

<p>NCC Tender File #</p>	<p>AL1602</p>
<p>Project Description</p>	<p>Rehabilitation of artificial dams in Gatineau Park – Dennison 1 and Fortune Lake Dams</p>
<p>Site Visit</p>	<p>A NON MANDATORY site visit will be held on August 4, 2015 at 10am Ottawa time. The exact meeting place is the intersection of Marie-Burger and Chemin de la Mine, Gatineau. All costs incurred by the Bidder to attend the site visit will be at their expense. The NCC will not reimburse any Bidder for expenses related to the site visit. To confirm your attendance at this site visit with Tony Fares at 613-239-5678 ext. 5573</p>
<p>Closing date and time</p>	<p>Tuesday, August 11, 2015 at 3pm Ottawa time</p>

RETURN TENDERS TO: National Capital Commission 40 Elgin Street, 3rd Floor, Service Centre Ottawa, ON K1P 1C7	NCC Tender Number AL1602
	NCC Contract Number
TENDER CLOSING DATE AND TIME: August 11, 2015 at 3:00 p.m., Ottawa time	

DESCRIPTION OF WORK: Rehabilitation of artificial dams in Gatineau Park –Fortune Lake Dam and Dennison 1 Dam as per the attached specifications and plans.

1. BUSINESS NAME AND ADDRESS OF BIDDER

Name: _____

Address: _____

Telephone number: _____ **Fax number:** _____

E-mail address: _____

2. THE OFFER

The Bidder offers to the National Capital Commission (NCC) to perform and complete the work for the above mentioned project in accordance with the tender documents for the total tender amount (to be expressed in numbers only) of:

Sub Total \$ _____

GST/TVQ – 14.975% \$ _____

TOTAL \$ _____

3. TENDER VALIDITY PERIOD

The tender shall not be withdrawn for a period of 60 days following the date and time of tender closing.

4. CONTRACT DOCUMENTS

1. The following are the contract documents:
 - (a) Invitation to Tender & Acceptance Form when signed by the NCC;
 - (b) Duly completed Invitation to Tender & Acceptance Form and any Appendices attached thereto;
 - (c) Drawings and Specifications;
 - (d) General Conditions (GC1 to GC10);
 - (e) Supplementary Conditions, if any;
 - (f) Insurance Terms;
 - (g) Occupational Health and Safety Requirements;
 - (h) Addenda
 - (i) Any amendments issued or any allowable tender revision received before the date and time set for tender closing;
 - (j) Any amendment incorporated by mutual agreement between the NCC and the Contractor before acceptance of the tender; and
 - (k) Any amendment or variation of the contract documents that is made in accordance with the General Conditions;
 - (l) Security Requirements.

2. The language of the contract documents shall be the language of the Invitation to Tender & Acceptance Form submitted.

NCC Tender Number AL1602

NCC Contract Number

5. APPENDICES

The tender includes Appendix(ces) Nos 1 and 11 to the Invitation to Tender & Acceptance Form.

6. ACCEPTANCE AND CONTRACT

Upon acceptance of the Contractor's offer by the NCC, a binding Contract shall be formed between the NCC and the Contractor. The documents forming the Contract shall be the contract documents referred to in 4 – CONTRACT DOCUMENTS.

7. CONSTRUCTION TIME

The Contractor shall perform and complete the Work within **10 weeks** from the date of notification of acceptance of the offer.

8. UNIT PRICE TABLE

The Bidder agrees that

- (a) the Unit Price Table designates that part of the Work to which a Unit Price Arrangement applies.
- (b) the Price per Unit and the Estimated Total Price must be entered for each item listed;
- (c) the Price per Unit as tender governs in calculating the Total Estimated Amount, and any errors in the extension of the Price per Unit and in the addition of the Estimated Total Prices shall be corrected by the NCC in order to obtain the Total Estimated Amount; and
- (d) the following table is the Unit Price Table for the purposes of the tender and the Contract:

UNIT PRICE TABLE

Note: Transfer the Total Estimated Amount from the Unit Price Table to item 2 – THE OFFER of this Invitation to Tender & Acceptance Form

INVITATION TO TENDER & ACCEPTANCE FORM

Description (Refer to Specification 01 11 00 for details)	UOM	Qty.	Unit - lump sum prices	Total for Qty
1. Mobilisation/Demobilisation, incl. traffic control, site clean-up and re-instatement, environmental protection measures and other works	LS	1		\$ -
2. Dewatering/Water Pumping	LS	1		\$ -
3. Excavation and Debris Removal	LS	1		\$ -
4. Dennison 1 Dam - Concrete Work under spillway slabs	m3	17		\$ -
5. Dennison 1 Dam - Thickening Spillway Central Slab	m3	1.2		\$ -
6. Dennison 1 Dam - Concrete Work on Downstream Face	m3	0.5		\$ -
7. Dennison 1 Dam - Rip-rap protection incl. excavation, geotextiles, stone protection layer.	ton	85		\$ -
8. Fortune Lake Dam - Concrete Removal & Repairs	m2	0.2		\$ -
			Sub-Total	\$ -

9. The basis of award is low total cost to the NCC including all taxes.
10. I/We acknowledge receipt of the following addenda and have included for the requirement of it/them in my/our tendered price: _____ (Bidder to enter number of addenda issued, if any).



INVITATION TO TENDER & ACCEPTANCE FORM

NCC Tender Number AL1602

NCC Contract Number

11. TENDER SECURITY

1. The Bidders shall enclose tender security with its tender in accordance with GI08 TENDER SECURITY REQUIREMENTS.
2. If the security furnished does not comply fully with the requirements referred to in paragraph 1) herein, the tender shall be disqualified.
3. If a security deposit is furnished as tender security, it shall be forfeited in the event that the tender is accepted by the NCC and the Contractor fails to provide Contract Security in accordance with GC9 CONTRACT SECURITY, provided that the NCC may, if it is in the public interest, waive the forfeiture of the security deposit.

We hereby offer to supply to the NCC in accordance with the terms and conditions set out herein, the construction work listed above and on any attached sheets at the submitted price(s).

Name and title of person authorized to sign on behalf of Bidder (please print or type)	Signature	Date

Your tender is accepted to supply to the NCC, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the construction services listed herein and on any attached sheets at the price(s) set out therefore.

Name and title of the person authorized to sign on behalf of the NCC (please print or type)	Signature	Date

INVOICING

Send the original invoice and 1 copy to:

**Accounts Payable
National Capital Commission
202-40 Elgin Street
Ottawa, ON K1P 1C7**

Or by email at the following address: payables@ncc-ccn.ca

To ensure prompt payment, please prepare your invoice in accordance with the prices quoted. Errors in invoicing can cause delay of payment. Submit your invoice to the address shown above and clearly indicate the Purchase Order number.

INVITATION TO TENDER & ACCEPTANCE FORM

APPENDIX 1

1) The Bidder will subcontract the parts of the work listed below to the subcontractor named for each part. The Bidder agrees not to make changes in the list of subcontractors without the written consent of the NCC Representative. The Bidder understands that for each part of the work identified as Mandatory, if more than one subcontractor is named or no subcontractor is named, or, the Bidder fails to state that the work will be done by its own forces where applicable, the tender will be disqualified.

2) The Bidder certifies that tenders for the part(s) of the Work listed below were received from the following sub-contractors:

MANDATORY REQUIREMENT: The subcontractors performing the work listed below must be identified. Failure to disclose the name of the sub-contractor for any work identified will result in the disqualification of your tender.

(a) **XXXX**

Sub-contractor: _____

Address: _____

(b) **XXXX**

Sub-contractor: _____

Address: _____

(c) **XXXX**

Sub-contractor: _____

Address: _____

(d) **XXXX**

Sub-contractor: _____

Address: _____

NON-MANDATORY REQUIREMENT:

(a) Any other work not listed above

Type of work: _____ Sub-contractor: _____

Type of work: _____ Sub-contractor: _____

Type of work: _____ Sub-contractor: _____

Type of work: _____ Sub-contractor: _____

Type of work: _____ Sub-contractor: _____

Type of work: _____ Sub-contractor: _____

New supplier / Nouveau fournisseur Update / Mise à jour **Appendice 11**

Supplier No. / N° du fournisseur

**SUPPLIER-DIRECT DEPOSIT PAYMENT AND TAX INFORMATION FORM
FOURNISSEUR-FORMULAIRE DE PAIEMENT PAR DÉPÔT DIRECT ET RENSEIGNEMENTS AUX FINS DE L'IMPÔT**

For NCC use only / À l'usage de la CCN seulement

PART 'A' - IDENTIFICATION / PARTIE 'A' - IDENTIFICATION

Legal name of entity or individual / Nom légal de l'entité ou du particulier		Operating name of entity or individual (if different from Legal Name) / Nom commercial de l'entité ou du particulier (s'il diffère du nom légal)	
Former Public Servant in receipt of a PSSA Pension / Ancien fonctionnaire qui reçoit une pension en vertu de la LPFP		<input type="checkbox"/> Yes / Oui	<input type="checkbox"/> No / Non
An entity, incorporated or sole proprietorship, which was created by a Former Public Servant in receipt of a PSSA pension or a partnership made of former public servants in receipt of PSSA pension or where the affected individual has a controlling or major interest in the entity. / Une entité, constituée en société ou à propriétaire unique, créée par un ancien fonctionnaire touchant une pension en vertu de la LPFP, ou un partenariat formé d'anciens fonctionnaires touchant une pension en vertu de la LPFP, où les entités dans lesquelles ils détiennent le contrôle ou un intérêt majoritaire.		<input type="checkbox"/> Yes / Oui	<input type="checkbox"/> No / Non
Address / Adresse		Telephone No. / N° de téléphone :	Fax No. / N° de télécopieur :
Postal code / Code postal		()	()

PART 'B' - STATUS OF SUPPLIER / PARTIE 'B' - STATUT DU FOURNISSEUR

(1) Sole proprietor / Propriétaire unique <input type="checkbox"/>	If sole proprietor, provide: / Si propriétaire unique, indiquez :	Last Name / Nom de famille	First name / Prénom	Initial / Initiale
(2) Partnership / Société de personnes <input type="checkbox"/>	SIN - mandatory for (1) & (2) / NAS - obligatoire pour (1) & (2)	Corporation / Société <input type="checkbox"/>	Business No. (BN) / N° de l'entreprise (NE)	
GST/HST / TPS et TVH		QST / TVQ (Québec)		
Number / Numéro : _____		Number / Numéro : _____		
Not registered / non inscrit <input type="checkbox"/>		Not registered / non inscrit <input type="checkbox"/>		
Type of contract / Genre de contrat				
Contract for services only / Contrat de services seulement <input type="checkbox"/>	Contract for mixed goods & services / Contrat de biens et services <input type="checkbox"/>	Contract for goods only / Contrat de biens seulement <input type="checkbox"/>		
Type of goods and/or services offered / Genre de biens et/ou services rendus :				

PART 'C' - FINANCIAL INSTITUTION / PARTIE 'C' - RENSEIGNEMENTS SUR L'INSTITUTION FINANCIÈRE

Please send a void cheque or a letter from your bank with this form / Veuillez, s.v.p., envoyer un spécimen de chèque ou une lettre de votre banque avec ce formulaire

Branch Number / N° de la succursale	Institution No. / N° de l'institution :	Account No. / N° de compte :
Institution name / Nom de l'institution :	Address / Adresse :	
Postal Code / Code postal :		

PART 'D' - DIRECT DEPOSIT PAYMENT NOTIFICATION / PARTIE 'D' - AVIS DE PAIEMENT PAR DÉPÔT DIRECT

E-mail address / Adresse courriel :

PART 'E' - CERTIFICATION / PARTIE 'E' - CERTIFICATION

<p>I certify that I have examined the information provided above and it is correct and complete, and fully discloses the identification of this supplier.</p> <p>Where the supplier identified on this form completes part C, he hereby requests and authorizes the National Capital Commission to directly deposit into the bank account identified in part C, all amounts payable to the supplier.</p>	<p>Je déclare avoir examiné les renseignements susmentionnés et j'atteste qu'ils sont exacts et constituent une description complète, claire et véridique de l'identité de ce fournisseur.</p> <p>Lorsque le fournisseur indiqué sur ce formulaire remplit la partie C, par la présente, il demande et autorise la Commission de la capitale nationale à déposer directement dans le compte bancaire indiqué à la partie C, tous les montants qui lui sont dus.</p>		
<p>_____ Name of authorized person / Nom de la personne autorisée</p>	<p>_____ Title / Titre</p>	<p>_____ Signature</p>	<p>_____ Date</p>
Telephone number of contact person / Numéro de téléphone de la personne ressource : ()			

IMPORTANT

Please fill in and return to the National Capital Commission with one of your business cheque unsigned and marked « VOID » or a letter from your bank (for verification purposes). **Veillez remplir ce formulaire et le retourner à la Commission de la capitale nationale avec un spécimen de chèque de votre entreprise non signé et portant la mention « ANNULÉ » ou une lettre de votre banque (à des fins de vérification).**

Mail or fax to: Procurement Assistant, Procurement Services
National Capital Commission
202-40 Elgin Street
Ottawa, ON K1P 1C7 Fax: (613) 239-5007

Poster ou télécopier à : Assistant à l'approvisionnement
Services de l'approvisionnement
Commission de la capitale nationale
40, rue Elgin, pièce 202
Ottawa (Ontario) K1P 1C7 Télécopieur : (613) 239-5007

SUPPLIER – DIRECT DEPOSIT PAYMENT AND TAX INFORMATION FORM

FOURNISSEUR – FORMULAIRE DE PAIEMENT PAR DÉPÔT DIRECT ET RENSEIGNEMENTS AUX FINS DE L'IMPÔT

Supplier Tax Information

Pursuant to paragraph 221(1) (d) of the *Income Tax Act*, NCC must declare form T-1204, contractual payments of government for services, all payments made to suppliers during the calendar year in accordance to related service contracts (including contracts for mixed goods and services).

The paragraph 237(1) of the *Income Tax Act* and the article 235 of the Income Tax Regulations require the supplier to provide all necessary information below to the organization who prepares the fiscal information forms.

Questions: Sylvie Monette, Accounts Payable and Receivable Officer – (613) 239-5678, ext. 5156 or sylvie.monette@ncc-ccn.ca

Direct deposit payment information

All amounts payable by NCC to the supplier will be deposited directly into the account you identified in part C. A NCC payment advice notice will also be sent to you by e-mail detailing the particularities of the payment to the address identified in part D.

You must notify the NCC of any changes to your financial institution, branch or account number. You will then have to complete a new form.

The account you identified has to hold Canadian funds at a financial institution in Canada.

The advantages of direct deposit payment

Direct deposit payment is a convenient, dependable, safe and timesaving way to receive your invoice payment. Direct deposit payment is completely confidential.

Funds made by direct deposit payment will be available in your bank account within two (2) days after receiving the NCC payment advice notice.

Renseignements sur les fournisseurs aux fins de l'impôt

En vertu de l'alinéa 221(1) (d) de la *Loi de l'impôt sur le revenu*, la CCN est tenu de déclarer, à l'aide du formulaire T-1204, Paiements contractuels de services du gouvernement, tous paiements versés aux fournisseurs pendant une année civile en vertu de marchés de services pertinents (y compris les marchés composés à la fois de biens et de services).

Le paragraphe 237 (1) de la *Loi de l'impôt sur le revenu* et l'article 235 du Règlement de l'impôt sur le revenu obligent les fournisseurs à fournir toutes les informations demandées ci-dessous à l'organisme qui prépare les formulaires de renseignements fiscaux.

Questions : Sylvie Monette, Agent aux comptes fournisseurs et comptes clients – (613) 239-5678, poste 5156 ou sylvie.monette@ncc-ccn.ca

Renseignements sur le paiement par dépôt direct

Tous les montants versés par la CCN au fournisseur seront déposés directement dans le compte identifié à la partie C. Un avis de paiement de la CCN détaillant les particularités du paiement par dépôt direct vous sera envoyé par courriel à l'adresse courriel identifiée à la partie D.

Vous devez aviser la CCN de tout changement d'institution financière, de succursale ou de numéro de compte. Vous devrez donc remplir un nouveau formulaire.

Le compte que vous désignez doit être un compte en monnaie canadienne, détenu dans une institution financière au Canada.

Avantages du paiement par dépôt direct

Le paiement par dépôt direct est une méthode pratique, fiable et sécuritaire, qui permet de gagner du temps dans la réception de vos paiements de factures. Le paiement par dépôt direct est entièrement confidentiel.

Les paiements effectués par dépôt direct seront disponible dans votre compte bancaire dans un délai de deux (2) jours après que la CCN envoie l'avis paiement.

- SI01 Tender Documents
- SI02 Enquiries during the Solicitation Period
- SI03 Site Visit
- SI04 Revision of Tender
- SI05 Tender Results
- SI06 Negotiations
- SI07 Tender Validity Period
- SI08 Construction Documents
- SI09 Public Tender Opening

SI01 TENDER DOCUMENTS

- 1) The following are the tender documents:
 - (a) Invitation to Tender & Acceptance Form and any Appendices attached thereto;
 - (b) Special Instructions to Bidders; and
 - (c) General Instructions to Bidders.

Submission of a tender constitutes acknowledgement that the Bidder has read and agrees to be bound by these documents.

SI02 ENQUIRIES DURING THE SOLICITATION PERIOD

- 1) Enquiries regarding this tender must be submitted in writing to the following: Sr. Contract Officer, Allan Lapensée, telephone number - 613-239-5678 ext. 5051, facsimile number - 613-239-5007 or e-mail address – allan.lapensee@ncc-ccn.ca as early as possible within the solicitation period. Except for the approval of alternative materials as described in GI15 of the General Instructions to Bidders, enquiries should be received no later than seven (7) calendar days prior to the date set for solicitation closing to allow sufficient time to provide a response. Enquiries received after that time may result in an answer not being provided.
- 2) To ensure consistency and quality of the information provided to Bidders, the Sr. Contract Officer shall examine the content of the enquiry and shall decide whether or not to issue an amendment.
- 3) All enquiries and other communications related to this tender sent throughout the solicitation period are to be directed ONLY to the Sr. Contract Officer named above. Non-compliance with this requirement during the solicitation period can, for that reason alone, result in disqualification of a tender.

SI03 SITE VISIT

- 1) A NON MANDATORY site visit will be held on Tuesday, August 4th 2015 at 10am Ottawa Time. The meeting place will be at the intersection of Marie Burget and chemin de la Mine, Gatineau.. All costs incurred by the Bidder to attend the site visit will be at their expense. The NCC will not reimburse any Bidder for expenses related to the site visit. Please confirm your attendance at the site visit with Tony Fares at **613-239-5678 x 5573** at least 24 hours prior to the site visit.

SI04 REVISION OF TENDER

- 1) A tender may be revised by letter or facsimile in accordance with GI10 of the General Instructions to Bidders. The facsimile number for receipt of revisions is 613-239-5012.

SI05 TENDER RESULTS

- 1) Following solicitation closing, tender results may be obtained by calling the Sr. Contract Officer, Allan Lapensée, telephone number - 613-239-5678 ext. 5051, facsimile number - 613-239-5007 or e-mail address – allan.lapensee@ncc-ccn.ca .

SI06 NEGOTIATIONS

- 1) In the event that the lowest compliant tender exceeds the amount of funding the NCC has allocated for the construction phase of the work:
 - (a) by 15% or less, the NCC, at its sole discretion, shall either:
 - (i) cancel the invitation to tender; or
 - (ii) obtain additional funding and, subject to the provisions of GI11 and GI09 of the General Instructions to Bidders, award the Contract to the Bidder submitting the lowest compliant tender; or
 - (iii) revise the scope of the work accordingly and negotiate, with the Bidder submitting the lowest compliant tender, a corresponding reduction in its tender price.
 - (b) by more than 15%, the NCC, at its sole discretion, shall either:
 - (i) cancel the invitation to tender; or
 - (ii) obtain additional funding and, subject to the provisions of GI11 and GI09 of the General Instructions to Bidders, award the Contract to the Bidder submitting the lowest compliant tender; or
 - (iii) revise the scope of the work accordingly and invite those who submitted compliant tenders at the original invitation to tender to re-tender the work.
- 2) If negotiations or a re-tender are undertaken as is contemplated in subparagraphs 1)(a)(iii) or 1)(b)(iii) above, Bidders shall retain the same subcontractors and suppliers as they carried in their original tenders.
- 3) If the NCC elects to negotiate a reduction in the tender price as is contemplated in subparagraph 1)(a)(iii) herein and the negotiations fail to reach an agreement, the NCC shall then exercise either of the options referred to subparagraphs 1)(a)(i) or 1)(a)(ii).

SI07 TENDER VALIDITY PERIOD

- 1) The NCC reserves the right to seek an extension to the tender validity period prescribed in 3 of the Invitation to Tender & Acceptance Form. Upon notification in writing from the NCC, Bidders shall have the option to either accept or reject the proposed extension.
- 2) If the extension referred to in paragraph 1) of SI07 is accepted, in writing, by all those who submitted tenders, then the NCC shall continue immediately with the evaluation of the tenders and its approvals processes.
- 3) If the extension referred to in paragraph 1) of SI07 is not accepted in writing by all those who submitted tenders then the NCC shall, at its sole discretion, either:
 - (a) continue to evaluate the tenders of those who have accepted the proposed extension and seek the necessary approvals; or

- (b) cancel the invitation to tender.
- 4) The provisions expressed herein do not in any manner limit the NCC's rights in law or under GI11 of the General Instructions to Bidders.

SI08 CONSTRUCTION DOCUMENTS

- 1) The successful contractor will be provided with one paper copy of the sealed and signed plans, the specifications and the amendments upon acceptance of the offer. Additional copies, may be available free of charge upon request by the contractor. If not, obtaining more copies shall be the responsibility of the contractor including costs.

SI09 PUBLIC TENDER OPENING

- 1) **A public tender opening will be held on Tuesday, August 11, 2015 at 3:00pm Ottawa time at 40 Elgin Street, Ottawa, Ontario in room 306.**

- GI01 Completion of Tender
- GI02 Identity or Legal Capacity of the Bidder
- GI03 Goods and Services Tax / Harmonized Sales Tax
- GI04 Québec Sales Tax
- GI05 Capital Development and Redevelopment Charges
- GI06 Registry and Pre-qualification of Floating Plant
- GI07 Listing of Subcontractors and Suppliers
- GI08 Tender Security Requirements
- GI09 Submission of Tender
- GI10 Revision of Tender
- GI11 Acceptance of Tender
- GI12 Procurement Business Number
- GI13 Bid Depository
- GI14 Compliance with Applicable Laws
- GI15 Approval of Alternative Materials
- GI16 Performance Evaluation

GI01 Completion of Tender

- 1) The tender shall be:
 - (a) submitted on the Invitation to Tender and Acceptance Form provided through the Government Electronic Tendering Service (GETS) or on a clear and legible reproduced copy of such Invitation to Tender and Acceptance Form that must be identical in content and format to the Invitation to Tender and Acceptance Form provided through GETS;
 - (b) based on the Tender Documents listed in the Special Instructions to Bidders;
 - (c) correctly completed in all respects;
 - (d) signed by a duly authorized representative of the Bidder; and
 - (e) accompanied by
 - (i) tender security as specified in GI08; and
 - (ii) any other document or documents specified elsewhere in the solicitation where it is stipulated that said documents are to accompany the tender.
- 2) Subject to paragraph 6) of GI11, any alteration to the pre-printed or pre-typed sections of the Invitation to Tender and Acceptance Form, or any condition or qualification placed upon the tender shall be cause for disqualification. Alterations, corrections, changes or erasures made to statements or figures entered on the Invitation to Tender and Acceptance Form by the Bidder shall be initialled by the person or persons signing the tender. Initials shall be original(s). Alterations, corrections, changes or erasures that are not initialled shall be deemed void and without effect.
- 3) Unless otherwise noted elsewhere in the Tender Documents, facsimile copies of tenders are not acceptable.

GI02 Identity or Legal Capacity of the Bidder

- 1) In order to confirm the authority of the person or persons signing the tender or to establish the legal capacity under which the Bidder proposes to enter into Contract, any Bidder who carries on business in other than its own personal name shall, if requested by the NCC prior to award of contract, provide satisfactory proof of:

- (a) such signing authority; and
- (b) the legal capacity under which it carries on business.

Proof of signing authority may be in the form of a certified copy of a resolution naming the signatory(ies) that is (are) authorized to sign this tender on behalf of the corporation or partnership. Proof of legal capacity may be in the form of a copy of the articles of incorporation or the registration of the business name of a sole proprietor or partnership.

GI03 Goods and Services Tax / Harmonized Sales Tax

- 1) The National Capital Commission (NCC) is a Crown Corporation subject to the Goods and Services Tax (GST), the Ontario Provincial Sales Tax (OST) and the Quebec Sales Tax (QST). The rates quoted are exclusive of the GST and the OST/QST. The successful firm will be required to indicate separately, on all invoices or requests for payments, the amount of Goods and Services Sales Tax (GST), the amount of Ontario Sales Tax (OST) and the amount of Quebec Sales Tax (QST), to the extent applicable, that the Commission must pay. These amounts will be paid to the successful Bidder who is required to make the appropriate remittances to Revenue Canada and the respective provincial governments.

Pursuant to paragraph 221 (1)(d) of the Income Tax Act, payments made by Crown Corporations under applicable service contracts (including contracts involving a mix of goods and services) must be reported on a “T1204” slip. To comply with this requirement, the Bidder is required to provide the following information on the “Supplier – Direct Payment and Tax Information Form” (see Appendix 11).

By signing this form, the Bidder/Proponent certifies that he/she has examined the information provided on the form and that it is correct, complete, and fully discloses the identification of the Contractor.

This “Supplier – Direct Payment and Tax Information Form” must be completed and returned to the Commission prior to any contract being awarded to your firm (see Appendix 11).

GI04 Quebec Sales Tax

- 1) See GI03.

GI05 Capital Development and Redevelopment Charges

- 1) For the purposes of GC1.8 LAWS, PERMITS AND TAXES in the General Conditions of the Contract, only fees or charges directly related to the processing and issuing of building permits shall be included. The Bidder shall not include any monies in the tender amount for special municipal development, redevelopment or other fees or charges which a municipal authority may seek as a prerequisite to the issuance of building permits.

GI06 Registry and Pre-qualification of Floating Plant

- 1) Dredges or other floating plant to be used in the performance of the Work must be on Canadian registry. For dredges or other floating plant that are not of Canadian make or manufacture, the Bidder must obtain a certificate of qualification from Industry Canada, if applicable, and this certificate must accompany the tender. Plant so qualified by Industry Canada may be accepted on this project.

GI07 Listing of Subcontractors and Suppliers

- 1) Notwithstanding any list of Subcontractors that the Bidder shall be required to submit as part of the tender, the Bidder submitting the lowest acceptable tender shall, within 24 hours of receipt of a notice to do so, submit all information requested in the said notice including the names of Subcontractors and Suppliers for the part or parts of the Work listed. Failure to do so may result in the disqualification of its tender.

GI08 Tender Security Requirements

- 1) The Bidder shall submit tender security with the tender in the form of a bid bond or a security deposit in an amount that is equal to not less than 10% of the tender amount including all applicable taxes.

The maximum amount of tender security required with any tender is \$2,000,000.00.

- 2) A bid bond shall be in an approved form, properly completed, with original signature(s) and issued by an approved company whose bonds are acceptable to the NCC either at the time of solicitation closing or as identified on the list displayed at the following Website:

<http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12027>

The approved form for the bid bond is enclosed at the end of this section.

- 3) A security deposit shall be an original, properly completed, signed where required and be either:
 - (a) a bill of exchange, bank draft or money order payable to the NCC;
 - (b) bonds of, or unconditionally guaranteed as to principal and interest by, the Government of Canada; or
- 4) A bill of exchange, bank draft or money order referred to in subparagraph 3)(a) of GI08 shall be certified by or drawn on:
 - (a) a corporation or institution that is a member of the Canadian Payments Association;
 - (b) a corporation that accepts public deposits and repayment of the deposits is unconditionally guaranteed by Her Majesty in right of a province;
 - (c) a corporation that accepts deposits that are insured by the Canada Deposit Insurance Corporation or the "Régie de l'assurance-dépôts du Québec" to the maximum permitted by law;
 - (d) a corporation, association or federation incorporated or organized as a credit union or cooperative credit society that conforms to the requirements of a credit union which are more particularly described in paragraph 137 (6)(b) of the *Income Tax Act*; or
 - (e) Canada Post Corporation.
- 5) If a bill of exchange, bank draft or money order is drawn on an institution or corporation other than a chartered bank, it must be accompanied by proof that the said institution or corporation meets at least one of the criteria described in paragraph 4) of GI08, either by letter or by a stamped certification on the bill of exchange, bank draft, or money order.
- 6) For the purposes of this section, a bill of exchange is an unconditional order in writing signed by the Bidder and addressed to an approved financial institution, requiring the said institution to pay, on demand, at a fixed or determinable time, a certain sum of money to, or to the order of, the NCC.

- 7) Bonds referred to in subparagraph 3)(b) of GI08 shall be provided on the basis of their market value current at the date of solicitation closing, and shall be:
 - (a) payable to bearer;
 - (b) accompanied by a duly executed instrument of transfer of the bonds to the NCC in the form prescribed by the Domestic Bonds of Canada Regulations; or
 - (c) registered as to principal or as to principal and interest in the name of the NCC pursuant to the Domestic Bonds of Canada Regulations.
- 8) As an alternative to a security deposit an irrevocable standby letter of credit is acceptable to the NCC and the amount shall be determined in the same manner as a security deposit referred to above.
- 9) An irrevocable standby letter of credit referred to in paragraph 8) of GI08 shall:
 - (a) be an arrangement, however named or described, whereby a financial institution (the “Issuer”) acting at the request and on the instructions of a customer (the “Applicant) or on its own behalf:
 - (i) is to make a payment to, or to the order of, the NCC as the beneficiary;
 - (ii) is to accept and pay bills of exchange drawn by the NCC;
 - (iii) authorizes another financial institution to effect such payment or accept and pay such bills of exchange; or
 - (iv) authorizes another financial institution to negotiate against written demand(s) for payment provided that the terms and conditions of the letter of credit are complied with.
 - (b) state the face amount which may be drawn against it;
 - (c) state its expiry date;
 - (d) provide for sight payment to the NCC by way of the financial institution’s draft against presentation of a written demand for payment signed by the NCC Contract Administrator identified in the letter of credit by his/her office;
 - (e) provide that more than one written demand for payment may be presented subject to the sum of those demands not exceeding the face value of the letter of credit;
 - (f) provide that it is subject to the International Chamber of Commerce (ICC) Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600;
 - (g) clearly specify that it is irrevocable or deemed to be irrevocable pursuant to article 6 c) of the International Chamber of Commerce (ICC) Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600; and
 - (h) be issued or confirmed, in either official language, by a financial institution which is a member of the Canadian Payments Association and is on the letterhead of the Issuer or Confirmer. The format is left to the discretion of the Issuer or Confirmer.
- 10) Tender security shall lapse or be returned as soon as practical following:
 - (a) the solicitation closing date, for those Bidders submitting non-compliant tenders; and

- (b) the administrative tender review, for those Bidders submitting compliant tenders ranked fourth to last on the schedule of tenders; and
 - (c) the award of contract, for those Bidders submitting the second and third ranked tenders; and
 - (d) the receipt of contract security for the successful Bidder; or
 - (e) the cancellation of the solicitation, for all Bidders.
- 11) Notwithstanding the provisions of paragraph 10) of GI08 and provided more than three (3) compliant tenders have been received, if one or more of the tenders ranked third to first is withdrawn or rejected for whatever reason, then the NCC reserves the right to hold the security of the next highest ranked compliant tender in order to retain the tender security of at least three (3) valid and compliant tenders.

GI09 Submission of Tender

- 1) The Invitation to Tender and Acceptance Form, duly completed with the bid security, shall be enclosed and sealed in an envelope provided by the Bidder, and shall be addressed and submitted to the office designated on the front page of the Invitation to Tender and Acceptance Form for the receipt of tenders.
- 2) Unless otherwise specified in the Special Instructions to Bidders:
 - (a) the tender shall be in Canadian currency;
 - (b) exchange rate fluctuation protection is not offered; and
 - (c) any request for exchange rate fluctuation protection shall not be considered.
- 3) Prior to submitting the tender, the Bidder shall ensure that the following information is clearly printed or typed on the face of the tender envelope:
 - (a) Solicitation Number;
 - (b) Name of Bidder.
- 5) Timely and correct delivery of the tender is the sole responsibility of the Bidder. The tender must be received on or before the date and time set for solicitation closing. Late tenders shall be disqualified.

GI10 Revision of Tender

- 1) A tender submitted in accordance with these instructions may be revised by letter or facsimile (fax number only 613-239-5012 provided the revision is received at the office designated for the receipt of tenders, on or before the date and time set for the closing of the solicitation. The letter or facsimile shall:
 - (a) be on the Bidder's letterhead or bear a signature that identifies the Bidder;
 - (b) for the Total Bid Amount, clearly identify the amount of the current revision. The total aggregate sum of all revisions submitted, including the current revision, shall be shown separately; and
 - (c) for the Price per unit portion of a tender, clearly identify the current revision(s) to the Price(s) per unit and the specific item(s) to which each revision applies. If a revision is to be applied to a specific Item that was previously amended then, in addition to the amount of the current

revision, the total aggregate sum of all revisions submitted, including the current revision, for that Item shall be shown separately.

- 2) A letter or facsimile submitted to confirm an earlier revision shall be clearly identified as "CONFIRMATION ONLY", for each contemplated change.
- 3) Failure to comply with any of the above provisions shall result in the rejection of the non-compliant revision(s) only. The tender shall be evaluated based on the original tender submitted and all other compliant revision(s).

GI11 Acceptance of Tender

- 1) The NCC may accept any tender, whether it is the lowest or not, or may reject any or all tenders.
- 2) Without limiting the generality of paragraph 1) of GI11, the NCC may reject a tender if any of the following circumstances are present:
 - (a) the Bidder, or any employee or subcontractor included as part of the tender, have been convicted under section 121 ("Frauds on the government" & "Contractor subscribing to election fund"), 124 ("Selling or purchasing office"), 380 (Fraud committed against Her Majesty) or 418 ("Selling defective stores to Her Majesty") of the Criminal Code of Canada, or under paragraph 80(1)(d) (False entry, certificate or return), subsection 80(2) (Fraud against her Majesty) or Section 154.01 (Fraud against her Majesty) of the Financial Administration Act;
 - (b) the Bidder's bidding privileges are suspended or are in the process of being suspended;
 - (c) the bidding privileges of any employee or subcontractor included as part of the tender are suspended or are in the process of being suspended, which suspension or pending suspension would render that employee or subcontractor ineligible to tender on the Work, or the portion of the Work the employee or subcontractor is to perform;
 - (d) with respect to current or prior transactions with the NCC
 - (i) the Bidder is bankrupt or if, for whatever reason, its activities are rendered inoperable for an extended period;
 - (ii) evidence, satisfactory to the NCC, of fraud, bribery, fraudulent misrepresentation or failure to comply with any law protecting individuals against any manner of discrimination, has been received with respect to the Bidder, any of its employees or any subcontractor included as part of its tender;
 - (iii) the NCC has exercised, or intends to exercise, the contractual remedy of taking the work out of the contractor's hands with respect to a contract with the Bidder, any of its employees or any subcontractor included as part of its tender; or
 - (iv) the NCC determines that the Bidder's performance on other contracts is sufficiently poor to jeopardize the successful completion of the requirement being tendered on.
- 3). In assessing the Bidder's performance on other contracts pursuant to subparagraph 2)(d)(iv) of GI11, the NCC may consider, but not be limited to, such matters as:
 - (a) the quality of workmanship in performing the Work;
 - (b) the timeliness of completion of the Work;

- (c) the overall management of the Work and its effect on the level of effort demanded of the NCC and its representative; and
 - (d) the completeness and effectiveness of the Contractor's safety program during the performance of the Work.
- 4) Without limiting the generality of paragraphs 1), 2) and 3) of GI11, the NCC may reject any based on an unfavourable assessment of the:
- (a) adequacy of the tender price to permit the work to be carried out and, in the case of a tender providing prices per unit, whether each such price reasonably reflects the cost of performing the part of the work to which that price applies;
 - (b) Bidder's ability to provide the necessary management structure, skilled personnel, experience and equipment to perform competently the work under the Contract; and
 - (c) Bidder's performance on other contracts.
- 5) If the NCC intends to reject a tender pursuant to a provision of paragraphs 1), 2), 3) or 4) of GI11, other than subparagraph 2)(b) of GI11, the NCC shall so inform the Bidder and provide the Bidder ten (10) days within which to make representation, prior to making a final decision on the tender rejection.
- 6) The NCC may waive informalities and minor irregularities in tenders received, if the NCC determines that the variation of the tender from the exact requirements set out in the Tender Documents can be corrected or waived without being prejudicial to other Bidders.

GI12 Procurement Business Number

- 1) Not applicable.

GI13 Bid Depository

- 1) If the solicitation advertisement states that a Bid Depository shall be used, the Bidder shall obtain bids in accordance with local Bid Depository rules and procedures.

GI14 Compliance with Applicable Laws

- 1) By submission of a tender, the Bidder certifies that the Bidder has the legal capacity to enter into a contract and is in possession of all valid licences, permits, registrations, certificates, declarations, filings, or other authorizations necessary to comply with all federal, provincial and municipal laws and regulations applicable to the submission of the tender and entry into any ensuing contract for the performance of the work.
- 2) For the purpose of validating the certification in paragraph 1) of GI14, a Bidder shall, if requested, provide a copy of every valid licence, permit, registration, certificate, declaration, filing or other authorization listed in the request, and shall provide such documentation within the time limit(s) set out in the said request.
- 3) Failure to comply with the requirements of paragraph 2) of GI14 shall result in the disqualification of the tender.

GI15 Approval of Alternative Materials

- 1) When materials are specified by trade names or trademarks, or by manufacturers' or suppliers' names, the tender shall be based on use of the named materials. During the solicitation period,

alternative materials may be considered provided full technical data is received in writing by the Contracting Officer at least seven (7) calendar days, unless otherwise noted in the Tender documents, prior to the solicitation closing date. If the alternative materials are approved for the purposes of the tender, an addendum to the tender documents shall be issued.

GI16 Performance Evaluation

- 1) Bidders shall take note that the performance of the Contractor during and upon completion of the work shall be evaluated by the NCC. The evaluation shall be based on the quality of workmanship, timeliness of completion of the work, project management, contract management and management of health and safety. Should the Contractor's performance be considered unsatisfactory, the Contractor's bidding privileges on future work may be suspended indefinitely. Contractor Evaluation Report Form is enclosed at the end of this section.

BID BOND

Bond Number _____

Amount \$ _____

KNOW ALL MEN BY THESE PRESENTS, that _____ as Principal, hereinafter called the Principal, and _____ as Surety, hereinafter called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto the National Capital Commission as Obligee, hereinafter called the NCC, In the amount of _____ dollars (\$ _____), lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

SIGNED AND SEALED this _____ day of _____, _____. WHEREAS, the Principal has submitted a written tender to the NCC, dated the _____ day of _____, _____, for: _____.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION are such that if:

- (a) The Principal, should his tender be accepted within the period be specified by the NCC, or, if no period be specified, within sixty (60) days after closing date of the tender:
 - 1. does execute within a period specified by the NCC, or, if no period be specified therein, within fourteen (14) days after the prescribed forms are presented to him for signature, execute such further contractual documents, if any, as may be required by the terms of the tender as accepted; and does
 - 2. furnish a Performance Bond and a Labour and Material Payment Bond, each in the amount of 50% of the Contract price and satisfactory to the NCC, or other security acceptable to the NCC; or
- (b) the Principal does pay to the NCC the difference between the amount of the Principal's tender and the amount of the Contract entered into by the NCC for the work, supplies and services which were specified in the said tender, if the latter amount be in excess of the former,

then, this obligation shall be void; otherwise it shall remain in full force and effect.

PROVIDED, HOWEVER, that the Surety and the Principal shall not be liable to the NCC for an amount greater than the amount specified in the bond.

PROVIDED FURTHER that the Surety shall not be subject to any suit or action unless such suit or action is instituted and process therefore served upon the Surety at its Head Office in Canada, within twelve (12) months from the date of this bond.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its authorized signing authority, the day and first above written.

SIGNED, SEALED AND DELIVERED in the presence of:

Principal _____

Witness _____

Surety _____

Note: Affix Corporate seal if applicable.

Date	Contract no. / No du contrat		
Description of work / Description des travaux			
Contractor's business name / Nom de l'entreprise de l'entrepreneur		Contractor's site superintendent / Contremaître de l'entrepreneur	
Contractor's business address / Adresse de l'entreprise de l'entrepreneur			
NCC representative / Représentant de la CCN			
Name / Nom	Telephone no. / N ^o . de téléphone	E-mail address / Adresse électronique	
Contract information / Information sur le contrat			
Contract award amount / Montant du marché adjugé		Contract award date / Date de l'adjudication du marché	
Final amount / Montant final		Actual contract completion date / Date réelle d'achèvement du contrat	
Number of change orders / Nombre d'ordres de changement		Final certificate date / Date du certificat final	
Quality of workmanship / Qualité des travaux exécutés			
<p>This is the rating of the quality of the workmanship. At final completion the quality of the materials and equipment incorporated in the work must meet the requirements set out in the plans and specifications.</p> <p>Il s'agit de l'évaluation de la qualité des travaux exécutés. À l'achèvement des travaux, la qualité des matériaux et de l'équipement doit satisfaire les exigences établies dans les plans et devis.</p>	Unacceptable / Inacceptable	0 – 5	<div style="border: 1px solid black; width: 80px; height: 80px; margin: auto;"></div>
	Not satisfactory / Non-satisfaisant	6 – 10	
	Satisfactory / Satisfaisant	11 – 16	
	Superior / Supérieur	17 – 20	
Time / Délai d'exécution			
<p>This is the rating of the timeliness of completion considering the actual completion date compared with the original (or amended) contract completion date and allowing for conditions beyond the control of the contractor.</p> <p>Il s'agit de l'évaluation du délai d'exécution des travaux en prenant en considération la date actuelle d'achèvement des travaux par rapport à la date originale (ou modifiée) et en tenant compte des conditions indépendantes de la volonté de l'entrepreneur.</p>	Unacceptable / Inacceptable	0 – 5	<div style="border: 1px solid black; width: 80px; height: 80px; margin: auto;"></div>
	Late / En retard	6 – 10	
	On time / À temps	11 – 16	
	Ahead of schedule / En avance sur le calendrier	17 – 20	
Project management / Gestion de projet			
<p>This is the rating of how the project, as described in the drawings and specifications, was managed including co-ordination, quality control, effective schedule development and implementation.</p> <p>Voici l'évaluation de la façon dont le projet décrit dans les documents contractuels a été géré, y compris la coordination, le contrôle de la qualité, l'élaboration d'un calendrier efficace et la mise en œuvre.</p>	Unacceptable / Inacceptable	0 – 5	<div style="border: 1px solid black; width: 80px; height: 80px; margin: auto;"></div>
	Not satisfactory / Non-satisfaisant	6 – 10	
	Satisfactory / Satisfaisant	11 – 16	
	Superior / Supérieur	17 – 20	
Criteria not applicable / Critère non-applicable			<input type="checkbox"/> N/A / S/O
Contract management / Gestion de contrat			
<p>This is the rating of how the contract was administered in accordance with the provisions expressed in the "front end" portion of the documents.</p> <p>Voici l'évaluation de la façon dont le contrat a été administré conformément aux dispositions comprises dans la partie « prioritaire » des documents.</p>	Unacceptable / Inacceptable	0 – 5	<div style="border: 1px solid black; width: 80px; height: 80px; margin: auto;"></div>
	Not satisfactory / Non-satisfaisant	6 – 10	
	Satisfactory / Satisfaisant	11 – 16	
	Superior / Satisfaisant	17 – 20	
Criteria not applicable / Critère non-applicable			<input type="checkbox"/> N/A / S/O
Health and safety / Santé et sécurité			
<p>This is the rating of the effectiveness of how the occupational health and safety provisions (whether identified in the contract or those of provincial legislation or those otherwise applicable) were managed and administered.</p> <p>Voici l'évaluation de l'efficacité avec laquelle les dispositions relatives à la santé et à la sécurité au travail (dans le contrat, dans les règlements provinciaux ou dans tout autre document) ont été gérées et administrées.</p>	Unacceptable / Inacceptable	0 – 5	<div style="border: 1px solid black; width: 80px; height: 80px; margin: auto;"></div>
	Not satisfactory / Non-satisfaisant	6 – 10	
	Satisfactory / Satisfaisant	11 – 16	
	Superior / Satisfaisant	17 – 20	
Total points / Pointage total			/100
Comments / Commentaires			
Name / Nom	Title / Titre	Signature	Date

INSTRUCTIONS AND ADDITIONAL INFORMATION (Contractor Performance Evaluation Report)
INSTRUCTIONS ET RENSEIGNEMENTS SUPPLÉMENTAIRES (Rapport d'évaluation du rendement de l'entrepreneur)

QUALITY OF WORKMANSHIP – QUALITÉ DES TRAVAUX EXÉCUTÉS

The NCC representative is to consider how the workmanship compares with:

- the norms in the area in which the work was carried out
- the contractor's compliance with any quality provisions outlined in the drawings and specification
- the quality of workmanship provided by other contractors on similar projects in the same facility/facilities

Le représentant de la CCN doit évaluer la qualité de l'exécution en fonction de ce qui suit :

- le respect des normes s'appliquant aux travaux réalisés
- la conformité de l'entrepreneur aux exigences de qualité comprises dans les dessins et dans les devis
- la qualité de l'exécution des travaux accomplis par d'autres entrepreneurs dans le cadre de projets similaires réalisés dans la même installation ou dans des installations semblables.

TIME / DÉLAIS D'EXÉCUTION

For the purpose of evaluation the contractor's time performance, consideration must be given to conditions beyond the contractor's control including NCC / Consultant / Client performance.

Afin d'évaluer le rendement de l'entrepreneur en matière de délai d'exécution, on doit prendre en considération les conditions indépendantes de la volonté de l'entrepreneur, y compris le rendement de la CCN, de l'expert-conseil et du client.

Consider conditions beyond the contractor's control, e.g.,

Prendre en considération les conditions indépendantes de la volonté de l'entrepreneur, par exemple :

- availability of, and access to the site
- changes in soil or site conditions
- weather extremes
- strikes
- material / equipment supply problems originating from manufacturers/suppliers
- quality of plans and specifications
- major change(s) in scope
- cumulative effect of changes
- was the NCC able to meet its obligations?
- timely decisions, clarifications, approvals, payments in due time
- delays caused by other contractors in the same facility

- disponibilité du chantier et accès au chantier
- modifications des conditions du sol ou du chantier
- température
- grèves
- problèmes d'approvisionnement en matériel et en équipement provenant des manufacturiers/fournisseurs
- qualité des plan et devis
- modifications importantes à l'étendue des travaux
- effets cumulatifs des modifications
- la CCN a-t-elle été capable de remplir ses obligations?
- décisions, clarifications, approbations, paiements en temps opportun
- les retards occasionnés par d'autres entrepreneurs travaillant dans la même installation.

The NCC representative's estimate of a reasonable maximum time allowance resulting from conditions beyond the contractor's control is
 L'estimation, par le représentant de la CCN, du temps maximum alloué pour les conditions indépendantes de la volonté de l'entrepreneur est



The period of delay attributable to the contractor is
 La période de retard attribuable à l'entrepreneur est



Did the contractor make an effective effort / Est-ce que l'entrepreneur s'est efforcé :

- to meet the schedule / de respecter l'échéancier des travaux
- to clean up deficiencies in a reasonable time / de corriger les vices dans un délai raisonnable

▶	<input type="checkbox"/>	Yes Oui	<input type="checkbox"/>	No Non
▶	<input type="checkbox"/>	Yes Oui	<input type="checkbox"/>	No Non

Have you recommended assessments and damages for late completion under the contract?
 Avez-vous recommandé des dédommagements pour retard d'exécution aux termes du marché?

▶	<input type="checkbox"/>	Yes Oui	<input type="checkbox"/>	No Non
---	--------------------------	------------	--------------------------	-----------

PROJECT MANAGEMENT / GESTION DU PROJET

The extent to which the contractor takes charge of and effectively manages the work has a direct effect on the inputs required of the NCC.

La mesure dans laquelle l'entrepreneur assume efficacement la gestion des travaux a une incidence directe sur les services qu'on attend de la CCN.

Consideration should be given to: Did the contractor

Il faut examiner si l'entrepreneur a :

- employ a knowledgeable site superintendent
- required additional input from the NCC staff above that which is normal for a project of similar size and nature
- promptly commence the work
- provide realistic schedules and updates in accordance with the terms of the contract
- provide a comprehensive work plan and adhere to its milestones
- order material promptly and in such a way as to expedite the progress of the work
- provide shop drawings promptly and were they of sufficient detail

- fait appel aux services d'un surintendant de chantier expérimenté
- demandé au personnel de la CCN une plus grande contribution que ce qui est normal pour un projet de cette importance et de cette nature
- commencé les travaux dans les plus brefs délais
- fourni un calendrier réaliste et des mises à jour conformément aux modalités du contrat
- présenté un plan de travail complet et a respecté les échéances
- commandé le matériel rapidement et de façon à accélérer l'avancement des travaux.
- fourni rapidement des dessins d'atelier comprenant suffisamment de détails

PROJECT MANAGEMENT (cont'd) / GESTION DU PROJET (suite)

- effectively manage and complete all Division 1 work site activities
- promptly provide reasonable quotations for changes to the original scope of work
- cooperate when issued directions by the NCC representative
- interpret the contract documents accurately
- establish effective quality control procedures
- effectively coordinate and manage the work of its subcontractors
- promptly correct defective work as the project progressed
- promptly clean-up all deficiencies and incomplete work after issuance of the Interim Certificate of Completion
- satisfactorily clean the work site periodically and at the completion of the project
- g r  et achev  efficacement toutes les activit s sur le chantier de la Division 1
- propos  rapidement des prix raisonnables pour les modifications   l' nonc  des travaux initial
- accept  les directives du repr sentant de la CCN
- interpr t  les documents contractuels avec exactitude
- mis en place des proc dures de contr le de la qualit  efficaces
- coordonn  et g r  efficacement les travaux confi s   des sous-traitants
- corrig  promptement le travail d fectueux en cours de projet
- corrig  rapidement les travaux non acceptables et termin  les travaux incomplets apr s r ception du certificat provisoire d'ach vement
- nettoy  de fa on satisfaisante le chantier p riodiquement ainsi qu'  la fin du projet.

CONTRACT MANAGEMENT / GESTION DU CONTRAT

The effectiveness of the contractor to administer the contract in accordance with the provisions expressed in the "front end" portion of the contract documents.

Consideration should be given to: Did the contractor

- in the time frame specified, provide its contract security, Insurance Certificate fully executed and WSIB form where applicable
- submit progress claims in the correct format, accurately representing the work successfully completed and material delivered to the site but not yet installed for each payment period
- submit a Statutory Declaration correctly completed with each progress claim
- submit an updated Schedule if so specified
- pay subcontractors and suppliers in a timely fashion in accordance with the terms and conditions of its subcontracts
- promptly appoint a competent site superintendent
- notify the NCC representative of all its subcontracting activities
- apply for, obtain and pay for all necessary permits, licenses and certificates
- cooperate with other contractors sent onto the site of the work
- remove a superintendent or unsuitable worker when requested by the NCC representative to do so
- effectively protect the work and the contract documents provided by the NCC
- comply with all warranty provisions up to the date of the Contractor Performance Evaluation Report Form (CPERF)
- effectively manage the site during a suspension or termination of the work to mitigate any additional costs to the NCC
- deal promptly with any claims from creditors
- maintain complete records of the project
- provide information promptly when requested to do so
- expedite and co-operate in the settlement of all disputes

Efficacit  avec laquelle l'entrepreneur a administr  le contrat conform ment aux dispositions continues dans la partie « prioritaire » des documents contractuels.

Il faut examiner si l'entrepreneur a :

- fourni, dans le d lai prescrit, une garantie contractuelle, un certificat d'assurance d ment sign s et le formulaire de la CSST, le cas  ch ant
- pr sent  des r clamations p riodiques dans le bon format, en d crivant avec pr cision les travaux ex cut s et le mat riel livr  sur le chantier mais non encore install , pour chaque p riode de paiement
- pr sent  une d claration solennelle correctement remplie avec chaque r clamation p riodique
- fourni un calendrier   jour, sur demande
- pay  rapidement les sous-traitants et les fournisseurs conform ment aux conditions des contrats de sous-traitance
- d sign  dans les plus brefs d lais un surintendant de chantier qualifi 
- tenu au courant le repr sentant de la CCN de toutes les activit s de sous-traitance
- demand , obtenu et pay  tous les permis, licences et certificats n cessaires
- collabor  avec les autres entrepreneurs envoy s sur le lieu des travaux
- remplac  un surintendant ou un travailleur inapte   la demande du repr sentant de la CCN
- prot g  efficacement les travaux et les documents relativement aux travaux et au contrat fournis par la CCN
- respect  toutes les dispositions de garantie jusqu'  la date du Formulaire Rapport d' valuation du rendement de l'entrepreneur (FRERE)
- g r  efficacement le chantier pendant une suspension des travaux ou lors de leur ach vement, afin de limiter tout c t  suppl mentaire pour la CCN
- trait  dans les plus brefs d lais les demandes de paiement des cr anciers
- tenu des dossiers complets sur le projet
- fourni promptement les renseignements demand s
- acc l re et coop re dans le r glement des diff rends

HEALTH AND SAFETY / SANTÉ ET SÉCURITÉ

The effectiveness to which the contractor managed and administered the occupational health and safety provisions as stipulated in the contract documents and those required by provincial legislation or those that would otherwise be applicable to the site of the work.

Consideration should be given to: Did the contractor

- provide the NCC with a copy of its health and safety program prior to award of contract
- provide the NCC with a copy of its site specific hazardous assessment prior to award of contract
- apply for and obtain the provincial Notice of Project prior to commencement of the work
- apply for and obtain the Building Permit prior to commencement of the work
- provide a competent superintendent who
 - is qualified in health and safety matters because of her/his knowledge, training and experience
 - is familiar with the OH&S Act and its Regulations that apply to the site of the work
 - remedies any potential or actual danger of health and safety to those employed at the work site
- respond in a timely manner to any non-compliance safety issues noted by the NCC or a representative of the authority having jurisdiction
- implement its safety program in a proactive manner

Efficacité avec laquelle l'entrepreneur a géré et administré les dispositions relatives à la santé et à la sécurité au travail telles que stipulées dans les documents contractuels et dans les règlements provinciaux ou ceux s'appliquant normalement au lieu des travaux.

Il faut examiner si l'entrepreneur a :

- fourni à la CCN une copie de son programme en matière de santé et de sécurité avant l'octroi du contrat
- fourni à la CCN une copie de son évaluation des dangers pouvant survenir sur les lieux avant l'octroi du contrat
- demandé et obtenu l'avis de projet provincial avant le début des travaux
- demandé et obtenu le permis de construction avant le début des travaux
- engagé un surintendant qui :
 - est qualifié en matière de santé et de sécurité de par ses connaissances, sa formation et son expérience
 - connaît bien les dispositions de la Loi sur la santé et la sécurité au travail et de son règlement qui s'applique sur le lieu des travaux
 - remédie à tout danger possible ou réel en matière de santé et de sécurité pouvant toucher toutes les personnes travaillant sur le lieu des travaux
- traité rapidement tous les problèmes de non-conformité à la sécurité relevés par la CCN ou par un représentant de l'autorité qui a juridiction
- mis en œuvre son programme de sécurité de façon proactive

- GC1.1 INTERPRETATION
 - GC1.1.1 Headings and References
 - GC1.1.2 Terminology
 - GC1.1.3 Application of Certain Provisions
 - GC1.1.4 Substantial Performance
 - GC1.1.5 Completion
- GC1.2 CONTRACT DOCUMENTS
 - GC1.2.1 General
 - GC1.2.2 Order of Precedence
 - GC1.2.3 Security and Protection of Documents and Work
- GC1.3 STATUS OF THE CONTRACTOR
- GC1.4 RIGHTS AND REMEDIES
- GC1.5 TIME OF THE ESSENCE
- GC1.6 INDEMNIFICATION BY CONTRACTOR
- GC1.7 INDEMNIFICATION BY the NCC
- GC1.8 LAWS, PERMITS AND TAXES
- GC1.9 WORKERS' COMPENSATION
- GC1.10 NATIONAL SECURITY
- GC1.11 UNSUITABLE WORKERS
- GC1.12 PUBLIC CEREMONIES AND SIGNS
- GC1.13 CONFLICT OF INTEREST
- GC1.14 AGREEMENTS AND AMENDMENTS
- GC1.15 SUCCESSION
- GC1.16 ASSIGNMENT
- GC1.17 NO BRIBE
- GC1.18 CERTIFICATION - CONTINGENCY FEES
- GC1.19 INTERNATIONAL SANCTIONS

GC1.1 INTERPRETATION

GC1.1.1 Headings and References

- 1) The headings in the contract documents, other than those in the drawings and specifications, form no part of the Contract but are inserted for convenience of reference only.
- 2) A reference made to a part of the Contract by means of numbers preceded by letters is a reference to the particular part of the Contract that is identified by that combination of letters and numbers and to any other part of the Contract referred to therein.
- 3) A reference to a paragraph or subparagraph followed by an identifying number, letter or combination thereof is, unless specifically stated otherwise, a reference to the paragraph or subparagraph that forms part of the clause within which the reference is made.

GC1.1.2 Terminology

- 1) In the Contract

"Contract" means the contract documents referred to as such therein and every other document specified or referred to in any of them as forming part of the Contract, all as amended by agreement of the parties;

"Contract Amount" means the amount set out in the Contract to be payable to the Contractor for the Work, subject to the terms and conditions of the Contract;

"Contract Security" means any security given by the Contractor to the NCC in accordance with the Contract;

"Contractor" means the person contracting with the NCC to provide or furnish all labour, Material and Plant for the execution of the Work under the Contract, and includes the Contractor's superintendent as designated in writing to the NCC;

"Certificate of Completion" means a certificate issued by the NCC when the Work reaches Completion;

"Certificate of Measurement" means a certificate issued by the NCC certifying the correctness of the final quantities, prices per unit and values of labour, Plant and Material performed, used and supplied by the Contractor for the construction of the part of the Work to which a Unit Price Arrangement applies;

"Certificate of Substantial Performance" means a certificate issued by the NCC when the Work reaches Substantial Performance;

"NCC Representative" means the person designated in the Contract, or by written notice to the Contractor, to act as the NCC Representative for the purposes of the Contract, and includes a person, designated and authorized in writing by the NCC Representative to the Contractor;

"herein", "hereby", "hereof", "hereunder" and similar expressions refer to the Contract as a whole and not to any particular section or part thereof;

"Lump Sum Arrangement" means that part of the Contract that prescribes a lump sum as payment for performance of the Work to which it relates;

"Material" includes all commodities, articles, machinery, equipment, fixtures and things required to be furnished in accordance with the Contract for incorporation into the Work;

"NCC" means the National Capital Commission;

"Person" also includes, unless there is an express stipulation in the Contract to the contrary, any partnership, proprietorship, firm, joint venture, consortium or corporation;

"Plant" includes all tools, implements, machinery, vehicles, structures, equipment, articles and things that are necessary for the performance of the Contract, other than Material and those tools customarily provided by a tradesperson in practicing a trade;

"Security screening" is a generic term that applies to all types and levels of personnel security screening including Reliability Status, Site Access, and CONFIDENTIAL, SECRET and TOP SECRET security clearances conducted by the NCC;

"Sensitive Information and Assets" means information or assets that have been identified by the NCC as TOP SECRET, SECRET, CONFIDENTIAL or protected;

"Subcontractor" means a person having a direct contract with the Contractor, subject to GC3.6 SUBCONTRACTING, to perform a part or parts of the Work, or to supply Material customized for the Work;

"Superintendent" means the employee or representative of the Contractor designated by the Contractor to act pursuant to GC2.6 SUPERINTENDENT;

"Supplementary Conditions" means the part of the Contract that amends or supplements the General Conditions;

"Supplier" means a person having a direct contract with the Contractor to supply Plant or Material not customized for the Work;

"Unit Price Arrangement" means that part of the Contract that prescribes the product of a price per unit of measurement multiplied by a number of units of measurement for performance of the Work to which it relates;

"Unit Price Table" means the table of prices per unit set out in the Contract;

"Work" means, subject only to any express stipulation in the Contract to the contrary, everything that is necessary to be done, furnished or delivered by the Contractor to perform the Contract in accordance with the contract documents; and

"Working Day" means a day other than a Saturday, Sunday, or a statutory holiday that is observed by the construction industry in the area of the place of the Work.

GC1.1.3 Application of Certain Provisions

- 1) Any provisions of the Contract that are expressly stipulated to be applicable only to a Unit Price Arrangement are not applicable to any part of the Work to which a Lump Sum Arrangement applies.
- 2) Any provisions of the Contract that are expressly stipulated to be applicable only to a Lump Sum Arrangement are not applicable to any part of the Work to which a Unit Price Arrangement applies.

GC1.1.4 Substantial Performance

- 1) The Work shall be considered to have reached Substantial Performance when:
 - (a) the Work or a substantial part thereof has passed inspection and testing and is, in the opinion of the NCC, ready for use by the NCC or is being used for the intended purposes; and
 - (b) the Work is, in the opinion of the NCC, capable of completion or correction at a cost of not more than
 - (i) 3% of the first \$500,000;
 - (ii) 2% of the next \$500,000; and
 - (iii) 1% of the balanceof the Contract Amount at the time this cost is calculated.
- 2) Where the Work or a substantial part thereof is ready for use or is being used for the purposes intended and:
 - (a) the remainder of the Work or a part thereof cannot be completed by the time specified in the Contract, or as amended in accordance with GC6.5 DELAYS AND EXTENSION OF TIME, for reasons beyond the control of the Contractor; or
 - (b) the NCC and the Contractor agree not to complete a part of the Work within the specified time;

the cost of that part of the Work that was either beyond the control of the Contractor to complete or the NCC and the Contractor have agreed not to complete by the time specified, shall be deducted from the value of the Contract referred to in subparagraph 1)(b) of GC1.1.4, and the said cost shall not form part of the cost of the Work remaining to be done in determining Substantial Performance.

GC1.1.5 Completion

- 1) The Work shall be deemed to have reached Completion when all labour, Plant and Material required have been performed, used or supplied, and the Contractor has complied with the Contract and all orders and directions made pursuant thereto, all to the satisfaction of the NCC.

GC1.2 CONTRACT DOCUMENTS**GC1.2.1 General**

- 1) The contract documents are complementary, and what is required by any one shall be as binding as if required by all.
- 2) References in the contract documents to the singular shall be considered to include the plural as the context requires.
- 3) Nothing contained in the contract documents shall create a contractual relationship between the NCC and any Subcontractor or Supplier, their subcontractors or suppliers, or their agents or employees.

GC1.2.2 Order of Precedence

- 1) In the event of any discrepancy or conflict in the contents of the following documents, such documents shall take precedence and govern in the following order:
 - (a) any amendment or variation of the contract documents that is made in accordance with the General Conditions;
 - (b) any amendment issued prior to tender closing;
 - (c) Supplementary Conditions;
 - (d) General Conditions;
 - (e) the duly completed Invitation to Tender and Acceptance Form when accepted;
 - (f) drawings and specifications.

later dates shall govern within each of the above categories of documents.

- 2) In the event of any discrepancy or conflict in the information contained in the drawings and specifications, the following rules shall apply:
 - (a) specifications shall govern over drawings;
 - (b) dimensions shown in figures on a drawings shall govern where they differ from dimensions scaled from the same drawing; and
 - (c) drawings of larger scale govern over those of smaller scale.

GC1.2.3 Security and Protection of Documents and Work

- 1) The Contractor shall guard and protect all sensitive contract information (TOP SECRET, SECRET, CONFIDENTIAL and PROTECTED) including printed and digital documents, drawings, information, models, copies thereof and processing systems, whether supplied by the NCC or the Contractor, against loss or compromise and damage from any cause.
- 2) The Contractor shall limit access to sensitive NCC information only to those with a “need-to-know” and who have been successfully security screened to at least the level of sensitivity of the information.
- 3) The Contractor shall ensure all contract information indicated in paragraph 1) is guarded and protected by any subcontractors, agents or suppliers and access limited only to those with a “need-to-know” and who have been successfully security screened to at least the level of sensitivity of the information.
- 4) The Contractor shall keep confidential all information provided to the Contractor by or on behalf of the NCC in connection with the Work, and all information developed by the Contractor as part of the Work, and shall not disclose any such information to any person without the written permission of the NCC, except that the Contractor may disclose to a subcontractor, authorized in accordance with the Contract, information necessary to the performance of a subcontract. This section does not apply to any information that:
 - (a) is publicly available from a source other than the Contractor; or
 - (b) is or becomes known to the Contractor from a source other than the NCC, except any source that is known to the Contractor to be under an obligation to the NCC not to disclose the information.
- 5) When the Contract, the Work, or any information referred to in paragraph 4) is identified as TOP SECRET, SECRET, CONFIDENTIAL or PROTECTED by the NCC, the Contractor shall, at all times, take all measures reasonably necessary for the safeguarding of the material so identified, including such measures as may be further specified elsewhere in the Contract or provided, in writing, from time to time by the NCC.
- 6) Without limiting the generality of paragraphs 4) and 5) of GC1.2.3, when the Contract, the Work, or any information referred to in paragraph 4) is identified as TOP SECRET, SECRET, CONFIDENTIAL or PROTECTED by the NCC, the NCC shall be entitled to inspect the Contractor's premises and the premises of its subcontractors or suppliers and any other person at any tier, for security purposes at any time during the term of the Contract, and the Contractor shall comply with, and ensure that any such subcontractors or suppliers comply with all written instructions issued by the NCC dealing with the material so identified, including any requirement that employees of the Contractor and its subcontractors and suppliers and any other person at any tier execute and deliver declarations relating to reliability status, site access security clearances and other procedures.
- 7) The Contractor shall report any suspected or actual security incidents immediately to the NCC involving loss, compromise or damage of NCC information or assets.
- 8) The Contractor shall safeguard the Work and the Contract, the specifications, drawings and any other information provided by the NCC to the Contractor, and shall be liable to the NCC for any loss or damage from any causes.

GC1.3 STATUS OF THE CONTRACTOR

- 1) The Contractor is engaged under the Contract as an independent contractor.
- 2) The Contractor, its subcontractors and suppliers and any other person at any tier and their employees are not engaged by the Contract as employees, servants or agents of the NCC.
- 3) For the purposes of the contract the Contractor shall be solely responsible for any and all payments and deductions required to be made by law including those required for Canada or Quebec Pension Plans, Employment Insurance, Worker's Compensation, provincial health or insurance plans, and Income Tax.

GC1.4 RIGHTS AND REMEDIES

- 1) Except as expressly provided in the Contract, the duties and obligations imposed by the Contract and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.

GC1.5 TIME OF THE ESSENCE

- 1) Time is of the essence of the Contract.

GC1.6 INDEMNIFICATION BY CONTRACTOR

- 1) The Contractor shall pay all royalties and patent fees required for the performance of the Contract and, at the Contractor's expense, shall defend all claims, actions or proceedings against the NCC charging or claiming that the Work or any part thereof provided or furnished by the Contractor to the NCC infringes any patent, industrial design, copyright trademark, trade secret or other proprietary right enforceable in Canada.
- 2) The Contractor shall indemnify and save the NCC harmless from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings by any third party, brought or prosecuted and in any manner based upon, arising out of, related to, occasioned by, or attributable to the activities of the Contractor, its subcontractors and suppliers and any other person at any tier, in performing the Work.
- 3) For the purposes of paragraph 2) of GC1.6, "activities" means any act improperly carried out, any omission to carry out an act and any delay in carrying out an act.

GC1.7 INDEMNIFICATION BY THE NCC

- 1) Subject to the Crown Liability and Proceedings Act, the Patent Act, and any other law that affects the NCC's rights, powers, privileges or obligations, the NCC shall indemnify and save the Contractor harmless from and against all claims, demands, losses, costs, damage, actions, suits or proceedings arising out of the Contractor's activities under the Contract that are directly attributable to:
 - (a) a lack of or a defect in the NCC's title to the Work site if owned by the NCC, whether real or alleged; or
 - (b) an infringement or an alleged infringement by the Contractor of any patent of invention or any other kind of intellectual property occurring while the Contractor was performing any act for the purposes of the Contract employing a model, plan or design or any other thing related to the Work that was supplied by the NCC to the Contractor.

GC1.8 LAWS, PERMITS AND TAXES

- 1) The Contractor shall comply with all federal, provincial and municipal laws and regulations applicable to the performance of the Work or any part thereof including, without limitation, all laws concerning health and labour conditions and the protection of the environment, and shall require compliance therewith by all of its subcontractors and suppliers at any tier as if the Work were being performed for an owner other than the NCC. The Contractor shall furnish evidence of compliance with such laws and regulations to the NCC at such times as the NCC may reasonably request.
- 2) Unless stipulated otherwise in the Contract, the Contractor shall obtain and maintain all permits, certificates, licences, registrations and authorizations required for the lawful performance of the Work.
- 3) Prior to the commencement of the Work at the site, the Contractor shall tender to a municipal authority an amount equal to all fees and charges that would be lawfully payable to that municipal authority in respect of building permits as if the Work were being performed for an owner other than the NCC.
- 4) Within 10 days of making a tender pursuant to paragraph 3) of GC1.8, the Contractor shall notify the NCC of the amount properly tendered and whether or not the municipal authority has accepted that amount.
- 5) If the municipal authority has not accepted the amount tendered, the Contractor shall pay that amount to the NCC within 6 days after the time stipulated in paragraph 4) of GC1.8.
- 6) For the purposes of this clause, "municipal authority" means any authority that would have jurisdiction respecting permission to perform the Work if the owner were not the NCC.
- 7) Notwithstanding the residency of the Contractor, the Contractor shall pay any applicable tax arising from or related to the performance of the Work under the Contract.
- 8) In accordance with the Statutory Declaration referred to in paragraph 4) of GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK, a Contractor who has neither residence nor place of business in the province or territory in which work under the Contract is being performed shall provide the NCC with proof of registration with the provincial sales tax authorities in the said province.
- 9) For the purpose of the payment of any applicable tax or the furnishing of security for the payment of any applicable tax arising from or related to the performance of the Work, and notwithstanding the provision that all Material, Plant and interest of the Contractor in all real property, licences, powers and privileges, become the property of the NCC after the time of purchase in accordance with GC3.10 MATERIAL PLANT AND REAL PROPERTY BECOME PROPERTY OF THE NCC, the Contractor shall be liable, as a user or consumer, for the payment or for the furnishing of security for the payment of any applicable tax payable, at the time of the use or consumption of that Material, Plant or interest of the Contractor in accordance with the relevant legislation.

GC1.9 WORKERS' COMPENSATION

- 1) Prior to award of contract, at the time of submitting its first progress claim, at the time of Substantial Performance of the Work, and prior to issuance of the Certificate of Completion, the Contractor shall provide evidence of compliance with workers' compensation legislation applicable to the place of the Work, including payments due thereunder.

- 2) At any time during the term of the Contract, when requested by the NCC, the Contractor shall provide such evidence of compliance by the Contractor, its subcontractors and any other person at any tier and any other person performing part of the Work who is required to comply with such legislation.

GC1.10 NATIONAL SECURITY

- 1) If the NCC determines that the Work is of a class or kind that involves national security, the NCC may order the Contractor to:
 - (a) provide the NCC with any information concerning persons employed or to be employed by the Contractor for purposes of the Contract; and
 - (b) remove any person from the site of the Work if, in the opinion of the NCC, that person may be a risk to the national security;and the Contractor shall comply with the order.
- 2) In all contracts with persons who are to be employed in the performance of the Contract, the Contractor shall make provision for the performance of any obligation that may be imposed upon the Contractor under paragraph 1) of GC1.10.

GC1.11 UNSUITABLE WORKERS

- 1) The NCC shall instruct the Contractor to remove from the site of the Work any person employed by the Contractor for purposes of the Contract who, in the opinion of the NCC, is incompetent or is guilty of improper conduct, and the Contractor shall not permit a person who has been removed to return to the site of the Work.

GC1.12 PUBLIC CEREMONIES AND SIGNS

- 1) The Contractor shall not permit any public ceremony in connection with the Work without the prior consent of the NCC.
- 2) The Contractor shall not erect nor permit the erection of any sign or advertising on the Work or its site without the prior consent of the NCC.

GC1.13 CONFLICT OF INTEREST

- 1) It is a term of the Contract that no individual, for whom the post-employment provisions of the Conflict of Interest and Post-Employment Code for Public Office Holders or the Values and Ethics Code for the Public Service apply, shall derive a direct benefit from the Contract unless that individual is in compliance with the applicable post-employment provisions.

GC1.14 AGREEMENTS AND AMENDMENTS

- 1) The Contract constitutes the entire and sole agreement between the parties with respect to the subject matter of the Contract and supersedes all previous negotiations, communications and other agreements, whether written or oral, relating to it, unless they are incorporated by reference in the Contract. There are no terms, covenants, representations, statements or conditions binding on the parties other than those contained in the Contract.
- 2) The failure of either party at any time to require performance by the other party of any provision hereof shall not affect the right thereafter to enforce such provision. Nor shall the waiver by either

party of any breach of any covenant, term or condition hereof be taken to be held to be a waiver of any further breach of the same covenant, term or condition.

- 3) The Contract may be amended only as provided for in the Contract.

GC1.15 SUCCESSION

- 1) The Contract shall inure to the benefit of and be binding upon the parties hereto and their lawful heirs, executors, administrators, successors and, subject to GC1.16 ASSIGNMENT, permitted assigns.

GC1.16 ASSIGNMENT

- 1) The Contractor shall not make any assignment of the Contract, either in whole or in part, without the written consent of the NCC.

GC1.17 NO BRIBE

- 1) The Contractor represents and covenants that no bribe, gift, benefit, nor other inducement has been nor shall be paid, given, promised or offered directly or indirectly to any official or employee of the NCC or to a member of the family of such a person, with a view to influencing the entry into the Contract or the administration of the Contract.

GC1.18 CERTIFICATION - CONTINGENCY FEES

- 1) In this clause:
 - (a) "contingency fee" means any payment or other compensation that is contingent upon or is calculated upon the basis of a degree of success in soliciting or obtaining a Government contract or negotiating the whole or any part of its terms;
 - (b) "employee" means a person with whom the Contractor has an employer/employee relationship; and
 - (c) "person" includes an individual or a group of individuals, a corporation, a partnership, an organization and an association and, without restricting the generality of the foregoing, includes any individual who is required to file a return with the registrar pursuant to section 5 of the Lobbyists Registration Act R.S.C. 1985 c.44 (4th Supplement) as the same may be amended from time to time.
- 2) The Contractor certifies that it has not directly or indirectly paid nor agreed to pay and covenants that it shall not directly or indirectly pay nor agree to pay a contingency fee for the solicitation, negotiation or obtaining of the Contract to any person other than an employee acting in the normal course of the employee's duties.
- 3) All accounts and records pertaining to payments of fees or other compensation for the solicitation, obtaining or negotiation of the Contract shall be subject to the accounts and audit provisions of the Contract.
- 4) If the Contractor certifies falsely under this section or is in default of the obligations contained therein, the NCC may either take the Work out of the Contractor's hands in accordance with the provisions of the Contract or recover from the Contractor by way of reduction to the Contract Amount or otherwise, the full amount of the contingency fee.

GC1.19 INTERNATIONAL SANCTIONS

- 1) Persons and companies in Canada, and Canadians outside of Canada are bound by economic sanctions imposed by the Government of Canada. As a result, the the NCC cannot accept delivery of goods or services that originate, either directly or indirectly, from the countries or persons subject to economic sanctions.

Details on existing sanctions can be found at:

<http://www.dfait-maeci.gc.ca/trade/sanctions-en.asp>.

- 2) It is a condition of the Contract that the Contractor not supply to the NCC any goods or services which are subject to economic sanctions.
- 3) By law, the Contractor must comply with changes to the regulations imposed during the life of the Contract. During the performance of the Contract should the imposition of sanctions against a country or person or the addition of a good or service to the list of sanctioned goods or services cause an impossibility of performance for the Contractor, the Contractor may request that the Contract be terminated in accordance with GC7.3 TERMINATION OF CONTRACT.

- GC2.1 NCC REPRESENTATIVE'S AUTHORITY
- GC2.2 INTERPRETATION OF CONTRACT
- GC2.3 NOTICES
- GC2.4 SITE MEETINGS
- GC2.5 REVIEW AND INSPECTION OF WORK
- GC2.6 SUPERINTENDENT
- GC2.7 NON-DISCRIMINATION IN HIRING AND EMPLOYMENT OF LABOUR
- GC2.8 ACCOUNTS AND AUDITS

GC2.1 NCC REPRESENTATIVE'S AUTHORITY

- 1) The NCC shall designate an NCC Representative and shall notify the Contractor of the name, address and telephone number of the NCC Representative.
- 2) The NCC Representative shall perform the NCC's duties and functions under the contract.
- 3) The NCC Representative shall be authorized to issue notices, instructions and directions to the Contractor and to accept on behalf of the NCC any notice, order or other communication from the contractor relating to the Work.
- 4) The NCC Representative shall, within a reasonable time, review and respond to submissions made by the Contractor in accordance with the requirements of the Contract.

GC2.2 INTERPRETATION OF CONTRACT

- 1) If, at any time before the NCC has issued a Certificate of Completion, any question arises between the parties about whether anything has been done as required by the Contract or about what the Contractor is required by the Contract to do, and in particular but without limiting the generality of the foregoing, about:
 - (a) the meaning of anything in the drawings and specifications;
 - (b) the meaning to be given to the drawings and specifications in case of any error therein, omission therefrom, or obscurity or discrepancy in their wording or intention;
 - (c) whether or not the quality or quantity of any Material or workmanship supplied or proposed to be supplied by the Contractor meets the requirements of the Contract;
 - (d) whether or not the labour, Plant or Material performed, used and supplied by the Contractor for performing the Work and carrying out the Contract are adequate to ensure that the Work shall be performed in accordance with the Contract and that the Contract shall be carried out in accordance with its terms;
 - (e) what quantity of any of the Work has been completed by the Contractor; or
 - (f) the timing and scheduling of the various phases of the performance of the Work as specified in the Contract;

the question shall be decided, subject to the provisions of GC8 DISPUTE RESOLUTION, by the NCC.

- 2) The Contractor shall perform the Work in accordance with any decisions of the NCC that are made under paragraph 1) of GC2.2 and in accordance with any consequential directions given by the NCC.

- 3) If the Contractor fails to comply with any instruction or direction issued by the NCC pursuant to the Contract, the NCC may employ such methods as the NCC deems advisable to do what the Contractor failed to do, and the Contractor shall, on demand, pay the NCC an amount that is equal to the aggregate of all costs, expenses and damages incurred or sustained by the NCC by reason of the Contractor's failure to comply with such instruction or direction, including the cost of any methods employed by the NCC in doing what the Contractor failed to do.

GC2.3 NOTICES

- 1) Subject to paragraph 3) of GC2.3, any notice, order or other communication may be given in any manner, and if required to be in writing, shall be addressed to the party to whom it is intended at the address in the Contract or at the last address of which the sender has received written notice in accordance with this section.
- 2) Any notice, order or other communication given in writing in accordance with paragraph 1) of GC2.3 shall be deemed to have been received by either party:
 - (a) if delivered personally, on the day that it was delivered;
 - (b) if forwarded by mail, on the earlier of the day it was received or the sixth day after it was mailed; and
 - (c) if forwarded by facsimile or electronic mail, 24 hours after it was transmitted.
- 3) A notice given under GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS, GC7.2 SUSPENSION OF WORK, and GC7.3 TERMINATION OF CONTRACT shall be given in writing and, if delivered personally, shall be delivered, if the Contractor is a sole proprietor, to the Contractor or, if the Contractor is a partnership or corporation, to an officer thereof.

GC2.4 SITE MEETINGS

- 1) In consultation with the NCC, the Contractor shall arrange site meetings at regular intervals, with all involved parties who are to attend, in order to ensure, among other things, the proper co-ordination of the Work.

GC2.5 REVIEW AND INSPECTION OF WORK

- 1) The NCC shall review the Work to determine if it is proceeding in conformity with the Contract and to record the necessary data to make an assessment of the value of Work completed. The NCC shall measure and record the quantities of labour, Plant and Material performed, used or supplied by the Contractor in performing the Work or any part thereof that is subject to a Unit Price Arrangement and, on request, shall inform the Contractor of those measurements, and permit the Contractor to inspect any records pertaining thereto.
- 2) The NCC shall reject Work or Material which in the NCC's opinion does not conform to the requirements of the Contract, and shall require inspection or testing of Work, whether or not such Work is fabricated, installed, or completed. If such Work is not in accordance with the requirements of the Contract, the Contractor shall correct the Work and shall pay the NCC, on demand, all reasonable costs and expenses that were incurred by the NCC in having the examination performed.
- 3) The Contractor shall provide the NCC with access to the Work and its site at all times, and at all times shall provide sufficient, safe, and proper facilities for the review and inspection of the Work by persons authorized by the NCC and any representatives of those authorities having jurisdiction. If parts of the Work are in preparation at locations other than the site of the Work, the NCC shall be given access to such Work whenever it is in progress.

- 4) The Contractor shall furnish the NCC with such information respecting the performance of the Contract as the NCC may require, and render every possible assistance to enable the NCC to verify that the Work is performed in accordance with the Contract, carry out any other duties and exercise any powers in accordance with the Contract.
- 5) If Work is designated for tests, inspections, or approvals in the Contract or by the NCC's instructions, or by laws or ordinances of the place of the Work, the Contractor shall give the NCC reasonable notice of when such Work shall be ready for review and inspection. The Contractor shall arrange for and shall give the NCC reasonable notice of the date and time of inspections, tests or approvals.
- 6) If the Contractor covers, or permits to be covered, Work that has been designated for tests, inspections or approvals before such tests, inspections or approvals are made, completed or given, the Contractor shall, if so directed by the NCC, uncover such Work, have the inspections, tests or approvals satisfactorily made, completed or given and make good the covering of the Work at the Contractor's expense.

GC2.6 SUPERINTENDENT

- 1) Prior to commencing the Work, the Contractor shall designate a Superintendent and shall notify the NCC of the name, address and telephone number of the Superintendent. The Contractor shall keep the Superintendent at the Work site during working hours until the Work has reached completion.
- 2) The Superintendent shall be in full charge of the operations of the Contractor during the performance of the Work and shall be authorized to accept on behalf of the Contractor any notice, order or other communication given to the Superintendent or the Contractor relating to the Work.
- 3) Upon request of the NCC, the Contractor shall remove any Superintendent who, in the opinion of the NCC, is incompetent or has been guilty of improper conduct, and shall forthwith designate another Superintendent who is acceptable to the NCC.
- 4) The Contractor shall not substitute a Superintendent without the written consent of the NCC. If a Superintendent is substituted without such consent, the NCC shall be entitled to refuse to issue any documentation or certification relating to progress payments, Substantial Performance or Completion of the Work until the Superintendent has returned to the Work site or another Superintendent who is acceptable to the NCC has been substituted.

GC2.7 NON-DISCRIMINATION IN HIRING AND EMPLOYMENT OF LABOUR

- 1) For the purposes of this clause, "persons" include the Contractor, its subcontractors and suppliers at any tier and their respective employees, agents, licensees or invitees and any other individual involved in the performance of the Work or granted access to the Work site. A "person" includes any partnership, proprietorship, firm, joint venture, consortium and corporation.
- 2) Without restricting the provisions of paragraph 3) of GC2.6, SUPERINTENDENT, the Contractor shall not refuse to employ and shall not discriminate in any manner against any person because:
 - (a) of that person's race, national origin, colour, religion, age, sex or marital status;
 - (b) of the race, national origin, colour, religion, age, sex, or marital status of any person having any relationship or association with that person; or
 - (c) a complaint has been made or information has been given by or in respect of that person relating to an alleged failure by the Contractor to comply with subparagraphs 2)(a) and 2)(b) of GC2.7.

- 3) Within two Working Days immediately following receipt of a written complaint pursuant to paragraph 2) of GC2.7, the Contractor shall:
 - (a) cause to have issued a written direction to the person or persons named by the complainant to cease all actions that form the basis of the complaint;
 - (b) forward a copy of the complaint to the NCC by registered mail or courier service; and
 - (c) when the Labour Conditions are applicable under the circumstances of the complaint, forward a copy of the complaint to HRSDC - Labour to the attention of the appropriate Director as described in the Labour Conditions ("HRSDC - Labour" means the labour component of the federal Department of Human Resources and Skills Development).
- 4) Within twenty four (24) hours immediately following receipt of a direction from the NCC to do so, the Contractor shall cause to have removed from the site of the Work and from the performance of Work under the Contract, any person or persons whom the NCC believes to be in breach of the provisions of paragraph 2) of GC2.7.
- 5) No later than thirty (30) days after receipt of the direction referred to in paragraph 4) of GC2.7, the Contractor shall cause the necessary action to be commenced to remedy the breach described in the direction.
- 6) If a direction is issued pursuant to paragraph 4) of GC2.7, the NCC may withhold from monies that are due and payable to the Contractor or setoff pursuant to GC5.9 RIGHT OF SETOFF, whichever is applicable, an amount representing the sum of the costs and payment referred to in paragraph 8) of GC2.7.
- 7) If the Contractor fails to proceed in accordance with paragraph 5) of GC2.7, the NCC shall take the necessary action to have the breach remedied, and shall determine all supplementary costs incurred by the NCC as a result.
- 8) The NCC may make a payment directly to the complainant from monies that are due and payable to the Contractor upon receipt from the complainant of:
 - (a) a written award issued pursuant to the federal Commercial Arbitration Act, R.S.C. 1985, c. 17 (2nd Supp.);
 - (b) a written award issued pursuant to the Canadian Human Rights Act, R.S.C. 1985, c. H-6;
 - (c) a written award issued pursuant to provincial or territorial human rights legislation; or
 - (d) a judgement issued by a court of competent jurisdiction.
- 9) If the NCC is of the opinion that the Contractor has breached any of the provisions of this clause, the NCC may take the Work out of the Contractor's hands pursuant to GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS.
- 10) Subject to paragraph 7) of GC3.6 SUBCONTRACTING, the Contractor shall ensure that the provisions of this clause are included in all agreements and contracts entered into as a consequence of the Work.

GC2.8 ACCOUNTS AND AUDITS

- 1) The Contractor shall, in addition to the requirements expressed in paragraph 6) of GC3.4 EXECUTION OF THE WORK, maintain full records of the Contractor's estimated and actual cost of the Work together with all tender calls, quotations, contracts, correspondence, invoices, receipts and vouchers relating thereto, and shall make them available on request to audit and inspection by the NCC or by persons designated to act on behalf of the NCC.
- 2) The Contractor shall allow any of the persons referred to in paragraph 1) of GC2.8 to make copies of and take extracts from any of the records and material, and shall furnish such persons or entities with any information those persons or entities may require from time to time in connection with such records and material.
- 3) The Contractor shall maintain and keep the records intact until the expiration of two years after the date that a Certificate of Completion has been issued or until the expiration of such other period of time as the NCC may direct.
- 4) The Contractor shall cause all subcontractors at any tier and all other persons directly or indirectly controlled by or affiliated with the Contractor and all persons directly or indirectly having control of the Contractor to comply with the requirements of this clause as if they were the Contractor.

- GC3.1 PROGRESS SCHEDULE
- GC3.2 ERRORS AND OMISSIONS
- GC3.3 CONSTRUCTION SAFETY
- GC3.4 EXECUTION OF THE WORK
- GC3.5 MATERIAL
- GC3.6 SUBCONTRACTING
- GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS
- GC3.8 LABOUR
- GC3.9 TRUCK HAULAGE RATES **(CANCELLED)**
- GC3.10 MATERIAL, PLANT AND REAL PROPERTY BECOME PROPERTY OF THE NCC
- GC3.11 DEFECTIVE WORK
- GC3.12 CLEANUP OF SITE
- GC3.13 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK

GC3.1 PROGRESS SCHEDULE

- 1) The Contractor shall:
 - (a) prepare and submit to the NCC, prior to the submission of the Contractor's first progress claim, a progress schedule in accordance with the requirements set out in the Contract;
 - (b) monitor the progress of the Work relative to the schedule and update the schedule as stipulated by the contract documents;
 - (c) advise the NCC of any revisions to the schedule required as the result of any extension of time for completion of the Contract that was approved by the NCC; and
 - (d) prepare and submit to the NCC, at the time of issuance of an Certificate of Substantial Performance, an update of any schedule clearly showing a detailed timetable that is acceptable to the NCC for the completion of any unfinished Work and the correction of all listed defects.

GC3.2 ERRORS AND OMISSIONS

- 1) The Contractor shall report promptly to the NCC any errors, discrepancies, or omissions the Contractor may discover when reviewing the contract documents. In making a review, the Contractor does not assume any responsibility to the NCC for the accuracy of the review. The Contractor shall not be liable for damage or costs resulting from such errors, discrepancies, or omissions in the contract documents prepared by or on behalf of the NCC that the Contractor did not discover.

GC3.3 CONSTRUCTION SAFETY

- 1) Subject to GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS, the Contractor shall be solely responsible for construction safety at the place of the Work and for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Work. In any emergency, the Contractor shall either, stop the Work, make changes or order extra work to ensure the safety of life and the protection of the Work and neighbouring property.
- 2) Prior to commencing the Work, the Contractor shall notify the authorities having jurisdiction for construction safety at the site of the Work with respect to the intended commencement of the Work, and shall provide such authority with whatever additional information may be required by that authority.

GC3.4 EXECUTION OF THE WORK

- 1) The Contractor shall perform, use or supply and pay for, all labour, Plant, Material, tools, construction machinery and equipment, water, heat, light, power, transportation and other facilities and services necessary for the performance of the Work in accordance with the Contract.
- 2) The Contractor shall, at all times, perform the Work in a proper, diligent and expeditious manner as is consistent with construction industry standards and in accordance with the progress schedule prepared pursuant to GC3.1 PROGRESS SCHEDULE and shall provide sufficient personnel to fulfil the Contractor's obligations in accordance with that schedule.
- 3) Subject to paragraph 4) of GC3.4, the Contractor shall have complete care, custody and control of the Work and shall direct and supervise the Work so as to ensure compliance with the Contract. The Contractor shall be responsible for construction means, methods, techniques, sequences and procedures and for co-ordinating the various parts of the Work.
- 4) When requested in writing by the NCC, the Contractor shall make appropriate alterations in the method, Plant or workforce at any time the NCC considers the Contractor's actions to be unsafe or damaging to either the Work, existing facilities, persons at the site of the Work or the environment.
- 5) The Contractor shall have sole responsibility for the design, erection, operation, maintenance and removal of temporary structures and other temporary facilities and for the construction methods used in their erection, operation, maintenance and removal. The Contractor shall engage and pay for registered professional engineering personnel, skilled in the appropriate discipline to perform these functions if required by law or by the Contract, and in all cases when such temporary facilities and their methods of construction are of such a nature that professional engineering skill is required to produce safe and satisfactory results.
- 6) The Contractor shall keep at least one copy of current contract documents, submittals, reports, and records of meetings at the site of the Work, in good order and available to the NCC.
- 7) Except for any part of the Work that is necessarily performed away from or off the site of the Work, the Contractor shall confine Plant, storage of Material, and operations of employees to limits indicated by laws, ordinances, permits or the contract documents.

GC3.5 MATERIAL

- 1) Unless otherwise specified in the Contract, all Material incorporated in the Work shall be new.
- 2) Subject to paragraph 3) of GC3.5, if a specified reused, refurbished, or recycled item of Material is not available, the Contractor shall apply to the NCC to substitute a similar item for the one specified.
- 3) If the NCC agrees that the Contractor's application for substitution of a reused, refurbished or recycled item is warranted, and that the substitute item is of acceptable quality and value to that specified and is suitable for the intended purpose, the NCC may approve the substitution, subject to the following:
 - (a) the request for substitution shall be made in writing to the NCC and shall be substantiated by information in the form of the manufacturer's literature, samples and other data that may be required by the NCC;
 - (b) the Contractor shall make the request for substitution in a manner that shall not negatively affect the progress schedule of the Contract and well in advance of the time the item of Material must be ordered;

- (c) substitution of Material shall be permitted only with the prior written approval of the NCC, and any substituted items that are supplied or installed without such approval shall be removed from the site of the Work at the expense of the Contractor, and specified items installed at no additional cost to the NCC; and
- (d) the Contractor shall be responsible for all additional expenses incurred by the NCC, the Contractor, its subcontractors and suppliers at any tier due to the Contractor's use of the substitute.

GC3.6 SUBCONTRACTING

- 1) Subject to the provisions of this clause, the Contractor may subcontract any part of the Work but not the whole of the Work.
- 2) The Contractor shall notify the NCC in writing of the Contractor's intention to subcontract.
- 3) A notification referred to in paragraph 2) of GC3.6 shall identify the part of the Work and the Subcontractor with whom the Contractor intends to subcontract.
- 4) The NCC may for reasonable cause, object to the intended subcontracting by notifying the Contractor in writing within six (6) days of receipt by the NCC of a notification referred to in paragraph 2) of GC3.6.
- 5) If the NCC objects to a subcontracting, the Contractor shall not enter into the intended subcontract.
- 6) The Contractor shall not change, nor permit to be changed, a Subcontractor engaged by the Contractor, in accordance with this clause, without the written consent of the NCC.
- 7) The Contractor shall ensure that all the terms and conditions of the Contract that are of general application shall be incorporated in every other contract issued as a consequence of the Contract, at whatever tier, except those contracts issued solely to suppliers at any tier for the supply of Plant or Material.
- 8) Neither a subcontracting nor the NCC's consent to a subcontracting shall be construed to relieve the Contractor from any obligation under the Contract or to impose any liability upon the NCC.

GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS

- 1) The NCC reserves the right to send other contractors or workers, with or without Plant and Material, onto the site of the Work.
- 2) When other contractors or workers are sent on to the site of the Work, the NCC shall:
 - (a) enter into separate contracts, to the extent it is possible, with the other contractors under conditions of contract that are compatible with the conditions of the Contract;
 - (b) ensure that the insurance coverage provided by the other contractors is co-ordinated with the insurance coverage of the Contractor as it affects the Work; and
 - (c) take all reasonable precautions to avoid labour disputes or other disputes arising from the work of the other contractors or workers.
- 3) When other contractors or workers are sent on to the site of the Work, the Contractor shall:
 - (a) co-operate with them in the carrying out of their duties and obligations;

- (b) co-ordinate and schedule the Work with the work of the other contractors and workers;
 - (c) participate with other contractors and workers in reviewing their construction schedules when directed to do so;
 - (d) where part of the Work is affected by or depends upon the work of other contractors or workers for its proper execution, promptly report to the NCC in writing and prior to proceeding with that part of the Work, any apparent deficiencies in such work. Failure by the Contractor to so report shall invalidate any claims against the NCC by reason of the deficiencies in the work of other contractors or workers except those deficiencies that are not then reasonably discoverable; and
 - (e) when designated as being responsible for construction safety at the place for work, in accordance with the applicable provincial or territorial laws, carry out its duties in that role and in accordance with those laws.
- 4) If, when entering into the Contract, the Contractor could not have reasonably foreseen nor anticipated the sending of other contractors or workers on to the site of the Work and provided the Contractor:
- (a) incurs extra expense in complying with the requirements of paragraph 3) of GC3.7; and
 - (b) gives the NCC written notice of a claim for that extra expense within thirty (30) days of the date that the other contractors or workers were sent onto the Work or its site,

the NCC shall pay the Contractor the cost of the extra labour, Plant and Material that was necessarily incurred, calculated in accordance with GC6.4 DETERMINATION OF PRICE.

GC3.8 LABOUR

- 1) The Contractor shall maintain good order and discipline among the Contractor's employees and workers engaged in the Work shall not employ, on the site of the Work, anyone not skilled in the tasks assigned.

GC3.9 TRUCK HAULAGE RATES

CANCELLED

GC3.10 MATERIAL, PLANT AND REAL PROPERTY BECOME PROPERTY OF THE NCC

- 1) Subject to paragraph 9) of GC1.8 LAWS PERMITS AND TAXES, all Material and Plant and the interest of the Contractor in all real property, licences, powers and privileges purchased, used or consumed by the Contractor for the Work shall, immediately after the time of their purchase, use or consumption be the property of the NCC for the purposes of the Work and they shall continue to be the property of the NCC:
- (a) in the case of Material, until the NCC indicates that the Materials shall not be required for the Work; and
 - (b) in the case of Plant, real property, licences, powers and privileges, until the NCC indicates that the interest vested in the NCC therein is no longer required for the purposes of the Work.
- 2) Material or Plant, that is the property of the NCC by virtue of paragraph 1) of GC3.10, shall not be taken away from the site of the Work nor used nor disposed of except for the purposes of the Work without the written consent of the NCC.

- 3) The NCC is not liable for loss of nor damage from any cause to the Material or Plant referred to in paragraph 1) of GC3.10, and the Contractor is liable for such loss or damage notwithstanding that the Material or Plant is the property of the NCC.

GC3.11 DEFECTIVE WORK

- 1) The Contractor shall promptly remove from the site of the Work and replace or re-execute defective Work whether or not the defective Work has been incorporated in the Work and whether or not the defect is the result of poor workmanship, use of defective Material, or damage through carelessness or other act or omission of the Contractor.
- 2) The Contractor, at the Contractor's expense, shall promptly make good other work destroyed or damaged by such removals or replacements.
- 3) If, in the opinion of the NCC, it is not expedient to correct defective Work or Work not performed as provided for in the Contract documents, the NCC may deduct from the amount otherwise due to the Contractor the difference in value between the Work as performed and that called for by the Contract documents.
- 4) The failure of the NCC to reject any defective Work or Material shall not constitute acceptance of the defective Work or Material.

GC3.12 CLEANUP OF SITE

- 1) The Contractor shall maintain the Work and its site in a tidy condition and free from an accumulation of waste material and debris.
- 2) Before the issue of a Certificate of Substantial Performance, the Contractor shall remove waste material and debris, and all Plant and Material not required for the performance of the remaining Work and, unless otherwise stipulated in the Contract Documents, shall cause the Work and its site to be clean and suitable for occupancy by the NCC.
- 3) Before the issue of a Certificate of Completion, the Contractor shall remove all surplus Plant and Materials and any waste products and debris from the site of the Work.
- 4) The Contractor's obligations described in paragraphs 1) to 3) of GC3.12 do not extend to waste products and other debris caused by the NCC's servants, or by other contractors and workers referred to in GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS.

GC3.13 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK

- 1) Without restricting any warranty or guarantee implied or imposed by law or contained in the Contract, the Contractor shall, at the Contractor's expense:
 - (a) rectify and make good any defect or fault that appears in the Work or comes to the attention of the NCC with respect to those parts of the Work accepted in connection with the Certificate of Substantial Performance within 12 months from the date of Substantial Performance; and
 - (b) rectify and make good any defect or fault that appears in or comes to the attention of the NCC in connection with those parts of the Work described in the Certificate of Substantial Performance within 12 months from the date of the Certificate of Completion;
 - (c) transfer and assign, to the NCC, any subcontractor, manufacturer or supplier extended warranties or guarantees implied or imposed by law or contained in the Contract covering periods beyond the 12 months stipulated above. Extended warranties or guarantees referred to

herein shall not extend the 12-month period whereby the Contractor, except as may be provided elsewhere in the Contract, must rectify and make good any defect or fault that appears in the Work or comes to the attention of the NCC;

- (d) provide, to the NCC prior to the issuance of the Certificate of Completion, a list of all extended warranties and guarantees referred to in paragraph (c) above.
- 2) The NCC may direct the Contractor to rectify and make good any defect or fault referred to in paragraph 1) of GC3.13 or covered by any other expressed or implied warranty or guarantee and the Contractor shall rectify and make good such defect within the time stipulated in the direction.
- 3) A direction referred to in paragraph 2) GC3.13 shall be in writing and shall be given to the Contractor in accordance with GC2.3 NOTICES.

- GC4.1 PROTECTION OF WORK AND PROPERTY
- GC4.2 PRECAUTIONS AGAINST DAMAGE, INFRINGEMENT OF RIGHTS, FIRE AND OTHER HAZARDS
- GC4.3 MATERIAL, PLANT AND REAL PROPERTY SUPPLIED BY THE NCC
- GC4.4 CONTAMINATED SITE CONDITIONS

GC4.1 PROTECTION OF WORK AND PROPERTY

- 1) The Contractor shall protect the Work and its site against loss or damage from any cause and shall similarly protect all Material, Plant and real property under the Contractor's care, custody and control whether or not such Material, Plant and real property are supplied by the NCC to the Contractor.
- 2) The Contractor shall provide all facilities necessary for the purpose of maintaining security, and shall assist any person authorized by the NCC to inspect or to take security measures in respect of the Work and its site.
- 3) The NCC may direct the Contractor to do such things and to perform such work as the NCC considers reasonable and necessary to ensure compliance with or to remedy a breach of paragraphs 1) or 2) of GC4.1, and the Contractor, shall comply with such direction.

GC4.2 PRECAUTIONS AGAINST DAMAGE, INFRINGEMENT OF RIGHTS, FIRE AND OTHER HAZARDS

- 1) The Contractor shall do whatever is necessary to ensure that:
 - (a) no person, property, right, easement nor privilege is injured, damaged or infringed upon by reasons of the Contractor's activities in performing the Work;
 - (b) pedestrian and other traffic on any public or private road or waterway is not unduly impeded, interrupted nor endangered by the performance or existence of the Work, Material or Plant;
 - (c) fire hazards in or about the site of the Work are eliminated and any fire is promptly extinguished;
 - (d) the health and safety of all persons employed in the performance of the Work is not endangered by the methods nor means of their performance;
 - (e) adequate medical services are available to all persons employed on the Work or its site at all times during the performance of the Work;
 - (f) adequate sanitation measures are taken in respect of the Work and its site; and
 - (g) all stakes, buoys and marks placed on the Work or its site by the NCC are protected and are not removed, defaced, altered nor destroyed.
- 2) The NCC may direct the Contractor to do such things and to perform such work as the NCC considers reasonable and necessary to ensure compliance with or to remedy a breach of paragraph 1) of GC4.2, and the Contractor shall comply with the direction of the NCC.

GC4.3 MATERIAL, PLANT AND REAL PROPERTY SUPPLIED BY THE NCC

- 1) Subject to paragraph 2) of GC4.3, the Contractor is liable to the NCC for any loss of or damage to Material, Plant or real property that is supplied or placed in the care, custody and control of the Contractor by the NCC for use in connection with the Contract, whether or not that loss or damage is attributable to causes beyond the Contractor's control.

- 2) The Contractor is not liable to the NCC for any loss or damage to Material, Plant or real property referred to in paragraph 1) of GC4.3 if that loss or damage results from and is directly attributable to reasonable wear and tear.
- 3) The Contractor shall not use any Material, Plant or real property supplied by the NCC except for the purpose of performing the Contract.
- 4) When the Contractor fails to make good any loss or damage for which the Contractor is liable under paragraph 1) within a reasonable time, the NCC may cause the loss or damage to be made good at the Contractor's expense, and the Contractor shall thereupon be liable to the NCC for the cost thereof and shall, on demand, pay to the NCC an amount equal to that cost.
- 5) The Contractor shall keep records of all Material, Plant and real property supplied by the NCC as the NCC requires and shall satisfy the NCC, when requested, that such Material, Plant and real property are at the place and in the condition in which they ought to be.

GC4.4 CONTAMINATED SITE CONDITIONS

- 1) For the purposes of GC4.4, a contaminated site condition exists when a solid, liquid, gaseous, thermal or radioactive irritant or contaminant, or other hazardous or toxic substance or material, including moulds and other forms of fungi, is present at the site of the Work to an extent that constitutes a hazard, or potential hazard, to the environment, property, or the health or safety of any person.
- 2) If the Contractor encounters a contaminated site condition of which the Contractor is not aware or about which the Contractor has not been advised, or if the Contractor has reasonable grounds to believe that such a site condition exists at the site of the Work, the Contractor shall:
 - (a) take all reasonable steps, including stopping the Work, to ensure that no person suffers injury, sickness or death, and that neither property nor the environment is injured or destroyed as a result of the contaminated site condition;
 - (b) immediately notify the NCC of the circumstances in writing; and
 - (c) take all reasonable steps to minimize additional costs that may accrue as a result of any work stoppage.
- 3) Upon receipt of a notification from the Contractor, the NCC shall promptly determine whether a contaminated site condition exists, and shall notify the Contractor in writing of any action to be taken, or work to be performed, by the Contractor as a result of the NCC's determination.
- 4) If the Contractor's services are required by the NCC, the Contractor shall follow the direction of the NCC with regard to any excavation, treatment, removal and disposal of any polluting substance or material.
- 5) The NCC, at the NCC's sole discretion, may enlist the services of experts and specialty contractors to assist in determining the existence of, and the extent and treatment of contaminated site conditions, and the Contractor shall allow them access and co-operate with them in the carrying out of their duties and obligations.
- 6) Except as may be otherwise provided for in the Contract, the provisions of GC6.4 DETERMINATION OF PRICE shall apply to any additional work made necessary because of a contaminated site condition.

- GC5.1 INTERPRETATION
- GC5.2 AMOUNT PAYABLE
- GC5.3 INCREASED OR DECREASED COSTS
- GC5.4 PROGRESS PAYMENT
- GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK
- GC5.6 FINAL COMPLETION
- GC5.7 PAYMENT NOT BINDING ON THE NCC
- GC5.8 CLAIMS AND OBLIGATIONS
- GC5.9 RIGHT OF SETOFF
- GC5.10 ASSESSMENTS AND DAMAGES FOR LATE COMPLETION
- GC5.11 DELAY IN MAKING PAYMENT
- GC5.12 INTEREST ON SETTLED CLAIMS
- GC5.13 RETURN OF SECURITY DEPOSIT

GC5.1 INTERPRETATION

In these Terms of Payment

- 1) The "payment period" means a period of 30 consecutive days or such other longer period as may be agreed between the Contractor and the NCC.
- 2) An amount is "due and payable" when it is due and payable by the NCC to the Contractor according to GC5.4 PROGRESS PAYMENT, GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK or GC5.6 FINAL COMPLETION.
- 3) An amount is overdue when it remains unpaid on the first day following the day upon which it is due and payable.
- 4) The "date of payment" means the date of the negotiable instrument of an amount due and payable by the NCC.
- 5) The "Bank Rate" means the rate of interest established by the Bank of Canada as the minimum rate at which it makes short term advances to members of the Canadian Payments Association.
- 6) The "Average Bank Rate" means the simple arithmetic mean of the Bank Rate in effect at 4:00 p.m. Ottawa Time each day during the calendar month which immediately precedes the calendar month in which payment is made.

GC5.2 AMOUNT PAYABLE

- 1) Subject to any other provisions of the Contract, the NCC shall pay the Contractor, at the times and in the manner hereinafter set out, the amount by which the amounts payable by the NCC to the Contractor in accordance with the Contract exceed the amounts payable by the Contractor to the NCC, and the Contractor shall accept that amount as payment in full satisfaction for everything furnished and done by the Contractor in respect of the Work to which the payment relates.
- 2) When making any payment to the Contractor, the failure of the NCC to deduct an amount payable to the NCC by the Contractor shall not constitute a waiver of the right to do so, or an admission of lack of entitlement to do so in any subsequent payment to the Contractor.
- 3) No payment other than a payment that is expressly stipulated in the Contract, shall be made by the NCC to the Contractor for any extra expense or any loss or damage incurred or sustained by the Contractor.

GC5.3 INCREASED OR DECREASED COSTS

- 1) The Contract Amount shall not be increased nor decreased by reason of any increase or decrease in the cost of the Work that is brought about by an increase or decrease in the cost of labour, Plant, Material or any wage adjustment arising pursuant to the Labour Conditions.
- 2) Notwithstanding paragraph 1) of GC5.3, if any change, including a new imposition or repeal, of any tax, customs or other duty, charge, or any similar imposition that is imposed under sales, customs or excise tax legislation of the Government of Canada or any Provincial or Territorial legislation, affects the cost of the Work to the Contractor, and occurs:
 - (a) after the date of submission by the Contractor of its tender; or
 - (b) after the date of submission of the last revision, if the Contractor's tender was revised,the Contract Amount shall be adjusted in the manner provided in paragraph 3) of GC5.3.
- 3) If a change referred to in paragraph 2) of GC5.3 occurs, the Contract Amount shall be increased or decreased by an amount established by an examination by the NCC of the relevant records of the Contractor referred to in GC2.8 ACCOUNTS AND AUDITS to be the increase or decrease in the cost incurred by the Contractor that is directly attributable to that change.
- 4) For the purpose of paragraph 2) of GC5.3, if a tax is changed after the tender closing, but public notice of the change has been given by the Minister of Finance or the corresponding Provincial or Territorial authority before that closing, the change shall be deemed to have occurred before the solicitation closing.
- 5) Notwithstanding paragraphs 2) to 4) of GC5.3, no adjustment to the Contract Amount in respect of the Work or a part thereof shall be made for a change in any imposition referred to in this section that occurs after the date required by the Contract for completion of the Work or that part of the Work.

GC5.4 PROGRESS PAYMENT

- 1) On the expiration of a payment period, the Contractor shall deliver to the NCC:
 - (a) a written progress claim in a form acceptable to the NCC that fully describes any part of the Work that has been completed, and any Material that was delivered to the Work site but not incorporated into the Work, during that payment period: and
 - (b) a completed and signed statutory declaration containing a declaration that, up to the date of the progress claim, the Contractor has complied with all lawful obligations with respect to the Labour Conditions and that, in respect of the Work, all lawful obligations of the Contractor to its Subcontractors and Suppliers, referred to collectively in the declaration as "subcontractors and suppliers", have been fully discharged.
- 2) Within 10 days of receipt of a progress claim and statutory declaration from the Contractor, the NCC shall inspect, or cause to have inspected, the part of the Work and the Material described in the progress claim, and shall issue a progress report to the Contractor, that indicates the value of the part of the Work and the Material described in the progress claim that, in the opinion of the NCC:
 - (a) is in accordance with the Contract; and
 - (b) was not included in any other progress report relating to the Contract.

- 3) Subject to GC5.2 AMOUNT PAYABLE, and paragraph 5) of GC5.4, the NCC shall pay the Contractor an amount that is equal to:
 - (a) 95% of the value that is indicated in the NCC's progress report if a labour and material payment bond has been furnished by the Contractor; or
 - (b) 90% of the value that is indicated in the NCC's progress report if a labour and material payment bond has not been furnished by the Contractor.
- 4) Subject to GC5.2, "Amount Payable", and paragraph 5) of GC5.4, the NCC shall pay the Contractor an amount that is equal to 90% of the value that is indicated in the NCC's progress report
- 5) In the case of the Contractor's first progress claim, it is a condition precedent to the NCC's obligation under paragraph 3) of GC5.4 that the Contractor has provided all necessary documentation required by the Contract for the first progress claim and has provided evidence of compliance with workers' compensation legislation applicable to the place of the Work in accordance with GC1.9 WORKERS' COMPENSATION.

GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK

- 1) If, at any time before the issuance of a Certificate of Completion, the NCC determines that the Work has reached Substantial Performance as described in subparagraph 1) (b) of GC1.1.4 SUBSTANTIAL PERFORMANCE, the NCC shall issue a Certificate of Substantial Performance to the Contractor. The Certificate of Substantial Performance shall state or describe:
 - (a) the date of Substantial Performance;
 - (b) the parts of the Work not completed to the satisfaction of the NCC; and
 - (c) all things that must be done by the Contractor before a Certificate of Completion is issued and before the 12-month warranty period referred to in GC3.13 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK commences for the said parts and all the said things.
- 2) The issuance of a Certificate of Substantial Performance does not relieve the Contractor from the Contractor's obligations under GC3.11 DEFECTIVE WORK.
- 3) Subject to GC5.2 AMOUNT PAYABLE and paragraph 4) of GC5.5, the NCC shall pay the Contractor the amount referred to in paragraph 1) of GC5.2 AMOUNT PAYABLE, less the aggregate of:
 - (a) the sum of all payments that were made pursuant to GC5.4 PROGRESS PAYMENT;
 - (b) an amount that is equal to the NCC's estimate of the cost to the NCC of rectifying defects described in the Certificate of Substantial Performance; and
 - (c) an amount that is equal to the NCC's estimate of the cost to the NCC of completing the parts of the Work described in the Certificate of Substantial Performance other than defects listed therein.
- 4) The NCC shall pay the amount referred to in paragraph 3) of GC5.5 not later than:
 - (a) 30 days after the date of issue of a Certificate of Substantial Performance, or
 - (b) 15 days after the Contractor has delivered to the NCC:

- (i) a statutory declaration containing a declaration by the Contractor that up to the date of the Certificate of Substantial Performance, the Contractor has complied with all lawful obligations with respect to the Labour Conditions, discharged all its lawful obligations to its Subcontractors and Suppliers in respect of the work under the Contract, and discharged its lawful obligations referred to in GC1.8 LAWS, PERMITS AND TAXES;
- (ii) evidence of compliance with workers' compensation legislation in accordance with GC1.9 WORKERS' COMPENSATION; and
- (iii) an update of the progress schedule in accordance with the requirements of GC3.1 PROGRESS SCHEDULE;

whichever is later.

GC5.6 FINAL COMPLETION

- 1) When the NCC is of the opinion that the Contractor has complied with the Contract and all orders and directions made pursuant thereto, and that the Work has been completed as described in GC1.1.5 COMPLETION, the NCC shall issue a Certificate of Completion to the Contractor and, if the Work or a portion of the Work is subject to a Unit Price Arrangement, the NCC shall issue a Certificate of Measurement that shall, subject to GC8, be binding upon and conclusive between the NCC and the Contractor as to the quantities referred to therein.
- 2) Subject to GC5.2 AMOUNT PAYABLE and paragraph 3) of GC5.6, the NCC shall pay the Contractor the amount referred to in GC5.2 AMOUNT PAYABLE, less the aggregate of the sum of all payments that were made pursuant to GC5.4 PROGRESS PAYMENT and GC5.5 SUBSTANTIAL PERFORMANCE OF WORK.
- 3) The NCC shall pay the amount referred to in paragraph 2) of GC5.6 not later than:
 - (a) 60 days after the date of issue of a Certificate of Completion; or
 - (b) 15 days after the Contractor has delivered to the NCC:
 - (i) a statutory declaration which contains a declaration by the Contractor that all of the Contractor's lawful obligations and any lawful claims against the Contractor that arose out of the performance of the Contract have been discharged and satisfied; and
 - (ii) evidence of compliance with workers' compensation legislation in accordance with GC1.9 WORKERS' COMPENSATION;

whichever is later.

GC5.7 PAYMENT NOT BINDING ON NCC

- 1) Neither acceptance of a progress claim or progress report, nor any payment made by the NCC under the Contract, nor partial or entire use or occupancy of the Work by the NCC shall constitute an acceptance by the NCC of any portion of the Work or Material that is not in accordance with the requirements of the Contract.

GC5.8 CLAIMS AND OBLIGATIONS

- 1) The Contractor shall discharge all the Contractor's lawful obligations and shall satisfy all lawful claims against the Contractor arising out of the performance of the Work at least as often as the Contract requires the NCC to pay the Contractor.

- 2) Whenever requested to do so by the NCC, the Contractor shall make a statutory declaration declaring to the existence and condition of any obligations and claims against the Contractor arising out of the performance of the Work.
- 3) In order to discharge lawful obligations of and satisfy lawful claims against the Contractor or its Subcontractors arising out of the performance of the Contract, the NCC may pay an amount that is due and payable to the Contractor directly to the claimant. Such payment is, to the extent of the payment, a discharge of the NCC's liability to the Contractor under the Contract and may be deducted from any amount payable to the Contractor under the Contract.
- 4) For the purposes of paragraph 3) of GC5.8, and subject to paragraph 6) of GC5.8, a claim or obligation shall be considered lawful when it is so determined by:
 - (a) a court of legal jurisdiction;
 - (b) an arbitrator duly appointed to arbitrate the claim; or
 - (c) the written consent of the Contractor authorizing payment of the claim or obligation.
- 5) If a claim or obligation would have been subject to the provisions of Provincial or Territorial lien legislation or, in the Province of Quebec, the law relating to legal hypothecs had the Contractor been performing the Work for an entity other than the NCC:
 - (a) such amount as may be paid by the NCC pursuant to paragraphs 3) and 4) of GC5.8 shall not exceed the amount that the Contractor would have been obliged to pay had the provisions of such legislation or law been applicable to the Work;
 - (b) a claimant need not comply with the provisions of such legislation, setting out the steps by way of notice, registration or otherwise as might have been necessary to preserve or perfect any claim for lien or privilege which the claimant might have had; and
 - (c) for the purposes of determining the entitlement of a claimant, the notice required by paragraph 8) of GC5.8 shall be deemed to replace the registration or provision of notice after the performance of work as required by any applicable legislation and no claim shall be deemed to have expired, become void or unenforceable by reason of the claimant not commencing any action within the time prescribed by such legislation.
- 6) The Contractor shall, at the request of any claimant, submit to binding arbitration those questions that need to be answered to establish the entitlement of the claimant to payment. The arbitration shall have as parties to it any Subcontractor or Supplier to whom the claimant supplied Material, performed work or rented equipment should such Subcontractor or Supplier wish to be adjoined, and the NCC shall not be a party to such arbitration. Subject to any agreement between the Contractor and the claimant, the arbitration shall be conducted in accordance with the governing Provincial or Territorial legislation applicable to the site of the Work.
- 7) Paragraph 3) of GC5.8 shall apply only to claims and obligations:
 - (a) the notification of which has set forth the amount claimed to be owing and the person who by contract is primarily liable and has been received by the NCC in writing before final payment is made to the Contractor pursuant to GC5.6 FINAL COMPLETION, and within 120 days of the date on which the claimant:

- (i) should have been paid in full under the claimant's contract with the Contractor, its Subcontractor or Supplier if the claim is for money that was lawfully required to be held back from the claimant; or
 - (ii) performed the last of the services, work or labour, or furnished the last of the Material pursuant to the claimant's contract with the Contractor or its Subcontractor or Supplier where the claim is for money not lawfully required to be held back from the claimant; and
- (b) the proceedings to determine the right to payment of which, pursuant to paragraph 5) of GC5.8, shall have commenced within one year from the date that the notification required by subparagraph 7)(a) of GC5.8 was received by the NCC.
- 8) Upon receipt of a notice of claim, the NCC may withhold, from any amount that is due and payable to the Contractor pursuant to the Contract, the full amount of the claim or any portion thereof.
- 9) The NCC shall notify the Contractor in writing in a timely manner of receipt of any claim and of the intention of the NCC to withhold funds. At any time thereafter and until payment is made to the claimant, the Contractor may be entitled to post, with the NCC, security in a form acceptable to the NCC in an amount equal to the value of the claim, and upon receipt of such security the NCC shall release to the Contractor any funds that would be otherwise payable to the Contractor, that were withheld pursuant to the provisions of this clause in respect of the claim of any claimant for whom the security stands.

GC5.9 RIGHT OF SETOFF

- 1) Without limiting any right of setoff or deduction given or implied by law or elsewhere in the Contract, the NCC may set off any amount payable to the NCC by the Contractor under the Contract, or under any current contract, against any amount payable to the Contractor under the Contract.
- 2) For the purposes of paragraph 1) of GC5.9, "current contract" means a contract between the NCC and the Contractor:
- (a) under which the Contractor has an undischarged obligation to perform or supply work, labour or material; or
 - (b) in respect of which the NCC has, since the date of the Contract, exercised any right to take the work that is the subject of that contract out of the Contractor's hands.

GC5.10 ASSESSMENTS AND DAMAGES FOR LATE COMPLETION

- 1) For the purposes of this clause:
- (a) the Work shall be deemed to be completed on the date of the Certificate of Completion; and
 - (b) the "period of delay" means the number of days commencing on the day fixed for completion of the Work and ending on the day immediately preceding the day on which the Work is completed but does not include any day within a period of extension granted pursuant to GC6.5 DELAYS AND EXTENSION OF TIME and any other day on which, in the opinion of the NCC, completion of the Work was delayed for reasons beyond the control of the Contractor.
- 2) If the Contractor does not complete the Work by the day fixed for its completion but completes it thereafter, the Contractor shall pay the NCC an amount equal to the aggregate of:
- (a) all salaries, wages and travelling expenses incurred by the NCC in respect of persons overseeing the performance of the Work during the period of delay;

- (b) the cost incurred by the NCC as a result of the inability to use the completed Work for the period of delay; and
 - (c) all other expenses and damages incurred or sustained by the NCC during the period of delay as a result of the Work not being completed by the day fixed for its completion.
- 3) The NCC may waive the right of the NCC to the whole or any part of the amount payable by the Contractor pursuant to paragraph 2) of GC5.10 if, in the opinion of the NCC, it is in the public interest to do so.

GC5.11 DELAY IN MAKING PAYMENT

- 1) Notwithstanding GC1.5 TIME OF THE ESSENCE, any delay by the NCC in making any payment when it is due pursuant to GC5 TERMS OF PAYMENT, shall not be a breach of the Contract by the NCC.
- 2) Subject to paragraph 3) of GC5.11, the NCC shall pay to the Contractor simple interest at the Average Bank Rate plus 3 percent per annum on any amount that is overdue pursuant to paragraph 3) of GC5.1 INTERPRETATION, and the interest shall apply from and include the day such amount became overdue until the day prior to the date of payment.
- 3) Interest shall be paid, on demand by the Contractor, except that:
 - (a) in respect of amounts that are less than 15 days overdue, no interest shall be paid in respect of payment made within such 15 days; and
 - (b) interest shall not be payable or paid on overdue advance payments, if any.

GC5.12 INTEREST ON SETTLED CLAIMS

- 1) For the purposes of this clause, a claim means a disputed amount subject to negotiation between the NCC and the Contractor under the Contract.
- 2) A claim is deemed to have been settled when an agreement in writing is signed by the NCC and the Contractor setting out the amount of the claim to be paid by the NCC and the items of work for which the said amount is to be paid.
- 3) A settled claim is deemed to be outstanding from the day immediately following the date the said claim would have been due and payable under the Contract had it not been disputed.
- 4) The NCC shall pay to the Contractor simple interest on the amount of a settled claim at the Average Bank Rate plus 3 per cent per annum from the date the settled claim was deemed to be outstanding until the day prior to the date of payment.

GC5.13 RETURN OF SECURITY DEPOSIT

- 1) After a Certificate of Substantial Performance has been issued, and if the Contractor is not in breach of nor in default under the Contract, the NCC shall return to the Contractor all or any part of a Security Deposit that, in the opinion of the NCC, is not required for the purposes of the Contract.
- 2) After a Certificate of Completion has been issued, the NCC shall return to the Contractor the remainder of any security deposit unless the Contract stipulates otherwise.
- 3) If the security deposit was paid to the NCC, the NCC shall pay interest thereon to the Contractor at a rate established pursuant to section 21(2) of the Financial Administration Act.

- GC6.1 CHANGES IN THE WORK
- GC6.2 CHANGES IN SUBSURFACE CONDITIONS
- GC6.3 HUMAN REMAINS, ARCHAEOLOGICAL REMAINS AND ITEMS OF HISTORICAL OR SCIENTIFIC INTEREST
- GC6.4 DETERMINATION OF PRICE
 - GC6.4.1 Price Determination Prior to Undertaking Changes
 - GC6.4.2 Price Determination Following Completion of Changes
 - GC6.4.3 Price Determination - Variations in Tendered Quantities
- GC6.5 DELAYS AND EXTENSION OF TIME
- GC6.6 ALLOWABLE COSTS FOR CONTRACT CHANGES UNDER GC6.4.1
 - GC6.6.1 General
 - GC6.6.2 Hourly Labour Rates
 - GC6.6.3 Material, Plant and Equipment Costs
 - GC6.6.4 Allowance to the Contractor or Subcontractor

GC6.1 CHANGES IN THE WORK

- 1) At any time before issuance of a Certificate of Completion, Canada may issue orders for additions, deletions or other changes to the Work, or changes in the location or position of the whole or any part of the Work, if the addition, deletion, change or other revision is deemed by Canada to be consistent with the general intent of the Contract.
- 2) An order referred to in paragraph 1) of GC6.1 shall be in writing and given to the Contractor in accordance with GC2.3 NOTICES.
- 3) Upon receipt of an order, the Contractor shall promptly perform the work in accordance with the order as if the order had appeared in and been part of the original Contract.
- 4) If anything done or omitted by the Contractor pursuant to an order increases or decreases the cost of the Work to the Contractor, payment for the work shall be made in accordance with GC6.4 DETERMINATION OF PRICE.

GC6.2 CHANGES IN SUBSURFACE CONDITIONS

- 1) If, during the performance of the Work, the Contractor encounters subsurface conditions that are substantially different from the subsurface conditions described in the tender documents supplied to the Contractor, or a reasonable assumption of fact based thereon, the Contractor shall give notice to Canada immediately upon becoming aware of the situation.
- 2) If the Contractor is of the opinion that the Contractor may incur or sustain any extra expense or any loss or damage that is directly attributable to the changed subsurface conditions, the Contractor shall within 10 days of the date the changed subsurface conditions were encountered, give Canada written notice of intention to claim for that extra expense, loss or damage.
- 3) If the Contractor has given a notice referred to in paragraph 2) of GC6.2, the Contractor shall give Canada a written claim for extra expense, loss or damage no later than 30 days after the date that a Certificate of Substantial Performance is issued.
- 4) A written claim referred to in paragraph 3) of GC6.2 shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the claim to enable Canada to determine whether or not the claim is justified, and the Contractor shall supply such further and other information for that purpose as Canada requires.

- 5) If Canada determines that a claim referred to in paragraph 3) of GC6.2 is justified, Canada shall make an extra payment to the Contractor in an amount that is calculated in accordance with GC6.4 DETERMINATION OF PRICE.
- 6) If, in the opinion of Canada, the Contractor effects a saving of expenditure that is directly attributable to a substantial difference between the information relating to subsurface conditions at the site of the Work that is contained in the tender documents, or a reasonable assumption of fact based thereon, and the actual subsurface conditions encountered by the Contractor, the Contract Amount shall be reduced by the amount of the saving of expenditure determined in accordance with GC6.4 DETERMINATION OF PRICE.
- 7) If the Contractor fails to give a notice referred to in paragraph 2) of GC6.2 and a claim referred to in paragraph 3) of GC6.2 within the times stipulated, an extra payment shall not be made to the Contractor in respect of the occurrence.
- 8) Canada does not warrant the content expressed in any subsurface report available for the perusal of the Contractor that does not form part of the tender and contract documents.

GC6.3 HUMAN REMAINS, ARCHAEOLOGICAL REMAINS AND ITEMS OF HISTORICAL OR SCIENTIFIC INTEREST

- 1) For the purposes of this clause
 - (a) "human remains" means the whole or any part of a deceased human being, irrespective of the time of death;
 - (b) "archaeological remains" are items, artefacts or things made, modified or used by human beings in antiquity and may include, but not be limited to, stone, wood or iron structures or monuments, dump deposits, bone artefacts, weapons, tools, coins, and pottery; and
 - (c) "items of historical or scientific interest" are naturally occurring or manufactured objects or things of any age that are not archaeological remains but may be of interest to society because of their historical or scientific significance, value, rarity, natural beauty, or other quality.
- 2) If, during the course of the Work, the Contractor encounters any object, item or thing which is described in paragraph 1) of GC6.3 or which resembles any object, item or thing described in paragraph 1) of GC6.3, the Contractor shall
 - (a) take all reasonable steps, including stopping work in the affected area, to protect and preserve the object, item or thing;
 - (b) immediately notify Canada of the circumstances in writing; and
 - (c) take all reasonable steps to minimize additional costs that may accrue as a result of any work stoppage.
- 3) Upon receipt of a notification in accordance with subparagraph 2)(b) of GC6.3, Canada shall promptly determine whether the object, item or thing is one described in, or contemplated by paragraph 1) of GC6.3, and shall notify the Contractor in writing of any action to be performed, or work to be carried out, by the Contractor as a result of Canada's determination.
- 4) Canada may, at any time, enlist the services of experts to assist in the investigation, examination, taking of measurements or other such recordings, placing of permanent protection around or removing of the object, item or thing encountered by the Contractor, and the Contractor shall, to the satisfaction

of Canada, allow them access and co-operate with them in the carrying out of their duties and obligations.

- 5) Human remains, archaeological remains and items of historical or scientific interest encountered at the site of the Work shall be deemed to be the property of Canada.
- 6) Except as may be otherwise provided for in the Contract, the provisions of GC6.4 DETERMINATION OF PRICE and GC6.5 DELAYS AND EXTENSION OF TIME shall apply.

GC6.4 DETERMINATION OF PRICE**GC6.4.1 Price Determination Prior to Undertaking Changes**

- 1) If a Lump Sum Arrangement applies to the Contract or a part thereof, the price of any change shall be the aggregate estimated cost of labour, Plant and Material that is required for the change as agreed upon in writing by the Contractor and Canada plus an allowance for supervision, co-ordination, administration, overhead, margin and the risk of undertaking the work within the stipulated amount, which allowance shall be equal to
 - (a) 20% of the aggregate costs referred to herein for that portion of the Work done by the Contractor's own forces, if the aggregate cost of the Work does not exceed \$50,000;
 - (b) 15% of the aggregate costs referred to herein for that portion of the Work that is done by subcontract, if the aggregate cost of the Work does not exceed \$50,000; or
 - (c) a negotiated percentage of the aggregate costs referred to herein or a negotiated amount
 - (i) if the aggregate cost of the Work exceeds \$50,000; or
 - (ii) if the Contractor and Canada agree in writing.
- 2) If a Unit Price Arrangement applies to the Contract or a part thereof, the Contractor and Canada may, by agreement in writing, add items, units of measurement, estimated quantities and prices per unit to the Unit Price Table.
- 3) A price per unit referred to in paragraph 2) of GC6.4.1 shall be determined on the basis of the aggregate estimated cost of labour, Plant and Material that is required for the additional item as agreed upon by the Contractor and Canada, plus an allowance determined in accordance with paragraph 1) of GC6.4.1.
- 4) To facilitate approval of the price of the change or the additional price per unit as applicable, the Contractor shall submit a cost estimate breakdown identifying, as a minimum, the estimated cost of labour, Plant, Material, each subcontract amount, and the amount of the allowance.
- 5) If no agreement is reached as contemplated in paragraph 1) of GC6.4.1, the price shall be determined in accordance with GC6.4.2.
- 6) If no agreement is reached, as contemplated in paragraphs 2) and 3) of GC6.4.1, Canada shall determine the class and the unit of measurement of the item of labour, Plant or Material and the price per unit shall be determined in accordance with GC6.4.2.

GC6.4.2 Price Determination Following Completion of Changes

- 1) If it is not possible to predetermine, or if there is failure to agree upon the price of a change in the Work, the price of the change shall be equal to the aggregate of

- (a) all reasonable and proper amounts actually expended or legally payable by the Contractor in respect of the labour, Plant and Material that fall within one of the classes of expenditure described in paragraph 2) of GC6.4.2, that are directly attributable to the performance of the Contract;
 - (b) an allowance for profit and all other expenditures or costs, including overhead, general administration costs, financing and interest charges, in an amount that is equal to 10% of the sum of the expenses referred to in subparagraph 1)(a) of GC6.4.2; and
 - (c) interest on the amounts determined under subparagraphs 1)(a) and 1)(b) of GC6.4.2 calculated in accordance with GC5.12 INTEREST ON SETTLED CLAIMS;
- 2) The cost of labour, Plant and Material referred to in subparagraph 1)(a) of GC6.4.2 shall be limited to the following categories of expenditure:
- (a) payments to Subcontractors and Suppliers;
 - (b) wages, salaries, bonuses and, if applicable, travel and lodging expenses of employees of the Contractor located at the site of the Work and that portion of wages, salaries, bonuses and, if applicable, travel and lodging expenses of personnel of the Contractor generally employed at the head office or at a general office of the Contractor provided they are actually and properly engaged on the Work under the Contract;
 - (c) assessments payable under any statutory authority relating to workers' compensation, employment insurance, pension plan or holidays with pay, provincial health or insurance plans, environmental reviews, and GST / HST collection costs;
 - (d) rent that is paid for Plant, or an amount equivalent to the said rent if the Plant is owned by the Contractor, that is necessary for and used in the performance of the Work, if the rent or the equivalent amount is reasonable and use of that Plant has been approved by Canada;
 - (e) payments for maintaining and operating Plant necessary for and used in the performance of the Work, and payments for effecting repairs thereto that, in the opinion of Canada, are necessary for the proper performance of the Contract, other than payments for any repairs to the Plant arising out of defects existing before its allocation to the Work;
 - (f) payments for Material that is necessary for and incorporated in the Work, or that is necessary for and consumed in the performance of the Contract;
 - (g) payments for preparation, delivery, handling, erection, installation, inspection, protection and removal of the Plant and Material necessary for and used in the performance of the Contract; and
 - (h) any other payments made by the Contractor with the approval Canada that are necessary for the performance of the Contract in accordance with the Contract Documents.

GC6.4.3 Price Determination - Variations in Tendered Quantities

- 1) Except as provided in paragraphs 2), 3), 4) and 5) of GC6.4.3, if it appears that the final quantity of labour, Plant and Material under a price per unit item shall exceed or be less than the estimated tendered quantity, the Contractor shall perform the Work or supply the Plant and Material required to complete the item and payment shall be made for the actual Work performed or Plant and Material supplied at the price per unit set out in the Contract.
- 2) If the final quantity of the price per unit item exceeds the estimated tendered quantity by more than 15%, either party to the Contract may make a written request to the other party to negotiate an

amended price per unit for that portion of the item which exceeds 115% of the estimated tendered quantity, and to facilitate approval of any amended price per unit, the Contractor shall, on request, provide Canada with

- (a) detailed records of the actual cost to the Contractor of performing or supplying the tendered quantity for the price per unit item up to the time the negotiation was requested; and
 - (b) the estimated unit cost of labour, Plant and Material required for the portion of the item that is in excess of 115% of the tendered quantity.
- 3) If agreement is not reached as contemplated in paragraph 2) of GC6.4.3, the price per unit shall be determined in accordance with GC6.4.2.
- 4) If it appears that the final quantity of labour, Plant and Material under a price per unit item shall be less than 85% of the estimated tendered quantity, either party to the Contract may make a written request to the other party to negotiate a change to the price per unit for the item if
- (a) there is a demonstrable difference between the unit cost to the Contractor of performing or supplying the estimated tendered quantity and the unit cost to the Contractor for performing or supplying the final quantity; and
 - (b) the difference in unit cost is due solely to the decrease in quantity and not to any other cause.
- 5) For the purposes of the negotiation referred to in paragraph 4) of GC6.4.3
- (a) the onus of establishing, justifying and quantifying a proposed change lies with the party making the request for negotiation; and
 - (b) in no event shall the total price for an item that has been amended as a result of a reduction in quantity pursuant to paragraph 4) of GC6.4.3 exceed the amount that would have been payable to the Contractor had 85% of the tendered quantity actually been performed or supplied.

GC6.5 DELAYS AND EXTENSION OF TIME

- 1) Upon application of the Contractor made before the date first fixed for completion of the Work or before any other date previously fixed under this clause, Canada may extend the time for completion of the Work by fixing a new date if Canada determines that causes beyond the control of the Contractor have delayed its completion.
- 2) The Contractor's application shall be accompanied by the written consent of the bonding company whose bond forms part of the Contract Security.
- 3) Subject to paragraph 4) of GC6.5, no payment, other than a payment that is expressly stipulated in the Contract, shall be made by Canada to the Contractor for any extra expense, loss or damage incurred or sustained by the Contractor due to delay, whether or not the delay is caused by circumstances beyond the control of the Contractor.
- 4) If the Contractor incurs or sustains any extra expense or any loss or damage that is directly attributable to any neglect or delay that occurs after the date of the Contract on the part of Canada in providing any information or in doing any act that the Contract either expressly requires Canada to do or that would ordinarily be done by an owner in accordance with the practice of the trade, the Contractor shall give Canada written notice of intention to claim for that extra expense or loss or damage within ten working days of the date the neglect or delay first occurred.

- 5) When the Contractor has given a notice referred to in paragraph 4) of GC6.5, the Contractor shall give Canada a written claim for the extra expense, loss or damage no later than 30 days after the date that a Certificate of Completion is issued and not afterwards.
- 6) A written claim referred to in paragraph 5) of GC6.5 shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the claim to enable Canada to determine whether or not the claim is justified and the Contractor shall supply such further and other information for that purpose as Canada may require.
- 7) If Canada determines that a claim referred to in paragraph 5) of GC6.5 is justified, Canada shall make an extra payment to the Contractor in an amount that is calculated in accordance with GC6.4 DETERMINATION OF PRICE.
- 8) If the Contractor fails to give a notice referred to in paragraph 4) and a claim referred to in paragraph 5) of GC6.5 within the times stipulated, an extra payment shall not be made to the Contractor in respect of the occurrence.

GC6.6 ALLOWABLE COSTS FOR CONTRACT CHANGES UNDER GC6.4.1

GC6.6.1 General

- 1) The Contractor shall submit a cost estimate breakdown for each contemplated change, in accordance with paragraph 4) of GC6.4.1 PRICE DETERMINATION PRIOR TO UNDERTAKING CHANGES. The breakdown shall itemize all labour, material, plant and equipment costs estimated by the Contractor and subcontractors, and the amount of each allowance.
- 2) It is the responsibility of the Contractor to ensure that all prices included in the Contractor's breakdown to the NCC, including those of subcontractors, are fair and reasonable in view of the terms expressed herein.
- 3) The labour hours required for the contemplated change shall be based on the estimated number of hours to perform the work.
- 4) Time spent by a working foreman may be included in the number of labour hours, at a rate agreed to in writing by the Contractor and the NCC.
- 5) Time attributable to material handling, productivity factors and approved rest periods is to be included in the number of hours required by the contemplated change and will not be paid as a separate item under hourly rates.
- 6) Allowances referred to in section 04 below are not to be included in the hourly labour rates.
- 7) Credit for work deleted will only be for the work directly associated with the change.
- 8) When a change deletes work which has not yet been performed, the NCC is entitled to an adjustment in the Contract Amount equal to the cost the Contractor would have incurred had the work not been deleted.
- 9) Allowances referred to in Section 04 below shall not be applied to any credit amounts for deleted work.
- 10) In those cases where the change involves additions and deletions to the work, the allowances referred to in section 04 below shall apply only when the cost of the additions minus the cost of the deletions would result in an increase in the Contract Amount. The percentage allowance shall only be applied to that portion of the costs of the additions that is in excess of the cost of the deletions.

- 11) If the contemplated change in the work necessitates a change in the contract completion date, or has an impact on the work, the Contractor shall identify and include the resulting cost in the breakdown.

GC6.6.2 Hourly Labour Rates

- 1) The hourly labour rates listed in the Contractor's breakdown shall be determined in accordance with the collective agreements that are applicable at the site of the work and shall include:
- (a) the base rate of pay;
 - (b) vacation pay;
 - (c) benefits which includes:
 - (i) welfare contributions;
 - (ii) pension contributions;
 - (iii) union dues;
 - (iv) training and industry funds contributions; and
 - (v) other applicable benefits, if any, that can be substantiated by the Contractor.
 - (d) statutory and legislated requirements, assessed and payable under statutory authority, which includes:
 - (i) Employment Insurance contributions;
 - (ii) Canada Pension Plan or Québec Pension Plan contributions;
 - (ii) Worker's Compensation Board or Commission de la santé et de la sécurité du travail premiums;
 - (iv) Public Liability and Property Damage insurance premiums; and
 - (v) health tax premiums.
- 2) In the case of nonunion labour, all rates claimed shall be in accordance with the terms of the Labour Conditions forming part of this contract and the Contractor must provide satisfactory proof of the rates actually paid.

GC6.6.3 Material, Plant and Equipment Costs

- 1) The costs of all purchases and rentals must be based on the actual amount paid to the suppliers by the Contractor or subcontractor and said costs are to include all applicable discounts.

GC6.6.4 Allowance to the Contractor or Subcontractor

- 1) The allowances determined in accordance with paragraph 1) of GC6.4.1 PRICE DETERMINATION PRIOR TO UNDERTAKING CHANGES shall be considered as full compensation for:
- (a) supervision, co-ordination, administration, overhead, margin and the risk of undertaking the work within the stipulated amount; and

- (b) miscellaneous additional costs related to:
 - (i) the purchase or rental of material, plant and equipment;
 - (ii) the purchase of small tools and supplies;
 - (iii) safety and protection measures; and
 - (iv) permits, bonds, insurance, engineering, as built drawings, commissioning and site office.

- GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS
- GC7.2 SUSPENSION OF WORK
- GC7.3 TERMINATION OF CONTRACT
- GC7.4 SECURITY DEPOSIT - FORFEITURE OR RETURN

GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS

- 1) By giving notice in writing to the Contractor in accordance with GC2.3 NOTICES, the NCC, without any other authorization, may take all or any part of the Work out of the Contractor's hands, and may employ such means as the NCC sees fit to have the Work completed if the Contractor:
 - (a) fails to remedy any delay in the commencement or default in the diligent performance of the Work to the satisfaction of the NCC within six days of the NCC giving notice to the Contractor in writing in accordance with GC2.3 NOTICES;
 - (b) defaults in the completion of any part of the Work within the time fixed for its completion by the Contract;
 - (c) becomes insolvent, or has committed an act of bankruptcy, and has neither made a proposal to its creditors nor filed a notice of intention to make such a proposal, pursuant to the Bankruptcy and Insolvency Act;
 - (d) abandons the work;
 - (e) makes an assignment of the Contract without the consent required by GC1.16 ASSIGNMENT;
or
 - (f) otherwise fails to observe or perform any of the provisions of the Contract.
- 2) If the whole or any part of the Work is taken out of the Contractor's hands, the Contractor's right to any further payment that is due or accruing due under the Contract is, subject only to paragraph 3) of GC7.1, extinguished, and the Contractor is liable to pay the NCC, upon demand, an amount that is equal to the amount of all loss and damage incurred or sustained by the NCC in respect of the Contractor's failure to complete the Work.
- 3) If the whole or any part of the Work that is taken out of the Contractor's hands is completed by the NCC, the NCC may pay the Contractor the amount, if any, of the holdback or a progress claim as determined by the NCC that had accrued and was due prior to the date on which the Work was taken out of the Contractor's hands and that is not required for the purposes of having the Work performed or of compensating the NCC for any other loss or damage incurred or sustained by reason of the Contractor's default.
- 4) The taking of the Work or any part thereof out of the Contractor's hands does not relieve the Contractor from any obligation under the Contract or imposed by law except the obligation to complete the performance of that part of the Work that was taken out of the Contractor's hands.
- 5) If the Work or any part thereof is taken out of the Contractor's hands, all Plant and Material and the interest of the Contractor, or its suppliers or subcontractors at any tier, in all real property, licences, powers and privileges acquired, used or provided by the Contractor, or its suppliers or subcontractors at any tier, under the Contract shall continue to be the property of the NCC without compensation.
- 6) When the NCC certifies that any Plant, Material, or any interest of the Contractor is no longer required for the purposes of the Work, or that it is not in the interests of the NCC to retain that Plant, Material, or interest, it shall revert to the Contractor.

- 7) If the Contractor has become insolvent or has committed an act of bankruptcy, and has either made a proposal to its creditors or filed a notice of intention to make such a proposal, pursuant to the Bankruptcy and Insolvency Act, the Contractor shall immediately forward a copy of the proposal or the notice of intention to the NCC.

GC7.2 SUSPENSION OF WORK

- 1) When, in the NCC's opinion, it is in the public interest to do so, the NCC may require the Contractor to suspend performance of the Work either for a specified or an unspecified period, by giving a notice of suspension in writing to the Contractor in accordance with GC2.3 NOTICES.
- 2) When a notice of suspension is received by the Contractor, the Contractor shall suspend all operations in respect of the Work except those that the NCC determines are necessary for the care and preservation of the Work, Plant and Material.
- 3) During a period of suspension, the Contractor shall not remove any part of the Work, Plant or Material from its site without the consent of the NCC.
- 4) If a period of suspension is 60 days or less, the Contractor shall resume the performance of the Work on the expiration of that period, and the Contractor is entitled to be paid the extra costs necessarily incurred by the Contractor as a result of the suspension, determined in accordance with GC6.4 DETERMINATION OF PRICE.
- 5) If a period of suspension is more than 60 days, the NCC and the Contractor may agree that the performance of the Work shall be continued by the Contractor, and the Contractor shall resume performance of the Work subject to any terms and conditions agreed upon by the NCC and the Contractor. If the NCC and the Contractor do not agree that performance of the Work shall be continued by the Contractor, or upon the terms and conditions under which the Contractor shall continue the Work, the notice of suspension shall be deemed to be a notice of termination pursuant to GC7.3 TERMINATION OF CONTRACT.

GC7.3 TERMINATION OF CONTRACT

- 1) The NCC may terminate the Contract at any time by giving a notice of termination in writing to the Contractor in accordance with GC2.3 NOTICES.
- 2) If the Contractor receives a notice of termination, the Contractor shall forthwith cease all operations in performance of the Contract, subject to any conditions stipulated in the notice.
- 3) Subject to paragraph 4) of GC7.3, if the Contract is terminated, the NCC shall pay the Contractor an amount determined to be due to the Contractor pursuant to GC6.4 DETERMINATION OF PRICE less the aggregate of all amounts that were paid to the Contractor by the NCC and all amounts that are due to the NCC from the Contractor pursuant to the Contract.
- 4) In no event shall the total amount payable by the NCC to the Contractor exceed the amount, calculated in accordance with GC5 TERMS OF PAYMENT, that would have been payable to the Contractor had the Contractor completed the Work.
- 5) Payment to the Contractor, if any, shall be made as soon as practicable under the circumstances.

GC7.4 SECURITY DEPOSIT - FORFEITURE OR RETURN

- 1) If the Work is taken out of the Contractor's hands, or the Contractor is in breach of, or in default under, the Contract, the NCC may convert a security deposit to the NCC's own use.

- 2) If the NCC converts a security deposit, the amount realized shall be deemed to be an amount due from the NCC to the Contractor under the Contract.
- 3) Any balance of the amount realized that remains after payment of all losses, damage and claims of the NCC and others shall be paid by the NCC to the Contractor if, in the opinion of the NCC, it is not required for the purposes of the Contract.

- 1) The Contractor may, within 10 days after the communication to the Contractor of any decision or direction referred to in GC6.1 CHANGES IN THE WORK and GC2.2 INTERPRETATION OF CONTRACT, protest that decision or direction.
- 2) A protest referred to in paragraph 1) of GC8 shall be in writing, contain full reasons for the protest, be signed by the Contractor and be given to the NCC.
- 3) If the Contractor gives a protest pursuant to paragraph 2) of GC8, any compliance by the Contractor with the decision or direction that was protested shall not be construed as an admission by the Contractor of the correctness of that decision or direction, or prevent the Contractor from taking whatever action the Contractor considers appropriate in the circumstances.
- 4) The giving of a protest by the Contractor pursuant to paragraph 2) of GC8 shall not relieve the Contractor from complying with the decision or direction that is the subject of the protest.
- 5) Subject to paragraph 6) of GC8, the Contractor shall take any action referred to in paragraph 3) of GC8 within 3 months after the date of the Certificate of Completion referred to in GC5.6 FINAL COMPLETION and not afterwards, except where it is otherwise provided by law.
- 6) The Contractor shall take any action referred to in paragraph 3) of GC8 resulting from a direction under GC3.13 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK, within 3 months after the expiry of a warranty or guarantee period and not afterwards, except where it is otherwise provided by law.
- 7) Subject to paragraph 8) of GC8, if the NCC determines that the Contractor's protest is justified, the NCC shall pay the Contractor the cost of the additional labour, Plant and Material necessarily incurred by the Contractor in carrying out the protested decision or direction.
- 8) Costs referred to in paragraph 7) of GC8 shall be calculated in accordance with GC6.4 DETERMINATION OF PRICE.

- GC9.1 OBLIGATION TO PROVIDE CONTRACT SECURITY
- GC9.2 TYPES AND AMOUNTS OF CONTRACT SECURITY
- GC9.3 IRREVOCABLE STANDBY LETTER OF CREDIT

GC9.1 OBLIGATION TO PROVIDE CONTRACT SECURITY

- 1) The Contractor shall, at the Contractor's expense and within 7 days after the date that the Contractor receives notice that the Contractor's bid was accepted by the NCC, obtain and deliver Contract Security to the NCC in one or more of the forms prescribed in GC9.2 TYPES AND AMOUNTS OF CONTRACT SECURITY.
- 2) If the whole or a part of the Contract Security provided is in the form of a security deposit, it shall be held and disposed of in accordance with GC5.13 RETURN OF SECURITY DEPOSIT and GC7.4 SECURITY DEPOSIT - FORFEITURE OR RETURN.
- 3) If a part of the Contract Security provided is in the form of a labour and material payment bond, the Contractor shall post a copy of that bond at the site of the Work.
- 4) It is a condition precedent to the release of the first progress payment that the Contractor has provided the Contract Security as specified herein.
- 5) In addition to the limitation imposed in paragraph 4) of GC9.1, the Contractor further acknowledges and agrees that it will not be entitled to have access to the site, nor to commence work pursuant to this contract until it has delivered the Contract Security as specified herein.

GC9.2 TYPES AND AMOUNTS OF CONTRACT SECURITY

- 1) The Contractor shall deliver to the NCC (a), (b) or (c):
 - (a) A performance bond and a labour and material payment bond each in an amount that is equal to not less than 50% of the Contract Amount including taxes
 - (b) A labour and material payment bond in an amount that is equal to not less than 50% of the Contract Amount including taxes, and a security deposit in an amount that is equal to not less than 10% of the Contract Amount including taxes.
 - (c) A security deposit in an amount prescribed by subparagraph 1)(b) of GC9.2, plus an additional amount that is equal to 10% of the Contract Amount including taxes.
- 2) The amount of a security deposit referred to in subparagraph 1)(b) of GC9.2 shall not exceed \$2,000,000 regardless of the Contract Amount including taxes.
- 3) A performance bond and a labour and material payment bond referred to in paragraph 1) of GC9.2 shall be in a form and be issued by a bonding or surety company that is approved by the NCC.
 - (a) The approved form for the performance bond is enclosed at the end of GC9.
 - (b) The approved form for the labour and material payment bond is enclosed at the end of GC9
 - (c) The list of approved bonding or surety companies is displayed at the following Website:
<http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12027> .
- 4) A security deposit referred to in subparagraphs 1)(b) and 1)(c) of GC9.2 shall be in the form of:

- (a) a bill of exchange, bank draft or money order made payable to the NCC and certified by an approved financial institution or drawn by an approved financial institution on itself; or
 - (b) bonds of, or unconditionally guaranteed as to principal and interest by, the Government of Canada.
- 5) For the purposes of subparagraph 4)(a) of GC9.2:
- (a) a bill of exchange is an unconditional order in writing signed by the Contractor and addressed to an approved financial institution, requiring the said institution to pay, on demand, at a fixed or determinable future time a certain sum of money to, or to the order of, the NCC;
 - (b) if a bill of exchange, bank draft or money order is certified by or drawn on an institution or corporation other than a chartered bank, it must be accompanied by proof that the said institution or corporation meets at least one of the criteria described in subparagraph 5)(c) of GC9.2, either by letter or by a stamped certification on the bill of exchange, bank draft or money; and
 - (c) An approved financial institution is:
 - (i) a corporation or institution that is a member of the Canadian Payments Association as defined in the Canadian Payments Act;
 - (ii) a corporation that accepts deposits that are insured, to the maximum permitted by law, by the Canada Deposit Insurance Corporation or the Régie de l'assurance-dépôts du Québec;
 - (iii) a corporation that accepts deposits from the public if repayment of the deposit is guaranteed by Her Majesty the Queen in right of a province;
 - (iv) a corporation, association or federation incorporated or organized as a credit union or co-operative credit society that conforms to the requirements of a credit union which are more particularly described in paragraph 137(6) of the Income Tax Act; or
 - (v) Canada Post Corporation.
- 6) Bonds referred to in subparagraph 4)(b) of GC9.2 shall be provided on the basis of their market value current at the date of the Contract, and shall be:
- (a) made payable to bearer; or
 - (b) accompanied by a duly executed instrument of transfer of the bonds to the NCC in the form prescribed by the Domestic Bonds of Canada Regulations; or
 - (c) registered as to principal, or as to principal and interest, in the name of the NCC pursuant to the Domestic Bonds of Canada Regulations.

GC9.3 IRREVOCABLE STANDBY LETTER OF CREDIT

- 1) As an alternative to a security deposit, an irrevocable standby letter of credit is acceptable to the NCC, the amount of which shall be determined in the same manner as a security deposit referred to in GC9.2
TYPES AND AMOUNTS OF CONTRACT SECURITY.
- 2) An irrevocable standby letter of credit shall:
 - (a) be an arrangement, however named or described, whereby a financial institution (the "Issuer") acting at the request and on the instructions of a customer (the "Applicant") or on its own behalf:

- (i) is to make a payment to, or to the order of, the NCC as the beneficiary;
- (ii) is to accept and pay bills of exchange drawn by the NCC;
- (ii) authorizes another financial institution to effect such payment or accept and pay such bills of exchange; or
- (iv) authorizes another financial institution to negotiate against written demand(s) for payment provided that the terms and conditions of the letter of credit are complied with;
- (b) state the face amount that may be drawn against it;
- (c) state its expiry date;
- (d) provide for sight payment to the NCC by way of the financial institution's draft against presentation of a written demand for payment signed by the NCC;
- (e) provide that more than one written demand for payment may be presented subject to the sum of those demands not exceeding the face value of the letter of credit;
- (f) provide that it is subject to the International Chamber of Commerce (ICC) Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600;
- (g) clearly specify that it is irrevocable or deemed to be irrevocable pursuant to article 6 c) of the International Chamber of Commerce (ICC) Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600; and
- (h) be issued or confirmed, in either official language in a format left to the discretion of the issuer or confirmer, by an approved financial institution on its letterhead.

PERFORMANCE BOND

Bond Number _____

Amount \$ _____

KNOW ALL MEN BY THESE PRESENTS, that _____ as Principal,
hereinafter called the Principal, and _____ as Surety, hereinafter

called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto the National Capital Commission as

Obligee, hereinafter called the NCC, In the amount of _____ dollars

(\$ _____), lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the

Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

SIGNED AND SEALED this _____ day of _____, _____. WHEREAS, the Principal has

entered into a Contract with the NCC, dated the _____ day of _____, _____,

for: _____.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION are such that if the Principal shall well and faithfully observe and perform all the obligations on the part of the Principal to be observed and performed in connection with the Contract, then this obligation shall be void, otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. Whenever the Principal shall be, and declared by the NCC to be, in default under the Contract, the Surety shall
 - (a) if the work is not taken out of the Principal's hands, remedy the default of the Principal,
 - (b) if the work is taken out of the Principal's hands and the NCC directs the Surety to undertake the completion of the work, complete the work in accordance with the Contract provided that if a contract is entered into for the completion of the work,
 - (i) it shall be between the Surety and the completing contractor, and
 - (ii) the selection of such completing contractor shall be subject to the approval of the NCC,
 - (c) if the work is taken out of the Principal's hands and the NCC, after reasonable notice to the Surety, does not direct the Surety to undertake the completion of the work, assume the financial responsibility for the cost of completion in excess of the moneys available to the NCC under the Contract,
 - (d) be liable for and pay all the excess costs of completion of the Contract, and
 - (e) not be entitled to any Contract moneys earned by the Principal, up to the date of his default on the Contract and any holdbacks relating to such earned Contract moneys held by the NCC, and the liability of the Surety under this Bond shall remain unchanged provided, however, and without restricting the generality of the foregoing, upon the completion of the Contract to the satisfaction of the NCC, any Contract moneys earned by the Principal or holdbacks related thereto held by the NCC may be paid to the Surety by the NCC.
2. The Surety shall not be liable for a greater sum than the amount specified in this Bond.
3. No suit or action shall be instituted by the NCC herein against the Surety pursuant to these presents after the expiration of two (2) years from the date on which final payment under the Contract is payable.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its authorized signing authority, the day and year first above written.

SIGNED, SEALED AND DELIVERED in the presence of:

Principal _____

Witness _____

Surety _____

Note: Affix Corporate seal if applicable.

LABOUR AND MATERIAL PAYMENT BOND

Bond Number _____

Amount \$ _____

KNOW ALL MEN BY THESE PRESENTS, that _____ as Principal,
hereinafter called the Principal, and _____ as Surety, hereinafter

called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto the National Capital Commission as Oblige, hereinafter called the NCC, In the amount of _____ dollars

(\$ _____), lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

SIGNED AND SEALED this _____ day of _____, _____ . WHEREAS, the Principal has entered into a Contract with the NCC, dated the _____ day of _____, _____, for: _____

_____ which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION are such that, if payment is promptly made to all Claimants who have performed labour or services or supplied material in connection with the Contract and any and all duly authorized modifications and extensions of the Contract that may hereafter be made, notice of which modifications and extensions to the Surety being hereby waived, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. For the purpose of this bond, a Claimant is defined as one having a direct contract with the Principal or any Sub-Contractor of the Principal for labour, material or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone services or rental of equipment (but excluding rental of equipment where the rent pursuant to an agreement is to be applied towards the purchase price thereof) directly applicable to the Contract.
2. For the purpose of this Bond, no payment is required to be made in respect of a claim for payment for labour or services performed or material supplied in connection with the Contract that represents a capital expenditure, overhead or general administration costs incurred by the Principal during the currency or in respect of the Contract.
3. The Principal and the Surety hereby jointly and severally agree with the NCC that if any Claimant has not been paid as provided for under the terms of his contract with the Principal or a Sub-Contractor of the Principal before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's labour or service was done or performed or materials were supplied by such Claimant, the NCC may sue on this bond, have the right to prosecute the suit to final judgment for such sum or sums as may be due and have execution thereon; and such right of the NCC is assigned by virtue of Part VIII of the Financial Administration Act to such Claimant.
4. For the purpose of this bond the liability of the Surety and the Principal to make payment to any claimant not having a contract directly with the Principal shall be limited to that amount which the Principal would have been obliged to pay to such claimant had the provisions of the applicable provincial or territorial legislation on lien or privileges been applicable to the work. A claimant need not comply with provisions of such legislation setting out steps by way of notice, registration or otherwise as might have been necessary to preserve or perfect any claim for lien or privilege which the claimant might have had. Any such claimant shall be entitled to pursue a claim and to recover judgment hereunder subject to the terms and notification provisions of the Bond.
5. Any material change in the Contract between the Principal and the NCC shall not prejudice the rights or interest of any Claimant under this Bond who is not instrumental in bringing about or has not caused such change.
6. No suit or action shall be commenced hereunder by any Claimant:
 - (a) Unless such Claimant shall have given written notice within the time limits hereinafter set forth to the Principal and the Surety above named, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal and the Surety at any place where an office is regularly maintained for the transaction of business by such persons or served in any manner in which legal process may be served in the Province or other part of Canada in which the subject matter of the Contract is located. Such notice shall be given
 - (i) in respect of any claim for the amount or any portion thereof required to be held back from the Claimant by the Principal or by the Sub-Contractor of the Principal under either the terms of the Claimant's Contract with the Principal or the Claimant's Contract with the Sub-Contractor of the Principal within one hundred and twenty (120) days after such Claimant should have been paid in full under this Contract;

- (ii) in respect of any claim other than for the holdback or portion thereof referred to above within one hundred and twenty (120) days after the date upon which such Claimant did or performed the last of the service, work or labour or furnished the last of the materials for which such claim is made under the Claimant's Contract with the Principal or a Sub-Contractor of the Principal
 - (b) After the expiration of one (1) year following the date on which the Principal ceased work on the said Contract, including work performed under the guarantees provided in the Contract;
 - (c) Other than in a court of competent jurisdiction in the province or district of Canada in which the subject matter of the Contract or any part thereof is situated and not elsewhere, and the parties hereto hereby agree to submit to the jurisdiction of such court.
7. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.
 8. The Surety shall not be entitled to claim any moneys relating to the Contract and the liability of the Surety under this Bond shall remain unchanged and, without restricting the generality of the foregoing, the Surety shall pay all valid claims of Claimants under this Bond before any moneys relating to the Contract held by the NCC are paid to the Surety by the NCC.
 9. The Surety shall not be liable for a greater sum than the amount specified in this bond.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its authorized signing authority, the day and year first above written.

SIGNED, SEALED AND DELIVERED in the presence of:

Principal _____

Witness _____

Surety _____

Note: Affix Corporate seal if applicable.

- GC10.1 INSURANCE CONTRACTS
- GC10.2 INSURANCE PROCEEDS
- GC10.3 INSURANCE TERMS
 - GC10.3.1 General
 - GC10.3.1.1 Proof of Insurance
 - GC10.3.1.2 Payment of Deductible
 - GC10.3.2 Commercial General Liability
 - GC10.3.2.1 Scope of Policy
 - GC10.3.2.2 Insured
 - GC10.3.2.3 Period of Insurance
 - GC10.3.3 Builder's Rick / Installation Floater
 - GC10.3.3.1 Scope of Policy
 - GC10.3.3.2 Amount of Insurance
 - GC10.3.3.3 Insurance Proceeds

GC10.1 INSURANCE CONTRACTS

- 1) The Contractor shall, at the Contractor's expense, obtain and maintain insurance contracts in respect of the work and shall provide evidence thereof to the NCC in accordance with the requirements of GC10.
- 2) The insurance contracts referred to in paragraph 1) of GC10.1 shall:
 - (a) be in a form, of the nature, in the amounts, for the periods and containing the terms and conditions specified in GC10; and
 - (b) provide for the payment of claims under such insurance contracts in accordance with GC10.2 INSURANCE PROCEEDS.

GC10.2 INSURANCE PROCEEDS

- 1) In the case of a claim payable under a Builders Risk/Installation (All Risks) insurance contract maintained by the Contractor pursuant to GC10.1 INSURANCE CONTRACTS, the proceeds of the claim shall be paid directly to the NCC, and:
 - (a) the monies so paid shall be held by the NCC for the purposes of the contract; or
 - (b) if the NCC elects, shall be retained by the NCC, in which event they vest in the NCC absolutely.
- 2) In the case of a claim payable under a General Liability insurance contract maintained by the Contractor pursuant to GC10.1 INSURANCE CONTRACTS, the proceeds of the claim shall be paid by the insurer directly to the claimant.
- 3) If an election is made pursuant to paragraph 1) of GC10.2, the NCC may cause an audit to be made of the accounts of the Contractor and of the NCC in respect of the part of the work that was lost, damaged or destroyed for the purpose of establishing the difference, if any, between:
 - (a) the aggregate of the amount of the loss or damage suffered or sustained by the NCC, including any costs incurred in respect of the clearing of the work and its site and any other amount that is payable by the Contractor to the NCC under the contract, minus any monies retained pursuant to subparagraph 1)(b) of GC10.2; and
 - (b) the aggregate of the amounts payable by the NCC to the Contractor pursuant to the contract up to the date of the loss or damage.

- 4) A difference that is established pursuant to paragraph 3) of GC10.2 shall be paid forthwith by the party who is determined by the audit to be the debtor to the party who is determined by the audit to be the creditor.
- 5) When payment of a deficiency has been made pursuant to paragraph 4) of GC10.2, all rights and obligations of the NCC and the Contractor under the contract shall, with respect only to the part of the work that was the subject of the audit referred to in paragraph 3) of GC10.2, be deemed to have been expended and discharged.
- 6) If an election is not made pursuant to subparagraph 1)(b) of GC10.2, the Contractor shall, subject to paragraph 7) of GC10.2, clear and clean the work and its site and restore and replace the part of the work that was lost, damaged or destroyed at the Contractor's expense as if that part of the work had not yet been performed.
- 7) When the Contractor clears and cleans the work and its site and restores and replaces the work referred to in paragraph 6) of GC10.2, the NCC shall pay the Contractor out of the monies referred to in paragraph 1) of GC10.2 so far as they will thereunto extend.
- 8) Subject to paragraph 7) of GC10.2, payment by the NCC pursuant to paragraph 7) of GC10.2 shall be made in accordance with the contract but the amount of each payment shall be 100% of the amount claimed notwithstanding subparagraphs 3)(a) and 3)(b) of GC5.4 PROGRESS PAYMENT.

GC10.3 INSURANCE TERMS

GC10.3.1 General

GC10.3.1.1 Proof of Insurance

- 1) Before commencement of the Work, and prior to contract award, the Contractor shall deposit with the NCC a Certificate of Insurance (approved Insurance form is enclosed at the end of this section).
- 2) Upon request by the NCC, the Contractor shall provide originals or certified true copies of all contracts of insurance maintained by the Contractor pursuant to the provisions contained herein.
- 3) The insurance policies shall be endorsed to provide the NCC with no less than 30 days notice in writing in advance of a cancellation of insurance or any reduction in coverage.

GC10.3.1.2 Payment of Deductible

- 1) Any moneys paid or payable in respect of a deductible amount shall be borne exclusively by the Contractor.

GC10.3.2 Commercial General Liability

GC10.3.2.1 Scope of Policy

- 1) The insurance coverage provided shall not be less than that provided by IBC Form 2100, as amended from time to time, and shall have:
 - (a) an Each Occurrence Limit of not less than \$5,000,000;
 - (b) a Products/Completed Operations Aggregate Limit of not less than \$5,000,000; and
 - (c) a General Aggregate Limit of not be less than \$10,000,000 per policy year, if the policy is subject to such a limit.

- 2) The policy shall either include or be endorsed to include coverage for the following exposures or hazards if the Work is subject thereto:
 - (a) Blasting;
 - (b) Pile driving and caisson work;
 - (c) Underpinning;
 - (d) Removal or weakening of support of any building or land whether such support be natural or otherwise if the work is performed by the insured Contractor.

GC10.3.2.2 Insured

- 1) The policy shall insure the Contractor and shall include the NCC as an additional Insured, with respect to liability arising out of the operations of the Contractor with regard to the work.

GC10.3.2.3 Period of Insurance

- 1) Unless otherwise directed in writing by the NCC, or, otherwise stipulated elsewhere herein, the policy required herein shall be in force and be maintained from the date of contract award until the day of issue of the Certificate of Completion except that the coverage for Completed Operations Liability shall, in any event, be maintained for a period of at least six (6) years beyond the date of the Certificate of Substantial Performance.

GC10.3.3 Builder's Risk / Installation Floater

GC10.3.3.1 Scope of Policy

- 1) The insurance coverage provided by a Builder's Risk policy or an Installation Floater policy shall not be less than that provided by IBC Forms 4042 and 4047, as amended from time to time.
- 2) The policy shall permit use and occupancy of the project, or any part thereof, where such use and occupancy is for the purposes for which the project is intended upon completion.
- 3) The policy may exclude or be endorsed to exclude coverage for loss or damage caused by any of the following:
 - (a) Asbestos;
 - (b) Fungi or spores;
 - (c) Cyber;
 - (d) Terrorism.

GC10.3.3.2 Amount of Insurance

- 1) The amount of insurance shall not be less than the sum of the contract value plus the declared value (if any) set forth in the contract documents of all material and equipment supplied by the NCC at the site of the project to be incorporated into and form part of the finished Work. If the value of the Work is changed, the policy shall be changed to reflect the revised contract value.

GC10.3.3.3 Insurance Proceeds

- 1) The policy shall provide that the proceeds thereof are payable to the NCC may direct in accordance with GC10.2, "Insurance Proceeds".
- 2) The Contractor shall, without delay, do such things and execute such documents as are necessary to effect payment of the proceeds.

• To be completed by the insurer / À être rempli par l'assureur

CONTRACT / MARCHÉ					
Description and location of work / Description et endroit des travaux				Contract no. / N° de contrat	
INSURER / ASSUREUR					
Name / Nom					
Address / Adresse					
No., Street / N°, rue		City / Ville		Province	
				Postal code / Code postal	
BROKER / COURTIER					
Name / Nom					
Address / Adresse					
No., Street / N°, rue		City / Ville		Province	
				Postal code / Code postal	
INSURED / ASSURÉ					
Name of contractor / Nom de l'entrepreneur					
Address / Adresse					
No., Street / N°, rue		City / Ville		Province	
				Postal code / Code postal	
ADDITIONAL INSURED / ASSURÉ ADDITIONNEL					
The National Capital Commission / La Commission de la capitale nationale					
This insurer certifies that the following policies of insurance are at present in force covering all operations of the Insured, in connection with the contract made between the named insured and the National Capital Commission.					
L'assureur atteste que les polices d'assurances suivantes sont présentement en vigueur et couvrent toutes les activités de l'assuré en fonction du marché conclu entre l'Assuré dénommé la Commission de la capitale nationale					
POLICY / POLICE					
Type Genre	Number Numéro	Inception Date Date d'effet	Expiry Date Date d'expiration	Limit of Liability Limites de garantie	
Commercial General Liability Responsabilité civile des entreprises					
Builder's Risk "All Risks" Assurance des chantiers « tous risques »					
Installation Floater "All Risks" Risques d'installation « tous risques »					
Other (list) / Autre (énumérer)					
Each of these policies includes the coverages and provisions as specified in Insurance Terms and each policy has been endorsed to cover the National Capital Commission as an Additional Insured. The Insurer agrees to notify the National Capital Commission in writing thirty (30) days prior to any material change in, or cancellation of any policy or coverage.			Chacune des présentes polices renferment des garanties et dispositions spécifiées aux Conditions d'assurance, et chaque police a été amendée pour couvrir la Commission de la capitale nationale en tant qu'assuré additionnel. L'assureur convient de donner un préavis de trente (30) jours à la Commission de la capitale nationale en cas de changement visant la garantie d'assurance ou les conditions ou de l'annulation de n'importe quelle police ou garantie.		
_____ Name of Insurer's Office or Authorized Employee / Nom du cadre ou de la personne autorisée			_____ Telephone number / Numéro de téléphone		
_____ Signature			_____ Date		

1. General

- 1.1 In this Contract “OHS” means “occupational health and safety”.
- 1.2 With respect to the work to be performed under the Contract, the Contractor covenants and agrees to perform at, and to enforce conformity with, a standard equivalent to or greater than the best practices prevailing in the construction industry at that time.
- 1.3 The Contractor acknowledges that, to the extent that the following matters may be affected by conduct of the work, it is responsible for the:
- 1.3.1 health and safety of persons on site;
 - 1.3.2 safety of property on site;
 - 1.3.3 protection of persons adjacent to the site; and,
 - 1.3.4 protection of the environment.
- 1.4 Without limiting the generality of section 1.3, the Contractor acknowledges that it is required to, and covenants and agrees to, comply and to enforce compliance with all laws or regulations that may be applicable to the conduct of the work including, without limitation:
- (a) the provisions of the *Occupational Health and Safety Act* of Ontario and all regulations, policies or directives issued thereunder for work performed in Ontario;
 - (b) *La Loi sur la santé et la sécurité du travail* of Québec and all regulations, policies or directives issued thereunder for work performed in Québec;
 - (c) Applicable provisions of the *Canada Labour Code, Part II*;
 - (d) Employment standards legislation in the province(s) in which any part of the work is performed; and
 - (e) Any policies or directives issued by the NCC in respect of the subject matter of the contract.
- The NCC will present any such policies or directives referred to in paragraph (e) to the Contractor in written form by not later than the pre-construction meeting. The Contractor is obliged to ensure that the relevant policies and directives have been communicated to and acknowledged by all its employees and that they will be complied with. The NCC reserves the right to require the Contractor to produce evidence satisfactory to the NCC acting reasonably that the Contractor has discharged the foregoing obligations.
- 1.5 By entering into the Contract with the NCC, the Contractor represents and warrants to the NCC that it has informed itself of and is knowledgeable about the obligations imposed by the legislation referred to in 1.4. above.
- 1.6 For purposes of the relevant provincial OHS legislative regime the Contractor acknowledges and agrees that it is the “Constructor” and covenants to discharge and accept all liability for the performance of the obligations of the “Constructor” in respect of the work provided for in the Contract. Notwithstanding a determination by the relevant authority having jurisdiction that the NCC is the “Constructor” in the event of a dispute between the Contractor and the NCC, the Contractor acknowledges and agrees that the Contractor shall be financially responsible for the implementation of protective measures necessary to fulfill the obligations of the “Constructor”.

- 1.7 As between the NCC and the Contractor, the NCC's decision as to whether the Contractor is discharging its obligations in respect of OHS issues shall be definitive. Without limiting the generality of the foregoing, in the event of any dispute with respect to instructions given by the NCC's designated representative, the Contractor may note such dispute, but must nevertheless forthwith comply with any such instructions.
- 1.8 The Contractor hereby indemnifies and agrees to hold harmless the NCC, its agents and employees, from and against any and all claims, demands, losses, costs (including legal fees on a full indemnity basis), damages, actions, suits or proceedings (hereinafter collectively referred to as "claims") by third parties that arise out of or are attributable to the Contractor's errors or omissions in the performance of the Contract. Without limiting the generality of the foregoing, this indemnification extends to any claims related to any violation of any statute or regulation relating to OHS matters.
- 1.9 The NCC shall provide the contractor:
- 1.9.1 a written description of every known and foreseeable health and safety hazard to which persons employed in the performance of the work may be exposed because of the nature of the site;
 - 1.9.2 a list of any prescribed materials, equipment, devices and clothing necessary because of the nature of the site;
 - 1.9.3 with written information indicating the prescribed circumstances and manner to use all prescribed materials, equipment, devices and clothing listed pursuant to 1.9.2; and,
 - 1.9.4 with a copy of any NCC policies and procedures that may be applicable in relation to the work site.
- 1.10 Without limiting the generality of 1.9, prior to the commencement of the work by the contractor, the contractor shall, at the contractor's expense:
- 1.10.1 take all reasonable care to ensure that all persons employed in the performance of the work or granted access to the work or its site are informed of any health and safety hazard described pursuant to 1.9.1;
 - 1.10.2 provide all persons employed in the performance of the work or granted access to the work or its site with prescribed materials, equipment, devices and clothing listed pursuant to 1.9.2;
 - 1.10.3 take all reasonable care to ensure that all persons employed in the performance of the work or granted access to the work or its site are familiar with the prescribed circumstances and manner all prescribed materials, equipment, devices and clothing listed pursuant to 1.9.2; and
 - 1.10.4 take all reasonable care to ensure that all persons employed in the performance of the work or granted access to the work or its site are familiar with policies and procedures referred to in 1.9.4.

2. Qualifications of Personnel

- 2.1 By entering into this agreement the contractor represents and warrants that it has the requisite experience, training, formal certification and equipment to enable it to discharge the obligations enumerated in sections 1.3, 1.4, 1.5 and 1.6 above.
- 2.2 The Contractor represents and warrants that supervisory personnel employed by the Contractor in respect of performance of any part of the work have the requisite experience, authority, training, formal certification and equipment to ensure that the obligations enumerated in sections 1.3, 1.4, 1.5

and 1.6 above are discharged and agrees to deliver such evidence as may be required by the NCC from time to time to verify same.

3. Certification

- 3.1 After receiving notification that its bid has been retained and prior to and as a condition of contract award, the Contractor covenants and agrees to deliver a Worker's Compensation Clearance Certificate. Where the duration of the project is greater than sixty days, the Contractor covenants and agrees to deliver up-dated certificates at least every 60 days. In the event of a failure by the Contractor to deliver up-dated certificates, the NCC shall be entitled to immediately terminate the contract without notice and without incurring any liability to the Contractor.
- 3.2 After receiving notification that its bid has been retained and prior to and as a condition of contract award, the Contractor covenants and agrees to deliver historical information on its injury experience including any pertinent Worker's Compensation Experience Reports. Such historical information shall report data for the previous three years.

4. Plans Policies and Procedures

- 4.1 After receiving notification that its bid has been retained and prior to and as a condition of contract award, the Contractor covenants and agrees to deliver for the review and approval of the NCC:
- (a) A copy of the contractor's OHS policy;
 - (b) A safety program and plan specific to the work to be performed pursuant to the Contract which plan shall include a risk assessment and analysis, a description of safe working methods, injury and incident reporting protocols, regular periodic reporting on compliance with OHS obligations including any policies, practices and procedures otherwise provided for herein, and a site-specific contingency and emergency response plan; and
 - (c) Health and safety training records of personnel and alternates responsible for OHS issues on site.

The Contractor covenants and agrees to deliver the necessary material safety data sheets for the review and approval of the NCC prior to entering the site to perform work related to the relevant material.

Approval by the NCC does not amend the provisions of the Contract with respect to the allocation of liability for discharging or failing to discharge OHS obligations. Such liability remains with the Contractor notwithstanding the granting of such approval.

- 4.2 The Contractor acknowledges and agrees that prior to commencement of work it must attend a pre-construction briefing at which any special or additional practices and procedures to be followed in completing the work are to be established. Without limiting the provisions of section 1.4(e) above, the representatives of the Contractor attending the briefing will be required to deliver a signed acknowledgement that the practices and procedures set out in the pre-construction briefing have been understood and will be complied with.
- 4.3 At any time and from time to time during the performance of the work, the NCC shall have the right to audit the manner in which the Contractor is discharging its OHS obligations and to determine whether the project specification and/or OHS policies, practices and procedures are being complied with. In the event that the audit discloses any failure by the Contractor to discharge such OHS obligations, the NCC shall be entitled to forthwith rectify at the Contractor's expense any such deficiency and the NCC shall have the further right to immediately terminate the contract without notice and without incurring any liability to the Contractor.

- 4.4 The Contractor covenants and agrees to conform with all requirements of the Workplace Hazardous Materials Information System.
- 4.5 The Contractor acknowledges and agrees that where required by any law or regulation applicable to the performance of the work it must establish and maintain a project health and safety committee. The contractor further acknowledges and agrees that it must enable staff to attend all relevant safety meetings, and that the cost of same, including costs attributable to standing down equipment is included in its bid price and is not independently recoverable.
- 4.6 Where required by the relevant provincial regulatory regime, the Contractor acknowledges and agrees that it is responsible for delivery of notice of the project to the relevant regulatory authority, and for the performance of any other administrative activity required to meet the obligations imposed in the pertinent provincial regulatory regime.
- 4.7 **(Optional depending on hazard or scope of project)**. The contractor covenants and agrees that it shall employ and assign to the work, a competent OHS professional as Health and Safety Coordinator that must:
- (a) have a minimum two (2) years' site-related working experience specific to activities associated with.(identify specific subject matter)
 - (b) have basic working knowledge of specified occupational safety and health regulations,
 - (c) be responsible for completing health and safety training session and ensuring that personnel not successfully completing the required training are not permitted to enter the site to perform the Work,
 - (d) be responsible for implementing, enforcing daily and monitoring the site-specific Health and Safety Plan, and
 - (e) be on site during execution of the Work.

The parties acknowledge that in lieu of employing an OHS professional, the Contractor may provide same by sub-contracting for such services.

- 4.8 Upon completion of the work the Contractor covenants and agrees to participate with the NCC in a post performance interview to evaluate the performance of the Contractor in respect of the OHS obligations under the contract. Without limiting the generality of the foregoing, the interview will identify areas of compliance and non-compliance in terms of:
- (a) actual performance of the work;
 - (b) reporting or procedural requirements;
 - (c) resolution of deficiencies.

The contractor acknowledges and agrees that the results of the post-completion interview may be relied upon by the NCC in evaluating bids subsequently submitted by the Contractor on other NCC projects.

Security Requirements

The NCC complies with Treasury Board's *Policy on Government Security* and consequently, it will require that the contractor's personnel submit to a personal security screening process (Security Clearance Form TBS/SCT 330-60E). The NCC may also perform a credit check when the duties or tasks to be performed require it or in the event of a criminal record containing a charge/offence of a financial nature.

Personal information associated with these clearances is retained in the following information bank: Personnel Security Screening _ PSU 917.

The NCC reserves the right to not award the Contract until such time as the contractor's personnel core employees have obtained the required level of security screening as identified by the NCC's Corporate Security. In this case the level of security required will be **(Reliability-Site Access-Secret)***

****For operation needs, with advice or assistance from NCC Corporate Security, the security level can be upgraded (Confidential, Secret or Top Secret) on the basis of the sensitivity of the information and assets that need to be accessed.***

Additional information

As part of their personal screening, individuals may be required to provide evidence of their status as a Canadian citizen or permanent resident as well as any other information/documentation requested by the NCC's Corporate Security in order to complete the screening.

The NCC reserves the right to refuse access to personnel who fail to obtain the required level of security screening.

The NCC reserves the right to impose additional security measures with respect to this contract as the need arises.

When warranted by a Security threat and risk assessment (TRA) or any type of Security Assessment, physical security safeguards can be recommended by NCC Corporate Security to reflect changes in the threat environment or for operational purposes.

The NCC also reserves the right to request that the Contractor submit to a *Designated Organization Screening* and/or *Facility Security Clearance* – depending on the nature of the information it will be entrusted with.

Company Security Representative

The contractor shall appoint one Company Security Representative (CSR) as well as one alternate (for companies who have more than five employees).

Selection criteria for the CSR and the alternate are the following:

- They must be employees of the contractor's firm;
- They must have a security clearance (the NCC will process the clearances once the individuals have been identified).

Responsibilities of the Company Security Representative

The CSR's responsibilities are the following:

- Act as liaison between the NCC's Corporate Security and the contractor to ensure coordination;
- In collaboration with the NCC's Corporate Security, identify the contractor's personnel who will require access to NCC information/assets/sites **as well as any recurring subcontractors** (and their employees) who will require similar access and may not be supervised by the contractor at all times during such access. Ensure that accurate and complete Personnel Security Screening documentation is submitted to the NCC's Corporate Security for the employees/subcontractors who have been identified;
- Ensure that employees/subcontractors, upon notification of having been granted a Security status (**Reliability-Site Access-Secret**), sign the *Security Screening Certificate and Briefing Form* and return to the NCC's Corporate Security;
- Ensure that only persons who have been security screened to the appropriate level and who are on a "need-to-know basis" will have access to information and assets;
- Maintain a current list of security screened employees/subcontractors;
- Ensure proper safeguard of all information and assets, including any information/assets entrusted to subcontractors;
- If a Security incident or suspected breach of security occurs, prepare and submit to the NCC an occurrence report as soon as possible.

Access to site

Unless otherwise indicated, all visits to "secure" sites (official residences) shall be coordinated with, and approved through NCC Corporate Security.

References

[Security of Information Act](#)

[Access to Information Act](#)

[Privacy Act](#)

[Policy on Government Security](#)

Sections

- 00 01 10 List of sections
- 00 21 13 Instructions to Bidders
- 01 11 00 Summary of work
- 01 29 83 Testing laboratory services
- 01 33 00 Submittal Procedures
- 01 35 30 Health and Safety Requirements
- 01 35 43 Environmental Protection
- 01 45 00 Quality Control
- 01 52 00 Construction Facilities
- 01 61 00 Common Product Requirements
- 01 72 00 Project Record Documents
- 01 74 11 Cleaning
- 01 74 21 Construction/Demolition Waste Management and Disposal
- 01 78 00 Closeout Submissions
- 02 41 16 Demolition of structure
- 03 10 00 Concrete Formings and Accessories
- 03 10 01 Temporary Supports
- 03 20 00 Concrete Reinforcement
- 03 30 00 Cast-in-place Concrete
- 31 05 17 Aggregates
- 31 23 13 Site Grading
- 31 24 13 Excavation, embankments and compaction
- 31 32 21 Geotextiles
- 32 91 21 Top Soil Placement and Grading
- 32 92 23 Sodding
- 32 93 45 Tree pruning
- 35 20 22 Dewatering/Water Pumping
- 35 31 19 Rip-Rap Protection
- 35 42 19 Preservation of Water Courses

LIST OF DRAWINGS

- Dennison 1 Dam – Cover and Localisation Plan
- S-1 Dennison 1 Dam – Existing Conditions
- S-2 Dennison 1 Dam - Proposed Conditions
- Fortune Lake Dam - Cover and Localisation Plan
- S-3 Fortune Lake Dam - Cover and Localisation Plan

END OF SECTION

1.0 DESCRIPTION OF WORK

- 1.1** The work carried out in compliance with this contract includes all the works related to the repairs at Dennison 1 dam built in 1973 and at Fortune lake dams built in 1975 in Gatineau Park, Québec. Works include excavation, site grading and levelling, backfill and compaction of material, concrete repairs and placing of self leveling concrete to fill up voids under the spillway slabs and concrete to thicken the central slab of spillway, protection rip-rap for spillway and embankments, as well as the environmental protection and site reinstatement at its original condition.

The Contractor must refer to the drawings, specifications and table of unit prices when preparing the tender bid and in the execution of the work.

2.0 CODES

- 2.1** Perform work in accordance with contract documents and any other codes of Federal, Provincial or Local applications provided that in cases of conflict or discrepancy, the more stringent requirements shall apply.
- 2.2** Meet or exceed requirements of:
- .1 Contract documents;
 - .2 Specified standards, codes and referenced documents.

3.0 DOCUMENTS REQUIRED

- 3.1** Maintain at job site, one copy each of following:
- .1 Contract drawings;
 - .2 Specifications;
 - .3 Addendum;
 - .4 Change orders;
 - .5 Other modifications to Contract;
 - .6 Field test reports;
 - .7 Copy of approved work schedule;
 - .8 Manufacturers' installation and application instructions;
 - .9 Copy of approved on-site traffic and equipment operation plan.

4.0 Non Applicable

5.0 SITE VISIT

- 5.1** Parties intending to submit tenders on the work must visit the site and obtain for themselves all information pertaining to existing conditions affecting the proper execution and completion of the work. The submission of a tender shall be deemed as proof that

the tenderer has complied with this requirement. Later claims for additional compensation will not be entertained for any items of labour or material required to complete the work that could have been reasonably ascertained by a Site Examination.

6.0 SITE ACCESS LIMITATIONS FOR EQUIPEMENT

- 6.1** Access to Dennison reservoir dam is by boulevard de la Cité des Jeunes and Mine Road, then at the start of trail no. 5, north of City of Gatineau, Québec, on the northeast frontier Gatineau Park.
- 6.2** Access to Fortune Lake dam is easier by trail no. 9 (280 m) than trail no. 32 (290 m), coming first from trail no. 4 (140 m) starting Chalet des Érables of Camp Fortune; the latter is located 800 m west of main chalet of Camp Fortune ski center, Chelsea, Québec. Trail no. 32 is less drivable than trail no. 9. Trails can be used by light trucks and any damage to trails shall be repaired.

Proper closure signs and fences indicating the use of the trail by construction equipment, as well as fences delimitating the working areas shall be installed and maintained during all construction period.

7.0 SITE CONDITIONS

- 7.1** Reservoir upstream of Dennison dam is 3 acres in surface and outflows downstream in Leamy Creek. Fortune Lake upstream of dam is more than 18 acres in surface and outflows downstream in Chelsea Brook.
- 7.2** Site dimensions may vary from those shown on the drawings. Obtain accurate field dimensions and prepare work based on field dimensions.
- 7.3** The responsibility for obtaining field dimensions lies with the Contractor.
- 7.4** Prior to any work, the Contractor shall submit to the Consultant a set of digital photographs, including digital date imprint, complete with digital and hard copy log of all elements which are not to be reconstructed, but which may be affected by the Contractor's operations. The photographs will establish pre-existing conditions. In the event that conditions are not recorded, and repairs are required, the Consultant has sole authority to request and approve the method of repairs to be carried out at the Contractor's cost.

8.0 PAYMENT

- 8.1** Any minor or miscellaneous items indicated on the drawing as being part of the work of this contract and for which there are no specific pay items listed on the unit price table must be included by the Contractor in his overhead and indirect charges and incorporated into the unit prices which are listed on the unit price table.

- 8.2** No separate payment will be made for work performed in respect to any of the special provisions for which there is no specific pay item on the unit price table. The cost of these works must be appropriated among, and included in, the unit prices bid for the pay items listed.
- 8.3** Included in the unit prices bid for the respective items shall be, in addition to the actual cost of construction, all other items of work required to complete the contract to the extent indicated on the drawings and specified herein.
- 8.4** Measurement for Payment
- .1 Notify Consultant sufficiently in advance of operations to permit required measurements for payment.

9.0 CONTRACTOR'S USE OF SITE

- 9.1** Use of site: complete within the construction area as defined in the contract drawings for execution of work. Pedestrian and cycling traffic on trails would be allowed for the complete period of works. The owner will be responsible for advising the public.

The Contractor is also responsible to supply and install proper signage on the trails to inform users that trails are used by construction equipment, as well for fences to protect work areas for the full duration of construction. Contractor is to supply and install signs at about 12 locations in total for the two sites. Contractor is responsible to obtain access authorisations for this road and site through a working permit to be requested to NCC.

Contractor has the obligation to take all appropriate protection measures to protect the access roads and the trails giving access to the work site. Any damage resulting of the utilisation of these infrastructures by the Contractor must be repaired according to original conditions, all at the Contractor's expense, and to the satisfaction of the Consultant.

- 9.2** The Contractor must delimit the storage areas with fences. These areas are very limited. NCC is not responsible for any vandalism or theft.

All areas used for work storage shall be maintained by the Contractor. Any surface sod, curbs, trees, etc that are damaged due to the Contractors use of the area shall be repaired/ reinstated at the Contractors cost and to the satisfaction of the Consultant.

10.0 PROJECT MEETINGS

- 10.1** The Consultant will arrange project meetings and assume responsibility for setting times and recording and distributing of minutes. The Contractor is obligated to attend all meetings.

11.0 SETTING OUT OF WORK

- 11.1** Prior to start of work the Consultant will provide a survey of control points and

coordinates of works to be implemented.

11.2 N/A

11.3 The Contractor shall assume full responsibility for and execution and completion of work at locations, lines and elevations indicated.

11.4 The Contractor shall provide devices needed to lay out and construct work.

11.5 The Contractor shall supply such devices as straight edges and templates required to facilitate Consultant's inspection of work.

11.6 The Contractor shall supply stakes and other survey markers required for laying out work.

12.0 SCHEDULING OF WORK AND RESTRICTIONS

12.1 In an acceptable format and within 5 work days following the contract's awarding, provide the Consultant with a work schedule indicating dates for:

- .1 The presentation of workshop drawings, list of materials and samples;
- .2 The beginning and end of work for each section of the estimate;
- .3 The work completion date within the period determined in the contractual documents.

12.2 Periodic examinations of the works' progress, as to the submitted calendar, will be carried out in accordance to the Consultant's decisions and the Contractor will update the calendar with the Consultant's assistance and approval.

12.3 Presentation of the workshop drawings: Considering the long delivery periods of certain articles, the Contractor will present workshop drawings for those particular articles, and this, within 5 days of the reception of the «Owner's Declaration of Intent to Attribute». See section 01 33 00 of the specifications.

12.4 All works on site shall start by August 20, 2012 requiring closure of trail no. 36 with trail closure signage into place and shall be completed by Nov. 15th 2012.

13.0 MIGRATORY BIRDS PROTECTION

13.1 The Contractor shall not do any tree cutting which would disturb an active migratory bird's nest. The time period when it is generally considered possible that migratory bird nests can be active is from March 31st to September 1st.

13.2 The Contractor shall not use heavy equipment which creates a disturbance affecting a migratory bird species.

13.3 The owner will retain a biologist to undertake a site review for nest locations if the work is to proceed during migratory bird nesting/rearing period.

14.0 TAXES

- 14.1** Pay all taxes properly levied by law (including Federal and Provincial).

15.0 PERMIT AND BY-LAWS

- 15.1** The Contractor shall be fully acquainted with all Federal, Provincial, Local and other by-laws relating to the work of this contract, as he will be required to comply with such by-laws without extra compensation of any nature.
- 15.2** Obtain and pay for permits, factory inspector's approval, and other licenses required for this project and also pay any other charges incidental to such permits.

16.0 WEIGHING OF MATERIALS

- 16.1** Unit Price Items, measured by the ton for payment purposes, must be accompanied by delivery tickets issued by the supplier of the material, indicating what type of material and net weight in tons. Upon arrival on site, and before off loading, the loads must be approved, and delivery ticket signed by the Consultant on site. The Consultant will retain a duplicate copy of the signed ticket. The original ticket shall be retained by the Contractor for submission with invoices at the time of payment.
- 16.2** Weights shown on the delivery ticket must be the net weight of the materials only as weighed on a scale, which is tested and approved by the weight inspectors of the Government of Canada at least once per year.

17.0 ADDENDUM

- 17.1** Answers to questions directed to the Consultant, and any modifications to the drawings and specifications during the tender period will be communicated in the Form of Addendum to all Tenderers. Such Addendums are to be considered as and read as part of the specifications, and thereby included in the contract documents.

18.0 COORDINATION

- 18.1** Coordinate operations of those involved in the work so that the work progresses effectively and efficiently.
- 18.2** Ensure that sub-Contractors provide properly qualified superintendents on site to supervise trades involved in work. Do not permit change of personnel, except when approved.
- 18.3** Ensure proper coordination with suppliers concerning the fabrication and delivery of the various elements to be put in place.

19.0 RECORD DRAWINGS AND SPECIFICATIONS

- 19.1** As work progresses, maintain, accurate records to show deviations from contract documents.
- 19.2** Just prior to the Consultant's inspection for issuance of final certificate of completion, supply one (1) set of white prints with all major and minor deviations neatly inked in red. The Consultant will provide two (2) sets of clean white prints for this purpose.

20.0 PROTECTION OF ARCHEOLOGY AND PATRIMONY

- 20.1** Protect archaeological relics such as commemorative plates, artefacts and any other signs of old civilizations on the work site.
- 20.2** Should discovery be made during work, suspend all activities, warn the Consultant immediately and wait for his written directives before resuming work.
- 20.3** Any discovery of an archaeological nature, old objects or other discoveries of scientific or historical interest are the property of the National Capital Commission (NCC).

21.0 DAMAGES

- 21.1** Existing plant material, landscaping, roadways, pathways, structures, finishes and public utilities damaged during the execution of the work of this Contract, will be restored to their original condition, replaced, or full compensation made to affected parties by the Contractor.
- 21.2** It is understood that restored or replaced work includes labour, equipment and material costs.

22.0 BILINGUAL DOCUMENTS

- 22.1** This contract's drawings and specifications are written in both official languages, in French and in English. Should there be any differences between the two versions, the version representing the project's spirit will be used.

23.0 PROJECT SIGNBOARD

- 23.1** No project signboard is required for this project.

24.0 PROTECTION

- 24.1** No Protect finished work against damage until take-over.

24.2 Protect adjacent work against the spread of dust and dirt beyond the work areas.

24.3 Protect public from all hazards.

25.0 GUARANTEES AND WARRANTIES

25.1 Before completion of work collect all manufacturer's guarantees and warranties and deposit with Consultant.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

00 01 10	List of Sections
00 21 13	Instructions to Bidders
01 33 00	Submittal Procedures
01 35 43	Environmental Protection
01 35 30	Health and Safety
01 52 00	Construction Facilities
01 71 00	Examination and Preparation
01 74 11	Cleaning
01 74 21	Construction/Demolition Waste Management and Disposal
02 41 16	Demolition of Structure
03 10 00	Concrete Formings and Accessories
03 10 01	Temporary Supports
03 20 00	Concrete Reinforcement
03 30 00	Cast-in-place Concrete
31 23 13	Site Grading
31 24 13	Excavation, Embankments and Compaction
32 91 21	Top Soil Placement and Grading
32 92 23	Sodding
35 20 22	Dewatering/Water Pumping
35 42 19	Preservation of Water Courses
35 31 19	Rip-Rap Protection

1.2 INFORMATION TO TENDERS

- .1 This section describes the general scope of work. All work to be governed by the latest edition of CAN/CSA S6-06.
- .2 The provided scope of work is general in nature and under no circumstances shall be construed as exhaustive.

1.3 EACH ITEM OF WORK SHALL INCLUDE ALL INCIDENTAL WORK SUCH AS, BUT NOT LIMITED TO:

- .1 Dust and fume control.
- .2 Protection of facilities to remain.
- .3 Protection of utilities and equipment.
- .4 Reinstatement of any disturbed element of structure or equipment affected by Contractor's operation.
- .5 Access to work area, platforms and scaffolding.
- .6 Costs of all applicable submissions and permits.
- .7 All costs associated with compliance to noise and vibration restrictions.
- .8 All costs associated with staging where such is required.

- .9 All costs of testing.
- .10 All costs associated with disposal of all removed materials in a safe environmental manner and in full compliance with applicable Federal, Provincial and Municipal legislations and statutes.
- .11 All costs associated with certifying parts of work, as required in Contract Documents.
- .12 All costs of sawcutting.
- .13 All costs of protection from falling debris.
- .14 All measures required to assure safe closure of pathway to protect vehicles, pedestrians and bicycles at all times.
- .15 Costs of all surveys.
- .16 Cost of all submissions.
- .17 All costs of SITEWORK:
 - .1 Construct construction depot. Reinstate all grassed areas and other affected areas to original or better condition.
 - .2 Protect all existing utilities.
 - .3 Protect all existing signage.
 - .4 Under no circumstances use any equipment heavier than a "Bobcat" on the bike path.
 - .5 All bonds, administration and supervisory costs.
 - .6 Mobilization and demobilization.
 - .7 Schedules and forecast cash flows.
 - .8 Site preparation for work.
 - .9 Costs of all necessary approvals and permits as applicable.
 - .10 Cost of construction depot in location acceptable to Consultant.
 - .11 All costs associated with locates, protection or temporary relocation and reinstallation of utilities, if applicable.
 - .12 Installation of temporary barricades, hoarding, fencing and other protection required.
 - .13 Cost of supplying and maintenance of adequate sanitary facilities.
 - .14 Costs of certification of certain parts of work.
 - .15 Costs associated with access to private properties as required and obtaining written release from the affected property Owner. Copy to be submitted to Consultant.
 - .16 Maintaining and reinstatement of existing road signs, etc.
 - .17 All cost of any incidental work not specifically mentioned in Contract Documents, but required due to virtue of work.
 - .18 All costs associated with environmental protection measures, except the one cost of which is explicitly specified to include in other Items of work.
 - .19 Costs for installing, maintaining and removal of sediment control measures.
 - .20 Any temporary lighting required to carry out work.
 - .21 Protection of vehicles and public, when and where affected by Contractor's operation.

1.4 INDEX AND REFERENCE NUMBERS

- .1 All index and reference numbers, either in the Tender Form, plans, specifications, etc., where provided are given for the convenience of the Contractor and as such must be taken only as a general guide to the part of work referred to. It must not be assumed that such numbering is the only reference to each item, but the plans and specifications, as a whole must be fully read in detail.

1.5 INDIVIDUAL DESCRIPTION OF WORK

- .1 The scope of work is provided for convenience of bidder and is for general information only and shall not be construed as exhaustive. Any particular description of work shall be read together with Contract Drawings. In case of discrepancy between specifications and drawings, Tenderer shall assume that a more expensive option will be employed. Any work, which is shown on the Contract Drawings, but is not necessarily separately listed, mentioned or described in written provisions of the Contract or vice versa is deemed to be included in both.

1.6 SCHEDULE OF ITEMS AND PRICES

- .1 The quantities shown in the Schedule of Items and Prices, are for the sole purpose of indicating to the Tenderer the general magnitude of the work. For any work done on a unit price basis, the Contractor will be paid for an actual measured quantity at the unit price submitted in the Tender, subject to the provisions of the General Conditions.

1.7 MEASUREMENT FOR PAYMENT

- .1 The measurement for payment for each measurable and identified Item of Work, in Form of Tender, shall be as identified in the Form of Tender Table.

- 1.8** The Contract price shall include sufficient allowance for expenses associated with all probable and unforeseen site conditions related to work. No payment shall be made for claims based on site conditions varying from the conditions assumed by the Contractor during tendering.

- 1.9** The Contractor shall submit a detailed Work Schedule and, if requested, a Projected Monthly Cash Flow Forecast to Consultant at Pre-Construction Meeting.

The Detailed Work Schedule shall be in bar chart form indicating the following items against a weekly time scale:

- Dates and time periods of all major construction activities.
- Dates of critical activities (long delivery items, changes of traffic shifts, protection measures, etc.)
- Dates of important milestones.

- 1.10** The Projected Monthly Cash Flow Forecast shall indicate the projected cost of the work to be completed in each calendar month of the Contract term, and shall be based on the Contract prices and be consistent with the Detailed Work Schedule.

The Contractor is advised that no additional payment will be made for any repeated mobilization and demobilization for any of the construction activities covered by this Contract, interrupted by weather, or by any other construction activity included in any part of this Contract. No payments will be made under this Item to the Contractor until actual work commences.

2.0 SUMMARY OF WORK

2.1 PAY ITEM 1 - MOBILISATION / DEMOBILISATION, INCL. TRAFFIC CONTROL, SITE CLEAN-UP AND RE-INSTATEMENT, ENVIRONMENTAL PROTECTION MEASURES AND OTHER WORKS

- .1 The work includes all site preparation and mobilization / demobilization for the two dams. It includes traffic control in trails and roads, site cleanup during and at the end of contract, as well as site re-instatement and levelling. Work includes the coordination, supply, installation and removal after construction of three bilingual signs for trail no.5 leading to Dennison 1 dam and eight bilingual signs for trails nos. 4, 9, 32 leading to Fortune Lake dam, notifying public of construction works and of construction equipment traffic, all to be located as instructed by the Engineer. Work includes also tree removal and re-instatement, the coordination, supply and implementation of all environmental protection measures as stipulated in the contract, temporary installations, the supply and installation of protection fences protecting construction site, required facilities as well as all others works explicitly or implicitly required and not defined in the specifications and drawings.
- .2 Work of this item is primarily described on drawings and in Sections 00 21 13, 01 29 83, 01 33 00, 01 35 30, 01 35 43, 01 45 00, 01 52 00, 01 61 00, 01 72 00, 01 74 11, 01 74 21, 01 78 00, 31 23 13, 31 24 13, 32 91 21, 32 92 23, 32 93 45, 35 42 19, 35 49 25.
- .3 This item will be paid on a lump sum basis at the price included in the Tender form.
- .4 No measurement for payment will be made for this item.

2.2 PAY ITEM 2 – DEWATERING/WATER PUMPING

- .1 Systems for water derivation shall be put in place to dry up part of site and excavations where works will be implemented for the two dams. It includes all equipment and materials required for its construction, operation and for its removal at the end of the work. It also includes the supply and installation turbidity curtains and incidental works. Contractor shall use the method of his choice to be reviewed/approved by the Engineer. Contractor shall refer to General Condition

GC3.4.5 stipulating that temporary structures and construction methodologies are of the sole responsibility of Contractor, dewatering systems or cofferdams being considered as temporary structures and construction methodologies. Avoid dispersion of any materials in the waterways.

Under normal summer water level, water diversion with pumping of water shall be required for Dennison dam for the item 5 below - Thickening of Spillway Central Slab where water is confined. It may be also required to prepare part of the work for item 5 below - Concrete Work under spillway slabs.

Under normal summer water level, concrete repair inside the corner of Fortune Lake dam may require a small dewatering area with water pump and small cofferdam made of sand bags and membrane or others devices to Contractor's choice over a length of 1.5 to 2 m.

- .2 Work of this item is primarily described on drawings and in Sections 01 33 00, 01 35 43, 01 74 11, 01 74 21, 31 24 13, 35 20 22, 35 42 19.
- .3 This item will be paid on a lump sum basis at the price included in the Tender form.
- .4 No measurement for payment will be made for this item.

2.3 PAY ITEM 3 – EXCAVATION AND DEBRIS REMOVAL

- .1 The work includes the removal of granular material, stones and of debris, transportation and disposal them off-site for the two dams. This item includes excavation and of-site disposal of soil and debris around and under dam spillway slabs and the face of the Denisson dam, and the piles of branches and concrete removal located upstream/downstream of Fortune Lake dam. It includes also all the excavations necessary for the preparation of the installation of rip-rap. Contractor shall remove minimal granular material and stones under the dam spillway slabs so to not destabilize them; insure temporary shoring is used if necessary as per Pay Item 4. Avoid dispersion of any materials in the waterways and ensure that no debris will be allowed to fall in creek and on creek shoreline. All debris are to be transported off-site by Contractor at proper dump sites, all to be approved by Engineer.
- .2 Work of this item is primarily described on drawings and in Sections 01 33 00, 01 35 30, 01 35 43, 01 74 11, 01 74 21, 02 41 16, 03 10 01, 31 24 13.
- .3 This item will be paid on a lump sum basis at the price included in the Tender form.
- .4 No measurement for payment will be made for this item.

2.4 PAY ITEM 4 – DENNISON 1 DAM - CONCRETE WORK UNDER/FOR SPILLWAY SLABS

- .1 The work includes all construction work required to repair and stabilize the existing spillway slabs as shown on drawings. All required works included the supply and implementation of self-leveling/consolidating concrete, temporary shoring if required, formwork, anchors, support bases, protection for cold weather concreting if required, etc. The price includes the disposal of surplus materials and all other incidental expenses required to the complete works as described in the plans and specifications.

Contractor shall use the method of his choice to be approved by the Engineer. Contractor shall refer to General Condition GC3.4.5 stipulating that temporary structures are of the sole responsibility of Contractor, temporary shoring being considered as temporary structures.

- .2 Work of this item is primarily described on drawings and in Sections 03 10 00, 03 10 01, 03 20 00, 03 30 00, 35 42 19.
- .3 This item will be measured in cubic meters for payment.at the price included in the Tender Form.
- .4 The unit price bid will be full compensation for supply, all labour, equipment and materials necessary and to complete the work.

2.5 PAY ITEM 5 – DENNISON 1 DAM - THICKENING OF SPILLWAY CENTRAL SLAB

- .1 The work includes all construction work required to thicken the existing spillway central slab as shown on drawings. All works included the supply and implementation of concrete, temporary shoring if required, formwork, wire mesh, anchors, support bases, protection for cold weather concreting if required, etc. The price includes all other incidental expenses required to the complete works as described in the plans and specifications.

- .2 Work of this item is primarily described on drawings and in Sections 03 10 00, 03 10 01, 03 20 00, 03 30 00, 35 42 19.
- .3 This item will be measured in cubic meters for payment.at the price included in the Tender Form.
- .4 The unit price bid will be full compensation for supply, all labour, equipment and materials necessary and to complete the work.

2.6 PAY ITEM 6 - DENNISON 1 DAM - CONCRETE WORK ON DOWNSTREAM FACE

- .1 The work includes all construction work required to repair the downstream face of dam at two locations as shown on drawings. It also includes work for pipe cutting and concrete filling. All works included the supply and implementation of concrete, wire mesh, temporary shoring if required, formwork, anchors, support bases, protection for cold weather concreting if required, etc. The price includes the disposal of surplus materials and all other incidental expenses required to the complete works as described in the plans and specifications.
- .2 Work of this item is primarily described on drawings and in Sections 03 10 00, 03 10 01, 03 20 00, 03 30 00, 35 42 19.
- .3 This item will be measured in cubic meters for payment.at the price included in the Tender Form.
- .4 The unit price bid will be full compensation for supply, all labour, equipment and materials necessary and to complete the work.

2.7 PAY ITEM 7 – DENNISON 1 DAM - RIP-RAP PROTECTION INCL. GEOTEXTILES AND STONE PROTECTION LAYER

- .1 This item covers the preparation of the surfaces to be covered by rip-rap, the supply of all rip-rap materials and their installation to the lines and thickness shown on the contract drawings. Rip-rap varies in thickness. The costs of rip-rap adjustments to suit to the existing dam and spillway configuration at the satisfaction of the Engineer including the leveling, supply of materials, compaction, labor, and all other work required are included in this item.
- .2 Work of this item is primarily described on drawings and in Sections 31 23 13, 31 24 13, 31 32 21, 32 91 21, 35 31 19, 35 42 19.
- .3 This item will be measured in tons for payment.at the price included in the Tender Form.
- .4 The unit price bid will be full compensation for supply, all labour, equipment and materials necessary and to complete the work.

2.8 PAY ITEM 8 – FORTUNE LAKE DAM - CONCRETE REMOVALS & REPAIRS

- .1 The work includes all construction work required to do small concrete removal and repair on the downstream face of the dam at five (5) locations and on the upstream face of the dam at two (2) locations, including the dam corner (upstream & downstream) as shown on drawings. All works include the breaking and removal of loose concrete, the supply and installation of expansion membrane at dam corner, the supply and installation of concrete, formwork, protection for cold weather

concreting if required, etc. 80% of concrete repairs will be about 0.1 m deep and 20% about 0.2 m deep. The price includes the off-site disposal of surplus materials and all other incidental expenses required to the complete works as described in the plans and specifications. Contractor has to ensure to use proper adherence product before concrete placing to ensure adequate adherence between existing and new concrete.

- .2 Work of this item is primarily described on drawings and in Sections 03 10 00, 03 20 00, 03 30 00, 31 05 17, 31 24 13, 35 42 19.
- .3 This item will be measured in square meters for payment.at the price included in the Tender Form.
- .4 The unit price bid will be full compensation for supply, all labour, equipment and materials necessary and to complete the work.

END OF SECTION

1.0 GENERAL

1.1 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- .1 Particular requirements for inspection and testing to be carried out by testing laboratory designated by the Owner are specified under various sections.

1.2 APPOINTMENT AND PAYMENT

- .1 Owner will appoint and pay for services of testing laboratories except for the following:
 - .1 Inspection and testing required by law, ordinances, rules, regulations or orders of public authorities;
 - .2 Inspection and testing performed exclusively for Contractor's convenience;
 - .3 Testing, adjustment and balancing of conveying systems, mechanical and electrical equipment and systems;
 - .4 Mill tests and certificates of compliance;
 - .5 Tests specified to be carried out by the Contractor under the supervision of the Consultant.
- .2 Where tests or inspections by a designated testing laboratory reveal work not in accordance with contract requirements, the Contractor shall pay the cost for additional tests or the inspections requested by the Consultant to verify the acceptability of the corrected work. Any work not in accordance with contract requirements will not be paid.

1.3 CONTRACTOR'S RESPONSABILITIES

- .1 Furnish labor and facilities required to:
 - .1 Provide access to work to be inspected and tested;
 - .2 Facilitated inspections and tests;
 - .3 Make good work disturbed by inspection and test;
 - .4 Provide storage on site for laboratory's exclusive use to store equipment and to cure test samples.
- .2 Notify the Consultant sufficiently in advance of operations to allow for assignment of laboratory personnel and the scheduling of test.
- .3 Pay costs associated with the uncovering and putting back in order of work that is covered before the required inspection or testing is completed and approved by the Consultant.
- .4 Wherever materials are specified to be tested, deliver representative samples in the required quantity to the testing laboratory.

END OF SECTION

1.0 GENERAL

- .1 This section specifies general requirements and procedures for contractor submissions of shop drawings, product data, samples and mock-ups to Consultant for review. Additional specific requirements for submissions are specified in other specific work sections.
- .2 Do not proceed with work until Consultant reviews relevant submissions.
- .3 Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .4 The Contractor's responsibility for errors and omissions in submission is not relieved by Consultant's review of submissions.
- .5 Notify Consultant, in writing, at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .6 The Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Consultant's review of submission, unless Consultant gives written acceptance of specific deviations.
- .7 Make any changes in submissions that Consultant finds consistent with Contract Documents and resubmit as directed by Consultant.
- .8 Notify Consultant, in writing, when resubmitting any revisions other than those requested by Consultant.

1.1 RELATED SECTIONS

- .1 Section 014500 - Quality Control

1.2 ADMINISTRATIVE CONSIDERATIONS

- .1 Submit all documents and sampled with reasonable promptness and in an orderly sequence so as to not cause delay in work. Failure to submit in ample time is not considered sufficient reason for an extension of contract time and no claim for an extension by reason of such default will be allowed.
- .2 Work affected by submittal shall not proceed until review is complete.
- .3 Review submittals prior to submission to the Consultant. This review confirms that the necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and contract documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and shall be considered rejected.

- .4 Notify Consultant in writing, at time of submission, identifying deviations from requirements of contract documents stating reasons for deviations.
- .5 Verify field measurements with relation to affected adjacent work.
- .6 Even if the Consultant reviews the documents and samples, the Contractor's responsibility for submitting complete, exact and conform pieces in accordance to the contract's documents is not relieved.
- .7 Keep one reviewed copy of each submission on site.

1.3 SAMPLES

- .1 As required by the various sections of this contract.

1.4 SUBMISSION REQUIREMENTS

- .1 Coordinate each submission with requirements of work and Contract Documents. Individual submissions will not be reviewed until all related information is available.
- .2 Allow 5 working days for the Consultant's review of each submission.
- .3 Accompany submissions with transmittal letter, in duplicate, containing:
 - .1 Date;
 - .2 Project title and number;
 - .3 Contractor's name and address;
 - .4 Identification and quantity of each shop drawing, product data and sample;
 - .5 Other pertinent data.
- .4 Submissions shall include:
 - .1 Date and revision dates;
 - .2 Project title and number;
 - .3 Name and address of:
 - .1 Subcontractor;
 - .2 Supplier;
 - .3 Manufacturer;

- .4 Contractor's stamp, signed by Contractors authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents. In addition, depending on the requirements specified in the various sections of this contract, certain documents need to be signed and sealed by an engineer, member of the Order of Engineers of Quebec;
- .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication;
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances;
 - .3 Setting or erection details;
 - .4 Capacities;
 - .5 Performance characteristics;
 - .6 Standards;
 - .7 Operating weight;
 - .8 Single line and schematic diagrams;
 - .9 Relationship to adjacent work.
- .5 After the Consultant's review, distribute copies.

1.5 SHOP DRAWINGS

- .1 Shop drawings: original drawings, or modified standard drawings provided by Contractor, to illustrate details of portions of Work, which are specific to project requirements. All shop drawings must be signed and stamped by a member of the Order of Engineers of Quebec.
- .2 Maximum sheet size: 595 x 840 mm.
- .3 Submit shop drawings as follows:
 - .1 Opaque diazo prints; number copies required by the Contractor for distribution plus 5 copies that will be retained by Consultant.
- .4 Cross-reference shop drawing information to applicable portions of Contract Documents.

1.6 PRODUCT DATA

- .1 Product data: manufacturers catalogue sheets, brochures, literature, performance charts and diagrams, used to illustrate standard manufactured products. Product data is required for the following products:
 - .1 Geotextile;
 - .2 Granular material : Sieve analysis and required tests;
 - .3 Top soil and sodding;
 - .4 Concrete : Mix proportion and certificates;
 - .5 Reinforcing steel;
 - .6 Structural steel;
 - .7 Connections and hardware;
 - .8 Bridge bearings;
 - .9 All other product data required on drawings and specifications.
- .2 Submit 5 copies of product data.
- .3 Sheet size: 215 x 280 mm, maximum of 3 modules.
- .4 Delete information not applicable to project.
- .5 Supplement standard information to provide details applicable to project.
- .6 Cross-reference product data information to applicable portions of Contract Documents.

1.7 SAMPLES

- .1 Samples: examples of materials, equipment, quality, finishes, workmanship.
- .2 Where colour, pattern or texture is criterion submit full range of samples.
- .3 Reviewed and accepted samples will become standard of workmanship and material against which installed work will be verified.

1.8 SHOP DRAWINGS REVIEW

- .1 The review of shop drawings by the National Capital Commission (NCC) is for the sole purpose of ascertaining conformance with the general concept. This review shall not mean that the National Capital Commission approves the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirements of the construction and contract documents. Without restricting the generality of the foregoing, the Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-contractors.

END OF SECTION

1.0 GENERAL

1.1 REFERENCES

- .1 FCC No. 301-1982 Standard for Construction Operations

1.2 CONSTRUCTION SAFETY MEASURES

- .1 Observe construction safety measures of National Building Code, Provincial Government, Workers'/Workmen's Compensation Board and municipal authority provided that in any case of conflict or discrepancy more stringent requirements shall apply.
- .2 Comply with requirements of FCC No. 301.

1.3 OVERLOADING

- .1 Ensure no part of Work is subjected to loading that will endanger its safety or will cause permanent deformation.

1.4 WHMIS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, disposal of hazardous materials and regarding labeling and provision of material safety data sheets acceptable to Labour Canada and Health and Welfare Canada.
- .2 Deliver copies of WHMIS data sheets to Consultant on delivery of materials.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTION

- .1 Section 35 42 19 – Preservation of Water Courses.
- .2 Section 01 74 11 – Cleaning
- .3 Section 35 49 25 – Turbidity Curtains

1.2 FIRES

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

1.3 DISPOSAL OF WASTES

- .1 Do not bury rubbish and waste materials on site
- .2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.

1.4 DRAINAGE

- .1 Ensure required drainage and temporary pumping so the excavations and work site are kept dry.
- .2 Do not pump water containing suspended materials into waterways, sewer or drainage systems.
- .3 With all necessary precautions, impede any transport of fine particules in the waterways outside the immediate work zones.
- .4 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

1.5 SITE CLEARING AND PLANT PROTECTION

- .1 Protect trees and plants on site and adjacent properties.
- .2 Wrap in burlap, 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.
- .3 Protect roots of designated trees to drip line during excavation and clearing works to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.

- .4 Minimize stripping of topsoil and vegetation.
- .5 Restrict tree and shrub removal to areas designated by Engineer. Obtain confirmation from the Engineer of all trees and shrubs to be removed prior to removal.
- .6 Any tree larger than 10 cm of DHP which could be damaged by the equipment during construction shall be protected by putting in place the protection measures shown in standard NQ 0605-100/2001 of Bureau de normalisation du Québec at Part IX: *conservation des arbres et des arbustes lors de travaux d'aménagement et de construction* (available free:
http://www-es.criq.qc.ca/pls/owa_es/ncw_enquete_publique.liste_promo?p_lang=fr)

1.6 POLLUTION PREVENTION

- .1 Maintain temporary erosion and pollution control features installed under this contract.
- .2 Control emissions from equipment and plant to local authorities emission requirements.
- .3 Execute works so no sediments or demolition debris go in the waterways. Prevent materials and debris and other extraneous materials from contaminating water and air beyond application areas, by providing temporary enclosures.
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads, construction sites and roads/trails.
- .5 Environmental Emergency Plan: An Environmental Emergency Plan (EEP) shall be prepared by the Contractor which outlines a spills response procedure and any other procedures required to deal with potential emergencies. Hence, in the event of a spill, the contractor shall immediately clean up any spills of contamination, water or other substances which may be either detrimental to marine or terrestrial life or quality of surface water, groundwater or soil in accordance with the appropriate federal and provincial guidelines/regulations. If a leak or a problem is detected, corrective measures shall be implemented and maintenance of defective equipment or vehicle shall be executed immediately and at least than 60 meters of any waterways. The contractor will have on site spill containment equipment. The contractor shall notify all appropriate provincial and federal agencies as required by law and the NCC. Prior to construction, the contractor is required to provide a Spills Response Plan, which will provide specific details on spill management for the project.
- .6 Place at view of workers a sign showing names and telephone numbers of persons to be contacted and describing the alert protocol. This list shall be shown at pertinent locations at all times during construction.

- .7 Comply to mitigation measures stipulated in Operational Statement for province of Quebec by Department Fish and Oceans Canada (<http://www.dfo-mpo.gc.ca/pnw-ppe/measure-mesures/index-eng.html>), as well as guidelines for the design of waterway crossing in Province of Quebec.
- .8 Comply to conditions and to mitigation measures described in Authorization Certificate issued by the Ministère du développement durable et de la lutte au changement climatique (MDDELCC) or by the Ministère des forêts, faune et parcs (MFFP) of Quebec or any permit issued by latter. A big part of these measures are included in the present specification.
- .9 Comply to conditions of permit from municipality of Chelsea obtained by NCC as well to law and rules dispositions related to permit.

1.7 WORK ADJACENT TO WATERWAYS

- .1 Do not operate construction equipment in waterways;
- .2 When equipment is not used, get it out of protected shoreline 15 m away from watercourse.
- .3 Creek shorelines shall be restored to their original condition if they were disturbed by the construction or excavation, with the exception of the installation of the new rip-rap.
- .4 Do not use waterway beds for borrow material;
- .5 Do not dump excavated fill, waste material or debris in waterways;
- .6 No debris shall be accumulated at less than 30 m from lake or watercourse. Do not store Ne pas entreposer de matériel ou stationner la machinerie à moins de 30 mètres de tout plans d'eau (c.-à-d. cours d'eau, et leurs tributaires, milieux humides, rivières, lacs et réservoirs). Localise a temporary depot on site and re-instate the site at its original condition at the end of construction works. Provide site with proper necessary amenities (portable chemical toilets, garbage cans, bins, etc) to prevent any debris dispersion in the environment.
- .7 Recupérate and dispose of garbage and debris in conformity with regulations in force. Transport contaminated materials and soils at authorized dumping sites.
- .8 Washing of concrete delivery trucks and other equipment used for concrete mixing shall not be done at least than 30 meters from waterways and off construction site.
- .9 All concrete delivery trucks shall recupérate their rinsing water to dispose them in an authorized site.
- .10 Non-used concrete shall be also disposed in an authorized site.

- .11 Any intervention in water shall be done out of periods sensitive for the "ichthyan" species present in waterways; thus the construction period in the fish habitat is from July 15 to March 31 as per <http://www.dfo-mpo.gc.ca/pnw-ppe/timing-periodes/index-eng.html>.
- .12 At all times insure the free flow of water current and sufficient water quantity to maintain proper functionality of fish habitat (feeding, stocking, spawning) upstream and downstream of the construction zone.
- .13 Take necessary measures to avoid all impacts (ex. Flooding, land emergence, matters in suspension, erosion, etc) upstream and downstream of the construction zone.
- .14 Comply to condition and mitigation measures shown in the Authorization Certificate from MDDELCC ou MTFE of Québec obtained by the NCC in virtue of the *Loi sur la conservation et la mise en œuvre de la faune*.

1.8 SPILLS REPORTING

- .1 Be financially responsible to ameliorate the adverse effects of a spill. The discharger is expected to contain and clean up the spilled contaminant or arrange for the contaminant to be contained and cleaned up. He is also expected to restore the spill site to essentially pre-spill conditions where this can reasonably be expected. To achieve this, the discharger may have to remove the contaminated soil and debris and dispose of these materials in an acceptable manner at an approved disposal site.
- .2 The person in charge of a pollutant, at the time of a spill, is considered to have taken a foreseeable risk for which he can prepare himself.
- .3 Prior to commencing construction, the Contractor is to prepare and submit for approval a contingency plan for the control and clean up of a spill. Said submission must adhere to the requirements and regulations of the WHMIS (Work Hazardous Material Information System) and shall include the applicable MSDS (Material Safety Data Sheet) for each substance.
- .4 Any equipment utilized by the Contractor which develops a fluid leak shall be immediately removed from the site by the Contractor.
- .5 In the event of a spill or other emission of a pollutant into the natural environment, every person responsible for the emission or who causes or permits it must forthwith notify the required provincial agency, the owner, the owner of the pollutant, if known, and the person having control of the pollutant, if known, of the spill, of the circumstances thereof, and of the action taken or intended to be taken with respect thereto.

1.9 EROSION CONTROL

- .1 Before commencing work, put in place efficient control erosion measures so to avoid sediments to reach waterways; these measures shall stay in place until the completion of works. Inspect works regularly and bring required correctives as necessary. Plan for mechanical protection measures (silt fences with a geotextile, geomembrane, ballast) in order to reduce erosion during construction.
- .2 Restore the areas disturbed by the work as soon as possible in order to minimize potential erosion and sedimentation.
- .3 Direct runoff and drainage water so that it bypasses areas containing soil that is sensitive to erosion. If it is not possible to divert this water, install protective structures (berm, diverting ditch, sediment trap).
- .4 Respect and restore, if necessary, the normal surface runoff, especially near poorly drained areas and depressions.
- .5 Use machinery adapted for the soil's bearing capacity.

1.10 SPECIAL REQUIREMENTS

- .1 Contractor shall respect all measures required to protect fishes and their habitat during the construction by referring to and respecting recommendations of Operational Statements of Department of Fish and Oceans in Province of Quebec, as well as guidelines for the design of waterway crossing in Province of Quebec.

Special attention shall be carried for the construction and cleaning due to sensitive nature of environment and the permanence of traces or damage on its surface.

- .2 Preventive and control measures of erosion and sediments, as the maintenance of existing vegetation and installation of silt curtains shall be installed appropriately to avoid any matter in suspension in the watercourse and these measures shall stay in place until construction work completion.
- .3 Silt curtains shall be installed around the working areas to avoid dispersion of matters in suspension in the watercourse.
- .4 Stabilize the residual matters excavated from site so they will not be disperse in watercourse. It shall include covering of depot materials with a net or biodegradable tarp or the planting of plants or bushes, indigenous of preference, on top of it.
- .5 Maintain in good condition all the works protecting the environment.
- .6 By taking necessary precautions, avoid transporting fine particles in the aquatic environment outside of immediate work area.
- .7 Stabilize all disturbed areas, particularly sloped embankments, as work is progressing. If delay is necessary for a permanent stabilization, control and

- protection erosion measures shall remain in place to prevent erosion and capture any eroded material.
- .8 No earthwork or excavation shall be executed near watercourse during flooding periods or heavy rains.
 - .9 Take all necessary precautions so to avoid soil erosion during temporary closure of construction site.
 - .10 Limit to strict minimal clearing, scouring, excavation, earth works and levelling in the working areas.
 - .11 Dewatering system from upstream to downstream of dam to control level of water into dam so to make downstream works in a dry environment can inspire from documents shown in Annex 1 as an example which was adapted from document "*L'aménagement des ponts et des ponceaux dans le milieu forestier*, Ministère des Ressources naturelles (1997)". Comply to referenced document from which this sketch was adapted. Note that end treatments of water derivation pipe are mandatory, such as screen at upstream end and geotextile membrane device at downstream end.
 - .12 All temporary works shall be protected for eroding with proper stabilization, with the help of adequate geotextile membrane or rip-rap. In addition, they shall be built to resist flooding that could occur during construction works.
 - .13 All construction activities shall in the area ultimately covered by the bridge, including transport of materials, installation, cleaning, etc.
 - .14 Construction debris or materials shall not fall into creek. All construction debris shall be transported off-site at contractor's costs; no debris shall be burnt or dig into ground.
 - .15 Not applicable.
 - .16 No machinery shall circulate at less than 20m of the natural high water line except if a crossing of waterway is required. Motorized equipment shall cross the creek bed once (one-time event - back and over). Wading machinery through watercourse is not allowed.
 - .17 Not applicable.
 - .18 Ensure that machinery is cleaned when entering the Park. Machinery cannot be washed on site neither in the Gatineau Park. Ensure that heavy machinery is washed before it's use, at more than 30 m of the natural high water line of watercourse (i.e. waterways and its tributaries, wet lands, river, lakes and reservoirs) in order to limit all deposit of grease or oil within the work area; the contractor is to use machinery and equipment in good working order and showing no oil leaks. Do general maintenance and gas fill of engines and vehicules as well

as manutention and storage of gas at a distance of more than 60m of natural high water line of watercourse. If an oil leak or problem is detected, corrective measures shall be taken and cleaning of machinery or defective machineries shall be done immediately and at least 60 meters of any watercourse.

- .19 Frequent inspections of heavy machinery and equipment will have to be done to ensure good working order and to detect leaks of fuel, oil, grease, etc. Proper corrective measures will have to be taken and maintenance done immediately if a problem is detected.
- .20 Shut off any motorized equipment used on site when not used.
- .21 Use as small equipment as possible. Limit travelling of equipment and machinery.
- .22 Following completion of construction, seeds and fertilizers shall be spread as soon as possible to help prevent erosion.
- .23 Not applicable.
- .24 If cutting works in vegetation shall be done during nesting period of migratory birds, a biologist shall do a reconnaissance of work areas to locate active nests so to avoid to disrupt migratory birds during the nesting period (from April 15 to August 15).
- .25 Not applicable.
- .26 Following measures shall be applied to preserve the quality of surface water:
 - .1 Execute works below high water level during the period recommended by DFO for the protection of fish habitat, from 15th of July to 31st of March;
 - .2 Insure at all times the free water flow and a sufficient quantity of water to maintain the functionality of fish habitat upstream and downstream of the construction area. Take necessary measures to avoid impacts upstream and downstream of the construction area (i.e. flooding, dryness, matters in suspension, erosion, etc).
 - .3 No concrete shall be fabricated directly on construction site. All concrete necessary for the execution of construction shall be delivered by concrete trucks or other transport means.
 - .4 Clean washing of concrete trucks and other equipment used to mix concrete shall not be done at least 30 m from waterways and outside the construction site.
 - .5 Do not leave any debris, residue of concrete or damped mortar/grout in the aquatic environment. All debris fallen accidently in the aquatic environment shall be retrieved in the shortest time possible. All concrete trucks shall recuperate their washing water to be disposed to an authorized dump site; and
 - .6 Unused concrete shall be also disposed to an authorized dump site.

- .27 Install protection fences on ground around trees located nearby the construction site so to not damage their root system. These fences shall be installed at the vertical limit of tree crown to be protected.
- .28 Not applicable.
- .29 Trees (with outside diameter larger than 10cm) shall not be cut. If cutting of trees with outside diameter larger than 10cm is required, an authorization from *Section for Management of natural resources and of land of NCC Gatineau Park* shall to be obtained by Contractor. These cut trees shall be replaced in a ratio 2 for 1 with non invading species and indigenous in Gatineau park approved by Park biologists. Contractor shall get his plantation plan approved by NCC before the planting of trees. Replacement is part of the costs for the site re-instatement paid by Contractor.
- .30 Limit cut of vegetation (diameter at trunk level smaller than 10 cm) to strict minimum, i.e. vegetation impeding access of machinery and construction work.
- .31 If shrubs or trees with diameter at trunk level smaller than 10 cm have to be cut at less than 20m from the natural limit of high water level, cut them manually into sections (1 metre long) and disperse them in the nearby forest outside natural limit of high water level .
- .32 Execute pruning according to the following rules :
 1. Use pruning-scissors or a pruning saw preferably;
 2. The best to prune a branch is at collar level (bark rim located at 2 to 3 cm from base of branch);
 3. Avoid pruning at the base of branches so to not create a large scar;
 4. Cut out at angle to avoid water infiltration or accumulation in the cut limb surface;
 5. Cut out in sections of 1 metre long maximum;
 6. Disperse branches in nearby forest, with caution to not damage smaller trees which regenerate the glades.
- .33 Fauna on site shall not be hunted, harassed or tracked down.
- .34 All debris shall be collected and eliminated each day, or stocked in safe containers to prevent garbage effects on consuming animals.
- .35 All motorized vehicles and machinery shall stay in the designated road or pathways to avoid perturbing the fauna habitat.
- .36 Residual matters that cannot be recycled, recuperated or re-used shall be disposed in an appropriate site outside of Park in compliance with applicable requirements of MDDELCC.

- .37 Clean site of all residues. Residual matters on site shall be sorted and, if possible, recycled, recuperated or re-used outside NCC lands. Contractor shall transmit to Gatineau Park biologists (for Park projects) and to NCC Environmental Services a report documenting the volumes and types of materials sorted, recuperated or re-cycled.
- .38 Contractor shall remove all fences and temporary signage. Contractor shall remove debris and garbage before closure of construction site.
- .39 If excavation works are planned, recuperate the excavated vegetal soil and use it to rehabilitate the site following construction completion.
- .40 Clean and remove debris and sediments that obstruct storm sewer drains and dispose of these materials taking care for none falling in watercourse.
- .41 Remove debris manually or with help of machinery used from the shoreline or from floating dam.
- .42 Watercourse bed as well as its shorelines shall be re-instated to their natural condition.
- .43 Contractor shall be responsible for the re-instatement of all degraded areas of fauna habitat within the vicinity of site.
- .44 Re-instate to original condition all damaged ditches by machinery (damage to drainage slope, shoulders of embankments, etc).
- .45 Re-instate to original condition shorelines using known vegetal stabilization technologies which consider stability, erosion sensitivity, slope and height of embankment. Vegetation works shall be done as soon as possible following earthwork completion by privileging indigenous species in Gatineau Park.
- .46 Re-instate site with vegetal soil and seed with mix approved by Engineer as follows (percentages may vary, substitutions shall be approved) :
 - For fields and road shoulders:
 - 50% *Phleum pratense* (Phléole des près);
 - 25% *Poa trivialis* (Pâturin rude);
 - 10% *Agrostis alba* (Agrostide blanche);
 - 8% *Trifolium repens* (Trèfle blanc);
 - 7% *Medicago lupulina* (Luzerne lupuline).
 - For surfaces and sides of pathways:
 - 40% *Poa compressa* (Pâturin comprimé);
 - 35% *Poa trivialis* (Pâturin rude);
 - 10% *Agrostis alba* (Agrostide blanche);
 - 8% *Trifolium repens* (Trèfle blanc);
 - 7% *Medicago lupulina* (Luzerne lupuline).

- .47 An emergency intervention kit and recognized absorbents in sufficient quantity will be available on site to be prepared in case of an accidental hydrocarbon leak (petrol products).
- .48 In the case of a hydrocarbon leak or any accident which could cause damage to the environment, report immediately to NCC urgency (613-239-5353) and to the Engineer, as well to URGENCE ENVIRONNEMENT QUÉBEC at 1-866-694-5454 or 1-888-626-6663 (extension 32391) and recuperate hydrocarbons and any contaminated soils by a specialized firm.
- .49 The Contractor must grant, at any reasonable hour, access to employees from “le ministère des Ressources naturelles et de la Faune” and from MDDELCC to the site, in order to ensure that special requirements, listed above, are followed.
- .50 A copy of the authorization of the ministry MDDELCC and MFFP (if one is issued) permit and from municipality provided by NCC as well as all documents required to execute the work (ie : drawing and specification) shall be available on site at all times during construction so that anyone (foreman, inspector, etc.) can consult them.
- .51 If the contractor cannot respect one of the above mentioned conditions for any reasons, following uncontrollable events for example, he must contact with the Engineer before starting or proceeding with work so that the latter can analyze the situation and modify the authorization, if necessary.
- .52 If human remains are discovered during activities related to project, all works in the affected area shall stop immediately and Contractor shall contact immediately the Engineer and archeologist, NCC Patrimonial Program (Ian Badgley, 613-239-5751). No work shall be done near discovery site of human remains.
- .53 Contact the regional direction of l’Outaouais du ministère de la Culture, des Communications et de la Condition Féminine du Québec (819-772-3002) in the case of patrimonial discoveries and local police if human remains are discovered.
- .54 Contractor may be imposed penalties by local and/or provincial authorities if he does not respect required environmental clauses.

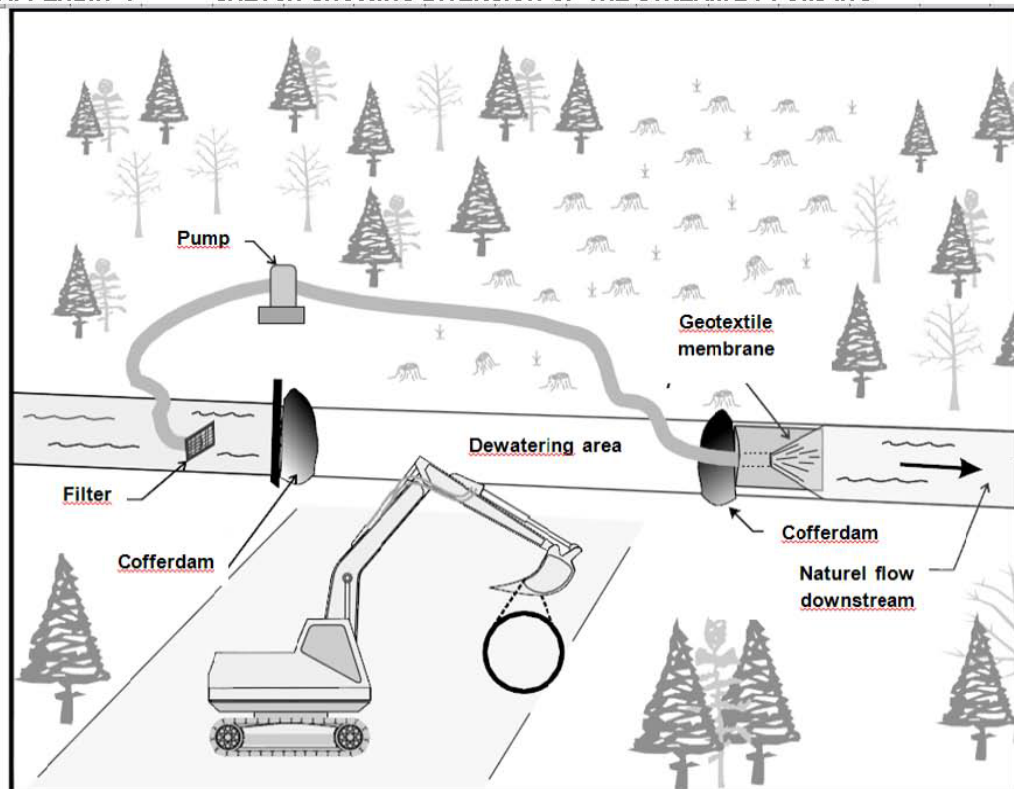
1.11 MÉTHODE DE CONSTRUCTION

- .1 Contractor shall use methods of construction approved by MDDELCC, MTFP and the National Capital Commission.

ANNEXE 1 – Exemple de diversion de waterways by water pumping (refer to Section 35 20 22)

Comply to document shown in reference from where the sketch below has been adapted. For this project, only the details of shown pumping system are to be applied.

APPENDIX 4 SKETCH SHOWING DIVERSION OF THE STREAM BY PUMPING

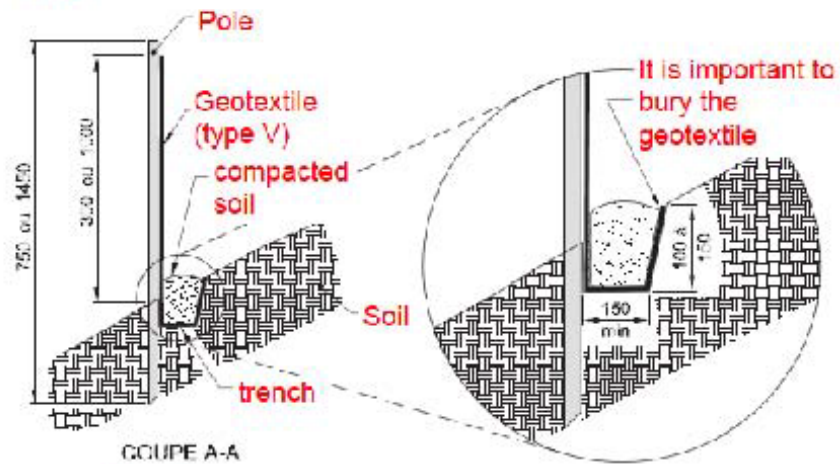
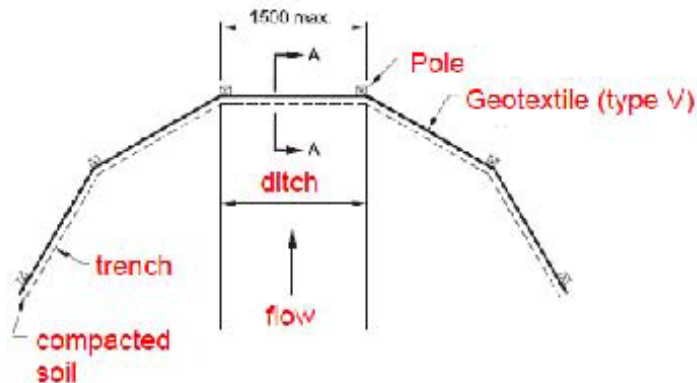


Adapted of *L'aménagement des ports et des ponceaux dans le milieu forestier*, Ministère des Ressources naturelles (1997)

APPENDIX 1 STANDARD DRAWING II-9-14 SHOWING A SILT FENCE WITH A GEOTEXTILE

Tome II
Chapitre 9
Page 14
Date 2008 10 30

MESURES D'ATTÉNUATION
 ENVIRONNEMENTALES
 TEMPORAIRES



Note :
 - All measurements are in mm.
 Figure 9.4-2
 Silt fence with a geotextile

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.

1.2 INSPECTION

- .1 Allow Consultant access to Work.
- .2 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Consultant instructions, or law of Place of Work.
- .3 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.
- .4 Consultant may order any part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction. If such Work is found in accordance with Contract Documents, Owner shall pay cost of examination and replacement.

1.3 ACCESS TO WORK

- .1 Allow inspection/testing agencies access to construction site.
- .2 Co-operate to provide reasonable facilities for such access.

1.4 PROCEDURES

- .1 Notify Consultant in advance of requirement for tests, in order that attendance arrangements can be made.
- .2 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in an orderly sequence so as not to cause delay in Work.
- .3 Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

1.5 REJECTED WORK

- .1 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Consultant as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.
- .2 Make good other Contractor's work damaged by such removals or replacements promptly.
- .3 If in opinion of Consultant it is not appropriate to correct defective Work or Work not performed in accordance with Contract Documents, Owner may deduct from Contract Price difference in value between Works performed and that called for by Contract Documents, amount of which shall be determined by Consultant.

1.6 TESTS AND MIX DESIGNS

- .1 Furnish test results and mix designs as may be requested.
- .2 The cost of tests and mix designs beyond those called for in Contract Documents or beyond those required by law of Place of Work shall be appraised by Consultant and may be authorized as recoverable.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 00 21 13 – Instructions to Bidders
- .2 Section 01 35 43 – Environmental Protection
- .3 Section 01 74 11 – Cleaning

1.2 INSTALLATION AND REMOVAL

- .1 Provide construction facilities in order to execute work expeditiously.
- .2 Remove from site all such work after use and / or when the works are finished.

1.3 ACCESS

- .1 Provide and maintain adequate access to project site.
- .2 When authorized to use existing roads to access the project site, maintain such roads for duration of contract and make good damages resulting from Contractors' use of roads. Clean access roads at the end of each week, or as directed by the Engineer.
- .3 Clean all areas used by Contractor's equipment.

1.4 WORK SITE OFFICE (NOT REQUIRED)

1.5 SANITARY FACILITIES

- .1 Contractor to provide private washroom facilities complete with flush or chemical type toilet, lavatory and mirror and maintain supply of paper towels and toilet tissue.
- .2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.

1.6 CONSTRUCTION SIGNAGE

- .1 Remove and dispose off-site all temporary facilities as indicated by Consultant.

1.7 PARKING

- .1 Do not park vehicles on grassed surfaces and do not block roads and pathways.

1.8 DRAINAGE

- .1 Refer to Section 01 35 43 - Environmental Procedures for site drainage and pumping requirements.

1.9 WATER

- .1 Contractor is to provide his own source of water.

1.10 ELECTRICITE

- .1 Contractor is to provide his own source of electrical power.

END OF SECTION

1.0 GENERAL

- .1 Use new material unless otherwise specified.
- .2 Within 5 days of written request by Consultant, submit following information for materials proposed for supply:
 - .1 Name and address of manufacturer;
 - .2 Trade name, model and catalogue number;
 - .3 Performance, descriptive and test data;
 - .4 Manufacturer's installation or application instructions;
 - .5 Evidence of arrangements to procure.
 - .6 Use products of one manufacturer for material of same type or classification unless otherwise specified.

1.1 MANUFACTURERS INSTRUCTIONS

- .1 Unless otherwise specified, comply with manufacturer's latest printed instructions for materials and installation methods.
- .2 Notify Consultant in writing of any conflict between these specifications and manufacturers instructions. Consultant will designate which document is to be followed.

1.2 DELIVERY AND STORAGE

- .1 Deliver, store and maintain packaged material and equipment with manufacturer's seals and labels intact.
- .2 Prevent damage, adulteration and soiling of material and equipment during delivery, handling and storage. Immediately remove rejected material and equipment from site.
- .3 Store material and equipment in accordance with suppliers instructions.

1.3 CONTRACTOR'S OPTIONS WHEN SELECTION A MATERIAL

- .1 Materials specified by referenced standard, select any material that meets or exceeds the specified standard.
- .2 Where materials are required to be listed on the "Canadian General Standards Board, Qualified Products List" select any manufacturer so listed.
- .3 Materials specified by "Prescriptive" or "Performance" specification, select any material meeting or exceeding specification.
- .4 Materials specified by naming one or more materials, select any material named. For the purpose of these specifications, the term "Acceptable Material" is deemed to be a complete and working commodity as described by a manufacturer's name,

catalogue number, trade name or any combination thereof.

- .5 When materials are specified by a Standard, Prescriptive or Performance specifications, upon request of the Consultant, obtain from manufacturer an independent testing laboratory reporting, showing that the material or equipment meets or exceeds the specified requirements.

1.4 SUBSTITUTION

- .1 No substitutions will be permitted without prior written approval of Consultant.
- .2 Proposals will be considered by Consultant if:
 - .1 Materials selected by tenderer from those specified, are not available;
 - .2 Delivery date of materials selected from those materials specified would unduly delay completion of contract; or
 - .3 Alternative material to those specified, which are brought to the attention of and considered by Consultant as equivalent to the material specified and will result in a credit to the Contract amount.
 - .4 Should proposed substitution be accepted either in part or in whole, assume full responsibility and costs when substitution affects other work on project. Pay for design or drawing changes required as result of substitution.
 - .5 Amounts of all credits arising from approval of substitutions will be determined by Consultant and Contract Price will be reduced accordingly.
- .3 Should proposed substitution be accepted either in part or in whole, assume full responsibility and costs when substitution affects other work on project. Pay for design or drawing changes required as result of substitution.
- .4 Amounts of all credits arising from approval of substitutions will be determined by Consultant and Contract Price will be reduced accordingly.

1.5 CONSTRUCTION EQUIPEMENT AND PLANT

- .1 On request, prove to the satisfaction of Consultant that the construction equipment and plant are adequate to manufacture, transport, place and finish work to quality and production rates specified. If inadequate, replace or provide additional equipment or plant as directed.
- .2 Maintain construction equipment and plant in good operating order.

END OF SECTION

- 1 Record Drawings
 - .1 Engineer will provide two sets of white prints for record drawing purposes.
 - .2 Maintain project record drawings and record accurately deviations from Contract documents.
 - .3 Record changes in red. Mark on one set of prints and at completion of project and prior to final inspection, neatly transfer notations to second set and submit both sets to Engineer.
 - .4 Record field information:
 - .1 Field changes of dimension and detail.
 - .2 Changes made by Change Order or Field Order.
 - .3 Depths of various elements.
 - .4 Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvement.
 - .5 Other project record documents:
 - .1 Maintain a record of all other construction documents in an easily accessible (by Engineer) format such as:
 - testing results
 - product data
 - telephone and fax numbers of all suppliers, subcontractors and testing agencies and contact persons for each.
 - .2 Copies of material tickets for all items paid by unit weight or volume.
 - .3 Copies of all correspondance with utilities concerned.
 - .4 Updated schedule.
 - .5 All Engineer's written approvals issued as permission to use alternative equipment, etc.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

- .1 01 52 00 – Construction Facilities
- .2 01 74 21 – Construction/Demolition Waste Management and Disposal

1.2 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2-2008, Stipulated Price Contract.
- .2 Public Works Government Services Canada (PWGSC) Standard Acquisition Clauses and Conditions (SACC)-ID: R0202D, Title: General Conditions "C", In Effect as Of: May 14, 2004.

1.3 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, including that caused by Owner or other Contractors.
- .2 Remove waste materials from site at daily regularly scheduled times or dispose of as directed by the Consultant. Do not burn waste materials on site, unless approved by Consultant.
- .3 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .4 Provide on-site containers for collection of waste materials and debris.
- .5 Provide and use marked separate bins for recycling. Refer to Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .6 Dispose of waste materials and debris off site.
- .7 Store volatile waste in covered metal containers, and remove from premises at end of each working day.

1.4 FINAL CLEANING

- .1 Refer to CCDC 2, GC 3.14
- .2 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .3 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .4 Remove waste products and debris including that caused by Owner or other Contractors.

- .5 Remove waste materials from site at regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials.
- .6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .7 Leave site in a state satisfactory to the Consultant.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 WASTE MANAGEMENT GOALS

- .1 Prior to start of Work conduct meeting with Consultant to review and discuss PWGSC's Waste Management Plan and Goals.
- .2 PWGSC's Waste Management Goal 75 percent of total Project Waste to be diverted from landfill sites. Provide Consultant documentation certifying that waste management, recycling, reuse of recyclable and reusable materials have been extensively practiced.
- .3 Accomplish maximum control of solid construction waste.
- .4 Preserve environment and prevent pollution and environment damage.

1.2 RELATED SECTIONS

- .1 01 74 11 – Cleaning
- .2 01 35 43 – Environmental Protection
- .3 01 33 00 – Submittal Procedures
- .4 02 41 16 – Demolition of Structure

1.3 DEFINITIONS

- .1 Class III: non-hazardous waste - construction renovation and demolition waste.
- .2 Cost/Revenue Analysis Workplan (CRAW): based on information from WRW, and intended as financial tracking tool for determining economic status of waste management practices.
- .3 Demolition Waste Audit (DWA): relates to actual waste generated from project.
- .4 Inert Fill: inert waste - exclusively asphalt and concrete.
- .5 Materials Source Separation Program (MSSP): consists of series of ongoing activities to separate reusable and recyclable waste material into material categories from other types of waste at point of generation.
- .6 Recyclable: ability of product or material to be recovered at end of its life cycle and re-manufactured into new product for reuse.
- .7 Recycle: process by which waste and recyclable materials are transformed or collected for purpose of being transferred into new products.
- .8 Recycling: process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for purpose of using in altered form. Recycling does not include burning, incinerating, or thermally destroying waste.

- .9 Reuse: repeated use of product in same form but not necessarily for same purpose.
Reuse includes:
 - .1 Salvaging reusable materials from re-modelling projects, before demolition stage, for resale, reuse on current project or for storage for use on future projects.
 - .2 Returning reusable items including pallets or unused products to vendors.
- .10 Salvage: removal of structural and non-structural materials from deconstruction/disassembly projects for purpose of reuse or recycling.
- .11 Separate Condition: refers to waste sorted into individual types.
- .12 Source Separation: acts of keeping different types of waste materials separate beginning from first time they became waste.
- .13 Waste Audit (WA): detailed inventory of materials in building. Involves quantifying by volume/weight amounts of materials and wastes generated during construction, demolition, deconstruction, or renovation project. Indicates quantities of reuse, recycling and landfill. Refer to Schedule A.
- .14 Waste Management Co-ordinator (WMC) : Contractor representative responsible for supervising waste management activities as well as coordinating related, required submittal and reporting requirements.
- .15 Waste Reduction Workplan (WRW): written report which addresses opportunities for reduction, reuse, or recycling of materials. Refer to Schedule B. WRW is based on information acquired from WA (Schedule A).

1.4 DOCUMENTS

- .1 Maintain at job site, one copy of following documents:
 - .1 Waste Audit.
 - .2 Waste Reduction Workplan.
 - .3 Material Source Separation Plan.
 - .4 Schedules [A] [B] [C] [D] [E] completed for project.

1.5 SUBMITTALS

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures
- .2 Prepare and submit following prior to project start-up:
 - .1 Submit 2 copies of completed Waste Audit (WA): Schedule A.
 - .2 Submit 2 copies of completed Waste Reduction Workplan (WRW): Schedule B.
 - .3 Submit 2 copies of completed Demolition Waste Audit (DWA): Schedule C.
 - .4 Submit 2 copies of Cost/Revenue Analysis Workplan (CRAW): Schedule D.
 - .5 Submit 2 copies of Materials Source Separation Program (MSSP) description.

- .3 Submit before final payment summary of waste materials salvaged for reuse, recycling or disposal by project using deconstruction/disassembly material audit form.
 - .1 Failure to submit could result in hold back of final payment.
 - .2 Provide receipts, scale tickets, waybills, and show quantities and types of materials reused, recycled, co-mingled and separated off-site or disposed of.
 - .3 For each material reused, sold or recycled from project, include amount in tonnes and the destination.
 - .4 For each material land filled or incinerated from project, include amount in tonnes of material and identity of landfill, incinerator or transfer station.

1.6 WASTE AUDIT (WA)

- .1 Conduct WA prior to project start-up.
- .2 Prepare WA: Schedule A.
- .3 Record, on WA - Schedule A, extent to which materials or products used consist of recycled or reused materials or products.

1.7 WASTE REDUCTION WORKPLAN (WRW)

- .1 Prepare WRW prior to project start-up.
- .2 WRW should include but not limited to:
 - .1 Destination of materials listed.
 - .2 Deconstruction/disassembly techniques and sequencing.
 - .3 Schedule for deconstruction/disassembly.
 - .4 Location.
 - .5 Security.
 - .6 Protection.
 - .7 Clear labelling of storage areas.
 - .8 Details on materials handling and removal procedures.
 - .9 Quantities for materials to be salvaged for reuse or recycled and materials sent to landfill.
- .3 Structure WRW to prioritize actions and follow 3R's hierarchy, with Reduction as first priority, followed by Reuse, then Recycle.
- .4 Describe management of waste.
- .5 Identify opportunities for reduction, reuse, and recycling of materials. Based on information acquired from WA.
- .6 Post WRW or summary where workers at site are able to review content.
- .7 Set realistic goals for waste reduction, recognize existing barriers and develop strategies to overcome these barriers.

- .8 Monitor and report on waste reduction by documenting total volume and cost of actual waste removed from project.

1.8 DEMOLITION WASTE AUDIT (DWA)

- .1 Prepare DWA prior to project start-up.
- .2 Complete DWA: Schedule C.
- .3 Provide inventory of quantities of materials to be salvaged for reuse, recycling, or disposal.

1.9 COST/REVENUE ANALYSIS WORKPLAN (CRAW)

- .1 Prepare CRAW: Schedule D.

1.10 MATERIALS SOURCE SEPARATION PROGRAM (MSSP)

- .1 Prepare MSSP and have ready for use prior to project start-up.
- .2 Implement MSSP for waste generated on project in compliance with approved methods and as reviewed by Consultant.
- .3 Provide on-site facilities for collection, handling, and storage of anticipated quantities of reusable and recyclable materials.
- .4 Provide containers to deposit reusable and recyclable materials.
- .5 Locate containers in locations, to facilitate deposit of materials without hindering daily operations.
- .6 Locate separated material[s] in area[s] which minimize material damage.
- .7 Collect, handle, store on-site, and transport off-site, salvaged materials in separate condition.
 - .1 Transport to approved and authorized recycling facility.

1.11 WASTE PROCESSING SITES

- .1 With approval from Consultant.

1.12 STORAGE, HANDLING AND PROTECTION

- .1 Store, materials to be reused, recycled and salvaged in locations as directed by the Consultant.
- .2 Unless specified otherwise, materials for removal become Contractor's property.
- .3 Protect, stockpile, store and catalogue salvaged items.
- .4 Separate non-salvageable materials from salvaged items. Transport and deliver non-salvageable items to licensed disposal facility.

- .5 Protect structural components not removed for demolition from movement or damage.
- .6 Support affected structures. If safety of building is endangered, cease operations and immediately notify Consultant.
- .7 Separate and store materials produced during dismantling of structures in designated areas.
- .8 Prevent contamination of materials to be salvaged and recycled and handle materials in accordance with requirements for acceptance by designated facilities.
 - .1 On-site source separation is recommended.
 - .2 Remove co-mingled materials to off-site processing facility for separation.
 - .3 Provide waybills for separated materials.

1.13 DISPOSAL OF WASTES

- .1 Do not bury rubbish or waste materials.
- .2 Do not dispose of waste, volatile materials, mineral spirits, oil, paint thinner into waterways, storm, or sanitary sewers.
- .3 Keep records of construction waste including:
 - .1 Number and size of bins.
 - .2 Waste type of each bin.
 - .3 Total tonnage generated.
 - .4 Tonnage reused or recycled.
 - .5 Reused or recycled waste destination.
- .4 Remove materials from deconstruction as deconstruction/disassembly Work progresses.
- .5 Prepare project summary to verify destination and quantities on a material-by-material basis as identified in pre-demolition material audit.

1.14 USE OF SITE AND FACILITIES

- .1 Execute work with least possible interference or disturbance to normal use of premises.
- .2 Provide temporary security measures approved by Consultant.

1.15 SCHEDULING

- .1 Co-ordinate Work with other activities at site to ensure timely and orderly progress of Work.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 SELECTIVE DEMOLITION

- .1 Reuse of bridge Elements: this project has been designed to result in end of project rates for reuse of bridge elements Unless specified otherwise by the Consultant, the percentage of existing rip-rap to be reused should not be less than the following:

- .1 Existing Rip-Rap: [75] [100] percent.

3.2 APPLICATION

- .1 Do Work in compliance with WRW.
- .2 Handle waste materials not reused, salvaged, or recycled in accordance with appropriate regulations and codes.

3.3 CLEANING

- .1 Remove tools and waste materials on completion of Work, and leave work area in clean and orderly condition.
- .2 Clean-up work area as work progresses.
- .3 Source separate materials to be reused/recycled into specified sort areas.

3.4 WASTE AUDIT (WA)

- .1 Schedule A - Waste Audit (WA):

(1) Material Category	(2) Material Quantity Unit	(3) Estimated Waste %	(4) Total Quantity of Waste (unit)	(5) Generation Point	(6) % Recycled	(7) % Reused
Wood and Plastics Material Description Off-cuts Warped Pallet Forms Plastic Packaging Cardboard Packaging Other						

(1) Material Category	(2) Material Quantity Unit	(3) Estimated Waste %	(4) Total Quantity of Waste (unit)	(5) Generation Point	(6) % Recycled	(7) % Reused
Doors and Windows Material Description Painted Frames Glass Wood Metal Other						

3.5 WASTE REDUCTION WORKPLAN (WRW)

.1 Schedule B:

(1) Material Category	(2) Person(s) Respon- sible	(3) Total Quantity of Waste (unit)	(4) Reused Amount (units) Projected	Actual	(5) Recycled Amount (unit) Projected	Actual	(6) Material(s)) Destina- tion
Wood and Plastics Material Descripti on Chutes Warped Pallet Forms Plastic Packag ing Card- board Packag ing Other							
Doors and Windows Material Descripti on Painted							

(1) Material Category	(2) Person(s) Respon- sible	(3) Total Quantity of Waste (unit)	(4) Reused Amount (units) Projected	Actual	(5) Recycled Amount (unit) Projected	Actual	(6) Material(s)) Destina- tion
Frames							
Glass							
Wood							
Metal							
Other							

3.6 DEMOLITION WASTE AUDIT (DWA)

.1 Schedule C - Demolition Waste Audit (DWA):

(1) Material Description	(2) Quantity	(3) Unit	(4) Total	(5) Volume (cum)	(6) Weight (cum)	(7) Remarks and Assumptio ns
Wood						
Wood Stud						
Plywood						
Baseboard						
-Wood						
Door Trim -						
Wood						
Cabinet						
Doors and						
Windows						
Panel						
Regular						
Slab						
Regular						
Wood						
Laminate						
Byfold -						
Closet						
Glazing						

3.7 COST/REVENUE ANALYSIS WORKPLAN (CRAW)

.1 Schedule D - Cost/Revenue Analysis Workplan (CRAW):

(1) Material Description	(2) Total Quantity (unit)	(3) Volume (cum)	(4) Weight (cum)	(5) Disposal Cost/Credit \$(+/-)	(6) Category Sub-Total \$(+/-)	(7) Cost (-) / Revenue (+)
Wood						
Wood Stud						
Plywood						
Baseboard -						
Wood						
Door Trim -						
Wood						

(1) Material Description	(2) Total Quantity (unit)	(3) Volume (cum)	(4) Weight (cum)	(5) Disposal Cost/Credit \$(+/-)	(6) Category Sub-Total \$(+/-)	(7) Cost (-) / Revenue (+)
Cabinet						
Doors and Windows						
Panel						
Regular						
Slab Regular						
Wood						
Laminate						
Byfold - Closet						
Glazing						

3.8 CANADIAN GOVERNMENTAL DEPARTMENTS CHIEF RESPONSIBILITY FOR THE ENVIRONMENT

.1 Schedule E - Government Chief Responsibility for the Environment:

Province	Address	General Inquires	Fax
Alberta	Alberta Environmental Protection Petroleum Plaza, South Tower 9915 - 108 th Street Edmonton AB T5K 2G8	403-427-2739	
	Alberta Special Waste Management Corporation Pacific Plaza, Suite 610 10909 Jasper Avenue NW Edmonton AB T5J 3L9	403-422-5029	403-428-9627
British Columbia	Ministry of Environment Lands and Parks 810 Blanshard Street, 4 th Floor Victoria BC V8V 1X4	604-387-1161	604-356-6464
	Waste Reduction Commission Soils and Hazardous Waste 770 South Pacific Blvd, Suite 303 Vancouver BC V6B 5E7	604-660-9550	604-660-9596
Manitoba	Manitoba	204-945-7100	

Province	Address	General Inquires	Fax
	Environment Building 2, 139 Tuxedo Avenue, Winnipeg, MB R3N 0H6 The Clean Environment Commission 284 Reimer Avenue, Box 21420 Steinback MB R0A 2T3	204-326-2395	204-326-2472
New Brunswick	Department of the Environment 364 Argyle Street, Box 6000 Fredericton NB E3B 5H1	506-453-3700	506-453-3843
Newfoundland	Department of Environment, Confederation Building, Box 8700 St. John's NF A1B 4J6	709-729-2664	709-729-1930
Northwest Territories	Department of Renewable Resources Scotia Centre Building, Box 21 5102 - 50 Avenue Yellowknife NT X1A 3S8	403-873-7420	403-873-0114
Nova Scotia	Department of the Environment 5151 Terminal Road, 5 th Floor, Box 2107 Halifax NS B3J 3B7	902-424-5300	902-424-0503
Nunavut	Department of Sustainable Development Environmental Protection Service, Box 1000, Station 1195 Iqaluit NU X0A 0H0	867-975-5910	
Ontario	Ministry of Environment and Energy, 135 St. Clair Avenue West Toronto ON M4V 1P5 Environment Canada Toronto ON	416-323-4321 800- 565-4923 416-734-4494	416-323-4682
Prince Edward Island	Department of Environmental	902-368-5000	902-368-5830

Province	Address	General Inquires	Fax
Québec	Resources 11 Kent Street, 4 th Floor, PO Box 2000 Charlottetown PE C1A 7N8	418-643-3127 800- 561-1616	418-646-5974
	Ministère de l'Environnement et de la Faune, Siège social 150, boul, René-Lévesque Est Québec QC G1R 4Y1	418-643-3818	
Saskatchewan	Conseil de la conservation et de l'environnement 800, place d'Youville, 19e étage Québec QC G1R 3P4	306-787-2700	306-787-3941
	Saskatchewan Environment and Resource Management 3211 Albert Street Regina SK S4S 5W6		
Yukon	Yukon Renewable Resources PO Box 2703 Whitehorse YT Y1A 2C6	403-667-5683	403-667-3641

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00 – Submittal Procedures
- .2 Section 01 45 00 – Quality Control
- .3 Section 01 52 00 – Construction Facilities

1.2 AS -BUILT DOCUMENTS AND SAMPLES

- .1 The Contractor is responsible for the production and updating of the As-Built drawings.
- .2 Maintain, at site for Consultant one record copy of:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Change Orders and other modifications to Contract.
 - .5 Reviewed shop drawings, product data, and samples.
 - .6 Field test records.
 - .7 Inspection certificates.
 - .8 Manufacturer's certificates.
 - .9 Copies of all correspondents with all relative items.
 - .10 Revised calendar.
 - .11 All of the Consultant's written approvals, such as those relating to the permission to use alternative equipments, products, etc.
- .3 Store record documents and samples in field office apart from documents used for construction. Provide files, racks, and secure storage.
- .4 Maintain record documents in clean, dry and legible condition.
 - .1 Do not use record documents for construction purposes.
- .5 Keep record documents and samples available for inspection by Consultant.
- .6 Submit the two completed copies of the plans to Consultant.

1.3 RECORDING INFORMATION ON PROJECT RECORD DOCUMENTS

- .1 Record information on set of black line opaque drawings, provided by Consultant.
- .2 Use red felt tip marking pens for recording information.
- .3 Record information concurrently with construction progress. Do not conceal Work until required information is recorded.
- .4 Contract Drawings and shop drawings: mark each item to record actual construction, including:

- .1 Measured depths of foundations.
- .2 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
- .3 Field changes of dimension and detail.
- .4 Changes made by change orders.
- .5 Details not on original Contract Drawings.
- .6 References to related shop drawings and modifications.
- .5 Specifications: mark each item to record actual construction, including:
 - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
 - .2 Changes made by Addenda and change orders.
- .6 Other Documents: maintain [manufacturer's certifications,] [inspection certifications,] [field test records,] required by individual specifications sections.
- .7 Provide digital photos, if requested, for site records.

1.4 FINAL SURVEY

- .1 Submit final site survey certificate in accordance with Section [01 71 00 - Examination and Preparation, certifying that elevations and locations of completed Work are in conformance, or non-conformance with Contract Documents.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 00 21 13 -Instructions to Bidders
- .2 Section 01 35 43 –Environmental Protection
- .3 Section 01 74 21 – Construction/Demolition Waste Management Program
- .4 Section 31 24 13 – Excavation, Embankment, Compaction
- .5 Section 35 42 19 – Preservation of Water Courses

1.2 REFERENCES

- .1 Canadian Council of Ministers of the Environment (CCME)
 - .1 PN 1326-[July 2005], Environmental Code of Practice for aboveground and underground tank systems containing petroleum products and allied petroleum products.
- .2 Canadian Standards Association (CSA International)
 - .1 CSA S350-[M1980(R2003)], Code of Practice for Safety in Demolition of Structures.

1.3 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop Drawings:
 - .1 Provide shop drawings and product data in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Provide drawings stamped and signed by professional engineer registered or licensed in Province of Quebec, Canada.
- .3 Before proceeding with demolition of bridge and where required by authority having jurisdiction submit for review by Consultant shoring and underpinning drawings prepared by qualified professional engineer registered or licensed in the Province of Quebec in Canada showing proposed method.
- .4 Prior to beginning of Work on site submit detailed Waste Reduction Workplan in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal and indicate:
 - .1 Descriptions of and anticipated quantities in percentages of materials to be salvaged reused, recycled and landfilled.
 - .2 Schedule of selective demolition.
 - .3 Number and location of dumpsters.
 - .4 Anticipated frequency of tipping.
 - .5 Name and address of waste facilities.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Waste Management and Disposal:
 - .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

1.5 SITE CONDITIONS

- .1 Review designated substance report and take precautions to protect environment.
- .2 Should material resembling spray or trowel-applied asbestos or other designated substance listed as hazardous be encountered, stop work, take preventative measures, and notify Consultant immediately.
 - .1 Do not proceed until written instructions have been received from Consultant.

Part 2 Products

2.1 EQUIPMENT

- .1 Leave equipment and machinery running only while in use, except where extreme temperatures prohibit shutting down.
- .2 Demonstrate that tools and machinery are being used in manner which allows for salvage of materials in best condition possible.

Part 3 Execution

3.1 PREPARATION

- .1 Do Work in accordance with Section 01 35 30.06 - Health and Safety.
- .2 Protection:
 - .1 Prevent movement, settlement, or damage to adjacent structures, utilities, to remain in place. Provide bracing and shoring required.
 - .2 Keep noise, dust, to minimum.
 - .3 Provide temporary dust screens, covers, railings, supports and other protection as required.
 - .4 Other underground services: remove and dispose of as indicated by Consultant.

3.2 DEMOLITION SALVAGE AND DISPOSAL

- .1 Remove parts of existing bridge to permit new construction. Sort materials into appropriate piles for reuse and recycling.
- .2 Remove items to be reused, store as directed by Consultant, and re-install under appropriate section of specification.
- .3 Dispose of removed materials to appropriate recycling facilities, except where specified otherwise, in accordance with authority having jurisdiction.

3.3 STOCKPILING

- .1 Label stockpiles, indicating material type and quantity.
- .2 Designate appropriate security resources/measures to prevent vandalism, damage and theft.
- .3 Locate stockpiled materials convenient for use in new construction. Eliminate double handling wherever possible.
- .4 Stockpile materials designated for alternate disposal in location which facilitates removal from site and examination by potential end markets, and which does not impede disassembly, processing, or hauling procedures.

3.4 REMOVAL FROM SITE

- .1 Remove from site all materials that are not destined to be reused or recycled.

3.5 CLEANING AND RESTORATION

- .1 Keep site clean and organized throughout demolition procedure.
- .2 Upon completion of project, reinstate areas, affected by Work to condition which existed prior to beginning of Work and leave area clean.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 33 00 – Submittal Procedures
- .2 Section 01 74 21 – Construction/Demolition Waste Management and Disposal
- .3 Section 03 20 00 – Concrete Reinforcement
- .4 Section 03 30 00 – Cast-in-Place Concrete

1.2 REFERENCES

- .1 Canadian Standards Association (CSA)
 - .1 CAN/CSA-A23.1-04, Concrete Materials and Methods of Concrete Construction. Methods of test and standard practices for concrete.
 - .2 CAN/CSA-O86-01, Engineering Design in Wood (Limit States Design).
 - .3 CSA O121-M1978 (R2003), Douglas Fir Plywood.
 - .4 CSA O151-04, Canadian Softwood Plywood.
 - .5 CSA O153-M1978 (R2003), Poplar Plywood.
 - .6 CAN3-O188.0-M78, Standard Test Methods for Mat-Formed Wood Particleboards and Waferboard.
 - .7 CSA O437 Series-93 (R2001), Standards for OSB and Waferboard.
 - .8 CSA S269.1-1975 (R2003), Falsework for Construction Purposes.
 - .9 CAN/CSA-S269.3-M92 (R2003), Concrete Formwork.
- .2 Council of Forest Industries of British Columbia (COFI)
 - .1 COFI Exterior Plywood for Concrete Formwork.

1.3 SHOP DRAWINGS

- .1 Submit shop drawings for formwork and falsework in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Indicate method and schedule of construction, shoring, stripping and re-shoring procedures, materials, arrangement of joints, liners, and locations of temporary embedded parts. Comply with CSA S269.1, for falsework drawings and Comply with CAN/CSA-S269.3 for formwork drawings.

- .3 Indicate formwork design data, such as permissible rate of concrete placement, and temperature of concrete, in forms.
- .4 Each shop drawing submission shall bear stamp and signature of qualified professional engineer registered or licensed in Province of Quebec, Canada.

1.4 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 – Construction/Demolition Waste Management and Disposal and the Waste Reduction Workplan.
- .2 Place materials defined as hazardous or toxic waste in designated containers.
- .3 Ensure emptied containers are sealed and stored safely for disposal away from children.
- .4 Use sealers, form release and stripping agents that are non-toxic, biodegradable and have zero or low VOC's.

1.5 CONTRACTOR RESPONSIBILITIES

- .1 Assume responsibility for concrete formwork and falsework. Inspection of formwork and falsework by the Consultant shall not relieve the Contractor of his responsibility to provide facilities that fully comply with the plans and specifications.
- .2 The Contractor shall be aware of all laws and regulations that apply to the design and construction of formwork and falsework and must comply with these requirements. Comply with the law on health and safety of Quebec, regarding concrete forms and temporary works.
- .3 Before using formwork and falsework, give the Consultant a written statement signed by an Engineer who is a member in good standing of the Order of Engineers of Quebec (OIQ). The declaration must state that the formwork and falsework conforms to the plans signed and sealed, and can be used as intended.

1.6 FORMWORK DESIGN

- .1 The Contractor is fully responsible for the engineering, location and construction of formwork.
- .2 Every aspect of construction shall at all times comply with various standards organizations (municipal, provincial and federal) governing the rights of the specialized Contractor in regard to worker safety on construction sites.

2.0 PRODUCTS

2.1 MATERIALS

- .1 Formwork materials:
 - .1 For concrete without special architectural features, use wood and wood product formwork materials to CAN/CSA-O86.1.
- .2 Form ties:
 - .1 For concrete not designated 'Architectural', use removable or snap-off metal ties, fixed or adjustable length, free of devices leaving holes larger than 25 mm dia. in concrete surface.
- .3 Form liner:
 - .1 Plywood: high density overlay Douglas Fir to CSA O121.
- .4 Form release agent: non-toxic, biodegradable.
- .5 Form stripping agent: colourless mineral oil, non-toxic, free of kerosene, with viscosity between 15 to 24 mm² /s at 40°C, flashpoint minimum 150°C, open cup.
- .6 Falsework materials: to CSA-S269.1.

3.0 EXECUTION

3.1 FABRICATION AND ERECTION

- .1 Verify lines, levels and centres before proceeding with formwork/falsework and ensure dimensions agree with drawings.
- .2 Obtain Consultant's approval for use of earth forms framing openings not indicated on drawings.
- .3 Hand trim sides and bottoms and remove loose earth from earth forms before placing concrete.
- .4 Fabricate and erect falsework in accordance with CSA S269.1 and COFI Exterior Plywood for Concrete Formwork.
- .5 Do not place footings and mud sills on frozen ground.
- .6 Provide site drainage to prevent washout of soil supporting mud sills and shores.
- .7 Fabricate and erect formwork in accordance with CAN/CSA-S269.3 to produce finished concrete conforming to shape, dimensions, locations and levels indicated within tolerances required by CAN/CSA-A23.1.

- .8 Align form joints and make watertight. Keep form joints to minimum.
- .9 Use 25 mm chamfer strips on external corners and/or 25 mm fillets at interior corners , joints, unless specified otherwise.
- .10 Form chases, slots, openings, drips, recesses, expansion and control joints as indicated.
- .11 Build in anchors, sleeves, and other inserts required to accommodate Work specified in other sections. Assure that all anchors and inserts will not protrude beyond surfaces designated to receive applied finishes, including painting.
- .12 Clean formwork in accordance with CAN/CSA-A23.1, before placing concrete.

3.2 REMOVAL AND RESHORING

- .1 Leave formwork in place for following minimum periods of time after placing concrete.
 - .1 3 days or 80% of concrete compressive vresistance at 28 days.
- .2 Remove formwork when concrete has reached 80 % of its design strength or minimum period noted above, whichever comes later, and replace immediately with adequate reshoring.
- .3 Provide all necessary reshoring of members where early removal of forms may be required or where members may be subjected to additional loads during construction as required.
- .4 Space reshoring in each principal direction at not more than 2000 mm apart.
- .5 Re-use formwork and falsework subject to requirements of CAN/CSA-A23.1.

END OF SECTION

Partie 1 General

1.1 RELATED SECTIONS

- .1 Section 02 41 16 – Demolition of Structure
- .2 Section 01 35 43 – Environnemental Protection
- .3 Section 35 20 22 – Dewatering/ Water Pumping

1.2 SUBMITTALS

- .1 The Contractor shall provide the Consultant in terms of retaining temporary. The Contractor is fully responsible for the design of this temporary structure.

Partie 2 Products

2.1 MATERIALS

Partie 3 Execution

3.1 IMPLEMENTATION

- .1 After the construction of the work, and after inspection by an Engineer member of the Order of Engineers of Quebec (OIQ). The contractor shall give the Consultant a written notice signed by the Engineer stating that the temporary support is built according to the plan submitted. Such notice shall also state the date and time of inspection.
- .2 When the temporary support is no longer required, the Contractor shall remove the temporary support without damaging the new Work.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 33 00 – Submittal Procedures
- .2 Section 01 74 21 – Construction/Demolition Waste Management and Disposal
- .3 Section 03 10 00 – Concrete Formings and Accessories
- .4 Section 03 30 00 – Cast-in-Place Concrete

1.2 MEASUREMENT PROCEDURES

- .1 No measurement will be made under this section. Include costs in items of concrete work for which reinforcement is required.

1.3 REFERENCES

- .1 American Concrete Institute (ACI)
 - .1 ACI 315R-04, Manual of Engineering and Placing Drawings for Reinforced Concrete Structure.
- .2 Canadian Standards Association (CSA)
 - .1 CAN/CSA-A23.1-04/A23.2-04, Concrete Materials and Methods of Concrete Construction. Method of test and standard practices for concrete.
 - .2 CAN3-A23.3-05, Design of Concrete Structures.
 - .3 CSA G30.3-M1983(R1998), Cold Drawn Steel Wire for Concrete Reinforcement.
 - .4 CSA G30.5-M1983(R1998), Welded Steel Wire Fabric for Concrete Reinforcement.
 - .5 CSA G30.14-M1983(R1998), Deformed Steel Wire for Concrete Reinforcement.
 - .6 CSA G30.15-M1983(R1998), Welded Deformed Steel Wire Fabric for Concrete Reinforcement.
 - .7 CAN/CSA-G30.18-M92 (R2002), Billet-Steel Bars for Concrete Reinforcement.
 - .8 CAN/CSA-G40.21-04, General requirements for rolled or weld structural quality steel. Structural quality steep.

- .9 CSA W186-M1990 (R2002), Welding of Reinforcing Bars in Reinforced Concrete Construction
- .10 Cahier des Charges et Devis (CCDG) 2012

1.4 SHOP DRAWINGS

- .1 Submit shop drawings including placing of reinforcement in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Indicate on shop drawings, bar bending details, lists, quantities of reinforcement, sizes, spacings, locations of reinforcement and mechanical splices if approved by Consultant, with identifying code marks to permit correct placement without reference to structural drawings. Indicate sizes, spacings and locations of chairs, spacers and hangers. Prepare reinforcement drawings in accordance with Reinforcing Steel Manual of Standard Practice - by Reinforcing Steel Institute of Canada.
- .3 Detail lap lengths and bar development lengths to CAN3-A23.3, unless otherwise indicated. Provide type C tension lap splices unless otherwise indicated.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 – Construction/Demolition Waste Management and Disposal and the Waste Reduction Workplan.

2.0 PRODUCTS

2.1 MATERIALS

- .1 Substitute different size bars only if permitted in writing by Consultant.
- .2 Reinforcements must come from a Canadian mill that holds a certificate of registration in accordance with ISO 9001: 2008 management systems quality. The Contractor shall provide to the Consultant at least two weeks before delivery of the bars on site or at the manufacturing plant, the name of the steel plant that manufactured the bars.
- .3 Reinforcing steel: billet steel, grade 400W, deformed bars to CAN/CSA-G30.18, unless indicated otherwise.
- .4 Cold-drawn annealed steel wire ties: to CSA G30.3.
- .5 Deformed steel wire for concrete reinforcement: to CSA G30.14.
- .6 Welded steel wire fabric: to CSA G30.5. Provide in flat sheets only.
- .7 Welded deformed steel wire fabric: to CSA G30.15. Provide in flat sheets only.

- .8 Chairs, bolsters, bar supports, spacers: to CAN/CSA-A23.1.

2.2 FABRICATION

- .1 Fabricate reinforcing steel in accordance with CAN/CSA-A23.1, / A23.2, ANSI/ACI 315, and Reinforcing Steel Manual of Standard Practice by the Reinforcing Steel Institute of Canada. ACI 315R, Manual of Engineering and Placing Drawings for Reinforced Concrete Structures unless indicated otherwise.
- .2 Ship bundles of reinforcement bar, clearly identified in accordance with bar bending details and lists.

2.3 SOURCE QUALITY CONTROL

- .1 Upon request, provide Consultant with certified copy of mill test report of reinforcing steel, showing physical and chemical analysis, minimum 4 weeks prior to commencing reinforcing work.
- .2 Upon request inform Consultant of proposed source of material to be supplied.

3.0 EXECUTION

3.1 FIELD BENDING

- .1 Do not field bend or field weld reinforcement except where indicated or authorized by Consultant.
- .2 When field bending is authorized, bend without heat, applying a slow and steady pressure.
- .3 Replace bars which develop cracks or splits.

3.2 PLACING REINFORCEMENT

- .1 Place reinforcing steel as indicated on approved placing drawings and in accordance with CAN/CSA-A23.1.
- .2 Reinforcements shall be securely fastened with steel ligatures to prevent movement during the pouring of concrete. They must be attached to all bar intersections when these intersections are spaced at distance of 300mm or more or at every second intersection if the spacing between intersections is lesser.
- .3 If necessary, before placing the reinforcement in the formwork, remove all traces of excessive rust, scale, sludge, oil and other dirt that may reduce their adhesion to the concrete

- .4 Use an adequate number of bar-supports of a height and stiffness required so that the reinforcement cover is everywhere consistent with cover stipulated on the drawings and standards.
- .5 Prior to placing concrete, obtain Consultant's approval of reinforcing material and placement. The Consultant has 5 days to approve the reinforcement prior to pouring of concrete.
- .6 Ensure cover to reinforcement is maintained during concrete pour.
- .7 Protect bars with covering during transportation and handling.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 03 10 00 – Concrete Formings and Accessories
- .2 Section 03 20 00 – Concrete Reinforcement

1.2 MEASUREMENT PROCEDURES

- .1 Cast-in-place concrete will not be measured but will be included in the appropriate lump sum price.
- .2 Heating of water and aggregates and providing cold weather protection will not be measured but considered incidental to work.
- .3 Cooling of concrete and providing hot weather protection will not be measured but considered incidental to work.
- .4 Supply and installation of anchor bolts, nuts and washers and bolt grouting will not be measured but considered incidental to work.
- .5 Supply and installation of waterstops will not be measured but will be included in the appropriate lump sum price.

1.3 REFERENCES

- .1 American Society for Testing and Materials (ASTM)
 - .1 ASTM C 109/C109M-01, Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2 in. or 50-mm Cube Specimens).
 - .2 ASTM C 260-00, Specification for Air-Entraining Admixtures for Concrete.
 - .3 ASTM C 494-/C 494-99a, Specification for Chemical Admixtures for Concrete.
 - .4 ASTM C 827-01, Test Method for Change in Height at Early Ages of Cylindrical Specimens of Cementitious Mixtures.
 - .5 ASTM D1751-04, Standard Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
- .2 Canadian Standards Association (CSA)
 - .1 CAN/CSA-A5-98, Portland Cement.

- .2 CAN/CSA-A23.1-04, Concrete Materials and Methods of Concrete Construction. Methods of test and standard practices for concrete.
 - .3 CAN/CSA-A23.2-04, Methods of Test and standard practices for concrete.
 - .4 CAN/CSA-A23.5-M86 (R1992), Supplementary Cementing Materials.
 - .5 CSA G30.3-M1983 (R1991), Cold Drawn Steel Wire for Concrete Reinforcement.
 - .6 CAN/CSA G30.18-M92 (R2002), Billet-Steel Bars for Concrete Reinforcement.
- .3 Norme du Ministère des Transports du Québec (MTQ) Tome VII Matériaux.

1.4 SAMPLES

- .1 Submit samples in accordance with Section 01 33 00 – Submittal Procedures.
- .2 At least 5 weeks prior to commencing work, inform Consultant of proposed source of aggregates and provide access for sampling.

1.5 CERTIFICATES

- .1 Submit certificates in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Minimum 4 weeks prior to starting concrete work submit to Consultant manufacturer's test data and certification by qualified independent inspection and testing laboratory that following materials will meet specified requirements:
 - .1 Portland cement or products.
 - .2 Admixtures.
 - .3 Aggregates.
 - .4 Water.
- .3 Provide certification that mix proportions selected will produce concrete of quality, yield and strength as specified in concrete mixes, and will comply with CAN/CSA-A23.1.
- .4 Provide certification that plant, equipment, and materials to be used in concrete comply with requirements of CAN/CSA-A23.1.

1.6 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 – Construction/Demolition Waste Management and Disposal and the Waste Reduction Workplan.
- .2 Use trigger operated spray nozzles for water hoses.

- .3 Designate a cleaning area for tools to limit water use and runoff.
- .4 Carefully coordinate the specified concrete work with weather conditions.
- .5 Ensure emptied containers are sealed and stored safely for disposal away from children.
- .6 Prevent plasticizers, water-reducing agents and air-entraining agents from entering drinking water supplies or streams. Using appropriate safety precautions, collect liquid or solidify liquid with an inert, noncombustible material and remove for disposal. Dispose of all waste in accordance with applicable local, provincial and national regulations.
- .7 Choose least harmful, appropriate cleaning method which will perform adequately.

2.0 PRODUCTS

2.1 MATERIALS

- .1 Portland cement : to CAN/CSA-A5.
- .2 Supplementary cementing materials: to CAN/CSA-A23.5.
- .3 Cementitious hydraulic slag: to CAN/CSA-A363.
- .4 Water: to CAN/CSA-A23.1.
- .5 Aggregates: to CAN/CSA-A23.1. Coarse aggregates to be normal density.
- .6 Air entraining admixture: to ASTM C 260.
- .7 Chemical admixtures: to ASTM C 494-99a. Consultant to approve accelerating or set retarding admixtures during cold and hot weather placing if required.

2.2 MIXES

- .1 Proportion normal density concrete in accordance with CAN/CSA-A23.1, Alternative 1
- .2 Sikacrete – 08 SCC Self-Compacting Concrete or approved equivalent by Engineer for auto-leveling concrete filler under Dennison Dam spillway
- .3 SikaTop 123 or approved equivalent for surface concrete repairs

3.0 EXECUTION

3.1 PREPARATION

- .1 Obtain Consultant's approval before placing concrete. Provide 48 hours notice prior to placing of concrete.
- .2 Pumping of concrete is permitted only after approval of equipment and mix.
- .3 Ensure reinforcement and inserts are not disturbed during concrete placement.
- .4 Prior to placing of concrete obtain Consultant's approval of proposed method for protection of concrete during placing and curing.
- .5 Maintain accurate records of poured concrete items to indicate date, location of pour, quality, air temperature and test samples taken.
- .6 Do not place load upon new concrete until authorized by Consultant.

3.2 CONSTRUCTION

- .1 Do cast-in-place concrete work in accordance with CAN/CSA-A23.1.
- .2 Finish concrete in accordance with CAN/CSA-A23.1.
- .3 Use procedures acceptable to Consultant or those noted in CAN/CSA-A23.1 to remove excess bleed water. Ensure surface is not damaged.
- .4 Use curing compounds compatible with applied finish on concrete surfaces. Provide written declaration that compounds used are compatible.
- .5 Provide float finish unless otherwise indicated.

3.3 SITE TOLERANCE

- .1 Concrete tolerance in accordance with CAN/CSA-A23.1 straight edge method.

3.4 FIELD QUALITY CONTROL

- .1 Inspection and testing of concrete and concrete materials will be carried out by a Testing Laboratory designated by Consultant in accordance with CAN/CSA-A23.1 and Section 01 45 00 – Quality Control.
- .2 Consultant will take additional test cylinders during cold weather concreting. Cure cylinders on job site under same conditions as concrete which they represent.
- .3 Non-destructive Methods for Testing Concrete shall be in accordance with CAN/CSA-A23.2.

3.5 COLD WEATHER CONCRETING

- .1 Temperature of plastic concrete at time of installation must comply with the requirements for concrete manufacturing found in Standard 3101 of the MTQ.
- .2 The concrete must be maintained at a minimum temperature of 10°C during the curing period.
- .3 Concrete shall be protected until the concrete has reaches 70% of the required compressive strength at 28 days.
- .4 Following the protection period, the concrete temperature should be lowered gradually during the first 24 hours. The rate of decline should not be higher than 10°C/h. The concrete must not be brought into contact with the outside air if the difference between the temperature of the concrete and that of the outside air is more than 20°C.
- .5 The requirements for concrete curing apply regardless of the type of protection in place.
- .6 Any concrete that has frozen is not payable and is rejected. The part of the work constructed with concrete that is considered defective must be rebuilt according to plans and specifications and at the Contractor's expense.
- .7 In the case where concrete is put in place under a protective cover, the contact surfaces must first be heated and maintained at a temperature between 0°C and 20°C for a period of at least 24 hours prior to the concreting. The formwork should be kept in place throughout the duration of the protection and the surfaces of the formwork must be maintained at a temperature between 0°C and 20°C for the duration of protection.
- .8 The Contractor shall design the protection system for the worst conditions that can be reasonably anticipated from local weather records, forecasts, site conditions, and past experience for the time period during which the protection is required. The Contractor shall monitor the conditions and modify the protection system as required. The protection method must be approved by the Consultant before commencing concreting.

END of Section

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 31 23 13 - Site Grading
- .2 Section 31 24 13 - Excavation, Embankment and compaction

1.2 REFERENCES

- .1 «Cahier des charges et devis généraux (CCDG) Construction et réparation», 2012, from the «Ministère des Transports du Québec».
- .2 BNQ: NQ 2560-114 «Travaux de Génie Civil-Granulats».
- .3 «Tome VII – Matériaux», from the collection of «Normes – Ouvrages routiers» from the «Ministère des Transports du Québec».

2.0 PRODUCTS

2.1 MATERIALS

- .1 MG-20 et MG 112 : According to standard NQ 2560-114 of « Bureau de normalisation du Québec (BNQ) ».
- .2 Granular A: in conformity with Ministry of Transportation of Ontario OPSS 1010 April 2004 «Material Specifications for Aggregates – Base, Subbase, Select Subgrade and Backfill Material»
- .3 The stabilized crushed stone used must be composed of 100% crushed materials and must meet the requirements of table 3 («granulats fins» pg 58) of standard 2560-114 of «Bureau de normalisation du Québec» (BNQ). The stabilized crushed stone must have a gradation contained between 0/4 and 0/10 and the proportion of fines (<80mm) must be between 15% and 20%.

2.2 SOURCE QUALITY CONTROL

- .1 Inform Consultant of proposed source of aggregates and provide access for sampling at least 2 weeks prior to commencing production.
- .2 If, in opinion of Consultant, materials from proposed source do not meet, or cannot reasonably be processed to meet, specified requirements, locate an alternative source or demonstrate that material from source in question can be processed to meet specified requirements.
- .3 Advise Consultant 2 weeks in advance of proposed change of material source.

- .4 Acceptance of material at source does not preclude future rejection if it fails to conform to requirements specified, lacks uniformity, or if its field performance is found to be unsatisfactory.

3.0 PREPARATION

3.1 PROCESSING

- .1 Process aggregate uniformly using methods that prevent contamination, segregation and degradation;
- .2 Blend aggregates, if required, to obtain gradation requirements, percentage of crushed particles, or particle shapes, as specified. Use methods and equipment approved by Engineer.
- .3 Wash aggregates, if required to meet specifications. Use only equipment approved by Consultant.
- .4 When operating in stratified deposits use excavation equipment and methods that produce uniform, homogeneous aggregate.

3.2 HANDLING

- .1 Handle and transport aggregates to avoid segregation, contamination and degradation.

3.3 STOCKPILING

- .1 Stockpile aggregates on site in locations as indicated unless directed otherwise by Consultant.
- .2 Stockpile aggregates in sufficient quantities to meet project schedules.
- .3 During winter operations prevent ice and snow from becoming mixed into stockpile or in material being removed from stockpile.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 31 05 17 - Aggregates
- .2 Section 31 24 13 –Excavation, Embankments and Compaction

1.2 REFERENCES

- .1 American Society for Testing and Materials (ASTM)
 - .1 ASTM D698-91(1998), Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (600 kN-m/m³).

1.3 EXISTING CONDITIONS

- .1 Examine subsurface investigation report that is available for consultation at NCC's office.
- .2 The Contractor must locate existing public utilities before works.

1.4 PROTECTION

- .1 Protect existing trees, natural features, benchmarks, and pavements which are to remain as directed by Engineer. If damaged, restore to original or better condition unless directed otherwise.
- .2 Maintain access roads to prevent accumulation of construction related debris on roads.

2.0 EXECUTION

2.1 GRADING

- .1 The work consists of correcting the elevations of the granular material at the bridge approaches in order to obtain a final profile that is compatible with the elevation of the new bridge. The elevation corrections must be conducted over a length that will allow a smooth transition between the new approach profile and the existing pathway. This transition must be to the satisfaction of the Consultant.

- .2 Before putting in place the stone-dust finishing surface, verify the compaction of the foundation (Granular A). The desired density is 95% of the proctor. To prevent crumbling of the surface, the surface layer must be installed with the same moisture content as a whole, at one time. It is recommended to saturate wet with water the foundation before applying the stone-dust. The stone-dust should then be applied wet to allow adequate coverage and to compel the volatility of the powder during raking.

The minimum seasonal temperature for the putting in place of the stone-dust is 5°celcius (41° Fahrenheit). The quantity of water required to activate the binder is 90 to 160 litres (25 to 40 gallons) per metric ton of stone-dust. It is imperative to apply water and to allow this water to penetrate and saturate the surface of the stones. Prior to beginning the compaction of the stabilized surface layer, weather conditions should be known and if precipitations are expected during or up to 48 hours following the putting in place of the stabilized stone-dust, a waiting period will have to be respected in order for the saturation to be removed, as in the case of excessive watering.

- .3 Execute compaction according to Section 31 24 13 Excavation, Embankments, Compaction.

2.2 TESTING

- .1 Inspection and testing of soil compaction will be carried out by testing laboratory designated by NCC. Costs of tests will be paid by the NCC except tests that are necessary due to the Contractor's fault in meeting the plans and specifications' requirements.

2.3 SURPLUS MATERIAL

- .1 Remove surplus material and material unsuitable for fill, grading or landscape architecture off site.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 35 43 – Environmental Protection
- .2 Section 01 74 21 - Construction/Demolition Waste Management and Disposal
- .3 Section 02 41 16 – Demolition of Structure
- .4 Section 31 05 17 – Aggregates

1.2 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal;
- .2 Divert excess materials from landfill to site approved by the Consultant .

2.0 EXECUTION

2.1 SITE PREPARATION

- .1 Cut neatly along limits of proposed excavation in order that surface may break evenly and cleanly.

2.2 STRIPPING OF TOPSOIL

- .1 Strip topsoil to depths as required. Do not mix topsoil with subsoil;
- .2 Stockpile in locations as directed by the Consultant. Stockpile height not to exceed 2 m.
- .3 Dispose of unused topsoil off site, on an approved site . Remove clearing and grubbing debris from stripping.

2.3 SETBACKS FOR WORK AROUND TREES

- .1 Unless otherwise directed or approved by Consultant, trenching shall respect the minimum setback distances set out in Table 1.

Table 1: Tree Protection Setbacks

Trunk Dia. (cm) of Existing Tree(s)	Min. Setback (distance from trunk in metres)
Less than 30	3,0
30 to 60	4,5
60 to 100 or more	6,0

- .2 In specific instances, where minimum setbacks cannot be met due to site conditions, notify Consultant for approval of revised setback distance.

2.4 DEWATERING

- .1 Provide all labour and equipment necessary to pump and dewater excavations.
- .2 Protect open excavations against flooding and damage due to surface run-off.

2.5 EXCAVATION

- .1 Notify the Consultant when waste materials are encountered and remove to depth and extent directed .
- .2 If excavations along roots are necessary, excavate by hand and cut off roots using a hatchet or a sharpen saw;
- .3 Excavate to lines, grades, elevations and dimensions as indicated;
- .4 When Contractor, by his own account, excavates beyond the indicated depth, the Contractor must effectuate the necessary correction to the bottom of the excavation and receive, following the corrections, the written approbation to continue work by the Consultant. The theoretical dimensions for an excavation (length, width and angle of walls) are the following:
 - .1 In solid rock, the walls of the excavation are vertical and the dimensions of the bottom of the excavation are those of the base of the work (footing). In such a case where the rock is not cut out according to the stipulated dimensions, the supplementary work required must be done at the contractors cost.
 - .2 In soil other than solid rock, the circumference of the excavation must exceed by at least 600mm the dimensions of the work (footing).
 - .3 When a cofferdam or sheetpiles are required, the horizontal dimensions of the excavation are limited by those of the cofferdam. However, when an excavation must be continued in rock, beyond the limits of the cofferdam, the requirements relative to the exaction in solid rock apply.

- .5 The bottom of the excavations must be level and must consist of undisturbed soil, exempt from loose and soft or organic substances. The rock must contain a rugged surface, exempt from rock debris, rocks, gravel and dirt. Slaty rock must be cleaned of all loose fragments.
- .6 In the case of a work which is not built directly on bedrock, excavation of the last 500 millimeters of soil above the bottom of planned excavation must be done using a bucket without teeth, just before the installation of the footing formwork. The soil at the bottom of the excavation should not be reworked.
- .7 Hand trim, make firm and remove loose material and debris from excavations. Where material at bottom of excavation is disturbed, compact foundation soil to density at least equal to undisturbed soil. Clean out rock seams and fill with concrete mortar or grout to approval of Engineer;
- .8 Notify Consultant when bottom of excavation is reached;
- .9 Obtain Consultant's approval of completed excavation;
- .10 Remove unsuitable material from trench bottom to extent and depth as directed by Consultant;
- .11 Treat ground slopes, where subgrade is on transition from excavation to embankment, at grade points as indicated in drawings;
- .12 Dispose of surplus and unsuitable excavated material off site;
- .13 Do not obstruct the flow of runoff or natural waterways. Shape profiles, the peaks and cross-slopes of excavated areas to maximize water drainage runoff.

2.6 SUPPORT BASE

1. The support base for the abutments is only to be used upon request of the Consultant.
 - .1 The Contractor shall give written notice of at least 24 hours to the supervisor to specify the date and time of commencement of work placement support cushion.
 - .2 The minimum thickness of the support base should be 150mm.
 - .3 In the case of an abutment directly on bedrock, a concrete support base is put in place to equalize the bottom of the bedrock. The concrete must be the same type as that used for the concrete bridge abutment. The surface of the support base must be finished with a rake in order to provide a rough surface contact for abutment footing.

- .4 In the case of a support base consisting of granular material, the granular material type must be MG 20, as specified in Section 31 05 17 - Aggregates. This support base is set up in layers of 150mm thick and compacted to 95% of the maximum dry density determined according to the CAN / BNQ 2501-255 "Soils - Determination of water content relationship-density - test with modified compaction energy (2700 kN • m/m³). "

2.7 BACKFILLING

- .1 The Contractor shall give written notice to the Consultant at least 24 hours in advance specifying the date and time filling and backfilling will begin.
- .2 Around the abutment, the filling of excavations must be made with MG 112 granular material (see Section 31 05 17 - Aggregates). In other cases, unless otherwise specified by the Consultant, use materials from excavations for the construction of embankments. The fill material must be approved by the Consultant;
- .3 For filling excavations, the granular material is placed over a minimum width corresponding to the theoretical dimensions of the excavations, with a slope of 1V: 1.5H, and this, to ground level before excavation.
- .4 The granular material must be set up by layers of a maximum thickness of 300 mm. Compaction of materials, including the degree of compactness, must be implemented according to the requirements for compaction of materials, found in the following section "Compacting." In the area adjacent to the wall of the structure, respecting a width of 1500 mm from the structure, compaction must be done with dynamic compactors, vibratory plates and vibratory rollers having a mass per meter of roller less than 800 kg.

2.8 COMPACTING

- .1 General
 - .1 The maximum density of the material put in place is determined by the CAN / BNQ 2501-255 "Soils - Determination of water content relationship-density - test with modified compaction energy (2700 kN • m/m³). " If this cannot be achieved, the method used must be that of the standard NQ 2501-258 "Soils - Determination of water content relationship-density - the vibrating hammer test."
 - .2 The Consultant checks the compactness of each layer of material using a nucleodensimeter according to method LC 22-003. The correction factor (K factor) used to correct the measured water content of each type of material is determined using the LC 22-002. The nucleodensimeter used is calibrated at least once a year according to the procedure defined in ASTM D6938 "Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)".

- .3 The compacting must be performed before the material is at a temperature below 0 ° C.
- .4 The Contractor shall ensure to obtain, on site, the water content closest to the optimum determined by laboratory testing for maximum dry density according to the CAN/BNQ 2501–255 « Sols – Détermination de la relation teneur en eau-masse volumique – Essai avec énergie de compactage modifiée (2700 kN • m/m³) ». In the case of clay soils, the water content must never be greater than the plastic limit obtained by the CAN/BNQ 2501–090 « Sols – Détermination de la limite de liquidité à l'aide de l'appareil de Casagrande et de la limite de plasticité». The Contractor shall provide the means required to accelerate the drying of the soil that is overly wet or moisten the soil that is too dry. If the soil is too wet to allow uniform compaction at maximum dry density, the supervisor may require that the soil be mixed with dry soil or be dried by aeration or by scarification. If instead, the water content is too low, the supervisor may require watering in order to obtain the optimum content. If the surface is smooth, the Contractor shall scarify or use harrowing to promote the penetration of water.
- .5 If the natural soil or a layer of material already compacted to the density required undergoes a loss of density due to movement of equipment, weather, frost action and thaw or any other cause before the end of the project, the contractor must redo the compaction of the soil to the required density, at his expense.
- .6 The degrees of compactness required for the natural terrain and the successive layers forming the embankments are:
 - .1 The bottom of the cuts and the natural soil cleared from topsoil and left in place within 1 m from the infrastructure line must be densified to a depth of 150 mm to a minimum of 90.0% of the maximum dry density. If the bottom of the cut or the natural soil is located in the subgrade, the first 150 mm below the subgrade line must be densified to a minimum of 95.0%.
 - .2 The backfill soil are densified to a minimum of 90.0% of the maximum dry density, if the infrastructure line coincides with the subgrade, the last 150 mm are densified to a minimum of 95.0%.
- .7 The surface layer composed of stone-dust must be compacted 6 to 24 hours after watering of surface. The surface must be compacted using a roller of at least 1000lbs (mechanical or manual). The use of roller vibration, as well as all other vibrating equipment is not advised. We recommend performing 4 or 5 passes with the roller in order to ensure a sufficient compaction. After having rolled the surface, we recommend lightly rewatering the surface. Finally, in order to protect the surface during the initial curing, it is important to barricade the site to avoid any circulation from pedestrians or vehicles. The drying phase can take 3 to 15 days depending on weather and seasonal temperatures.

2.9 FINISHING

- .1 Finish slopes, ditch bottoms and borrow pits true to lines, grades and drawings;
- .2 Hand finish slopes that cannot be finished satisfactorily by mechanical equipment.

2.10 RESTORATION

- .1 Upon completion of work remove waste materials and debris; trim slopes, and correct defects as directed by Consultant;
- .2 Replace topsoil as directed by Consultant;
- .3 Alleviate compaction of adjacent turf caused by contractor's equipment by turf aeration;
- .4 Clean and reinstate areas affected by Work as directed by the Contractor.

2.11 PROTECTION

- .1 Maintain finished surfaces in good condition and conforming to this section until acceptance by the Contractor.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 74 21 - Construction/Demolition Waste Management And Disposal.
- .3 Section 31 24 13 - Roadway Excavation Embankment and Compaction.
- .4 Section 35 31 19 – Rip-Rap Protection.

1.2 REFERENCE

- .1 American Society for Testing and Materials International, (ASTM)
 - .1 ASTM D 4595 - Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method.
 - .2 ASTM D 4355 – Standard Test Method for deterioration of Geotextiles by exposure to light, moisture and heat in a xenon arc type apparatus;
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-148.1, Methods of Testing Geotextiles and Complete Geomembranes.
 - .1 No.2-M85, Methods of Testing Geosynthetics - Mass per Unit Area.
 - .2 No.3-M85, Methods of Testing Geosynthetics - Thickness of Geotextiles.
 - .3 No.6.4, Methods of Testing Geotextiles and Normal Water Permeability Under no Compressive Load;
 - .4 No.7.3-92, Methods of Testing Geotextiles and Geomembranes - Grab Tensile Test for Geotextiles.
 - .5 No. 10-94, Methods of Testing Geosynthetics - Geotextiles - Filtration Opening Size.

1.3 SUBMITTALS

- .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit the following samples to Consultant at least 4 weeks prior to beginning Work.
 - .1 Minimum length of 2 m of geotextile having a full roll width.
- .3 Submit to Consultant, copies of mill test data and certificates at least 4 weeks prior to start of Work, and in accordance with Section 01 33 00 - Submittal Procedures.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 During delivery and storage, protect geotextiles from direct sunlight, ultraviolet rays, excessive heat, mud, dirt, dust, debris and rodents.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Remove from site and dispose of all packaging materials at appropriate recycling facilities.

2.0 PRODUCTS

2.1 MATERIAL

- .1 Geotextile: non-woven synthetic fibre fabric, supplied in rolls.
- 2 Physical properties:
 - .1 Thickness: to CAN/CGSB-148.1, No.3, minimum 2,3 mm.
 - .2 Mass per unit area: to CAN/CGSB-148.1, No.2, minimum 250 g/m².
 - .3 Tensile strength and elongation (in any principal direction): to ASTM D 4595.
 - .1 Tensile strength: minimum 1000 N, wet condition.
 - .2 Elongation at break: maximum 15%.
- .3 Hydraulic properties:
 - .1 Filtration opening size (FOS): to CAN/CGSB-148.1 No.10.
- .4 Securing pins and washers: to CAN/CSA-G40.21, Grade 300W, hot-dipped galvanized with minimum zinc coating of 600 g/m² to CAN/CSA G164.

3.0 EXECUTION

3.1 INSTALLATION

- .1 Place geotextile material smooth and free of tension stress, folds, wrinkles and creases.
- .2 Place geotextile material on sloping surfaces in one continuous length from toe of slope to upper extent of geotextile.
- .3 Overlap each successive strip of geotextile 600 mm over previously laid strip.
- .4 Protect installed geotextile material from displacement, damage or deterioration before, during and after placement of material layers.

- .5 After installation, cover with overlying layer within 4 h of placement.
- .6 Replace damaged or deteriorated geotextile to approval of Consultant.
- .7 Place and compact soil layers in accordance with Section 31 24 13 - Excavation Embankment and Compaction, 35 31 19 - Revetments.

3.2 CLEANING

- .1 Remove construction debris from Project site and dispose of debris in an environmentally responsible and legal manner.

3.3 PROTECTION

- .1 Vehicular traffic not permitted directly on geotextile.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 29 83 - Testing Laboratory Services
- .2 Section 01 74 21 - Construction/Demolition Waste Management And Disposal
- .3 Section 31 23 13 - Site Grading
- .4 Section 32 92 23 – Sodding

1.2 MEASUREMENT PROCEDURES

- .1 Topsoil stripping will not be measured.
- .2 Planting, sodding and seeding.
 - .1 Sub-grade preparation for topsoil will not be measured.
 - .2 The supply and the installation of the topsoil will not be measured for payment purposes. The Contractor must include all suitable costs in the price schedule of the tender formula.
- .3 Annual bed preparation.
 - .1 Sub-grade preparation for topsoil will not be measured.
 - .2 The supply and the installation of the topsoil for the annual planting beds will not be measured for purposes of payment.

1.3 QUALITY ASSURANCE

- .1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

1.4 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal.
- .2 Divert unused soil amendments from landfill to official hazardous material collections site approved by Consultant.

- .3 Do not dispose of unused soil amendments into sewer systems, into lakes, streams, onto ground or in locations where it will pose health or environmental hazard.

2.0 PRODUCTS

2.1 TOPSOIL

- .1 Topsoil for planting : "**MULTIMIX pour la plantation**" from LES COMPOSTS QUEBEC OUTAOUAIS INC. (819) 281-5327, or approved equivalent.
- .2 Topsoil for turf areas: "**MULTIMIX pour le gazon**" from LES COMPOSTS QUEBEC OUTAOUAIS INC. (819) 281-5327, or approved equivalent.

2.2 QUALITY CONTROL AT SOURCE

- .1 Advise Consultant of sources of topsoil to be utilized with sufficient lead time for testing when necessary.
- .2 Submit the technical charts of the products, and the packing slip for each load of soil.

3.0 EXECUTION

3.1 PREPARATION OF EXISTING GRADE

- .1 Verify that grades are correct. If discrepancies occur, notify Consultant and do not commence work until instructed by Consultant.
- .2 Grade soil, eliminating uneven areas and low spots, ensuring positive drainage.
- .3 Remove debris, roots, branches, stones in excess of 50 mm diameter and other deleterious materials. Remove soil contaminated with calcium chloride, toxic materials and petroleum products. Dispose of removed material off site.
- .4 Cultivate entire area which is to receive topsoil to minimum depth of 100 mm. Cross cultivate those areas where equipment used for hauling and spreading has compacted soil.

3.2 PLACING AND SPREADING OF TOPSOIL/PLANTING SOIL

- .1 Place topsoil after Consultant has accepted subgrade.
- .2 Spread topsoil in uniform layers not exceeding 150 mm.
- .3 For sodded areas keep topsoil 15 mm below finished grade.

- .4 Spread topsoil to following minimum depths after settlement.
 - .1 100 mm for seeded areas.
 - .2 100 mm for sodded areas.
- .5 Manually spread topsoil/planting soil around trees, shrubs and obstacles.
- .6 Provide for approximately 25% settling when placing topsoil, in order to respect the projected grades.

3.3 TRANSPORT AND STORAGE

- .1 The topsoil must be protected from bad weather. Cover piles with plastic membrane or other impermeable membranes. The contractor must avoid excessive compaction of the top soil stored on site.

3.4 FINISH GRADING

- .1 Grade to eliminate rough spots and low areas and ensure positive drainage. Prepare loose friable bed by means of cultivation and subsequent raking.
- .2 Consolidate topsoil to required bulk density using equipment approved by Consultant. Leave surfaces smooth, uniform and firm against deep footprinting.
- .3 Remit the storage surfaces used for work, to the satisfaction of the Consultant.

3.5 ACCEPTANCE

- .1 Consultant will inspect and test topsoil in place and determine acceptance of material, depth of topsoil and finish grading.

3.6 SURPLUS MATERIAL

- .1 Dispose of materials not required off site.

3.7 CLEANING

- .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 74 21 - Construction/Demolition Waste Management And Disposal.
- .3 Section 32 91 21 - Topsoil Placement and Grading.

1.2 QUALITY ASSURANCE

- .1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

1.3 SCHEDULING

- .1 Schedule sod laying to coincide with preparation of soil surface.
- .2 Schedule sod installation when frost is not present in ground.

1.4 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal.
- .2 Divert unused fertilizer from landfill to official hazardous material collections site approved by Consultant.
- .3 Do not dispose of unused fertilizer into sewer systems, into lakes, streams, onto ground or in locations where it will pose health or environmental hazard.

2.0 PRODUCTS

2.1 MATERIALS

- .1 Number One Turf Grass Nursery Sod: sod that has been especially sown and cultivated in nursery fields as turf grass crop.
 - .1 Number One Kentucky Bluegrass Sod - Fescue Sod: Nursery Sod grown solely from seed mixture of cultivars of Kentucky Bluegrass and Chewing Fescue or Creeping Red Fescue, containing maximum 30 % Kentucky

Bluegrass cultivars and 50% Chewing Fescue or Creeping Red Fescue cultivars.

- .2 Turf Grass Nursery Sod quality:
 - .1 Density of sod sufficient so that no soil is visible from height of 1500 mm when mown to height of 50 mm.
 - .2 Mowing height limit: 35 to 65 mm.
- .3 Water:
 - .1 Supplied by Consultant at designated source.

2.2 SOURCE QUALITY CONTROL

- .1 Obtain approval from Consultant of sod at source.
- .2 When proposed source of sod is approved, use no other source without written authorization from Consultant.

3.0 EXECUTION

3.1 PREPARATION

- .1 Verify that grades are correct and prepared in accordance with Section 32 91 21 - Topsoil Placement and Grading. If discrepancies occur, notify Consultant and do not commence work until instructed by Consultant.
- .2 Do not perform work under adverse field conditions such as frozen soil, excessively wet soil or soil covered with snow, ice, or standing water.
- .3 Fine grade surface free of humps and hollows to smooth, even grade, surface to drain naturally.

3.2 SOD PLACEMENT

- .1 Lay sod within 24 hours of being lifted if air temperature exceeds 20 degrees C.
- .2 Lay sod sections in rows, joints staggered. Butt sections closely without overlapping or leaving gaps between sections. Cut out irregular or thin sections with sharp implements.
- .3 Provide close contact between sod and soil by light rolling. Use of heavy roller to correct irregularities in grade is not permitted.

3.3 SOD PLACEMENT ON SLOPES AND PEGGING

- .1 Not included

3.4 FERTILIZING PROGRAM

- .1 Not included

3.5 MAINTENANCE DURING ESTABLISHMENT PERIOD

- .1 Perform following operations from time of installation until acceptance.

3.6 ACCEPTANCE

- .1 Turf Grass Nursery Sod areas will be accepted by Consultant provided that:
 - .1 Sodded areas are properly established.
 - .2 Sod is free of bare and dead spots.
 - .3 Sodded areas have been cut minimum 2 times prior to acceptance.
- .2 Areas sodded in fall will be accepted in following spring one month after start of growing season provided acceptance conditions are fulfilled.

3.7 MAINTENANCE DURING WARRANTY PERIOD

- .1 Not included

3.8 CLEANING

- .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 74 21 - Construction/Demolition Waste Management And Disposal.

1.2 REFERENCES

- .1 Canadian Nursery Landscape Association (CNLA).
- .2 Ontario Ministry of Agriculture, Food and Rural Affairs.
 - .1 Pruning Ornamentals (#483)-1992.

1.3 SITE VISIT

- .1 Contractor shall visit the site work prior to submitting his bid and before starting the work. He shall be aware of existing site conditions, municipal and provincial laws in order to fully understand the scop of work to be completed including other related site constraints.

1.4 QUALIFICATIONS

- .1 Staff to possess International Society of Arboriculture and Canadian Nursery Landscape Association certification.

1.5 FIELD SAMPLE

- .1 Do sample pruning acceptable to Consultant to identify:
 - .1 Knowledge of target areas including branch bark ridge and branch collars.
 - .2 Technique for selection process and pruning used to establish desired form and shape for each species.
- .2 Acceptance of Work will be determined by Consultant from field sample.

1.6 WASTE MANAGEMENT AND DISPOSAL

- .1 Dispose of unused disinfectant at official hazardous material collections site approved by Consultant.
- .2 Do not dispose of unused disinfectant into sewer system, into streams, lakes, onto ground or in other location where it will pose health or environmental hazard.

1.7 MAINTENANCE

- .1 Tool maintenance:
 - .1 Ensure that tools are clean and sharp throughout pruning operation. Do not use tools which crush or tear bark.
 - .2 Disinfect tools before each tree is pruned.
 - .3 On diseased plant material disinfect tools before each cut.

2.0 PRODUCTS

2.1 DISINFECTANT

- .1 20% solution of sodium hypochlorite or 70% solution of ethyl alcohol.

3.0 EXECUTION

3.1 GENERAL

- .1 Prune in accordance with Pruning Ornamentals, and as directed by Consultant. Where discrepancies occur between standard and specifications, specifications govern.
- .2 Notify immediately Consultant conditions detrimental to health of plant material or operations.
- .3 Prune during plant dormant period or after leaves have matured. Avoid pruning during leaf formation, at time of leaf fall, or when seasonal temperature drops below minus 10° C.
- .4 Prune each species when in full leaf.
- .5 Retain natural form and shape of plant species.
- .6 Do not:
 - .1 Flush cut branches.
 - .2 Crush or tear bark.
 - .3 Cut behind branch bark ridge.
 - .4 Damage branch collars.
 - .5 Damage branches to remain.

3.2 PRUNING

- .1 Remove dead, dying, diseased and weak growth [from plant material designated by Consultant in order to promote healthy growth.
- .2 Remove live branches that:
 - .1 Interfere with healthy development and structural strength including branches crossed or rubbing more important branches.
 - .2 Are of weak structure including narrow crotches.
 - .3 Obstruct development of more important branches.
 - .4 Are broken.
- .3 Remove live branches to re-establish natural species form including:
 - .1 One or more developing leaders.
 - .2 Multiple growth due to previous topping.
 - .3 Branches extending outward from natural form.
 - .4 Undesirable sucker growth.
- .4 Remove loose branches, twigs and other debris lodged in tree.
- .5 Remove vines.
- .6 For branches under 50 mm in diameter:
 - .1 Locate branch bark ridge and make cuts smooth and flush with outer edge of branch collar to ensure retention of branch collar. Cut target area to bottom of branch collar at angle equal to that formed by line opposite to branch bark ridge.
 - .2 Make cuts on dead branches smooth and flush with swollen callus collar. Do not injure or remove callus collar.
 - .3 Do not cut lead branches unless directed by Consultant.
- .7 For branches greater than 50 mm in diameter:
 - .1 Make first cut on lower side of branch 300 mm from trunk, one third diameter of branch.
 - .2 Make second cut on upper side of branch 500 mm from trunk until branch falls off.
 - .3 Make final cut adjacent to and outside branch collar.

- .8 Ensure that trunk bark and branch collar are not damaged or torn during limb removal. Repair areas which are damaged, or remove damaged area back to next branch collar.
- .9 Remove additional growth designated by Consultant.

3.3 ROOT GIRDLING

- .1 For girdling roots one-quarter size of trunk diameter or larger, V-cut girdling root one-half way through at point where root is crossing.
- .2 Remove exposed portion of girdling root as directed by Consultant after cleanly cutting root flush with grade on each side of parent root. Do not injure bark or parent root.

3.4 CARE OF WOUNDS

- .1 Shape bark around wound to oblong configuration ensuring minimal increase in wound size. Retain peninsulas of existing live bark.

3.5 CLEAN-UP

- .1 Collect and dispose of applicable pruned material.

END OF SECTION

Part 1 **General**

1.1 **DESCRIPTION**

This section specifies the systems for water derivation shall be put in place to dry up part of site and excavations where works will be implemented for the two dams described by drawings and specifications. It includes all equipment and materials required for its construction, operation and for its removal at the end of the work. It also includes the supply and installation turbidity curtains and incidental works. Contractor shall use the method of his choice to be reviewed/approved by the Engineer. Contractor shall refer to General Condition GC3.4.5 stipulating that temporary structures and construction methodologies are of the sole responsibility of Contractor, dewatering systems or cofferdams being considered as temporary structures and construction methodologies. Avoid dispersion of any materials in the waterways.

Under normal summer water level, water diversion with pumping of water shall be required for Dennison dam for the item 5 below - Thickening of Spillway Central Slab where water is confined. It may be also required to prepare part of the work for item 5 below - Concrete Work under spillway slabs.

Under normal summer water level, concrete repair inside the corner of Fortune Lake dam may require a small dewatering area with water pump and small cofferdam made of sand bags and membrane or others devices to Contractor's choice over a length of 1.5 to 2 m.

- .1 The work includes but is not limited to:
 - .1 The design, construction and maintenance of small cofferdam considered temporary structures as required to facilitate concrete work to inside corner of Fortune Lake dam as indicated on the drawings.
 - .2 Design, provision and maintenance of a water pumping system for the diversion of water over the dams so top remove water from the work spaces and to maintain these spaces in the dry state.
 - .3 Removal of water from the work spaces and the continued maintenance of these spaces in the dry state for the duration of the work to meet work requirements and environmental regulations.
 - .4 Supply of standby equipment to replace dewatering equipment which malfunctions.
- .2 This work is part of NCC General Condition GC3.4.5 stipulating sole responsibility of contractors for temporary structures and other temporary installations, as well as construction methodologies.

1.2 **RELATED SECTION**

- .1 Section 01 35 43 — Environmental Protection
- .2 Section 31 24 13 — Excavation, Embankments and Compaction
- .3 Section 02 41 16 — Demolition of Structures

1.3 REGULATORY REQUIREMENTS

- .1 Adhere to local, provincial & federal requirements relating to:
 - .1 Protection of environment;
 - .2 Safety of construction;
 - .3 Protection of workers.
- .2 Installation of cofferdams must be approved by Department of Fisheries and Oceans in accordance with Fisheries Act.
- .3 Pumping water out of dam and small cofferdam: to Section 01 35 43 – Environmental Protection.
- .4 Obtain and pay costs of, all required permits.

1.4 SUBMITTALS

- .1 Shop drawings of cofferdam and other dewatering systems.
 - .1 Shop drawings must be signed and sealed by an Engineer member of the Order of Engineers of Quebec (OIQ).
- .2 Submit detail sketch to Regulatory Agencies, as required to satisfy conditions for granting of permits.

1.5 QUALIFICATIONS OF DESIGNER

- .1 La Designer of cofferdam and other related dewatering structures must be a Professional Engineer with considerable expertise and experience in design of similar structures and systems.
- .2 Designer must: make, check and sign all calculations; check, seal and sign all drawings; inspect dewatering structures and systems on site and verify their adequacy and safety.

1.6 DESIGN CRITERIA

- .1 Design cofferdams to ensure maintenance of work spaces in a dry state for duration of work.
- .2 Plan and design dewatering systems considering:
 - .1 Access to cofferdams and access to reach any portion of Work.
 - .2 Space required for crews to work in dewatered areas.
 - .3 Sequence of Work.
 - .4 Water levels.
 - .5 Environmental regulations and requirements.
- .3 Assurer at all times, maintain environmental quality of water to Section 01 35 43 — Environmental Protection.
- .4 Assurer Ensure that no phase of Work threatens safe performance of cofferdam.

- .5 The cofferdams are not to obstruct more than two-thirds of the watercourse width when simultaneously present on each side of the watercourse.

1.7 WATER LEVELS

- .1 A water level is indicated on the plans. The Contractor must confirm the actual water level on site.

1.8 ENVIRONMENTAL REQUIREMENTS

- .1 Dispose of water so that it does not create a safety or health hazard; or cause damage to the environment, to adjacent property or to any portion of Work.
- .2 Do not release any silt or other materials into watercourse during construction or removal of cofferdams.

1.9 PROTECTION

- .1 Protect cofferdam and dewatered work spaces from damage due to floods, rain, ice, snow or other adverse climatic conditions.

Part 2 PRODUCTS

2.1 MATERIALS

- .1 In good condition, approved by Departmental Representative and suitable for their use in Work.
- .2 Do not use materials which may cause environmental damage to waterway or to land at or near site.
- .3 Materials & methods proposed for use in cofferdam and water pumping must be approved by Engineer.
- .4 Earth or granular materials with sand and fines is not acceptable.
- .5 If using sandbags, sand must be washed of fines before placing in water.
- .6 Note that Fisheries & Oceans prefers gravel/rock fill with rubber membrane, caissons, rubber dams, sheet piling, bolted pre—engineered frame—type structures, or other types of cofferdams which do not generate turbidity.
- .7 Materials used to build earthfill cofferdams shall not have more than 10% of fine material screening through 80 microns sieve, as fine particules stay in suspension in water.

Part 3 EXECUTION

3.1 GENERAL

- .1 Evaluate, plan and execute Work in an expert & prudent manner giving due consideration to:
 - .1 Climatic conditions which may occur at work location during period of doing work in its entirety.
 - .2 Safety of personnel and of general public.
 - .3 Safety of Work and of adjacent property.
 - .4 Safety of removals.
 - .5 Environmental requirements.
 - .6 Clearance requirements for Work.
 - .7 Changes in water levels

3.2 DEWATERING

- .1 Dewater work spaces and maintain them in a fully dewatered state until Work is finished.
- .2 Continue dewatering operations, to enable Work to proceed in the dry, for duration of Work.
- .3 Repeat entire dewatering procedure as often as may be necessary if flooding or other damage occurs before completion of Work.

3.3 EQUIPEMENT

- .1 General:
 - .1 Provide equipment in safe operating condition & maintain it in a safe operating condition for entire period of use and/or standby for use on Work. Refer to sketch at the end of this Section.
 - .2 Provide skilled operators for equipment.
- .2 Normes et performance:
 - .1 Provide equipment of such quality and in such quantity as to provide sufficient capability to perform essential functions of Work.
 - .2 Provide standby replacement for pumps and other essential dewatering equipment which may break down during Work.
 - .3 Keep this replacement equipment available on Site for immediate use.

3.4 COFFERDAM REMOVAL

- .1 At approved stages in Work remove all cofferdam, temporary structures, and dewatering systems to original bottom level.
- .2 Do not dispose of any materials in canal.
- .3 Turbidity curtain is to be removed once cofferdam is removed.

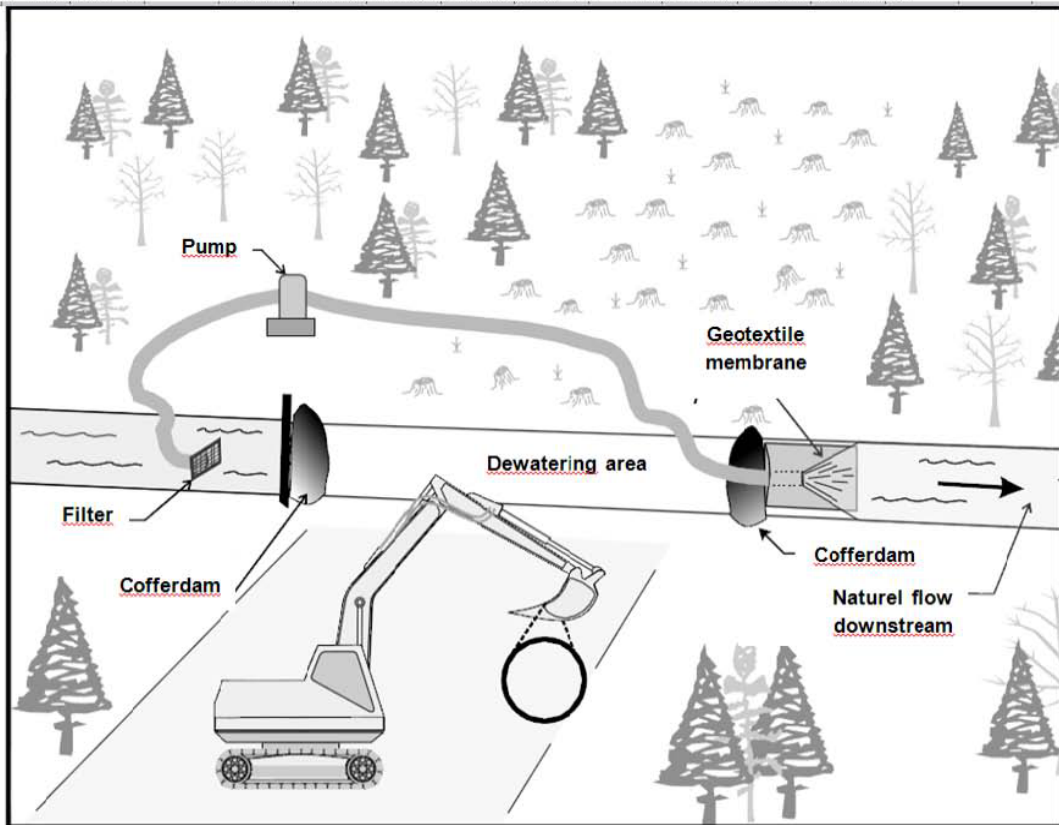
3.5 CLEANING

- .1 According to section 01 74 11 - Cleaning.

Example of diversion of waterways by water pumping over the dams:

Only part of the illustration for water pumping system over the dam is mandatory. Water filter attached to upstream extremity of water pipe/hose and geotextile membrane attached to downstream extremity of water pipe/hose shall be used.

APPENDIX 4 SKETCH SHOWING DIVERSION OF THE STREAM BY PUMPING



Adapted of *L'aménagement des ports et des ponceaux dans le milieu forestier*, Ministère des Ressources naturelles (1997)

END OF SECTION

1.0 GENERAL

1.1 RELATED WORK

- .1 Section 01 74 21 - Construction/Demolition Waste Management And Disposal.
- .2 Section 31 32 21 - Geotextiles.
- .3 Section 31 05 17 – Aggregates.

1.2 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal.

1.3 SCHEDULING

- .1 Provide Consultant with schedule of Work for approval, at least 4 weeks prior to start of construction.

2.0 PRODUCTS

2.1 MATERIALS

- .1 Stone revetments should be hard, dense, durable quarry stone, free from seams, cracks or other structural defects, to meet following size distribution for use intended :
 - .1 Stones caliber 200-300 mm not less than 50 % of total volume of stones with individual volume of 250 mm or more.
 - .2 Remaining percentage of total volume to have uniform distribution of stones between specified caliber.
- .2 Underlayer stone :
 - .1 Hard, durable, abrasion-resistant material which will not disintegrate under wave action or wet-dry, freeze-thaw cycles; to Consultant's approval.
 - .2 Angular in shape with ratio of maximum to minimum dimensions not exceeding 3, free of weak cleavage planes, hairline cracks or laminations.
 - .3 Relative density (formerly specific gravity): to ASTM C 127, not less than 2.65.

- .4 Absorption: to ASTM C 127, maximum of 2.0 %.
- .5 Los Angeles degradation test: to ASTM C 535, with 45 % maximum loss.
- .3 Geotextiles: in accordance with Section 31 32 21 - Geotextiles.

3.0 EXECUTION

3.1 GRADING

- .1 Grade shoreline, bank slope to lines and grades indicated.
- .2 Excavated material to be used as fill requires approval before placing.
 - .1 Remove from site, material rejected for fill or surplus to fill requirements.
- .3 Place borrow material approved by Consultant where required to bring surfaces to required levels.

3.2 GEOTEXTILE FILTER

- .1 Place geotextile as indicated, free from wrinkles, with side overlap not less than 600 mm in accordance with Section 31 32 21 - Geotextiles.

3.3 UNDERLAYER STONE

- .1 Do not disturb existing surface when placing underlayer stone. Do not end dump unless approved by Consultant.
- .2 Thickness: 50 mm

3.4 ARMOUR STONE

- .1 Place armour stone on completed underlayer stone layers of slope. Placing to be random to thickness as indicated.
- .2 Do not end dump stone units. Begin placement at toe of slope and proceed up slope in placing each layer. Place each stone to ensure stability, secure on slope and supported by stone below. Control placement of stone units to produce uniform and continuous cover of overlapping units.

3.5 TEMPORARY PROTECTION

- .1 Do not leave each phase of Work exposed for an undue period of time, during revetment construction.

- .2 Consultant may order excavation to be stopped or may order placing of final protective stone layers to be advanced, depending on anticipated weather conditions.

END OF SECTION

1.0 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 35 43 - Environmental Protection

1.2 ENVIRONMENTAL REQUIREMENTS

- .1 Operation of construction equipment in water is prohibited.
- .2 Dumping excavated fill, waste material, or debris in watercourse is prohibited.

2.0 PRODUCTS

2.1 PREPARATION

- .1 Obtain work permits from governing Federal, Provincial and/or Municipal Conservation authority.

3.0 EXECUTION

3.1 EXISTING CONDITIONS

- .1 Maintain existing flow pattern in natural watercourse systems.
- .2 In natural systems maintain existing riffle/pool and step/pool patterns.

3.2 SITE CLEARING AND PLANT PROTECTION

- .1 Conduct work to provide minimal disturbance to vegetated buffer zones. Protect trees and plants on site and adjacent properties where indicated.
- .2 Protect, trees and shrubs adjacent to construction work, storage areas and trucking lanes.
- .3 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zone.
- .4 Leave cuttings from trees and other vegetation on site as brush piles to allow for natural degradation. Secure large piles with degradable materials to prevent interference with watercourse.
- .5 Remove only trees that may offer future blockage problems as instructed by Consultant.

- .6 Leave roots mass and stumps in place.
- .7 Maintain temporary erosion and pollution control features installed under this contract.

3.3 DRAINAGE

- .1 Pumping water containing suspended materials into watercourse is prohibited.
- .2 Establish rock chute spillways to accommodate safe surface water entry to watercourse as instructed by the Consultant.

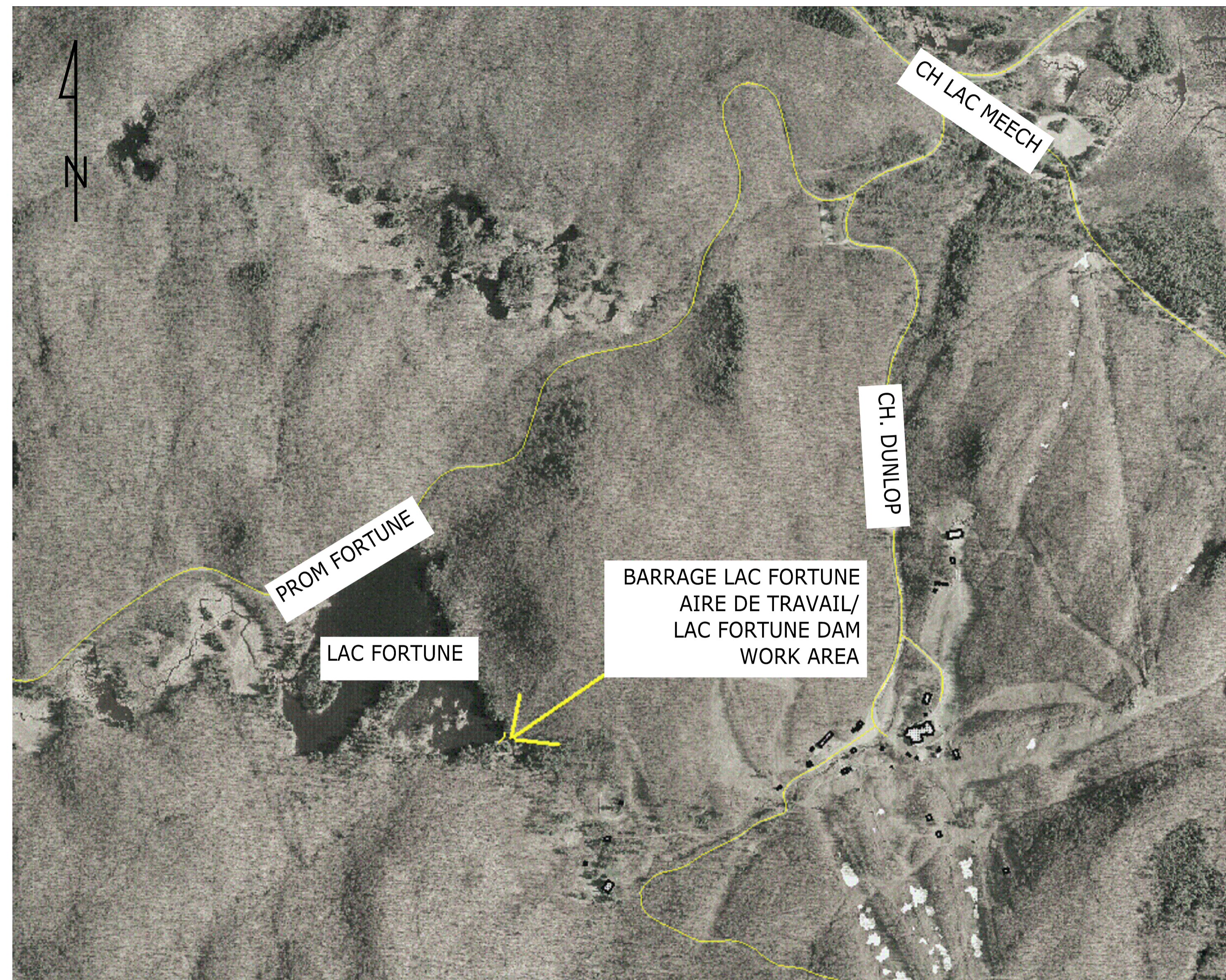
END OF SECTION



PARC DE LA GATINEAU - GATINEAU PARK

RÉHABILITATION DU BARRAGE DENNISON/ DENNISON DAM REHABILITATION CHELSEA

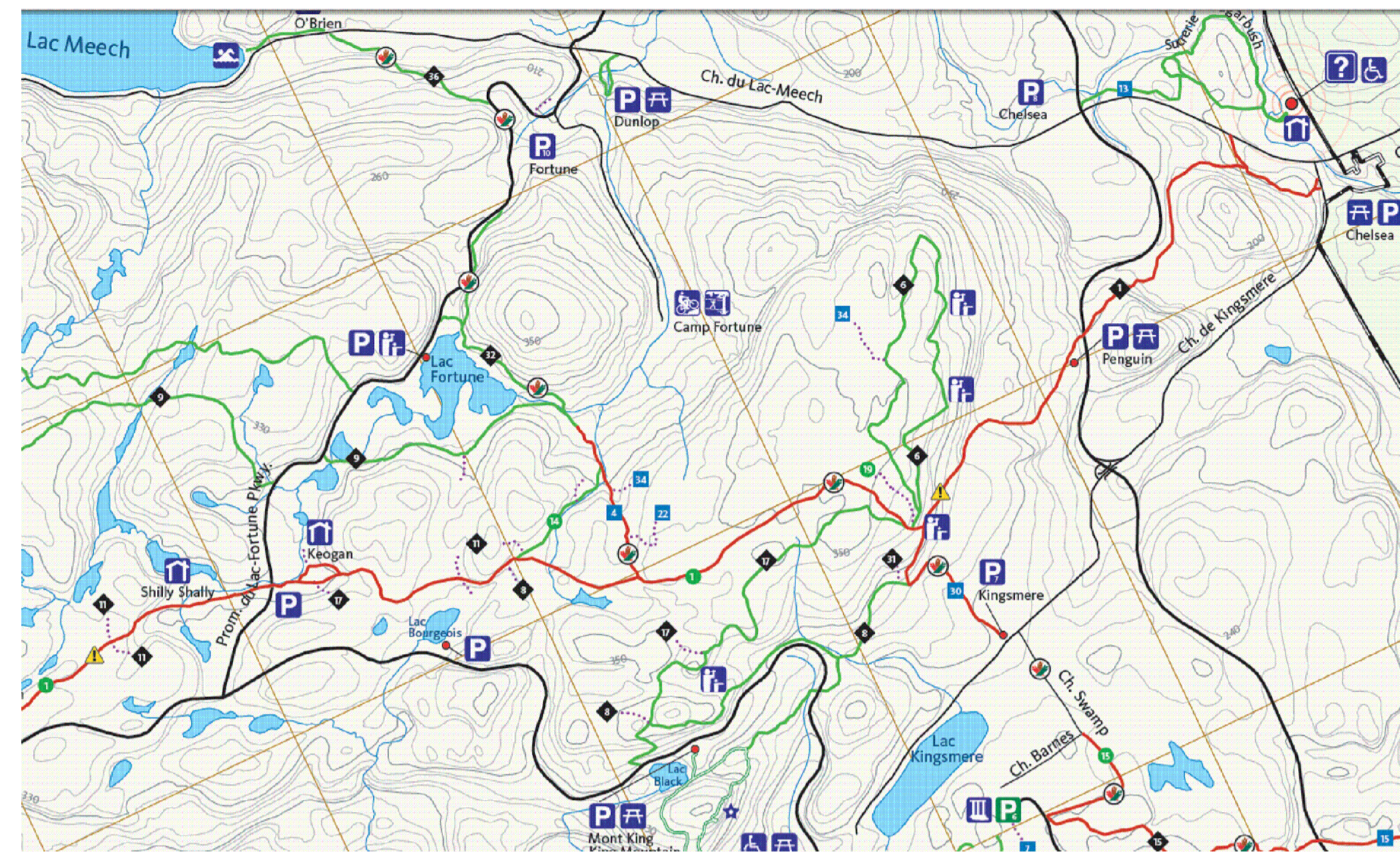
CONTRACT/CONTRAT No. DC3000-14-1



PARC DE LA GATINEAU - GATINEAU PARK

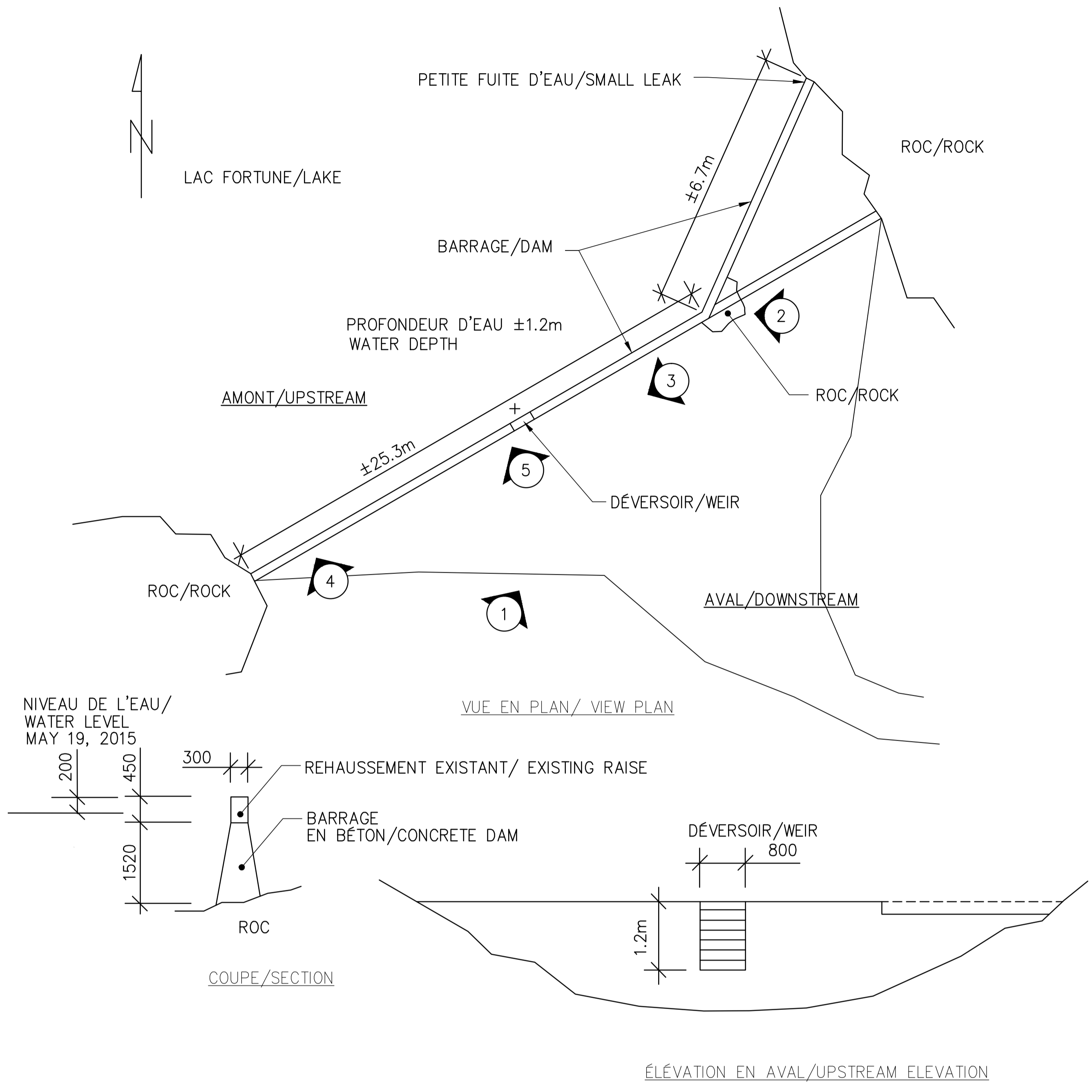
RÉHABILITATION DU BARRAGE LAC FORTUNE/ LAC FORTUNE DAM REHABILITATION CHELSEA

CONTRACT/CONTRAT No. DC3000-14-1



L'ACCÈS AU BARRAGE EST PLUS FACILE PAR LE SENTIER NO. 9 QUE LE SENTIER NO.32 (RÉFÉRER À LA CARTE CI-HAUT), VENANT DU SENTIER NO.4 QUI PART DU CHALET DES ÉRABLES DU CAMP FORTUNE, CHELSEA. LE SENTIER NO. 32 EST MOINS CARROSSABLE QUE LE SENTIER NO. 9. LES SENTIERS PEUVENT ÊTRE UTILISÉS PAR DE PETITS CAMIONS ET TOUT DOMMAGE AUX SENTIERS DOIT ÊTRE RÉPARÉ.
ACCESS TO DAM IS EASIER BY TRAIL NO. 9 THAN TRAIL NO. 32 (REFER TO MAP ABOVE), COMING FROM TRAIL NO. 4 STARTING FROM CHALET DES ÉRABLES DU CAMP FORTUNE, CHELSEA. TRAILS MAY BE USED BY SMALL TRUCKS AND ALL DAMAGE TO TRAILS SHALL BE REPAIRED.

CARTE DES SENTIERS/
TRAIL MAP



issued or revised
émis ou révisé

no.	description	date
1	SOUSSION/TENDER	27 JUL. 2015

project
projet

RÉHABILITATION DU
BARRAGE DU LAC FORTUNE

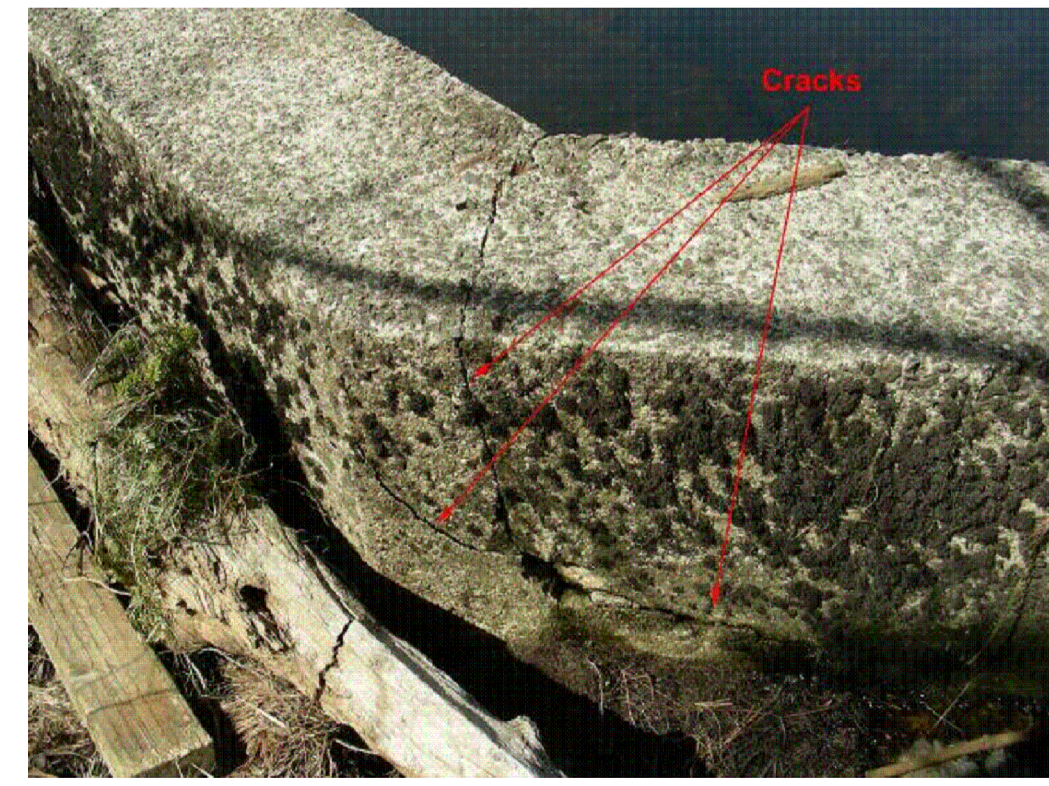
LAC FORTUNE DAM
REHABILITATION

drawing
dessin

CONDITIONS EXISTANTES
EXISTING CONDITIONS

approved by
approuvé par B. REID
designed by
conçu par B. REID
drawn by
dessiné par M. VILLENEUVE
date JAN 2015 scale AUCUNE
no. du projet de la CCN sheet no. NONE
no. de la feuille

ÉTENDUE DES TRAVAUX / SCOPE OF WORK:



ÉTENDUE DES TRAVAUX / SCOPE OF WORK:



DES ENLÈVEMENTS ET RÉPARATIONS DE BÉTON DOIVENT ÊTRE FAITS À ENVIRON 7 ENDROITS TEL QUE DÉCRIT DANS LES DEVIS.
REMOVAL AND REPAIRS OF CONCRETE SHALL BE DONE AT ABOUT 7 LOCATIONS AS DESCRIBED IN THE SPECIFICATIONS.

LA MEMBRANE EXISTANTE DANS LE COIN DU BARRAGE DOIT ÊTRE JOINTÉE ET EXTENSIONNÉE AVEC UNE NOUVELLE MEMBRANE AVANT DE FAIRE LA RÉPARATION DE BÉTON.
THE EXISTING MEMBRANE IN THE CORNER OF THE DAM SHALL BE JOINTED AND EXTENDED WITH A NEW MEMBRANE BEFORE DOING THE CONCRETE REPAIRS.

PHOTOS DU SITE/
SITE PHOTOGRAPHS