork tie-rods, which are used to hold the formwork in place and are required for the placement of concrete on existing concrete, are not covered by any item in the slip and All costs incurred by the Contractor for the construction of these works are included in the price of the formwork;
- .4 Position 3.4 - Bollards
- .1 The price at item 3.4 of the Schedule of Prices is unit priced for the removal, painting and replacing of the bollards in accordance with the requirements of the drawings and specifications.
 - .2 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation, and correction, if required, of shop drawings, the painting procedure, samples and technical data sheets required;
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 Removal, transportation, handling, storage of bollards;

- .4 The supply, handling, transport and use of materials;
- .5 All costs incurred in the preparation of surfaces;
- .6 Painting of the bollards
- .7 Repositioning bollards, including new anchors of the same size as the existing one;
- .8 In the event of damage, immediately repair the affected items and at the Contractor's expense;
- .9 All costs related to the work in section 35 59 29 - Mooring equipment;
- .10 Any incidental expenses.

.5 Posts 3.5 - Rungs

- .1 The price at item 3.5 of the Schedule of Prices is priced per unit for the establishment of a series of steps in accordance with the requirements of the plans and specifications.
- .2 The unit rungs include steps similar to the existing conditions. The sets of steps are composed with whole for the feet and galvanized reinforced steel in front and on top of the walls as described on the plans. The price also includes the support to whole the bars.
- .3 The existing conditions is composed of four ranks on the front face and one on the top. In case of variation, the rungs will be paid proportionally.
- .4 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation and correction, if required, of shop drawings, samples and technical data sheets;
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 The supply, transport, handling and installation of steps including new anchorages of the same size as the existing one;
 - .4 Any incidental expenses.

.6 Posts 3.6 – Laying Sod

- .1 The price at item 3.6 of the Schedule of Prices is priced per square meter (m²) for **laying sod** for one meter of width, measure the maintenance of areas seeded during the guarantee period in square meters, in accordance with the requirements of plans and specifications.
- .2 Price includes, but is not limited to, the following:
 - .1 The supply, implementation of materials in accordance with the plans and directives of the Government Representative;
 - .2 Recovery of sodding of portions of covered surfaces by less than 75% shoot height 150 mm
 - .3 Areas where the mixture will be incorporated into the existing lawn will not be considered for payment purposes.
 - .4 Cleaning of premises;
 - .5 **First lawn moving;**

- .6 Any incidental expense
- .3 It is noted that only the area above the excavated trench is included in this payment item. Costs related to all other areas damaged by the work are considered miscellaneous and are included in the reclamation price.

2.4 **Item 4. - Specialty Supplies**

- .1 Poste 4.1 – Probe for measuring water level
 - .1 The price at item 4.1 of the Schedule of Prices is priced per unit for the total costs incurred for the supply and installation of a probe for measuring the water level of the Lachine Canal, in accordance with the requirements of plans and specifications.
 - .2 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation and correction, if required, of shop drawings and technical data sheets of the probe model;
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 The supply, transport, handling and installation of the probe
 - .4 Any incidental expense.

2.5 **Item 5. – traffic maintenance end temporary signage**

- .1 Item 5.1- Traffic Maintenance and Temporary Signage
 - .1 The price at item 5.1 is a daily price for traffic and temporary signaling in accordance with the requirements of the plans and specifications.
 - .2 Price includes, but is not limited to, the following:
 - .1 Maintenance of traffic and temporary signaling;
 - .2 The preparation of all signaling plans. The plans must be signed by an engineer member of the “ordre des ingénieurs du Québec”;
 - .3 Mobilisation maintenance and dissembling of the temporary signaling;
 - .4 Maintenance of access to properties;
 - .5 The provision of signalers as required;
 - .6 The provision, mobilization, maintenance, replacement in the event of breakage or vandalism, the commissioning or disengagement, the displacement and demobilization of the temporary signaling required to carry out work on the entire site in accordance with the requirements of this document;
 - .7 Maintenance of signs and traffic lanes including inspections requested;
 - .8 Temporary signaling, equipment and manpower required for the complete execution of all works;
 - .9 Temporary signaling for cyclists and pedestrians;
 - .10 Temporary marking of the cycling path and rehabilitation of existing signage

- .11 The provision of all signaling personnel, including the signaling officer and the site manager, as well as the machinery and vehicles required for temporary signaling;
 - .12 Any incidental expenses.
- .2 Item 5.2 - Special Panels
- .1 The price at item 5.2 of the Schedule of Prices is priced per square meter (m²) for the conformity and installation of special panels and signs in accordance with the requirements of the drawings and specifications.
 - .2 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation and correction, if necessary, of shop drawings signed and sealed by a member engineer in good standing of the Ordre des ingénieurs du Québec;
 - .2 Obtaining all required certificates;
 - .3 The supply, shaping, transportation and handling of the materials required for the application of the special panels and signs;
 - .4 Mobilization of labor, tools and equipment required for the execution of the work;
 - .5 The provision of accessories required for the installation of panels and signs such as poles, braces, hardware;
 - .6 Implementation, maintenance, replacement in case of accident, breakage or vandalism of special panel;
 - .7 Demobilization of special panels and signs at the end of the work;
 - .8 Turning the traffic sign on or off, as often as required;
 - .9 Temporary signage required during operations;
 - .10 Any incidental expenses.

2.6 Item 6. - Provision for winter conditions - Concreting in cold weather

- .1 Item 6.1 - Temporary Shelter for Concrete Work
- .1 The price at item 6.1 of the Schedule of Prices is priced per linear meter (m. Lin.) to offset all costs incurred for the temporary shelter for concrete work in accordance with the requirements of the plans and specifications.
 - .2 Temporary shelter is payable only if it is required in writing by the Government Representative.
 - .3 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation, and correction, if required of the description of the shelter.
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 The supply, handling and transportation of the materials required to construct the shelter;
 - .4 Installation, maintenance during construction and dismantling at the end of the temporary shelter;

- .5 Heating the temporary shelter during the work;
- .6 Off-site transportation of materials;
- .7 Any incidental expenses.
- .4 The bid price is paid as follows:
 - .1 60% of the amount after assembly of the shelter to the satisfaction of the Representative of the Ministry;
 - .2 40% of the amount after the evacuation of the materials that made up the shelter, outside the building site.
- .2 Item 6.2 - Insulation (RSI 0.40 per coat)
 - .1 The price at item 6.2 of the Schedule of Prices is priced per square meter (m²) of new uncut concrete surface covered with insulation in accordance with the requirements of the plans and specifications.
 - .2 Insulation layers shall be payable only if required in writing by the Government Representative.
 - .3 Price includes, but is not limited to, the following:
 - .1 The preparation, presentation, and correction, if required of the description of the composition of the insulating layer;
 - .2 Mobilization of labor, tools and equipment required for the execution of the work;
 - .3 The supply, handling, transportation, installation, maintenance during construction, removal, and disposal of insulation layers at the end of the work;
 - .4 The cost of insulation protection of concrete required because of the correction of defective works shall be borne by the Contractor.
 - .5 Any incidental expenses.
 - .4 The bid price is paid as follows:
 - .1 60% of the amount after installation of the insulation layers requested;
 - .2 40% of the post after the removal of the insulating materials from the building site.

- .3 Item 6.3 - Heating of Concrete Components

- .1 The price at item 6.3 of the Schedule of Prices is priced per cubic meter (m³) of concrete or cement slurry installed, the components of which are heated in accordance with the requirements of the drawings and specifications.
- .2 Price includes but is not limited to:
 - .1 Heating of the mixing water (between 40 ° C and 80 ° C) used for the manufacture of the concrete;
 - .2 Heat aggregates to remove frozen pieces, snow, and ice;
 - .3 The cost of heating the concrete or grout components without the need for shrinkage because of the correction of defective work shall be borne by the Contractor;
 - .4 Any incidental expenses.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 02 41 99- *Demolition for minor works*
- .2 Section 03 10 00 - *Concrete Forming and Accessories*
- .3 Section 03 20 00 – *Concrete Reinforcing*
- .4 Section 03 30 00 – *Cast-in-Place Concrete*
- .5 Section 03 30 03 – *Concrete Repair*
- .6 Section 05 50 00 – *Metal Fabrications*
- .7 Section 09 97 17 – *Painting Exterior Metal Surfaces*
- .8 Section 31 04 31 – *Historic Subgrade, Shoring and Bracing*
- .9 Section 31 05 16 – *Aggregate Materials*
- .10 Section 31 11 00 – *Clearing and Grubbing*
- .11 Section 31 23 33.01 – *Excavating, Trenching and Backfilling*
- .12 Section 31 32 19 – *Geotextiles*
- .13 Section 32 91 19.13 – *Topsoil Placement and Grading*
- .14 Section 32 92 19.16 – *Hydraulic Seeding*
- .15 Section 35 59 29 – *Mooring Devices*

1.2 REFERENCES

- .1 Definitions:
 - .1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humans; or degrade environment aesthetically, culturally, and/or historically.
 - .2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction. Prevention of pollution and damages to the environment covers the protection of soil, water, air, biological and cultural resources; it also includes management of visual aesthetics, noise, solid, chemical, gaseous, and liquid wastes, radiant energy, radioactive materials, and other pollutants.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - *Submittal Procedures*.
- .2 Product Data:

- .1 Submit manufacturer's instructions, printed product literature, and data sheets that include product characteristics, performance criteria, physical size, finish and limitations.
- .2 Submit 2 copies of WHMIS MSDS in accordance with Section 01 35 29.06 - *Health and Safety Requirements*.
- .3 Before commencing construction activities or delivery of materials to site, submit Environmental Protection Plan for review and approval by the Government Representative. The Environmental Protection Plan must include comprehensive overview of known or potential environmental issues to be addressed during construction.
- .4 Address topics at level of detail commensurate with environmental issue and required construction tasks.
- .5 The actions included in the Environmental Protection Plan shall be presented with a level of detail that is consistent with the environmental concerns and the construction works to be performed.
- .6 Include in Environmental Protection Plan :
 - .1 Names of persons responsible for ensuring adherence to Environmental Protection Plan.
 - .2 Names and qualifications of persons responsible for manifesting hazardous waste to be removed from site.
 - .3 Names and qualifications of persons responsible for training site personnel.
 - .4 Descriptions of environmental protection personnel training program.
 - .5 Drawings showing the location of temporary excavations or site trails landscaped with backfill, materials, construction, sanitation facilities, deposits of surplus materials or contaminated materials; drawings showing the methods to be used to control runoff and to contain materials on the site.
 - .6 Traffic Control Plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather.
 - .1 Plans to include measures to minimize amount of material transported onto paved public roads by vehicles or runoff.
 - .7 Spill Control Plan to include procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
 - .8 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
 - .9 Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, are contained on project site.
 - .10 Contaminant Prevention Plan identifying potentially hazardous substances to be used on job site; intended actions to prevent introduction of such materials into air, water, or ground; and detailing provisions for compliance with Federal, Provincial, and Municipal laws and regulations for storage and handling of these materials.
 - .11 Waste Water Management Plan identifying methods and procedures for management discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, dewatering

of ground water, disinfection water, hydrostatic test water, and water used in flushing of lines.

- .12 Historical, archaeological, cultural resources biological resources and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources, and wetlands.
 - .13 If required a Pesticide treatment plan approved by the APC process.
 - .14 A plan to prevent erosion and sediment transport, indicating the measures to be implemented, including the production of reports to verify compliance with federal, provincial, and municipal laws and regulations;
 - .15 A plan of the work area, showing the activities in every part of the work area and indicating areas of restricted and prohibited use; the plan must include measures for marking the limits of the useable areas and methods of protection of the elements found within the work areas that must be preserved;
- .7 Mitigation and/or compensation measures described in Appendix must be implemented to the satisfaction of the Government Representative.

1.4 FIRES

- .1 Fires and burning of rubbish on site is not permitted.

1.5 SEDIMENT BARRIER

- .1 Establish a sediment barrier for use in an aquatic environment consisting of a membrane suspended from a float and weighted at the base by chains or other weights to isolate the rest of the body of water from the part disturbed by work in progress in an effort to prevent suspended sediments from spreading over a wider area. This curtain shall comply with the requirements of the competent authorities.
- .2 Regularly inspect the turbidity curtain in place to ensure that there is no current movement, upkeep and maintain the curtain in good condition to be effective at all times.
- .3 Remove turbidity curtain when required.
- .4 **There is no specific material for the turbidity curtain. The curtain must prevent suspended sediments from spreading over a wider area. A plan of a bathymetric survey is provided. The current of the canal is slow without waves**

1.6 BARRIER FOR EROSION AND SEDIMENT CONTROL

- .1 All work that consequently leaves a non-consolidated soil exposed (excavated, disturbed or remodeled soil, stored materials, etc.) must be accompanied by erosion and sediment control measures to avoid sediment in water environments. As the work is completed, all redesigned areas must be permanently stabilized. If a delay is required before permanent stabilization, temporary erosion and sediment control measures must remain in place until the supervisor authorizes their dismantling. Temporary measures must be removed at the end of the work.
- .2 Establishing a barrier for erosion and sediment control to prevent soil loss from storm water runoff or wind erosion or transport of this soil on adjacent properties and footpaths. Such means shall comply with the requirements of the competent authorities.

- .3 Any temporary piles of un-consolidated material, such as earth, located within 30 m of a water environment for a period of more than 24 hours, shall be protected by a sediment barrier to avoid the transport of sediments to the water environment.
- .4 Inspect the installation and maintenance until permanent vegetation is established, to ensure efficiency at all times.
- .5 Removal and timely remediation and stabilization of surfaces stirred during the work.

1.7 DRAINAGE

- .1 Provide temporary drainage and pumping required to keep excavations and site free from water.
- .2 Ensure pumped water into waterways, sewer or drainage systems is free of suspended materials.
- .3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

1.8 SITE CLEARING AND PLANT PROTECTION

- .1 Protect trees and plants on site and adjacent properties as indicated by the Government Representative.
- .2 Protect trees and shrubs adjacent to construction work, storage areas and trucking lanes, and encase with protective wood framework from grade level to height of 2 m minimum.
- .3 Restrict tree removal to areas indicated unless having received a written authorization from the Parks Canada Agency manager before beginning the work.
- .4 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage. Avoid driving and uselessly unloading or storing materials over the root zone of the protected trees.
- .5 Minimize stripping of topsoil and vegetation.

1.9 WORK ADJACENT TO WATERWAYS

- .1 The streams must remain free of debris, and scrap materials.
- .2 No debris or waste waters should be thrown into the Canal.
- .3 No borrowing material can be extracted from the bed of the Canal.
- .4 Accidentally introduced debris must be removed immediately.
- .5 Machinery moving or operating within 30m of a watercourse must use biodegradable hydraulic oil.
- .6 Construction equipment to be operated on land only.
- .7 Avoid indicated spawning beds when constructing temporary crossings of waterways.
- .8 Blasting is not allowed.

1.10 POLLUTION CONTROL

- .1 Maintain temporary erosion and pollution control features installed under this Contract.

- .2 Control emissions from equipment and plant in accordance with local authorities' emission requirements.
- .3 Prevent sandblasting and other extraneous materials from contaminating air and waterways beyond application area.
 - .1 Provide temporary enclosures during the on-site cleaning and painting of steel surfaces.
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

1.11 HISTORICAL/ARCHAEOLOGICAL CONTROL

- .1 Provide historical, archaeological, cultural resources, biological resources, and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands known to be on project site: and identifies procedures to be followed if historical archaeological, cultural resources, biological resources, and wetlands not previously known to be onsite or in area are discovered during construction.
- .2 Plan: include methods to assure protection of known or discovered resources and identify lines of communication between Contractor personnel and the Government Representative.

1.12 NOTIFICATION

- .1 The Government Representative will notify Contractor in writing of observed noncompliance with Federal, Provincial, or Municipal environmental laws or regulations, permits, and other elements of Contractor's Environmental Protection plan.
- .2 Contractor: after receipt of such notice, inform the Government Representative of proposed corrective action and take such action for approval by the Government Representative.
 - .1 Take action only after receipt of written approval by the Government Representative.
- .3 The Government Representative will issue stop order of work until satisfactory corrective action has been taken.
- .4 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.

Part 2 Products

2.1 MATERIAL

- .1 Keep the machinery in operation only during use, at the exception of extreme temperatures where the machines are in operation to prevent them from stopping.

Part 3 Execution

3.1 CLEANING

- .1 Progress Cleaning : clean in accordance with Section 01 74 11 - *Cleaning*.
 - .1 Leave Work area clean at end of each day.
- .2 Ensure that streams and storm and public sanitary sewers remain free of waste and flushed volatile materials.
- .3 Ensure public waterways, storm and sanitary sewers remain free of waste and volatile materials disposal.
- .4 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - *Cleaning*.
- .5 Waste Management : separate waste materials for reuse recycling in accordance with Section 01 74 21 - *Construction/Demolition Waste Management and Disposal*.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

END OF SECTION

Canada Parks Agency
REHABILITATION LACHINE CANAL WALLS
CROWNING WALL REPAIRS AND REPLACEMENT
(SECTORS I8 & I9 – Basin N°4)
Project N° CLAC-1455-05
Addendum n° 02

Tender form



AGENCE PARCS CANADA / CANADA PARKS AGENCY

RÉHABILITATION DE MURS DU CANAL-DE-LACHINE - REMPLACEMENT ET RÉPARATION DES MURS DE COURONNEMENT / REHABILITATION OF LACHINE CANAL WALLS-REPAIR AND REPLACEMENT OF THE CROWNING WALLS

No DE PROJET / PROJECT No : CLAC-1455-05

BORDEREAU DE SOUMISSION - révision no2/ BID FORM- 1455-05 - revision no2

**TABLEAU DES PRIX UNITAIRES : il est convenu que le tableau suivant est le tableau des prix unitaires à utiliser aux fins de contrat
TABLE OF UNIT COSTS: it is agreed that the following table is the Table of Unit Costs to be used for the purposes of this Contract**

POSTES DE PAIEMENT / PAYMENT ITEMS

N°	Description du travail / Description of work	Unité / Unit	Prix unitaire / Unit cost	Quantité / Quantity	MONTANT TOTAL / TOTAL AMOUNT
1.	<u>ORGANISATION DE CHANTIER, BUREAU DU SURVEILLANT, ET ARTICLES GÉNÉRAUX / SITE OFFICE, ENVIRONNEMENT AND GENERAL ITEMS</u>				
1.1	Installations de chantier / Construction Facilities	Global / Lump sum		1	
1.2	Mesures de protection de l'Environnement / Environmental Protection Measures	Global / Lump sum		1	
1.3	Barrière à sédiments / Sediment barrier	M. Lin. / Lin. M.		1125	
1.4	Rideau de turbidité (confinement) / Turbidity curtain (containment)	M. Lin. / Lin. M.		1125	
1.5	Déboisement de la zone d'excavation / Clearing				
1.5.1	- Déboisement d'arbres entre 200 mm et 250 mm inclusivement au DHP / Clearing of trees between 200 mm and 250 mm inclusive at DHP	Unité / Unit		1	
1.5.2	- Déboisement d'arbres de plus de 250 mm au DHP / Clearing of trees of more than 250 mm at DHP	Unité / Unit		20	
1.6	Enlèvement, peinture et remise en place de garde-corps / Removal, Painting and Repositioning of Guardrails	M. Lin. / Lin. M.		30	
1.7	Plateformes et système d'accès / Platforms and Access System	M. Lin. / Lin. M.		1081	



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Parks
Canada

AGENCE PARCS CANADA / CANADA PARKS AGENCY

RÉHABILITATION DE MURS DU CANAL-DE-LACHINE - REMPLACEMENT ET RÉPARATION DES MURS DE COURONNEMENT / REHABILITATION OF LACHINE CANAL WALLS-REPAIR AND REPLACEMENT OF THE CROWNING WALLS

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N°	Description du travail / Description of work	Unité / Unit	Prix unitaire / Unit cost	Quantité / Quantity	MONTANT TOTAL / TOTAL AMOUNT
2.	REMPLACEMENT DU MUR DE COURONNEMENT / REPLACEMENT OF THE CROWNING WALLS				
2.1	Excavation (déblai 2e classe) et remblayage / Excavations et backfilling	M. Cu. / Cu M.		2917	
2.2	Disposition des sols contaminés / Disposal of Contaminated Soil				
2.2.1	- Plage A-B / Range A-B	Tonne / Ton		400	
2.2.2	- Plage B-C/ Range B-C	Tonne / Ton		200	
2.2.3	- Plage C+ / Range C+	Tonne / Ton		200	
2.3	Démolition et/ou récupération couronnement effondré / Concrete Demolition and/or Removal of collapsed walls	M. Cu. / Cu M.		1682	
2.4	Armature galvanisé / Reinforcing Galvanized Steel	Kg / Kg		118636	
2.5	Ancrage chimique (acier galvanisé) / Chemical Anchors (galvanized steel)				
2.5.1	Ancrage chimique 20 M (acier galvanisé) / Chemical Anchors 20M (galvanized steel)	Unité / Unit		2970	
2.5.2	Ancrage chimique 15 M (acier galvanisé) / Chemical Anchors 15 M (galvanized steel)	Unité / Unit		2230	
2.6	Béton coulé en place / Cast in place Concrete	M. Cu. / Cu M.		1512	
2.7	Bollards / Bollards	Unité / Unit		14	
2.8	Échelons / Rungs	Unité / Unit		62	



AGENCE PARCS CANADA / CANADA PARKS AGENCY

RÉHABILITATION DE MURS DU CANAL-DE-LACHINE - REMPLACEMENT ET RÉPARATION DES MURS DE COURONNEMENT / REHABILITATION OF LACHINE CANAL WALLS-REPAIR AND REPLACEMENT OF THE CROWNING WALLS

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POSTES DE PAIEMENT / PAYMENT ITEMS

N°	Description du travail / Description of work	Unité / Unit	Prix unitaire / Unit cost	Quantité / Quantity	MONTANT TOTAL / TOTAL AMOUNT
2.9	Matériaux emprunt type 1, MG-20 / Type 1 borrowing materials, MG-20	Tonne / Ton		1283	
2.10	Béton pour coussin de support (Béton 1 Mpa) / Concrete for support pad (Concrete 1 MPa)	M. Cu. / Cu M.		231	
2.11	Drain perforé 200 mm et géotextile, PCV (type 1) ou PCV COEX (type 1) ou PE (type 2), 180 kPa min. / Perforated Drain (200 mm) and Geotextile, PCV (type 1) or PCV COEX (type 1) or PE (type 2), 180 kPa min.	M. Lin. / Lin. M.		1081	
2.12	Terre végétale / Topsoil	M. carré / Sqrt. M		3951	
2.13	Ensemencement hydraulique / Hydroseeding	M. carré / Sqrt. M		3951	
2.14	Géotextile / Geotextile	M. carré / Sqrt. M		4594	
3	RÉPARATION SANS SURÉPAISSEUR DU MUR DE COURONNEMENT / REPAIR OF THE CROWING WALL				
3.1	Béton coulé en place ; Type XIV-R ou XIV-S (autoplaçant) / Cast -in-Place Concrete; Type XIV-R or XIV-S (self-consolidating)	M. Cu. / Cu M.		63	
3.2	Armature galvanisé / Reinforcing Galvanized Steel	Kg / Kg		4536	
3.3	Ancrage chimique (acier galvanisé) / Chemical Anchors (galvanized steel)	Unité / Unit		4409	
3.4	Bollards / Bollards (Peinture à neuf seulement / Paint only)	Unité / Unit		2	
3.5	Échelons / Rungs	Unité / Unit		16	
3.6	Engazonnement par plaques / Laying Sod	M. carré / Sqrt. M		189	



Parcs
Canada

Parks
Canada

AGENCE PARCS CANADA / CANADA PARKS AGENCY

RÉHABILITATION DE MURS DU CANAL-DE-LACHINE - REMPLACEMENT ET RÉPARATION DES MURS DE COURONNEMENT / REHABILITATION OF LACHINE CANAL WALLS-REPAIR AND REPLACEMENT OF THE CROWNING WALLS

No DE PROJET / PROJECT No : CLAC-1455-05

BORDEREAU DE SOUMISSION - révision no2/ BID FORM- 1455-05 - revision no2

**TABLEAU DES PRIX UNITAIRES : il est convenu que le tableau suivant est le tableau des prix unitaires à utiliser aux fins de contrat
TABLE OF UNIT COSTS: it is agreed that the following table is the Table of Unit Costs to be used for the purposes of this Contract**

POSTES DE PAIEMENT / PAYMENT ITEMS

N°	Description du travail / Description of work	Unité / Unit	Prix unitaire / Unit cost	Quantité / Quantity	MONTANT TOTAL / TOTAL AMOUNT
4	FOURNITURE SPÉCIALISÉE / SPECIALIZED EQUIPMENT				
4.1	Sonde pour mesurer le niveau d'eau / Probe for measuring water level	Unité / Unit		1	
5	MAINTIEN DE LA CIRCULATION ET SIGNALISATION TEMPORAIRE / TRAFFIC MAINTENANCE AND TEMPORARY SIGNAGE				
5.1	Maintien de la circulation et signalisation temporaire / Traffic Maintenance and temporary signage	Jour / Day		154	
5.2	Panneaux spéciaux / Special signs	M. carré / Sqrt. M		20	
6	PROVISIONS POUR CONDITIONS D'HIVER / PROVISION FOR WINTER CONDITIONS - COLD WEATHER CONCRETING				
6.1	Abri temporaire et Chauffage inclus / Temporary Shelter for Concrete Pouring and heating included	M. Lin. / Lin. M.		553	
6.2	Isolant RSI 0,40 par couche / Insulation (RSI 0,40 per layer)	M. carré / Sqrt. M		1384	
6.3	Chauffage des constituants de béton / Heating of Concrete Components	M. Cu. / Cu M.		896	

Total des postes de paiement / Total Items :

Préparé par / Prepared by :

Date :

Nom de la compagnie / Company: