

RETURN TENDERS TO: National Capital Commission 40 Elgin Street, Security Office on the 2 nd floor Ottawa, ON K1P 1C7	NCC Tender Number AL1792
	NCC Contract Number
TENDER CLOSING DATE AND TIME: Thursday, April 4, 2019 at 3:00 p.m., Ottawa time	

DESCRIPTION OF WORK: Emerald Ash Borer Replacement Program - Spring 2019 – Lot #1 Aviation Pathway, Mud Lake Pathway, Bronson Park, and, King Edward Park

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:

AVIATION PATHWAY SUBTOTAL	\$	
MUD LAKE PATHWAY SUBTOTAL	\$	
BRONSON PARK SUBTOTAL	\$	
KING EDWARD PARK SUBTOTAL	\$	
MAIN SUB TOTAL	\$	
HST – 13%	\$	
TOTAL ESTIMATED AMOUNT	\$	

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The tender shall not be withdrawn for a period of 60 days following the date and time of tender closing.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 AL1792

NCC Contract Number

5. APPENDICES

The tender includes Appendix(ces) Nos I and II 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 begin work as soon as possible and complete locates, site preparation, pathway construction, furniture assembly and installation, and minimum 80% of planting operations including, installation of tree accessories and mulching requirements on or before June 15th, 2019. A maximum of 20% of tree planting and associated accessories and mulching can be extended until Sept 30th 2019 with the approval of the NCC Representative. Tree maintenance is the responsibility of the Contractor until the end of the warranty period as per Section 32 93 10, Tree and Shrub Planting. Complete asphalt and furniture installation before planting in areas where the two types of work are adjacent.

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 (excluding taxes) and the Estimated Total Price (excluding taxes) must be entered for each item listed;
- (c) the Price per Unit (excluding taxes) as tender governs in calculating the Total Estimated Amount, and any errors in the extension of the Price per Unit (excluding taxes) 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

AVIATION PATHWAY / SENTIER DE LA PROMENADE DE L'AVIATION

Item No.	Description / Description	Unit / Unité	Qty / Qté	Plant Warranty Category / Catégorie de garantie	Plant Maintenance Category / Catégorie d'entretien	Unit Price / Prix unitaire	Total Amount / Montant total
1.0 Site Preparation / Préparation du site							
1.1	Mobilization and general requirements / Mobilisation et exigences générales	lump sum / base forfaitaire	1	N/A	N/A	\$	\$
1.2	Installation and removal of snow fencing and signage supplied by the NCC including transportation to and from the Woodroffe storage facility / Installation et enlèvement de clôtures à neige et de signalisation fournis par la CCN incluant le ramassage et le retour de la fourniture à l'entrepôt de la CCN (approx. 30m.l.)	hourly rate / taux horaire (2 worker crew / équipe de 2 travailleurs)	16	N/A	N/A	\$	\$
2.0 Pathway Improvements / Améliorations du sentier							
2.1	Asphalt (supply and installation) / Asphalte (fourniture et installation)	m ²	145	N/A	N/A	\$	\$
3.0 Site Furnishings / Mobiliers							
3.1	Waste receptacles (installation) / Paniers à rebuts (installation)	ea. / ch.	3	N/A	N/A	\$	\$
3.2	Benches (installation) / Banc (installation)	ea. / ch.	3			\$	\$
4.0 Softscape / Aménagement paysager							
CLASS C1: 50mm W/B Caliper Deciduous Trees CLASSE C1: Arbres à feuilles caduques, 50mm (motte)							
4.1a	Downy Serviceberry / Amélanchier canadensis (<i>Amelanchier arborea</i>)	ea. / ch.	5	WG1	ME1	\$	\$
4.1b	Hackberry / Micocoulier occidental (<i>Celtis occidentalis</i>)	ea. / ch.	3			\$	\$
4.1c	Honeylocust / Févier épineux (<i>Gleditsia triacanthos</i>)	ea. / ch.	3			\$	\$
4.1d	Red Oak / Chêne rouge (<i>Quercus rubra</i>)	ea. / ch.	2			\$	\$

CLASS C1: 180cm ht Coniferous Trees							
CLASSE C1: Conifères, 180cm ht.							
4.1e	White Spruce / Épinette blanche (<i>Picea glauca</i>)	ea. / ch.	5	WG1	ME1	\$	\$
CLASS C2: 3 Gallon Deciduous Trees							
CLASSE C2: Arbres à feuilles caduques, 3 gallons (contenant)							
4.1f	Red Maple / Érable rouge (<i>Acer rubrum</i>)	ea. / ch.	27	WG1	ME1	\$	\$
4.1g	Silver Maple (<i>Acer saccharinum</i>)	ea. / ch.	26			\$	\$
4.1h	Sugar Maple / Érable à sucre (<i>Acer saccharum</i>)	ea. / ch.	7			\$	\$
4.1i	Downy Serviceberry / Amélanchier canadien (<i>Amelanchier arborea</i>)	ea. / ch.	2			\$	\$
4.1j	Yellow Birch / Bouleau jaune (<i>Betula allegheniensis</i>)	ea. / ch.	18			\$	\$
4.1k	Blue Beech / Charme de Caroline (<i>Carpinus caroliniana</i>)	ea. / ch.	3			\$	\$
4.1l	Bitternut Hickory / Caryer cordiforme (<i>Carya cordiformis</i>)	ea. / ch.	4			\$	\$
4.1m	Ironwood / Ostryer de Virginie (<i>Ostrya virginiana</i>)	ea. / ch.	27			\$	\$
4.1n	Trembling aspen / Peuplier faux-tremble (<i>Populus tremuloides</i>)	ea. / ch.	13			\$	\$
4.1o	Black Cherry (<i>Prunus serotina</i>)	ea. / ch.	5			\$	\$
4.1p	White Oak / Chêne blanc (<i>Quercus alba</i>)	ea. / ch.	8			\$	\$
4.1q	Bur Oak / Chêne à gros fruits (<i>Quercus macrocarpa</i>)	ea. / ch.	28			\$	\$
4.1r	Red Oak / Chêne rouge (<i>Quercus rubra</i>)	ea. / ch.	11			\$	\$
4.1s	Basswood / Tilleul d'Amérique (<i>Tilia americana</i>)	ea. / ch.	29	\$	\$		
CLASS C2: 3 Gallon Coniferous Trees							
CLASSE C2: Conifères, 3 gallons (contenant)							
4.1t	White Spruce / Épinette blanche (<i>Picea glauca</i>)	ea. / ch.	6	WG1	ME1	\$	\$
4.1u	Eastern White Pine / Pin blanc (<i>Pinus strobus</i>)	ea. / ch.	3			\$	\$
4.1v	Eastern White Cedar / Thuya occidental (<i>Thuja occidentalis</i>)	ea. / ch.	5			\$	\$
CLASS C2: 3 Gallon Shrubs							
CLASSE C2: Arbustes, 3 gallons (contenant)							
4.1w	Alternate Leaved Dogwood / Cornouiller à feuilles étroites (<i>Cornus alternifolia</i>)	ea. / ch.	8	WG1	ME1	\$	\$
4.1x	Bush Honeysuckle (<i>Diervilla lonicera</i>)	ea. / ch.	19			\$	\$

4.1y	Witch Hazel / Hamamélis de virginie (<i>Hamamelis virginiana</i>)	ea. / ch.	6		\$	\$
4.1z	Chokecherry / Cerisier de Virginie (<i>Prunus virginiana</i>)	ea. / ch.	20		\$	\$
4.1aa	Staghorn Sumac (<i>Rhus typhina</i>)	ea. / ch.	19		\$	\$
4.1bb	Wild Black Currant (<i>Ribes americanum</i>)	ea. / ch.	16		\$	\$
4.1cc	Purple Flowering Raspberry (<i>Rubus odorata</i>)	ea. / ch.	11		\$	\$
4.1dd	Nannyberry / Viorne flexible (<i>Viburnum lentago</i>)	ea. / ch.	20		\$	\$
AVIATION PATHWAY / SENTIER DE LA PROMENADE DE L'AVIATION SUBTOTAL						\$

MUD LAKE PATHWAY / SENTIER DU LAC MUD

Item No.	Description / Description	Unit / Unité	Qty / Qté	Plant Warranty Category / Catégorie de garantie	Plant Maintenance Category / Catégorie d'entretien	Unit Price / Prix unitaire	Total Amount / Montant total
1.0 Site Preparation / Préparation des sites							
1.1	Mobilization and General Requirements / Mobilisation et exigences générales	lump sum/ base forfaitaire	1	N/A	N/A	\$	\$
2.0 Softscape / Aménagement paysager							
CLASS C1: W/B Caliper Deciduous Trees / CLASSE C1: Arbres à feuilles caduques (motte)							
Sizes indicated below / Tailles indiquées ci-dessous							
2.1a	Freeman's Maple / Érable Freeman (<i>Acer fremanii</i>) 50mm	ea. / ch.	2	WG1	ME1	\$	\$
2.1b	Red Maple / Érable rouge (<i>Acer rubrum</i>) 60mm	ea. / ch.	6	WG1	ME1	\$	\$
2.1c	Silver Maple / Érable argenté (<i>Acer saccharinum</i>) 80mm	ea. / ch.	3	WG1	ME1	\$	\$
2.1d	Sugar Maple / Érable à sucre (<i>Acer saccharum</i>) 60mm	ea. / ch.	2	WG1	ME1	\$	\$
2.1e	Downy Serviceberry / Amélanchier canadensis (<i>Amelanchier arborea</i>) 50mm	ea. / ch.	3	WG1	ME1	\$	\$
2.1f	Yellow Birch / Bouleau jaune (<i>Betula allegheniensis</i>) 50mm	ea. / ch.	3	WG1	ME1	\$	\$
2.1g	Hackberry / Micocoulier occidental (<i>Celtis occidentalis</i>) 80mm	ea. / ch.	4	WG1	ME1	\$	\$
2.1h	Black Walnut / Noyer noire (<i>Juglans nigra</i>) 70mm	ea. / ch.	5	WG1	ME1	\$	\$
2.1i	Ironwood / Ostryer de Virginie (<i>Ostrya virginiana</i>) 60mm	ea. / ch.	5	WG1	ME1	\$	\$
2.1j	Trembling Aspen / Peuplier faux-tremble (<i>Populus tremuloides</i>) 50mm	ea. / ch.	2	WG1	ME1	\$	\$
2.1k	White Oak / Chêne blanc (<i>Quercus alba</i>) 70mm	ea. / ch.	2	WG1	ME1	\$	\$
2.1l	Bur Oak / Chêne à gros fruits (<i>Quercus macrocarpa</i>) 50mm	ea. / ch.	6	WG1	ME1	\$	\$
2.1m	Red Oak / Chêne rouge (<i>Quercus rubra</i>) 60mm	ea. / ch.	8	WG1	ME1	\$	\$

INVITATION TO TENDER & ACCEPTANCE FORM

2.1n	Basswood / Tilleul d'Amérique (<i>Tilia americana</i>) 70mm	ea. / ch.	5	WG1	ME1	\$	\$
CLASS C1: Coniferous Trees (W/B or container) / CLASSE C1: Conifères (motte ou contenant) Sizes indicated below / Tailles indiquées ci-dessous							
2.1o	Larch / Mélèze laricin (<i>Larix laricina</i>) 180cm ht	ea. / ch.	4	WG1	ME1	\$	\$
2.1p	White Spruce / Épinette blanche (<i>Picea glauca</i>) 200cm ht	ea. / ch.	8	WG1	ME1	\$	\$
2.1q	Eastern White Pine / Pin blanc (<i>Pinus strobus</i>) 150cm	ea. / ch.	7	WG1	ME1	\$	\$
MUD LAKE PATHWAY / SENTIER DU LAC MUD SUBTOTAL							\$

BRONSON PARK / PARC BRONSON

Item No.	Description / Description	Unit / Unité	Qty / Qté	Plant Warranty Category / Catégorie de garantie	Plant Maintenance Category / Catégorie d'entretien	Unit Price / Prix unitaire	Total Amount / Montant total
1.0 Site Preparation / Préparation des sites							
1.1	Mobilization and General Requirements / Mobilisation et exigences générales	lump sum/ base forfaitaire	1	N/A	N/A	\$	\$
1.2	190m ² , 0.5m high (max) planting mound / Butte de 190m ² à 0.5m de hauteur (max)	lump sum/ base forfaitaire	1	N/A	N/A	\$	\$
2.0 Softscape / Aménagement paysager							
CLASS C1: 50mm W/B Caliper Deciduous Trees CLASSE C1: Arbres à feuilles caduques, 50mm (motte)							
2.1a	Freeman's Maple / Érable Freeman (<i>Acer fremanii</i>)	ea. / ch.	2	WG1	ME1	\$	\$
CLASS C1: 150cm ht Coniferous Trees CLASSE C1: Conifères, 150cm hauteur (motte)							
2.1b	White Spruce / Épinette blanche (<i>Picea glauca</i>)	ea. / ch.	5	WG1	ME1	\$	\$
2.1c	Eastern White Pine / Pin blanc (<i>Pinus strobus</i>)	ea. / ch.	5	WG1	ME1	\$	\$
CLASS C2 7 Gallon Shrubs CLASS C2 Arbustes , 7 gallons (contenant)							
2.1d	Dwarf Eastern White Pine / Pin blanc nain (<i>Pinus strobus</i> 'Nana')	ea. / ch.	22	WG1	ME1	\$	\$
GROUNDCOVER / COUVERTURE VÉGÉTALE							
2.2	Supply and install sod / Fournir et installer du gazon en plaques	m ²	62	N/A	N/A	\$	\$
BRONSON PARK / PARC BRONSON SUBTOTAL							\$

KING EDWARD PARK / PARC KING EDWARD

Item No.	Description / Description	Unit / Unité	Qty / Qté	Plant Warranty Category / Catégorie de garantie	Plant Maintenance Category / Catégorie d'entretien	Unit Price / Prix unitaire	Total Amount / Montant total
1.0 Site Preparation / Préparation des sites							
1.1	Mobilization and General Requirements / Mobilisation et exigences générales	lump sum/ base forfaitaire	1	N/A	N/A	\$	\$
2.0 Softscape / Aménagement paysager							
CLASS C1: W/B Caliper Deciduous Trees / CLASSE C1: Arbres à feuilles caduque (motte) Sizes indicated below / Tailles indiquées ci-dessous							
2.1a	Red Maple / Érable rouge (<i>Acer rubrum</i>) 50mm	ea. / ch.	6	WG1	ME1	\$	\$
2.1b	Silver Maple / Érable argenté (<i>Acer saccharinum</i>) 60mm	ea. / ch.	4	WG1	ME1	\$	\$
2.1c	Sugar Maple / Érable à sucre (<i>Acer saccharum</i>) 70mm	ea. / ch.	1	WG1	ME1	\$	\$
2.1d	Downy Serviceberry / Amélanchier canadensis (<i>Amelanchier arborea</i>) 50mm	ea. / ch.	2	WG1	ME1	\$	\$
2.1e	Yellowwood / Virgilier à bois jaune (<i>Cladrastrus lutens</i>) 70mm	ea. / ch.	1	WG2	ME2	\$	\$
2.1f	Honeylocust / Févier épineux (<i>Gleditsia triacanthos</i>) 80mm	ea. / ch.	6	WG1	ME1	\$	\$
2.1g	Kentucky Coffeetree / Chicot févier (<i>Gymnocladus dioicus</i>) 70mm	ea. / ch.	1	WG2	ME2	\$	\$
2.1h	Black Walnut / Noyer noir (<i>Juglans nigra</i>) 60mm	ea. / ch.	2	WG1	ME1	\$	\$
2.1i	White Oak / Chêne blanc (<i>Quercus alba</i>) 50mm	ea. / ch.	1	WG1	ME1	\$	\$
2.1j	Red Oak / Chêne rouge (<i>Quercus rubra</i>) 70mm	ea. / ch.	1	WG1	ME1	\$	\$
2.1k	Golden Weeping Willow / Saule pleurer doré (<i>Salix alba</i> "Tristis") 50mm	ea. / ch.	6	WG1	ME1	\$	\$
CLASS C1: Multistem trees (W/B or container) / CLASSE C1: Arbres arbustifs (motte ou contenant) Sizes indicated below / Tailles indiquées ci-dessous							

INVITATION TO TENDER & ACCEPTANCE FORM

2.11	Downy Serviceberry / Amélanchier canadensis (Amelanchier arborea) 175cm ht	ea. / ch.	3	WG1	ME1	\$	\$
CLASS C1: Coniferous Trees (W/B or container) / CLASSE C1: Conifères (motte ou contenant) Sizes indicated below / Tailles indiquées ci-dessous							
2.1m	White Spruce / Épinette blanche (<i>Picea glauca</i>) 180cm ht	ea. / ch.	7	WG1	ME1	\$	\$
KING EDWARD PARK / PARC KING EDWARD							
SUBTOTAL							\$

9. The basis of award is low total cost to the NCC including all taxes.

10. I/We acknowledge receipt of the following addenda: _____
 (Bidder to enter number of addenda issued, if any) and have included for the requirement of it/them in my/our tendered price.

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
--	-----------	------



INVITATION TO TENDER & ACCEPTANCE FORM

NCC Tender Number AL1792

NCC Contract Number

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: _____

Supplier No. / N° du fournisseur

New supplier / Nouveau fournisseur Update / Mise à jour

**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
IMPORTANT : CHOOSE ONLY ONE OF THE FOLLOWING/CHOISIR SEULEMENT UNE DES OPTIONS SUIVANTES:**

(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"/>	(3) Corporation / Société <input type="checkbox"/>			
Business No. (BN) / N° de l'entreprise (NE) -	OR / OU	SIN / NAS -		
GST/HST / TPS et TVH	QST / TVQ (Québec)			
Number / Numéro : Not registered / non inscrit <input type="checkbox"/>	Number / Numéro : 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 bank letter with this form / Veuillez s.v.p. envoyer un spécimen de chèque ou lettre de 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 :

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

E-mail address / Adresse courriel :

PART 'E' - EMAIL ADDRESS TO SEND CONTRACTS / PARTIE 'E' - ADRESSE COURRIEL POUR ENVOYER LES CONTRATS

E-mail address / Adresse courriel :

PART 'F' - CERTIFICATION / PARTIE 'F' - CERTIFICATION

I certify that I have examined the information provided above and it is correct and complete, and fully discloses the identification of this supplier.	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.		
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.	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.		
Name of authorized person / Nom de la personne autorisée	Title / Titre	Signature	Date
Telephone number of contact person / Numéro de téléphone de la personne ressource : ()			

IMPORTANT

Please fill in and return to the National Capital Commission with a bank letter or one of your business cheques, unsigned, and marked « VOID » (for verification purposes).	Veillez remplir ce formulaire et le retourner à la Commission de la capitale nationale avec une lettre de banque ou un spécimen de chèque de votre entreprise, non signé, et portant la mention « ANNULÉ » (à des fins de vérification).
Mail or email to: contracts@ncc-ccn.ca Procurement Services National Capital Commission 202-40 Elgin Street Ottawa, ON K1P 1C7 Fax: (613) 239-5007	Poster ou transmettre par courriel à : contracts@ncc-ccn.ca 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 Supervisor
(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.

Until we process your completed form, we will still pay you by check.

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.

There are fewer risks of direct deposit payment being lost, stolen, or damaged as may happen with cheques.

Funds made by direct deposit payment will be available in your bank account on the same day that we would have mailed your cheque.

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, Superviseure aux comptes payable
(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.

Nous continuerons à vous payer par chèque jusqu'à ce que nous ayons traité votre formulaire.

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.

Avec les paiements par dépôt direct, il y a moins de risques de perte, de vol ou de dommage, comme cela peut se produire dans le cas des chèques.

Les paiements effectués par paiement par dépôt direct sont versés dans votre compte le jour même où nous aurions posté votre chèque.

- SI01 Tender Documents
- SI02 Enquiries during the Solicitation Period
- SI03 [\[Non or Mandatory\]](#) 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 Lapensee 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 five (5) 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 [\[NON or MANDATORY\]](#) SITE VISIT

- 1) No formal site visit is scheduled; therefore bidders may visit the work locations on their own time.

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 emailing the Sr. Contract Officer, 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:

**SPECIAL INSTRUCTIONS TO
BIDDERS**

- (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 [Thursday, April 4, 2019 at 3:00pm](#) Ottawa time at 40 Elgin Street, Ottawa, ON beside the security office on the 2nd floor.

- 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	Category / Catégorie	Scale / Échelle	Points / Pointage
<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: 60px; height: 60px; margin: auto;"></div>
	Not satisfactory / Non-satisfaisant	6 – 10	
	Satisfactory / Satisfaisant	11 – 16	
	Superior / Supérieur	17 – 20	

Time / Délai d'exécution	Category / Catégorie	Scale / Échelle	Points / Pointage
<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: 60px; height: 60px; 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	Category / Catégorie	Scale / Échelle	Points / Pointage
<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: 60px; height: 60px; 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	Category / Catégorie	Scale / Échelle	Points / Pointage
<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: 60px; height: 60px; 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	Category / Catégorie	Scale / Échelle	Points / Pointage
<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: 60px; height: 60px; 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 Risk / 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 employees 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.

The NCC reserves the right to not award the Contract until such time as the Contractor's 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**.

The NCC also reserves the right to request that the Contractor submit to a *Designated Organisation Screening* and/or *Facility Security Clearance*— depending on the nature of the information it will be entrusted with. In the event that the Contractor does not meet the requirements to obtain the requested clearance, the Contractor shall take the corrective measures recommended by the Canadian Industrial Security Directorate (of PWGSC) or by the NCC's Corporate Security in order to meet these requirements. If no corrective measures are possible or if the Contractor fails to take the recommended measures, then the Contractor shall be in default of its obligations under this Contract and the NCC shall have the rights and remedies listed in section 2.14, including the right to terminate the Contract without further notice to the Contractor.

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.

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;
- They must have a security clearance (the NCC will process the clearances once the individuals have been identified).

Responsibilities of the Company Security Representative

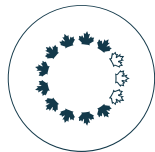
The CSR's responsibilities are the following:

- 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 employees 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

SECURITY REQUIREMENTS

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 reliability status, 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.



**NATIONAL CAPITAL COMMISSION
COMMISSION DE LA CAPITALE NATIONALE**

National Capital Commission (NCC)

**EMERALD ASH BORER REPLACEMENT PROGRAM
SPRING 2019**

**Aviation Pathway
Mud Lake Pathway
Bronson Park
King Edward Park**

LOT #1

**CONTRACT SPECIFICATIONS
FOR TENDER**

March 2019

Canada

SPECIFICATIONS	SECTION	# PAGES
Index	00 01 10	1
Aviation Pathway Pay Items Description	01 05 05	2
Bronson Park Pay Items Description	01 05 05	2
King Edward Park Pay Items Description	01 05 05	1
Mud Lake Pathway Pay Items Description	01 05 05	1
General Instructions	01 10 00	6
Payment Procedures for Testing	01 29 83	1
Submittal Procedures	01 33 00	3
Health and Safety	01 35 30	2
Environmental Protection	01 35 43	2
Construction Facilities	01 52 00	2
Cleaning	01 74 11	2
Earthworks (Bronson Park)	31 22 13	2
Aggregate Base Courses(Aviation Pathway)	32 11 23	2
Asphalt Paving (Aviation Pathway)	32 12 16	7
Topsoil and Fine Grading	32 19 21	5
Sodding	32 92 23	3
Tree and Shrub Planting 10	32 93 10	
DRAWINGS		
Aviation Planting and Pathway Improvements		L1
Aviation Pathway Construction and Planting Details		L2
Bronson Park Planting and Earthworks		L1
King Edward Park		L1
Mud Lake Pathway		L1
INFORMATION SHEETS		
Common Buckthorn		
Poison Ivy		
Stinging Nettle		
Tick Safety		
West Nile Virus		
Wild Parsnip		
Giant Hogweed		

Basis of Payment

- .1 Payment at the price per item listed in the Tender Form shall be full compensation for all labour, services and equipment as well as the supply, delivery and installation of all materials required for the proper execution of this Contract.

1.0 SITE PREPARATION

1.1 Mobilization and General Requirements

- .1 This item includes, but may not be limited to, steps to obtain permits, implementation of safety measures, environmental protection, temporary facilities, signage, cleaning, layout, utility locates, contractor testing, testing of materials, moving equipment, supply of a spill kit on-site, site reinstatement, demobilization, aeration of compacted soils, and all other requirements identified in the contract documents not covered under specific items.
- .2 This item will not be measured but will be paid on a monthly lump sum as progress is made.

1.2 Installation and removal of snow fencing and signage including transport of materials to and from NCC storage facility

- .1 This item includes the collection, transport and installation of snow fencing and signage from the designated NCC storage facility.
- .2 This item includes the removal, transport and drop-off of snow fencing and signage at the designated NCC storage facility upon completion of the contract.
- .3 This item includes the supply of installation hardware and accessories as required.
- .4 This item includes a 2 year warranty on all parts supplied by the Contractor.
- .5 This item includes maintenance of the fence in working order for the duration of the contract.
- .6 This item will be measured and paid for on an hourly rate really worked on site.

2.0 PATHWAY IMPROVEMENTS

2.1 Supply and Install Asphalt Paving

- .1 This item includes excavation, backfilling and minor grading.
 - .1 This item includes stripping, common excavation, backfilling and rough grading allowing for finished ground elevations and specified surface treatments and to meet and match adjacent elevations.
 - .2 This item includes hauling, handling and placing, shaping, compacting and trimming of earth and excess material and the management of excess material.
 - .3 This item includes the proof rolling of the exposed surface, and the sub-excavation as required of any soft areas encountered during proof rolling.
 - .4 This item includes stripping and reuse of approved earth fill material including compaction.
 - .5 This item includes stockpiling of acceptable and reusable topsoil material.

- .6 This item includes the removal of all excavated non-reusable or surplus material, from the site.
- .2 This item includes the supply and installation of new asphalt paving and granular base and minor grading to meet and match adjacent finished surfaces per contract drawing.
- .3 This item will be measured and payed on a square metre basis.

3.0 SITE FURNISHINGS

3.1 Installation of 3 waste receptacles

- .1 This item includes transportation of waste receptacles from the Woodroffe storage facility to site, supply of attachment hardware, assembly, painting/staining, and installation.
- .2 This item includes a 2 year warranty on all parts supplied by the Contractor.
- .3 This item will be paid on a per unit basis.

3.2 Installation of 3 benches

- .1 This item includes transportation of benches from the Woodroffe storage facility to site, supply of attachment hardware, assembly, painting/staining, and installation.
- .2 This item includes a 2 year warranty on all parts supplied by the Contractor.
- .3 This item will be paid on a per unit basis.

4.0 SOFTSCAPE

4.1 Supply and Install Plant Material

- .1 This item includes the supply and installation of deciduous and coniferous trees and shrubs of various sizes as indicated in the contract documents.
- .2 This item includes the supply and installation of all plant accessories as indicated in the contract documents.
- .3 This item includes the maintenance and warranty of all plant material in accordance with the contract documents to ensure healthy plant material.
- .4 This item will be measured and payed on a per unit basis as follows:
 - .1 80% of the contract planting sum, upon receipt and approval of plant materials by the Purchaser and completion of planting of all the plant materials.
 - .2 10% of the contract planting sum, after the first warranty year once the replanting of replacement material (if required) is completed.
 - .3 10% of the contract planting sum after final acceptance, following the warranty period (see 2.5 Section 32 93 10, Tree and Shrub Planting), once the replanting of replacement material (if required) is completed.

END OF SECTION

Basis of Payment

- .1 Payment at the price per item listed in the Tender Form shall be full compensation for all labour, services and equipment as well as the supply, delivery and installation of all materials required for the proper execution of this Contract.

1.0 SITE PREPARATION

1.1 Mobilization and General Requirements

- .1 This item includes, but may not be limited to, steps to obtain permits, implementation of safety measures, environmental protection, temporary facilities, signage, cleaning, layout, utility locates, contractor testing, testing of materials, moving equipment, supply of a spill kit on-site, site reinstatement, demobilization, aeration of compacted soils, and all other requirements identified in the contract documents not covered under specific items.
- .2 This item will not be measured but will be paid on a monthly lump sum as progress is made.

1.2 Formation of Planting Mound

- .1 This item includes the stripping and removal off-site of existing sod and debris.
- .2 This item includes the supply and installation of the specified depths of planting soil as indicated in the contract documents.
- .3 This item includes landforming of the mound including placement, grading and compaction of imported soil as indicated in the contract documents.
- .4 This item will be measured and payed on a monthly lump sum basis as progress is made.

2.0 SOFTSCAPE

2.1 Supply and Install Plant Material

- .1 This item includes the supply and installation of all plant material as indicated in the contract documents.
- .2 This item includes the supply and installation of all plant accessories as indicated in the contract documents.
- .3 This item includes the supply and installation of mulch as indicated in the contract documents.
- .4 This item includes the maintenance and warranty of all plant material in accordance with the contract documents to ensure healthy plant material.
- .5 This item will be measured and payed on a per unit basis as follows:
 - .1 80% of the contract planting sum, upon receipt and approval of plant materials by the Purchaser and completion of planting of all the plant materials.
 - .2 10% of the contract planting sum, after the first warranty year once the replanting of replacement material (if required) is completed.
 - .3 10% of the contract planting sum after final acceptance, following the warranty period (see 2.5 Section 32 93 10, Tree and Shrub Planting), once the replanting of replacement material (if required) is completed.

2.2 Supply and Install Sod

- .1 This item includes the supply and installation of sod for the planting mound slopes, as indicated in the contract documents.
- .2 This item will be paid on a square meter basis on the following schedule:
 - .1 90% for supply and install
 - .2 10% for satisfactory maintenance and establishment of sodded area after acceptance by the NCC Representative.

END OF SECTION

Basis of Payment

- .1 Payment at the price per item listed in the Tender Form shall be full compensation for all labour, services and equipment as well as the supply, delivery and installation of all materials required for the proper execution of this Contract.

1.0 SITE PREPARATION

1.1 Mobilization and General Requirements

- .1 This item includes, but may not be limited to, steps to obtain permits, implementation of safety measures, environmental protection, temporary facilities, signage, cleaning, layout, utility locates, contractor testing, testing of materials, moving equipment, supply of a spill kit on-site, site reinstatement, demobilization, aeration of compacted soils, and all other requirements identified in the contract documents not covered under specific items.
- .2 This item will not be measured but will be paid on a monthly lump sum as progress is made.

2.0 SOFTSCAPE

2.1 Supply and Install Plant Material

- .1 This item includes the supply and installation of all plant material as indicated in the contract documents.
- .2 This item includes the supply and installation of all plant accessories as indicated in the contract documents.
- .3 This item includes the supply and installation of mulch as indicated in the contract documents.
- .4 This item includes the maintenance and warranty of all plant material in accordance with the contract documents to ensure healthy plant material.
- .5 This item will be measured and payed on a per unit basis as follows:
 - .1 80% of the contract planting sum, upon receipt and approval of plant materials by the Purchaser and completion of planting of all the plant materials.
 - .2 10% of the contract planting sum, after the first warranty year once the replanting of replacement material (if required) is completed.
 - .3 10% of the contract planting sum after final acceptance, following the warranty period (see 2.5 Section 32 93 10, Tree and Shrub Planting), once the replanting of replacement material (if required) is completed.

END OF SECTION

Basis of Payment

- .1 Payment at the price per item listed in the Tender Form shall be full compensation for all labour, services and equipment as well as the supply, delivery and installation of all materials required for the proper execution of this Contract.

1.0 SITE PREPARATION

1.1 Mobilization and General Requirements

- .1 This item includes, but may not be limited to, steps to obtain permits, implementation of safety measures, environmental protection, temporary facilities, signage, cleaning, layout, utility locates, contractor testing, testing of materials, moving equipment, supply of a spill kit on-site, site reinstatement, demobilization, aeration of compacted soils, and all other requirements identified in the contract documents not covered under specific items.
- .2 This item will not be measured but will be paid on a monthly lump sum as progress is made.

2.0 SOFTSCAPE

2.1 Supply and Install Plant Material

- .1 This item includes the supply and installation of all plant material as indicated in the contract documents.
- .2 This item includes the supply and installation of all plant accessories as indicated in the contract documents.
- .3 This item includes the supply and installation of mulch as indicated in the contract documents.
- .4 This item includes the maintenance and warranty of all plant material in accordance with the contract documents to ensure healthy plant material.
- .5 This item will be measured and payed on a per unit basis as follows:
 - .1 80% of the contract planting sum, upon receipt and approval of plant materials by the Purchaser and completion of planting of all the plant materials.
 - .2 10% of the contract planting sum, after the first warranty year once the replanting of replacement material (if required) is completed.
 - .3 10% of the contract planting sum after final acceptance, following the warranty period (see 2.5 Section 32 93 10, Tree and Shrub Planting), once the replanting of replacement material (if required) is completed.

END OF SECTION

PART 1 - GENERAL

1.1 TIME OF COMPLETION

- .1 Begin work as soon as possible and complete locates, site preparation, pathway construction, furniture assembly and installation, and minimum 80% of planting operations including, installation of tree accessories and mulching requirements **on or before June 15th, 2019**. A maximum of 20% of tree planting and associated accessories and mulching can be extended until **Sept 30th 2019** with the approval of the NCC Representative. Tree maintenance is the responsibility of the Contractor until the end of the warranty period as per Section 32 93 10, Tree and Shrub Planting.
- .2 Complete asphalt and furniture installation *before* planting in areas where the two types of work are adjacent.

1.2 DESCRIPTION OF WORK

- .1 Work under this Contract covers but is not limited to:
 - .1 Supply and installation of three (3) short asphalt pathway extensions including granular base courses and minor grading adjustments, per contract documents;
 - .2 Supply of attachment hardware and assembly and installation of three (3) benches and three (3) waste receptacles per the contract documents;
 - .3 Supply, plant, and maintain trees and shrubs as per the contract documents. Tree and shrub planting operations as per contract documents. See attached plans for general site locations. Exact planting location of each large-sized caliper deciduous tree or 1.5-2.0m high coniferous tree to be staked by a NCC representative;
 - .4 The installation, maintenance and removal of snow fencing and signage supplied by the NCC including the transport of materials to and from the designated NCC storage facility;
 - .5 Repair any damages to assets occurring during work as per Article 1.9 Damages;
 - .6 Maintenance of the tree support systems, tree guards and winter protection must be according to Section 32 93 10, Tree and Shrub Planting;
 - .7 Drawings and specifications are complementary. Items shown or mentioned in one and not in the other are deemed to be included in the contract work.

1.3 DEFINITIONS

- .1 Wherever the term "NCC representative" appears throughout these specifications, it shall be interpreted to mean an Inspector representing the National Capital Commission (NCC) or a duly named consultant on their behalf.
- .2 Wherever the terms "equal", or "approved equivalent" appear after specific types of materials and items throughout this specification, they shall be interpreted to mean being equal or superior in the opinion of the NCC representative, in material content, workmanship and quality to that designated as being the minimum acceptable standard, and his/her written approval must be obtained prior to submitting an alternative, five (5) days before close of tender.

1.4 COMMUNICATION

- .1 The successful bidder shall ensure he has been informed and is aware of the official NCC representative. The only contact for the successful contractor is the official NCC representative. The contractor will be notified if the official NCC representative changes. Site problems and deficiencies shall be reported to the NCC representative immediately.
- .2 The successful bidder shall arrange with the NCC representative, in conjunction with the NCC Contracting Officer, a communication link. The communication link must be established for urgent situations which may arise during operations. Furthermore, the contractor shall identify the level of authority of his personnel. The site crew shall have a communication device in order to permit the NCC representative to communicate with them at all time during the working hours.
- .3 Provide within five (5) working days after Contract award, schedule showing anticipated progress stages and final completion of work within time period required by Contract documents.

1.5 CODES

- .1 Perform work in accordance with the National Building Code of Canada 2015 and any code of provincial or municipal application. In any case of conflict or discrepancy, the more stringent requirement shall apply.
- .2 Meet or exceed requirements of:
 - .1 Contract documents;
 - .2 Specified standards, codes and referenced documents;
- .3 Obtain and pay for permits, inspector's approvals, public utilities locates, and other licenses required for this project and also pay any charges incidental to such permits. Provide copy of permits to the NCC Representative;
- .4 The NCC site access permit is necessary and will be supplied at no charge by the NCC.

1.6 COMPLIANCE – LAWS REGULATIONS AND PERMITS

- .1 The Contractor will operate in accordance with all Federal, Provincial and Municipal codes and standards. Proper safety precautions must be exercised at all times, with extra precautions taken to protect the general public.
- .2 This Tender Document and the Contract resulting there from are to be interpreted, construed, governed by, and the relation between parties is to be determined in accordance with the laws of the Province of Ontario and of Québec (where applicable) and such federal laws applicable therein.
- .3 The Contractor must obtain, at his/her cost, all the licenses and permits required in respect to the execution of the work in the provinces of Ontario and Quebec.

1.7 EXISTING SERVICES

- .1 Before commencing work, the Contractor is responsible for establishing locations and identifying extents of all utility/ service lines in area of work. Once completed, the Contractor must notify NCC representative of findings;

- .2 Contact City and Provincially approved public/ private utility providers to determine location and extents of their service lines;
- .3 Where unknown services are encountered, immediately advise NCC representative and confirm findings in writing;
- .4 Identify by use of marking paint, identification flags or other standard industry approved manner;
- .5 Where work involves adjusting of existing services, carry out work as directed by the NCC representative.
- .6 Repair all damage caused by work to existing public services at Contractor expenses.

1.8 PROTECTION

- .1 Protect existing structures against damage until completion of work.
- .2 Take all precautions to protect vegetated areas and trees from any damage.
- .3 Take all necessary precautions in order to prevent mud accumulation on asphalt roads and pathways. Clean immediately any soil accumulation.
- .4 Provide and maintain guard-rails, fences, barricades, lights and other devices required for protection of workmen and public in accordance with the requirements of provincial and Local by-law and the Canadian Construction Safety Code.
- .5 The contractor is responsible for the supply, installation and maintenance of traffic control devices necessary for the protection of the public and the work site. Traffic control must be in accordance with the Manual of Uniform Traffic Control Devices for Canada.
- .6 Contractor to keep a spill kit on site at all times.

1.9 DAMAGES

- .1 Damages caused to existing plant material, landscaping, lawns, roadways, pathways, structures, finishes and public utilities due to work of this contract, will be restored to their original condition, replaced or adequate compensation made to affected parties by the Contractor, as determined by NCC representative and to the satisfaction of the NCC.
- .2 It is understood that restored work includes labour, equipment and material cost.
- .3 The restored or replaced work shall be completed within seven (7) days of notification by the NCC representative.

1.10 EMPLOYEES

.1 General

- .1 Any employee hired by the Contractor shall communicate in one of the two official languages of Canada, be experienced in dealing with the public, respect all health and safety requirements and regulations, and act in a matter that does not adversely affect the reputation of the NCC or its representatives and employees.
- .2 Any employee hired by the Contractor will be relieved of his/her duties and immediately replaced by the Contractor, if in the opinion of the NCC, this employee is unqualified or is acting in a manner contrary to the best interests of the NCC, the requirements of this contract, or if the employee does not meet the requirements stated above.

- .3 The Contractor shall ensure that he/she is able to demonstrate at any time to the NCC that he/she is in compliance with the experience requirements as indicated above and in **1.10.4** by providing any and all proof of work experience for all of his/her employees.

.2 Security Risks

- .1 The Contractor shall ensure that none of the Employees of the Contractor and others for whom the Contractor is responsible and who are to perform the Contractor's obligations under this Contract constitute a security risk and shall, at the request of the NCC, ensure that all Employees of the Contractor and others for whom the Contractor is responsible who are to perform the Contractor's obligations under this Contract complete the NCC's security screening process in order that the NCC may obtain a security assessment of that person before accessing any site included in this Contract.
- .2 There are three levels of screening: Reliable status, site access or secret. It will be determined depending on the site where the work is performed or the type of task required. At the minimum, the NCC shall require Reliability clearance. The NCC shall process the clearances once the individuals have been identified. The appointed individuals shall receive appropriate instructions and training from NCC Security.

.3 Work Dress

- .1 All field employees of the Contractor shall be neatly dressed, at the Contractor's expense and wear approved safety equipment when required. All employees shall wear an appropriate standard uniform adapted to their area of activity with the company name prominently displayed (name tag).

.4 Training and Experience

- .1 The Contractor shall have at least one full-time field employee/ foreperson assigned to this contract, who is certified as having successfully completed his/her post-secondary training in horticulture/arboriculture, **and** have at least five (5) years of relevant horticultural/arboriculture work experience in the field. This employee will be on site for all planting operations and be responsible for ensuring all specifications and best practices are followed. **Proof of education, certification, field experience and references shall be supplied by the contractor with submission.**
- .2 Other supportive field employees shall have appropriate experience and skills to perform the duties of the Contract with supervision. They shall have at least one (1) season of experience (such workers must be supervised at all times by horticulture-trained and certified employees/foreperson).
- .3 Unsatisfactory work, completed by unqualified tradesmen will be redone and paid for by the Contractor.

.5 NCC Regulations

- .1 The Contractor shall ensure its agents and employees are familiar with and comply with *NCC Traffic and Property Regulations*, *NCC Animal Regulations* and other specific directives relating to its facilities and services.

1.11 PRODUCTS SUPPLIED

- .1 Contractor's duties:
 - .1 Unless otherwise directed by NCC representative, order products in quantities and at times compatible with specifications, construction schedule and site storage capacity.
 - .2 Unload the material on site and ensure the material handling.

1.12 VEHICLES AND EQUIPMENT

- .1 The Contractor shall provide all vehicles and equipment required to fulfil the contractual obligations of this Contract. This includes any vehicles and equipment and/or tools required for transportation purposes and/or for providing Maintenance services as requested in this Contract, such as watering, etc. The Contractor shall assume all risks inherent to the use of general or specialized vehicles and/or equipment. All vehicles and equipment used by the Contractor shall be kept in a clean condition, exempt of rust and shall meet all provincial (Ontario & Québec) safety standards. The company name shall be prominently displayed on all road vehicles. Contractor vehicles shall be parked only on hard surfaces in designated areas and not on soft surfaces such as sod and fields.
- .2 The Contractor will minimize unnecessary idling of vehicles in accordance with municipal by-laws in this matter.

1.13 PAYMENT

- .1 This is a unit price Contract. Any minor or miscellaneous items indicated on the drawings as being part of the work of this Contract must be included by the Contractor in his or her overhead and indirect charges and incorporated into the various unit rates.
- .2 The estimated quantities set forth in the tender are provisional. If the quantity of work to be done and materials to be supplied exceeds or are less than the estimated quantity, the contractor shall proceed with the work after approval by NCC representative. Payment will be made for the actual amount of work done and materials supplied at the unit prices set forth in the contract.
- .3 Upon completion of the requirements the contractor may invoice the NCC. Terms of payment are Net 30 days.

1.14 CONSTRUCTION SAFETY MEASURES

- .1 Observe construction safety measures required by *Canadian Construction Safety Code*, Provincial Government, Worker's Compensation Board and municipal authority's. In any case of conflict or discrepancy, the more stringent requirement shall apply.

1.15 DISPOSAL OF WASTE

- .1 The NCC encourages that when possible material be recovered, reused or recycled. We encourage the contractor to compost organic waste generated by this contract except for invasive plants which are to be disposed of as per item 4.1 .2 .6 of Tree and Shrub Planting or at the direction of the NCC Representative. Remaining waste must be transported to a landfill site approved and designated by the municipality.

1.16 SITE VISIT

- .1 It is highly recommended that interested parties visit the sites prior to submitting a bid.

1.17 REQUIRED DOCUMENTS

- .1 Maintain at job site, one copy of each of the following:
 - .1 Contract drawings
 - .2 Specifications
 - .3 Addenda
 - .4 Change orders and other modifications to Contract
 - .5 Copy of current and approved work schedule
 - .6 Permits

1.18 GUARANTEES AND WARRANTIES

- .1 Before completion of Work, collect all Manufacturer's guarantees and warranties, and submit to NCC Representative.
- .2 All non-planting work shall be warranted for a period of two (2) years from the date of written preliminary acceptance by the NCC Representative. A warranty inspection will be carried out at the end of the warranty period.
- .3 All planting work shall be warranted according to specification 32 93 10.

PART 2 - PRODUCTS

- .1 Not used

PART 3 - EXECUTION

- .1 Not used

END OF SECTION

PART 1 – GENERAL

1.01 RELATED REQUIREMENTS

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

1.02 APPOINTMENT AND PAYMENT

- .1 NCC Representative will appoint and pay for services of testing laboratory except as follows:
 - .1 Inspection and testing required by laws, 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 Contractor under supervision of NCC Representative.
- .2 Where tests or inspections by designated testing laboratory reveal Work not in accordance with contract requirements, pay costs for additional tests or inspections as required by NCC Representative to verify acceptability of corrected work.

1.03 CONTRACTOR'S RESPONSIBILITIES

- .1 Provide labour, equipment and facilities to:
 - .1 Provide access to Work for inspection and testing.
 - .2 Facilitate 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 cure test samples.
- .2 Notify NCC Representative sufficiently in advance of operations to allow for assignment of laboratory personnel and scheduling of test.
- .3 Where materials are specified to be tested, deliver representative samples in required quantity to testing laboratory.
- .4 Pay costs for uncovering and making good Work that is covered before required inspection or testing is completed and approved by NCC Representative.

PART 2 - PRODUCTS

- .1 Not used

PART 3 - EXECUTION

- .1 Not used

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- .1 Shop drawings and product data
- .2 Samples
- .3 Certificates and transcripts

1.02 ADMINISTRATIVE

- .1 Submit to NCC Representative submittals listed in the specifications for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Do not proceed with Work affected by submittal until review is complete.
- .3 Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .4 Where items or information is not produced in SI Metric units converted values are acceptable.
- .5 Review submittals prior to submission to NCC Representative. This review represents that 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 considered rejected.
- .6 Notify NCC Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .7 Verify field measurements and affected adjacent Work are co-ordinated.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by NCC Representative's review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by NCC Representative review.
- .10 Keep one reviewed copy of each submission on site.

1.03 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.

- .2 Where indicated, submit drawings stamped and signed by professional engineer registered or licensed in Ontario, Canada.
- .3 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been co-ordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
 - .4 Allow 5 days for NCC Representative's review of each submission.
- .5 Adjustments made on shop drawings by NCC Representative are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to NCC Representative and wait for written approval prior to proceeding with Work.
- .6 Make changes in shop drawings as NCC Representative may require, consistent with Contract Documents. When resubmitting, notify NCC Representative in writing of revisions other than those requested.
- .7 Accompany submissions with transmittal letter 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.
- .8 Submissions 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 Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .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 Wiring diagrams.
 - .9 Single line and schematic diagrams.

.10 Relationship to adjacent work.

1.04 SAMPLES

- .1 Submit for review samples as requested in respective specification Sections. Label samples with origin and intended use.
- .2 Deliver samples prepaid to NCC Representative's business address.
- .3 Notify NCC Representative in writing, at time of submission of deviations in samples from requirements of Contract Documents.
- .4 Where colour, pattern or texture is criterion, submit full range of samples.
- .5 Adjustments made on samples by NCC Representative are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to NCC Representative prior to proceeding with Work.
- .6 Make changes in samples which NCC Representative may require, consistent with Contract Documents.
- .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

1.05 PHOTOGRAPHIC DOCUMENTATION

- .1 When requested by NCC Representative, submit electronic colour digital photography in jpg format at standard resolution as work progresses and at milestones or to indicate issues.
- .2 Project identification: name and number of project and date of exposure indicated.

PART 2 - PRODUCTS

- .1 Not used

PART 3 - EXECUTION

- .1 Not used

END OF SECTION

PART 1 - GENERAL

1.01 REFERENCE STANDARDS

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations
- .2 Province of Ontario
 - .1 Occupational Health and Safety Act and Regulations for Construction Projects, R.S.O. 1990, c.0.1, as amended and O. Reg. 213/91 as amended - Updated 2005.

1.02 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
 - .1 Name of on-site Health and Safety Officer if it is someone other than site construction supervisor.
 - .2 Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications. NCC Representative may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

1.03 FILING OF NOTICE

- .1 File Notice of Project with Province of Ontario authorities prior to beginning of Work.
- .2 Contractor shall agree to install proper site separation and identification in order to maintain time and space at all times throughout life of project.

1.04 SAFETY ASSESSMENT

- .1 Perform site specific safety hazard assessment related to project.
- .2 Check site for hazardous plants listed below and familiarize workers with information sheets provided.
 - .1 Common Buckthorn
 - .2 Poison Ivy
 - .3 Stinging Nettle
 - .4 Tick Safety
 - .5 West Nile Virus
 - .6 Wild Parsnip
 - .7 Giant Hogweed

1.05 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.

- .2 Contractor will be responsible and assume the role Constructor as described in the Ontario Occupational Health and Safety Act and Regulations for Construction Projects.

1.06 COMPLIANCE REQUIREMENTS

- .1 Comply with Ontario Occupational Health and Safety Act, R.S.O. 1990, c. 0.1 and Ontario Regulations for Construction Projects, O. Reg. 213/91.
- .2 Comply with Canada Labour Code, Canada Occupational Safety and Health Regulations.

1.07 UNFORSEEN HAZARDS

- .1 When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Ontario and advise NCC Representative verbally and in writing.

1.08 POSTING OF DOCUMENTS

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of Ontario, and in consultation with NCC Representative.

1.09 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by NCC Representative.
- .2 Provide NCC Representative with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 NCC Representative may stop Work if non-compliance of health and safety regulations is not corrected.

1.10 WORK STOPPAGE

- .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

PART 2 - PRODUCTS

- .1 Not used

PART 3 - EXECUTION

- .1 Not used

END OF SECTION

PART 1 - GENERAL

1.01 FIRES

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

1.02 DRAINAGE

- .1 Develop and submit erosion and Sediment Control Plan (ESC).
- .2 Storm Water Pollution Prevention Plan (SWPPP) may be substituted for erosion and sediment control plan.
- .3 Provide temporary drainage and pumping required to keep excavations and site free from water.
- .4 Ensure pumped water into waterways, sewer or drainage systems is free of suspended materials.
- .5 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

1.03 SITE CLEARING AND PLANT PROTECTION

- .1 Protect trees and plants on site and adjacent properties as indicated.
- .2 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage.
 - .1 Avoid unnecessary traffic, dumping and storage of materials over root zones.
- .3 Minimize stripping of topsoil and vegetation.
- .4 Do not remove trees unless authorized in writing by NCC Representative.

1.04 WORK ADJACENT TO WATERWAYS

- .1 Construction equipment to be operated on land only.
- .2 Waterways to be kept free of excavated fill, waste material and debris at all times.

1.05 POLLUTION CONTROL

- .1 Maintain temporary erosion and pollution control features installed under this Contract.
- .2 Control emissions from equipment and plant in accordance with local authorities' emission requirements.
- .3 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

1.06 WILDLIFE PROTECTION

- .1 To avoid any adverse effects on active nests of birds protected under the Migratory Birds Convention Act (MBCA), the NCC Representative will ensure that an area search for evidence of nesting is conducted a maximum of 48 hours prior to the activities by a skilled and experienced observer using appropriate methodology as recommended by Environment Canada. If one or more nests containing eggs or chicks of migratory birds are spotted or discovered during this survey, the NCC will develop an action plan and share it with the contractor when work begins.
- .2 If one or more nests containing eggs or chicks of migratory birds are spotted or discovered during the work, the contractor must stop any disruptive activity in the nesting area and contact the NCC Representative immediately to discuss mitigation measures to be put in place.
- .3 Any wildlife incidentally encountered during activities will not be knowingly harmed and must be able to safely leave on its own.

1.07 HISTORICAL/ ARCHAEOLOGICAL CONTROL

- .1 If any archaeological resources or human remains are discovered anywhere else on the site during excavation and planting, all work at the location must be halted immediately and the NCC Heritage Program must be notified at Archaeology-Archeologie@ncc-ccn.ca. Work shall not be resumed at that location until measures for the protection of those resources have been put in place.

1.08 NOTIFICATION

- .1 Various Government agencies may be on-site during construction to ensure compliance with requirements. Contractor shall provide timely and easy access.

PART 2 - PRODUCTS

- .1 Not used

PART 3 - EXECUTION

- .1 Not used

END OF SECTION

PART 1- GENERAL

1.01 INSTALLATION AND REMOVAL

- .1 Inform NCC Representative of need for supplemental or other staging area.
- .2 Provide construction facilities in order to execute work expeditiously.
- .3 Remove from site all such work after use.

1.02 CONSTRUCTION PARKING

- .1 Parking will not be permitted on soft surfaces at the site.
- .2 Provide and maintain adequate access to project site.

1.03 EQUIPMENT, TOOL AND MATERIALS STORAGE

- .1 Provide and maintain, in clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.
- .2 Locate materials not required to be stored in weatherproof sheds on site in manner to cause least interference with work activities.

1.04 SANITARY FACILITIES

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.
- .2 Post notices and take precautions as required by local health authorities. Keep area and premises in sanitary condition.

1.05 CONSTRUCTION SIGNAGE

- .1 Signs and notices for safety and instruction in both official languages Graphic symbols to CAN/CSA-Z321.
- .2 Maintain approved signs and notices in good condition for duration of project, and dispose of off- site on completion of project or earlier if directed by NCC Representative.
- .3 No other signs or advertisements, other than warning signs, are permitted on site.

1.06 PROTECTION AND MAINTENANCE OF TRAFFIC

- .1 Protect travelling public from damage to person and property.
- .2 Provide a flag person for planting sites near the trails / bike path.

PART 2 - PRODUCTS

.1 Not used

PART 3 - EXECUTION

.1 Not used

END OF SECTION

PART 1 - GENERAL

1.01 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris.
- .2 Remove waste materials from site at daily regularly scheduled times or dispose of as directed by NCC Representative. Do not burn waste materials on site
- .3 Clear snow and ice from access.
- .4 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .5 Provide on-site containers for collection of waste materials and debris.
- .6 Provide and use marked separate bins for recycling.
- .7 Dispose of waste materials and debris off site.
- .8 Clean areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.
- .9 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .10 Provide adequate ventilation during use of volatile or noxious substances.
- .11 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .12 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate nearby building systems.

1.02 FINAL CLEANING

- .1 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris and leave Work clean and suitable for occupancy.
- .3 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .4 Remove waste products and debris including subs waste.
- .5 Remove waste materials from site at regularly scheduled times.
- .6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.

- .7 Remove stains, spots, marks and dirt from surfaces.
- .8 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
- .9 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
- .10 Remove dirt and other disfiguration from exterior surfaces.
- .11 Sweep and wash clean paved areas.

1.03 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and/or recycling.

PART 2 - PRODUCTS

- .1 Not used

PART 3 - EXECUTION

- .1 Not used

END OF SECTION

PART 1 - GENERAL (FOR BRONSON PARK)

1.1 RELATED SECTIONS

- .1 Section 32 91 21 – Topsoil and Fine Grading
- .2 Section 32 93 10 – Tree and Shrub Planting
- .3 Section 32 92 23 - Sodding

1.2 REFERANCES

- .1 American Society for Testing and Materials (ASTM)
 - .1 ASTM D 698 – 91 (2007), Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (600 kN-m/m³).

1.3 PROTECTION

- .1 Protect existing sculpture, fencing, benchmarks, pavement and surfaces, and surface or underground utilities which are to remain as directed by NCC Representative. If damaged, restore to original or better condition unless directed otherwise.
- .2 Maintain access roads to prevent accumulation of construction related debris on roads.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Use imported planting soil per Specification 32 91 21 Topsoil and Fine Grading:

PART 3 - EXECUTION

3.1 PREPARATION

- .1 Remove all existing grass and roots in area of proposed mounded planting area. Minimize compaction of existing soil.

3.2 FILL MATERIAL

- .1 Do not place fill while in frozen condition.

3.3 PLACEMENT, GRADING AND COMPACTION

- .1 Areas to be filled are to be free from debris, snow, ice and water.
- .2 Filling not to extend beyond the area shown on drawings or exceed the slopes indicated.
- .3 Prior to placing fill over existing ground, scarify non-bedrock surfaces to a depth of 150mm. Maintain fill and existing surface at approximately the same moisture content to facilitate bonding.
- .4 Place planting soil in 150mm lifts to remove air.

- .5 Planting soil to be compacted in lifts by light rolling such that it is firm against deep footprints.

3.4 SURPLUS

- .1 Remove surplus material and material unsuitable for fill/grading off site.

END OF SECTION

PART 1 - GENERAL (FOR AVIATIONS PATHWAY)

1.01 RELATED REQUIREMENTS

- .1 Section 32 12 16 Asphalt Paving

1.02 REFERENCE STANDARDS

- .1 Ontario Provincial Standard Specification (OPSS) Volume 1 - 501 – Construction Specification for Compacting
- .2 Ontario Provincial Standard Specification (OPSS) Volume 1 – 1001 – Construction Specification for Aggregates
- .3 Ontario Provincial Standard Specification (OPSS) Volume 2 – 1010 – Material Specification for Aggregates – Granular A, B, M, and Select Subgrade Material

1.03 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with OPSS 1001 Aggregates.
- .2 Storage and Handling Requirements:
 - .1 Stockpile minimum 50% of total aggregate required prior to beginning operation.
 - .2 Store materials in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .3 Replace defective or damaged materials with new.
 - .4 Store cement in weathertight bins or silos that provide protection from dampness and easy access for inspection and identification of each shipment.

PART 2 - PRODUCTS

2.01 MATERIALS

Granular base material: in accordance with OPSS 1001 – Aggregates and the following requirements:

- .1 Granular A in accordance with OPSS 1010 manufactured from crushed limestone and free from deleterious material.
- .2 Gradations to be within limits specified when tested to OPSS-1010.

PART 3 - EXECUTION

3.01 PLACEMENT AND INSTALLATION

- .1 Place granular base after subgrade surface is inspected and approved in writing by NCC Representative.

- .2 Placing:
 - .1 Construct granular base to depth and grade in areas indicated.
 - .2 The thickness of granular and stone materials shown on the drawings shall be the real thickness after the materials have been compacted as specified.
 - .3 Ensure no frozen material is placed.
 - .4 Place material only on clean unfrozen surface, free from snow, ice and standing water accumulation.
 - .5 Place material using methods which do not lead to segregation or degradation of aggregate.
 - .6 For spreading and shaping material, use spreader boxes having adjustable templates or screeds which will place material in uniform layers of required thickness.
 - .7 Place material to full width in uniform layers not exceeding 150 mm compacted thickness.
 - .8 Shape each layer to smooth contour and compact to specified density before succeeding layer is placed.
 - .9 Remove and replace that portion of layer in which material becomes segregated during spreading.
- .3 Compaction Equipment:
 - .1 Ensure compaction equipment is capable of obtaining required material densities.
- .4 Compacting:
 - .1 Compact to density not less than 95% maximum dry density in accordance with OPSS – 1010 Material Specification for Aggregates.
 - .2 Shape and roll alternately to obtain smooth, even and uniformly compacted base.
 - .3 Apply water as necessary during compacting to obtain specified density.
 - .4 In areas not accessible to rolling equipment, compact to specified density with mechanical tampers approved in writing by NCC Representative.
 - .5 Correct surface irregularities by loosening and adding or removing material until surface is within specified tolerance.

3.02 SITE TOLERANCES

- .1 Finished base surface to be within plus or minus 5 mm of established grade and cross section but not uniformly high or low.

3.03 CLEANING

- .1 Progress and final cleaning: clean in accordance with Section 01 74 11 - Cleaning.

3.04 PROTECTION

- .1 Maintain finished base in condition conforming to this Section until succeeding material is applied or until acceptance by NCC Representative.

END OF SECTION

PART 1 - GENERAL (FOR AVIATION PATHWAY)

1.01 RELATED REQUIREMENTS

- .1 Section 32 11 23 Aggregate Base Courses

1.02 REFERENCE STANDARDS

- .1 American Association of State Highway and Transportation Officials (AASHTO)
 - .1 AASHTO M320- 02, Standard Specification for Performance Graded Asphalt Binder.
 - .2 AASHTO R29- 02, Standard Specification for Grading or Verifying the Performance Graded of an Asphalt Binder.
 - .3 AASHTO T245- 97(2001), Resistance to Plastic flow of Bituminous Mixtures Using Marshall Apparatus.
- .2 American Society for Testing and Materials International, (ASTM)
 - .1 ASTM C88- 99a, Standard Test Method for Soundness of Aggregates by Use of Sodium Sulphate or Magnesium Sulphate.
 - .2 ASTM C117- 95, Standard Test Method for Material Finer Than 0.075mm (No.200) Sieve in Mineral Aggregates by Washing.
 - .3 ASTM C123- 98, Standard Test Method for Lightweight Particles in Aggregate.
 - .4 ASTM C127- 01, Standard Test Method for Specific Gravity and Absorption of Coarse Aggregate.
 - .5 ASTM C128- 01, Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate.
 - .6 ASTM C131- 01, Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
 - .7 ASTM C136- 01, Standard Method for Sieve Analysis of Fine and Coarse Aggregates.
 - .8 ASTM C207- 91(1997), Standard Specification for Hydrated Lime for Masonry Purposes.
 - .9 ASTM D995- 95b(2002), Standard Specification for Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures.
 - .10 ASTM D2419- 02, Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
 - .11 ASTM D3203- 94(2000), Standard Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures.
 - .12 ASTM D4791- 99, Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate.
- .3 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-8.1- 88, Sieves Testing, Woven Wire, Inch Series.

- .2 CAN/CGSB-8.2- M88, Sieves Testing, Woven Wire, Metric.
- .3 CAN/CGSB-16.3- M90, Asphalt Cements for Road Purposes.
- .4 Ontario Provincial Standard Specifications (OPSS).
 - .1 OPSS 302-April 1999, Construction Specification for Primary Granular Base.
 - .2 OPSS 310-March 1993, Construction Specification for Hot Mixed, Hot Laid Asphaltic Concrete Paving and Hot Mix Patching.
 - .3 OPSS 314-December 1993, Construction Specification for Untreated Granular, Subbase, Base, Surface Shoulder and Stockpiling.
 - .4 OPSS 1010-March 1993, Material Specification for Aggregates, Granular A, B, M and Select Subgrade Material.
 - .5 OPSS 1103-February 1996, Material Specification for Emulsified Asphalt.
 - .6 OPSS 1150-May 1994, Material Specification for Hot Mixed, Hot Laid Asphalt Concrete.

1.03 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit asphalt concrete mix design and trial mix test results to NCC Representative for approval at least 2 weeks prior to beginning Work.
- .3 Inform NCC Representative of proposed source of aggregates and provide access for sampling at least 2 weeks prior to beginning Work.

1.04 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with manufacturer's written instruction.
- .2 When necessary to blend aggregates from one or more sources to produce required gradation, do not blend in stockpiles.
- .3 Stockpile fine aggregate separately from coarse aggregate, although separate stockpiles for more than two mix components are permitted.
- .4 Submit to NCC Representative copies of freight and waybills for asphalt cement as shipments are received.
 - .1 NCC Representative reserves right to check weights as material is received.

PART 2 - PRODUCTS

2.01 MATERIAL

- .1 Aggregates: in accordance with the following requirements:
 - .1 Crushed stone or gravel.
 - .2 Gradations: within limits specified when tested to current norms and regulations. Sieve sizes to CAN/CGSB-8.1.

- | .3 | Table
Sieve Designation | % Passing | | |
|----|----------------------------|-----------------|-------------------|------------------|
| | | Lower
Course | Surface
Course | Sheet
Asphalt |
| | 200 mm | - | - | - |
| | 75 mm | - | - | - |
| | 50 mm | - | - | - |
| | 38.1 mm | - | - | - |
| | 25 mm | 100 | - | - |
| | 19 mm | - | - | - |
| | 12.5 mm | 70-85 | 100 | - |
| | 9.5 mm | - | - | 100 |
| | 4.75 mm | 40-65 | 55-75 | 85-100 |
| | 2.00 mm | 30-50 | 35-55 | 80-95 |
| | 0.425 mm | 15-30 | 15-30 | 40-70 |
| | 0.180 mm | 5-20 | 5-20 | 10-35 |
| | 0.075 mm | 3-8 | 3-8 | 4-14 |
- .4 Coarse aggregate: aggregate retained on 4.75 mm sieve and fine aggregate is aggregate passing 4.75mm sieve when tested to ASTM C136.
- .5 When dryer drum plant or plant without hot screening is used, process fine aggregate through 4.75 mm sieve and stockpile separately from coarse aggregate.
- .6 Separate stockpiles for coarse and fine aggregates not required for sheet asphalt.
- .2 Mineral filler:
- .1 Finely ground particles of limestone, hydrated lime, Portland cement or other approved non-plastic mineral matter, thoroughly dry and free from lumps.
- .2 Add mineral filler when necessary to meet job mix aggregate gradation or as directed to improve mix properties.
- .3 Mineral filler to be dry and free flowing when added to aggregate.
- .3 Anti-stripping agent: hydrated lime to ASTM C207. Add lime at rate of approximately 2-3% of dry weight of aggregate.
- .4 Water: to approval of NCC Representative.

2.02 EQUIPMENT

- .1 Pavers: mechanical grade controlled self-powered pavers capable of spreading mix within specified tolerances, true to line, grade and crown indicated.
- .2 Rollers: sufficient number of type and weight to obtain specified density of compacted mix.
- .3 Vibratory rollers:
- .1 Drum diameter: 1200 mm minimum.
- .2 Amplitude of vibration (machine setting): 0.5 mm maximum for lifts less than 40 mm thick.

- .4 Hand tools:
 - .1 Lutes or rakes with covered teeth for spreading and finishing operations.
 - .2 Tamping irons having mass 12 kg minimum and bearing area not exceeding 310 cm² for compacting material along curbs, gutters and other structures inaccessible to roller. Mechanical compaction equipment, when approved by NCC Representative], may be used instead of tamping irons.
 - .3 Straight edges, 34.5 m in length, to test finished surface.

2.03 MIX DESIGN

- .1 Mix design to be approved by NCC Representative.
 - .1 Measure physical requirements as follows:
 - .1 Marshall load and flow value: to AASHTO T245.
 - .2 Air voids: to ASTM D3203.
 - .3 Voids in mineral aggregates: to AI MS2, chapter 4.
 - .4 Index of Retained Stability: measure in accordance with current norms and regulations.
 - .2 Do not change job-mix without prior approval of NCC Representative. When change in material source proposed, new job-mix formula will be provided for approval by NCC Representative.

PART 3 - EXECUTION

3.01 PREPARATION

- .1 Apply tack coat to existing seams prior to paving.
- .2 Prior to laying mix, clean surfaces of loose and foreign material.
- .3 Protect adjacent surfaces prior to application of asphalt concrete.

3.02 TRANSPORTATION OF MIX

- .1 Transport mix to job site in vehicles cleaned of foreign material.
- .2 Paint or spray truck beds with limewater, soap or detergent solution, or non-petroleum based commercial product, at least daily or as required. Elevate truck bed and thoroughly drain. No excess solution to remain in truck bed.
- .3 Schedule delivery of material for placing in daylight, unless NCC Representative approves artificial light.
- .4 Deposit mix from surge or storage silo to trucks in multiple drops to reduce segregation. Do not dribble mix into trucks.
- .5 Deliver material to paver at uniform rate and in an amount within capacity of paving and compacting equipment.

- .6 Deliver loads continuously in covered vehicles and immediately spread and compact. Deliver and place mixes at temperature within range as directed by NCC Representative, but not less than 135 degrees C.

3.03 PLACING

- .1 Obtain NCC Representative's approval of base prior to placing asphalt.
- .2 Place asphalt concrete to thicknesses, grades and lines as indicated.
- .3 Placing conditions:
 - .1 Place asphalt mixtures only when air temperature is above 5 degrees C.
 - .2 When temperature of surface on which material is to be placed falls below 10 degrees C, provide extra rollers as necessary to obtain required compaction before cooling.
 - .3 Do not place hot-mix asphalt when pools of standing water exist on surface to be paved, during rain, or when surface is damp.
- .4 Place asphalt concrete in compacted lifts of thickness as follows:
 - .1 Levelling course to thicknesses required but not exceeding 50 mm.
 - .2 Surface course in layer of maximum 60 mm.
- .5 Where possible do tapering and levelling where required in lower lifts. Overlap joints by not less than 300 mm.
- .6 Place individual strips no longer than 500m.
- .7 Spread and strike off mixture with self-propelled mechanical finisher.
 - .1 Maintain constant head of mix in auger chamber of paver during placing.
 - .2 If segregation occurs, immediately suspend spreading operation until cause is determined and corrected.
 - .3 Correct irregularities in alignment left by paver by trimming directly behind machine.
 - .4 Correct irregularities in surface of pavement course directly behind paver. Remove by shovel or lute excess material forming high spots. Fill and smooth indented areas with hot mix. Do not broadcast material over such areas.
 - .5 Do not throw surplus material on freshly screened surfaces.
- .8 When hand spreading is used:
 - .1 Use approved wood or steel forms, rigidly supported to assure correct grade and cross section. Use measuring blocks and intermediate strips to aid in obtaining required cross-section.
 - .2 Distribute material uniformly. Do not broadcast material.
 - .3 During spreading operation, thoroughly loosen and uniformly distribute material by lutes or covered rakes. Reject material that has formed into lumps and does not break down readily.
 - .4 After placing and before rolling, check surface with templates and straightedges and correct irregularities.

- .5 Provide heating equipment to keep hand tools free from asphalt. Control temperature to avoid burning material. Do not use tools at higher temperature than temperature of mix being placed.

3.04 COMPACTING

- .1 Roll asphalt continuously using established rolling pattern for test strip and to density of not less than 98 % of maximum density determined for test strip.
- .2 Do not change rolling pattern unless mix changes or lift thickness changes. Change rolling pattern only as directed by NCC Representative.
- .3 General:
 - .1 Start rolling operations as soon as placed mix can bear weight of roller without excess displacement of material or cracking of surface.
 - .2 Operate roller slowly initially to avoid displacement of material. Do not exceed 5km/h for breakdown and intermediate rolling for static steel-wheeled and pneumatic tired rollers. Do not exceed 9 km/h for finish rolling.
 - .3 Use static compaction for levelling course less than 25 mm thick.
 - .4 For lifts 50 mm thick and greater, adjust speed and vibration frequency of vibratory rollers to produce minimum of 25 impacts per metre of travel. For lifts less than 50 mm thick, impact spacing not to exceed compacted lift thickness.
 - .5 Overlap successive passes of roller by minimum of 200mm and vary pass lengths.
 - .6 Keep wheels of roller slightly moistened with water to prevent pick-up of material but do not over-water.
 - .7 Do not stop vibratory rollers on pavement that is being compacted with vibratory mechanism operating.
 - .8 Do not permit heavy equipment or rollers to stand on finished surface before it has been compacted and has thoroughly cooled.
 - .9 After traverse and longitudinal joints and outside edge have been compacted, start rolling longitudinally at low side and progress to high side. Ensure that all points across width of pavement receive essentially equal numbers of passes of compactors.
 - .10 When paving in echelon, leave unrolled 50 to 75 mm of edge which second paver is following and roll when joint between lanes is rolled.
 - .11 Where rolling causes displacement of material, loosen affected areas at once with lutes or shovels and restore to original grade of loose material before re-rolling.

3.05 JOINTS

- .1 General:
 - .1 Remove surplus material from surface of previously laid strip. Do not deposit on surface of freshly laid strip.
- .2 Transverse joints:
 - .1 Offset transverse joint in succeeding lifts by at least 600 mm.

- .2 Cut back to full depth vertical face and tack face with thin coat of hot asphalt prior to continuing paving.
- .3 Compact transverse joints to provide smooth riding surface. Use methods to prevent rounding of compacted surface at joints.
- .3 Longitudinal joints:
 - .1 Offset longitudinal joints in succeeding lifts by at least 150 mm.
 - .2 Cold joint is defined as joint where asphalt mix is placed, compacted and left to cool below 100 degrees C prior to paving of adjacent lane.
 - .1 For airfield runway paving, avoid cold joint construction in mid 30 m of runway.
 - .2 If cold joint cannot be avoided, cut back by saw cutting previously laid lane, by at least 150 mm, to full depth vertical face, and tack face with thin coat of hot asphalt of adjacent lane.
 - .3 Overlap previously laid strip with spreader by 25 to 50 mm.
 - .4 Before rolling, carefully remove and discard coarse aggregate in material overlapping joint with lute or rake.
 - .5 Roll longitudinal joints directly behind paving operation.
 - .6 When rolling with static or vibratory rollers, have most of drum width ride on newly placed lane with remaining 150 mm extending onto previously placed and compacted lane.

3.06 FINISH TOLERANCES

- .1 Finished asphalt surface to be within 5mm of design elevation but not uniformly high or low.
- .2 Finished asphalt surface not to have irregularities exceeding 5mm when checked with 4.5m straight edge placed in any direction.

3.07 DEFECTIVE WORK

- .1 Correct irregularities which develop before completion of rolling by loosening surface mix and removing or adding material as required. If irregularities or defects remain after final compaction, remove surface course promptly and lay new material to form true and even surface and compact immediately to specified density.
- .2 Repair areas showing checking, rippling, or segregation.
- .3 Adjust roller operation and screed settings on paver to prevent further defects such as rippling and checking of pavement.

3.08 CLEANING

- .1 Progress and Final Cleaning: clean in accordance with Section 01 74 11 - Cleaning.

END OF SECTION

PART 1 – GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 31 22 13 – Earthworks (For Bronson Park)
- .2 Section 32 93 10 – Tree and Shrub Planting
- .3 Section 32 92 23 - Sodding

1.2 TESTING

- .1 Obtain NCC Representative's initial approval of imported topsoil at source.
- .2 Contractor is responsible to obtain soil analysis and requirements for amendments to supply topsoil as specified.
- .3 If defects are revealed during inspection and/or testing, the appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by NCC Representative at no cost to the Owner. Pay costs for retesting and re-inspection.
- .4 All samples and test results shall be clearly marked to indicate the Contractor's name, the date tested, type of topsoil specified and the contract for which it is to be used. Provide samples of all types indicated in materials.
- .5 Test imported topsoil for N, P K, Mg, trace minerals, soluble salt content, organic matter, soil texture and pH value prior to delivery to site.
 - .1 Submit 0.5 kg sample of topsoil to testing laboratory and indicate intended use.
 - .2 Determine requirements for amendments to bring pH value within range specified below.
 - .3 Submit two copies of soil analysis and recommendations for corrections to NCC Representative. Recommendation(s) to include for application prior to seeding or planting and recommendation(s) for maintenance application.
 - .4 Inspections and testing of topsoil will be carried out by testing laboratory designated by NCC Representative.
 - .5 National Capital Commission will pay cost of testing.
- .6 Employment of inspection/testing agencies does not relax the responsibility to perform Work in accordance with the Contract Documents.

1.3

REFERENCES

- .1 ASTM D698-91, Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (600 kN-m/m³).
- .2 ASTM F1815-97, Test Method for Bulk Density.
- .3 84-001, 84-002, 84-003 Analytical Methods Manual Agricultural Canada, 1984, testing of soil pH conductivity.
- .4 84-004 Analytical Methods Manual Agricultural Canada, 1984, testing of mineral content in soil (K, Mg).
- .5 84-017 Analytical Methods Manual Agricultural Canada, 1984, testing of phosphorous content in soil.
- .6 S-9.20 Western States laboratory proficiency testing program soil and plant analytical methods, version 4.00, 1997 for organic matter content in soil.

1.4

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.
- .3 Pre-Installation Meetings: conduct pre-installation meeting to verify project requirements, installation instructions and warranty requirements.

1.5

WASTE MANAGEMENT AND DISPOSAL

- .1 Divert unused soil amendments from landfill to official hazardous material collections site approved by Departmental Representative.
- .2 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.

1.6

SCHEDULING OF WORK

- .1 Schedule placing of topsoil to permit immediate planting operations.

1.7

DELIVERY AND STORAGE

- .1 Deliver and store fertilizer in waterproof bags, showing weight, analysis and name of manufacturer.

PART 2 - PRODUCTS

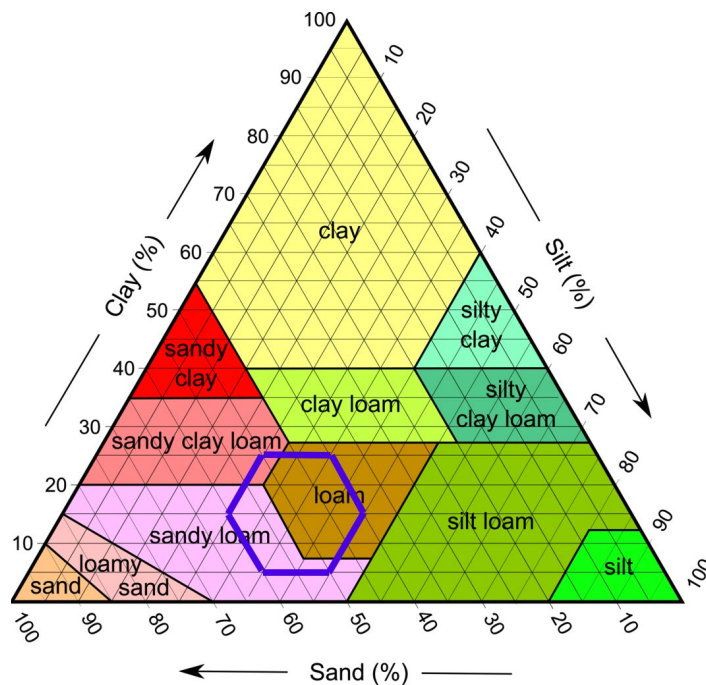
2.1

MATERIALS

- .1 Imported topsoil: mixture of mineral particulates, micro-organisms and organic

matter, which provides suitable medium for supporting intended plant growth.

- .1 Soil texture based on The Canadian System of Soil Classification
 - .1 Friable loam / sandy loam with the following parameters: 40 to 60% sand, 25 to 45% silt, 5 to 25% clay.
 - .2 Containing 5%-10% organic matter **by weight**.
- .2 Fertility: macro and micro soil nutrients adequate to support germination and establishment of intended vegetation. Adjust topsoil nutrients to meet analysis recommendations.
- .3 pH value: 5.5 to 6.5 .
- .4 Contain no toxic elements or growth-inhibiting materials.
- .5 Free from:
 - .1 Debris and stones over 50mm diameter.
 - .2 Course vegetative material, 10mm diameter and 100mm length, occupying more than 2% of soil volume.
 - .3 Couch grass, crab grass or other noxious weeds.
- .6 Consistency: friable when moist.



2.2 SOIL AMENDMENTS

- .1 Organic matter: compost Category A, unprocessed organic matter, such as rotted manure, hay, straw, bark residue or sawdust, meeting the organic matter, stability and contaminant requirements.
 - .7 Aged (minimum 2 years) mushroom compost, leaf mold, humus peat, or similar approved material. Soluble salt content must not exceed 1.0 ms/cm.
 - .8 Free of wood and deleterious material which could prohibit growth.
- .2 Lime: Ground agricultural limestone containing minimum 85% of total carbonates, 90% passing 1.0 mm sieve, 50% passing 0.125 mm sieve by weight.
- .3 Sulphur: Horticultural Grade.
- .4 Fertilizer: industry accepted standard medium containing nitrogen, phosphorous, potassium and other micro-nutrients suitable to specific plant species or application or defined by soil test.
 - .1 Fertility: major soil nutrients present in following amounts:
 - .2 Nitrogen (N): 20 to 40 micrograms of available N per gram of topsoil.
 - .3 Phosphorus (P): 40 to 50 micrograms of phosphate per gram of topsoil.
 - .4 Potassium (K): 75 to 110 micrograms of potassium per gram of topsoil.
 - .5 Calcium, magnesium, sulfur and micro-nutrients present in balanced ratios to support germination and/or establishment of intended vegetation.
 - .6 Ph value: 6.0-7.0.

PART 3 - EXECUTION

3.1 PREPARATION

- .1 Grade subgrade, eliminating uneven areas and low spots, ensuring positive drainage. Remove stones larger than 50 mm diameter and other deleterious materials. Remove subsoil that has been contaminated with oil, gasoline or calcium chloride. Dispose of removed materials as directed by the NCC Representative.
- .2 Cultivate entire area which is to receive topsoil to minimum depth of 100 mm. For preparation of planting beds and landforms, refer to plans and details.
- .3 Core aerate in those areas where equipment used for hauling and spreading has compacted the select cover material layer.

3.2 SPREADING OF TOPSOIL

- .1 Do not spread topsoil until NCC Representative has inspected and approved subgrade.
- .2 Spread topsoil with adequate moisture in uniform layers during dry weather over approved, dry, unfrozen subgrade, where planting, sodding or seeding are

indicated.

- .3 Bring topsoil up to finished grade.
- .4 Apply topsoil to the following minimum depths:
 - .7 150mm for sodded areas
 - .8 See details for landforms/planting beds.
- .5 Remove stones, roots, grass, weeds, construction materials, debris and foreign non-organic objects from topsoil.
- .6 Manually spread topsoil around trees, plants, surface utilities and other obstacles.

3.3 SOIL AMENDMENTS

- .1 If required, apply lime, sulphur or other soil amendment at rate determined from soil sample test.
- .2 Mix soil amendment well into full depths of topsoil by cultivating prior to application of fertilizer.

3.4 FINISH GRADING

- .1 Fine grade entire topsoiled area to contours and elevations as indicated or as directed by NCC representative. Eliminate rough spots and low areas to ensure positive drainage.
- .2 Roll topsoil with 50 kg roller, minimum 900 mm wide, to compact and retain surface.
- .3 Leave surface smooth, uniform, firm against deep foot printing, with fine loose texture.

3.5 ACCEPTANCE

- .1 The NCC Representative will inspect topsoil in place and determine acceptance of material, depth of topsoil and finish grading.

3.6 SURPLUS MATERIAL

- .1 .Dispose of surplus imported topsoil not required for fine grading/landscaping off site.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 31 22 13 - Earthworks
Section 32 91 21 – Topsoil and Fine Grading
Section 32 93 10 – Tree and Shrub Planting

1.02 SCHEDULING

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

1.03 QUALITY ASSURANCE

- .1 Submit in accordance with submittal procedures the following:
 - .1 Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements of seed mix, seed purity and sod quality.
 - .2 Certified reports showing compliance with specified performance characteristics and physical properties of seed mix, seed purity, and sod quality
- .2 Qualifications:
 - .1 Landscape Contractor: to be a Member of Landscape Ontario or the Association des Paysagistes Professionnels du Québec.

PART 2 - PRODUCTS

2.01 MATERIALS

- .1 Number One Turf Grass Nursery Sod: sod that has been especially sown and cultivated in nursery fields as turf grass crop.
 - .1 #1 Kentucky Bluegrass/ Fescue/Ryegrass Sod: Nursery Sod grown solely from seed in the following proportions:
 - .1 30% Sudden Impact Kentucky Bluegrass
 - .2 40% SR5250 Creeping Red Fescue.
 - .3 30% Arctic Perennial Ryegrass
 - .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 75 mm.
 - .2 Mowing height limit: 75 to 100 mm.
 - .3 Soil portion of sod: 15 mm in thickness.

- .2 Water:
 - .1 Potable water supplied by Contractor.
- .3 Fertilizer:
 - .1 Natural fertilizer 100% hen manure. Organic multipurpose natural fertilizer 5-3-2 from Acti-Sol Inc.

2.02 SOURCE QUALITY CONTROL

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

PART 3 - EXECUTION

3.01 PREPARATION

- .1 Verify that grades are correct and prepared in accordance with Section 32 91 21 - Topsoil and Fine Grading. If discrepancies occur, notify NCC Representative and commence work when instructed by NCC Representative.
- .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, to contours and elevations indicated, to tolerance of plus or minus 8 mm, for Turf Grass Nursery Sod, surface to drain naturally.
- .4 Remove and dispose of weeds; debris; stones 50 mm in diameter and larger; soil contaminated by oil, gasoline and other deleterious materials; off site.
- .5 Cultivate fine grade approved by Contract Administrator to 25 mm depth immediately prior to sodding.
- .6 Before sodding staging areas, aerate compacted soil to a depth of 150mm.

3.02 SOD PLACEMENT

- .1 Ensure sod placement is done by the Landscape Contractor.
- .2 Lay sod within 24 hours of being lifted from the nursery if air temperature exceeds 20 degrees C.
- .3 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. Avoid small pieces.
- .4 Overlapping sod will not be accepted, including at the joint between old and new sod.

- .5 Roll sod as directed by NCC Representative. Provide close contact between sod and soil by light rolling. Use of heavy roller to correct irregularities in grade is not permitted.

3.03 FERTILIZING PROGRAM

- .1 Apply the fertilizer in spring following acceptance of the work.

3.04 MAINTENANCE DURING ESTABLISHMENT AND WARRANTY PERIODS

- .1 Perform following operations from time of installation until acceptance:
 - .1 Water sodded areas in sufficient quantities and at frequency required to maintain optimum soil moisture condition to depth of 75 to 100 mm.
 - .2 Cut grass to 100 mm when or prior to it reaching height of 120 mm. Remove clippings which will smother grassed areas as directed by NCC Representative.
 - .3 Maintain sodded areas weed 95 % free.
 - .4 Fertilize areas in accordance with fertilizing program. Spread half of required amount of fertilizer in one direction and remainder at right angles and water in well.
 - .5 Repair and resod dead or bare spots to satisfaction of NCC Representative.

3.05 ACCEPTANCE

- .1 Turf Grass Nursery Sod areas and Sport Turf areas will be accepted by NCC Representative provided that:
 - .1 Sodded areas are properly established.
 - .2 Sod is free of bare and dead spots.
 - .3 No surface soil is visible from height of 1500 mm when grass has been cut to height of 100 mm.
 - .4 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.

END OF SECTION

PART 1 - GENERAL

1.1 REFERENCE STANDARDS

- .1 Agriculture and Agri-Food Canada (AAFC).
 - .1 Plant Hardiness Zones in Canada-2000.
- .2 Canadian Nursery Landscape Association (CNLA)
 - .1 Canadian Standards for Nursery Stock-latest edition.

1.2 SCOPE OF WORK

- .1 Provide labour, material, services and equipment necessary to complete the work of this section including but not limited to:
 - .1 Installation of tree and shrub material and plant accessories as itemized on the plant list and in accordance with specifications, details and maps.

1.3 ADMINISTRATIVE REQUIREMENTS

- .1 The Contractor must provide the NCC Representative with confirmation of the supplier's order for the plants within two weeks of the signing of the contract.
 - .1 The confirmation of the plant order must include the following information:
 - 1. The name and address of the supplier;
 - 2. For each species of plant: quantity, height / caliper, scientific name, rooting type
- .2 Scheduling: 7 days in advance of shipment of plant material, obtain approval from NCC Representative.
 - .1 Schedule to include:
 - .1 Quantity, species and size plant material.
 - .2 Shipping dates.
 - .3 Arrival dates on site.
 - .4 Planting Dates.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labeled with the species name for the plants, manufacturer's name and address for other products.
 - .1 Co-ordinate with NCC representative the shipping of plants and excavation of holes to ensure minimum time lapse between digging and planting.
 - .2 Abundant watering must be done before the plants leave the nursery or the Contractor's shop to the job sites. Regular watering should be done when the plants are stored to keep the root systems moist.
 - .3 Protect plant material from frost, excessive heat, wind and sun during delivery.
 - .4 Protect plant material from damage during transportation:
 - .1 Delivery distance is less than 30 km and vehicle travels at speeds under 80 km/h, tie tarpaulins around plants or over vehicle box.
 - .2 Delivery distance exceeds 30 km or vehicle travels at speeds over 80 km/h, use enclosed vehicle where practical.
 - .3 Protect foliage and root balls using anti-desiccants and tarpaulins, where

- use of enclosed vehicle is impractical due to size and weight of plant material.
- .4 Tie branches of trees securely and protect plant material against abrasion, exposure and extreme temperature change during transit. Avoid binding of planting stock with rope or wire which would damage bark, break branches or destroy natural shape of plant. Give full support to root ball of large trees during lifting.
- .5 Protect the trunk with a wax cardboard during transportation
- .2 Storage and Handling Requirements:
 - .1 Immediately store and protect plant material which will not be installed within 1 hour and after arrival at site in storage location approved by NCC Representative.
 - .2 Protect stored plant material from frost, wind and sun and as follows:
 - .1 For bare root plant material, preserve moisture around roots by heeling-in or burying roots in sand or topsoil and watering to full depth of root zone.
 - .2 For pots and containers, maintain moisture level in containers. Heel-in fibre pots.
 - .3 For balled and burlapped and wire basket root balls, place to protect branches from damage. Maintain moisture level in root zones.
 - .4 Store in shaded areas.

PART 2 - PRODUCTS

2.1 PLANT MATERIAL SUPPLIED BY THE CONTRACTOR

- .1 Notify NCC representative of source of plant material in the next two (2) weeks following the signature of the contract and purchase order. No work under this Section is to proceed without approval.
- .2 Trees and shrubs to be from a certified nursery approved in writing by the NCC representative.
- .3 NCC representative reserves the right to inspect the plants at the source.
- .4 Obtain approval by NCC representative of plant material on site before commencing installation.
- .5 Acceptance of plant material on site or at the source does not prevent rejection prior to or after planting operations due to damage to root balls, branch structure, bark, or the like by the Contractor.
- .6 **Plants shall conform to the varieties specified in the plant list** (See Schedule of Items and Prices) and be legibly tagged with their proper name and size. No substitutions will be accepted without prior written approval of the NCC representative.

2.2 PLANT MATERIAL

- .1 **Class / Size:** Refer to the Schedule of Items and Prices and planting schedules on the drawings for the plant sizes included in this contract.

- .2 **Quality:** Comply with the latest edition of the *Canadian Standards for Nursery Stock*, published by the Canadian Nursery and Landscape Association (CNLA), referring to size and development of plant material and root ball. Measure plants when branches are in their natural position.
- .3 **Source:**
 - .1 Large stock deciduous and coniferous trees are to be **obtained from the same climatic zone as the National Capital Region (5a) or a lower climatic zone**, according to Agriculture Canada Plant Hardiness Zone Map;
 - .2 Container stock trees and shrubs (1-7 gal.) and bare root trees shall be grown from seeds collected from seed **zone 36** in accordance with the Seed Zone Boundary Map (Ontario Ministry of Natural Resources). Upon request, the supplier shall provide proof of seed collection zone (except for this proof to be requested).
- .4 **Additional plant material qualifications:**
 - .1 Use trees with strong fibrous root system free of disease, insects, defects or injuries and structurally sound. Use trees with straight trunks, well and characteristically branched for species. Plants must have been root pruned regularly, but not later than one growing season prior to arrival on site;
 - .2 Plant material that has come out of dormant stage and is too far advanced will not be accepted unless prior approval is obtained by the NCC representative.
- .5 **Container-grown stock:**
 - .1 Acceptable if containers large enough for root development. Trees must have grown in container for minimum of one growing season but no longer than two. Root system must be able to 'hold' soil when removed from container. Plants that have become root bound are not acceptable. Container stock must have been fertilized with slow releasing fertilizer.
- .6 **Balled and bur lapped:**
 - .1 Coniferous and broad-leaved evergreens over 500 mm tall must be dug with soil ball. Deciduous trees in excess of 3 m height must have been dug with large firm ball. Root balls must include 75% of fibrous and feeder root system. This excludes use of native trees grown in light sandy or rocky soil. Secure root balls with wrap ball in double layer of burlap and drum lace with minimum 10 mm diameter rope. Protect root balls against sudden changes in temperature and exposure to heavy rainfall.
 - .2 Tree spade dug material – at source: Dig plant material with hydraulic spade or clam. Root balls to satisfy the CNLA standards or as approved by NCC representative. Lift root ball from hole, place in a standard wire basket designed for purposes and line with burlap. Replace root ball and tie basket to ball with heavy rope. Do not damage trunk of tree with basket ties or rope. **Field-collected plant materials will not be accepted.**

2.3 PLANT ACCESSORIES

- .1 **Water:** Free of impurities that would inhibit plant growth.

- .2 **Topsoil:** Mixture of mineral particulates, micro-organisms and organic matter which provides suitable medium for supporting intended plant growth.
 - .1 Soil texture based on The Canadian System of Soil Classification, to consist of:
 - .1 Friable loam / sandy loam with the following parameters: 40 to 60% sand, 25 to 45% silt, 5 to 25% clay.
 - .2 Contain 5-10% organic matter by weight.
 - .2 Fertility: macro and micro soil nutrients adequate to support germination and establishment of intended vegetation. Adjust topsoil nutrients to meet analysis recommendations.
 - .3 pH value: 5.5 to 6.5;
 - .4 Contain no toxic elements or growth inhibiting materials;
 - .5 Free from:
 - .1 Debris and stones over 50 mm diameter;
 - .2 Course vegetative material, 10 mm diameter and 100 mm length, occupying more than 2% of soil volume;
 - .3 Of cut grass, crabgrass, couch grass, or other noxious weeds.
 - .6 Consistency: friable when moist.

- .3 **Staking and guying materials:**
 - .1 Stakes: Wood Stake (untreated wood-spf), 50mm x 50mm x 2.44m;
 - .2 Wires: Flat, woven polypropylene: DeepRoot; *ArborTie*, or approved equivalent. Color: Green.

Note: All Class C1 caliper-sized deciduous and coniferous trees 1.5m to 2.0m in height will require staking and guying. No bare root plants will require staking and guying.

- .4 **Trunk protection:**
 - .1 SURTRONC from Dendrotik (1 800 653-7066) or approved equivalent. Fine mesh wrap around guard protecting against rodents and deer. The well ventilated mesh prevents development of pests and diseases. Anti-UV treated polyolefins.

Color: Black.

Size: diameter: 15cm

Height : 80cm S1580 Surtronc.

This protection will be loosely installed (not in contact with tree trunk) and joined with tie-wraps at the top, bottom and every 20cm in between (black- plus one identifier see 2.3.7) to ensure protection from both animals and other mechanical damage.

- .5 **Burlap** (winter protection): Non-treated 150 g Hessian burlap
- .6 **Ramial Chipped Wood Mulch:** Shredded natural deciduous, free of bark, small branches, and leaves, varying in size from 50-75 mm long and 5-20 mm thick. Submit sample and name of supplier five (5) days in advance and obtain approval by NCC representative prior to shipping to site.
- .7 **Tree Identification:** Each tree planted as a part of this contract will have a unique identifier (tie-wrap style) of a **PINK** cable tie with a minimum width of .19". This

identifier will be affixed to deciduous trees on the trunk protection and conifers on a branch in the crown- not so tight as to limit growth, but visible.

2.4 REPLACEMENT

- .1 When replacements are required under the assigned warranty and maintenance category, it is the responsibility of the Contractor to supply a list of trees that he/she plans to replace based on warranty criteria on two occasions:
 - .1 6 months after acceptance of the planting
 - .2 1 year later.These lists will be approved by the NCC Representative who may make changes.
- .2 Regardless of warranty or maintenance categories, replace all plant material damaged by the following means:
 - .1 During loading and unloading operations;
 - .2 During transportation;
 - .3 During planting operations;
 - .4 During other works performed by the Contractor.
- .3 Not covered under the terms of the warranty are trees that die or are damaged beyond repair by mechanical means (vehicles, mowing etc.) carried out by parties other than the Contractor. This will be determined by the NCC representative and followed by site remediation (refer to section 4.1.2.2).
- .4 Replace plant material from approved source immediately if appropriate, or during the next planting season.

2.5 WARRANTY PERIOD

There may be a variety of warranty terms expected as part of this contract, depending on the accessibility of the planting locations for maintenance purposes and which party supplies the plant material. See the Schedule of Items and Prices for the warranty periods and maintenance requirements for each area. The terms of each warranty period category are as follows:

WG0

- .1 As the NCC is purchasing and supplying the trees and shrubs for this area, the Contractor will not be subject to a typical two-year warranty period. However, the planting of the trees and shrubs will require the acceptance of the NCC representative at the time of the planting operations.
- .2 Please consult the Schedule of Items and Prices for the maintenance category required for areas assigned the WG0 warranty category.
- .3 Replacements are not required under this warranty category, but any plant material that has died, shows more than 30% dieback in live crown or has failed to grow or establish satisfactorily as determined by the NCC representative must be removed from site and the planting site reinstated.
- .4 The NCC representative will conduct several inspections at their discretion until the end of the two-year maintenance period, ending in the **Spring of 2021**.

WG1

- .1 The Contractor warrants that plant material will remain free of defects for a period of **two growing seasons** from the date of completion of planting.
- .2 The Contractor must replace any tree or shrub that shows more than 30% dieback in live crown or has failed to grow or establish satisfactorily as determined by the NCC representative
- .3 Please consult the Schedule of Items and Prices for the maintenance category required for areas or plants assigned the WG1 warranty category.
- .4 The NCC representative will conduct several inspections until the end-of-warranty period, ending in the **Spring of 2021**.
- .5 **When trees are replaced, extend warranty on replacement plant material for a period equal to the original warranty period.** Continue such replacement and warranty until plant material is acceptable.

WG2

- .1 The NCC representative will conduct several inspections until the end-of-warranty period, ending in the **Spring of 2021**.
- .2 During warranty period, remove from site and replace qualifying plant material (see .3 below) that has died, shows more than 30% dieback in live crown or has failed to grow or establish satisfactorily as determined by the NCC representative.
- .3 The Contractor warrants this plant material for two (2) years as such:
 - .1 A maximum of 25% of the plant total within all the planting areas of a project site can be replaced based on warranty criteria in any one warranty year per site. No carryover year to year.

Example:

An inventory performed in Fall 2019 of 100 trees planted in Spring 2019 reveals that thirty (30) trees qualify for replacement. Twenty-five (25) trees will be replaced in Spring 2020 (25%). In Fall 2020, an additional five (5) new trees qualify for replacement. Fall 2020 inventory reveals (5) new trees qualify for warranty replacement and five (5) new trees will be replaced in Spring 2021. All other stipulations to warranty replacements apply such as Section 2.4.

PART 3 - EXECUTION

All Specifications below must be adhered to. Any proposed changes to these specs must be submitted at time of tender and approval required before changes are made. Any specification that is omitted will be noted, reparations made whenever possible. A warning will be given followed by an Unsatisfactory Performance Report for specifications not being followed (specific to the infraction).

3.1 WORKMANSHIP

- .1 Coordinate operations. Keep site clean and planting holes drained. Immediately remove debris spilled onto pavement.
- .2 Remove surplus materials from worksite.
- .3 Tree planting and associated work will be accomplished following industry best management practices for horticulture/arboriculture in relation to tree planting, and as directed by the NCC representative.

3.2 PLANTING PROCEDURE

- .1 Refer to planting details on drawings.
- .2 Water 10-20 minutes before planting and again immediately after planting to prevent drying of roots.
- .3 Depth - the rootball should sit on undisturbed soil to limit any shifting or settling. It is crucial that this depth be established properly as the trees trunk flare must be above grade and the trees uppermost structural roots should be within 25-75mm of grade.
- .4 When planting Class C2 container stock, remove entire plant from container without disturbing root ball. Non bio-degradable wrappings must be removed (wire). With balled and bur lapped root balls, loosen burlap and cut away minimum top 2/3 without disturbing root ball. Do not pull burlap or rope from under root ball.
- .5 For Class C3 bare root stock, **never** allow roots to dry out. Dig the planting hole to the diameter of the spread of the roots to a depth in the center that maintains the root collar at the elevation of the surrounding finished grade and slightly deeper along the edges of the hole. Spread all roots out radial to the trunk in the prepared hole, making the hole wider where needed to accommodate long roots. Root tips shall be directed away from the trunk. Prune any broken roots removing the least amount of tissue possible. Maintain the trunk plumb while backfilling soil around the roots. Lightly tamp the soil around the roots to eliminate voids and reduce settlement.
- .6 If there is evidence that roots are circling they should be loosened and spread out, even cut if necessary.
- .7 Backfill with excavated soil. Add topsoil (section 2.3.2) as required.
 - i. Begin backfilling around base of rootball to ensure stability and tamp (bottom 100mm of hole).
 - ii. Water to slurry and tamp in lifts of 150mm.
 - iii. Fill in and gently tamp top portion of hole.
- .8 Build a saucer around outer edge of hole to assist with maintenance watering, as per details. Rake out saucer at end of warranty period.
- .9 The Contractor is responsible for the removal of any other undesirable materials from the tree and planting site (ex: twine, rope, flagging tape, wire basket, burlap, large stones, etc.)

****If any suspected contamination at the site is discovered during excavation, the NCC must be notified immediately****

For further detail on planting please consult the International Society of Arboriculture's Best Management Practises for Tree Planting.

3.3 TREE SUPPORT

- .1 Immediately after planting, supply and install tree supports for all Class C1 large deciduous and coniferous trees.
- .2 For trees smaller than 5 gallons, guy and stake only those plants designated by the NCC Representative. A maximum of 30% of those caliper trees may require staking.
- .3 Place stake on prevailing wind side of tree.
- .4 Drive stake minimum 500 mm into undisturbed soil beneath roots, at the outside edge of the root ball.
- .5 Ensure stake secure and vertical. Stakes will be a minimum of 1m in height but will be lower than the trees crown.

- .6 Install *DeepRoot-ArborTie* or approved equivalent. Cut off excess material.
- .7 Include tightening of guying materials to bring trees and plants to upright position.

3.4 MULCHING

- .1 Obtain approval of planting before mulching material is applied, if required. Spread mulch to minimum thickness as detailed on the drawings. No mulch should be piled around or in contact with the root flare of the tree. Mulch material susceptible to blowing must be moistened and mixed with topsoil before applying.
- .2 If there is enough material on-site, rake the chipped wood to form a pile in designated areas indicated by a NCC representative. Then, the Contractor must disperse these wood chips around the newly planted trees. If the on-site wood chips have all been utilized, complete the mulching process with purchased mulch after receiving approval from the NCC Representative.

3.5 TRUNK PROTECTION

- .1 Install trunk protection on Class C1 deciduous trees and Class C2 deciduous trees (but not shrubs).

PART 4 - MAINTENANCE

4.1 GENERAL

- .1 The Contractor shall prepare a maintenance schedule / tracking chart for each area with a list of all required items from the corresponding maintenance category, and a column to indicate the dates that each item is carried out. This chart template will need to be approved by the NCC Representative prior to planting and thereafter provided to the Representative every month for the duration of the maintenance period for tracking and reporting purposes.
- .2 Maintenance requirements in this contract may vary from planting area to planting area, depending on accessibility of the planting locations for maintenance purposes. See the Schedule of Items and Prices for maintenance requirements for each planting. The terms of each maintenance category are as follows:

ME1: Maintenance category ME1 is typically applied to planting areas with access appropriate for regular maintenance with pick-up trucks and water trucks, but consult the Schedule of Items and Prices for confirmation of the areas subject to ME1. From time of substantial acceptance by the NCC representative to end of warranty period, perform maintenance operations as described.

- .1 At no additional cost to the Commission, the Contractor shall, as soon as conditions permit during the specified planting period (spring or fall), remove and replace any trees which are not found to be in acceptable health or overall condition (section 2.5), as determined jointly by the Contractor and by the NCC representative, during the warranty period
- .2 Trees that die or suffer damage that will ultimately result in the death of the tree that are not covered under warranty will be removed in their

entirety - this includes but is not limited to the tree, the root ball, mulch, and tree support system. The site will be remediated to its pre-planting condition- soil and seed when complete.

- .3 Watering per Section 4.2
- .4 Winter protection per Section 4.3
- .5 Remove all competing vegetation to grade, once in the spring or fall following planting, and once again a year later, in a 1m diameter around each plant. The use of brush saws may be required for the removal of woody vegetation.
- .6 All parts of invasive plants that are removed must be placed immediately into plastic garbage bags at the site of removal and then disposed of in the designated landfill. Do not stockpile or drag invasive plants around the planting site.
- .7 For non-mulched areas, cultivate to keep top layer of soil friable;
- .8 Repair/ replace tree support systems (stakes and ties) if required;
- .9 Top-up or re-spread damaged or missing mulch;
- .10 Remove dead, broken or hazardous branches from plant material;
- .11 Keep trunk protection and tree supports in proper repair and adjustment;
- .12 Remove and replace: dead plants; plants displaying low vigour and vitality; and if the tree's crown appears 1/3 dead. Make replacements in same manner as specified for original plantings.

ME2: Maintenance category ME2 is typically applied to planting areas that are too difficult for water trucks to access, but consult the Schedule of Items and Prices for confirmation of the areas subject to ME2. From time of acceptance by the NCC representative to end of warranty period, perform maintenance operations as described.

- .1 Items 1-2 and 4-11 as per ME1.
- .2 Watering will be undertaken according to section 4.2 at time of planting at the exact planting site. After initial installation, watering will **not** be expected due to lack of access.

4.2 WATERING :

- .1 Apply water using a soft spray nozzle to avoid packing of the soil.
- .2 Ensure that water penetrates the soil to a depth of 300 mm in the area from the trunk to the outer extent of the dripline.
- .3 **Water as needed and confirm soil humidity using a moisture probe with gauge.** However, in order to obtain optimal results, we suggest the following watering frequency:
 - a. Water weekly from May 1st to August 31st;
 - b. During drought conditions (no rain for 3 consecutive days), water trees twice (2) weekly;
 - c. Water deciduous trees biweekly from September 1st until mid-October;
 - d. Water coniferous trees biweekly from September 1st until mid-October.
 - e. After September 1st, during drought conditions (no rain for 5 consecutive days), water trees on the 6th day.

- .4 Replace and repair any sod, mulch, paving or other materials disturbed by watering procedures.
- .5 Repair damaged watering saucers;

4.3 WINTER PROTECTION

- .1 Install winter protection (burlap) on all coniferous trees 1.5m high or more.
- .2 To be installed beginning of December and to be removed beginning of April.
- .3 To be done every winter during the warranty period.

4.4 MAINTENANCE AT THE END OF WARRANTY PERIOD

The following tasks are required for ALL maintenance and warranty categories:

- .1 At the end of warranty period, before the final inspection, remove all tree supports systems (stakes and ties), remove any weeds or grass that has grown into the mulched area, and top up all mulch to original specs.
- .2 Remove tie-wraps on tree protection and leave tree protection.
- .3 Remove all coloured cable ties identifying the trees from sites indicating a completion of contract responsibilities- with the exception of any trees that warranties have been extended on- those will be removed once warranty and maintenance obligations are fulfilled.

4.5 FINAL INSPECTION AND ACCEPTANCE

- .1 At the end of the two year warranty period, and once the Contractor has requested in writing, the NCC representative will perform the final inspection. Once final inspection is completed, and observed deficiencies or repairs required according to the NCC representative are completed, he will advise in writing that the requirements of this contract are complete and approve payment of remaining *hold back*.

END OF SECTION

Common Buckthorn

(*Rhamnus cathartica*)

Common buckthorn (also known as European buckthorn) is a small shrub or tree native to Eurasia. It was introduced to North America in the 1880s as an ornamental shrub and was widely planted for fencerows and windbreaks in agricultural fields. Since then it has spread aggressively throughout southern Ontario and in other provinces.

Common buckthorn can thrive in a wide range of soil and light conditions, enabling it to invade a variety of habitats. It is most often found in woodlands and open fields, where it forms dense stands under which few other plants can grow. Buckthorn can spread widely with the help of birds and animals that eat its fruit, carry the seeds long distances and deposit them in their droppings. Stands of buckthorn can invade roadsides, riverbanks, mature forests, farm fields and hydro corridors.



Common buckthorn leaves and flowers.
Photo: Credit Valley Conservation Area

Range

Outside its native range, common buckthorn is found in Canada as far west as Saskatchewan and as far east as Nova Scotia. It also grows throughout the northeastern and north central United States.

Impacts of Common Buckthorn

- Buckthorn thrives in a variety of habitats and forms dense thickets that crowd and shade out native plants. It can alter nitrogen levels in the soil, creating better conditions for its own growth and discouraging the growth of native species.
- It produces large numbers of seeds that germinate quickly and prevent the natural growth of native trees and shrubs.
- The shrub can host oat rust, a fungus that causes leaf and crown rust and affects the yield and quality of oats.
- The soybean aphid, an insect that damages soybean crops, can use buckthorn as a host plant to survive the winter.



Common buckthorn, showing typical deep green foliage in fall, dominates the lower layers of forests. Photo: Wasył Bakowsky, MNR

Because it can affect agricultural crops, common buckthorn is listed as a noxious weed under Ontario's Weed Control Act.

How to Identify Common Buckthorn

- Buckthorn is usually the first shrub to leaf out in the spring and the last to drop its leaves late in the fall.
- It often grows two to three metres tall. Occasionally it reaches six metres, with a trunk up to 25 centimetres in diameter.
- Smooth, dark green leaves are finely toothed, 2.5 to six centimetres long, and arranged in opposing pairs along the stem.
- Most branches older than one year end in a short, sharp thorn.
- Flowers have two to six small yellowish-to-green petals.
- Common buckthorn produces clusters of berry-like black fruit in late summer and fall.

Common buckthorn resembles another invasive species, glossy buckthorn (*Frangula alnus*), and a much smaller native shrub, alder-leaved buckthorn (*Rhamnus alnifolia*).

Check the chart below to identify common buckthorn, glossy buckthorn and alder-leaved buckthorn.



Illustration by Andrea Kingsley



Illustration by Andrea Kingsley



Illustration by Andrea Kingsley

Common buckthorn

(*Rhamnus cathartica*) (invasive)

- Grows in drier areas
- Often two to three metres tall; can reach six metres
- Twigs end in sharp thorn
- Usually opposite leaves with finely toothed edges

Glossy buckthorn

(*Frangula alnus*) (invasive)

- Grows in wet areas
- Often two to three metres tall; can reach six metres
- No sharp thorn on end of twig
- Alternate, shiny leaves with smooth, wavy edges

Alder-leaved buckthorn

(*Rhamnus alnifolia*) (native)

- Grows in very wet areas
- Up to one metre tall
- No sharp thorn on end of twig
- Alternate, shiny leaves with toothed edges
- Small growths (stipules) at base of leaves

What You Can Do

- Learn how to identify common buckthorn, glossy buckthorn and other invasive plants, and how to effectively manage these species on your property. See *The Landowner's Guide to Controlling Invasive Woodland Plants*. Go to ontario.ca/invasivespecies, click on **Here's a list of things you can do to help fight invasive species**, and click on the title.
- Avoid using invasive plants in gardens and landscaping.
- Buy native or non-invasive plants from reputable garden suppliers. Native plants provide habitat and food sources for native wildlife. See *Grow Me Instead: Beautiful Non-Invasive Plants for Your Garden*. Go to ontario.ca/invasivespecies, click on **Here's a list of things you can do to help fight invasive species**, and click on the title.
- Dispose of invasive plants in the garbage. Do not put them in the compost or discard them in natural areas. Discarded flowers may produce seeds.
- When hiking, prevent the spread of invasive plants by staying on trails and keeping pets on a leash.
- If you've seen common buckthorn or other invasive species in the wild, please contact the Invading Species Hotline at 1-800-563-7711, or visit www.invadingspecies.com to report a sighting.

Other Resources:

www.invasivespeciescentre.ca
ontario.ca/invasivespecies
www.ontarioinvasiveplants.ca
www.invadingspecies.com

For More Information:

Please contact the Invading Species Hotline at 1-800-563-7711.

Photo: Greg Bales, MNR



Common buckthorn ripe fruit cluster.

This fact sheet may be reproduced for non-commercial purposes.

© Queen's Printer for Ontario, 2012

Cette publication est également disponible en français.

Poison Ivy Fact Sheet

Poison ivy grows in woods, fields and along roadsides and riverbeds. It can be a high-climbing woody vine, a small low-growing shrub or ground cover. Poison ivy grows in every region of the United States except the Southwest, Hawaii and Alaska.



Distinguishing Characteristics – “Leaves of three let them be”

- Three thin, pointy and shiny leaves; however, the shape, texture and color of leaves can vary.
- Leaves are reddish in spring, green in summer and orange, red or bronze in the fall.

Jennifer Anderson @ USDA-NRCS PLANTS Databasepdf'd

Toxicity

- Most people are sensitive to the oily resin or sap of poison ivy (urushiol). Urushiol is found year round in all parts of the plant including the roots, stems, flowers and leaves.
- Animals are not sensitive to poison ivy, but people can get poison ivy from an animal's hair or fur.

Potential Exposures

- Exposures are more common in the spring and summer.
- A person can get a rash by touching any part of the poison ivy plant or anything that has come in contact with poison ivy and still has the oily resin on it. Examples include sporting or camping equipment, gardening tools, shoes, clothes and pets or contaminated surfaces.
- Contact with fluid-filled blisters that develop does not spread poison ivy.
- Smoke from burning poison ivy can cause irritation to the eyes, skin, nose and throat and difficulty breathing. This irritation can sometimes be severe.

Symptoms



- A rash may develop between 1 hour and 5 days after contact. The rash can vary in severity and usually starts with itching, redness and swelling sometimes followed by tiny pimples or blisters.
- Delayed symptoms may appear if skin comes in contact with contaminated items or surfaces.

Treatment

- Immediately after exposure (within 10-15 minutes) wash exposed areas, including nails, with cool water and soap.
- Wash contaminated surfaces with rubbing alcohol and clothes and shoes with hot water and soap.
- See your health care provider if symptoms are severe or persist and for treatment advice.
- If you experience difficulty breathing, swelling in the throat, dizziness or weakness call 911.

Prevention

- Learn to recognize poison ivy and avoid exposure.
- Always wear vinyl gloves when removing plants (urushiol can penetrate rubber).
- Wear long pants, long sleeves, socks, closed shoes, hat when walking in areas with poison ivy.
- Do not burn poison ivy.

Contact the Northern New England Poison Center for information or questions at 1-800-222-1222 or visit www.nnepc.org.

Stinging Nettle Safety

Stinging nettle has fine hairs on the leaves and stems that contain irritating chemicals, which are released when the plant comes in contact with the skin. The hairs, or spines, of the stinging nettle are normally very painful to the touch.

Precaution: Avoid this plant to avoid getting stung!

Reaction/Response:

- Reddening and intense itching of short duration
- Sensitive individuals may experience swelling and burning
- Wash affected area or immediately apply a baking soda paste to soothe stinging sensation
- A prolonged tingling sensation may persist on the affected skin for more than 12 hours, even after visible symptoms have faded.

Leaves:

- Fine toothed, tapered, ~3-15 cm heart-shaped leaves
- Thin catkins of tiny green flowers grow from the leaf stems

Height: Generally 1 metre but can grow up to 2 metres depending on location and soil condition.

Habitat:

- Generally in the same locations every year.
- Thrive in rich soil, moist woodlands, thickets, disturbed areas, along partially shaded trails and riversides
- Blooms between June and September.

Control:

- Remove plants by hand -- wear gloves to protect skin from the stinging hairs
- Ensure the underground portion (rhizomes) are removed or the plants will regrow
- Close mowing can prevent the development of fruit
- Be aware cultivating the soil may spread the rhizomes, thus increasing the size of the population
- Repeated cultivation works best as a control for this weed



Fact sheet distributed by Occupational Health Clinics for Ontario Workers (OHCOW). 1-877-817-0336 www.ohcow.on.ca

Sources: Stinging nettle | University of Maryland Medical Center <http://umm.edu/health/medical/altmed/herb/stinging-nettle#ixzz3Uwiz4rys>. University of Maryland Medical Center <http://www.ediblewildfood.com/stinging-nettle.aspx>

Stinging Nettles of Florida0 IFAS Extension –University of Florida-Wendy B. Zomlefer

Burning & Stinging Nettles Statewide Integrated Pest Management Program-University of California Agriculture Natural Resources.

Tick Safety in the Greenbelt

What are ticks?

Closely related to spiders, ticks are a group of about 900 species of parasites in the class Arachnida. These small animals rely on the blood of host animals such as deer, hare, and mice to live. Ticks attach to animals by waiting on shrubs and grasses until an appropriate host brushes by, then finding a good location to cut into the host and feed on the host's blood. In the Capital Region, the blacklegged tick, or deer tick (*Ixodes scapularis*), is the main concern, due to the potential for it to transmit Lyme disease.



PD-USGov-USDA-ARS

Why should you be concerned?

Ticks are a vector of various diseases. Susceptible hosts can become infected while ticks are feeding. Lyme disease, caused by bacterial infection spread by the blacklegged tick, is an illness that, left untreated, can cause severe symptoms such as nervous system disorders, mental issues, and paralysis.



Michael Apel

What can you do to reduce the risk?

When walking in tick habitat (shrubby and brushy areas where host animals such as deer and mice can be found), simple measures can help to reduce the risk of getting bitten:

- Apply insect repellent.
- Wear long-sleeved shirts and long pants.
- Tuck pant legs into socks.

After any activity in tick habitat, a thorough check for ticks is always a good idea.

What to do if you are bitten by a tick?

If you are bitten by a tick, the best course of action is to remove the tick as soon as possible, since Lyme disease will usually manifest only from infected ticks that have been attached for more than 24 hours. This is done by grasping the tick with tweezers or a tick remover as close to your skin as possible, and gently pulling it straight out. After the tick is removed, disinfect or wash the area well with soap and water.

For more information about ticks and Lyme disease, including signs and symptoms, please visit:



West Nile virus



Anyone bitten by a mosquito carrying the West Nile virus can experience symptoms that range from nothing at all to high fever, tremors, muscle weakness and more.

Learn how to protect yourself and reduce your risk of getting West Nile.

How you get West Nile virus

West Nile virus is carried by mosquitoes. The mosquitoes become infected by feeding on an infected bird. If an infected mosquito bites you, it will pass the disease onto you. Everyone in Ontario who spends time near infected mosquitos could get West Nile.

Symptoms

Four out of five people do not show any symptoms. Others see symptoms 2-15 days after being bitten by an infected mosquito.

Common symptoms include:

- fever
- headache
- body ache
- nausea
- vomiting
- rash on chest, stomach or back

Approximately one in 150 people will have serious symptoms including:

- high fever
- severe headache
- muscle weakness
- stiff neck
- confusion
- tremors
- numbness
- sudden sensitivity to light

How to avoid West Nile virus

Cover up

Cover up when going outside between the hours of dusk and dawn (when most mosquitoes feed). Remember to wear:

- a long-sleeved shirt or jacket and long pants (tucked into your socks for extra protection)
- light-coloured clothing
- if you will be outside for a long time, wear special clothing that is designed to protect you from bugs

Clean up

- once a week, get rid of standing water around your home (mosquitoes lay their eggs in stagnant water, even small amounts)
- keep bushes and shrubs clear of overgrowth and debris (adult mosquitoes like to rest in dense shrubbery)
- turn your compost pile often

Use insect repellent

- use a bug repellent containing DEET or icaridin
- always read and follow all the label directions when using any insect repellent or ask a pharmacist for help when choosing an insect repellent product

If you think you have West Nile virus

If you think you've contracted the West Nile virus, contact:

- your doctor or other health care provider
- your local public health unit (PHU)
- Telehealth Ontario – a free service which uses registered nurses to answer your health concerns around the clock
 - toll free 1-866-797-0000
 - TTY 1-866-797-0007

Wild Parsnip

(*Pastinaca sativa*)

Wild parsnip is an invasive plant native to Europe and Asia. It was likely brought to North America by European settlers, who grew it for its edible root. Since its introduction, wild parsnip has escaped from cultivated gardens and spread across the continent.

Wild parsnip roots are edible, but the sap of the plant can cause severe burns. Collecting the plant from the wild should only be done with extreme care. See the section Protective Clothing below.

Wild parsnip, which is also known as poison parsnip, is a member of the carrot/parsley family. It typically grows a low, spindly rosette of leaves in the first year while the root develops. In the second year it flowers on a tall stalk and then dies. The plant can form dense stands and spreads quickly in disturbed areas such as abandoned yards, waste dumps, meadows, open fields, roadsides and railway embankments. Its seeds are easily dispersed by wind and water, and on mowing or other equipment.

Like giant hogweed and other members of the carrot family, it produces sap containing chemicals that can cause human skin to react to sunlight, resulting in intense burns, rashes or blisters.

Range

In North America, scattered wild parsnip populations are found from British Columbia to California, and from Ontario to Florida. It has been reported in all provinces and territories of Canada except Nunavut. The plant is currently found throughout eastern and southern Ontario, and researchers believe it is spreading from east to west across the province.



Flowers grow in yellowish-green clusters

Photo: Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Impacts of Wild Parsnip

- The plant can form dense stands that outcompete native plants, reducing biodiversity.
- Stem, leaves, and flowers contain chemicals that can increase skin sensitivity to sunlight and cause severe dermatitis.
- Wild parsnip reduces the quality and saleability of agricultural forage crops such as hay, oats, and alfalfa.
- Chemical compounds in the plant are known to reduce weight gain and fertility in livestock that eat it.

How to Identify Wild Parsnip

- Grows up to 1.5 metres tall.
- The single green stem is two to five centimetres thick and smooth with few hairs.
- Compound leaves are arranged in pairs, with sharply toothed leaflets that are shaped like a mitten.

- Yellowish green flowers form umbrella-shaped clusters 10 to 20 centimetres across.
- Seeds are flat and round.

Check the chart below to know how to identify wild parsnip.



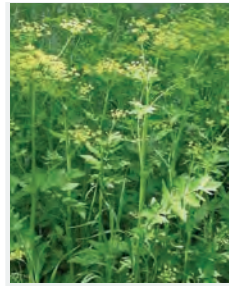
Jeff Muzzi



Diana Shermet, CLOCA



Leslie J. Mehrhoff, U. of Connecticut



Chris Evans, Illinois Wildlife Action Plan



Rachel James



Giant Hogweed
(*Heracleum mantegazzianum*)

Cow Parsnip
(*Heracleum maximum*)

Wild Parsnip
(*Pastinaca sativa*)

Queen Anne's Lace
(*Daucus carota*)

Angelica
Angelica spp.

Height	2.5 to 5 m	1 to 2.5 m	0.5 to 1.5 m	0.3 to 1.5 m	1.2 to 2.1 m
Flowers	Large, white umbrella-shaped flower clusters 30 to 90 cm across, made up of 50 to 150 small flower clusters	White umbrella-shaped flower cluster 10 to 30 cm across, made up of 15 to 30 small clusters	Yellowish-green flower clusters 10 to 20 cm across	White flower cluster 5 to 10 cm across. Pale pink before fully opened. Often single purple flower in centre of flower cluster	Greenish-white globe-like flower clusters 8 to 25 cm across
Leaves	Prominently spiked edges Up to 1.5 m long Leaflets grow right out of each side of main stem, with no leaf stalk	Leaves have lobes shaped like a hand with fingers, with fuzzy undersides Up to 0.5 m long and wide Leaf blade separated from main stem by leaf stalk	Leaves consist of 2 to 5 pairs of leaflets that grow across from each other along the stem, and one diamond-shaped leaflet on the end Leaflets toothed and often shaped like a mitten	Leaves are staggered along the stem (alternate) Leaves consist of leaflets that are finely divided into narrow segments. Each segment of the lower leaves is further divided into fine lobes, resulting in a feathery appearance	Alternate leaves, divided into 2 to 3 leaflets
Stem	Hollow, 5 to 15 cm thick Prominent purple blotches Distinct, coarse, bristly hairs	Hollow, 5 cm thick at base Green, few to no purple spots Soft and fuzzy hairs	Green, 2.5 to 5 cm thick Smooth with few hairs	Green, 1 to 2.5 cm thick Covered with fine bristly hairs	Purple or purple blotched Smooth (no hairs)
Lifecycle	Biennial (lives for 2 years) or perennial (lives longer than 2 years)	Perennial	Biennial/Perennial	Biennial	Perennial
Origin	Invasive	Native	Invasive	Invasive	Native

Wild Parsnip Removal and Management

If you have small clusters of wild parsnip on your property (fewer than 100 plants), you may be able to manage the plant yourself. Wear protective clothing and dispose of plants carefully, as described below. To remove larger infestations (thousands of plants), you will likely need a professional exterminator and repeated treatments over several years.

Note: To manage wild parsnip effectively, learn how to identify the plant in both its first-year stage as a small rosette of leaves, and in its second year, as a tall flowering plant. The area must be monitored for several seasons to ensure complete eradication.

Protective Clothing

Wear protective clothing, including waterproof gloves, long-sleeved shirts, pants and eye protection. A disposable spray suit over your normal clothing provides the best protection. Spray suits are commercial-grade waterproof coveralls. After working around the plant, remove your protective clothing carefully to avoid transferring any sap from your clothing onto your skin. Wash your rubber gloves with soap and water, then take off your spray suit or outer clothing. Wash your rubber gloves again and then take them off. Finally, take off your protective eye wear. Put non-disposable clothing in the laundry and wash yourself immediately with soap and water.

Mechanical Control

For a small infestation in a yard or garden (fewer than 100 plants), dig out as much of the taproot as you can with a sharp shovel or spade. Digging is most effective in the spring when the soil is moist and the taproot is more easily removed. Follow-up digging will be required every few weeks to deal with re-growth (if the taproot was not completely removed) or missed plants.

Pulling up the plants is impractical for larger infestations, but mowing can be effective if begun just after peak blooming, but before the seeds set in the late summer or early fall. Cut plants will likely re-sprout after mowing, so it is important to combine mowing with other control methods.

Another method of control is to cover the dug or mowed areas with black plastic to smother new growth of all plants. The plastic should be left in place for at least one season to ensure the roots are smothered. The area must be replanted after the plastic is removed to replace desirable plants and rehabilitate the soil.

Chemical Control

In Ontario, herbicide use, storage and disposal is regulated under the Pesticides Act. While many uses of herbicides are banned, certain herbicides may be used to control plants that are poisonous to humans who touch them, such as wild parsnip. Herbicides that may be used for this purpose include those containing the active ingredient glyphosate. If you are considering using a pesticide, read the product label before buying it to ensure it can legally be used on wild parsnip.

Herbicides containing glyphosate can be an effective tool to control larger populations of wild parsnip. Glyphosate is a broad spectrum herbicide that kills green plants that it comes into contact with. New seedlings will often germinate and emerge after glyphosate has been applied, meaning that follow up applications may be required.

For the best results, apply herbicide to the leaves of actively growing plants in the spring, followed by a summer application for missed plants that are still growing. Herbicide treatments may need to be repeated in following years. Follow directions on the product label and provincial and federal laws when using herbicides.

Disposal

DO NOT burn or compost wild parsnip plants that have been cut down or dug up. If possible, leave the stems to dry out completely at the site. Carefully dispose of plant material in black plastic bags and leave in direct sun for a week or more. Contact your municipality to determine if the bagged plants can be sent to your local landfill site.

What You Can Do

- Learn how to identify wild parsnip and other invasive plants.
- Stay on trails and away from areas known to have wild parsnip or other invasive species.
- Inspect, clean and remove mud, seeds and plant parts from clothing, pets (including horses), vehicles (including bicycles) and equipment such as mowers and tools. Before travelling to new areas, clean vehicles and equipment in a place where plant seeds or parts aren't likely to spread, such as in a driveway or at a car wash. It's very important to carefully wash any sap from clothing, equipment and pets.
- Avoid disturbing soil and removing plants from natural areas; they may be rare native plants or even invasive plants.



Compound leaves are arranged in pairs

Photo: Ohio State Weed Lab Archive, The Ohio State University, Bugwood.org



Wild Parsnip

Photo: Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

- If you think you have wild parsnip on your property or if you see it in your community, please call the Invading Species Hotline at 1-800-563-7711, or report your sighting online at www.invadingspecies.com. You will be asked to send in photos for identification. **DO NOT** touch, cut or collect parts of the plant for identification purposes.



Yellowish-green flowers turn into round, flat brown seeds

Photo: Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Other Resources:

www.invasivespeciescentre.ca

ontario.ca/invasivespecies

www.ontarioinvasiveplants.ca

www.invadingspecies.com

Ministry of the Environment pesticides information for homeowners

www.ene.gov.on.ca/environment/en/category/pesticides/STDPROD_085338.html#1

Ministry of the Environment fact sheet Managing Pests in Lawns and Gardens

www.ene.gov.on.ca/environment/en/resources/STD01_076153.html

For More Information:

Please contact the Invading Species Hotline at 1-800-563-7711.

This fact sheet may be reproduced for non-commercial purposes.

© Queen's Printer for Ontario, 2013

Cette publication est également disponible en français.

Giant Hogweed

(*Heracleum mantegazzianum*)



Photo courtesy of Patrick Hodge, MNR

Similar Species

There are a number of plants that look very similar to Giant hogweed such as Cow parsnip, Purplestem angelica, Woodland angelica, Valerian, Lovage, and Queen Anne's-Lace (also known as Wild carrot). However, these plants are not as large as a mature Giant hogweed, which grows up to 5.5 metres tall under ideal conditions. The white flower clusters resemble those of Queen Anne's-Lace, but tend to be more widely spaced and can form a flower-head almost one metre wide.

Distribution

Giant hogweed has a scattered distribution across southern and central Ontario, south of the line from Manitoulin Island to Ottawa.

Giant hogweed (*Heracleum mantegazzianum*), also known as Giant cow parsnip is a perennial plant and a member of the carrot family. It is a garden ornamental from southwest Asia that is naturalizing in North America and becoming more common in southern and central Ontario. Giant hogweed has the potential to spread readily and grows along roadsides, ditches and streams. It invades old fields and native habitats such as open woodlands.



Giant hogweed stem. Note coarse hairs.
Photo courtesy of Ron Black, MNR

Biology

Seeds may take several years to germinate and are viable in the soil for up to 15 years. During the first year, the plant produces a rosette of leaves up to one metre high. After 2 to 5 years the plant produces flowers. As it grows a large root, thick hollow stems and large lobed leaves are formed. The stems of the plant are covered with reddish-purple flecks and stiff hairs filled with sap. Sap may also collect in the hollow stem bases. Giant hogweed flowers once in its lifetime, unless the flower clusters are damaged before opening. Once the plant produces seeds it dies. Each plant can produce up to 120,000 winged seeds (typically 50,000). Seeds dropped in streams can float for three days. They can move long distances via water in ditches and streams. Seeds can also be spread up to 10 metres by the wind.

Natural Resource Impacts

There is evidence that Giant hogweed can shade out native plants, although scientists have not done extensive research on its impact in Ontario or Canada. In the United Kingdom it grows in areas bordering lakes, streams, and wetlands and causes rocks, soil and other material on stream banks to fall into streams. This threatens salmon spawning sites. Similar impacts may occur in Ontario.

Health Concerns

The clear watery sap of Giant hogweed contains toxins that can cause severe dermatitis (inflammation of the skin). You can get severe burns if you get the sap on your skin and the skin is then exposed to sunlight. Symptoms occur within 48 hours and consist of painful blisters. Purplish scars may form that last for many years. Eye contact with the sap has been reported (in the media and by various web sites) to cause temporary or permanent blindness. However, evidence of permanent blindness linked to exposure to Giant hogweed cannot be substantiated by any existing research. Coming in contact with Cow parsnip and Wild parsnip can cause similar reactions.

Prevention

Do not purchase, trade or grow Giant hogweed in your garden. Only buy native or non-invasive garden plants. When you transport soil, sand or gravel make sure it is free of Giant hogweed – both plant parts and seeds.



Giant hogweed stalk and flower clusters.
Photo courtesy of Karen Rimmer

Removal and Management

If you have Giant hogweed on your property, it is recommended that you hire a professional exterminator to remove it. The plant will be removed safely and as few seeds as possible will be spread. Reducing a large population of Giant hogweed will take a long term commitment. The best time to remove the plant is in late April or early May. It is usually less than 30 centimetres tall, easier to dig up, and more susceptible to herbicides at this time of year. It is also cooler in the spring than in the summer so wearing protective clothing is more comfortable.

Protective clothing: Wear protective clothing, including waterproof gloves, long sleeve shirts, pants, and eye protection. It is ideal to wear a disposable “spray suit” coverall over top of your normal clothing (spray suits are commercial grade waterproof coveralls). Remove protective clothing carefully to avoid transferring any sap from your clothing onto your skin. Wash your rubber gloves with soap and water, and then take off your spray suit or outer clothing. Wash your rubber gloves again and then take them off. Finally, take off your protective eye wear. Put non-disposable clothing in the laundry and wash yourself immediately with soap and water.

Mechanical control:

Spring Removal (i.e. early May):

Use a spade to remove as much of the root as possible. Digging up older plants can be difficult since roots can grow deeper than one metre. The plant might re-grow from the root and you may need to dig repeatedly to remove it completely. Or, you can cover the dug area with black plastic to smother out new growth. If it's possible to use machinery, mow new growth every two weeks.

Summer Removal (i.e. early July):

- *Plants without flowers:* If the infestation is small dig the stems and roots out and dry them thoroughly before disposing of them.
- *Plants with flowers:* To prevent seeds from growing and spreading, remove flower heads before they ripen (when they are white). **Note: If the flower heads have changed from white to green, seeds are being produced and it will be very hard to remove the seed heads and/or cut the plant without spreading the seeds.** Return to the area regularly and remove any new growth.



Giant hogweed stalk and flower clusters.
Photo courtesy of Karen Rimmer.

Control Using Herbicides:

Herbicides can be used to control plants (like Giant hogweed) that are poisonous to the touch. Glyphosate is effective at controlling the top-growth of Giant hogweed. Foliar herbicide applications are most effective in spring on actively growing plants, followed with a subsequent summer application for missed plants or plants that have re-grown. Since glyphosate is non-selective and removes only the green vegetation that it comes into contact with, new seedlings will often germinate and emerge after glyphosate has been applied. If areas treated with glyphosate are covered in mulch 10 to 14 days after application, it will reduce seedling germination and growth. Herbicide treatments may need to be repeated in following years. If a plant is flowering, herbicides are not effective and control methods should focus on carefully removing the flower heads. Follow label directions and relevant provincial and federal legislation when using herbicides.

Disposal:

Do Not Burn. Do Not Compost. Carefully remove flower heads from stems and place them in black plastic bags. Make sure not to drop any seeds while you are doing this. Seal the bags tightly and leave them in direct sunlight for about a week. Allow stems and roots to dry out thoroughly before disposing of them. Call your municipality to find out if bags containing Giant hogweed can be sent to your local municipal landfill site.

In the event of any direct exposure/contact to this plant

If you get sap on your skin wash the area well with soap and water. Keep the affected area out of the sun. If photo dermatitis (inflammation of the skin caused by exposure to sunlight) occurs, see a doctor.

If you get sap in your eye, flush your eye with water immediately and see a doctor immediately.



Giant hogweed seedling.
Photo courtesy of Rachel Gagnon, Ontario Invasive Plant Council.

If you think you have Giant hogweed on your property or if you see it in your community please call the Invading Species Hotline at 1-800-563-7711 or report your sighting online at www.invadingspecies.com/Report.cfm. You will be asked to send in photos for identification. Do not collect parts of the plant for identification.

The Ontario Ministries of Agriculture, Food and Rural Affairs, Health and Long Term Care, Environment, and Natural Resources are working together with our partners (in particular Ontario Federation of Anglers and Hunters, Ontario Invasive Plant Council, Municipalities and Conservation Authorities) to provide information on the identification and control of Giant hogweed.

Other Resources

Ontario Invasive Plant Council

Invading Species Awareness Program

ontario.ca/invasivespecies

Ontario Ministry of Agriculture, Food and Rural Affairs

Ontario Weeds

For More Information

Contact the Invading Species Awareness Program hotline at 1-800-563-7711.