

RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

**Bid Receiving Public Works and Government
Services Canada/Réception des soumissions
Travaux publics et Services gouvernementaux
Canada**

1713 Bedford Row

Halifax, N.S./Halifax, (N.É.)

Halifax

Nova Scotia

B3J 1T3

Bid Fax: (902) 496-5016

Request For a Standing Offer Demande d'offre à commandes

Regional Individual Standing Offer (RISO)

Offre à commandes individuelle régionale (OCIR)

Canada, as represented by the Minister of Public Works and Government Services Canada, hereby requests a Standing Offer on behalf of the Identified Users herein.

Le Canada, représenté par le ministre des Travaux Publics et Services Gouvernementaux Canada, autorise par la présente, une offre à commandes au nom des utilisateurs identifiés énumérés ci-après.

Comments - Commentaires

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

Issuing Office - Bureau de distribution

Atlantic Region Acquisitions/Région de l'Atlantique
Acquisitions

1713 Bedford Row

Halifax, N.S./Halifax, (N.É.)

Halifax

Nova Scot

B3J 1T3

Title - Sujet RISO – Heavy Equipment Work CBO	
Solicitation No. - N° de l'invitation EP899-210725/A	Date 2020-09-17
Client Reference No. - N° de référence du client EP899-21-0725	GETS Ref. No. - N° de réf. de SEAG PW-\$HAL-502-11072
File No. - N° de dossier HAL-0-85096 (502)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2020-10-06	Time Zone Fuseau horaire Atlantic Daylight Saving Time ADT
Delivery Required - Livraison exigée See Herein	
Address Enquiries to: - Adresser toutes questions à: Parsons, Richard	Buyer Id - Id de l'acheteur hal502
Telephone No. - N° de téléphone (902)399-8427 ()	FAX No. - N° de FAX (902)496-5016
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF PUBLIC WORKS AND GOVERNMENT SERVICES CANADA Dominion Public Building 1713 Bedford Row 2nd floor Halifax Nova Scotia B3J 3C9 Canada	
Security - Sécurité This request for a Standing Offer does not include provisions for security. Cette Demande d'offre à commandes ne comprend pas des dispositions en matière de sécurité.	

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address	
Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone	
Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print)	
Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

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PART 1 - GENERAL INFORMATION

1.1 Introduction

The Request for Standing Offers (RFSO) is divided into seven parts plus attachments and annexes, as follows:

- | | |
|--------|---|
| Part 1 | General Information: provides a general description of the requirement; |
| Part 2 | Offeror Instructions: provides the instructions applicable to the clauses and conditions of the RFSO; |
| Part 3 | Offer Preparation Instructions: provides offerors with instructions on how to prepare their offer to address the evaluation criteria specified; |
| Part 4 | Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria which must be addressed in the offer, and the basis of selection; |
| Part 5 | Certifications and Additional Information: includes the certifications and additional information to be provided; |
| Part 6 | Security, Financial and Insurance Requirements: includes specific requirements that must be addressed by offerors; and |
| Part 7 | 7A, Standing Offer, and 7B, Resulting Contract Clauses:

7A, includes the Standing Offer containing the offer from the Offeror and the applicable clauses and conditions;

7B, includes the clauses and conditions which will apply to any contract resulting from a call-up made pursuant to the Standing Offer. |

The Annexes include the Statement of Work, the Basis of Payment, the Electronic Payment Instruments, and any other annexes.

1.2 Summary

- 1.2.1** The work covered under this project consists of the furnishing of all labour, equipment, and materials to perform miscellaneous minor earthworks, hydraulic seeding, and provision of aggregate materials. The scope of this Standing Offer is intended to aide PWGSC in the implementation of an overall site closure program in which a number of former mining properties within Cape Breton are being assessed and remediated.
- 1.2.2** This RFSO allows offerors to use the epost Connect service provided by Canada Post Corporation to transmit their offers electronically. Offerors must refer to Part 2 of the RFSO entitled Offeror Instructions and Part 3 of the RFSO entitled Offer Preparation Instructions, for further information on using this method.

1.3 Debriefings

Offerors may request a debriefing on the results of the request for standing offers process. Offerors should make the request to the Standing Offer Authority within 15 working days of receipt of the results of the request for standing offers process. The debriefing may be in writing, by telephone or in person.

1.4 Anticipated migration to an e-Procurement Solution (EPS)

Canada is currently developing an online EPS for faster and more convenient ordering of goods and services. In support of the anticipated transition to this system and how it may impact any resulting Standing Offer that is issued under this solicitation, refer to 7.15 Transition to an e-Procurement Solution (EPS).

The Government of Canada's [press release](#) provides additional information.

PART 2 - OFFEROR INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the Request for Standing Offers (RFSO) by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Offerors who submit an offer agree to be bound by the instructions, clauses and conditions of the RFSO and accept the clauses and conditions of the Standing Offer and resulting contract(s).

The [2006](#) (2020-05-28) Standard Instructions - Request for Standing Offers - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the RFSO.

Subsection 5.4 of [2006](#), Standard Instructions - Request for Standing Offers - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days
Insert: 90 days

2.2 Submission of Offers

Offers must be submitted only to the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified below by the date and time indicated on page 1 of the RFSO:

Bid Receiving Unit
Public Works and Government Services Canada
1713 Bedford Row,
Halifax, N.S.
B3J 1T3

Note: For bidders choosing to submit using epost Connect, the email address is:

TPSGC.RAReceptionSoumissionsNE-ARBidReceivingNS.PWGSC@tpsgc-pwgsc.gc.ca

Note: Offers will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instruction [2006](#), or to send offers through an epost Connect message if the bidder is using its own licensing agreement for epost Connect."

Facsimile number: (902)496-5016

2.3 Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPS, offerors must provide the information required below before the issuance of a standing offer. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of offers is completed, Canada will inform the Offeror of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the offer non-responsive.

Definitions

For the purposes of this clause,

"former public servant" is any former member of a department as defined in the Financial Administration Act R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the Public Service Superannuation Act (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the Supplementary Retirement Benefits Act, R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the Canadian Forces Superannuation Act, R.S., 1985, c. C-17, the Defence Services Pension Continuation Act, 1970, c. D-3, the Royal Canadian Mounted Police Pension Continuation Act, 1970, c. R-10, and the Royal Canadian Mounted Police Superannuation Act, R.S., 1985, c. R-11, the Members of Parliament Retiring Allowances Act, R.S. 1985, c. M-5, and that portion of pension payable to the Canada Pension Plan Act, R.S., 1985, c. C-8.

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Offeror a FPS in receipt of a pension? **YES () NO ()**

If so, the Offeror must provide the following information, for all FPS in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Offerors agree that the successful Offeror's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

Work Force Adjustment Directive

Is the Offeror a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **YES () NO ()**

If so, the Offeror must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

2.4 Enquiries - Request for Standing Offers

All enquiries must be submitted in writing to the Standing Offer Authority no later than five (5) calendar days before the Request for Standing Offers (RFSO) closing date. Enquiries received after that time may not be answered.

Offerors should reference as accurately as possible the numbered item of the RFSO to which the enquiry relates. Care should be taken by offerors to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such

except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that offerors do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all offerors. Enquiries not submitted in a form that can be distributed to all offerors may not be answered by Canada.

2.5 Applicable Laws

The Standing Offer and any contract resulting from the Standing Offer must be interpreted and governed, and the relations between the parties determined, by the laws in force in Nova Scotia.

Offerors may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their offer, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the offerors.

2.6 Bid Challenge and Recourse Mechanisms

- (a) Several mechanisms are available to potential offerors to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages offerors to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading "[Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:
 - Office of the Procurement Ombudsman (OPO)
 - Canadian International Trade Tribunal (CITT)
- (c) Offerors should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Offerors should therefore act quickly when they want to challenge any aspect of the procurement process.

PART 3 - OFFER PREPARATION INSTRUCTIONS

3.1 Offer Preparation Instructions

- If the Offeror chooses to submit its offer electronically, Canada requests that the Offeror submits its offer in accordance with section 08 of the 2006 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation. The offer must be gathered per section and separated as follows:

Section I: Technical Offer
Section II: Financial Offer
Section III: Certifications

- If the Offeror chooses to submit its offer in hard copies, Canada requests that the Offeror provides its offer in separately bound sections as follows:

Section I: Technical Offer (1 hard copy)
Section II: Financial Offer (1 hard copy)
Section III: Certifications (1 hard copy)

If there is a discrepancy between the wording of the soft copy on electronic media and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

- If the Offeror is simultaneously providing copies of its offer using multiple acceptable delivery methods, and if there is a discrepancy between the wording of any of these copies and the electronic copy provided through epost Connect service, the wording of the electronic copy provided through epost Connect service will have priority over the wording of the other copies.

Prices must appear in the financial offer only. No prices must be indicated in any other section of the offer.

Canada requests that offerors follow the format instructions described below in the preparation of hard copy of their offer:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the RFSO.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573) (<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573>). To assist Canada in reaching its objectives, Offerors should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Technical Offer

In their technical offer, offerors should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Section II: Financial Offer

Offerors must submit their financial offer in accordance with Annex B, Basis of Payment.

3.1.1 Electronic Payment of Invoices - Offer

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex "C" Electronic Payment Instruments, to identify which ones are accepted.

If Annex "C" Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

3.1.2 Exchange Rate Fluctuation

[C3011T](#) (2013-11-06), Exchange Rate Fluctuation

Section III: Certifications Offerors must submit the certifications and additional information required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Offers will be assessed in accordance with the entire requirement of the Request for Standing Offers including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the offers.

4.1.1 Financial Evaluation

4.1.1.1 Evaluation of Price

SACC Manual Clause [M0220T](#) (2016-01-28), Evaluation of Price

4.2 Basis of Selection

- 4.2.1 **Three (3) Standing Offers will be awarded for this RISO on a proportional basis. The distribution of the work for this RISO will be divided on a proportional basis based on the total estimated cost of the standing offer over a three year period as follows:**

Lowest priced offeror will receive the largest portion of the work = 50%

Second lowest priced offeror will receive the second largest portion of work = 30%

Third lowest priced offeror will receive the third and final portion of Work = 20%

In situations where less than three responsive Offers are received then the standing offer will be modified in similar proportions. In situations where one responsive offer is received then the standing offer will be awarded to a single offeror.

An offer must comply with the requirements of the Request for Standing Offers to be declared responsive. The three (3) responsive offers with the lowest evaluated prices on an aggregate basis will be recommended for issuance of a standing offer.

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Offerors must provide the required certifications and additional information to be issued a standing offer.

The certifications provided by offerors to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare an offer non-responsive, will have the right to set-aside a standing offer, or will declare a contractor in default if any certification made by the Offeror is found to be untrue whether made knowingly or unknowingly during the offer evaluation period, during the Standing Offer period, or during the contract period.

The Standing Offer Authority will have the right to ask for additional information to verify the Offeror's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Standing Offer Authority will render the offer non-responsive, result in the setting aside of the Standing Offer or constitute a default under the Contract.

5.1 Certifications Required with the Offer

Offerors must submit the following duly completed certifications as part of their offer.

5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all offerors must provide with their offer, **if applicable**, the declaration form available on the [Forms for the Integrity Regime](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

5.2 Certifications Precedent to the Issuance of a Standing Offer and Additional Information

The certifications and additional information listed below should be submitted with the offer, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Standing Offer Authority will inform the Offeror of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the offer non-responsive.

5.2.1 Integrity Provisions – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Offeror must provide the required documentation, as applicable, to be given further consideration in the procurement process.

5.2.2 Federal Contractors Program for Employment Equity - Standing Offer Certification

By submitting an offer, the Offeror certifies that the Offeror, and any of the Offeror's members if the Offeror is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list) available at the bottom of the page of the [Employment and Social Development Canada-Labour's](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#s4) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#s4>).

Canada will have the right to declare an offer non-responsive, or to set-aside a Standing Offer, if the Offeror, or any member of the Offeror if the Offeror is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of issuing of a Standing Offer or during the period of the Standing Offer.

PART 6 - SECURITY, FINANCIAL AND INSURANCE REQUIREMENTS

6.1 Insurance Requirements

The Offeror must provide a letter from an insurance broker or an insurance company licensed to operate in Canada stating that the Offeror, if issued a standing offer as a result of the request for standing offer, can be insured in accordance with the Insurance Requirements specified in Annex D.

If the information is not provided in the offer, the Standing Offer Authority will so inform the Offeror and provide the Offeror with a time frame within which to meet the requirement. Failure to comply with the request of the Standing Offer Authority and meet the requirement within that time period will render the offer non-responsive.

PART 7 - STANDING OFFER AND RESULTING CONTRACT CLAUSES

A. STANDING OFFER

7.1 Offer

7.1.1 The Offeror offers to perform the Work in accordance with the Statement of Work at Annex "A".

7.2 Security Requirements

7.2.1 There is no security requirement applicable to the Standing Offer.

7.3 Standard Clauses and Conditions

All clauses and conditions identified in the Standing Offer and resulting contract(s) by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

7.3.1 General Conditions

2005 (2017-06-21) General Conditions - Standing Offers - Goods or Services, apply to and form part of the Standing Offer.

7.3.2 Standing Offers Reporting

The Offeror must compile and maintain records on its provision of goods and services to Canada under contracts resulting from the Standing Offer. This data must include all purchases done by Canada, including those acquired and paid for by Canada acquisition cards.

The Offeror must provide this data in accordance with the reporting requirements detailed in Annex "A". If some data is not available, the reason must be indicated in the report. If no goods or services is provided during a given period, the Offeror must provide a "nil" report.

The data must be submitted on a quarterly basis to the Standing Offer Authority.

The quarterly reporting periods are defined as follows:

- first quarter: April 1 to June 30
- second quarter: July 1 to September 30
- third quarter: October 1 to December 31
- fourth quarter: January 1 to March 31

The data must be submitted to the Standing Offer Authority no later than 30 calendar days after the end of the reporting period.

7.4 Term of Standing Offer

7.4.1 Period of the Standing Offer

The period for making call-ups against the Standing Offer is three years from the issuance of the standing offer.

7.4.2 Extension of Standing Offer

If the Standing Offer is authorized for use beyond the initial period, the Offeror offers to extend its offer for an additional **two (2), one-year periods**, under the same conditions and at the rates or prices specified in the Standing Offer, or at the rates or prices calculated in accordance with the formula specified in the Standing Offer.

The Offeror will be advised of the decision to authorize the use of the Standing Offer for an extended period by the Standing Offer Authority before the expiry date of the Standing Offer. A revision to the Standing Offer will be issued by the Standing Offer Authority.

7.4.3 Delivery Points

Delivery of the requirement will be made to delivery point(s) specified at Annex "A" of the Standing Offer, within the **Cape Breton Regional Municipality area**.

7.5 Authorities

7.5.1 Standing Offer Authority

The Standing Offer Authority is:

Name: Richard Parsons
Title: Supply Officer
Public Works and Government Services Canada
Acquisitions Branch
Address: 1713 Bedford Row, Halifax, NS, B3J 1T3

Telephone: (902)399-8427
Facsimile: (902)496-5016
E-mail address: richard.parsons@pwgsc-tpsgc.gc.ca

The Standing Offer Authority is responsible for the establishment of the Standing Offer, its administration and its revision, if applicable. Upon the making of a call-up, as Contracting Authority, he is responsible for any contractual issues relating to individual call-ups made against the Standing Offer by any Identified User.

7.5.2 Project Authority

The Project Authority for the Standing Offer is identified in the call-up against the Standing Offer.

The Project Authority is the representative of the department or agency for whom the Work will be carried out pursuant to a call-up against the Standing Offer and is responsible for all the technical content of the Work under the resulting Contract.

7.5.3 Offeror's Representative (To be filled out by bidder)

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: ____ - ____ - ____
Facsimile: ____ - ____ - ____
E-mail address: _____

7.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a [Public Service Superannuation Act \(PSSA\)](#) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with [Contracting Policy Notice: 2012-2](#) of the Treasury Board Secretariat of Canada.

7.7 Identified Users

The Identified User authorized to make call-ups against the Standing Offer is: **PWGSC - Cape Breton Operations**.

7.8 Call-up Procedures

7.8.1 Ideal Distribution

7.8.1.1 Work will be called-up as follows:

a) The Project Authority will establish the scope of work to be performed. For each individual call-up, firms will be considered using a computerized distribution system. This system will track all call-ups assigned to each firm and will maintain a running total of the Value of Business Distributed. The system will contain for each firm an Ideal Business Distribution percentage which has been established as follows: 50% of the business for the top ranked firm, 30% for the 2nd, and 20% for the 3rd.

In the event fewer than three (3) firms are successful, the work distribution will be modified in similar proportions. Work will be distributed between the firms with the goal of maintaining the ideal business distribution while considering efficiencies for the Government of Canada.

The following table is provided as an example only:

Consultants	Ideal Business Distribution	Value of Business Distributed	Current Business Distribution	Variation from Ideal
Top Ranked	50%	513,000	51.3%	1.3%
2nd ranked firm	30%	331,000	33.1%	3.1%
3rd ranked firm	20%	156,000	15.6%	-4.4%
Total:	100%			
Value of all Business Distributed		1,000,000.00	100%	

Top Ranked 50% 500,000
2nd ranked firm 30% 300,000
3rd ranked firm 20% 200,000
Total: 100%

Value of all Business Distributed 1,000,000.00 100%

The Current Business Distribution is the current percentage, of the Value of All Business Distributed, that a firm has received in relation to the other firms. The Variation from the Ideal is the difference between the Current Business Distribution and Ideal Business Distribution, and represents how far the firm is over or under its Ideal Business Distribution. The firm who has the largest negative difference will be the firm who will be considered for the next call-up. In the above example that would be the 3rd ranked firm. The dollar amount assigned in the distribution system will be made up of the most accurate dollar amount

7.9 Call-up Instrument

The Work will be authorized or confirmed by the Identified User(s) using the duly completed forms or their equivalents as identified in paragraphs 2 and 3 below, or by using Canada acquisition cards (Visa or MasterCard) for low dollar value requirements.

- Call-ups must be made by Identified Users' authorized representatives under the Standing Offer and must be for goods or services or combination of goods and services included in the Standing Offer at the prices and in accordance with the terms and conditions specified in the Standing Offer.
- Any of the following forms could be used which are available through [PWGSC Forms Catalogue](#) website:
 - PWGSC-TPSGC 942 Call-up Against a Standing Offer

- PWGSC-TPGSC 942-2 Call-up Against a Standing Offer - Multiple Delivery
- PWGSC-TPSGC 944 Call-up Against Multiple Standing Offers (English version)
- PWGSC-TPSGC 945 Commande subséquente à plusieurs offres à commandes (French version)

or

3. An equivalent form or electronic call-up document which contains at a minimum the following information:

- standing offer number;
- statement that incorporates the terms and conditions of the Standing Offer;
- description and unit price for each line item;
- total value of the call-up;
- point of delivery;
- confirmation that funds are available under section 32 of the Financial Administration Act;
- confirmation that the user is an Identified User under the Standing Offer with authority to enter into a contract.

7.10 Limitation of Call-ups

Individual call-ups against the Standing Offer must not exceed \$ (completed at award) (Applicable Taxes included).

7.11 Financial Limitation

The total cost to Canada resulting from call ups against the Standing Offer must not exceed the sum of \$ (completed at award) (*Applicable Taxes excluded*) unless otherwise authorized in writing by the Standing Offer Authority. The Offeror must not perform any work or services or supply any articles in response to call ups which would cause the total cost to Canada to exceed the said sum, unless an increase is so authorized.

The Offeror must notify the Standing Offer Authority as to the adequacy of this sum when 75 percent of this amount has been committed, or 3 months before the expiry date of the Standing Offer, whichever comes first. However, if at any time, the Offeror considers that the said sum may be exceeded, the Offeror must promptly notify the Standing Offer Authority.

7.12 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- a) the call up against the Standing Offer, including any annexes;
- b) the articles of the Standing Offer;
- c) the general conditions 2005 (2017-06-21), General Conditions - Standing Offers - Goods or Services
- d) the general conditions 2010C (2020-05-28) General conditions - Services (medium complexity);
- e) Annex A, Statement of Work;
- f) Annex B, Basis of Payment;
- g) the Offeror's offer dated (*insert date of offer*)

7.13 Certifications and Additional Information

7.13.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Offeror with its offer or precedent to issuance of the Standing Offer (SO), and the ongoing cooperation in providing additional information are conditions of issuance of the SO and failure to comply will constitute the Offeror in default. Certifications are subject to verification by Canada during the entire period of the SO and of any resulting contract that would continue beyond the period of the SO.

7.14 Applicable Laws

The Standing Offer and any contract resulting from the Standing Offer must be interpreted and governed, and the relations between the parties determined, by the laws in force in Nova Scotia.

7.15 Transition to an e-Procurement Solution (EPS)

During the period of the Standing Offer, Canada may transition to an EPS for more efficient processing and management of individual call-ups for any or all of the SO's applicable goods and services. Canada reserves the right, at its sole discretion, to make the use of the new e-procurement solution mandatory.

Canada agrees to provide the Offeror with at least a three-month notice to allow for any measures necessary for the integration of the Offer into the EPS. The notice will include a detailed information package indicating the requirements, as well as any applicable guidance and support.

If the Offeror chooses not to offer their goods or services through the e-procurement solution, the Standing Offer may be set aside by Canada.

B. RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from a call-up against the Standing Offer.

7.1 Statement of Work

The Contractor must perform the Work described in the call-up against the Standing Offer.

7.2 Standard Clauses and Conditions

7.2.1 General Conditions

2010C (2020-05-28), General Conditions - Services (Medium Complexity) apply to and form part of the Contract.

7.3 Term of Contract

7.3.1 Period of the Contract

The Work must be completed in accordance with the call-up against the Standing Offer.

7.3.2 Delivery Date

Delivery must be completed in accordance with the call-up against the Standing Offer.

7.4 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a *Public Service Superannuation Act* (PSSA) pension, the Contractor has agreed that this information will be

reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

7.5 Payment

7.5.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price, as specified in Annex B. Customs duties are excluded and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

7.5.2 Limitation of Price

SACC Manual clause C6000C (2017-08-17) Limitation of Price

7.5.3 Single Payment

SACC Manual clause H1000C (2008-05-12), Single Payment

7.5.4 Electronic Payment of Invoices – Call-up

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);
- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only);

7.6 Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.
2. Invoices must be distributed as follows:
 - a. The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.

7.7 Insurance – Specific Requirements

The Contractor must comply with the insurance requirements specified in Annex D. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract.

The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.

The Contractor must forward to the Contracting Authority within ten (10) days after the date of award of the Contract, a Certificate of Insurance evidencing the insurance coverage and confirming that the insurance policy complying with the requirements is in force. For Canadian-based Contractors,

coverage must be placed with an Insurer licensed to carry out business in Canada, however, for Foreign-based Contractors, coverage must be placed with an Insurer with an A.M. Best Rating no less than "A-". The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

7.8 Dispute Resolution

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".

Solicitation No. - N° de l'invitation
EP899-210725
Client Ref. No. - N° de réf. du client

Amd. No. - N° de la modif.
File No. - N° du dossier

Buyer ID - Id de l'acheteur
Hal 502
CCC No./N° CCC - FMS No./N° VME

ANNEX "A"

STATEMENT OF WORK

(See Attachment)

ANNEX "B"

BASIS OF PAYMENT

Bidders must provide a firm unit rate in Canadian dollars, the Goods and Services Tax or the Harmonized Sales Tax excluded. The estimated amounts are for evaluation purposes only. Contractor agrees that the following are the unit rates referred to herein:

NOTE* The Estimated amount column below for each item is an estimate only for goods and or services as and when required and does not infer that all the quantities for that item will be utilized or that the quantities may not be exceeded.

Offerors must submit their financial offer in accordance with Annex B, Basis of Payment. An offer received with one (1) or more missing Firm Unit price and/ or rates will be deemed nonresponsive and will be given no further consideration. The Unit rate price will govern in establishing the extended price.

The Total Evaluated Cost will be evaluated in Canadian dollars, the Goods and Services Tax or Harmonized Sales tax excluded, FOB destination, Canadian customs, duties, and excise taxes included.

THE THREE RESPONSIVE OFFERS WITH THE LOWEST AGGREGATE PRICE ON AN AGGREGATE BASIS WILL BE RECOMMENDED FOR ISSUANCE OF A STANDING OFFER.

Table A – Year 1						
A	B	C	D	E	F	G
Item	Annex A Reference	Class of Labour or Materials	Unit of Measure	Estimated Quantity	Price per Unit	Extended Price (E X F)
Labour						
1	01 11 00	Site Supervisor	Per Hour	300	\$ _____	\$ _____
2	01 11 00	Labourer	Per Hour	1,000	\$ _____	\$ _____
Equipment with Operator						
3	01 11 00	Hydraulic Excavator (With Operator) Minimum 35 tonne operating weight Minimum 2.0 m ³ bucket	Per Hour	300	\$ _____	\$ _____
4	01 11 00	Hydraulic Excavator (Operating) Minimum 20 tonne operating weight Minimum 1.0 m ³ bucket	Per Hour	800	\$ _____	\$ _____
5	01 11 00	Rubber Tire Front End Loader (Operating) Minimum 3.0 m ³ bucket	Per Hour	100	\$ _____	\$ _____

6	01 11 00	Rubber Tire Backhoe (Operating) Minimum 5.5 m horizontal reach Minimum 0.45 m ³ backhoe bucket Minimum 1.35 m ³ front bucket Minimum mass of 7,500 kg	Per Hour	100	\$ _____	\$ _____
7	01 11 00	Dump truck (Operating) Minimum 15 tonne capacity	Per Hour	200	\$ _____	\$ _____
8	01 11 00	Dump truck (Operating) Minimum 28 tonne capacity	Per Hour	100	\$ _____	\$ _____
9	01 11 00	Articulated Truck (Operating) Minimum 25 tonne payload	Per Hour	10	\$ _____	\$ _____
10	01 11 00	Vibratory Single Drum Roller (Operating) Minimum 4000 kg Minimum 1500 mm width drum	Per Hour	300	\$ _____	\$ _____
11	01 11 00	Bulldozer (Operating) Minimum 3.9 m wide blade Minimum 8.5 m ³ capacity	Per Hour	500	\$ _____	\$ _____
Services						
12	32 92 21	Hydroseeding (minimum 5,000 m ² per call-up)	Per m ²	7,000	\$ _____	\$ _____
13	32 92 24	Dry Mulching (minimum 5,000 m ² per call up)	Per m ²	7,000	\$ _____	\$ _____
Aggregates						
14	32 11 23	Imported Cover Soil	Per Tonne	250	\$ _____	\$ _____
15	32 11 23	Type 1 Aggregate	Per Tonne	250	\$ _____	\$ _____
16	32 11 23	Type 2 Aggregate	Per Tonne	250	\$ _____	\$ _____
17	32 11 23	R3 RipRap	Per Tonne	50	\$ _____	\$ _____

18	32 11 23	Common Clean Fill	Per Tonne	400	\$ _____	\$ _____
Table A – Year 1 Total						\$ _____

Table B – Year 1					
Item	Annex A Reference	Class of Labour	Total Estimated Expenditure	OH&P Factor (%)	Extended Price
1	01 11 00	Miscellaneous Equipment Rental Allowance (Contractor to Bid OH&P Factor)	\$40,000.00	_____ %	\$ _____
2	01 11 00	Miscellaneous Material Allowance (Contractor to Bid OH&P Factor)	\$40,000.00	_____ %	\$ _____
Table B – Year 1 Total					\$ _____
* The Extended Price for materials and equipment are each calculated by adding the mark-up quoted to the total estimated expenditure (Example: Year 1, \$500.00 estimated expenditure; 10% mark-up quoted = \$500.00 + (\$500.00 x 10%) = \$550.00)					

Table A: \$ _____

Table B: \$ _____

Total Year 1: \$ _____

Table A – Year 2						
A	B	C	D	E	F	G
Item	Annex A Reference	Class of Labour or Materials	Unit of Measure	Estimated Quantity	Price per Unit	Extended Price (E X F)
Labour						
1	01 11 00	Site Supervisor	Per Hour	300	\$ _____	\$ _____
2	01 11 00	Labourer	Per Hour	1,000	\$ _____	\$ _____
Equipment with Operator						
3	01 11 00	Hydraulic Excavator (With Operator) Minimum 35 tonne operating weight Minimum 2.0 m ³ bucket	Per Hour	300	\$ _____	\$ _____
4	01 11 00	Hydraulic Excavator (Operating) Minimum 20 tonne operating weight Minimum 1.0 m ³	Per Hour	800	\$ _____	\$ _____

		bucket				
5	01 11 00	Rubber Tire Front End Loader (Operating) Minimum 3.0 m ³ bucket	Per Hour	100	\$ _____	\$ _____
6	01 11 00	Rubber Tire Backhoe (Operating) Minimum 5.5 m horizontal reach Minimum 0.45 m ³ backhoe bucket Minimum 1.35 m ³ front bucket Minimum mass of 7,500 kg	Per Hour	100	\$ _____	\$ _____
7	01 11 00	Dump truck (Operating) Minimum 15 tonne capacity	Per Hour	200	\$ _____	\$ _____
8	01 11 00	Dump truck (Operating) Minimum 28 tonne capacity	Per Hour	100	\$ _____	\$ _____
9	01 11 00	Articulated Truck (Operating) Minimum 25 tonne payload	Per Hour	10	\$ _____	\$ _____
10	01 11 00	Vibratory Single Drum Roller (Operating) Minimum 4000 kg Minimum 1500 mm width drum	Per Hour	300	\$ _____	\$ _____
11	01 11 00	Bulldozer (Operating) Minimum 3.9 m wide blade Minimum 8.5 m ³ capacity	Per Hour	500	\$ _____	\$ _____
Services						
12	32 92 21	Hydroseeding (minimum 5,000 m ² per call-up)	Per m ²	7,000	\$ _____	\$ _____
13	32 92 24	Dry Mulching (minimum 5,000 m ² per call up)	Per m ²	7,000	\$ _____	\$ _____
Aggregates						
14	32 11 23	Imported Cover Soil	Per Tonne	250	\$ _____	\$ _____
15	32 11 23	Type 1 Aggregate	Per Tonne	250	\$ _____	\$ _____

16	32 11 23	Type 2 Aggregate	Per Tonne	250	\$ _____	\$ _____
17	32 11 23	R3 RipRap	Per Tonne	50	\$ _____	\$ _____
18	32 11 23	Common Clean Fill	Per Tonne	400	\$ _____	\$ _____
Table A – Year 2 Total						\$ _____

Table B – Year 2					
Item	Annex A Reference	Class of Labour	Total Estimated Expenditure	OH&P Factor (%)	Extended Price
1	01 11 00	Miscellaneous Equipment Rental Allowance (Contractor to Bid OH&P Factor)	\$40,000.00	_____ %	\$ _____
2	01 11 00	Miscellaneous Material Allowance (Contractor to Bid OH&P Factor)	\$40,000.00	_____ %	\$ _____
Table B – Year 2 Total					\$ _____
* The Extended Price for materials and equipment are each calculated by adding the mark-up quoted to the total estimated expenditure (Example: Year 1, \$500.00 estimated expenditure; 10% mark-up quoted = \$500.00 + (\$500.00 x 10%) = \$550.00)					

Table A: \$ _____

Table B: \$ _____

Total Year 2: \$ _____

Table A – Year 3						
A	B	C	D	E	F	G
Item	Annex A Reference	Class of Labour or Materials	Unit of Measure	Estimated Quantity	Price per Unit	Extended Price (E X F)
Labour						
1	01 11 00	Site Supervisor	Per Hour	300	\$ _____	\$ _____
2	01 11 00	Labourer	Per Hour	1,000	\$ _____	\$ _____
Equipment with Operator						
3	01 11 00	Hydraulic Excavator (With Operator) Minimum 35 tonne operating weight Minimum 2.0 m ³ bucket	Per Hour	300	\$ _____	\$ _____

4	01 11 00	Hydraulic Excavator (Operating) Minimum 20 tonne operating weight Minimum 1.0 m ³ bucket	Per Hour	800	\$ _____	\$ _____
5	01 11 00	Rubber Tire Front End Loader (Operating) Minimum 3.0 m ³ bucket	Per Hour	100	\$ _____	\$ _____
6	01 11 00	Rubber Tire Backhoe (Operating) Minimum 5.5 m horizontal reach Minimum 0.45 m ³ backhoe bucket Minimum 1.35 m ³ front bucket Minimum mass of 7,500 kg	Per Hour	100	\$ _____	\$ _____
7	01 11 00	Dump truck (Operating) Minimum 15 tonne capacity	Per Hour	200	\$ _____	\$ _____
8	01 11 00	Dump truck (Operating) Minimum 28 tonne capacity	Per Hour	100	\$ _____	\$ _____
9	01 11 00	Articulated Truck (Operating) Minimum 25 tonne payload	Per Hour	10	\$ _____	\$ _____
10	01 11 00	Vibratory Single Drum Roller (Operating) Minimum 4000 kg Minimum 1500 mm width drum	Per Hour	300	\$ _____	\$ _____
11	01 11 00	Bulldozer (Operating) Minimum 3.9 m wide blade Minimum 8.5 m ³ capacity	Per Hour	500	\$ _____	\$ _____
Services						
12	32 92 21	Hydroseeding (minimum 5,000 m ² per call-up)	Per m ²	7,000	\$ _____	\$ _____
13	32 92 24	Dry Mulching (minimum 5,000 m ² per call up)	Per m ²	7,000	\$ _____	\$ _____

Aggregates						
14	32 11 23	Imported Cover Soil	Per Tonne	250	\$ _____	\$ _____
15	32 11 23	Type 1 Aggregate	Per Tonne	250	\$ _____	\$ _____
16	32 11 23	Type 2 Aggregate	Per Tonne	250	\$ _____	\$ _____
17	32 11 23	R3 RipRap	Per Tonne	50	\$ _____	\$ _____
18	32 11 23	Common Clean Fill	Per Tonne	400	\$ _____	\$ _____
Table A – Year 3 Total						\$ _____

Table B – Year 3					
Item	Annex A Reference	Class of Labour	Total Estimated Expenditure	OH&P Factor (%)	Extended Price
1	01 11 00	Miscellaneous Equipment Rental Allowance (Contractor to Bid OH&P Factor)	\$40,000.00	_____ %	\$ _____
2	01 11 00	Miscellaneous Material Allowance (Contractor to Bid OH&P Factor)	\$40,000.00	_____ %	\$ _____
Table B – Year 3 Total					\$ _____
* The Extended Price for materials and equipment are each calculated by adding the mark-up quoted to the total estimated expenditure (Example: Year 1, \$500.00 estimated expenditure; 10% mark-up quoted = \$500.00 + (\$500.00 x 10%) = \$550.00)					

Table A: \$ _____

Table B: \$ _____

Total Year 3: \$ _____

Table A – Option Year 1						
A	B	C	D	E	F	G
Item	Annex A Reference	Class of Labour or Materials	Unit of Measure	Estimated Quantity	Price per Unit	Extended Price (E X F)
Labour						
1	01 11 00	Site Supervisor	Per Hour	300	\$ _____	\$ _____
2	01 11 00	Labourer	Per Hour	1,000	\$ _____	\$ _____

Equipment with Operator						
3	01 11 00	Hydraulic Excavator (With Operator) Minimum 35 tonne operating weight Minimum 2.0 m ³ bucket	Per Hour	300	\$ _____	\$ _____
4	01 11 00	Hydraulic Excavator (Operating) Minimum 20 tonne operating weight Minimum 1.0 m ³ bucket	Per Hour	800	\$ _____	\$ _____
5	01 11 00	Rubber Tire Front End Loader (Operating) Minimum 3.0 m ³ bucket	Per Hour	100	\$ _____	\$ _____
6	01 11 00	Rubber Tire Backhoe (Operating) Minimum 5.5 m horizontal reach Minimum 0.45 m ³ backhoe bucket Minimum 1.35 m ³ front bucket Minimum mass of 7,500 kg	Per Hour	100	\$ _____	\$ _____
7	01 11 00	Dump truck (Operating) Minimum 15 tonne capacity	Per Hour	200	\$ _____	\$ _____
8	01 11 00	Dump truck (Operating) Minimum 28 tonne capacity	Per Hour	100	\$ _____	\$ _____
9	01 11 00	Articulated Truck (Operating) Minimum 25 tonne payload	Per Hour	10	\$ _____	\$ _____
10	01 11 00	Vibratory Single Drum Roller (Operating) Minimum 4000 kg Minimum 1500 mm width drum	Per Hour	300	\$ _____	\$ _____
11	01 11 00	Bulldozer (Operating) Minimum 3.9 m wide blade Minimum 8.5 m ³ capacity	Per Hour	500	\$ _____	\$ _____

Services						
12	32 92 21	Hydroseeding (minimum 5,000 m ² per call-up)	Per m ²	7,000	\$ _____	\$ _____
13	32 92 24	Dry Mulching (minimum 5,000 m ² per call up)	Per m ²	7,000	\$ _____	\$ _____
Aggregates						
14	32 11 23	Imported Cover Soil	Per Tonne	250	\$ _____	\$ _____
15	32 11 23	Type 1 Aggregate	Per Tonne	250	\$ _____	\$ _____
16	32 11 23	Type 2 Aggregate	Per Tonne	250	\$ _____	\$ _____
17	32 11 23	R3 RipRap	Per Tonne	50	\$ _____	\$ _____
18	32 11 23	Common Clean Fill	Per Tonne	400	\$ _____	\$ _____
Table A – Option Year 1 Total						\$ _____

Table B – Option Year 1					
Item	Annex A Reference	Class of Labour	Total Estimated Expenditure	OH&P Factor (%)	Extended Price
1	01 11 00	Miscellaneous Equipment Rental Allowance (Contractor to Bid OH&P Factor)	\$40,000.00	_____ %	\$ _____
2	01 11 00	Miscellaneous Material Allowance (Contractor to Bid OH&P Factor)	\$40,000.00	_____ %	\$ _____
Table B – Option Year 1 Total					\$ _____
* The Extended Price for materials and equipment are each calculated by adding the mark-up quoted to the total estimated expenditure (Example: Year 1, \$500.00 estimated expenditure; 10% mark-up quoted = \$500.00 + (\$500.00 x 10%) = \$550.00)					

Table A: \$ _____

Table B: \$ _____

Total Option Year 1: \$ _____

Table A – Option Year 2						
A	B	C	D	E	F	G
Item	Annex A Reference	Class of Labour or Materials	Unit of Measure	Estimated Quantity	Price per Unit	Extended Price (E X F)

Labour						
1	01 11 00	Site Supervisor	Per Hour	300	\$ _____	\$ _____
2	01 11 00	Labourer	Per Hour	1,000	\$ _____	\$ _____
Equipment with Operator						
3	01 11 00	Hydraulic Excavator (With Operator) Minimum 35 tonne operating weight Minimum 2.0 m ³ bucket	Per Hour	300	\$ _____	\$ _____
4	01 11 00	Hydraulic Excavator (Operating) Minimum 20 tonne operating weight Minimum 1.0 m ³ bucket	Per Hour	800	\$ _____	\$ _____
5	01 11 00	Rubber Tire Front End Loader (Operating) Minimum 3.0 m ³ bucket	Per Hour	100	\$ _____	\$ _____
6	01 11 00	Rubber Tire Backhoe (Operating) Minimum 5.5 m horizontal reach Minimum 0.45 m ³ backhoe bucket Minimum 1.35 m ³ front bucket Minimum mass of 7,500 kg	Per Hour	100	\$ _____	\$ _____
7	01 11 00	Dump truck (Operating) Minimum 15 tonne capacity	Per Hour	200	\$ _____	\$ _____
8	01 11 00	Dump truck (Operating) Minimum 28 tonne capacity	Per Hour	100	\$ _____	\$ _____
9	01 11 00	Articulated Truck (Operating) Minimum 25 tonne payload	Per Hour	10	\$ _____	\$ _____
10	01 11 00	Vibratory Single Drum Roller (Operating) Minimum 4000 kg Minimum 1500 mm width drum	Per Hour	300	\$ _____	\$ _____

11	01 11 00	Bulldozer (Operating) Minimum 3.9 m wide blade Minimum 8.5 m ³ capacity	Per Hour	500	\$ _____	\$ _____
Services						
12	32 92 21	Hydroseeding (minimum 5,000 m ² per call-up)	Per m ²	7,000	\$ _____	\$ _____
13	32 92 24	Dry Mulching (minimum 5,000 m ² per call up)	Per m ²	7,000	\$ _____	\$ _____
Aggregates						
14	32 11 23	Imported Cover Soil	Per Tonne	250	\$ _____	\$ _____
15	32 11 23	Type 1 Aggregate	Per Tonne	250	\$ _____	\$ _____
16	32 11 23	Type 2 Aggregate	Per Tonne	250	\$ _____	\$ _____
17	32 11 23	R3 RipRap	Per Tonne	50	\$ _____	\$ _____
18	32 11 23	Common Clean Fill	Per Tonne	400	\$ _____	\$ _____
Table A – Option Year 2 Total						\$ _____

Table B – Option Year 2					
Item	Annex A Reference	Class of Labour	Total Estimated Expenditure	OH&P Factor (%)	Extended Price
1	01 11 00	Miscellaneous Equipment Rental Allowance (Contractor to Bid OH&P Factor)	\$40,000.00	_____ %	\$ _____
2	01 11 00	Miscellaneous Material Allowance (Contractor to Bid OH&P Factor)	\$40,000.00	_____ %	\$ _____
Table B – Option Year 2 Total					\$ _____
* The Extended Price for materials and equipment are each calculated by adding the mark-up quoted to the total estimated expenditure (Example: Year 1, \$500.00 estimated expenditure; 10% mark-up quoted = \$500.00 + (\$500.00 x 10%) = \$550.00)					

Table A: \$ _____

Table B: \$ _____

Total Option Year 2: \$ _____

Solicitation No. - N° de l'invitation
EP899-210725
Client Ref. No. - N° de réf. du client

Amd. No. - N° de la modif.
File No. - N° du dossier

Buyer ID - Id de l'acheteur
Hal 502
CCC No./N° CCC - FMS No./N° VME

Total Offered Price for Evaluation	
Year 1 Total	\$ _____
Year 2 Total	\$ _____
Year 3 Total	\$ _____
Option Year 1 Total	\$ _____
Option Year 2 Total	\$ _____
Total Price Offered	\$ _____

End of Basis of Payment

ANNEX “C” to PART 3 OF THE REQUEST FOR STANDING OFFERS

ELECTRONIC PAYMENT INSTRUMENTS

The Offeror accepts to be paid by any of the following Electronic Payment Instrument(s):

- ☐ () VISA Acquisition Card;
- ☐ () MasterCard Acquisition Card;
- ☐ () Direct Deposit (Domestic and International);
- ☐ () Electronic Data Interchange (EDI);
- ☐ () Wire Transfer (International Only);

ANNEX "D"

INSURANCE REQUIREMENTS

1. The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$2,000,000 per accident or occurrence and in the annual aggregate.
2. The Commercial General Liability policy must include the following:
 - a. Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Public Works and Government Services Canada.
 - b. Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.
 - c. Products and Completed Operations: Coverage for bodily injury or property damage arising out of goods or products manufactured, sold, handled, or distributed by the Contractor and/or arising out of operations that have been completed by the Contractor.
 - d. Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.
 - e. Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.
 - f. Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.
 - g. Employees and, if applicable, Volunteers must be included as Additional Insured.
 - h. Employers' Liability (or confirmation that all employees are covered by Worker's compensation (WSIB) or similar program)
 - i. Broad Form Property Damage including Completed Operations: Expands the Property Damage coverage to include certain losses that would otherwise be excluded by the standard care, custody or control exclusion found in a standard policy.
 - j. Notice of Cancellation: The Contractor will provide the Contracting Authority thirty (30) days prior written notice of policy cancellation or any changes to the insurance policy.
 - k. If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.
 - l. Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.
 - m. Non-Owned Automobile Liability - Coverage for suits against the Contractor resulting from the use of hired or non-owned vehicles.
 - n. Advertising Injury: While not limited to, the endorsement must include coverage piracy or misappropriation of ideas, or infringement of copyright, trademark, title or slogan.
 - o. All Risks Tenants Legal Liability - to protect the Contractor for liabilities arising out of its occupancy of leased premises.
 - p. Amendment to the Watercraft Exclusion to extend to incidental repair operations on board watercraft.
 - q. Sudden and Accidental Pollution Liability (minimum 120 hours): To protect the Contractor for liabilities arising from damages caused by accidental pollution incidents.
 - r. Litigation Rights: Pursuant to subsection 5(d) of the [Department of Justice Act](#), S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the

Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

For the province of Quebec, send to:

*Director Business Law Directorate,
Quebec Regional Office (Ottawa),
Department of Justice,
284 Wellington Street, Room SAT-6042,
Ottawa, Ontario, K1A 0H8*

For other provinces and territories, send to:

*Senior General Counsel,
Civil Litigation Section,
Department of Justice
234 Wellington Street, East Tower
Ottawa, Ontario K1A 0H8*

A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

ANNEX "E"

Standing Offer Reporting Form

Please fax to the Standing offer authority named herein.

Please use the Standing Offer number in the Subject line and clearly indicate:

- The standing offer number for which data is submitted;
- The period for which the data has been accumulated (start date to end date);
- The Department with whom the standing offer was arranged;
- The start date and the end date for the standing offer; and
- The total spend to date, by government department.

Standing Offer		(Insert Standing Offer #)	Start Date of SO (DD/MM/YYYY)	End Date of SO (DD/MM/YYYY)	
Total Value to Date (\$)		Total Value for Reporting Period (\$)	Start Reporting Period (DD/MM/YYYY)	End Reporting Period (DD/MM/YYYY)	
Department Requesting	Order Number	Work Description	Date of Order	Date of Delivery	Value of Order (not including HST)

ANNEX “F”

INTEGRITY PROVISIONS – LIST OF DIRECTORS

Please provide list of names of the following entities, according to the ownership nature of the company

1. For a Corporation - each current member of the Bidder's Board of Directors;

2. For a Partnership, General Partnership or Limited Partnership - the names of all current partners;

3. For a Sole Proprietorship or an individual doing business under a firm name - the name of the sole proprietor or individual;

4. In the case of a joint venture - For a Joint Venture - the names of all current members of the Joint venture;

5. For an individual - the full name of the person

<u>Section</u>	<u>Title</u>	<u>Pages</u>
<u>Division 01- General Requirements</u>		
01 11 00	Summary of Work	15
01 35 30	Health and Safety Requirements	5
01 35 43	Environmental Procedures	9
01 71 00	Examination and Preparation	2
01 74 11	Cleaning	1
<u>Division 31 - Earthwork</u>		
31 00 99	Earthworks for Minor Works	2
31 05 17	Aggregate Materials	4
31 11 00	Clearing and Grubbing	4
31 23 10	Excavation, Trenching and Backfilling	3
31 23 13	Rough Grading	3
31 37 10	Rip-Rap	2
<u>Division 32 - Exterior Improvements</u>		
32 11 23	Fill Materials	5
32 15 50	Erosion Control	2
32 91 21	Soil Amendment and Grading	2
32 91 24	Dry Mulching	2
32 92 21	Hydraulic Seeding	6

Appendix 1 - Location of Work

1.1 Precedence

- .1 For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Manual.

1.2 Scope

- .1 The work covered under this project consists of the furnishing of all labour, equipment, and materials to perform miscellaneous minor earthworks, hydraulic seeding, and provision of aggregate materials. The scope of this Standing Offer is intended to aide PWGSC in the implementation of an overall site closure program in which a number of former mining properties are being assessed and remediated.
2. Earthworks, as part of this Standing Offer, will involve excavation, stockpiling, transportation, placement, and grading of rock soil and other soil material. Earthworks will also include infilling of sinkholes and other tasks which will support the overall site management program.
3. Earthworks, hydraulic seeding and provision of aggregate materials will occur at various locations within the defined boundary as specified in the attached figure (Appendix 1, Drawing 1), complete in strict accordance with specifications and drawings, and subject to all terms and conditions of this "standing offer" contract.

1.3 Description

1. The work will consist of, but will not necessarily be limited to the following:
 - .1 Preparation and submission for approval of a Health and Safety Plan, including Hazard Assessments, and an Environmental Management Plan, a Water Control Plan,

conforming to the requirements detailed in the associated specifications.

- .2 Rock and Soil excavation, stockpiling, transportation, placement and grading at various locations within the defined Standing Offer boundary.
- .3 Supply of heavy construction equipment as required.
- .4 Supply of miscellaneous material as required.
- .5 Supply manpower, including a site supervisor to carry out work as required.
- .6 Supply of miscellaneous equipment as required.
- .7 Hydraulic seeding of variously sized areas.
- .8 Provision and transport to site of Type 1 Aggregate
- .9 Provision and transport to site of Type 2 Aggregate
- .10 Provision and transport to site of R3 Rip Rap.
- .11 Provision and Transport to site of Common Clean Fill.
- .12 Provision, and transportation to site of Pit run gavel/ shale/rock fill.
- .2 All work will be on a call-up basis, and will meet the requirements set out in the Standing Offer.

- 1.4 Site of Work
- .1 The work to be carried out as part of this Standing Offer will be conducted within the limits defined on the accompanying drawing (Appendix 1, Figure 1).
- .2 Earthworks, hydraulic seeding and provision of aggregates carried out as part of this Standing Offer will be conducted on properties currently owned by Public Works Government Services Canada.
- .3 Contractors are advised that call-up to be carried out as part of this Standing Offer can occur anywhere within the limits defined in Appendix 1, Drawing 1, and no separate payment will be made for mobilization and demobilization of labour or equipment. Mobilization and demobilization costs will be included incidental in the hourly rate charged for labour or that specific piece of equipment during its operation. There will be no call-up for services with a duration of less than four hours operating time.
- 1.5 Examination of Site
- .1 No separate examination is required prior to submitting a bid for this Standing Offer. Once the Standing Offer is awarded, and as individual call-ups are initiated, it is recommended that Contractors visit the specific sites for which the call-up is being initiated to aid in the assessment of the condition of the site, the facilities available in the area, the severity, exposure and general uncertainty of the weather conditions, actual site and soil conditions and any other contingencies which may attend the execution of the call-ups.
-

- 1.6 Reports
- .1 The following reports and documents are available for viewing by the bidders at the PWGSC office at 308 George Street in Sydney, Nova Scotia, prior to submission of tender;
 - .1 PWGSC Generic Environmental Protection Plan.
 - .2 PWGSC Class Risk Assessment.
 - .3 PWGSC Generic Mine Working Protocols.
 - .2 Information noted in the referenced reports are to be used only as a general information source to provide some detail regarding the general nature of the types of sites the bidder may be required to work on. There will be no compensation to the Contractor for any errors, omissions or discrepancies in the reports. The Departmental representative accepts no responsibility for the accuracy of the information provided in the reports.
- 1.7 Taxes, Permits, Licenses and Certificates
- .1 Pay all applicable Federal, Provincial and Municipal Taxes.
 - .2 Obtain and pay for all permits, licenses and certificates required for the work including all maintenance cost.
 - .3 Furnish the permits, licenses and certificates to the Departmental Representative prior to start of work.
 - .4 Provide the authorities having jurisdiction with all information as required.
- 1.8 Work Commencement
- .1 Contractor will mobilize to the site within twenty-four (24) hours of notification from the Departmental

representative, provided required documents are in place.

- .2 The Contractor is to make every effort to ensure that sufficient labour, material, plant and equipment are mobilized to site as requested.

1.9 Minimum Call-Up

- .1 A minimum of 4 hours will apply to hourly equipment and labour rates that are mobilized to a site as part of a call-up against this Standing Offer.

1.10 Payment Items

- .1 Site Supervisor
- .2 Labourer
- .3 Operating Hydraulic excavator with a minimum 35 tonne operating weight and a minimum 2.0 cubic metre capacity bucket.
- .4 Operating Hydraulic excavator with a minimum 20 tonne operating weight and a minimum 1.0 cubic metre capacity bucket.
- .5 Operating Rubber tire front end loader equipped with a minimum 3.0 cubic metre bucket, pallet forks and snow plow.
- .6 Operating Rubber tire backhoe with a minimum of 5.5 metre horizontal reach, a minimum of 0.45 cubic metre backhoe bucket, a minimum 1.35 cubic metre front bucket and a minimum mass of 7,500 kilograms.
- .7 Operating on-highway dump trucks with a minimum 15.0 tonne payload capacity to provide continuous operation as determined by the Departmental representative. Truck boxes to be

covered and tailgates to be double secured with chain.

- .8 Operating on-highway dump trucks with a minimum 28.0 tonne payload capacity to provide continuous operation as determined by the Departmental representative. Truck boxes to be covered and tailgates to be double secured with chain.
 - .9 Operating articulated truck with a minimum payload of 25,000 kilograms.
 - .10 Operating self-propelled, vibratory single drum, smooth drum roller with a minimum mass of 4,000 kilograms, minimum 1500 mm width drum.
 - .11 Operating bulldozer with a minimum of 3.9 metre blade width, a minimum 1.6 metre blade height and a minimum of 8.5 cubic metre blade capacity.
 - .12 Miscellaneous equipment rental allowance
 - .13 Miscellaneous Material Allowance
 - .14 Hydroseeding (Minimum area per call 5000 m²)
 - .15 Dry Mulching (minimum area per call 5000m²)
 - .16 Imported Cover Soil
 - .17 Type 1 Aggregate
 - .18 Type 2 Aggregate
 - .19 R3 RipRap
 - .20 Common Clean Fill
-

1.11 Measurement
For Payment

.1 Site Supervisor

The contractor will provide a general site supervisor to oversee all work sites, which will be measured by actual man hours worked and approved by the Departmental representative. Include incidental to this the cost of a half ton (minimum) truck which is to be used for transportation of supervisor, workers, small equipment and material. All costs must be supported by adequate documentation in the form of time sheets, which must be verified and signed daily by the contractor's Site Supervisor and the Departmental representative

.1 It is a requirement that the Site Supervisor have completed the following training:

.1 Confined space entry.

.2 First Aid with CPR.

.2 Labourer

The supply of labour will be measured by the actual labour hours worked as approved by the Departmental representative. All costs must be supported by adequate documentation in the form of time sheets. All time sheets must be verified and signed daily by both the contractor's Site Supervisor and the Site Inspector. The fixed hourly rate will include all cost for basic PPE.

.3 Operating Hydraulic Excavator

The Hydraulic Backhoe will be paid for at the hourly operating rate for actual time worked by each Backhoe as authorized by the Departmental representative. Hourly operating rates

will include the operator, all consumable products, maintenance and repairs.

.4 Operating Rubber Tire Front End Loader

The front end loader will be paid for at the hourly operating rate for actual time worked by each size loader as authorized by the Departmental representative. Hourly operating rates will include the operator, all consumable products, maintenance and repairs.

.5 Operating Rubber Tire Backhoe

The rubber tire backhoe will be paid for at the hourly operating rate for actual time worked as authorized by the Departmental representative. Hourly operating rates will include the operator, all consumable products, maintenance and repairs.

.6 Operating On-Highway Dump Trucks

The dump truck will be paid for at the hourly operating rate for actual time worked as authorized by the Departmental representative. Hourly operating rates will include the operator, all consumable products, maintenance and repairs.

.7 Operating Articulated Truck

The articulating truck will be paid for at the hourly operating rate for actual time worked as authorized by the Departmental representative. Hourly operating rates will include the operator, all consumable products, maintenance and repairs.

.8 Operating Vibratory Roller

The vibrating roller will be paid for at the hourly operating rate for actual

time worked as authorized by the Departmental representative. Hourly operating rates will include the operator, all consumable products, maintenance and repairs.

.9 Operating Bulldozer

The bulldozer will be paid for at the hourly operating rate for actual time worked by each size bulldozer as authorized by the Departmental representative. Hourly operating rates will include the operator, all consumable products, maintenance and repairs.

.10 Miscellaneous Equipment Rental Allowance

The rental of miscellaneous equipment or tools owned by the Contractor will be paid at the actual invoiced cost to cover equipment usage as negotiated and approved by the Departmental representative.

The rental of miscellaneous equipment and tools owned by others will be paid at the actual invoiced cost including appropriate taxes plus an overhead and profit allowance. Cost must be approved by the Departmental representative. All costs must be supported by adequate documentation.

When tendering this unit the Contractor's overhead and profit factor will be entered in the space provided on the Unit Price Table. This factor will then be multiplied by the Miscellaneous Material Allowance principal of \$50,000.00 to determine the total Miscellaneous Equipment Rental Allowance Cost.

The Contractor must make every effort to obtain the best price available for any

specified equipment. The Contractor will obtain a minimum of three (3) quotes on all specified equipment rentals unless advised otherwise by the Departmental representative. All quotes and/ or costs must be preapproved by the Departmental representative. All costs must be supported by adequate documentation.

.11 Miscellaneous Material Allowance

.12 Hydroseeding (5000 m² minimum)

.13 Dry Mulching

.14 Type 1 Aggregate

.15 Type 2 Aggregate

.16 R3 RipRap

.17 Common Clean Fill

1.12 Contractor's
Use of Site

.1 The Contractor is advised that the construction operations, including storage of materials, for this contract must not interfere with the general activity or the operations at or near the site where the Contractor is working as well as sites adjacent to the site the Contractor is working.

.2 Co-operate with other Contractors in carrying out their respective works and carry out instructions from Departmental Representative.

.3 The Contractor will be solely responsible for arranging the storage of materials on or off the site; any

materials stored at the site which interfere with any of the day to day activities at or near the site will be moved promptly at the Contractor's expense upon request by the Departmental representative. All arrangements for space and access will be made by the Contractor.

- .4 Exercise care so as not to obstruct or damage public or private property in the area.
- .5 At completion of work, restore adjacent areas to the original condition. Damage to ground and property will be repaired by the Contractor. Remove all construction materials, residue, excess, etc., and leave site in a condition acceptable to the Departmental representative.

1.13 Protection

- .1 Store and protect all materials and equipment to be incorporated into the work to prevent damage by any means.
- .2 Repair or replace all materials or equipment, which have become damaged in transit or storage, to the satisfaction of, and at no cost to, the Departmental representative.

1.14 Site Security

- .1 The Contractor is responsible for complete security for the work site as required for the protection of equipment, materials and the general public.
- .2 The Contractor shall erect temporary site enclosures, barricades and fencing, where required by the Departmental representative, to prevent unauthorized entry, pilferage and vandalism.

- .3 The Contractor shall close off the construction zone to all non-authorized personnel and visitors to ensure that Health and Safety Regulations are met.
- .4 The Contractor shall ensure all their employees entering the work site receive a safety briefing from the Health and Safety Officer and ensure they comply with same.

1.15 Existing Services

- .1 Before commencing work, establish location and extent of service lines in area of work and notify the Departmental representative of findings in writing.
- .2 Submit schedule to and obtain approval from the Departmental representative for any shutdown or closure of active service or facility. Adhere to approved schedule and provide notice to affected parties.
- .3 Where unknown services are encountered, immediately advise the Departmental representative and confirm findings in writing.
- .4 Record locations of maintained, re-routed and abandoned service lines.
- .5 Prior to any intended interruption of services, obtain permission from Departmental Representative and utility company.

1.16 Project Meetings

- .1 The Departmental representative will arrange the time and location of all project meetings.
 - .2 The Departmental Representative will assume responsibility for recording minutes of meetings, where required, and will forward a copy to participants for
-

review within two working days after the meeting.

- .3 The Contractor will have a member of their organization present at all Project Meetings, who will have the capability of making decisions about the call-up and the progression of the work.

.17 Documents
Required

- .1 Maintain at job site, one (1) copy of each of the following:
 - .1 Drawings
 - .2 Specifications
 - .3 Addenda
 - .4 Other modifications to Contract
 - .5 Field test reports
 - .6 Copy of approved work schedule
 - .7 Health and Safety Plan
 - .8 Hazard Assessment/Analysis Forms
 - .9 Environmental Management Plan
 - .10 Water Management Plan
 - .11 Other Documents as required.

1.18 Smoking
Precaution

- .1 The Contractor must adhere to the Federal Government "No Smoking" policy while in Federal facilities and buildings.

1.19 Relics and
Antiquities

- .1 Protect relics, antiquities, items of historical or scientific interest.
- .2 Give immediate written notice to the Departmental representative and await the Departmental representative's written instructions before proceeding with work in the area.
- .3 Relics, antiquities and items of historical or scientific interest remain her Majesty's property.

1.20 Salvageable

- .1 Any material salvaged from the

<u>Materials</u>		operations will remain her Majesty's property and be stored as directed by the Departmental representative.
<u>1.21 Special Considerations</u>	.1	All information and data gathered as part of the Contractor's tender submission and/or execution of this project shall be "strictly confidential" . This information will be submitted in writing to the Departmental representative if requested.
<u>1.22 Invoicing</u>	.1	Contractor shall submit project breakdown forms signed by the Departmental representative with the invoice. No invoice will be considered for payment unless accompanied by a signed project breakdown form.
	.2	Invoice must show: <ul style="list-style-type: none">.1 Project Number..2 Call-Up/PO Number..3 Period of time covered by the invoice..4 Location of work..5 Description of work..6 Name of person who authorized work..7 Quantity broken down as per Unit Price Table.
	.3	In the event of a dispute, the Contractor is to make any and all records available to the Department to substantiate invoiced amount.
<u>1.23 Material Supplied</u>	.1	The Contractor shall be responsible for the delivery of all specified

By Others material supplied by the Owner.

PART 1 - GENERAL

1.1 SECTION
INCLUDES

- .1 Health and safety considerations required to ensure that PWGSC shows due diligence towards health and safety on construction sites, and meets the requirements laid out in PWGSC/RPB Departmental Policy DP 073 - Occupational Health and Safety - Construction.

1.2 PRECEDENCE

- .1 For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Manual.

1.3 REFERENCES

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS).
 - .1 Material Safety Data Sheets (MSDS).
- .3 Province of Nova Scotia
 - .1 Occupational Health and Safety Act, S.N.S. 1996.

1.4 SUBMITTALS

- .1 Submit site-specific Health and Safety Plan prior to commencement of Work. Health and Safety Plan must include:
 - .1 Results of site specific safety hazard assessment.
 - .2 Results of safety and health risk or hazard analysis for site tasks and operation.
 - .3 Safe work procedures for tasks to be undertaken as part of the project activities.
 - .4 Excavation Plan for all areas outlining excavation and removal procedures on each site.
 - .5 Details of arrangements to prevent

public access to the sites.

- .2 Submit Contractor's authorized representative's work site health and safety inspection reports to Departmental Representative weekly.
- .3 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.
- .4 Submit copies of incident and accident reports within 24 hours of the occurrence.
- .5 Submit WHMIS MSDS - Material Safety Data Sheets.
- .6 Departmental Representative will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 2 days after receipt of plan. Revise plan as appropriate and resubmit plan to Departmental Representative.
- .7 Departmental Representative's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.
- .8 Medical Surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of Work, and submit additional certifications for any new site personnel to Departmental Representative.
- .9 On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.

1.5 SAFETY
ASSESSMENT

- .1 Perform site specific safety hazard assessment related to project.

- | | | |
|-------------------------------------|----|--|
| <u>1.8 MEETINGS</u> | .1 | Schedule and administer Health and Safety meeting with Departmental Representative prior to commencement of Work. |
| | | |
| <u>1.9 REGULATORY REQUIREMENTS</u> | .1 | Do Work in accordance with Regulatory Requirements. |
| | | |
| <u>1.10 PROJECT/SITE CONDITIONS</u> | .1 | Work at site may involve contact with: <ul style="list-style-type: none">.1 Coal fines..2 Coal mine waste rock material..3 Airborne dust resulting from the movement of surface soils..4 Acid rock drainage resulting from surface run-off from precipitation or groundwater associated with the Summit Waste Rock Pile, situated north of the contract area..5 Areas of bootleg mine workings with the potential for subsidence..6 Subsidence areas where subgrade is unconsolidated and instable..7 Areas of illegal dumping with domestic and heavy garbage/debris. |
| | | |
| <u>1.11 GENERAL REQUIREMENTS</u> | .1 | 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. |
| | .2 | Departmental Representative may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns. |
| | | |
| <u>1.12 RESPONSIBILITY</u> | .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 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, safe work practices and/or standard operating procedures provided by the Departmental Representative and with site-specific Health and Safety Plan.

1.13 COMPLIANCE
REQUIREMENTS

- .1 Comply with Occupational Health and Safety Act, Occupational Safety General Regulations, N.S. Reg.
- .2 Comply with Canada Labour Code, Canada Occupational Safety and Health Regulations.

1.14 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 Province having jurisdiction and advise Departmental Representative verbally immediately and in writing within 24 hrs of identification of factor, hazard or condition.

1.15 HEALTH AND
SAFETY CO-ORDINATOR

- .1 Employ and assign to Work, competent and authorized representative as Health and Safety Co-coordinator. Health and Safety Co-coordinator must:
 - .1 Have minimum 2 years site-related working experience specific to activities associated with heavy civil projects.
 - .2 Have working knowledge of occupational safety and health regulations.
 - .3 Be responsible for completing Contractor's Health and Safety Training Sessions and ensuring that personnel not

successfully completing required training are not permitted to enter site to perform Work.

.4 Be responsible for implementing, enforcing and monitoring site-specific Contractor's Health and Safety Plan.

1.16 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 Province having jurisdiction, and in consultation with Departmental Representative.

1.17 CORRECTION OF NON-COMPLIANCE

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

1.18 BLASTING

- .1 Blasting or other use of explosives is not permitted on site.

1.19 BURNING

- .1 The burning of materials is not permitted on site.

1.20 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 1 - GENERAL

1.1 RELATED
SECTIONS

.1 not used

1.2 REFERENCES

- .1 Canadian Council of Ministers of the Environment (CCME), Environmental Quality Guidelines.
- .2 Canadian Council of Ministers of the Environment, Canadian Environmental Quality Guidelines, Canadian Water Quality Guidelines for the Protection of Aquatic Life: TOTAL PARTICULATE MATTER, Canadian Council(1992, updated 2002). Provided in Appendix C.
- .3 Nova Scotia Department of Environment and Labour, Air Quality Regulations, Section 112 of the *Environment Act*.
- .4 Nova Scotia Department of Environment and Labour, Erosion and Sedimentation Control Handbook for Construction Sites.
- .5 Environment Canada, Section 36(3) of the *Fisheries Act*, prohibits the planned or accidental discharge of deleterious substances to waters frequented by fish.
- .6 Environment Canada, *Migratory Birds Convention Act*, prohibits the deposit of oil, oil wastes, or other substances harmful to migratory birds or in any area frequented by birds.
- .7 Environment Canada, The Federal Policy on Wetland Conservation.

1.3 ENVIRONMENTAL
PROTECTION PLAN

- .1 Prepare in writing a site specific Environmental Protection Plan in order to clearly define environmental protection

measures. The plan must expand on the use of materials, products, procedures, and application techniques that respond to and have effects on the environment and contingency plans to deal with environmental problems that may arise due to the work.

- .2 The Environmental Protection Plan must incorporate any activities to be undertaken by sub-contractors if any are employed in the process. The Environmental Protection Plan must, at a minimum address the following elements:
 - .1 Introduction
 - .2 Mandate
 - .3 Goals and Objective
 - .4 Roles and Responsibilities
 - .5 Project Description
 - .6 Mitigation Procedures
 - .7 Emergency and Contingency Plans
 - .8 Key Contact List
- .3 As sub-sections to the Mitigation Procedures there will be the following:
 - .1 Petroleum, Oils, Lubricant Materials
 - .2 Grubbing and Materials Excavation on Land
 - .3 Waste Management
 - .4 Water Management
 - .5 Equipment Movement (Truck Traffic and Cleaning of truck Tires)
 - .6 Dust Control
 - .7 Erosion Control
 - .8 Noise Control
 - .9 Solid Waste Disposal
 - .10 Sewage Disposal
 - .11 Fencing
- .4 As sub-sections to the Emergency and Contingency Plans there will be the following:
 - .1 Fuel and Hazardous Materials Spills
 - .2 Travel Load Loss

.3 Heritage Resources

- .5 Each sub-section will include:
- .1 Principal Environmental Concerns
 - .2 Environmental Protection Procedures
- .6 The Departmental Representative is to review the EPP prior to any work commencing on site.
- .1 A draft EPP must be submitted to the Departmental Representative 5 working days prior to any activity commencing on the site.
 - .2 The Departmental Representative's review of the Contractor's Plan will not relieve the Contractor of the responsibility for compliance with applicable environmental regulations.
- .7 Each Contractor's employee is to be provided an orientation on the final Environmental Protection Plan prior to work commencing on the site. The Contractor will keep a record of the employees and their orientation sessions. Copies of the Environmental Protection Plan will be made available to employees.
- .8 Once the Plan has been submitted to the Departmental Representative, the Contractor must take the necessary steps to ensure its full implementation over the course of the project.
- .9 Submission of the Environmental Protection Plan does not relieve the Contractor in his/her overall responsibilities for Health and Safety of workers or for his/her environmental responsibilities, including use, storage and disposal of materials in accordance with governing laws and regulations.

1.4 FIRES

- .1 Fires and burning of any materials on site

are not permitted.

1.5 DISPOSAL OF
WASTES

- .1 Burying of rubbish and waste materials on site is not permitted except as directed by the Departmental Representative or as specified herein.
- .2 All waste or volatile materials, such as mineral spirits, oil or paint thinner shall be disposed of in such a manner as to prevent entry into nearby watercourses, storm or sanitary sewers.
- .3 All waste materials or other materials shall be disposed of in such a way as to prevent entry into nearby watercourses.
- .4 All waste material, except as specified herein, is to be disposed of at an approved waste disposal site in a manner in accordance with applicable Federal and Provincial laws and regulations.
- .5 All construction wastes and debris are to be confined to the site limits, stored in suitable, secure piles where possible, and graded as determined by the Departmental Representative. Periodic removal of waste from the site is required (daily upon accumulation).

1.6 DRAINAGE

- .1 Provide temporary drainage and pumping as necessary to keep excavations and site free from water.
- .2 Control, filtration and/or treatment of natural runoff, induced runoff or any water containing suspended materials is required.
- .3 All stockpiled material must be managed to prevent erosion and silt-laden runoff.
- .4 All work areas to be graded to prevent the ponding of water. Runoff from any exposed

soil areas must be controlled by water control methods such as silt fences to prevent run-off from the site and potential siltation of the adjacent watercourse. The contractor is responsible for ensuring that all environmental controls are maintained under all weather conditions encountered and that suspended solids levels in water leaving the site are maintained at the levels described below.

- .5 Water released to the environment must be carried out in a manner to avoid disturbance of the receiving watercourse and meet all applicable Federal and Provincial regulations and guidelines.
- .6 Field monitoring of the surface water quality for discharges from the construction areas as well as at downstream, upstream and background locations for turbidity, pH, and Electrical Conductivity and potential other parameters (if determined appropriate by the Departmental Representative) will be undertaken by the Departmental Representative. Further laboratory testing for surface water chemistry will be undertaken at the discretion of the Departmental Representative and costs paid by the Departmental Representative.
7. Contractors requirements for compliance for field turbidity measurements to mitigate total suspended solids will be in accordance with the CCME Environmental Quality Guidelines for high flow periods. Acceptable levels for turbidity will not exceed 8 NTUs at anytime when the background turbidity is between 8 and 80 NTUs, nor will it increase more than 10% of background when background is >80 NTUs at anytime. Should an unacceptable level be present, work will be stopped as directed by the Departmental

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Representative. The Contractor will not be allowed any extra compensation or time resulting from this suspension of work.

8. Should contamination other than impacts from suspended solids (i.e turbidity) be identified that are determined to be pre-existing, the Departmental Representative will pay the costs of associated treatment, however, delays to the Contractor will not be considered additional cost. Should contamination be resultant from the Contracted activities, the Contractor will be required to implement appropriate treatment measures and bear all associated costs.

1.7 WORK ADJACENT
TO WATERWAYS/WETLANDS

- .1 Do not operate construction equipment in waterways/wetlands.
- .2 Do not deposit excavated fill, waste material or debris in waterways/wetlands.
- .3 Do not skid logs or construction materials across waterways/wetlands.
- .4 The Contractor is to store equipment and establish project staging in previously disturbed areas and not on wetlands.

1.8 POLLUTION
CONTROL

- .1 Maintain temporary erosion and pollution control features installed under this contract.
- .2 Air Pollution
 - .1 Control emissions from equipment and plant to local authorities emission requirements.
 - .2 Cover or wet down dry materials and rubbish to prevent blowing dust or debris.
 - .3 Transport dusty materials in covered haulage vehicles.
 - .4 Public roadways and existing site road shall be kept clean and free of mud

to the satisfaction of the Departmental Representative.

.5 Monitoring of dust that might be associated with any of the construction activities may be performed by the Departmental Representative. A one hour perimeter action level of $108 \mu\text{g}/\text{m}^3$ for PM_{10} using real-time instrumentation will be used for monitoring and evaluation of action levels (i.e. potential site-shut down). The monitoring perimeter will be defined as the contract work area boundary as defined on the construction drawings. In the event of a shut-down, the work will not recommence until mitigation measures have been implemented and dust has been reduced to acceptable levels.

.3 Noise Pollution

.1 Establish and maintain site procedures such that noise levels from construction areas are minimized.

.2 Control noise level in accordance with local by-laws.

.3 Use vehicles and equipment equipped with efficient muffling devices.

.4 Provide and use devices that will minimize noise level in construction area.

.4 Refueling Areas

.1 Review in detail proposed route of construction to plan areas, access routes and fueling areas.

.2 Establish suitable fueling and maintenance areas and obtain approval from the Departmental Representative.

.3 Do not refuel or maintain equipment adjacent to or in watercourses.

.4 Do not fuel equipment within 30 meters of any watercourses.

.5 Cleaning Equipment

.1 Do not clean equipment in water watercourses.

.2 Clean construction equipment prior to

driving on public roadways.

.3 Do not clean equipment in locations where debris can gain access to watercourses.

.6 Spills:

.1 Keep all materials required for clean-up of spillages readily accessible on site.

.2 Be prepared at all times to intercept, clean-up and dispose of any spillage that may occur whether on land or water.

1.9 WATER
MANAGEMENT PLAN

.1 Prepare in writing a Water Management Plan.

The plan must detail the handling methods for all waters that may be present on the project site. The plan must address water handling during all stages of construction as well as periods of construction suspension.

.2 The Water Management Plan must incorporate any activities to be undertaken by subcontractors if any are employed in the process.

.3 A draft Water Management Plan must be submitted to the Departmental Representative 5 working days prior to any activity commencing on the site.

.4 Once the Plan has been submitted to the Departmental Representative, the Contractor must take the necessary steps to ensure its full implementation over the course of the project.

.5 Submission of the Water Management Plan does not relieve the Contractor in his/her overall responsibilities for Health and Safety of workers or for his/her environmental responsibilities, including release of waters in accordance with

governing laws and regulations.

1.10 REGULATIONS

- .1 The work will be carried out in accordance with all applicable Provincial and Federal regulations.
- .2 The Contractor will be responsible for obtaining all applicable permits.

1.11 REPORTING

- .1 All releases of hazardous substances into the environment (e.g. ground, water, drains, sewer systems, ditches, roads, parking areas, etc.) shall be reported to the Engineer as soon as possible.

1.12 INSPECTION

- .1 The project site from time to time may be inspected by the Departmental Representative and/or Enterprise Cape Breton Corporation auditors to ensure compliance with Federal, Provincial and local environment requirements.
- .2 All spills reported under paragraph 1.11 of this section are subject to inspection by the Departmental Representative to confirm cleanup and disposal have been carried out satisfactorily (including confirmatory sampling at the expense of the Contractor).

PART 1 - GENERAL

1.1 PRECEDENCE

- .1 For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Manual.

1.2 QUALIFICATIONS
OF SURVEYOR

- .1 Qualified registered land surveyor, licensed to practice in Nova Scotia, acceptable to Departmental Representative.

1.3 SURVEY
REFERENCE POINTS

- .1 Existing base horizontal and vertical control points will be provided.
- .2 Locate, confirm and protect control points prior to starting site work. Preserve permanent reference points during construction.
- .3 Make no changes or relocations without prior written notice to Departmental Representative.
- .4 Report to Departmental Representative when reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
- .5 Require surveyor to replace control points in accordance with original survey control.

1.4 SURVEY
REQUIREMENTS

- .1 Establish lines and levels. Locate and lay out by instrumentation provided by Contractor.
- .2 Stake for grading, fill removal and placement.
- .3 Stake slopes and berms.
- .4 Establish pipe invert elevations.

1.5 RECORDS

- .1 Maintain a complete, accurate log of control and survey work as it progresses.
- .2 On completion of work, prepare a certified survey showing dimensions, locations, angles and elevations of Work. Survey to be submitted in electronic format.

1.6 SUBMITTALS

- .1 Submit name and address of Surveyor to Departmental Representative.
- .2 On request of Departmental Representative, submit documentation to verify accuracy of field engineering work.
- .3 Submit certificate signed by surveyor certifying those elevations and locations of completed Work that conform and do not conform with Contract Documents.

PART 1 - GENERAL

1.1 RELATED
SECTIONS

1.2 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 Departmental Representative. Do not burn waste materials on site.
- .3 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .4 Provide on-site containers for collection of waste materials and debris as required for contractor's workforce.
- .5 Store volatile waste in covered metal containers, and remove from premises at end of each working day.

1.3 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 other than that caused by others, and leave Work clean.
- .4 Remove waste products and debris other than that caused by others.
- .5 Remove waste materials from site at regularly scheduled times or dispose of as directed by Departmental Representative.

PART 1 - GENERAL

1.1 REGULATIONS

- .1 Shore and brace excavations, protect slopes and banks and perform all work in accordance with Provincial and Municipal regulations whichever is more stringent.

1.2 TESTS AND INSPECTIONS

- .1 Do not begin backfilling or filling operations until material has been approved for use by Departmental Representative.
- .2 Notify Departmental Representative before backfilling or filling with approved material so that Departmental Representative has option to conduct compaction tests.
- .3 Before commencing work, conduct, with Departmental Representative, condition survey of existing structures, trees and other plants, lawns, fencing, service poles, wires, rail tracks and paving, survey bench marks and monuments which may be affected by work.

1.3 BURIED SERVICES

- .1 Before commencing work, establish the location of all buried services on and adjacent to the site.
- .2 Arrange with appropriate authority for relocation of buried services that interfere with execution of work.

1.4 PROTECTION

- .1 Protect excavations from freezing.
- .2 Keep excavations clean, free of standing water, snow, ice and loose soil.
- .3 Where soil is subject to significant volume change due to change in moisture content, cover and protect to Departmental Representative's approval.
- .4 Protect natural and man-made features required to remain undisturbed. Unless otherwise indicated or located in an area to be occupied by new construction, protect existing trees from damage.
- .5 Protect buried services that are required to remain

undisturbed.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 SITE
PREPARATION

- .1 Remove obstructions, ice and snow, from surfaces to be excavated within limits indicated.

3.3 EXCAVATION

- .1 Excavate to elevations, dimensions, lines and grades, as directed by the Departmental Representative.
- .2 Stockpile in locations as directed by the Departmental representative.

3.4 BACKFILLING

- .1 Inspection: do not commence backfilling until fill material and spaces to be filled have been inspected and approved by Departmental Representative.
- .2 Remove snow, ice, construction debris, organic soil and standing water from spaces to be filled.
- .3 Lateral support: maintain even levels of backfill around structures as work progresses, to equalize earth pressures.

3.5 GRADING

- .1 Grade so that water will drain away from buildings, walls and paved areas, to catch basins and other disposal areas approved by Departmental Representative. Grade to be gradual between finished spot elevations shown on drawings.

PART 1 - GENERAL

1.1 RELATED
SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 35 43 - Environmental Procedures.
- .3 Section 31 24 13 - Excavation, Trenching and Backfilling.
- .4 Section 32 11 23 - Fill Materials

1.2 REFERENCES

- .1 American Society for Testing and Materials (ASTM)
 - .1 ASTM D 4791-99, Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate.
 - .2 ASTM D 5744-07 Standard Test Method for Laboratory Weathering of Solid Materials Using a Humidity Cell.

1.3 SUBMISSIONS AND
SAMPLES

- .1 Sampling and testing of aggregates required to confirm compliance with the specifications is the responsibility of Contractor.
- .2 Inform Departmental Representative at least two (2) weeks prior to commencing Work and prior to changing proposed source(s) of fill materials and provide access to the Departmental Representative for inspection and/or sampling.
- .3 Departmental Representative may, at his/her discretion, carry out confirmatory testing of aggregates. Submit 70 kg samples of aggregates in accordance with Section 01 33 00 - Submittal Procedures, if requested by Departmental Representative. Samples may be requested by the Departmental Representative from the borrow area, production line, stockpiles or in-situ after placement.

The cost of sampling and repairing areas from in-situ after placement sampling shall be borne by Contractor.

- .4 Pay the cost of testing of aggregates by Departmental Representative which fail to meet specified requirements.
- .5 Submit laboratory test results confirming all materials are non-acid rock drainage (ARD) generating.

1.4 WASTE
MANAGEMENT AND
DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with Waste Management Plan Section 01 35 43 - Environmental Procedures.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Aggregate quality of Type 1 and Type 2 granulars, riprap, and clear stone: sound, hard, durable material free from soft, thin, elongated or laminated particles, organic material, clay lumps or minerals, or other substances that would act in deleterious manner for use intended.
- .2 Type 1, and Type 2 granulars shall be produced from crushed or fractured bedrock fragments with 100% fractured faces or crushed from cobbles or boulders greater than 300 mm diameter.
- .3 Clearstone, Type 1 and Type 2 granulars shall not deteriorate when exposed to air and water and shall be resistant to deterioration by cycles of wetting, drying, freezing, and thawing.
- .4 Fine aggregates satisfying requirements of applicable section to be one, or blend of following:
 - .1 Natural sand.
 - .2 Manufactured sand.

- .3 Screenings produced in crushing of quarried rock, boulders, gravel or slag.
- .5 Coarse aggregates for Type 1 and Type 2 granular fill and Type C4 clear stone satisfying requirements of applicable section to be one of or blend of following:
 - .1 Crushed rock.
 - .2 Gravel and crushed gravel composed of naturally formed particles of stone.

Part 3 - Execution

3.1 PREPARATION

- 1. Handling
 - .1 Handle and transport aggregates to avoid segregation, contamination and degradation.
- .2 Stockpiling
 - .1 Stockpile aggregates on site in locations as directed.
 - .2 Stockpile aggregates in sufficient quantities to meet Project schedules.
 - .3 Stockpiling sites to be level, well drained, and of adequate bearing capacity and stability to support stockpiled materials and handling equipment.
 - .4 Except where stockpiled on acceptably stabilized areas, provide compacted sand base not less than 300 mm in depth to prevent contamination of aggregate. Stockpile aggregates on ground but do not incorporate bottom 300 mm of pile into Work.
 - .5 Separate different aggregates by strong, full depth bulkheads, or stockpile far enough apart to prevent intermixing.
 - .6 Do not use intermixed or contaminated materials. Remove

and dispose of rejected materials as within 48 h of rejection.

- .7 Stockpile materials in uniform layers of thickness as follows:
 - .1 Max 1.5 m for coarse aggregate and base course materials.
 - .2 Max 1.5 m for fine aggregate and sub-base materials.
 - .3 Max 1.5 m for other materials.
- .8 Uniformly spot-dump aggregates delivered to stockpile in trucks and build up stockpile as specified.
- .9 Do not cone piles or spill material over edges of piles.
- .10 Do not use conveying stackers.
- .11 During winter operations, prevent ice and snow from becoming mixed into stockpile or in material being removed from stockpile.

- .3 Leave aggregate stockpile site in tidy, well drained condition, free of standing surface water.

3.2 UNUSED
AGGREGATES:

- .1 Leave any unused aggregates (that have been paid for by Departmental Representative under this contract) in neat compact stockpiles.

PART 1 - GENERAL

1.1 RELATED
SECTIONS

- .1 Section 01 71 00 - Examination and Preparation.
- .2 Section 31 23 10 - Excavating, Embankment and Compaction.

1.2 REFERENCES

- .1 U.S. Environmental Protection Agency (EPA)/Office of Water
 - .1 EPA 832R92005, Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices.

1.3 DEFINITIONS

- .1 Clearing consists of cutting off standing trees, brush, scrub, roots, stumps and embedded logs, removing at, or close to, existing grade. Harvesting of trees greater than 250 mm diameter is to be performed if said trees cannot be handled by the chipping machine. Chipping trees of a diameter less than 250 mm diameter and small brush is to be performed, and larger trees are to be chipped as well if site equipment can handle said trees. Trees harvested are the property of the contractor. The chipped material is to be transported and stockpiled at the designated stockpile area.
- .2 Grubbing consists of excavation of surficial organics, stumps and root systems, by means of a root rake complete with grapple attached to a suitably sized excavator, to expose the underlying soils to be screened for cover soil. Stumps and large roots resultant from the grubbing operation are to be chipped. The chipped material is in turn to be transported and stockpiled in the designated stockpile area.

1.4 QUALITY ASSURANCE .1 Do construction occupational health and safety in accordance with Section 01 35 30 - Health and Safety Requirements.

.2 Safety Requirements: worker protection.
 .1 Workers must wear personnel protective equipment and protective clothing when utilizing a chain saw.

1.5 STORAGE AND PROTECTION .1 Prevent damage to trees and root systems outside the contract area, natural features, bench marks, water courses and root systems of trees which are to remain.
 .1 Repair damaged items to approval of the Owner's Representative.
 .2 Be alert and not contribute to the start of a fire. Burning is not permitted on site unless at the direction of the Departmental Representative.

PART 2 - PRODUCTS Not Used.

PART 3 - EXECUTION

3.1 TEMPORARY EROSION AND SEDIMENTATION CONTROL .1 Requirements identified in Section 01 35 43 - Environmental Procedures

3.2 PREPARATION .1 Inspect site and verify with Owner's Representative items designated to remain.
 .2 Contractor is required to have areas to be cleared and grubbed staked by a registered land surveyor.
 .3 Locate and protect utility lines: preserve in operating condition active utilities traversing site.
 .1 Notify Owner's Representative immediately of damage to or when unknown existing utility lines are encountered.

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| | .4 | Notify utility authorities before starting clearing and grubbing. |
| | .5 | Keep roads and walks free of dirt and debris. |
| <u>3.3 APPLICATION</u> | .1 | Manufacturer's instructions: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheet. |
| <u>3.4 CLOSE-CUT CLEARING</u> | .1 | Close cut clearing to ground level. |
| <u>3.5 GRUBBING</u> | .1 | Remove and mulch roots larger than 3.0 cm in diameter, matted roots, and designated stumps from indicated grubbing areas. |
| | .2 | Grub out stumps and roots to not less than 200 mm below ground surface. |
| | .3 | Grubbing operation to be performed utilizing a root rake complete with grapple attached to an excavator of suitable size to perform the task intended. While the material being grubbed is suspended from the root rake / grapple, the material is to be shaken to dislodge vegetation layer, topsoil and seeds onto the exposed topsoil below before it leaves the point of excavation. |
| <u>3.6 REMOVAL AND STOCKPILING</u> | .1 | Remove large and matted roots and stumps, and temporarily stockpile until operation is set up to chip said material. Chipped material is to be placed in the stockpile area under direction of Departmental Representative. Surficial rock fragments and boulders are to be retrieved and stored in the oversize pile in the designated stockpile area. |
| | .2 | The cutting off of standing trees less than 250 mm diameter, brush, scrub, roots, |

stumps and embedded logs, removing at, or close to, existing grade is to be run through a chipper. The chipped material is to be stockpiled on the designated site area for future use by others.

- .3 The cutting off of standing trees 250 mm diameter or greater is to be harvested and removed from site, unless the chipper is able to handle trees of this sizing, in which case they are to be chipped and the chipped material transported and stockpiled in the designated stockpile area.

3.7 FINISHED SURFACE

- .1 Leave ground surface in condition suitable for stripping of topsoil to approval of the Owner's Representative.

3.8 CLEANING

- .1 Proceed in accordance with Section 01 74 11 - Cleaning.
- .2 On completion and verification of performance of work, remove surplus materials, excess materials, rubbish, tools and equipment.

PART 1 - GENERAL

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| <u>1.1 THE WORK</u> | .1 | This work is for the supply of all labour, equipment and materials necessary to perform the work as requested by the Departmental Representative and as specified herewithin. Work includes, but is not limited to, excavation and backfilling of waste rock, common fill, rock, and sediments and placement on the areas designated by the Departmental Representative. |
| <u>1.2 RELATED SECTIONS</u> | .1 | Section 31 00 99 - Earthworks for Minor Works |
| | .2 | Section 31 23 13 - Rough Grading. |
| | .3 | Section 32 15 50 - Erosion Control |
| <u>1.3 REFERENCES</u> | .1 | Not used. |
| <u>1.4 SUBMITTALS</u> | .1 | Not used. |
| <u>1.5 QUALITY ASSURANCE</u> | .1 | Health and Safety Requirements:
.1 Do construction occupational health and safety in accordance with Section 01 35 30 - Health and Safety Requirements. |
| <u>1.6 EXISTING CONDITIONS</u> | .1 | Buried services:
.1 Before commencing work verify location of buried services on and adjacent to site.
.2 Confirm locations of recent excavations adjacent to area of excavation.
.3 Where required for excavation, cut roots or branches as directed by Department Representative. |

PART 2 - PRODUCTS

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| <u>2.1 MATERIALS</u> | .1 | All backfill material referenced in this |
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section consist of spoil from noted excavations.

PART 3 - EXECUTION

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| 3.1 TEMPORARY
EROSION AND
SEDIMENTATION
CONTROL | .1 | Provide temporary erosion and sedimentation control measures as shown on the drawings to prevent soil erosion and discharge of soil-bearing water runoff. |
| | .2 | Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established. |
| | .3 | Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal. |
| 3.2 SITE
PREPARATION | .1 | Remove obstructions, ice and snow, from surfaces to be excavated within limits indicated. |
| 3.3 PREPARATION/
PROTECTION | .1 | Keep excavations clean, and free from loose soil. |
| 3.4 SLOPE
SAFETY | .1 | Maintain sides and slopes of excavations in safe condition by appropriate methods and in accordance with Section 01 35 30 - Health and Safety Requirements. |
| 3.5 EXCAVATION | .1 | Advise Department Representative at least 3 days in advance of excavation operations. |
| | .2 | Excavate to lines, grades, elevations and dimensions as indicated. |
| | .3 | Keep excavated and stockpiled materials safe distance away from edge of trench as directed by Department Representative. |
| | .4 | Restrict vehicle operations directly adjacent to open trenches. |

- .5 Dispose of surplus and unsuitable excavated material as per Section 31 11 00 - Clearing and Grubbing.
- .6 Do not obstruct flow of surface drainage or natural watercourses.
- .7 Notify Department Representative when bottom of excavation is reached.
- .8 Obtain Department Representative approval of completed excavation.
- .9 Remove unsuitable material from trench bottom including those that extend below required elevations to extent and depth as directed by Department Representative.
- .10 No excavations to be left open at the end of day's operation.
- .11 Minimize disturbance to wetland areas beyond waste rock pile.

3.6 BACKFILLING

- .1 Do not proceed with backfilling operations until Department Representative has inspected and approved excavation.
- .2 Areas to be backfilled to be free from debris, snow, ice, water and frozen ground.
- .3 Do not use backfill material which contains ice, snow or debris.
- .4 When backfill consists of waste rock or coal fines, place backfill in uniform layers not exceeding 150 mm compacted thickness. Compact each layer with minimum four passes of 10 tonne roller, or as directed by Department Representative before placing succeeding layer.
- .5 When backfill consists of impacted sediments, spread backfill in uniform layers not exceeding 300 mm and track with dozer.
- .6 When backfill consists of peat materials, place peat in excavation without compaction. Spread to uniformly fill excavation.

PART 1 - GENERAL

1.1 GENERAL .1 This work is for the grading, shaping, compacting and proof-rolling of areas designated by the Departmental Representative to lines and grades indicated and to the specifications herewithin.

1.1 RELATED SECTIONS .1 Section 31 11 00 - Clearing and Grubbing.
.2 Section 31 23 10 - Excavation, Trenching and Backfilling.

1.2 REFERENCES .1 Not Used.

1.3 EXISTING CONDITIONS .1 Refer to dewatering in Section 31 23 10 - Excavating Trenching and Backfilling.

1.4 PROTECTION .1 Maintain access roads to prevent accumulation of construction related debris on roads.

PART 2 - PRODUCTS .1 Not Used

2.1 MATERIALS .1 Fill material: Excavated or graded material existing on site will be used as fill for rough grading.

PART 3 - EXECUTION

3.1 CONSTRUCTION EQUIPMENT .1 The Contractor shall provide earthmoving equipment necessary for the cutting, proof-

rolling, filling and compaction of the areas.

2. Any equipment utilized for earthmoving operations on areas of waste soils shall be thoroughly washed down prior to its removal from the waste area to the satisfaction of the DR, prior to its use within areas of clean fill, or prior to its removal from the site.

3.2 GRADING OF
Designated Areas

- .1 The Contractor shall regrade soils after the completion of the site preparation work as described in these Specifications to achieve the lines, grades and dimensions indicated by the Departmental Representative. Drawings indicating lines and grades will be provided by the DR where required.
- .2 Grades achieved shall be consistent with the drainage direction shown on the Drawings. No grade reversals shall be permitted.
- .3 Under no circumstances may waste materials be transported beyond the waste limits.
- .4 The Contractor is advised that the DR may make adjustments to the final grades to allow for variations in the actual conditions encountered in the field. The final grades after regrading and compaction may only be varied from that shown on the Drawings provided with authorization of the DR. The Contractor shall inform the DR immediately if he/she finds out that the final grade cannot be achieved with the material available for regrading.
- .5 The Contractor shall place fill materials in such a manner so that positive drainage is provided at all times. Water shall not be allowed to pond on the graded surface. The Contractor shall provide adequate measures to control discharge of sediments and potential impacted surface water outside the waste rock pile as described elsewhere in these specifications.
- .6 Filling and compaction of either excessively wet or frozen wastes, as determined by the DR, shall not be permitted.

- .7 Upon completion of all cutting and filling activities, all cut areas shall be proof-rolled with a minimum of 4 passes using a minimum 10 tonne compactor unless otherwise approved by the DR. Any completed waste surface damaged or loosened shall be repaired by the Contractor to the satisfaction of the DR.
- .8 Care shall be exercised when working around existing groundwater monitors and other structures as described elsewhere in these specifications or in the site description provided by the DR. Damage to any structure shall be made good by the Contractor at his own expense. The Contractor shall also be responsible for all claims related to such damage.

PART 1 - GENERAL

1.1 THE WORK

- .1 This work is for the supply of all labour, equipment and material necessary to perform the work as indicated on the drawings and as specified here within.

PART 2 - PRODUCTS

2.1 STONE

- .1 Hard, dense with relative density not less than 2.65, durable quarry stone; free from seams, cracks or other structural defects; with rough surfaces and angular shape. Rounded stone or boulders will not be permitted.
- .2 Stone size distribution shall be as follows:

Sieve Designation		% passing
250	mm	100
150	mm	20-35
56	mm	0-10

PART 3 - EXECUTION

3.1 PLACING

- .1 Where rip-rap is to be placed on slopes, excavate trench at toe of slope to dimensions indicated by the Departmental Representative(DR).
- .2 Fine grade area to be rip-rapped to uniform, even surface. Fill depressions with suitable material as directed by DR, and compact to provide firm bed.
- .3 Place rip-rap to thickness and details as indicated.
- .4 Place stones in manner approved by DR to

secure surface and create a stable mass. Place larger stones at bottom of slopes.

- .5 Hand placing:
 - .1 Use larger stones for lower courses and as headers for subsequent courses.
 - .2 Stagger vertical joints and fill voids with rock spalls or cobbles.
 - .3 Finish surface evenly, free of large openings and neat in appearance.

PART 1 - GENERAL

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| <u>1.1 DESCRIPTION</u> | .1 | This Section specifies requirements for fill materials to be used in construction of the work. |
| <u>1.2 RELATED SECTIONS</u> | .1 | Section 01 33 00 - Submittal Procedures |
| | .2 | Section 01 35 43 - Environmental Procedures |
| | .3 | Section 31 23 10 - Excavation, Trenching and Backfill. |
| | .4 | Section 31 05 17 - Aggregate Materials. |
| <u>1.3 MEASUREMENT PROCEDURES</u> | .1 | Work under this section including submittals and testing is considered incidental to work of other sections. |
| <u>1.4 REFERENCES</u> | .1 | American Society for Testing and Materials (ASTM) |
| | .1 | ASTM C 117-95, Standard Test Methods for Material Finer Than 0.075 mm Sieve in Mineral Aggregates by Washing. |
| | .2 | ASTM C 131-96, Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine. |
| | .3 | ASTM D6928-08e1 Standard Test Method for Resistance of Coarse Aggregate to Degradation by Abrasion in the Micro-Deval Apparatus. |
| | .4 | ASTM C127-07 Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate. |
| | .5 | ASTM C 136-96a, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates. |
| | .6 | ASTM D 698-00a, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard |

- Effort (12,400ft-lbf/ft³) (600kN-m/m³).
- .7 ASTM D 4318-00, Standard Test Methods for Liquid Limit, Plastic Limit and Plasticity Index of Soils.
- .2 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 Other
 - .1 Nelson, D.W. and Sommers, L.E. 1996 Total carbon, organic carbon and organic matter. Pages 961-1010, IN Methods in Soil Analyses Part 3. Chemical Methods. Soil Science Society of America Book Series Number 5, American Society of Soil Science Inc. Madison WI. USA

- 1.5 SUBMITTALS
- .1 All quality control test data (Clause 3.2 of this specification section) to be recorded and made available to Departmental Representative as results become available.
 - .2 All test data are to be submitted in an as-built report. Test data are to be reported along with corresponding location and time relating to accompanying drawings all to be prepared by the Contractor.

- 1.6 DELIVERY, STORAGE, AND HANDLING
- .1 Deliver and stockpile aggregates in accordance with Section 31 05 17 - Aggregate Materials. Stockpile minimum 50% of total aggregate required prior to beginning operation.

PART 2 - PRODUCTS

- 2.1 COMMON FILL
- .1 Imported Cover Soil:
 - .1 Soil free from stumps, roots, sod, ice or snow, and any other deleterious material

consisting of hard and durable particles,
conforming to the following gradation
limits:

<u>Sieve Size, um</u>	<u>Percent Passing</u>
80,000	100
14,000	65-100
5000	50-90
80	20-35

.2 Minimum plasticity index (PI) = 5.

.3 Soil pH Values (Paste pH) prior to
seeding between 5.5 and 7.

2.3 GRANULAR MATERIAL .1

Type 1 and Type 2 Granular Fill shall consist of clean crushed rock, comprised of hard durable particles free from clay lumps, cementation, organic material and other deleterious materials. Gradations to be within limits specified when tested to ASTM C136 and ASTM C117. Sieve sizes to CAN/CGSB-8.1. Gradation to meet the following:

<u>Sieve Designation</u>	<u>% Passing</u>	
	<u>Type 1</u>	<u>Type 2</u>
80 mm		100
56 mm		70-100
28 mm		50-80
20 mm	100	
14 mm	50-85	30-65
5 mm	20-50	20-50
1.25 mm		
0.16 mm	5-12	3-10
0.08 mm	3-8	0-7

.2 Pit Run Granular Fill shall consist of free draining 300 mm minus material with less than 8% fines (passing No. 200 Sieve) as approved by Departmental Representative.

- 2.4 R3 Rip-Rap
- .1 Clear stone shall meet the physical properties and gradation requirements given in this section.
 - .2 Physical properties:
 - .1 Absorption (ASTM C 127): 1.75
 - .2 Plasticity Index (ASTM D 4318): 0
 - .3 Micro-Deval (ASTM D6928): 25% maximum.
 - .4 Gradation:

<u>Sieve</u> <u>Designation</u>	<u>% Passing</u>
250 mm	100
150 mm	20-35
56 mm	0-10

PART 3 - EXECUTION

- 3.1 FILL TYPES AND COMPACTION
- .1 Place fill materials as indicated after underlying surface is inspected and approved by Departmental Representative.
 - .2 Compaction effort shall be to the neat lines and measured by densities as percentages of ASTM D698 corrected maximum dry density where applicable, shall be:
 - .1 Type 2 Gravels for ditches: 95% (minimum)
 - .2 Common Clean fill:
 - .1 Bottom 350mm: min 95% SPMDD.
 - .2 Top 300mm: max 90% SPMDD.

- 3.2 QUALITY CONTROL
- .1 The Contractor shall be responsible for all QC sampling and testing at third party laboratory(ies) to show complete conformance of the fill materials with this specification. These records shall be made available to the Departmental Representative.
 - .2 The Contractor shall submit the name and location of the proposed laboratory(ies) to the Departmental Representative for review. The Contractor shall be responsible for all costs associated with the testing for QC requirements. Testing shall be conducted by qualified laboratory staff.
 - .3 The minimum testing frequency for Type 2 shall be:
 - .1 One gradation tests per 1000 tonnes placed with a minimum of two (2) per borrow source.
 - .3 ASTM D 698 samples as required to be representative of the granulars, but not less than one per borrow source.

PART 1 - GENERAL

1.1 DESCRIPTION

- .1 This Section specifies requirements for erosion control measures to temporarily stabilize and protect exposed soils to allow the establishment of vegetation.
- .2 The requirements of Section 01 35 43 - Environmental Procedures require that total suspended solids be less than 25 mg/L when discharged from the contract area.
- .3 Provide Erosion Control plan to limit off-site discharge of suspended solids to 25 mg/L (max), in accordance with Clause 1.5 of this section.
- .4 Climate conditions may make it advantageous to delay hydraulic seeding to a time when the growing season is more conducive to vegetative growth. In this situation the soils may be prepared for hydraulic seeding and then covered with Dry Mulching, and Hydraulic Seeding carried out at a later date.

1.2 RELATED SECTIONS

- .1 Section 01 35 43 - Environmental Procedures
- .2 Section 32 11 23 - Fill Materials.
- .3 Section 32 92 21 - Hydraulic Seeding.
- .4 Section 32 91 24 - Dry Mulching.

1.3 MEASUREMENT PROCEDURES

- .1 Work under this section will be paid as required based on time and materials submitted for equipment time and materials required to construct and maintain works.
- .2 Costs to maintain erosion controls is based on units rates for services required for the work except in the situation where

contractor causes damage to measure which must then be reinstated at the contractors cost.

1.4 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 35 43 - Environmental Procedures.

3.1 WORKMANSHIP

- .1 All erosion control shall be reviewed by the Departmental Representative prior to installation.
- .2 Select and apply erosion control measures which are suitable and appropriate for the location, slope, and condition of the underlying surfaces in consultation with the Departmental Representative.

3.2 MAINTENANCE

- .1 Maintain installed erosion controls until acceptable vegetation establishment meets the approval of the Departmental Representative.

3.3 CLEAN UP

- .1 Upon approval of Departmental Representative, remove erosion controls and all associated surplus materials, rubbish and tools. Seed areas of exposed soil resulting from removal of erosion controls to Section 32 92 21 as directed by Departmental Representative.

PART 1 - GENERAL

- 1.1 THE WORK .1 This work is for the supply of all labour, equipment and material necessary to perform the works as indicated by the departmental Representative and as specified herewithin. The work is for soil amendment for cover soils as required to facilitate hydraulic seeding.
- 1.2 RELATED SECTIONS .1 Section 32 91 24 - Dry Mulching.
.2 Section 32 92 21 - Hydraulic Seeding.
- 1.3 SUBMITTALS .1 Supply the Department Representative with the identity of the soil amendment to be used a minimum of 2 days prior to commencing haulage from the source.

PART 2 - PRODUCTS

- 2.1 SOIL AMENDMENTS .1 Limestone:
.1 Ground agricultural limestone.
.2 Gradation requirements: percentage passing by weight, 90% passing 1.0 mm sieve, 50% passing 0.125 mm sieve.
.2 Compost:
.1 To be provided to Contractor by PWCGS.

PART 3 - EXECUTION

- 3.1 PREPARATION OF EXISTING GRADE .1 Verify that grades are correct. If discrepancies occur, notify Department Representative and do not commence work until instructed by Department Representative.
.2 Grade soil, eliminating uneven areas and low spots, ensuring positive drainage.
.3 Remove debris, roots, branches, stones in

excess of 50 mm diameter and other deleterious materials. Remove soil contaminated with calcium chloride, toxic materials and petroleum products. Remove debris which protrudes more than 75 mm above surface. Dispose of removed as instructed by Department Representative.

- .4 Cultivate entire area which is to receive soil amendment to depth of 25 mm. Cross cultivate those areas where equipment used for hauling and spreading has compacted soil.

3.2 PLACING AND
SPREADING OF
SOIL AMENDMENT

- .1 Place soil amendments only after Department Representative has accepted subgrade.
- .2 Compost is to be placed at a rate of 65 cubic metres per hectare.
- .3 Limestone is to be placed at a rate of 6.5 tonnes per hectare.
- .4 Soil amendments are to be mixed and tilled into the soil to the satisfaction of the Departmental Representative.

3.3 FINISH GRADING

- .1 Grade to eliminate rough spots and low areas and ensure positive drainage. Prepare loose friable bed by means of cultivation and subsequent raking.

3.4 ACCEPTANCE

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

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Section 32 91 22 - Soil Amendment and Grading.
- .2 Section 32 92 21 - Hydraulic Seeding.

1.2 DESCRIPTION

- .1 The item of work shall consist of the supply and application of a uniform layer of locally procured straw or hay mulch on exposed soil; anchoring it with an industry standard tackifier.
- .2 Mulch is also used for the stabilization of exposed soils and aids in the germination of areas that have been seeded down.
- .3 Dry mulching is to be applied to all areas receiving an hydraulic seed application.

1.3 MEASUREMENT PROCEDURES

- .1 Mulching and application of aqueous slurry shall be measured in square metres of surface covered.

1.4 REFERENCES

- All references are latest edition:
- .1 Division 1, Section 5 Environmental Protection Plan as part of the Highway Construction and Maintenance Standard Specification.
 - .2 Nova Scotia Weed Control Act.
 - .3 Soil and Compost Use Guidelines 1st Edition as produced and distributed by Landscape Nova Scotia Horticultural Trades Association.

PART 2 - PRODUCTS

2.1 MULCH

- .1 Mulch shall be supplied by the Contractor. It shall be hay or straw, in an unprocessed form such as in bales or rolls, free of noxious weeds, as defined by the Nova Scotia Weed Control Act and other undesirable species such as those specified as having an ecological or maintenance concerns, e.g. Purple Loosestrife or Sweet Clover. Materials should not be so wet, decayed or compacted as to inhibit even and uniform spreading. Material in processed form should be shredded straw or wood fibre packaged in plastic bags.
- .2 Requests to utilize an alternative product to the Standard of Acceptance: Earth Bond Tackifier as specified in Section 32 92 21 - Hydraulic Seeding shall be submitted to the Departmental Representative for approval before product is used.
- .3 The use of locally procured hay which contains

species desirable for the revegetation of the site may be preferred to straw. These species may be wildflowers and locally hardy grasses.

- .4 The mulch binder or tackifier is applied as an overspray in aqueous slurry onto the mulch and serves as a bonding medium. It is used to adhere the straw or hay fibres to each other to form a continuous mat on the soil surface. The tackifier shall be applied at the Manufacturer's recommended application rate, sufficient to prevent the mulch from lifting the prepared soil surface.
- .5 Emulsified asphalt shall not be used as a binder.

PART 3 - EXECUTION

3.1 CONSTRUCTION METHODS

- .1 Mulching shall be carried out on all areas receiving an hydraulic seed application.
- .2 Mulch should be applied immediately following seeding to minimize the amount of exposed soil at any one time. Mulch may also be placed as temporary erosion control on unseeded areas. Anchoring of the mulch shall be done immediately after the mulch is applied by the application of the tackifier by means of aqueous slurry.
- .3 Hay or straw shall be spread by hand or by mulch blower uniformly over the hydroseeded area at a rate of 4500 kg/ha +/- 10%, after the application of hydroseed slurry. Rough ground and steep slopes require more mulch and tackifier than finished or flat ground and the Contractor shall adjust application thickness accordingly.
- .4 Do not apply mulch in windy conditions.
- .5 The tackifier shall be applied immediately after the mulch application as aqueous slurry. The spray shall be broadcast upwards over the previously placed hay or straw at a low pressure to insure large droplet sizing.
- .6 The aqueous slurry shall not be applied during or immediately after a rain event.
- .7 Thick clumps of mulch, bare or missed spots are not acceptable and must be re-mulched and the aqueous slurry re-applied by the Contractor before work is accepted.

PART 1 - GENERAL

1.1 HYRDAULIC
SEEDING

- .1 The work is for the supply of all labour, equipment and material necessary to perform the work as indicated by the Departmental Representative and as specified herewithin. Work is for hydraulic seeding cover soils.

1.2 RELATED
SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 35 43 - Environmental Protection.
- .3 Section 31 23 13 - Rough Grading.
- .4 Section 32 91 21 - On-Site Soil Amendment and Grading.
- .5 Section 32 91 24 - Dry Mulching.

1.3 SUBMITTALS

- .1 Product Data.
 - .1 Submit product data in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Provide product data for:
 - .1 Seed.
 - .2 Mulch.
 - .3 Tackifier.
 - .4 Fertilizer.
 - .3 Submit in writing to Departmental Representative 2 days prior to commencing work:
 - .1 Volume capacity of hydraulic seeder in litres.
 - .2 Amount of material to be used per tank based on volume.
 - .3 Number of tank loads required per hectare to apply specified slurry mixture per hectare.

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 Separate and recycle waste materials in accordance with Section 01 35 43 - Environmental Protection.
- .2 Divert unused fertilizer from landfill to official hazardous material collections site approved by Departmental Representative.
- .3 Do not dispose of unused fertilizer into sewer systems, into lakes, streams, onto ground or in locations where it will pose health or environmental hazard.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Grass Seed: "Canada pedigreed grade" in accordance with Government of Canada Seeds Act and Regulations.
 - .1 Grass mixture: "Certified" labeled, "Canada No. 1 Lawn Mixture" in accordance with Government of Canada "Seeds Act" and "Seeds Regulations".
 - .2 Seed mixture shall meet or exceed the requirements of the Canada Seeds Act for Canada No. 1 Ground Cover Mixture.
 - .3 Seed mixture composition:
 - .1 30-40% Birdsfoot Trefoil "Leo" inoculated seed.
 - .2 20-30% Kentucky Bluegrass.
 - .3 15-20% Tall Fescue.
 - .4 7-12% Creeping Red Fescue.
 - .5 3-7% Hard Fescue.
 - .6 3-7% Alsike Clover.
 - .4 Seed shall be kept dry and protected from direct sunlight and other detrimental

conditions.

- .2 Mulch: specially manufactured for use in hydraulic seeding equipment, non-toxic, water activated, green colouring, free of germination and growth inhibiting factors with following properties:
 - .1 Type 1 mulch:
 - .1 Made from wood cellulose fibre.
 - .2 Organic matter content: 95% plus or minus 0.5%.
 - .3 Value of pH: 6.0.
 - .4 Potential water absorption: 800-900%.
- .3 Tackifier: water dilutable, liquid dispersion, containing polyvinyl acetate terpolymer emulsion.
- .4 Water: free of impurities that would inhibit germination and growth.
- .5 Fertilizer:
 - .1 To Canada "Fertilizers Act" and "Fertilizers Regulations".
 - .2 Complete synthetic, slow release with 35% of nitrogen content in water-insoluble form.
- .6 Inoculants: inoculant containers to be tagged with expiry date.
- .7 Bags of seed and fertilizer shall be labelled identifying mass (kg), mix components and percentages, date of bagging, supplier's name and address, and lot number.
- .8 Seed and fertilizer that have been subjected to water will not be accepted.
- .9 When applied, the hydraulic seed mixture shall be capable of forming an absorptive mat which will allow moisture to percolate into the underlying soil.

PART 3 - EXECUTION

3.1 WORKMANSHIP

- .1 Do not spray onto structures, signs, guide rails, fences, plant material, utilities and

other than surfaces intended.

- .2 Clean-up immediately, any material sprayed where not intended, to satisfaction of Departmental Representative.

3.2 PREPARATION OF SURFACES

- .1 Fine grade areas to be seeded free of humps and hollows. Ensure areas are free of deleterious and refuse materials.
- .2 Cultivated areas identified as requiring cultivation to depth of 25 mm.
- .3 Ensure areas to be seeded are moist to depth of 150 mm before seeding.
- .4 Obtain Departmental Representative approval of grade and topsoil depth before starting to seed.

3.3 PREPARATION OF SLURRY

- .1 Measure quantities of materials by weight or weight-calibrated volume measurement satisfactory to Departmental Representative. Supply equipment required for this work.
- .2 Combine seed mix, fertilizer, and mulch with water and thoroughly mix in a hydraulic seeder tank that is capable of continually agitating the mixture during the seeding operation to ensure a homegenous slurry is produced.
- .3 Add material into hydraulic seeder under agitation. Pulverize mulch and charge slowly into seeder.
- .4 After all materials are in the seeder and well mixed, charge tackifier into seeder and mix thoroughly to complete slurry.

3.4 SLURRY APPLICATION

- .1 Notify Departmental Representative 24 hours in advance of all intended hydraulic seeding operations.
- .2 Schedule hydraulic seeding in occur during periods of forecast dry weather. Be prepared to install temporary erosion control measures if unforecast rain occurs prior to

establishment of erosion controls.

- .3 Hydraulic seeding equipment:
 - .1 Slurry tank: min 4500L.
 - .2 Agitation system for slurry to be capable of operating during charging of tank and during seeding, consisting of recirculation of slurry and/or mechanical agitation method.
 - .3 Pumps capable of maintaining continuous non-fluctuating flow of solution.
 - .4 Supplied with not less than 6 spray pattern nozzles.
 - .5 Capable of seeding by hand operated hoses and appropriate nozzles.
 - .6 Tank volume to be certified by certifying authority and identified by authorities "Volume Certification Plate".
- .4 Slurry mixture applied per 100 m².
 - .1 Seed: Grass mixture 2.0kg.
 - .2 Mulch: Type 1, 10kg.
 - .3 Tackifier: 3kg.
 - .4 Water: Minimum 1000L.
 - .5 Fertilizer: 2.25kg, ratio 1:2:2.
- .5 Apply slurry uniformly, at optimum angle of application for adherence to surfaces and germination of seed.
 - .1 Using correct nozzle for application.
 - .2 Using hoses capable of reaching the extremities of the seeded areas.
- .6 Blend application 300 mm into adjacent grass areas or sodded areas previous applications to form uniform surfaces.
- .7 Re-apply where application is not uniform.
- .8 Remove slurry from items and areas not designated to be sprayed.
- .9 Protect seeded areas from trespass satisfactory to Departmental Representative.
- .10 Remove protection devices as directed by Departmental Representative.

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- 3.5 EROSION CONTROL .1 Install and maintain erosion control measures.
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- 3.6 MAINTENANCE .1 Perform following operations from time of seed application until acceptance by Departmental Representative.
- .2 Seeded areas:
- .1 Repair erosion and reseed to allow establishment of seed prior to acceptance.
- .2 Repair and reseed dead or bare spots to allow establishment of seed prior to acceptance.
- .3 Water seeded areas to maintain optimum soil moisture level for germination and continued growth of grass. Control watering to prevent washouts. Apply water to ensure moisture penetration of 75 to 100mm depth.
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- 3.7 ACCEPTANCE .1 Seeded areas will be accepted by Departmental Representative provided that:
- .1 Plants are uniformly established over a minimum of 95% of the area seeded.
- .2 Seeded areas are free of rutted, eroded, bare or dead spots.
- .2 Areas seeded after September 1st will achieve final acceptance in following spring, one month after start of growing season provided acceptance conditions are fulfilled.
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- 3.8 CLEANING .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

