

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**

**Public Works and Government Services Canada  
Canada Place/Place du Canada  
10th Floor/10e étage  
9700 Jasper Ave/9700 ave Jasper  
Edmonton  
Alberta  
T5J 4C3  
Bid Fax: (418) 566-6167**

## 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**

Public Works and Government Services Canada  
Canada Place / Place du Canada  
10th Floor / 10<sup>e</sup> étage  
9700 Jasper Ave / 9700 ave Jasper  
Edmonton  
Alberta  
T5J 4C3

<b>Title - Sujet</b> Paving and Asphalt	
<b>Solicitation No. - N° de l'invitation</b> W6897-210036/A	<b>Date</b> 2021-05-04
<b>Client Reference No. - N° de référence du client</b> W6897-210036	<b>GETS Ref. No. - N° de réf. de SEAG</b> PW-\$PWU-005-12050
<b>File No. - N° de dossier</b> PWU-1-44002 (005)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> Mountain Daylight Saving Time MDT <b>on - le 2021-05-25</b> Heure Avancée des Rocheuses HAR	
<b>Delivery Required - Livraison exigée</b> See Herein – Voir ci-inclus	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Virakorn, Matthew	<b>Buyer Id - Id de l'acheteur</b> pwu005
<b>Telephone No. - N° de téléphone</b> (780)278-6153 ( )	<b>FAX No. - N° de FAX</b> (418)566-6167
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DEPARTMENT OF NATIONAL DEFENCE RPOU (WEST) DET SUFFIELD, P.O. BOX 6000 STN MAIN MEDICINE HAT Alberta T1A8K8 Canada	
<b>Security - Sécurité</b> This request for a Standing Offer includes provisions for security. Cette Demande d'offre à commandes comprend des dispositions en matière de sécurité.	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

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

**THIS DOCUMENT CONTAINS A SECURITY REQUIREMENT**

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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 and Financial Requirements: includes specific requirements that must be addressed by offerors; and   |
| Part 7 | 7A, Standing Offer, and 7B, Resulting Contract Clauses:<br><br>7A, includes the Standing Offer containing the offer from the Offeror and the applicable clauses and conditions;<br><br>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**

#### **Paving and Asphalt Standing Offer**

Work of this Standing Offer includes the supply of all labour, materials, tools, equipment, supervision and expertise required for the installation and/or repair of asphalt concrete surfaces including crack filling under terms of the Contract on an as and when required basis.

The work will be as requested by Department of National Defence (DND) as per call-ups for Paving and Asphalt Services at the following DND location:

- CFB Suffield, AB

Services are to be provided on an "as requested basis". It is anticipated that 1 firm will be issued the standing offer. The standing offer will be issued for a period of three (3) years.

This procurement contains MANDATORY requirements. See Part 4 and 5 of the RFSO for details.

The requirement is subject to the provisions of the Canadian Free Trade Agreement (CFTA).

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 Security Requirements**

There are security requirements associated with the requirement of the Standing Offer. For additional information, see Part 6 - Security and Financial Requirements, and Part 7 - Standing Offer and Resulting Contract Clauses. For more information on personnel and organization security screening or security clauses, offerors should refer to the [Contract Security Program](http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html) of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website.

### **1.4 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.

### **1.5 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.

### **1.6 Health & Safety Requirements**

There are Health & Safety requirements associated with this requirement. See Annex C.

## **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>) 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.

**DELETE** sixty (60) days and **INSERT** one hundred eighty (180) 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:

#### **PWGSC Western Region Bid Receiving Unit**

Suppliers are strongly encouraged to submit bids electronically using the Canada Post epost Connect application for the subject bid solicitation. The Offeror must send an email requesting to open an epost Connect conversation to the following address:

[roreceptionSoumissions.wrbidreceiving@tpsgc-pwgsc.gc.ca](mailto:roreceptionSoumissions.wrbidreceiving@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 Offeror is using its own licensing agreement for epost Connect.

It is the Offeror's responsibility to ensure the request for opening an epost Connect conversation is sent to the email address above at least six days before the Request for Standing Offers closing date.

Faxed bids will be accepted at 1-418-566-6167.

Hard copy (submitted in person or via mail/courier) bids will not be accepted for the subject bid solicitation.

#### **2.2.1 Revision of Offer**

An offer submitted in accordance with these instructions may be revised by letter or facsimile, provided that the revision is received at the office designated for the receipt of offers on or before the date and time set for the closing of the RFSO. The facsimile shall be on the offeror's letterhead or bear a signature that identifies the offeror.

A revision to the unit price schedule must clearly identify the change(s) in the unit price(s) and the specific item(s) to which each change applies.

A letter or facsimile submitted to confirm an earlier revision shall be clearly identified as a confirmation.

Failure to comply with any of the above provisions shall result in the rejection of the non-compliant revision(s) only. The offer shall be evaluated based on the original offer submitted and all other compliant revision(s).

Facsimile number for receipt of revisions: 1-418-566-6167.

### **2.2.2 Firm Price and/or Rates**

The Offeror is required to submit firm prices, rates or both that will apply for the entire period of the Standing Offer.

### **2.2.3 Form**

Offers not submitted on the prescribed Offer Form will not be considered.

### **2.2.4 Alterations**

Any alteration to the pre-printed or pre-typed sections of the Offer Form, or any condition or qualification placed upon the offer may be cause for disqualification of the offer. Alterations, corrections, changes or erasures made to statements or figures entered on the Offer Form by the offeror shall be initialed by the person or persons signing the offer. Initials shall be original(s). Alterations, corrections, changes or erasures that are not initialed shall be deemed void and without effect.

### **2.2.5 Incomplete Offers**

Incomplete offers may be rejected.

### **2.2.6 Taxes**

The offeror is responsible for all applicable taxes.

Offerors are not to include any amounts for the Goods and Services Tax (GST) or Harmonized Sales Tax (HST), whichever is applicable. Any amount levied in respect of the GST/HST shall be billed as a separate item on invoices submitted by the contractor, and shall be paid in addition to the amount approved by Canada for work performed under any resulting Contract. The Contractor shall be required to remit the appropriate amount to the Canada Revenue Agency in accordance with the applicable legislation.

The Federal Government is exempt from the Quebec Sales Tax (QST). Offerors shall not include in their prices any amount that is intended to cover the QST on goods and services performed in the execution of the Work except for such amounts for which an Input Tax Refund is not available. The successful Offeror should make arrangements directly with the Province of Quebec to recover any QST paid by it in performing the Work under the resulting Contract.

### **2.2.7 Performance Evaluation**

Offerors shall take note that the performance of the Contractor during and upon completion of the work shall be evaluated by Canada. The evaluation shall be based on the quality of workmanship; timeliness of completion of the work; project management, contract management and management of health and safety. Should the Contractor's performance be considered unsatisfactory, the Contractor's bidding privileges on future work may be suspended indefinitely.

An electronic version of the form PWGSC-TPSGC 2913, SELECT - Contractor Performance Evaluation Report Form, used to record the performance is available on the Public Works and Government Services Canada (PWGSC) Web site.

### 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 Alberta.

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.

## 2.7 Public Works and Government Services Canada Apprentice Procurement Initiative

1. To encourage employers to participate in apprenticeship training, Contractors bidding on construction and maintenance contracts by Public Works and Government Services Canada (PWGSC) are being asked to sign a voluntary certification, signaling their commitment to hire and train apprentices.
2. Canada is facing skills shortages across various sectors and regions, especially in the skilled trades. Equipping Canadians with skills and training is a shared responsibility. In Economic Action Plan (EAP) 2013, the Government of Canada made a commitment to support the use of apprentices in federal construction and maintenance contracts. Contractors have an important role in supporting apprentices through hiring and training and are encouraged to certify that they are providing opportunities to apprentices as part of doing business with the Government of Canada.
3. Through the Economic Action Plan 2013 and support for training programs, the Government of Canada is encouraging apprenticeships and careers in the skilled trades. In addition, the government offers a tax credit to employers to encourage them to hire apprentices. Information on this tax measure administered by the Canada Revenue Agency can be found at: [www.cra-arc.gc.ca](http://www.cra-arc.gc.ca). Employers are also encouraged to find out what additional information and supports are available from their respective provincial or territorial jurisdiction.
4. Signed certifications (Appendix 2) will be used to better understand contractor use of apprentices on Government of Canada maintenance and construction contracts and may inform future policy and program development.
5. The Contractor hereby certifies the following:

In order to help meet demand for skilled trades people, the Contractor agrees to use, and require its subcontractors to use, reasonable commercial efforts to hire and train registered apprentices, to strive to fully utilize allowable apprenticeship ratios\* and to respect any hiring requirements prescribed by provincial or territorial statutes

The Contractor hereby consents to this information being collected and held by PWGSC, and Employment and Social Development Canada to support work to gather data on the hiring and training of apprentices in federal construction and maintenance contracts.

To support this initiative, a voluntary certification signaling the Contractor's commitment to hire and train apprentices is available at Appendix 2.

If you accept fill out and sign Appendix 2.

Solicitation No. - N° de l'invitation  
W6897-210036/A  
Client Ref. No. - N° de réf. du client  
W6897-210036

Amd. No. - N° de la modif.  
File No. - N° du dossier  
PWU-1-44002

Buyer ID - Id de l'acheteur  
pwu005  
CCC No./N° CCC - FMS No./N° VME

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*\*The journeyperson-apprentice ratio is defined as the number of qualified/certified journeypersons that an employer must employ in a designated trade or occupation in order to be eligible to register an apprentice as determined by provincial/territorial (P/T) legislation, regulation, policy directive or by law issued by the responsible authority or agency.*

## **PART 3 - OFFER PREPARATION INSTRUCTIONS**

### **3.1 Offer Preparation Instructions**

The Offeror is strongly encouraged to submit its offer electronically 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: Financial Offer  
Section II: Certifications

Faxed offers will be accepted at 1-418-566-6167.

Hard copy (submitted in person or via mail/courier) offers will not be accepted for the subject bid solicitation.

#### **Section I: Financial Offer**

Offerors must submit their financial offer in accordance with the 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 H Electronic Payment Instruments, to identify which ones are accepted.

If Annex H 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.

#### **Section II: 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.
- (c) Offers shall be evaluated on the basis of the lowest compliant offer being recommended for issuance of a Standing Offer.

#### **4.1.1 Evaluation**

##### **4.1.1.1 Mandatory Criteria**

###### **a) MANDATORY REQUIREMENTS - Required as part of the Offer**

- .1 Pursuant to the General Instructions, submission of Request for Standing Offer (RFSO), offers must be submitted to the office designated for the receipt of offers, and must be received on or before the date and time set for solicitation closing shown on page 1 of the RFSO. A rate must be entered for each item listed in the unit price schedule of the offer.

###### **b) MANDATORY REQUIREMENTS - Precedent to issuance of a Standing Offer**

- i) Health & Safety Requirements
- ii) Code of Conduct Certifications (*see Part 5 - Certifications*)
- iii) Proof of Insurance - *upon request*
- iv) Former Public Servant – Competitive Requirements
- v) Security Requirements

#### **4.1.2 Financial Evaluation**

##### **4.1.2.1 Evaluation of Price-Offer**

SACC Manual Clause M0220T (2016-01-28), Evaluation of Price-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 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>), the Offeror must provide the required documentation, as applicable, to be given further consideration in the procurement process.

### **5.3 Additional Certifications Precedent to Issuance of a Standing Offer**

**5.3.1 Requisite certificates or licenses identified in the RFSO** (eg: Journeyman Tickets) must be submitted upon request including all appendices.

#### **5.3.2 Status and Availability of Resources**

*SACC Manual* Clause M3020T (2016-01-28), Status of Availability of Resources – Offer

**5.3.3 Health & Safety Requirements** - See Annex C.

## **PART 6 - SECURITY AND FINANCIAL REQUIREMENTS**

### **6.1 Security Requirements**

1. Before issuance of a standing offer, the following conditions must be met:
  - (a) the Offeror must hold a valid organization security clearance as indicated in Part 7A - Standing Offer;
  - (b) the Offeror's proposed individuals requiring access to classified or protected information, assets or sensitive work sites must meet the security requirements as indicated in Part 7A - Standing Offer;
  - (c) the Offeror must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites;
2. Offerors are reminded to obtain the required security clearance promptly. Any delay in the issuance of a standing offer to allow the successful Offeror to obtain the required clearance will be at the entire discretion of the Standing Offer Authority.
3. For additional information on security requirements, offerors should refer to the [Contract Security Program](http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html) of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website.

### **6.2 Financial Capability**

Financial Statements: In order to confirm an offeror's financial capability to perform the Contract, the Standing Offer Authority may during the RFSO evaluation phase, request from that offeror current financial information. The requested financial information may include, but is not limited to, an offeror's most recent audited financial statements or financial statements certified by an offeror's chief financial officer. The information provided will be considered in the offer evaluation and selection process. If an offer is found to be non-responsive on the basis that an offeror is considered financially incapable of performing the Work, that offeror will receive a written notification from the Standing Offer Authority.

Should an offeror provide the requested information to Canada in confidence while indicating that the disclosed information is confidential, Canada will treat the information in a confidential manner in accordance with the Access to Information Act, R.S. 1985, c.A-1.

## PART 7 - STANDING OFFER AND RESULTING CONTRACT CLAUSES

### A. STANDING OFFER

#### 7.1 Offer - attached at Annex E

- .1 General Provisions
- .2 Financial Terms
- .3 Prices

#### 7.2 Security Requirements

##### 7.2.1 The following security requirements (SRCL and related clauses provided by the Contract Security Program) apply and form part of the Standing Offer.

1. The Offeror must, at all times during the performance of the Standing Offer, hold a valid Designated Organization Screening (DOS), issued by the Contract Security Program (CSP), Public Works and Government Services Canada (PWGSC).
2. The Offeror personnel requiring access to sensitive site(s) must EACH hold a valid **RELIABILITY STATUS**, granted or approved by the CSP, PWGSC.
3. Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of the CSP, PWGSC.
4. The Contractor/Offeror must comply with the provisions of the:
  - a) Security Requirements Check List and security guide (if applicable), attached at Annex I;
  - b) *Industrial Security Manual* (Latest Edition).

#### 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>) 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 entitled "D" 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 15 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 from date of issue to "to be determined".

## **7.5 Authorities**

### **7.5.1 Standing Offer Authority**

The Standing Offer Authority is:

Name: Matthew Virakorn  
Title: Procurement Officer  
Public Works and Government Services Canada  
Procurement Branch  
Directorate: Real Property Contracting

Telephone: 780-278-6153  
Facsimile: 418-566-6167  
E-mail address: matthew.virakorn@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

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: Department of National Defense (DND) CFB Suffield, Alberta.

### 7.8 Call-up Procedures

1. Best Standing Offer: the offer that provides lowest prices will be retained.

The Project Authority will establish the scope of work to be performed by the successful firm and negotiate the level of effort required to perform the work based on the hourly rates contained in the Standing Offer.

### 7.9 Estimates

Where an estimate of the cost of performing specific work is required, the Identified User will provide the Offeror with a statement of the work required and the Offeror must provide the Identified User with an estimate of the cost of performing the specified work in accordance with the pricing provision of the Standing Offer. The Offeror must not undertake any of the specified work unless and until a call-up is issued by the Identified User. The estimated cost stated in the call-up must not be exceeded without the specific written authorization of the Identified User.

### 7.10 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.

1. 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.

2. 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.

#### **7.11 Limitation of Call-ups**

Individual call-ups against the Standing Offer must not exceed \$60,000.00 (Applicable Taxes included).

#### **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) any amendment or variation in the Standing Offer that is made in accordance with the terms and conditions of the Standing Offer;
- e) the supplemental general conditions;
- f) the general conditions dated and listed in Part 7B, Resulting Contract Clauses;
- g) Annexes:
  - Annex A, Statement of Work, and any amendment to the solicitation document incorporated in the Standing Offer before the date of the Standing Offer;
  - Annex B, Basis of Payment;
  - Annex C, Health & Safety Requirements – Alberta;
  - Annex D, Periodic Usage Report Form;
  - Annex E, Offer;
  - Annex F, Insurance Requirements;
  - Annex G, Voluntary Report for Apprentices Employed During the Contract;
  - Annex H, Electronic Payment Instruments
  - Annex I, Security Requirements Checklist (SRCL)
- h) the Offeror's offer dated \_\_\_\_\_.

## **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.

### **7.13.2 SACC Manual Clauses**

*SACC Manual* clause M3020C (2016-01-28), Status of Availability of Resources - Standing Offer

## **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 Alberta.

## **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

1. The following are the "call up" contract documents:
  - a. Contract Page when signed by Canada;
  - b. Duly completed Price Proposal Form and any Appendices attached thereto;
  - c. Drawings and Specifications;
  - d. General Conditions and clauses

GC1 General Provisions – Construction Services	<a href="#">R2810D</a>	(2017-11-28);
GC2 Administration of the Contract	<a href="#">R2820D</a>	(2016-01-28);
GC3 Execution and Control of the Work	<a href="#">R2830D</a>	(2019-11-28);
GC4 Protective Measures	<a href="#">R2840D</a>	(2008-05-12);
GC5 Terms of Payment	<a href="#">R2550D</a>	(2019-11-28);
GC6 Delays and Changes in the Work	<a href="#">R2860D</a>	(2019-05-30);
GC7 Default, Suspension or Termination of Contract	<a href="#">R2870D</a>	(2018-06-21);
GC8 Dispute Resolution	<a href="#">R2880D</a>	(2019-11-28);
GC9 Insurance	<a href="#">R2900D</a>	(2008-05-12);
Allowable Costs for Contract Changes under GC6.4.1	<a href="#">R2950D</a>	(2015-02-25);
  - e. Supplementary Conditions
  - e. Any amendment issued or any allowable offer revision received before the date and time set for solicitation closing;
  - f. Any amendment incorporated by mutual agreement between Canada and the Offeror before acceptance of the offer; and
  - g. Any amendment or variation of the contract documents that is made in accordance with the General Conditions.
2. The documents identified by title, number and date in paragraph 1) are incorporated by reference and are set out in the Standard Acquisition Clauses and Conditions (SACC) Manual, issued by Public Works and Government Services Canada (PWGSC). The SACC Manual is available on the PWGSC Website: <https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R>
3. The language of the contract documents shall be the language of the Bid and Acceptance Form submitted.

A contract is formed between Canada and the Offeror only when a Call-up duly signed is issued by the Departmental Representative and accepted by the Offeror\*. The Offeror shall then be referred to as "the Contractor" and the Contract includes the Offer, the Specifications referred to in the Unit Price Schedule, the General Conditions, and the Call-up.

#### Interpretation

"Accepted by the Offeror" \* means that the Offeror has agreed to, and commenced performance of the work.

"*Minister*" includes a person acting for the Minister, the Minister's successor in office, their lawful deputy and their representatives appointed for the purpose of the Standing Offer.

"*Departmental Representative*" means the Project Authority who 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.

"*Superintendent*" or "*Supervisor*" means the employee or representative of the Contractor designated by the Contractor to act as Superintendent;

"*Unit Price Table*" means the table of prices per unit set out in the Offer; and

"*Work*" means, subject only to any express stipulation in the Contract to the contrary, everything that is necessary to be done, furnished or delivered by the Contractor to perform the Contract in accordance with the work as described in each Call-up, and in the technical specifications or statement of work.

## **7.2.2 CHANGES TO GC5 R2550D - TERMS OF PAYMENT**

**DELETE** GC5.4, GC5.5, and GC5.6 and **INSERT** the following:

### **GC5.4 Payment**

#### **.1 Terms of Payment**

1. Where the duration of the work identified in a call-up is greater than 30 days, the Contractor may submit monthly progress claims, and shall be entitled to receive progress payments at monthly or other agreed intervals. Subject to verification by the Departmental Representative, payment of the Contractor's invoice for work satisfactorily completed shall be made not later than 30 days after receipt thereof. The due date shall be the 30th day following receipt of a properly submitted invoice.
2. The Contractor shall submit a separate invoice for each Call-up to the Departmental Representative in accordance with any invoicing instructions set out herein. The properly submitted invoice shall be delivered to the Departmental Representative in the agreed format with sufficient detail, information, and backup to permit verification. The Contractor's invoice shall show the following, as separate items:
  - (a) the amount of the progress payment being claimed for Work satisfactorily performed excluding GST/HST;
  - (b) the amount for any tax calculated (GST/HST) in accordance with the applicable federal tax legislation; and
  - (c) the total amount which shall be the sum of the amounts referred to in (a) and (b) above.
3. The amount of the tax shown on the invoice shall be paid by Canada to the Contractor in addition to the amount of the progress payment for Work satisfactorily performed.
4. If, within 15 days of receipt of the invoice, additional information is requested by the Departmental Representative for the purpose of verification, the 30 day payment period shall commence upon receipt of the requested information. Payment shall be made prior to or on the thirtieth (30) day after receipt of the corrected invoice or the required information.
  - .1 Any monthly progress payment made to the Contractor may be subject to a 10% holdback which shall be released to the Contractor with the final payment unless

the amount held back is required by Canada to remedy any defect in the Contractor's work.

- .2 Where the duration of the Work identified in a call-up is equal to or less than thirty (30) days, the Contractor may receive a single payment as full consideration for the Work performed.

5. Upon completion of the Work in the progress claim, the Contractor maybe requested to provide a completed and signed statutory declaration containing a declaration that, up to the date of the progress claim, the Contractor has complied with all lawful obligations with respect to the Labour Conditions and that, in respect of the Work, all lawful obligations of the Contractor to its Subcontractors and Suppliers, referred to collectively in the declaration as "subcontractors and suppliers", have been fully discharged before any further payment is made.
6. Upon written notice by a Sub-Contractor, with whom the Contractor has a direct contract, of an alleged nonpayment to the Sub-Contractor, the Departmental Representative may provide the Sub-Contractor with a copy of the latest approved progress payment made to the Contractor for the Work.
7. Upon the satisfactory completion of all Work, the amount due, less any payments already made, shall be paid to the Contractor not later than thirty (30) days after receipt of a properly submitted invoice, and upon request, with a Statutory Declaration in accordance with paragraph 5 above.

### **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.

### **7.4 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 CHANGES TO GC5 R2550D - TERMS OF PAYMENT**

**DELETE** GC5.4, GC5.5, and GC5.6 and **INSERT** the following:

#### **GC5.4 Payment**

##### **.1 Terms of Payment**

1. Where the duration of the work identified in a call-up is greater than 30 days, the Contractor may submit monthly progress claims, and shall be entitled to receive progress payments at monthly or other agreed intervals. Subject to verification by the Departmental Representative, payment of the Contractor's invoice for work satisfactorily completed shall be made not later than 30 days after receipt thereof. The due date shall be the 30th day following receipt of a properly submitted invoice.

2. The Contractor shall submit a separate invoice for each Call-up to the Departmental Representative in accordance with any invoicing instructions set out herein. The properly submitted invoice shall be delivered to the Departmental Representative in the agreed format with sufficient detail, information, and backup to permit verification. The Contractor's invoice shall show the following, as separate items:
  - (a) the amount of the progress payment being claimed for Work satisfactorily performed excluding GST/HST;
  - (b) the amount for any tax calculated (GST/HST) in accordance with the applicable federal tax legislation; and
  - (c) the total amount which shall be the sum of the amounts referred to in (a) and (b) above.
3. The amount of the tax shown on the invoice shall be paid by Canada to the Contractor in addition to the amount of the progress payment for Work satisfactorily performed.
4. If, within 15 days of receipt of the invoice, additional information is requested by the Departmental Representative for the purpose of verification, the 30 day payment period shall commence upon receipt of the requested information. Payment shall be made prior to or on the thirtieth (30) day after receipt of the corrected invoice or the required information.
  - .1 Any monthly progress payment made to the Contractor may be subject to a 10% holdback which shall be released to the Contractor with the final payment unless the amount held back is required by Canada to remedy any defect in the Contractor's work.
  - .2 Where the duration of the Work identified in a call-up is equal to or less than thirty (30) days, the Contractor may receive a single payment as full consideration for the Work performed.
5. Upon completion of the Work in the progress claim, the Contractor may be requested to provide a completed and signed statutory declaration containing a declaration that, up to the date of the progress claim, the Contractor has complied with all lawful obligations with respect to the Labour Conditions and that, in respect of the Work, all lawful obligations of the Contractor to its Subcontractors and Suppliers, referred to collectively in the declaration as "subcontractors and suppliers", have been fully discharged before any further payment is made.
6. Upon written notice by a Sub-Contractor, with whom the Contractor has a direct contract, of an alleged nonpayment to the Sub-Contractor, the Departmental Representative may provide the Sub-Contractor with a copy of the latest approved progress payment made to the Contractor for the Work.
7. Upon the satisfactory completion of all Work, the amount due, less any payments already made, shall be paid to the Contractor not later than thirty (30) days after receipt of a properly submitted invoice, and upon request, with a Statutory Declaration in accordance with paragraph 5 above.

#### **7.5.2 Limitation of Price**

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

#### **7.5.3 SACC Manual Clauses**

*SACC Manual* clause A9117C (2007-11-30), T1204 - Direct Request by Customer Department



#### **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);
- f. Large Value Transfer System (LVTS) (Over \$25M)

#### **7.6 Invoicing Instructions**

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. Invoices must be distributed as follows:

The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.

#### **EXAMPLE - DND**

##### **.1 Invoices**

- .1 All invoices submitted for payment shall show:
  - .1 Construction Engineering Work Order Number,
  - .2 Construction Engineering File Number,
  - .3 Requisition Number, DSS 942 (Requisition on Contract),
  - .4 Public Works and Government Services Canada (PWGSC) Standing Offer Number, and
  - .5 same address as on PWGSC contract.
- .2 Invoices are to include a breakdown as follows:
  - .1 Hourly rate per the Offer and hours of work for each tradesperson.
  - .2 An itemized list of materials used, by cost, shall be shown on all invoices submitted for payment.
  - .3 Extended total.
  - .4 Good and Services Tax (GST/HST) shall be shown as a separate item.
  - .5 Where subcontracting is involved a copy of subcontractor's invoice shall accompany the invoice against the requisition.
  - .6 Where discount or markup is applicable, indicate separately.
- .3 Invoices submitted for payment against this contract that are not properly identified will be returned to the Contractor for proper annotation before certification for payment is made.

#### **7.7 Insurance Requirements**

The Contractor must comply with the insurance requirements specified in Annex F. 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  
W6897-210036/A  
Client Ref. No. - N° de réf. du client  
W6897-210036

Amd. No. - N° de la modif.  
File No. - N° du dossier  
PWU-1-44002

Buyer ID - Id de l'acheteur  
pwu005  
CCC No./N° CCC - FMS No./N° VME

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## **ANNEX A**

### **STATEMENT OF WORK**

See attached document.

Solicitation No. - N° de l'invitation  
W6897-210036/A  
Client Ref. No. - N° de réf. du client  
W6897-210036

Amd. No. - N° de la modif.  
File No. - N° du dossier  
PWU-1-44002

Buyer ID - Id de l'acheteur  
pwu005  
CCC No./N° CCC - FMS No./N° VME

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## **ANNEX B**

### **BASIS OF PAYMENT**

Payments in respect of the agreed price shall be made upon satisfactory performance of the Work, and upon approval of the Departmental Representative, but such payments shall not exceed the amount(s) as specified in the Call Up, for the Work without written authorization.

In consideration of the Contractor satisfactorily completing all of its obligations under the resulting Contract, the Contractor will be paid a firm price, Goods and Services Tax or Harmonized Sales Tax extra.

#### **.1 Firm Rates:**

The Contractor will be paid firm rates as follows, for work performed in accordance with the Contract.

See Annex E for details.

## **ANNEX C**

### **HEALTH AND SAFETY REQUIREMENTS - for Work in the Province of Alberta**

#### **1.) SPECIAL INSTRUCTIONS TO BIDDERS (SI):**

##### **WCB AND SAFETY PROGRAM**

- 1) The recommended Bidder shall provide to the Contracting Authority, prior to Standing Offer issue:
  - 1.1 a Workers Compensation Board Premium Rate Statement - Alberta, or equivalent documentation from another jurisdiction;
  - 1.2 a Workers Compensation Board letter of good standing, also listing covered Directors, Principals, Proprietor(s) or Partners who will be or who are anticipated to be present on the work site(s), or equivalent documentation from another jurisdiction; and
  - 1.3 a Certificate of Recognition (COR) or Registered Safety Plan (RSP). A health and safety policy and program, as required by other provincial/territorial Occupational Health and Safety Acts, will be acceptable in lieu of a COR or RSP.
- 2) The recommended Bidder shall deliver all of the above documents to the Contracting Authority on or before the date stated (usually 3-5 days after notification) by the Contracting Authority. Failure to comply with the request may result in the bid being declared non-compliant.

#### **2.) SUPPLEMENTARY CONDITIONS (SC):**

##### **Workplace Safety and Health**

###### **1. EMPLOYER/PRIME CONTRACTOR**

- 1.1 The Contractor shall, for the purposes of the Occupational Health and Safety Act, Alberta, and for the duration of the Work:
  - 1.1.1 act as the Employer, where there is only one employer on the work site, in accordance with the Authority Having Jurisdiction;
  - 1.1.2 accept the role of Prime Contractor, where there are two or more employers involved in work at the same time and space at the work site, in accordance with the Authority Having Jurisdiction; and
  - 1.1.3 agree, in the event of two or more Contractors working at the same time and space at the work site, without limiting the General Conditions, to Canada's order \* to:
    - 1.1.3.1 accept, as the Prime Contractor, the responsibility for Canada's other Contractor(s);  
or
    - 1.1.3.2 accept that Canada's other Contractor is Prime Contractor and conform to that Contractor's Site Specific Health and Safety Plan.

\* "order" definition: after contract award, Contractor is ordered by a Change Order

###### **2. SUBMITTALS**

- 2.1 The Contractor shall provide to Canada:
  - 2.1.1 prior to the pre-construction meeting, a transmittal and copy of a completed Notice of Project form PWGSC - TPSGC 458 (form will be provided to the proposed contractor prior to award), as sent to the Authority Having Jurisdiction (AHJ); and

- 2.1.2 prior to commencement of work and without limiting the terms of the General Conditions:
- 2.1.2.1 copies of all other necessary permits, notifications and related documents as called for in the scope of work/specifications and/or by the AHJ; and
- 2.1.2.2 a site specific Health and Safety Plan as requested.

*NOTE: Please do not include any forms that include personal 3rd party information such as the names of the contractor's employees and their related claims information.*

### 3. LABOUR AUTHORITY CONTACT:

*The contact below represents the Labour Authority in the jurisdiction (AHJ). They are not representatives of the Workers Compensation.*

Do not contact the people referenced below for issues pertaining to WCB or WCB Clearances. Those queries must be directed specifically to the WCB, and where the WCB has both a Labour and Compensation component, WCB issues must be directed to the Compensation/Employer Services sections.

#### **ALBERTA South**

Alberta Human Resources and Employment  
Workplace Health and Safety  
600 – 727, 7th Avenue S.W.  
Calgary, Alberta, T2P 0Z5

Telephone: 1(866) 415-8690  
Facsimile: (403) 297-7893

All submissions are to be scanned and emailed to  
[whs@gov.ab.ca](mailto:whs@gov.ab.ca)

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File No. - N° du dossier  
PWU-1-44002

Buyer ID - Id de l'acheteur  
pwu005  
CCC No./N° CCC - FMS No./N° VME

## ANNEX D

### PERIODIC USAGE REPORT FORM

Return to:

Matthew Virakorn	418-566-6167	Matthew.virakorn@pwgsc-tpsgc.gc.ca
<i>Name</i>	<i>Fax</i>	<i>Email address</i>

at:

Public Works and Government Services Canada  
Real Property Contracting, Procurement Branch  
Suite 1000, 9700 Jasper Ave  
Edmonton, Alberta T5J 4C3

SUPPLIER: \_\_\_\_\_

REPORT FOR THE PERIOD ENDING: \_\_\_\_\_

Item No.	Description of Work	Value of the Call-Up/Contract	GST/HST
(A) Total Dollar Value Call-ups for this reporting period:			
(B) Accumulated Call-Up totals to date:			
(A+B) Total Accumulated Call-Ups:			

**NIL REPORT:** We have not done any business with the federal government for this period [    ]

PREPARED BY: \_\_\_\_\_

NAME: \_\_\_\_\_

TELEPHONE NO.: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

## **ANNEX E**

### **OFFER**

Description of Work: Paving and Asphalt Standing Offer  
- DND CFB Suffield, AB  
- Various Projects

#### **1. OFFER**

- .1 This Standing Offer is made by the Offeror to Canada;
- .2 This Offer is to furnish all necessary tools, plant, equipment, services, materials and labour to execute and complete the Work described above in careful and workmanlike manner;
- .3 The Work shall be more particularly described in individual Call-ups to be issued by the Project Authority, hereinafter called the "Departmental Representative";
- .4 Individual Call-ups may be issued, from time to time, during the period identified in Part 7A, clause 7.4.1, hereinafter called the "Term".

#### **2. GENERAL PROVISIONS**

- .1 This Offer when signed by or on behalf of the Offeror, the Specifications referred to in the Unit Price Schedule below and the General Conditions shall constitute the complete Offer subject to the provisions contained therein;
- .2 The Hourly Rate and the Unit Price, as offered, govern in calculating each Estimated Total Price; any errors in the extension of the Unit Price and in the addition of the Estimated Total Prices will be corrected in order to obtain the actual Total Estimated Amount;
- .3 This Offer supersedes and cancels all communications, negotiations and agreements relating to the Work other than those contained in the Offer;

The Offeror agrees:

- .1 to carry out individual work projects as requisitioned from time to time by the Departmental Representative in Call-ups Against a Standing Offer, in Part 7A, clause 7.9, copies of which the Offeror acknowledges to have in its possession, in accordance with the requirements set out therein and in consideration of payment of amounts to be determined pursuant to section 3. Below;
- .2 to provide, on demand from the Departmental Representative, a detailed price estimate, calculated in accordance with section 4 below, and a proposed work schedule for each work project; and
- .3 to commence Work promptly upon receipt of each Call-up issued pursuant to this Offer, duly signed by the Departmental Representative.
- .4 This Offer does not constitute a binding contract between Canada and the Offeror. The Departmental Representative shall have the right to issue a Call-up with those other offerors which have also submitted offers to Canada.



- .5 A contract is formed between Canada and the Offeror only when a Call-up duly signed is issued by the Departmental Representative and accepted by the Offeror. The Offeror shall then be referred to as "the Contractor" and the Contract includes the Offer, the Specifications referred to in the Unit Price Schedule below, the General Conditions and the Call-up.
- .6 The estimated number of hours, the quantities of material and plant, and the amount of the Allowance for Unspecified material set out in the Unit Price Schedule are for the purpose of comparative evaluation of the offers and do not express an obligation on the part of Canada to order any or all of the work, material or plant listed therein.
- .7 The Offeror declares that no bribe, gift or benefit has been or will be paid, given, promised or offered directly or indirectly to any official or employee of Canada or to a member of the family of such person, with a view to influence the entry into or the administration of any contract which may result from this Offer.

### 3. FINANCIAL TERMS

- .1 Each item specified in the Unit Price Schedule in subsection 4.1 includes wages, traveling time and costs, allowances, supervision, liabilities as employer, insurance, and the use of all tools, tackle, etc., overhead, profit and all other liabilities whatsoever.
- .2 Unspecified Material shall be reimbursed at net cost, as supported by invoices, plus Markup as established in section 4 of this Offer. "Net Cost" means all amounts reasonably and properly paid by the Offeror in respect of materials required for and used in the Work, and includes packing, handling and delivery charges, less any trade discounts received by the Offeror. The Offeror's Markup on Unspecified Material covers overheads, profit, and all other expenses whatsoever.
- .3 The prices inserted in section 4 of this Offer include all applicable federal, provincial, and municipal taxes.
  - .1 However, they do not include any amount for the Goods and Services Tax (GST) or Harmonized Sales Tax (HST). The appropriate GST/HST amounts will be paid by Canada to the Offeror in addition to the amounts paid against the amount of the contract. The Offeror shall make appropriate remittances to Revenue Canada in accordance with the legislation.
  - .2 The prices do not include the Québec Sales Tax. The Offeror shall arrange directly with the Province of Québec for the reimbursement of Provincial Sales Tax paid to this Province for the purpose of any contract resulting from this Offer.
- .4 Payment by Canada for the Offeror's own special equipment not covered by the Unit Price Schedule and required at the job site will be no greater than the local going rental rate for such equipment or the rate published by the local construction association for such equipment, whichever is the lower.
- .5 The cost of subcontract work, including special equipment rentals approved by the Project Authority, shall be reimbursed at actual cost with the addition of ten (10) percent to cover overheads, profit, and all other expenses whatsoever. "Actual cost" means all amounts reasonably and properly paid by the Contractor for those parts of the Work carried out by subcontractors.

## .6 Pricing

- .1 The prices requested in the Offer are:
  - i. hourly rates for regular hours;
  - ii. hourly rate for each hour outside of regular hours; and
  - iii. mark up on allowance for unspecified material, replacement parts, required permits and certificates. for purposes of evaluation.
  - iv. Travel
- .2 The hourly rates requested in the offer and acceptance for specific types of service shall be the total cost to perform the work including but not limited to:
  - i. labour including supervision, allowances and liability insurance;
  - ii. travel time;
  - iii. transportation/vehicle expenses;
  - iv. tools and tackle;
  - v. overhead and profit;
  - vi. any other incidental expenses other than supply of materials and replacement parts relating to the delivery of labour.
- .3 It is considered that regular hours of work fall between 0800 and 1630 hours, Monday to Friday.

## 4. PRICES

The Offeror agrees that the following are the prices referred to in sections 2 and 3 above:

### 4.1 Unit Price Schedules - Rates

Rates must include any and all related expenses, including travel, meals and accommodation.

Taxes, if applicable, are not to be included.

Estimates have been provided for evaluation purposes only and may not reflect actual business volumes under the resulting Standing Offer. Unit prices will prevail, and in the event that there is a discrepancy between the unit price and the estimated total, Canada reserves the right to correct the estimated total using the firm unit price.

Offers will be compared based on the total evaluated price (see below).

### SCHEDULE A) Year 1

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5
Item	Unit	Est. Usage	Unit Price (\$)	Estimated Total Price (\$)
<b>1. OVERLAYS</b>				
A. Adjusting height of manhole frame and covers, catch basin and water valves as per Section 2512				
i. Labour only, complete to raise or lower a manhole, maximum of 300 mm	Hour	2		
ii. Labour only, complete, to raise or lower a water valve	Hour	2		
B. Provide asphalt tack coat as per Section 2512	Liter	700		
C. Provide asphalt overlay as per Section 2512				
i. Mix Type 4 Hand spread	Tonne	40		
ii. Mix Type 4 Paver spread	Tonne	200		
<b>2. ROAD/PARKING LOT/FOOT PATH – REPAIR OR CONSTRUCTION</b>				
<i>Less than 10 m<sup>2</sup> area</i>				
a. Asphalt removal and disposal to a location on the base of per Section 2070.	m <sup>2</sup>	100		
b. Excavation, haul and dispose/stockpile as per Section 2070	m <sup>2</sup>	50		
c. Supply and place granular sub-base and base as per Section 2233				
i. Sub-base material	Tonne	10		
ii. Base material	Tonne	20		
d. Provide asphalt primer or tack coat as per Section 2512	Liter	50		
e. Provide asphalt pavement (mix Type 3) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	5		
ii. Paver spread	Tonne	2		
f. Provide asphalt pavement (mix Type 4) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	10		
ii. Paver spread	Tonne	5		
g. Compaction				
i. Per 150mm course of base or sub-base material as per Section 2233	m <sup>2</sup>	350		
ii. Per course of asphalt material as per Section 2512	m <sup>2</sup>	100		
<i>10 m<sup>2</sup> area or greater</i>				
a. Asphalt removal and disposal to a location as per Section 2070	m <sup>2</sup>	700		

b. Excavation, haul and dispose/stockpile as per Section 2070	m <sup>2</sup>	700		
c. Supply and place granular sub-base and base as per Section 2233				
i. Sub-base material	Tonne	700		
ii. Base material	Tonne	200		
d. Provide asphalt primer or tack coat as per Section 2512	Litre	1,500		
e. Provide asphalt pavement (mix Type 3) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	10		
ii. Paver spread	Tonne	150		
f. Provide asphalt pavement (mix Type 4) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	40		
ii. Paver spread	Tonnes	350		
g. Compaction				
i. Per 150 mm course of base or sub-base material as per Section 2233	m <sup>2</sup>	4,500		
ii. Per course of asphalt material as per Section 2512	m <sup>2</sup>	6,000		
h. Asphalt curbs (mix Type 4) – Per 5 m length by maximum 310 cm <sup>2</sup> cross sectional area as per Section 2512	Each	2		
i. Speed bumps (mix Type 4) - Per 8 m length by 1 000 cm <sup>2</sup> cross sectional area as per Section 2512	Each	1		
<b>3. MISCELLANEOUS</b>				
a. Supply and installation of geotextile filter cloth as per Section 2233	m <sup>2</sup>	750		
b. Shape and compact existing gravel sub-base or base as per Section 2235				
i. Areas less than 1,000 m <sup>2</sup>	m <sup>2</sup>	500		
ii. Areas 1,000 m <sup>2</sup> or greater	m <sup>2</sup>	2,000		
c. Shape and compact new gravel base material supplied and hauled to site by others as per Section 2233				
i. Areas less than 1,000 m <sup>2</sup>	m <sup>2</sup>	500		
ii. Areas 1,000 m <sup>2</sup> or greater	m <sup>2</sup>	2,000		
d. Cold crack sealing (labour and equipment only)				
i. Cleaning out and sealing	Lin M	50		
ii. Routing out, cleaning and sealing	Lin M	100		
e. Labour not covered in above categories				
1. Foreman	Hour	16		
2. Trades person	Hour	32		
3. Helper	Hour	32		
4. Tandem truck	Hour	4		
5. Truck with pup	Hour	4		
6. Bobcat or Skidsteer	Hour	16		

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PWU-1-44002

Buyer ID - Id de l'acheteur  
pwu005  
CCC No./N° CCC - FMS No./N° VME

MATERIAL, ADDITIONAL EQUIPMENT AND LABOUR NOT COVERED ABOVE – (Except free issue) at laid down cost, (which includes invoice cost, transportation costs, exchange and brokerage charges) plus mark-up which includes purchasing expenses, internal handling, G&A expenses and profit, excluding taxes, which shall be shown as a separate item (% mark-up x \$14,000.00)		<u>          </u> % Mark-up		
<b>Sub Total A): Estimated Total Amount Year 1 GST/HST Extra</b>			<b>\$</b>	

#### 4.1 Unit Price Schedules - Rates (continued)

##### SCHEDULE B) Year 2

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5
Item	Unit	Est. Usage	Unit Price (\$)	Estimated Total Price (\$)
<b>1. OVERLAYS</b>				
A. Adjusting height of manhole frame and covers, catch basin and water valves as per Section 2512				
i. Labour only, complete to raise or lower a manhole, maximum of 300 mm	Hour	2		
ii. Labour only, complete, to raise or lower a water valve	Hour	2		
B. Provide asphalt tack coat as per Section 2512	Liter	700		
C. Provide asphalt overlay as per Section 2512				
i. Mix Type 4 Hand spread	Tonne	40		
ii. Mix Type 4 Paver spread	Tonne	200		
<b>2. ROAD/PARKING LOT/FOOT PATH – REPAIR OR CONSTRUCTION</b>				
<i>Less than 10 m² area</i>				
a. Asphalt removal and disposal to a location on the base of per Section 2070.	m²	100		
b. Excavation, haul and dispose/stockpile as per Section 2070	m²	50		
c. Supply and place granular sub-base and base as per Section 2233				
i. Sub-base material	Tonne	10		
ii. Base material	Tonne	20		
d. Provide asphalt primer or tack coat as per Section 2512	Liter	50		
e. Provide asphalt pavement (mix Type 3) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	5		
ii. Paver spread	Tonne	2		
f. Provide asphalt pavement (mix Type 4) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	10		
ii. Paver spread	Tonne	5		
g. Compaction				
i. Per 150mm course of base or sub-base material as per Section 2233	m²	350		
ii. Per course of asphalt material as per Section 2512	m²	100		
<i>10 m² area or greater</i>				

a. Asphalt removal and disposal to a location as per Section 2070	m <sup>2</sup>	700		
b. Excavation, haul and dispose/stockpile as per Section 2070	m <sup>2</sup>	700		
c. Supply and place granular sub-base and base as per Section 2233				
i. Sub-base material	Tonne	700		
ii. Base material	Tonne	200		
d. Provide asphalt primer or tack coat as per Section 2512	Litre	1,500		
e. Provide asphalt pavement (mix Type 3) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	10		
ii. Paver spread	Tonne	150		
f. Provide asphalt pavement (mix Type 4) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	40		
ii. Paver spread	Tonnes	350		
g. Compaction				
i. Per 150 mm course of base or sub-base material as per Section 2233	m <sup>2</sup>	4,500		
ii. Per course of asphalt material as per Section 2512	m <sup>2</sup>	6,000		
h. Asphalt curbs (mix Type 4) – Per 5 m length by maximum 310 cm <sup>2</sup> cross sectional area as per Section 2512	Each	2		
i. Speed bumps (mix Type 4) - Per 8 m length by 1 000 cm <sup>2</sup> cross sectional area as per Section 2512	Each	1		
<b>3. MISCELLANEOUS</b>				
a. Supply and installation of geotextile filter cloth as per Section 2233	m <sup>2</sup>	750		
b. Shape and compact existing gravel sub-base or base as per Section 2235				
i. Areas less than 1,000 m <sup>2</sup>	m <sup>2</sup>	500		
ii. Areas 1,000 m <sup>2</sup> or greater	m <sup>2</sup>	2,000		
c. Shape and compact new gravel base material supplied and hauled to site by others as per Section 2233				
i. Areas less than 1,000 m <sup>2</sup>	m <sup>2</sup>	500		
ii. Areas 1,000 m <sup>2</sup> or greater	m <sup>2</sup>	2,000		
d. Cold crack sealing (labour and equipment only)				
i. Cleaning out and sealing	Lin M	50		
ii. Routing out, cleaning and sealing	Lin M	100		
e. Labour not covered in above categories				
1. Foreman	Hour	16		
2. Trades person	Hour	32		
3. Helper	Hour	32		
4. Tandem truck	Hour	4		

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5. Truck with pup	Hour	4		
6. Bobcat or Skidsteer	Hour	16		
MATERIAL, ADDITIONAL EQUIPMENT AND LABOUR NOT COVERED ABOVE – (Except free issue) at laid down cost, (which includes invoice cost, transportation costs, exchange and brokerage charges) plus mark-up which includes purchasing expenses, internal handling, G&A expenses and profit, excluding taxes, which shall be shown as a separate item (% mark-up x \$14,000.00)		% Mark-up		
<b>Sub Total B): Estimated Total Amount Year 2 GST/HST Extra</b>			<b>\$</b>	



### SCHEDULE C) Year 3

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5
Item	Unit	Est. Usage	Unit Price (\$)	Estimated Total Price (\$)
<b>1. OVERLAYS</b>				
A. Adjusting height of manhole frame and covers, catch basin and water valves as per Section 2512				
i. Labour only, complete to raise or lower a manhole, maximum of 300 mm	Hour	2		
ii. Labour only, complete, to raise or lower a water valve	Hour	2		
B. Provide asphalt tack coat as per Section 2512	Liter	700		
C. Provide asphalt overlay as per Section 2512				
i. Mix Type 4 Hand spread	Tonne	40		
ii. Mix Type 4 Paver spread	Tonne	200		
<b>2. ROAD/PARKING LOT/FOOT PATH – REPAIR OR CONSTRUCTION</b>				
<i>Less than 10 m<sup>2</sup> area</i>				
a. Asphalt removal and disposal to a location on the base of per Section 2070.	m <sup>2</sup>	100		
b. Excavation, haul and dispose/stockpile as per Section 2070	m <sup>2</sup>	50		
c. Supply and place granular sub-base and base as per Section 2233				
i. Sub-base material	Tonne	10		
ii. Base material	Tonne	20		
d. Provide asphalt primer or tack coat as per Section 2512	Liter	50		
e. Provide asphalt pavement (mix Type 3) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	5		
ii. Paver spread	Tonne	2		
f. Provide asphalt pavement (mix Type 4) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	10		
ii. Paver spread	Tonne	5		
g. Compaction				
i. Per 150mm course of base or sub-base material as per Section 2233	m <sup>2</sup>	350		
ii. Per course of asphalt material as per Section 2512	m <sup>2</sup>	100		
<i>10 m<sup>2</sup> area or greater</i>				
a. Asphalt removal and disposal to a location as per Section 2070	m <sup>2</sup>	700		

b. Excavation, haul and dispose/stockpile as per Section 2070	m <sup>2</sup>	700		
c. Supply and place granular sub-base and base as per Section 2233				
i. Sub-base material	Tonne	700		
ii. Base material	Tonne	200		
d. Provide asphalt primer or tack coat as per Section 2512	Litre	1,500		
e. Provide asphalt pavement (mix Type 3) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	10		
ii. Paver spread	Tonne	150		
f. Provide asphalt pavement (mix Type 4) as per Section 2512 (compaction not included)				
i. Hand spread	Tonne	40		
ii. Paver spread	Tonnes	350		
g. Compaction				
i. Per 150 mm course of base or sub-base material as per Section 2233	m <sup>2</sup>	4,500		
ii. Per course of asphalt material as per Section 2512	m <sup>2</sup>	6,000		
h. Asphalt curbs (mix Type 4) – Per 5 m length by maximum 310 cm <sup>2</sup> cross sectional area as per Section 2512	Each	2		
i. Speed bumps (mix Type 4) - Per 8 m length by 1 000 cm <sup>2</sup> cross sectional area as per Section 2512	Each	1		
<b>3. MISCELLANEOUS</b>				
a. Supply and installation of geotextile filter cloth as per Section 2233	m <sup>2</sup>	750		
b. Shape and compact existing gravel sub-base or base as per Section 2235				
i. Areas less than 1,000 m <sup>2</sup>	m <sup>2</sup>	500		
ii. Areas 1,000 m <sup>2</sup> or greater	m <sup>2</sup>	2,000		
c. Shape and compact new gravel base material supplied and hauled to site by others as per Section 2233				
i. Areas less than 1,000 m <sup>2</sup>	m <sup>2</sup>	500		
ii. Areas 1,000 m <sup>2</sup> or greater	m <sup>2</sup>	2,000		
d. Cold crack sealing (labour and equipment only)				
i. Cleaning out and sealing	Lin M	50		
ii. Routing out, cleaning and sealing	Lin M	100		
e. Labour not covered in above categories				
1. Foreman	Hour	16		
2. Trades person	Hour	32		
3. Helper	Hour	32		
4. Tandem truck	Hour	4		
5. Truck with pup	Hour	4		
6. Bobcat or Skidsteer	Hour	16		

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pwu005  
CCC No./N° CCC - FMS No./N° VME

MATERIAL, ADDITIONAL EQUIPMENT AND LABOUR NOT COVERED ABOVE – (Except free issue) at laid down cost, (which includes invoice cost, transportation costs, exchange and brokerage charges) plus mark-up which includes purchasing expenses, internal handling, G&A expenses and profit, excluding taxes, which shall be shown as a separate item (% mark-up x \$14,000.00)		<u>          </u> % Mark-up		
<b>Sub Total C): Estimated Total Amount Year 3 GST/HST Extra</b>			<b>\$</b>	

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pwu005  
CCC No./N° CCC - FMS No./N° VME

#### 4.2 TOTAL EVALUATED PRICE

Subtotal A: Year 1 Estimated Total Amount	\$
Subtotal B: Year 2 Estimated Total Amount	\$
Subtotal C: Year 3 Estimated Total Amount	\$
<b>Total Evaluated Price</b>	<b>\$</b>

These items will be used for cost evaluation purposes only and do not constitute a guarantee or commitment on behalf of Canada of the quantity or amount to be used under the Standing Offer.

A rate must be entered for each item.

The Offeror agrees that the Price(s) per Unit as tendered govern in calculating the Total Evaluated Price. The Offeror understands that any errors in the extension of the Price per Unit, in the addition of the Estimated Total Price, and Estimated Total Amount will be corrected in order to obtain the Total Evaluated Price.

**Cost will be evaluated on the Total Evaluated Price. It is anticipated that only one standing offer will be issued to the lowest compliant offeror.**

SIGNATURE:

\_\_\_\_\_  
Name and title of the person authorized to sign on behalf of bidder (Type or Print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## APPENDIX 1 - INTEGRITY PROVISIONS

*(Text copied from the Ineligibility and Suspension Policy <http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html> dated 2016-04-04)*

**List of names:** All bidders, regardless of their status under the Policy, must submit the following information when participating in a procurement process or real property transaction:

- bidders that are corporate entities, including those bidding as joint ventures, must provide a complete list of the names of all current directors or, for a privately owned corporation, the names of the owners of the corporation;
- bidders bidding as sole proprietors, including sole proprietors bidding as joint ventures, must provide a complete list of the names of all owners; or
- bidders that are a partnership do not need to provide a list of names.

If the list of names has not been received in a procurement process or real property transaction by the time the evaluation of bids or offers is completed, or has not been received in a procurement process or real property transaction where no bid/offer will be submitted, the contracting authority will inform the bidder of a time within which to provide the information. Providing the required names is a mandatory requirement for award of a contract or real property agreement. Failure to provide the list of names within the time specified will render a bid or offer non-responsive, or the bidder otherwise disqualified for award of a contract or real property agreement.

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## **APPENDIX 2 - VOLUNTARY CERTIFICATION TO SUPPORT THE USE OF APPRENTICES**

*(page 1 of 2)*

### **PUBLIC WORKS AND GOVERNMENT SERVICES CANADA APPRENTICE PROCUREMENT INITIATIVE**

1. To encourage employers to participate in apprenticeship training, Bidders, bidding on construction and maintenance contracts by Public Works and Government Services Canada (PWGSC) are being asked to sign a voluntary certification, signaling their commitment to hire and train apprentices.
2. Canada is facing skills shortages across various sectors and regions, especially in the skilled trades. Equipping Canadians with skills and training is a shared responsibility. The Government of Canada made a commitment to support the use of apprentices in federal construction and maintenance contracts. Contractors have an important role in supporting apprentices through hiring and training and are encouraged to certify that they are providing opportunities to apprentices as part of doing business with the Government of Canada.
3. The Government of Canada is encouraging apprenticeships and careers in the skilled trades. In addition, the government offers a tax credit to employers to encourage them to hire apprentices. Information on this tax measure administered by the Canada Revenue Agency can be found at: [www.cra-arc.gc.ca](http://www.cra-arc.gc.ca). Employers are also encouraged to find out what additional information and supports are available from their respective provincial or territorial jurisdiction.
4. Signed certifications on page 2 of 2 will be used to better understand contractor use of apprentices on Government of Canada maintenance and construction contracts and may inform future policy and program development.

5. The Contractor hereby certifies the following:

In order to help meet demand for skilled trades people, the Contractor agrees to use, and require its subcontractors to use, reasonable commercial efforts to hire and train registered apprentices, to strive to fully utilize allowable apprenticeship ratios \* and to respect any hiring requirements prescribed by provincial or territorial statutes

The Contractor hereby consents to this information being collected and held by PWGSC, and Employment and Social Development Canada to support work to gather data on the hiring and training of apprentices in federal construction and maintenance contracts.

To support this initiative, a voluntary certification signaling the Contractor's commitment to hire and train apprentices is available at page 2 of 2.

If you accept fill out and sign page 2 of 2.

\* The journey-person-apprentice ratio is defined as the number of qualified/certified journeypersons that an employer must employ in a designated trade or occupation in order to be eligible to register an apprentice as determined by provincial/territorial (P/T) legislation, regulation, policy directive or by law issued by the responsible authority or agency.

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pwu005  
CCC No./N° CCC - FMS No./N° VME

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## **VOLUNTARY CERTIFICATION TO SUPPORT THE USE OF APPRENTICES**

(To be filled out and returned with bid on a voluntary basis)

(page 2 of 2)

*Note: The contractor will be asked to fill out a report every six months as included in Annex G.*

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Legal Name: \_\_\_\_\_

Solicitation Number: \_\_\_\_\_

Optional information to provide: \_\_\_\_\_

Number of apprentices planned to be working on this contract: \_\_\_\_\_

Trades of those apprentices:

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*A sample of the "Voluntary Reports for Apprentices Employed during the Contract" is provided at Annex G.*

## **ANNEX F**

### **INSURANCE REQUIREMENTS**

#### **1. Insurance Contracts**

- (a) The Contractor must, at the Contractor's expense, obtain and maintain insurance contracts in accordance with the requirements of the Certificate of Insurance. Coverage must be placed with an Insurer licensed to carry out business in Canada.
- (b) 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.

#### **2. Period of Insurance**

The policies required in the Certificate of Insurance must be in force from the date of contract award and be maintained throughout the duration of the Contract.

#### **3. Proof of Insurance**

- (a) Before commencement of the Work the Contractor must deposit with Canada a Certificate of Insurance on the form attached herein.
- (b) Upon request by Canada, the Contractor must provide originals or certified true copies of all contracts of insurance maintained by the Contractor pursuant to the Certificate of Insurance.

#### **4. Insurance Proceeds**

In the event of a claim, the Contractor must, without delay, do such things and execute such documents as are necessary to effect payment of the proceeds.

#### **5. Deductible**

The payment of monies up to the deductible amount made in satisfaction of a claim must be borne by the Contractor.



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## CERTIFICATE OF INSURANCE

Page 1 of 2



Travaux publics et  
Services gouvernementaux  
Canada

Public Works and  
Government Services  
Canada

Description and Location of Work  Paving and Asphalt Standing Offer - DND CFB Suffield, AB	Contract No. W6897-210036
	Project No. W6897-210036

Name of Insurer, Broker or Agent	Address (No., Street)	City	Province	Postal Code
Name of Insured (Contractor)	Address (No., Street)	City	Province	Postal Code
Additional Insured  <i>Her Majesty the Queen in Right of Canada as represented by the Minister of Public Works and Government Services</i>				

Type of Insurance	Insurer Name and Policy Number	Inception Date D / M / Y	Expiry Date D / M / Y	Limits of Liability		
Commercial General Liability  Umbrella/Excess Liability				Per Occurrence	Annual General Aggregate	Completed Operations Aggregate
				\$	\$	\$
				\$	\$	\$

I certify that the above policies were issued by insurers in the course of their Insurance business in Canada, are currently in force and include the applicable insurance coverage's stated on page 2 of this Certificate of Insurance, including advance notice of cancellation / reduction in coverage.

<div></div> Name of person authorized to sign on behalf of Insurer(s) (Officer, Agent, Broker)	<div></div> Telephone number
<div></div> Signature	<div></div> Date D / M / Y

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## CERTIFICATE OF INSURANCE Page 2 of 2

### General

The insurance policies required on page 1 of the Certificate of Insurance must be in force and must include the insurance coverage listed under the corresponding type of insurance on this page.

The policies must insure the Contractor and must include Her Majesty the Queen in Right of Canada as represented by the Minister of Public Works and Government Services as an additional Insured.

The insurance policies must be endorsed to provide Canada with not less than thirty (30) days notice in writing in advance of a cancellation of insurance or any reduction in coverage.

Without increasing the limit of liability, the policies must protect all insured parties to the full extent of coverage provided. Further, the policies must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.

### Commercial General Liability

The insurance coverage provided must not be substantially less than that provided by the latest edition of IBC Form 2100.

The policy must either include or be endorsed to include coverage for the following exposures or hazards if the Work is subject thereto:

- (a) Blasting.
- (b) Pile driving and caisson work.
- (c) Underpinning.
- (d) Removal or weakening of support of any structure or land whether such support be natural or otherwise if the work is performed by the insured contractor.

The policy must have the following minimum limits:

- (a) **\$2,000,000** Each Occurrence Limit;
- (b) **\$2,000,000** General Aggregate Limit per policy year if the policy contains a General Aggregate; and
- (c) **\$2,000,000** Products/Completed Operations Aggregate Limit.

Umbrella or excess liability insurance may be used to achieve the required limits.



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## **ANNEX H to PART 3 OF THE REQUEST FOR STANDING OFFERS**

### **ELECTRONIC PAYMENT INSTRUMENTS**

*As indicated in Part 3, clause 3.1.2, the Offeror must complete the information requested below, to identify which electronic payment instruments are accepted for the payment of invoices.*

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);
- ( ) Large Value Transfer System (LVTS) (Over \$25M)

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## **ANNEX I**

### **SECURITY REQUIREMENTS CHECKLIST (SRCL)**

Refer to attached document.



**REAL PROPERTY OPERATIONS UNIT (WEST)  
DETACHMENT SUFFIELD**



**SPECIFICATION FOR ASPHALT AND PAVING**

**W6897-210036**

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**Part 1            General**

**1.1                WORK COVERED BY CONTRACT DOCUMENTS**

- .1      Work of this Contract includes too supply of all labour, materials, tools, equipment, supervision and expertise required for the installation and/or repair of asphalt concrete surfaces including crack filling under terms of the Contract on an as and when required basis.
- .2      Construction of a new Paving contract and associated works located in CFB Suffield, AB; and further identified as “the Work”.
- .3      CFB Suffield, AB is an active Canadian Forces Base with restricted access to the site. The contractor and associated subcontractors, suppliers, workers, testing companies and any other organization associated with construction shall comply with security and access requirements of CFB Suffield, AB. DND Representative will arrange appropriate briefings and provide requirements after award of the contract.

The work covered by this contract includes, but is not necessarily confined to the following:

- .1      Any excavation required for the repair of deteriorated road, foot path and parking lot areas.
- .2      Disposal of unstable materials.
- .3      Compaction of bottom of excavation.
- .4      Installation of stabilizing cloth if required.
- .5      Construction of granular sub-base and base courses.
- .6      Application of asphaltic tack coat.
- .7      Application and compaction of HMAC pavement.
- .8      Application of HMAC skin patches.
- .9      Installation of asphalt curbs.
- .10     Installation of concrete speed bumps and curbs.

All work is to be carried out at CFB Suffield, Ralston, Alberta

**1.2                CODES**

- .1      Perform work in accordance with National Building Code of Canada (NBC), Operations Manager, Occupational Health and Safety Division (WCB) and any other code of provincial or local application provided that in any case of conflict or discrepancy, the more stringent requirements shall apply.

**1.3                DOCUMENTS REQUIRED**

Maintain at job site, one copy each document as follows:

- .1      Contract Drawings.
- .2      Specifications.
- .3      Quality Plan for Construction.
- .4      Addenda.



- .5 Reviewed Shop Drawings.
- .6 List of Outstanding Shop Drawings.
- .7 Change Orders.
- .8 Other Modifications to Contract.
- .9 Field Test Reports.
- .10 Copy of Approved Work Schedule.
- .11 Health and Safety Plan and Other Safety Related Documents.
- .12 Other documents as specified.

**1.4 COST BREAKDOWN/PRICING DETAIL**

**1.5 CONTRACT METHOD**

- .1 Construct Work under single stipulated price contract.

**1.6 WORK SEQUENCE**

- .1 Co-ordinate Progress Schedule and Owner's use of adjacent roads during construction.
- .2 Maintain fire access/control around the site at all times.

**1.7 CONTRACTOR USE OF PREMISES**

- .1 Unrestricted use of site within the Limit of Construction to perform the work. Minimize interference with traffic. Reroute traffic where necessary and coordinate detour through DND representative.
- .2 Co-ordinate use of premises under direction of DND representative. For safety requirements repair sites considered work site Category three
- .3 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.

**1.8 EXISTING SERVICES**

- .1 Notify, DND Representative of intended interruption of services and obtain required permission.
- .2 Where Work involves breaking into or connecting to existing services, give DND Representative 14 days' notice for necessary interruption of civil, mechanical or electrical service throughout course of work. Minimize duration of interruptions. Carry out work at times as directed by DND Representative with minimum disturbance to pedestrian and vehicular traffic.
- .3 If required, and as directed by DND Representative, provide alternative routes for pedestrian and vehicular traffic.
- .4 Establish location and extent of service lines in area of work before starting Work. Notify DND Representative of findings.
- .5 Prior to any excavation, the Contractor is to obtain all Utility line locates from DND, Range Control, DRDC, and other utility companies. Contractor must have obtained a Base Engineering Dig Permit, and a Range Control Dig Clearance (as applicable), in

additional to normal utility location checks. DND requires 14 days' notice for Dig Permits. The Contractor is to apply for Dig Permits and Clearances through the DND Representative. Contractors are responsible to contact Alberta 1st Call, and SHAW cable.

- .6 Submit schedule to and obtain approval from DND Representative for any shut-down or closure of active service or facility including power and communications services. Adhere to approved schedule and provide notice to affected parties.
- .7 As directed by DND Representative provide adequate bridging over trenches which cross sidewalks or roads to permit normal traffic.
- .8 Where unknown services are encountered, immediately advise DND Representative and confirm findings in writing.
- .9 Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by DND Representative.
- .10 Record locations of maintained, re-routed and abandoned service lines.
- .11 Construct barriers in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.

#### **1.9 PERMITS AND INSPECTIONS**

- .1 Electrical and Mechanical (gas).
- .2 Provide all permits required by the Authority Having Jurisdiction, and submit copy to the DND Representative.
- .3 As per Annex A of this specification.

#### **1.10 SITE CONDITIONS**

- .1 Sub surface conditions to be discussed with the DND Representative for each job as the conditions may vary significantly.

#### **1.11 WORK SCHEDULE**

- .1 Provide within 5 working days after receiving the "Commitment for Services", a schedule showing anticipated progress stages and final completion of work within time period acceptable to the DND Representative.

#### **1.12 MEASUREMENT FOR PAYMENT**

- .1 Notify the Engineer sufficiently in advance of operations to permit required measurements for payment.

#### **1.13 CONTRACTOR'S USE OF SITE**

- .1 Use of Site: minimize interference with traffic. Reroute traffic where necessary and coordinate detour through DND representative.
- .2 Do not unreasonably encumber site with materials and equipment.
- .3 Move stored products or equipment, which interfere with operations of the Base or other Contractors.

**1.14 PROJECT MEETINGS**

- .1 DND representative will arrange project meetings and assume responsibility for setting times and recording and distributing minutes.

**1.15 SETTING OUT OF WORK**

- .1 Assume full responsibility for and execute complete layout of work to locations, lines and elevations indicated.
- .2 Provide devices needed to lay out and construct work.
- .3 Supply such devices as straight edges and templates required to facilitate DND representative inspection of work.
- .4 Supply stakes and other survey markers required for layout of work.

**1.16 LOCATION OF UNDERGROUND SERVICES**

- .1 Obtain a digging permit from the DND representative prior to starting excavation. One week minimum is required to get a permit. Permit is to be kept at the site being excavated for reference.
- .2 Location of equipment, water, gas, sewer, power or communication lines indicated or specified on permit or on work layout are to be considered as approximate.
- .3 Before commencing work, establish location and extent of services in the work area using digging permit provided as a reference.
- .4 Where unknown services are encountered, immediately advise the DND representative and record locations.
- .5 Record locations of maintained, re-routed and abandoned service lines encountered during excavation.

**1.17 EXCAVATION**

- .1 Execute work with least possible interference, disturbance to public and normal use of premises. Arrange with DND Representative to facilitate execution of work.
- .2 Provide as required, barriers or warning signs in location where excavation is in progress.

**1.18 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING WORK SITE**

- .1 Execute work with least possible interference or disturbance to occupants, public and normal use of premises. Arrange with the DND representative to facilitate execution of work.
- .2 Where security has been reduced by work of Contract provide temporary means to maintain security.
- .3 Provide temporary dust suppression, barriers and warning signs in locations where work is adjacent to areas used by public or government staff.

**1.19 ADDITIONAL DRAWINGS**

- .1 DND representative may furnish additional drawings for clarification. These additional drawings have same meaning and intent as if they were included with plans referred to in the Contract documents.

**1.20 BUILDING SMOKING ENVIRONMENT**

- .1 Comply with smoking restrictions.

**1.21 COMMENCEMENT OF WORK**

- .1 Work shall commence when Contractor has been issued a signed and approved "Commitment for Services" requesting him to perform work.

**1.22 QUALITY CONTROL - TESTING**

- .1 The DND Representative may request an outside testing agency to sample and grade granular materials and asphalt or provide density test reports.
- .2 Any materials or work found inferior or sub-standard will be removed and replaced with new or brought up to standard at no cost to DND, and the testing paid for by the contractor.

**1.23 CLEAN UP**

- .1 The Contractor shall be responsible for the protection and maintenance of his work until job has been completed and accepted by DND.

**Part 2 Products**

**2.1 EQUIPMENT**

- .1 Any equipment on site found to be sub-standard, in need of repair or unsafe will be removed from site immediately and replaced with equipment in good working order.

**2.2 DUMPING**

- .1 Excavated waste material cannot be dumped at any site on Base, landfill site or anywhere on DND property.

**Part 3 Execution**

**3.1 NOT USED**

- .1 Not Used.

**Part 4 Products**

**4.1 NOT USED**

- .1 Not used.

**Part 5 Execution**

**5.1 NOT USED**

- .1 Not used.

National Defence  
Job#  
Date 28-March-2018  
CFB Suffield

Section 01 11 00  
SUMMARY OF WORK  
Page 6 of 6

**END OF SECTION**

**Part 1            General**

**1.1                RELATED SECTIONS**

- .1        Section 01 56 00 - Temporary Barriers and Enclosures.
- .2        Section 01 35 35 – DND Fire Safety Requirements

**1.2                ACCESS AND EGRESS**

- .1        Design, construct and maintain temporary "access to" and "egress from" work areas, including stairs, runways, ramps or ladders and scaffolding, independent of finished surfaces and in accordance with relevant municipal, provincial and other regulations.

**1.3                CONTRACTOR USE OF PREMISES**

- .1        Limit use of premises for Work, for storage, and for access, to allow:
  - .1            Owner occupancy.
- .2        Co-ordinate use of premises under direction of DND Representative.
- .3        Obtain and pay for use of additional storage or work areas needed for operations under this Contract.
- .4        Remove or alter existing work to prevent injury or damage to portions of existing work which remain.
- .5        Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as directed by DND Representative.
- .6        At completion of operations condition of existing work: equal to or better than that which existed before new work started.

**1.4                OWNER OCCUPANCY**

- .1        Owner will occupy premises during entire construction period for execution of normal operations.
- .2        Co-operate with DND Representative in scheduling operations to minimize conflict and to facilitate Owner usage.
- .3        Do not impede, restrict or obstruct continuous use of and access to building and adjacent portions of property.
- .4        Perform work in a manner to minimize creation of noise that disturbs day-to-day operation of building and adjacent property.
- .5        Provide DND Representative with not less than 72 hours' notice of activities that require relocation of occupants from areas adjacent to the work area.

**1.5                EXISTING SERVICES**

- .1        Notify, DND Representative and utility companies of intended interruption of services and obtain required permission.
- .2        Where Work involves breaking into or connecting to existing services, give DND Representative 14 calendar days' notice for necessary interruption of mechanical or electrical service throughout course of work. Minimize duration of interruptions. Carry

out work at times as directed by governing authorities with minimum disturbance to pedestrian, vehicular traffic and tenant operations.

- .3 Provide alternative routes for pedestrian and vehicular traffic.
- .4 Establish location and extent of service lines in area of work before starting Work. Notify DND Representative of findings.
- .5 Submit schedule to and obtain approval from DND Representative for any shut-down or closure of active service or facility including power and communications services. Adhere to approved schedule and provide notice to affected parties.
- .6 Provide temporary services as required to maintain critical building and tenant systems.
- .7 Provide adequate bridging over trenches which cross sidewalks or roads to permit normal traffic.
- .8 Where unknown services are encountered, immediately advise DND Representative and confirm findings in writing.
- .9 Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction.
- .10 Record locations of maintained, re-routed and abandoned service lines.
- .11 Construct barriers in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.

#### **1.6 SECURITY CLEARANCES**

- .1 Personnel will be checked daily at start of work shift and provided with pass which must be worn at all times in DRDC restricted areas. Pass must be returned at end of work shift and personnel checked out.

#### **1.7 BUILDING SMOKING ENVIRONMENT**

- .1 Comply with restrictions identified in Section 01 35 35 – DND Fire Safety Requirements.

**END OF SECTION**

**Part 1            General**

**1.1                ADMINISTRATIVE**

- .1      Provide Schedule of Submittals to DND Representative within 2 weeks of Notification of Contract Award, based on requirements provided by DND Representative.
- .2      Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .3      Do not proceed with Work affected by submittal until review is complete.
- .4      Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .5      Where items or information is not produced in SI Metric units converted values are acceptable.
- .6      Review submittals prior to submission. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- .7      Notify in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .8      Verify field measurements and affected adjacent Work is co-ordinated.
- .9      Contractor's responsibility for errors and omissions in submission is not relieved by PSPC Representative's review of submittals.
- .10     Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by review.
- .11     Keep one reviewed copy of each submission on site.

**1.2                SHOP DRAWINGS AND PRODUCT DATA**

- .1      The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2      Where required by technical Sections, submit shop drawings bearing stamp and signature of qualified professional engineer registered or licensed in Province of Alberta, Canada.
- .3      Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been co-ordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
- .4      Allow 10 business days for DND Representative review of each submission.



- .5 Adjustments made on shop drawings by DND Representative are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to DND Representative prior to proceeding with Work.
- .6 Make changes in shop drawings as DND Representative may require, consistent with Contract Documents. When resubmitting, notify PSPC Representative in writing of revisions other than those requested.
- .7 Accompany submissions with transmittal letter, in duplicate, containing:
  - .1 Date.
  - .2 Project title and number.
  - .3 Contractor's name and address.
  - .4 Identification and quantity of each shop drawing, product data and sample.
  - .5 Other pertinent data.
- .8 Submissions include:
  - .1 Date and revision dates.
  - .2 Project title and number.
  - .3 Name and address of:
    - .1 Subcontractor.
    - .2 Supplier.
    - .3 Manufacturer.
  - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
  - .5 Details of appropriate portions of Work as applicable:
    - .1 Fabrication.
    - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
    - .3 Setting or erection details.
    - .4 Capacities.
    - .5 Performance characteristics.
    - .6 Standards.
    - .7 Operating weight.
    - .8 Relationship to adjacent work.
- .9 After DND Representative's review, distribute copies.
- .10 Submit 2 hard copies and one electronic copy in PDF format of shop drawings for each requirement requested in specification Sections.
- .11 Submit 2 hard copies and one electronic copy in PDF format of product data sheets or brochures for requirements requested in specification Sections and as requested by DND Representative where shop drawings will not be prepared due to standardized manufacture of product.

- .12 Submit 2 hard copies and one electronic copy in PDF format of test reports for requirements requested in specification Sections and as requested by DND Representative.
  - .1 Report signed by authorized official of testing laboratory that material, product or system identical to material, product or system to be provided has been tested in accord with specified requirements.
  - .2 Testing must have been within 3 years of date of contract award for project.
- .13 Submit 2 hard copies and one electronic copy in PDF format of certificates for requirements requested in specification Sections and as requested by DND Representative.
  - .1 Statements printed on manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements.
  - .2 Certificates must be dated after award of project contract complete with project name.
- .14 Submit 2 hard copies and one electronic copy in PDF format of manufacturer's instructions for requirements requested in specification Sections and as requested by PSPC and DND Representative.
  - .1 Pre-printed material describing installation of product, system or material, including special notices and Material Safety Data Sheets concerning impedances, hazards and safety precautions.
- .15 Delete information not applicable to project.
- .16 Supplement standard information to provide details applicable to project.
- .17 If upon review by DND Representative, no errors or omissions are discovered or if only minor corrections are made copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.

## **1.1 SAMPLES**

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

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**END OF SECTION**

**Part 1            General**

**1.1               RELATED REQUIREMENTS**

- .1       Div. 01 Sections.
- .2       **Precedence** - Division 1 sections take precedence over technical specifications in other Divisions of this project manual.

**1.2               REFERENCES**

- .1       Definitions:
  - .1       Canadian Industrial Security Directorate (CISD) - A government agency that developed the Industrial Security Manual.
  - .2       Company Security Officer (CSO) – The CSO is the organization's official point of contact with the Industrial Security Program (ISP). He or she is responsible for monitoring the organization's security profile, addressing security issues, and is accountable to the ISP and to the organization's designated Key Senior Official on all industrial security matters.
  - .3       Contractor CSO- The employee of the Contractor's company who is the CSO.
  - .4       Industrial Security Manual(ISM) – The ISM is a ready and simple reference which tells Company Security Officers what they must know about Canadian government security standards and procedures and how to ensure that their organization meets these security requirements.
  - .5       Industrial Security Program (ISP) - The Industrial Security Program (ISP) helps industry to participate in Government of Canada and foreign government contracts. CISD provide security screening services needed for contractors before their employees can work with Protected and Classified information and assets
  - .6       Positive Control – refers to measures which guarantee that persons without appropriate clearance will not be left unattended to access DND/CAF information, assets, resources, or locations.
  - .7       Request for Visit (RFV) - Is a form that is required to be filled out by an individual who requires access to sensitive DND property, personnel, information, assets and resources because they must be security screened at the appropriate level before commencement of their duties.
  - .8       Restricted - Refers to a situation where authorized persons only, are allowed access to an area or information.
  - .9       Security Implementation Plan - A detailed document which outlines the company's strategy and process to meet contract security requirements.
  - .10      Security Requirements Check List (SRCL) - The Security Requirements Check List (SRCL) is a Treasury Board Secretariat (TBS) form used to define the security requirements for a contract. The SRCL represents an evaluation of security threats and risks that may arise through the contracting process.
  - .11      Sensitive - Records that are sensitive contain information that can cause different degrees of injury to an individual, a company, or the country if the information were disclosed in an unauthorized manner.

.2 Reference Sites:

- .1 Public Services and Procurement Canada (PSPC) Industrial Security
  - .1 <https://www.tpsgc-pwgsc.gc.ca/esc-src/msi-ism/index-eng.html>

**1.3 GENERAL**

- .1 Security requirements must form part of the contract between PSPC and industry when defined by a Security Requirement Check List (SRCL).
- .2 These security requirements apply but are not limited to:
  - .1 Construction and material objects,
  - .2 Contractual arrangements,
  - .3 Professional service contracts,
  - .4 Facility maintenance contracts, and
  - .5 Environmental and UXO contracts.
- .3 A Security Requirement Check List (SRCL) is a form that is used to define the security requirements associated with all contracts. The SRCL ensures that the appropriate security clauses are identified so they may be incorporated into the contract, thereby legally binding the parties to meet the contract's security requirements. **The SRCL must accompany all contract documents including subcontracts that contain security requirements.**
- .4 If multiple levels of screening are required, a Security Classification Guide may have been provided along with the SRCL as a contractual document. This document will provide further information related to security requirements when dealing with multiple levels of clearances within the contract.

**1.4 PRIVATE SECTOR ORGANIZATION SCREENING AND CLEARANCES**

- .1 Companies who will need access to or who will retain controlled goods, protected or classified property, information, assets or resources must be cleared as follows;
  - .1 Companies must be cleared to safeguard the highest level of information and asset to be retained, meaning;
    - .1 Designated Organization Screening (DOS) is required for contracts involving access to information at the protected level and/or secure worksites (Reliability status);
    - .2 Facility Security Clearance (FSC) is required for contracts involving access to information at the protected and/or classified levels and/or secure worksites (Secret status);
    - .3 Document Safeguarding Capability (DSC) is required to work on protected and/or classified information at their own worksite; and
    - .4 Companies who will electronically process protected or classified information must have IT media clearance and processing capability commensurate with the security classification level of the information to be processed and must be cleared to the level commensurate with the information or asset to be accessed.

## **1.5 PERSONNEL SECURITY SCREENING**

- .1 Individuals requiring access to information and/or site must have their personnel security screening completed prior to submitting an RFV. As a part of the screening process it is now a requirement for individuals to undergo a law enforcement inquiry through the RCMP, for electronic finger printing. Please refer to PSPC website for more information.

## **1.6 VISIT CLEARANCE REQUESTS (VCR) APPROVAL**

- .1 All individuals (including subcontractors) who will have access to sensitive DND or CAF property, personnel, information, assets, and resources, must be security screened at the appropriate level before the commencement of their duties in relation to the contract.
- .2 Access to Operations Zones: security screening is not required for certain personnel if positive control of those individuals is maintained throughout their visit. Positive control measures must be outlined in the Security Implementation Plan. Positive control can be used for the following personnel:
  - .1 Logistics activities – material drop-off, waste removal, snow removal;
  - .2 Transit through an operations zone (no work); and
  - .3 Authorities having jurisdiction.
- .3 The VCR process verifies that those who are permitted access onto DND property have the required clearance level as outlined within the Security Requirement Checklist (SRCL) for the contract.

## **1.7 POST AWARD PROCESS OVERVIEW**

- .1 The Contractor's Company Security Officer (CSO) is provided a blank Request for Visit (RFV) form by the DND Representative in order to obtain a VCR approval.
- .2 All employees of the successful bidder who will be working on the contract require a VCR. The Contractor's CSO must forward the completed form to the DND Representative for processing.
- .3 It is the responsibility of the Prime Contractor to submit and receive an approved SRCL for each subcontract containing security requirements. This responsibility extends to all subcontracts held by subcontractors.
  - .1 Instructions on this process are in the Industrial Security Manual located at <https://www.tpsgc-pwgsc.gc.ca/esc-src/msi-ism/index-eng.html> .
  - .2 Contractors shall allow 45 business days (from the date on which a complete and correct SRCL is received by CISD) for approval of an SRCL by CISD.
  - .3 All security related pre-construction activities shall proceed immediately after award.
- .4 For subcontracts, the RFV shall not be submitted until after the subcontract SRCL has been approved and permission to award the contract is granted by CISD.
  - .1 Contractor to allow a minimum of 15 business days for VCR processing.
- .5 Personnel not meeting the required security clearances will not be allowed access to the site or any information pertaining to the contract, except as permitted in 1.6.2.
- .6 Approved VCRs are valid for the duration of the contract **or** one year less one day, whichever is less.

**1.8 SUBMITTALS**

- .1 Submit to the PSPC Representative copies of the following documents, including updates issued:
  - .1 Security Implementation Plan
  - .2 Approved sub-SRCLs
  - .3 Completed Request for Visit forms for all personnel working under the contract
  - .4 Incident reports within (1) working day
  - .5 Submit other data, information and documentation upon request by the PSPC Representative and contract inspector.

**1.9 RESPONSIBILITY**

- .1 It is the responsibility of the Contractor to have no security breaches while undertaking the work for this contract.

**1.10 MEETINGS**

- .1 Prior to commencement of work, the Contractor will attend a pre-commencement meeting conducted by the DND Representative. Ensure, as minimum, attendance by Contractors' site superintendent.
  - .1 The DND Representative will advise of time, date and location of the meeting and will be responsible for recording and distributing the minutes.
  - .2 If requested by the DND Representative, the Contractor's Corporate Security Officer (CSO) will be required to participate in the pre-commencement meeting.
- .2 Conduct site specific security meetings as required to ensure the management of security is in accordance with the contract.
  - .1 Record and post minutes of all meetings as allowed by the security requirements of the contract.

**1.11 SECURITY IMPLEMENTATION PLAN**

- .1 Contractors are required to have in place a contract specific Security Implementation Plan that addresses the security requirements outlined in the contract.
- .2 Provide one copy of the Security Implementation Plan to the DND Representative prior to the commencement of work.
- .3 At a minimum, the plan shall contain details addressing:
  - .1 Company Security Officer (CSO) name and contact information
  - .2 Schedule for SRCLs and RFVs
  - .3 Site Access and Control Monitoring including verification that all people entering secure areas on site have approved VCRs in accordance with contractual security requirements, or any planned positive control measures
  - .4 Security Education (i.e. Restrictions on photographs)
  - .5 Security Incident Reporting

- .4 The DND Representative will coordinate review of the Security Implementation Plan by the DND Project Manager to be completed within 10 business days of receipt following which the DND Representative shall confirm DND's acceptance or rejection with comments.

#### **1.12 INCIDENT REPORTING**

- .1 Investigate and report any security incidents immediately to the DND Representative.
  - .1 Immediately provide a copy of the incident/investigation reports to the DND Representative.
  - .2 Refer to Chapter 5 of the industrial Security Manual <https://www.tpsgc-pwgsc.gc.ca/esc-src/msi-ism/index-eng.html> for more information.
- .2 For the purpose of this contract, immediately notify the DND Representative of incidents that involve a security breach from the identified clauses on the SRCL or an interruption to adjacent and/or integral infrastructure operations with potential loss implications.
- .3 In the investigation and reporting of incidents, the Contractor is required to respond in a timely fashion (within 5 working days) to correct the action that was deemed to have caused the incident and advise in writing on the action taken to prevent a re-occurrence of the incident.

#### **Part 2 Products**

##### **2.1 NOT USED**

- .1 Not Used.

#### **Part 3 Execution**

##### **3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**



**Part 1            General**

**1.1                ENVIRONMENTAL RESPONSIBILITY**

- .1        All physical work and activities under this contract are to be conducted in such a way to ensure that the environmental impacts are minimized.

**1.2                WORK AREA**

- .1        Under the direction of the DND Representative, define and mark the construction area work limits prior to commencement of work.
- .2        All work is to be restricted to designated work area, designated access roads and designated ancillary worksites.

**1.3                FUEL MANAGEMENT**

- .1        Ensure that any fuel storage and transfer areas on site are designed, operated and maintained in accordance with the requirements of current applicable federal, provincial and municipal legislation, guidelines and codes, including the 2016 *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*, published by the Canadian Council for Ministers of the Environment (CCME), and the most current version of the *National Fire Code of Canada* (NFCC), from the National Research Council (NRC).
- .2        Fuel storage and handling areas must be completely contained to prevent spills or leaks from migrating outside the designated storage or handling area, per the requirements of the NFCC.
- .3        Contractor to monitor and maintain any containment devices to ensure that they are functioning as intended and empty them if they fill with rainwater. Rainwater is to be disposed of as Hazardous waste if contaminated as per paragraph 1.14 of this section.
- .4        Appropriate clean-up materials shall be readily available to deal with spills or leaks.

**1.4                FIRES**

- .1        Fires and burning of rubbish on site are not permitted.
- .2        Additional requirements in accordance with Section 01 35 35 – DND Fire Safety Requirements.
- .3        Smoking is permitted in designated areas. Contractor to provide and maintain approved fire proof cigarette butt receptacles for construction sites under their control.

**1.5                WASTE MANAGEMENT**

- .1        Do not bury rubbish and waste materials on site.
- .2        Ensure that all waste materials, equipment and debris are adequately contained off site.

- .3 Remove from DND property for disposal all wastes or volatile materials, such as, but not limited to, mineral spirits, oil or paint thinner.
- .4 Ensure that sufficient numbers of waste and recycling containers are located on site and properly maintained and emptied to prevent overloading.
- .5 Minimize amount of waste to landfills by segregating recyclable materials from the waste stream into appropriate recycling containers. Ensure separation of materials into appropriate recycling or waste bins.
- .6 Additional requirements in accordance with Section 01 74 19 – Waste Management and Disposal.

#### **1.6 DRAINAGE**

- .1 Provide temporary drainage and pumping as necessary to keep excavations and site free from water.
- .2 Do not pump water containing suspended materials into waterways, sewer or drainage systems.
- .3 Control disposal or runoff of water containing deleterious or toxic substances in accordance with local authority requirements.

#### **1.7 SOIL HANDLING**

- .1 Remove topsoil before any construction procedures commence to avoid compaction of topsoil.
- .2 Handle topsoil only when it is dry and warm
- .3 Pile topsoil in berms in locations as directed by DND Representative. Stockpile height not to exceed 2.5 - 3m.
- .4 Topsoil is to be replaced as the finish layer over all natural areas to allow for appropriate recovery of the disturbance.
- .5 Avoid soil handling activities under high wind or unfavorable weather conditions, as directed by the DND Representative.

#### **1.8 SITE CLEARING AND PLANT PROTECTION**

- .1 Minimal surface disturbance techniques are to be employed on prairie landscapes.
- .2 When vegetation or brush removal is required, such activities are to be completed using non-chemical means, unless otherwise authorized by the DND Representative.
- .3 Protect trees and plants on site and adjacent properties where indicated.
- .4 Wrap in burlap, trees and shrubs adjacent to construction work, storage areas and trucking lanes, and encase with protective wood framework from grade level to height of 2 m.

- .5 Protect roots of designated trees to drip line during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.
- .6 Restrict tree removals to areas indicated or designated by DND Representative.
- .7 Salvage vegetation and store at approved sites for future replacement as required and directed by DND Representative.

#### **1.9 WORK ADJACENT TO WATERWAYS**

- .1 Do not perform any physical work or activity within 300m of a waterway unless approve by the Base Environment Officer (B Env O).

#### **1.10 POLLUTION CONTROL**

- .1 Maintain temporary erosion and pollution control features installed under this contract.
- .2 Control emissions from equipment and plant to local authorities emission requirements.
- .3 Prevent sandblasting and other extraneous materials from contaminating air beyond application area, by providing temporary enclosures.
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

#### **1.11 EQUIPMENT**

- .1 Equipment that is to be used in the execution of the work shall be maintained in a manner that will not be detrimental to the environment and in compliance with the CFB Suffield Range Standing Orders (RSO). Equipment that is in violation shall be removed from the site until such time as it does comply with the above requirements.
- .2 Equipment and vehicles used on the prairie shall be cleaned to remove weeds and spores prior to arriving on site.
- .3 Construction equipment shall be well maintained, free from leaks and mechanical defects.
- .4 When equipment and vehicles are not in use, they must be stored in designated areas approved by the DND Representative.

#### **1.12 STORAGE AND HANDLING**

- .1 All hazardous substances (any substance that is poisonous or exhibits flammable, corrosive, reactive or toxic properties) shall be stored and handled in a manner that is not harmful to human life and will not pollute the environment.
- .2 All hazardous substances stored outdoors will be situated in or on a secondary containment device capable of fully containing 1.5 times the quantity of the largest container stored in or on it. Storage sites shall be consolidated to the greatest extent possible to reduce the number of hazardous sites.

- .3 Where hazardous substances are stored indoors in quantities that cannot be contained safely by the building structure in the event of a leak, the DND Representative may direct that such substances be stored in or on proper secondary containment devices.

### **1.13 RESTORATION**

- .1 Disturbed vegetated areas must be reclaimed to re-establish vegetative cover.
- .2 All destabilized areas must be re-stabilized and restored to pre-work conditions.
- .3 Reseed using only native seeds and plants approved by the DND Representative for site restoration, unless otherwise approved by the DND Representative. No exceptions to native seeds will be considered for reclamation of prairie areas.
- .4 Areas to be restored must be maintained and monitored to ensure successful restoration as determined in consultation with the DND Representative prior to work commencing. Areas, where re-vegetation efforts were not successful must be seeded, or planted at no extra cost to the crown.

### **1.14 CLEAN UP**

- .1 Leaks or spills of hazardous substances, regardless of the quantity of whether indoors or outdoors, shall be safely stopped and cleaned up immediately and be prevented from entering storm or sanitary sewer systems or contaminating soil or water.
- .2 All spilled substances and materials contaminated by the spill will be collected in appropriate leak proof containers designed for the materials being collected for disposal off DND property in an approved waste management facility certified by the Province to receive the materials in question. Removal and disposal shall be in a manner, which is acceptable to the local authority having jurisdiction over disposal of such substances, Contractor is responsible to cleanup and restore any leaks or spill they cause.

### **1.15 REPORTING**

- .1 All releases of any amount of hazardous substances shall be reported to the DND Representative as soon as possible.

### **1.16 INSPECTIONS**

- .1 The project site from time to time may be inspected to ensure compliance with federal, provincial and CFB Suffield Range Standing Order
- .2 All spills reported under paragraph 1.15.1 of this Section are subject to inspection by Federal Regulators, the Base Environmental Officer and the DND Representative to confirm cleanup and disposal have been carried out satisfactorily.

## **Part 2 Products**

### **2.1 NOT USED**

- .1 Not Used.

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**Part 3            Execution**

**3.1                NOT USED**

.1            Not Used.

**END OF SECTION**

**Part 1            General**

**1.1                CONSTRUCTION SAFETY MEASURES**

- .1        All Contractors and their personnel shall be familiar and comply with this section and its requirements.
- .2        Observe construction safety measures of National Building Code latest edition, National Fire Code of Canada latest edition, Workers'/Workmen's Compensation Board, Canada Labour Code, Part II and Canada Occupational Health & Safety Regulations and in any situation of conflict or discrepancy, the more stringent requirements shall apply.
- .3        The Contractor is required to fully comply with all Provincial / Territory Safety Acts, Codes and Regulations. The Contractor will be acting as the 'Prime (Principal if applicable) Contractor' for this contract and will certify this agreement in writing with the DND Representative.

**1.2                RESPONSIBILITY**

- .1        In accordance with the Canada Labour Code Part II, the obligations and responsibilities for safety reside with the Department of National Defence. The DND Representative will observe safety on the Work Site in accordance with the Canada Labour Code Part II and the Canada Occupational Safety and Health Regulations made under Part II of the Canada Labour Code.
- .2        Carry out work placing emphasis on health and safety of the public, building employees, site personnel and protection of the environment.
- .3        The Contractor is responsible to enforce compliance by its employees and subcontractors accessing the Work Site with safety requirements of Contract Documents, and all applicable federal, provincial, local statutes, regulations, and ordinances.
- .4        The Contractor is responsible to manage safety of the work site to ensure that any persons, including but not limited to, building employees and the general public circulating adjacent to the work operations are protected against harm due to the extent that they may be affected by conduct of the work.
- .5        Contractors are required under the Canada Labour Code Part II to conduct site specific occupational health and safety meetings. For the purpose of this contract, the Contractor is responsible to establish and conduct site specific occupational health and safety meetings on a monthly basis.
- .6        The Contractor is responsible to record and post minutes of all site specific occupational health and safety meetings in plain view on the work site. Make copies available to the DND Representative upon request.
- .7        The Contractor is responsible to ensure Contractor employees and sub-contractors accessing the work site are in possession of and wear appropriate personnel protective equipment (PPE).

- .8 Should an unforeseen or peculiar safety related hazard or condition become evident during performance of work, the Contractor is responsible to immediately take measures to rectify the situation and prevent damage or harm and to advise the DND Representative verbally and in writing of the hazard or condition.

### **1.3 SITE CONTROL AND ACCESS**

- .1 The Contractor shall be responsible after consultation with the DND Representative to control all work site access points and work site activities. Delineation and isolation of the work site from adjacent and surrounding areas is not possible as the facility and infrastructure must remain fully operational and occupied and utilized by the Department of National Defence throughout the duration of the work of this contract.
- .2 Erect signage at access points and at other strategic locations around the work site clearly identifying the work site area(s) as being “off-limits” to non-authorized persons. Signage must be professionally made with well understood graphic symbols and is not to be used as advertising but for the specific use as related to site safety. When requested in specific Works install a barrier around the area of work.

### **1.4 BASE SAFETY OFFICER BRIEFING**

- .1 DND Representative will coordinate/arrange for Contractor's Staff to be briefed on all Base Safety requirements. This will occur at Bi-weekly Safety Briefings, dates to be coordinated by DND Representative
- .2 The Base Safety Briefing is valid for one year from date of orientation and is transferable from job site to job site.

### **1.5 FMA SAFETY REQUIREMENTS**

- .1 Contractor's doing work in the Force Maintenance Area (FMA), are to have one initial briefing per contract by the Chief Clerk in Building 229, before any work may commence. FMA includes all buildings east of the Jenner Highway.

### **1.6 EPG AND BASE RANGE AREA**

- .1 When work is to be performed in the EPG (Experimental Proving Ground) and/or in the Base Range area, Contractor's and their personnel must attend a DRDC Field Safety Briefing and/or Range Safety Briefing from Range Control in order to obtain approval for access to site prior to any work commencing. All vehicles must be registered with the governing authority before entering the EPG and Range Control areas. The Contractor's Project superintendent will be provided with a radio that is able to communicate with the governing authority. All other Contractor vehicles must have a communication device, which will be the responsibility of the Contractor.

### **1.7 TOOLS AND EQUIPMENT**

- .1 DND owned equipment, tools, devices, and machinery, including Personal Protective Equipment will not be provided to the Contractor.

**1.8 CONFINED SPACE ENTRY POLICY**

- .1 No employee shall enter or be permitted to enter any confined space unless such entry is made in compliance with the applicable Federal Occupational Health and Safety Regulations and the Canada Labour Code, Part II Standards. Contractor will make himself and employees aware of and abide by the Base Policy on confined space entry and the locations affected by said policy.

**1.9 SCAFFOLDING**

- .1 Design and construct scaffolding in accordance with CSA S269.

**1.10 OVERLOADING**

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

**1.11 WHMIS**

- .1 Comply with all requirements of the Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials and regarding labelling and provision of material safety data sheets acceptable to Human Resources Skills Development Canada and Health and Welfare Canada.
- .2 All employees who handle or are exposed to hazardous materials as defined under the Controlled Products Act (WHMIS Legislation) shall be WHMIS trained in accordance with the Act.
- .3 Material Safety Data Sheets (MSDS) for all materials falling under the WHMIS program shall be supplied to the work site by the Contractor or user(s), and readily accessible to all on-site personnel.
- .4 Deliver copies of WHMIS Material Safety Data Sheets to DND Representative on delivery of materials.

**1.12 FALL PROTECTION**

- .1 Approved fall protection equipment and methods shall be used in accordance with Canada Labour Code Part II and the associated CSA Standards.
- .2 Safety belts and lanyards shall be worn where falling hazards exist, as described under the Canada Labour Code, Part II. Contractor and their personnel shall ensure they adhere to and strictly enforce the applicable federal regulations where it is impractical to provide adequate work platforms or staging.
- .3 All elevated work sites shall have the area underneath cordoned off to prevent injuries from falling objects and anyone working in the proximity of said elevated work sites must utilize proper Personal Protective Equipment to avoid injury from possible falling objects.



**1.13 SUBMITTALS**

- .1 Submit to DND Representative copies of the following documents, including updates issued:
  - .1 Site-specific Health and Safety Plan prior to commencement of work on the work site.
  - .2 Reports or directions issued by authorities having jurisdiction, immediately upon issuance from that authority.
  - .3 Accident or Incident Reports, within 24 hrs. of occurrence.
- .2 Submit other data, information and documentation upon request by the DND Representative as stipulated elsewhere in this section.

**1.14 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

- .1 Contractors and their personnel shall comply with all Federal Safety Standards in relation to Personal Protective Equipment.
- .2 The Contractor is responsible to ensure Contractor employees and sub-contractors accessing the work site are in possession of and wear appropriate personnel protective equipment (PPE).
- .3 Safety glasses, hardhats and safety boots shall be worn at all times at construction sites and when operating mobile equipment and any location in which an overhead hazard exists and the individuals work within close proximity could possibly be exposed to that hazard.
- .4 Face protection shall be worn when handling materials liable to injure or irritate eyes when engaging in any work, producing hazard from flying objects or when operating power lawn equipment or tools.
- .5 Hearing protection shall be worn when entering or working in elevated noise hazard area. This includes, but not limited to, constructions sites, shop operations, lawn care and operators of equipment or vehicles, which produce noise levels above 85 decibels.
- .6 Respirators shall be worn when a workers is or may be exposed to an oxygen deficient area or to harmful concentration of gas, vapours, smoke, fumes, mists, dusts or as recommended by the Material Safety Data Sheets (MSDS).
- .7 Protective clothing shall be worn at all times in all stores and industrial environments, construction sites and while performing any type of landscaping/lawn care activity. No shorts, muscle shirts, Capri pants or non-safety footwear allowed at all times.

**Part 2 Products**

**2.1 NOT USED**

- .1 Not Used.

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**Part 3**            **Execution**  
**3.1**              **NOT USED**

.1            Not Used.

**END OF SECTION**

**Part 1            General**

**1.1            SECTION INCLUDES**

- .1       Inspection and testing, administrative and enforcement requirements.
- .2       Tests and mix designs.
- .3       Mock-ups.
- .4       Equipment and system adjust and balance.

**1.2            RELATED SECTIONS**

- .1       Section 01 33 00 - Submittal Procedures.
- .2       Section 01 78 00 - Closeout Submittals.

**1.3            INSPECTION**

- .1       Allow DND Representative access to Work. If part of Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.
- .2       Give timely notice requesting inspection if Work is designated for special tests. Inspections or approvals are to be conducted as per the DND Representative's instructions, or by law of Place of Work.
- .3       If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made. Contractor is to uncover such Work, have inspections or tests satisfactorily completed and make good such Work.
- .4       DND Representative may order any part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, contractor is to correct such Work and pay cost of examination and correction. If such Work is found in accordance with Contract Documents, DND Representative shall pay cost of examination and replacement.

**1.4            INDEPENDENT INSPECTION AGENCIES**

- .1       Independent Inspection/Testing Agencies will be engaged by DND Representative for purpose of inspecting and/or testing portions of Work. Cost of such services will be borne by DND Representative.
- .2       Contractor is to provide equipment required for executing inspection and testing as requested by appointed agencies or DND Representative.
- .3       Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.

- .4 If defects are revealed during inspection and/or testing, the appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Contractor will correct the noted defect and irregularities as advised by DND Representative at no cost to DND Representative. Contractor is to pay costs for retesting and re-inspection.

## **1.5 ACCESS TO WORK**

- .1 Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.
- .2 Co-operate to provide reasonable facilities for such access.

## **1.6 PROCEDURES**

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

## **1.7 REJECTED WORK**

- .1 Contractor is responsible for removal of defective Work; whether result of poor workmanship, use of defective products, damaged products and whether incorporated in Work or not. Any product which has been rejected by DND Representative as failing to conform to Contract Documents will be replaced or re-executed in accordance with Contract Documents.
- .2 Make good other Contractor's work damaged by such removals or replacements promptly.
- .3 If in opinion of DND Representative it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner may deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which shall be determined by DND Representative.

## **1.8 REPORTS**

- .1 Submit 1 hard copy and one electronic copy in PDF format of inspection and test reports to DND Representative.
- .2 Provide copies to Subcontractor of work being inspected or tested.

## **1.9 MOCK-UPS**

- .1 Prepare mock-ups for Work specifically requested in specifications. Include for Work of all Sections required to provide mock-ups.

- .2 Construct in all locations as specified in specific Section.
- .3 Prepare mock-ups for DND Representative's review with reasonable promptness and in an orderly sequence, so as not to cause any delay in Work.
- .4 Failure to prepare mock-ups in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .5 If requested, DND Representative will assist in preparing a schedule fixing dates for preparation.
- .6 Remove mock-up at conclusion of Work, or when accepted by DND Representative.
- .7 Mock-ups may remain as part of Work if approved by DND Representative.
- .8 Specification section identifies whether mock-up may remain as part of Work or if it is to be removed.

**1.10 MILL TESTS**

- .1 Submit mill test certificates as requested and required of specification Sections.

**1.11 EQUIPMENT AND SYSTEMS**

- .1 Submit adjustment and balancing reports for mechanical, electrical and building equipment systems.

**Part 2 Products**

**2.1 NOT USED**

- .1 Not Used.

**Part 3 Execution**

**3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**

**Part 1          General**

**1.1            SECTION INCLUDES**

- .1      Temporary utilities.

**1.2            RELATED SECTIONS**

- .1      Section 01 52 00 - Construction Facilities.
- .2      Section 01 56 00 - Temporary Barriers and Enclosures.

**1.3            INSTALLATION AND REMOVAL**

- .1      Provide temporary utilities controls in order to expedite the execution of work.
- .2      Remove from site all such work after use.

**1.4            DEWATERING**

- .1      Provide temporary drainage and pumping facilities to keep excavations and site free from standing water.

**1.5            WATER SUPPLY**

- .1      If the potable water is available, the DND Representative will provide continuous supply of potable water for construction use.
- .2      Contractor is to arrange for connection with appropriate utility company and pay all costs for installation, maintenance and removal.

**1.6            TEMPORARY HEATING AND VENTILATION**

- .1      Contractor shall provide temporary heating required during construction period, including attendance, maintenance and fuel.
- .2      Construction heaters used inside building must be vented to outside or be non-flameless type. Solid fuel salamanders are not permitted.
- .3      Provide temporary heat and ventilation in enclosed areas as required to:
  - .1      Facilitate progress of Work.
  - .2      Protect Work and products against dampness and cold.
  - .3      Prevent moisture condensation on surfaces.
  - .4      Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
  - .5      Provide adequate ventilation to meet health regulations for safe working environment.

- .4 Maintain temperatures of minimum 10 degrees Celsius in areas where construction is in progress.
- .5 Ventilating:
  - .1 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.
  - .2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
  - .3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
  - .4 Ventilate storage spaces containing hazardous or volatile materials.
  - .5 Ventilate temporary sanitary facilities.
  - .6 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.
- .6 Permanent heating system of building may be used when available. Be responsible for damage to heating system if use is permitted.
- .7 On completion of Work for which permanent heating system is used, replace filters.
- .8 Ensure Warranty dates for heating systems, do not commence until entire system is in as near original condition as possible and is approved by DND Representative.
- .9 DND Representative will pay utility charges when temporary heat source is existing building equipment.
- .10 Maintain strict supervision of operation of temporary heating and ventilating equipment to:
  - .1 Conform with applicable codes and standards.
  - .2 Enforce safe practices.
  - .3 Prevent abuse of services.
  - .4 Prevent damage to finishes.
  - .5 Vent direct-fired combustion units to outside.
- .11 Contractor is responsible for damage to Work due to failure in providing adequate heat and protection during construction.

## **1.7 TEMPORARY POWER AND LIGHT**

- .1 When available DND Representative will pay for temporary power during construction for temporary lighting and operating of power tools, to a maximum supply of 230 volts 30 amps,
- .2 Contractor is to arrange for connection with appropriate utility company. Pay all costs for installation, maintenance and removal.

- .3 Temporary power for electric cranes and other equipment requiring in excess of above is responsibility of Contractor.
- .4 Provide and maintain temporary lighting throughout project. Ensure level of illumination on all floors and stairs is not less than 162 Lx.
- .5 Power supply when available will be provided for construction use at no cost. Connect to existing power supply in accordance with Canadian Electrical Code.
- .6 Electrical power and lighting systems installed under this Contract may be used for construction requirements only with prior approval of DND Representative provided that guarantees are not affected. Make good damage to electrical system caused by use under this Contract. Replace lamps which have been used for more than 3 months.

**1.8 TEMPORARY COMMUNICATION FACILITIES**

- .1 If required Contractor is to provide and pay for temporary telephone and fax hook up, necessary for own use.

**1.9 FIRE PROTECTION**

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations and bylaws.
- .2 Burning rubbish and construction waste materials is not permitted on site.

**Part 2 Products**

**2.1 NOT USED**

- .1 Not Used.

**Part 3 Execution**

**3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**



**Part 1            General**

**1.1            SECTION INCLUDES**

- .1      Construction aids.
- .2      Office and sheds.
- .3      Parking.

**1.2            RELATED SECTIONS**

- .1      Section 01 51 00 - Temporary Utilities.
- .2      Section 01 56 00 - Temporary Barriers and Enclosures.

**1.3            INSTALLATION AND REMOVAL**

- .1      Provide construction facilities in order to execute work expeditiously.
- .2      Remove from site all such work after use.

**1.4            SCAFFOLDING**

- .1      Provide and maintain scaffolding, ramps, ladders, swing staging, platforms and temporary stairs.

**1.5            HOISTING**

- .1      If required contractor is to provide, operate and maintain hoists and cranes required for moving of workers, materials and equipment. Make financial arrangements with Subcontractors for use thereof.
- .2      Hoists and cranes shall be operated by licensed qualified operator.

**1.6            SITE STORAGE/LOADING**

- .1      Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.
- .2      Do not load or permit to load any part of Work with a weight or force that will endanger the Work.

**1.7            CONSTRUCTION PARKING**

- .1      Parking will be permitted on site provided it does not disrupt performance of Work.
- .2      Provide and maintain adequate access to project site.

**1.8 EQUIPMENT, TOOL AND MATERIALS STORAGE**

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

**1.9 SANITARY FACILITIES**

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

**Part 2 Products**

**2.1 NOT USED**

- .1 Not Used.

**Part 3 Execution**

**3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**

**Part 1          General**

**1.1          SECTION INCLUDES**

- .1      Barriers.
- .2      Fire Routes.

**1.2          RELATED SECTIONS**

- .1      Section 01 51 00 - Temporary Utilities.
- .2      Section 01 52 00 - Construction Facilities.

**1.3          INSTALLATION AND REMOVAL**

- .1      Provide temporary controls in order to execute Work expeditiously.
- .2      Remove from site all such work after use.

**1.4          GUARD RAILS AND BARRICADES**

- .1      Provide secure, rigid guard rails and barricades around deep excavations, open shafts, open stair wells, open edges of floors and roofs.
- .2      Provide as required by governing authorities.

**1.5          WEATHER ENCLOSURES**

- .1      Provide weather tight closures to unfinished door and window openings, tops of shafts and other openings in floors and roofs.
- .2      Close off floor areas where walls are not finished; seal off other openings; enclose building interior work for temporary heat.
- .3      Design enclosures to withstand wind pressure and snow loading.

**1.6          DUST TIGHT SCREENS**

- .1      Provide dust tight screens or insulated partitions to localize dust generating activities to protect; workers, finished areas of Work and public. When requested by DND Representative. Maintain and relocate protection until such work is complete.

**1.7          FIRE ROUTES**

- .1      Maintain access to property including overhead clearances for use by emergency response vehicles.

**1.8 PROTECTION FOR SURROUNDING PROPERTY**

- .1 Protect surrounding private and public property from damage during performance of Work.
- .2 Contractor is responsible to repair any damage incurred by works, to previous or better condition at no cost to DND Representative.

**1.9 PROTECTION OF BUILDING FINISHES**

- .1 Contractor is to provide protection for finished and partially finished building finishes and equipment during performance of Work and responsible for any damage caused by failure to do so.
- .2 Provide necessary screens, covers, and hoardings.
- .3 Re-confirm with DND Representative the locations and installation schedule 3 days prior to installation.
- .4 Contractor is responsible for damage incurred due to lack of or improper protection.

**Part 2 Products**

**2.1 NOT USED**

- .1 Not Used.

**Part 3 Execution**

**3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**

**Part 1            General**

**1.1               SUBMITTALS**

- .1       Submit to the DND Representative copies of the following documents, including updates issued:
  - .1       Site-specific Health and Safety Plan prior to commencement of work on the work site. See paragraph 1.9 for details
  - .2       Reports or directions issued by authorities having jurisdiction, immediately upon issuance from that authority.
  - .3       Accident or Incident Reports, within 24 hrs. of occurrence.
- .2       Submit other data, information and documentation upon request by the DND Representative as stipulated elsewhere in this section.

**1.2               COMPLIANCE REQUIREMENTS**

- .1       Comply with the latest edition of the Alberta Occupational Health and Safety Act, and the Regulations made pursuant to the Act.
- .2       As a minimum, comply with the Canada Labour Code Part II Part 125(1) (l) and 125(1) (w), and the Canada Occupational Safety and Health Regulations made under Part II of the Canada Labour Code.
- .3       A copy of the Canada Labour Code Part II may be obtained by contacting:
  - Canadian Government Publishing
  - Communication Canada
  - Ottawa, Ontario, K1A 0S9
  - Telephone: (613) 941-5995 or 1-800-635-7943)
  - Catalogue No. L31-85-2003 (E or F)
  - ISBN 0-660-18897-X
- .4       A condensed version can be viewed on-line at <http://laws.justice.gc.ca/en/index.html>  
Observe and enforce construction safety measures required by:
  - .1       National Building Code of Canada (latest edition).
  - .2       Provincial Worker's Compensation Board.
  - .3       Municipal statutes and ordinances.
  - .4       Section 01 35 45 CFB Suffield Health and Safety Requirements

.5 **NOT USED**

.1 Not Used.

.6 In event of conflict between any provisions of above authorities the most stringent provision shall apply. Should a dispute arise in determining the most stringent requirement, the DND Representative shall advise on the course of action to be followed. In the case of direct conflict between the federal and provincial/territorial regulatory Health and Safety instruments noted above in paragraphs 1.2.1 and 1.2.2, the Canada Labour Code shall be the default regulatory instrument.

.7 Provide and maintain Worker's Compensation Board coverage for all employees for the duration of the contract. Prior to commencement of the work, at the time of Interim Completion and prior to final payment, provide to the DND Representative a letter or certificate of Clearance from the Workers' Compensation Board indicating that the Contractor's account is in good standing.

.1 Should the Contractor be a sole proprietor, provide documented proof in a form acceptable to the DND Representative, of an alternative means of personal coverage that meets or exceeds the requirements set out above for Worker's Compensation Board coverage.

**1.3 RESPONSIBILITY**

.1 In accordance with the Canada Labour Code Part II, the obligations and responsibilities for safety reside with the Department of National Defence. The DND Representative or the Department of National Defence will monitor safety on the Work Site in accordance with the Canada Labour Code Part II and the Canada Occupational Safety and Health Regulations made under Part II of the Canada Labour Code. The entity responsible for monitoring safety on the work site will be confirmed at the time of tender by the DND Representative.

.2 Carry out work placing emphasis on health and safety of the public, building employees, site personnel and protection of the environment.

.3 The Contractor is responsible to enforce compliance by its employees and sub-contractors accessing the Work Site with safety requirements of Contract Documents, and all applicable federal, provincial, local statutes, regulations, and ordinances.

.4 This paragraph will be utilized under condition 2 of the Category 3 work sites as defined in the DND Handbook. The Contractor is responsible to manage safety of the work site to ensure that any persons, including but not limited to, building employees and the general public circulating adjacent to the work operations are protected against harm due to the extent that they may be affected by conduct of the work.

.5 This paragraph will be utilized under condition 2 of Category 3 work sites. Contractors are required under the Canada Labour Code Part II to conduct site specific occupational health and safety meetings. For the purpose of this contract, the Contractor is responsible to establish and conduct site specific occupational health and safety meetings.

- .6 This paragraph will be utilized under condition 2 of Category 3 work sites. The Contractor is responsible to record and post minutes of all site specific occupational health and safety meetings in plain view on the work site. Make copies available to the DND Representative upon request.
- .7 This paragraph will be utilized under condition 2 of Category 3 work sites. The Contractor is responsible to designate a competent person or persons to be present on site at all times during the work as the site health and safety representative. The designated person(s) shall be required to conduct regularly scheduled safety inspections of the work site as follows:
  - .1 Informal inspections on a minimum bi-weekly basis noting deficiencies and remedial actions taken in a log book or diary. Make the log book and/or diary available for the DND Representative's viewing as requested.
  - .2 Formal inspections on a minimum monthly basis, with no less than one (1) inspection for contracts that are less than one (1) month in duration and is provide a written report to the DND Representative for each formal inspection, document deficiencies, remedial action needed and assign responsibility for rectification to the appropriate party.
- .8 The Contractor is responsible to ensure Contractor employees and sub-contractors accessing the work site are in possession of and wear appropriate personnel protective equipment (PPE).
- .9 Should an unforeseen or peculiar safety related hazard or condition become evident during performance of work, the Contractor is responsible to immediately take measures to rectify the situation and prevent damage or harm and to advise the DND Representative verbally and in writing of the hazard or condition.

#### **1.4 SITE CONTROL AND ACCESS**

- .1 This paragraph will be utilized under condition 2 of Category 3 work sites. The Contractor shall be responsible after consultation with the DND Representative to control all work site access points and work site activities.
- .2 Delineation and isolation of the work site from adjacent and surrounding areas is not completely possible as the facility, or infrastructure must remain fully operational and / or occupied and utilized by the Department of National Defence throughout the duration of the work of this contract.
- .3 Defence Construction Canada or The Department of National Defence will be performing a safety monitoring function as required by the Canada Labour Code in order to verify that the Contractor is fulfilling all of the required responsibilities and duties as identified above. This monitoring function will be performed throughout the duration of the contract.
- .4 Erect signage at access points and at other strategic locations around the work site clearly identifying the work site area(s) as being "off-limits" to non-authorized persons. Signage

must be professionally made with well understood graphic symbols and is not to be used as advertising but for the specific use as related to site safety and key contact information.

Project Superintendent's Name/Phone No.

DND Point of Contact Name/Phone No.:

## **1.5 FILING OF NOTICE**

- .1 File Notice of Project and any other required Notices with the Provincial/Territorial Authorities prior to commencement of the work. Provide the DND Representative with a copy of the filed Notice(s) prior to commencement of the work.

## **1.6 PERMITS**

- .1 Obtain permits, (including, but not limited to items such as dig permits, hot work permits, confined space entry permits, etc.), licenses and compliance certificates at appropriate times and frequencies as required by the authorities having jurisdiction.
- .2 Post all permits, licenses and compliance certificates on work site and provide copies to the DND Representative.

## **1.7 PROJECT/SITE CONDITIONS**

- .1 Known hazardous substances and/or hazardous conditions at the work site which shall be considered as health or environmental hazards. These will be properly managed should they be encountered as part of the work will be provided in the tender document.
  - .1 Contractors are required to be aware of the known hazardous substances and/or hazardous conditions and are to include in their tender price all work associated in working with, in and around the hazards.
- .2 Obtain from the DND Representative, a copy of the MSDS data sheets of the existing hazardous materials stored on the construction site or being used by facility personnel in the course of their operations.
- .3 The above lists shall not be construed as being complete and inclusive of all safety and health hazards encountered as a result of Contractor's operations during the course of work. Include above items into the hazard assessment program specified herein.

## **1.8 MEETINGS**

- .1 Prior to commencement of work attend a pre-commencement meeting conducted by the DND Representative. Ensure minimum attendance by the Contractor's site superintendent. The DND Representative will arrange to have the Contractor's site superintendent and designated site health and safety representative briefed on the specific content of the Base Health and Safety Program where it requires more stringent requirements than stipulated in the Canada Labour Code Part II and the Canada Occupational Safety and Health Regulations made under Part II of the Canada Labour Code. The DND Representative will advise of time, date and location of the meeting and will be responsible for recording and distributing the minutes.



- .2 The Contractor is responsible to conduct safety meetings as required by paragraph 1.3 above.

## 1.9 HEALTH AND SAFETY PROGRAM

- .1 The Canada Labour Code Part II and the Canada Occupational Safety and Health Regulations made under Part II of the Canada Labour Code provides the Contractor with the overall program of health and safety for operations on the Base. For the purpose of this contract, the Contractor shall perform a hazard assessment of the work site in order to acknowledge, assess and address the hazardous substances and/or hazardous conditions known and identified in paragraph 1.7, and to develop a written site-specific Health and Safety Plan as related to these known hazards. The Contractor shall be required to write the site-specific Health and Safety Plan for review by the DND Representative or the Department of National Defence. The site-specific Health and Safety Plan shall include provisions for an on-going hazard assessments performed during the progress of work identifying and documenting new or potential health risks and safety hazards not previously known and identified.
- .2 The format of the site-specific Health and Safety Plan shall at a minimum for the purpose of this contract contain the following three (3) parts:
  - .1 Part 1: Detailed description of the project and a list of individual health risks and safety hazards identified by the contractor's detailed site specific hazard assessment(s).
    - .1 List of critical construction activities to be communicated with the DND Representative which could affect the facility, any infrastructure, and occupant operations, or pose a risk to the health and safety of the occupants, Contractor employees and to the general public.
  - .2 Part 2: List of specific measures to control or mitigate each hazard and risk identified in part one of the Plan. Describe the engineering controls, personnel protective equipment, safe work practices and any other applicable means to be implemented and followed when performing work related to each identified hazard or risk. Part 2 of the Plan must also include:
    - .1 In the management of safety responsibility, provide the name of the competent employee(s) assigned as site safety representative(s) who is (are) to be present on site at all times during work.
    - .2 A written statement, where applicable, that the Contractor has been made aware of known hazards and hazardous substances referred to under paragraph 1.7, and that the Contractor will inform all Contractor employees, sub-contractor employees and any persons affected or potentially affected by the work of this contract of the known hazards.
    - .4 A written statement confirming that Contractor employees, sub-contractors and other authorized persons accessing the work site are trained and have been fully instructed in:
      - .1 Safe operation of tools and equipment.

- .2 Proper wearing and use of personnel protective equipment (PPE) as applicable to the purpose and activities to be conducted on site.
  - .3 Safe work practices and procedures to be followed during the performance of their given work tasks or function on the work site.
  - .4 Work site conditions and minimum site safety rules provided through safety orientation sessions.
  - .5 A copy of the Contractor's health and safety policy and disciplinary policy will be made available to ensure compliance by Contractor employees and sub-contractors. Policies should coordinate with Safety requirements of contract documents, applicable regulations, and the Contractor's site-specific Health and Safety Plan.
- .3 Part 3: Emergency Measures and Communications Procedures as follows:
- .1 Emergency Measures: On-site operating procedures, evacuation measures and emergency response to be implemented in the occurrence of an accident or incident. Procedures to be specific and relevant to identified hazards. Measures to complement and be integrated with the Facility Emergency Response Plan(s) in place at site.
  - .2 Confirmation of the location of nearest fire alarm activation box and telephone.
  - .3 A map depicting the location of the nearest emergency medical facility.
  - .4 The location of emergency equipment and supplies including but not limited to first aid kits, emergency eye wash stations, spill kits/equipment and fire extinguishers. Including confirmation that equipment and supplies have been verified/certified for use.
  - .5 The names of all persons assigned responsibility by the Contractor as a first aid attendant at the project.
  - .6 An inventory listing the common name of all controlled products (WHMIS Products) that the Contractor knows or intends to bring to the project site. List to be updated as necessary as project proceeds.
  - .7 A copy of the Contractor's accident/incident investigation policy and incident and accident report form(s) to be used by the Contractor to document any incident or accident that might occur during the course of project work
  - .8 Communication procedures:
    - .1 List of names and telephone numbers of designated official(s), to be contacted should an incident or emergency situation occur, including the following:
      - .1 Contractor and all sub-contractors.
      - .2 Federal and Provincial departments and local emergency resources organizations, as applicable to the hazards

identified and type of accident or incident which might occur, in accordance with applicable laws and regulations.

- .2 Procedures implemented at site to communicate and share information between Contractor employees, sub-contractors, and the Contractor on work site activities, and in particular those which might endanger employees, facility occupants, and infrastructure users.
  - .3 The procedure to be followed by contract personnel to initiate emergency response by fire, police and medical personnel.
  - .4 Post a copy, including all updates, of the Health and Safety Plan in a common visible location at work site.
- .3 Provide one copy of the site-specific Health and Safety Plan to the DND Representative prior to commencement of work on the work site. The copy provided to the DND Representative is for the purpose of review against both Canada Labour Code Part II and the Canada Occupational Safety and Health Regulations made under Part II of the Canada Labour Code and the contract requirements related to the known hazardous substances and/or hazardous conditions.
- .4 Provide and maintain one copy of the site-specific Health and Safety Plan at the work site, in a location that is easily accessible by all Contractor employees, sub-contractor employees and any persons affected or potentially affected by the work of this contract.

#### **1.10 MINIMUM SITE SAFETY RULES**

- .1 Notwithstanding the requirement to abide by federal and provincial health and safety regulations, the following safety rules shall be considered minimum requirements at the work site and obeyed by all persons accessing the work site:
- .1 Wear PPE appropriate to the function and task while on the work site.
  - .2 Immediately report unsafe activities, conditions, near miss accidents, injuries and damages.
  - .3 Maintain the work site in a tidy condition.
  - .4 Obey warning signs and safety tags.

#### **1.11 ACCIDENT REPORTING**

- .1 Investigate and report incidents and accidents as required by Canada Labour Code Part II and Alberta Occupational Safety and Health Act, and the Regulations made pursuant to the Act.
- .2 For the purpose of this contract immediately investigate and provide a report to the DND Representative on incidents and accidents that involve:
- .1 A resulting injury that may or may not require medical aid but involves lost time at work by the injured person(s).

- .2 Exposure to toxic chemicals or substances.
- .3 Property damage.
- .4 Interruption to adjacent and/or integral infrastructure operations with potential loss implications.

**1.12 RECORDS ON SITE**

- .1 Maintain on site a copy of the safety documentation as specified in this section and any other safety related reports and documents issued to or received from the authorities having jurisdiction.
- .2 Upon request, make copies available to the DND Representative.

**END OF SECTION**

**Part 1            General**

**1.1            SECTION INCLUDES**

- .1      Field Engineering Geomatic/Civil services to measure and stake site.
- .2      Geomatic/Civil services to establish and confirm survey inverts for all layout & as-builts work.
- .3      Recording of subsurface conditions found.

**1.2            RELATED SECTIONS**

- .1      01 11 00 - Summary of Work.

**1.3            QUALIFICATIONS OF GEOMATIC/CIVIL PROFESSIONAL**

- .1      Qualified Geomatic/Civil Professional performing any survey work on Department of National Defence property and/or project shall hold one of the following designations: Technician, Technologist or Professional Engineer.
- .2      Certification requirement for Qualified Geomatic/Civil profession shall be obtain from recognized accredited College or University.
- .3      All Geomatic/Civil professional certifications shall be submitted to DND Representative prior to being granted site access.

**1.4            SURVEY SYSTEMS, EQUIPMENT & REFERENCE POINTS**

- .1      Contractor shall provide all Geomatic/Civil survey support services as required to layout/mark/as-built all work areas.
- .2      All as-builts (N, E, Elv.) to be collected prior to backfill on all exposed pipe, concrete, etc. All data collected shall have a tolerance of +/-30mm accuracy for Northing, Easting & Elevation.
- .3      Contractors shall use GPS (Global Position System) to collect all survey data. Acceptable GPS equipment: Leica, Trimble, Topcon, or equivalent GPS devices acceptable.
- .4      Contractor(s) use of Transit, Total Station & Builder Level to collect survey is acceptable when GPS signal is not available.
- .5      UTM/Zone 12N/NAD 83 coordinate system is employed at CFB Suffield and shall be the only coordinate data system accepted.
- .6      Contractor to confirm the Geoid System for elevations prior to commencement of work (GSD-95, CGVD2013, etc.) for vertical datum. All elevations shall be based on

Orthometric heights (Sea Level) & referenced to published control monuments in the CFB Suffield area.

- .7 Existing horizontal and vertical control points shall be confirmed by the contractor prior to work. Contractor to inform DND Representative of the control points that will be used to reference all as-built data.
- .8 Locate, confirm and protect control points prior to starting site work. Preserve permanent reference points during construction.
- .9 Make no changes or relocations without prior written notice to DND Representative.
- .10 Report to DND Representative when reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
- .11 Require surveyor to replace control points in accordance with original survey control.

## **1.5 SURVEY REQUIREMENTS**

- .1 Establish two permanent bench marks on site, referenced to established local bench marks points provide by DND Representative. Record locations, with horizontal and vertical data in Project Record Documents.
- .2 Establish lines and levels, locate and layout, by instrumentation.
- .3 Stake for grading, fill and topsoil placement and landscaping features.
- .4 Stake slopes, ditches, berms and general earthwork layout.
- .5 Establish pipe invert elevations.
- .6 Stake batter boards for foundations.
- .7 Provide T.O.C (Top of Concrete) elevations.
- .8 Establish foundation column locations and floor elevations.
- .9 Establish lines and levels for mechanical and electrical work.
- .10 Provide alignment for embedded plates, anchor bolts and general structure steel placements.

## **1.6 EXISTING SERVICES**

- .1 Before commencing work, establish location and extent of service lines in area of Work and notify DND Representative of findings.
- .2 HydroVAC shall be the only acceptable method to confirm and expose any existing underground utilities.

- .3 Remove abandoned service lines within 2 m of structures. Cap or otherwise seal lines at cut-off points as directed by DND Representative. Provide N, E, and Elevations for all piping end caps.

#### **1.7 LOCATION OF EQUIPMENT AND FIXTURES**

- .1 Location of equipment, fixtures and outlets indicated or specified are to be considered as approximate.
- .2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.
- .3 Inform DND Representative of impending installation and obtain approval for actual location.
- .4 Submit field drawings to indicate relative position of various services and equipment when required by DND Representative.

#### **1.8 RECORDS**

- .1 Maintain a complete, accurate log of control and survey work as it progresses.
- .2 On completion of foundations and major site improvements, prepare a certified survey showing dimensions, locations, angles and elevations of Work.
- .3 Record locations of maintained, re-routed and abandoned service lines.
- .4 All Survey data collected and native files remains the sole property of DND and shall be turnover at the end of contract with all relative as-built data.
- .5 All Survey native files including but not limited to GPS, Total Station, Level Notes, Excel, Job Files, AutoCAD, dxf, dtm, etc., are the property of DND and shall not be shared with any 3<sup>rd</sup> party without the written consent of DND.

#### **1.9 SUBMITTALS**

- .1 Submit name and address of Geomatic/Civil surveyor to DND Representative.
- .2 On request of DND Representative, submit documentation to verify accuracy of field engineering work.
- .3 Submit certificate signed by Geomatic/Civil surveyor certifying and noting those elevations and locations of completed Work that conform and do not conform to Contract Documents.
- .4 Contractor(s) shall provide all equipment calibration & maintenance certification(s) if requested by DND Representative within 7 business days.

#### **1.10 SUBSURFACE CONDITIONS**

- .1 Promptly notify DND Representative in writing if subsurface conditions at Place of Work differ materially from those indicated in Contract Documents, or a reasonable assumption of probable conditions based thereon.

- .2 After prompt investigation, should DND Representative determine that conditions do differ materially; instructions will be issued for changes in Work as provided in Changes and Change Orders.

**Part 2 Products**

**2.1 SURVEY EQUIPMENT**

- .1 Contractor(s) shall provide all equipment calibrations & maintenance certifications if requested by DND Representative within 7 business days.
- .2 Equipment calibrations & maintenance certifications will follow manufactures recommended scheduled service intervals.

**Part 3 Execution**

**3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**



**Part 1            General**

**1.1            SECTION INCLUDES**

- .1    Project cleaning.
- .2    Final cleaning.

**1.2            RELATED SECTION**

- .1    Section 01 74 19 - Waste Management and Disposal.
- .2    Section 01 77 00 - Closeout Procedures.

**1.3            PROJECT CLEANLINESS**

- .1    Maintain Work in tidy condition, free from accumulation of waste products and debris.
- .2    Remove waste materials from site at regularly scheduled times or dispose of as directed by DND Representative off site. Do not burn waste materials on site.
- .3    Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris off site.
- .4    Provide on-site containers for collection of waste materials and debris.
- .5    Provide and use clearly marked separate bins for recycling. Refer to Section 01 74 19 - Waste Management and Disposal.
- .6    Remove waste material and debris from site and deposit in waste container at end of each working day, off base site completely.
- .7    Dispose of waste materials and debris at designated dumping areas off Crown property.
- .8    Clean areas prior to start of finish work, and maintain areas free of dust and other contaminants during finishing operations.
- .9    Store volatile waste in approved covered metal containers, and remove from premises at end of each working day, off Crown property.
- .10   Provide adequate ventilation during use of volatile or noxious substances.
- .11   Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.

**1.4            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 and suitable for occupancy.
- .3    Prior to final review, remove surplus products, tools, construction machinery and equipment.
- .4    Remove waste products and debris off Crown property.

- .5 Remove waste materials from site at regularly scheduled times or dispose of off Crown property. Do not burn waste materials on site.
- .6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris, off Crown property.

**Part 2 Products**

**2.1 NOT USED**

- .1 Not Used.

**Part 3 Execution**

**3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**

**Part 1            General**

**1.1            WASTE MANAGEMENT GOALS**

- .1    Minimize the amount of solid waste (including land-clearing debris) generated by construction, renovation and demolition (CRD) activities.
- .2    Of the inevitable solid waste (including land-clearing debris) that is generated by CRD activities, divert more than 50% from landfill (through reuse and recycling).
- .3    Minimize amount of non-hazardous solid waste generated by project and accomplish maximum source reduction, reuse and recycling of solid waste produced by CRD activities.
- .4    Project the environnement and prevent environnemental pollution damage.

**1.2            RELATED REQUIREMENTS**

- .1    Section 01 35 43 Environmental Procedures.

**1.3            REFERENCE STANDARDS**

- .1    Canadian Construction Association (CCA)
  - .1        CCA 81-2001: A Best Practices Guide to Solid Waste Reduction.
  - .2        CCA 27-1997: A Guide on Construction Environmental Management Planning.
- .2    Public Works and Government Services Canada (PSPC)
  - .1        2002 National Construction, Renovation and Demolition Non-Hazardous Solid Waste Management Protocol.

**1.4            DEFINITIONS**

- .1    Approved/Authorized recycling facility: waste recycler approved by applicable provincial authority or other users of material for recycling approved by the DND Representative.
- .2    Construction, Renovation and/or Demolition (CRD) Waste: Class III solid, non-hazardous waste materials generated during construction, demolition, and/or renovation activities
- .3    Inert Fill: inert waste - exclusively asphalt and concrete.
- .4    Land-Clearing Debris: Waste materials resulting from land-clearing that include pre-existing development materials and plant matter, but do not include soil.
- .5    Reused Waste: Waste materials that are sent to a location off-site (e.g. another construction project or product supplier) where they are used in their original form (i.e. without additional processing).
- .6    Waste Source Separation Program (WSSP): implementation and co-ordination of ongoing activities to ensure designated waste materials will be sorted into pre-defined

categories and sent for recycling and reuse, maximizing diversion and potential to reduce disposal costs.

- .7 Recyclable: ability of product or material to be recovered at end of its life cycle and re-manufactured into new product for reuse.
- .8 Recycle: process by which waste and recyclable materials are transformed or collected for purpose of being transferred into new products.
- .9 Recycling: process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for purpose of using in altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- .10 Reuse: repeated use of product in same form but not necessarily for same purpose. Reuse includes:
  - .1 Salvaging reusable materials from re-modelling projects, before demolition stage, for resale, reuse on current project or for storage for use on future projects.
  - .2 Returning reusable items including pallets or unused products to vendors.
- .11 Salvage: removal of structural and non-structural materials from deconstruction/disassembly projects for purpose of reuse or recycling.
- .12 Separate Condition: refers to waste sorted into individual types.
- .13 Source Separation: act of keeping different types of waste materials separate beginning from the point they became waste.
- .14 Waste Diversion Report: detailed report of final results, quantifying cumulative weights and percentages of waste materials reused, recycled and landfilled over course of project.
- .15 Waste Management Co-ordinator (WMC): contractor representative responsible for supervising waste management activities as well as co-ordinating required submittal and reporting requirements.

## **1.5 DESCRIPTION OF WORK**

- .1 The site superintendent (or other person designated by the Contractor) shall be the Waste Management Co-ordinator responsible for all aspects of the WSSP and Waste Management and Disposal for the Work
- .2 Identify, implement and document measures to achieve the waste management objectives listed above.
- .3 Waste Management and Disposal activities shall include:
  - .1 Arranging waste management service agreements with waste haulers and waste receiving facilities.
  - .2 Supervising on-site waste management activities on a daily basis.
  - .3 Coordinating waste management tasks with subcontractors to ensure timely and orderly progress of the work.
  - .4 Preparing waste management documentation and submittals to summarize all shipments of waste materials from the project site.

- .5 Reporting waste management progress to the DND Representative.

## **1.6 DOCUMENTS**

- .1 Post and maintain in visible and accessible area at job site, one copy of following documents:
  - .1 Schedule W1 – Proposed Receiving Facilities.
  - .2 Schedule W2 – Waste Tracking Worksheet.
  - .3 Waste Diversion Report.

## **1.7 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures and 01 78 00 Closeout Submittals. 1 paper and 1 electronic copy in Pdf of the following documents;
- .2 Schedule W1 – Proposed Receiving Facilities
  - .1 List the proposed receiving facilities for each material identified in paragraph 3.2.1 in addition to material sent to offsite landfill. Indicate the material(s) that will be accepted by each facility and whether the material(s) will be reused, recycled or sent to landfill.
  - .2 Submit completed schedule to the DND Representative within 14 days after site mobilization.
- .3 Schedule W2 - Waste Tracking Worksheet
  - .1 Obtain waybills, invoices, letters and other documentation that clearly indicates the receiving facility, end use (reused, recycled or landfill) and quantity of waste for each shipment of waste generated on the project site. Record each shipment using the Waste Tracking Worksheet.
  - .2 Submit an up-to-date copy of the Waste Tracking Worksheet and waybills, invoices, letters and other documentation to the DND Representative on a monthly basis.
- .4 Waste Diversion Reports
  - .1 Submit monthly and a final report to the DND Representative (after substantial completion and prior to demobilization) that contains the final versions of the following:
    - .1 Waste Tracking Worksheet(s)
    - .2 Waybills, invoices, letters and other documentation supporting each shipment listed in the Waste Tracking Worksheet clearly indicating the types of waste, quantities of waste, end use of waste and receiving facilities.

## **1.8 WASTE SOURCE SEPARATION PROGRAM (WSSP)**

- .1 Prepare WSSP prior to project start-up.

- .2 WSSP will detail the methodology and planned on-site activities for separation of reusable and recyclable materials from waste intended for landfill.
- .3 Provide list and drawings of locations that will be made available for sorting, collection, handling and storage of anticipated quantities of reusable and recyclable materials.
- .4 Provide sufficient on-site facilities and containers for collection, handling, and storage of anticipated quantities of reusable and recyclable materials.
- .5 Locate containers to facilitate deposit of materials without hindering daily operations.
- .6 Provide training for workers, sub-contractors in handling and separation of materials for reuse and/or recycling.
- .7 Locate separated materials in areas which minimizes material damage.
- .8 Clearly and securely label containers to identify types/conditions of materials accepted and assist sub-contractors and workers in separating materials accordingly.
- .9 Monitor on-site waste management activities by conducting periodic site inspections to verify: state of signage, contamination levels, bin locations and condition, personnel participation, use of waste tracking forms and collection of waybills, receipts and invoices.
- .10 On-site sale of salvaged materials is not permitted unless authorized in writing by DND Representative and provided that site safety regulations and security requirements are adhered to.

#### **1.9 WASTE PROCESSING SITES**

- .1 Contractor is responsible to research and locate waste diversion resources and service providers. Salvaged materials are to be transported off site to approved and/or authorized recycling facilities or to users of material for recycling.

#### **1.10 QUALITY ASSURANCE**

- .1 After award of Contract, a mandatory site examination will be held for this contract for Contractor responsible for construction, renovation demolition/deconstruction waste management.
  - .1 Date, time and location will be arranged by DND Representative.
- .2 Waste Management Meeting: Waste Management Co-ordinator is to provide an update on status of waste diversion and management activities at each meeting. Written monthly Waste Diversion Report summary to be provided by Waste Management Coordinator.

#### **1.11 STORAGE, HANDLING AND PROTECTION**

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

- .5 Protect structural components not removed and salvaged materials from movement or damage.
- .6 Support affected structures. If safety of building is endangered, cease operations and immediately notify DND Representative.
- .7 Protect surface drainage, mechanical and electrical from damage and blockage.
- .8 Provide on-site facilities and containers for collection and storage of reusable and recyclable materials.
- .9 Separate and store materials produced during project in designated areas.
- .10 Prevent contamination of materials to be salvaged and recycled and handle materials in accordance with requirements for acceptance by designated processing facilities.
  - .1 On-site source separation is recommended.
  - .2 Remove co-mingled materials to off-site processing facility for separation.
  - .3 Obtain waybills, receipts and/or scale tickets for separated materials removed from site.
  - .4 Materials reused on-site are considered to be diverted from landfill and as such are to be included in all reporting.

#### **1.12 DISPOSAL OF WASTES**

- .1 Do not bury or rubbish or waste materials.
- .2 Do not dispose of materials into waterways, storm, or sanitary sewers.
- .3 Keep records of construction waste including:
  - .1 Number and size of bins.
  - .2 Waste type of each bin.
  - .3 Total tonnage generated.
  - .4 Tonnage reused or recycled.
  - .5 Reused or recycled waste destination.
- .4 Remove materials on-site as Work progresses.

#### **1.13 SCHEDULING**

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

### **Part 2 Products**

#### **2.1 NOT USED**

- .1 Not Used.

**Part 3 Execution**

**3.1 APPLICATION**

- .1 Handle waste materials not reused, salvaged, or recycled in accordance with appropriate regulations and codes.
- .2 Encourage suppliers and subcontractors to retrieve/retain packaging (e.g. skids, plastic wrap, etc.) for reuse.
  - .1 Suppliers and sub-contractors must provide a letter stating the item(s) will be reused and documenting the quantity removed from the site.
- .3 Prevent damage of materials due to mishandling, improper storage, and contamination.
- .4 Where possible, use prefabricated assemblies built at a central facility to avoid waste generation at the site.

**3.2 PROCEDURES**

- .1 Waste Diversion
  - .1 Contact local salvaging/recycling facilities and arrange for recycling/reuse services. At a minimum, the proposed facilities must recycle/reuse the following waste materials that will be generated throughout construction:
    - .1 Land clearing debris
    - .2 Asphalt
    - .3 Concrete / masonry / stone
    - .4 Steel and other metals
    - .5 Wood (see note below)
    - .6 Gypsum
    - .7 Cardboard
    - .8 Plastic
    - .9 “Blue Box” waste

Note:

Use of material as landfill cover is not considered as recycling or reuse.

Incineration of wood waste on or off site is not considered as a waste diversion measure. Please note that burning of clean wood to generate district or industrial process heat and/or electricity is considered appropriate diversion methodology from the landfill.

Recommended measures for recycling/reusing wood include encouraging suppliers to reuse wood pallets, sending wood pallets to pallet recycling companies and converting waste wood into landscaping mulch.

- .2 Provide the DND Representative with a list of the proposed receiving facilities within 14 days after site mobilization using Schedule W1 – Proposed Receiving Facilities (as per 1.7).



- .3 Designate a central Waste Collection Area onsite that is dedicated to the separation and storage of all waste generated during construction.
- .4 Provide containers in the Waste Collection Area that are sized to accommodate the separation and storage of expected waste types and quantities. Provide separate containers for each of the following material types:
  - .3 Land clearing debris
  - .4 Asphalt
  - .5 Concrete / masonry / stone
  - .6 Steel and other metals
  - .7 Wood
  - .8 Gypsum
  - .9 Cardboard
  - .10 Plastic
  - .11 “Blue Box” waste
  - .12 Mixed waste
  - .11 Other types (as required by salvaging/ recycling facilities)
- .5 Clearly indicate the material type being stored in each container using appropriate signage and ensure containers can be secured to prevent waste from blowing out.
- .6 All subcontractors shall use the containers provided in Waste Collection Area.
- .7 In the event that a sub-contractor is unable to use these containers, or wishes to use a waste material on future projects (e.g. rubble for road base), the sub-contractor must provide waybills, invoices, letters and other documentation that clearly indicates the receiving facility, end use (reused, recycled or landfill) and quantity of waste in each shipment.
  - .1 Follow the salvaging/recycling facilities’ material acceptance requirements to ensure materials are properly sorted, grouped, and packaged for collection.
  - .2 Provide “Blue Box” recycling bins near the construction trailer for recycling waste generated by site workers and visitors. Waste deposited in these bins shall include the following, or adhere to the local recycling program:
    - .1 Aluminum food or beverage cans
    - .2 Glass bottles and jars for food or beverage
    - .3 PET bottles for food or beverages
    - .4 Steel food or beverage cans
    - .5 Cardboard and paper products
- .9 Waste Tracking
  - .1 Coordinate delivery of separated materials to approved salvage or recycling facilities.

- .2 Record all waste shipments using Schedule W2 - Waste Tracking Worksheet as per 1.7.3
- .3 Retain waybills, invoices, letters and other documentation for inclusion in Final Waste Diversion Report (as per 1.7.4).

### **3.3 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment

### **3.4 WASTE DIVERSION REPORT**

- .1 At completion of Project, prepare written Waste Diversion Report indicating quantities of materials reused, recycled or disposed of.

### **3.5 INSPECTIONS AND MAINTENANCE**

- .1 Conduct daily inspections of containers to check for and remedy cross-contamination
- .2 Promptly transport containers to receiving facilities when containers are full.
- .3 Ensure the material type is clearly labeled on each container.

**SCHEDULE W1 – PROPOSED RECEIVING FACILITIES**  
(Submit to the DND Representative within 14 days after site mobilization)

<b>Project Name:</b>		<b>Completed By:</b>	
<b>Project Location:</b>		<b>Company:</b>	

At a minimum, the proposed facilities must recycle/reuse the waste materials identified in paragraph 3.2.1.1

Material Type	Proposed Receiving Facility		
	Name	Material End Use	Phone Number
Wood Formwork	Wood Recycling Inc. (Waterloo, Ontario)	<input type="checkbox"/> Recycled/Reused <input type="radio"/> Sent to Landfill	519-743-8697
		<input type="radio"/> Recycled/Reused <input type="radio"/> Sent to Landfill	
		<input type="radio"/> Recycled/Reused <input type="radio"/> Sent to Landfill	
		<input type="radio"/> Recycled/Reused <input type="radio"/> Sent to Landfill	
		<input type="radio"/> Recycled/Reused <input type="radio"/> Sent to Landfill	
		<input type="radio"/> Recycled/Reused <input type="radio"/> Sent to Landfill	
		<input type="radio"/> Recycled/Reused <input type="radio"/> Sent to Landfill	

I hereby certify that the information provided is complete and correct:

\_\_\_\_\_  
Signature of Authorized Official

\_\_\_\_\_  
Position

\_\_\_\_\_  
Date

### SCHEDULE W2 – WASTE TRACKING WORKSHEET

(Submit most recent copy to the DND Representative on a monthly basis)

<b>Project Name:</b>		<b>Completed By:</b>	
<b>Project Location:</b>		<b>Company:</b>	

Material Type Legend		
Land Clearing Debris	Asphalt	Concrete / Masonry / Stone
Steel and Other Metals	Wood	Gypsum
Cardboard	Plastic	"Blue Box" Waste
Mixed Waste	Other (specify)	

#	Shipment Date	Material Type	Amount of Material (metric tonnes)		Receiving Facility Name	Waybill Number
			Reused or Recycled	Landfill		
Ex.	2006-09-12	Gypsum	4.0	0.0	Acme Recycling Inc.	05-1234

I hereby certify that the information provided is complete and correct:

_____ Signature of Authorized Official	_____ Position	_____ Date
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CFB Suffield

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WASTE MANAGEMENT AND DISPOSAL  
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**END OF SECTION**

**Part 1 General**

**1.1 SECTION INCLUDES**

- .1 Administrative procedures preceding preliminary and final inspections of Work.

**1.2 RELATED SECTIONS**

- .1 Section 01 78 00 - Closeout Submittals.

**1.3 INSPECTION AND DECLARATION**

- .1 **Contractor's Inspection:** Contractor and all Subcontractors shall conduct an inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
  - .1 Notify DND Representative in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.
  - .2 Request DND Representative's Inspection.
- .2 **DND Representative's Inspection:** DND Representative and Contractor will perform inspection of Work to identify obvious defects or deficiencies. Contractor shall correct Work accordingly.
- .3 Completion: submit written certificate that following have been performed:
  - .1 Work has been completed and inspected for compliance with Contract Documents.
  - .2 Defects have been corrected and deficiencies have been completed.
  - .3 Equipment and systems have been tested, adjusted and balanced and are fully operational.
  - .4 Certificates required by the Base Fire Chief have been submitted.
  - .5 Operation of building systems have been demonstrated to Owner's personnel.
  - .6 Work is complete and ready for Final Inspection.
- .4 **Final Inspection:** when items noted above are completed, request final inspection of Work by DND Representatives and Contractor. If the work is deemed incomplete by the DND Representative, complete outstanding items and request re-inspection.

**Part 2 Products**

**2.1 NOT USED**

- .1 Not Used.

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Section 01 77 00  
CLOSEOUT PROCEDURES  
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**Part 3**            **Execution**  
**3.1**               **NOT USED**  
          .1        Not Used.

**END OF SECTION**

**Part 1            General**

**1.1            SECTION INCLUDES**

- .1      As-built, samples, and specifications.
- .2      Equipment and systems.
- .3      Product data, materials and finishes, and related information.
- .4      Operation and maintenance data.
- .5      Spare parts, special tools and maintenance materials.
- .6      Warranties and bonds.
- .7      Final site survey.

**1.2            RELATED SECTIONS**

- .1      Section 01 45 00 - Quality Control.
- .2      Section 01 77 00 - Closeout Procedures.

**1.3            SUBMISSION**

- .1      Prepare instructions and data using personnel experienced in maintenance and operation of described products.
- .2      Copy will be returned after final inspection, with DND Representative comments.
- .3      Revise content of documents as required prior to final submittal.
- .4      Two weeks prior to Substantial Performance of the Work, submit to the DND Representative, Three final copies of Operating and Maintenance Manuals in English.
- .5      Ensure spare parts, maintenance materials and special tools provided are new, undamaged or defective, and of same quality and manufacture as products provided in Work.
- .6      If requested, furnish evidence as to type, source and quality of products provided.
- .7      Defective products will be rejected, regardless of previous inspections. Replace products at own expense.
- .8      Submit a complete set of actual recorded construction (as-built) drawings (as mentioned in 1.6 and 1.7) to the DND Representative within 3 weeks after substantial completion.

**1.4            FORMAT**

- .1      Organize data in the form of an instructional manuals, 2 paper copies and one e-copy in PDF on a CD.
- .2      **O & M Binders:** vinyl, hard covered, 3 'D' ring, loose leaf 219 x 279 mm with spine and face pockets.



- .3 When multiple binders are used, correlate data into related consistent groupings. Identify contents of each binder on spine.
- .4 **Cover:** Identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.
- .5 Arrange content by systems, under Section numbers and sequence of Table of Contents.
- .6 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .7 **Text:** Manufacturer's printed data, or typewritten data.
- .8 **Drawings:** provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

## 1.5 CONTENTS - EACH VOLUME

- .1 **Table of Contents:** provide title of project;
  - .1 Date of submission; names,
  - .2 Addresses, and telephone numbers of Consultant and Contractor with name of responsible parties;
  - .3 Schedule of products and systems, indexed to content of volume.
- .2 For each product or system:
  - .1 List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- .3 **Product Data:** mark each sheet to clearly identify specific products and component parts, and data applicable to installation; delete inapplicable information.  
**Drawings:** supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
- .4 **Typewritten Text:** as required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified in Section 01 45 00 - Quality Control.

## 1.6 AS-BUILTS AND SAMPLES

- .1 In addition to requirements in General Conditions, maintain at the site for DND Representative one record copy of:
  - .1 Contract Drawings.
  - .2 Specifications.
  - .3 Addenda.
  - .4 Change Orders and other modifications to the Contract.
  - .5 Reviewed shop drawings, product data, and samples.
  - .6 Field test records.
  - .7 Inspection certificates.

- .8 Manufacturer's certificates.
- .2 Store record documents and samples in field office apart from documents used for construction. Provide files, racks, and secure storage.
- .3 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.

## 1.7 RECORDING ACTUAL SITE CONDITIONS

- .1 **Project Records:** Record information on a set of black line opaque drawings, provided by the DND Representative and in copy of Project Manual.
- .2 Provide felt tip marking pens, maintaining separate colours for each major system, for recording information.
- .3 Record information concurrently with construction progress. Do not conceal Work until required information is recorded.
- .4 **Contract Drawings and Shop drawings:** legibly mark each item to record actual construction, including:
  - .1 Measured depths of elements of foundation in relation to finish first floor datum.
  - .2 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements and provide GPS reference points where applicable.
  - .3 Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
  - .4 Field changes of dimension and detail.
  - .5 Changes made by change orders.
  - .6 Details that are not shown on the original Contract Drawings.
  - .7 Refer to related shop drawings and modifications.
- .5 **Specifications:** legibly mark each item to record actual construction, including:
  - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
  - .2 Changes made by Addenda and change orders.
- .6 **Other Documents:** maintain field test records, required by individual specifications sections. Complete and submit DND Equipment Master Record (EMR) forms for removed and new major pieces of equipment. DND Representative to provide blank EMR template forms.

## 1.8 EQUIPMENT AND SYSTEMS

- .1 **Each Item of Equipment and Each System:** include description of unit or system, and component parts. Give function, normal operation characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.

- .1 Complete and submit DND Equipment Master Record (EMR) forms for removed and new major pieces of equipment. DND Representative to provide blank EMR template forms.
- .2 **Panel board circuit directories:** provide electrical service characteristics, controls, and communications.
- .3 Include installed colour coded wiring diagrams.
- .4 **Operating Procedures:** include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- .5 **Maintenance Requirements:** include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- .6 Provide servicing and lubrication schedule, and list of lubricants required.
- .7 Include manufacturer's printed operation and maintenance instructions.
- .8 Include sequence of operation by controls manufacturer.
- .9 Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- .10 Provide installed control diagrams by controls manufacturer.
- .11 Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- .12 Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- .13 Include test and balancing reports as specified in Section 01 45 00 - Quality Control
- .14 Provide equipment inventory data sheets completed for major systems recorded and submitted.
- .15 **Additional requirements:** As specified in individual specification sections.

## 1.9 MATERIALS AND FINISHES

- .1 **Building Products, Applied Materials, and Finishes:** include product data, with catalogue number, size, composition, and colour and texture designations.
- .2 **Instructions for cleaning agents and methods:** precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .3 **Moisture-protection and Weather-exposed Products:** include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .4 **Additional Requirements:** as specified in individual specifications sections.

## 1.10 SPARE PARTS

- .1 Provide spare parts, in quantities specified in individual specification sections.

- .2 Provide items of same manufacture and quality as items in Work.
- .3 Deliver to location as directed; place and store.
- .4 Receive and catalogue all items. Submit inventory listing to DND Representative. Include approved listings in Maintenance Manual.
- .5 Obtain receipt for delivered products and submit prior to final payment.

**1.11 MAINTENANCE MATERIALS**

- .1 Provide maintenance and extra materials, in quantities specified in individual specification sections.
- .2 Provide items of same manufacture and quality as items in Work.
- .3 Deliver to location as directed; place and store.
- .4 Receive and catalogue all items. Submit inventory listing to DND Representative. Include approved listings in Maintenance Manual.
- .5 Obtain receipt for delivered products and submit prior to final payment.

**1.12 SPECIAL TOOLS**

- .1 Provide special tools, in quantities specified in individual specification section.
- .2 Provide items with tags identifying their associated function and equipment.
- .3 Deliver to location as directed; place and store.
- .4 Receive and catalogue all items. Submit inventory listing to DND Representative. Include approved listings in Maintenance Manual. Use provided DND form to list and record equipment.

**1.13 STORAGE, HANDLING AND PROTECTION**

- .1 Store spare parts, maintenance materials and special tools in manner to prevent damage or deterioration.
- .2 Store in original and undamaged condition with manufacturer's seal and labels intact.
- .3 Store components subject to damage from weather in weatherproof enclosures.
- .4 Store paints and freezable materials in a heated and ventilated room.
- .5 Remove and replace damaged products at own expense and to satisfaction DND Representative.

**1.14 WARRANTIES AND BONDS**

- .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
- .2 List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
- .3 Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work.

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- .4 Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial Performance is determined.
- .5 Verify that documents are in proper form, contain full information, and are notarized.
- .6 Co-execute submittals when required.
- .7 Retain warranties and bonds until time specified for submittal.

**Part 2 Products**

**2.1 NOT USED**

**Part 3 Execution**

**3.1 NOT USED**

**END OF SECTION**

**Part 1            General**

**1.1            PROTECTION**

- .1      Prevent movement, settlement, or other damage to adjacent structures and utilities to remain in place
- .2      Keep noise, dust, and inconvenience to occupants to minimum.
- .3      Protect building systems, services and equipment.
- .4      Protect existing items designated to remain and materials designated for salvage.
- .5      In event of damage to such items, immediately replace or make repairs to approval of DND Representative and at no cost to Crown.

**1.2            MEASUREMENT FOR PAYMENT**

- .1      Removal of asphaltic concrete pavement will be measured in square metres.
- .2      Removal of base and sub base pavement materials will be measured in cubic metres in place.
- .3      Payment for salvage, stockpiling, disposal, excavation and restoration will be included in above removal items.

**1.3            NOTICE**

- .1      Notify DND Representative before disrupting building access or services.

**Part 2           Products**

**2.1            NOT USED**

- .1      Not Used.

**Part 3           Execution**

**3.1            PREPARATION**

- .1      Inspect site and verify with DND Representative items designated for removal and items to remain.
- .2      Locate and protect utility lines. Preserve in operating condition active utilities traversing site.
- .3      Valid digging permit must be obtained and on site before starting demolition.

**3.2            REMOVAL**

- .1      Remove items as indicated.
- .2      Failed areas shall be excavated until the sub grade is exposed.
- .3      Excavation shall include excavating any organic or unsatisfactory material below sub grade.

- .4 Do not disturb adjacent items designated to remain in place.
- .5 All loose material, over the areas requested by the DND Representative, shall be removed and disposed of.
- .6 In removal of payment:
  - .1 Square up adjacent surfaces to remain in place by saw cutting or other method approved by DND Representative.
  - .2 Protect adjacent joints and load transfer devices.
  - .3 Protect underlying granular materials.

### **3.3 SALVAGE**

- .1 Carefully dismantle items containing materials for salvage and stockpile salvaged materials at locations as directed by DND Representative.

### **3.4 DISPOSAL OF MATERIAL**

- .1 Dispose of materials not designated for salvage or re-use in work, in area approved by the DND Representative.

### **3.5 RESTORATION**

- .1 Restore areas and existing works outside areas of demolition to match condition of adjacent, undisturbed areas.

### **3.6 SITE CLEAN UP**

- .1 Upon completion of work, remove debris, trim surfaces and leave work site clean.

**END OF SECTION**

**Part 1 General**

**1.1 RELATED REQUIREMENTS**

- .1 Division 01 – General Requirements

**1.2 REFERENCE STANDARDS**

- .1 Canadian Standards Association (CSA International)
  - .1 CSA-A23.1-[04] /A23.2-[04], Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
  - .2 CSA-O86S1-[05], Supplement No. 1 to CAN/CSA-O86-01, Engineering Design in Wood.
  - .3 CSA O121-[M1978 (R2003)], Douglas Fir Plywood.
  - .4 CSA O151-[04], Canadian Softwood Plywood.
  - .5 CSA O153-[M1980 (R2003)], Poplar Plywood.
  - .6 CAN/CSA-O325.0-[92 (R2003)], Construction Sheathing.
  - .7 CSA O437 Series-[93 (R2006)], Standards for OSB and Waferboard.
  - .8 CSA S269.1-[1975 (R2003)], Falsework for Construction Purposes.
  - .9 CAN/CSA-S269.3-[M92 (R2003)], Concrete Formwork, National Standard of Canada
- .2 Underwriters' Laboratories of Canada (ULC)
  - .1 CAN/ULC-S701-[05], Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit shop drawings for formwork and falsework.
  - .1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Alberta, Canada.
- .3 Submit WHMIS MSDS - Material Safety Data Sheets in accordance with Section 01 33 00 – submittal Procedures, Section 01 35 45- CFB Suffield health and safety
- .4 Indicate formwork design data: permissible rate of concrete placement, and temperature of concrete, in forms.

**1.4 DELIVERY, STORAGE AND HANDLING**

- .1 Store and manage hazardous materials in accordance with Section [01 47 15 - Sustainable Requirements: Construction].
- .2 Waste Management and Disposal:
  - .1 Separate waste materials for [recycling] [reuse] in accordance with Section [01 47 21 - Construction/Demolition Waste Management and Disposal].



- .2 Place materials defined as hazardous or toxic in designated containers.
- .3 Divert wood materials from landfill to a commercially approved recycling facility.
- .4 Divert plastic materials from landfill to a commercially approved recycling facility.
- .5 Divert unused form release material from landfill to a commercially approved recycling facility.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Formwork materials:
  - .1 For concrete without special architectural features, use wood and wood product formwork materials to all, CSA-O121, CSA-O153, [CSA O437 Series and CAN/CSA-O86.
  - .2 For concrete with special architectural features, use formwork materials to CSA-A23.1/A23.2.
  - .3 Rigid insulation board: to CAN/ULC-S701.
- .2 Pan forms: removable steel or aluminum.
- .3 Form ties:
  - .1 For concrete not designated 'Architectural', use removable or snap-off metal ties, fixed or adjustable length, free of devices leaving holes larger than 25 mm diameter in concrete surface.
  - .2 For Architectural concrete, use snap ties complete with plastic cones and light grey concrete plugs.
- .4 Form liner:
- .5 Form release agent: non-toxic, biodegradable, low VOC.
- .6 Form stripping agent: colourless mineral oil, low VOC, non-toxic, biodegradable,] free of kerosene, with viscosity between 15 to 24 mm<sup>2</sup>/s]70 and 110s Saybolt Universal at 40 degrees C, flashpoint minimum 150 degrees C, open cup.
- .7 Sealant: to Section [07 92 00 - Joint Sealants].

## **Part 3 Execution**

### **3.1 FABRICATION AND ERECTION**

- .1 Verify lines, levels and centres before proceeding with formwork/falsework and ensure dimensions agree with drawings.
- .2 Hand trim sides and bottoms and remove loose earth from earth forms before placing concrete.
- .3 Fabricate and erect falsework in accordance with CSA S269.1.

- .4 Refer to architectural drawings for concrete members requiring architectural exposed finishes.
- .5 Do not place shores and mud sills on frozen ground.
- .6 Provide site drainage to prevent washout of soil supporting mud sills and shores.
- .7 Fabricate and erect formwork in accordance with CAN/CSA-S269.3 to produce finished concrete conforming to shape, dimensions, locations and levels indicated within tolerances required by CSA-A23.1/A23.2.
- .8 Align form joints and make watertight.
- .9 Keep form joints to minimum.
- .10 Locate horizontal form joints for exposed columns 2400 mm above finished floor elevation.
- .11 Use 25 mm chamfer strips on external corners and/or 25 mm fillets at interior corners, joints, unless specified otherwise.
- .12 Form chases, slots, openings, drips, recesses, expansion and control joints as indicated.
- .13 Construct forms for architectural concrete, and place ties [as indicated] [as directed].
  - .1 Joint pattern not necessarily based on using standard size panels or maximum permissible spacing of ties.
- .14 Build in anchors, sleeves, and other inserts required to accommodate Work specified in other sections.
  - .1 Ensure that anchors and inserts will not protrude beyond surfaces designated to receive applied finishes, including painting.
- .15 Clean formwork in accordance with CSA-A23.1/A23.2, before placing concrete.
- .16 When [flying forms] [slip forming] are used, submit details as indicated in PART 1 - SUBMITTALS.

### **3.2 REMOVAL AND RESHORING**

- .1 Leave formwork in place for following minimum periods of time after placing concrete.
  - .1 3 days for walls and sides of beams.
  - .2 7 days for columns.
  - .3 7 days for beam soffits, slabs, decks and other structural members, or 7 days when replaced immediately with adequate shoring to standard specified for falsework.
  - .4 3 days for footings and abutments.
- .2 Remove formwork when concrete has reached 65 % of its design strength or minimum period noted above, whichever comes later, and replace immediately with adequate reshoring.
- .3 Provide necessary reshoring of members where early removal of forms may be required or where members may be subjected to additional loads during construction as required.
- .4 Space reshoring in each principal direction at not more than [3000] mm apart.
- .5 Re-use formwork and falsework subject to requirements of CSA-A23.1/A23.2.

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**END OF SECTION**

**Part 1        General**

**1.1        RELATED SECTIONS**

- .1        Division 01 – General Requirements.

**1.2        REFERENCES**

- .1        The latest adopted version of:
  - .1        American Society for Testing and Materials International, (ASTM)
    - .1        ASTM D412-15a, Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension.
    - .2        ASTM D624-00(R2012), Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
    - .3        ASTM D1737-85, Standard Test Method for Elongation of Attached Organic Coatings with Cylindrical Mandrel Apparatus.
    - .4        ASTM D2240-15, Standard Test Method for Rubber Property – Durometer Hardness.
    - .5        ASTM D6040-12, Standard Test Methods for Unsintered Polytetrafluoroethylene (PTFE) Extruded Film or Tape.
    - .6        ASTM D6690-15, Standard Specification for Joint Sealants, Hot-Applied for Concrete and Asphalt Pavements.
    - .7        ASTM D7116-16 Standard Specification for Joint Sealants, Hot Applied, Jet Fuel Resistant Types, for Portland Cement Concrete Pavements.
  - .2        Department of Justice Canada (Jus)
    - .1        Canadian Environmental Protection Act, 1999 (CEPA).
  - .3        Health Canada/Workplace Hazardous Materials Information System (WHMIS)
    - .1        Material Safety Data Sheets (MSDS).
  - .4        Transport Canada (TC)
    - .1        Transportation of Dangerous Goods Act, 1992 (TDGA).

**1.3        SUBMITTALS**

- .1        Submit product data in accordance with Section 01 33 00 - Submittal Procedures.
- .2        Manufacturer's product to describe.
  - .1        Caulking compound.
  - .2        Primers, if required.
  - .3        Sealing compound, each type, including compatibility when different sealants are in contact with each other.
- .3        Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
- .4        Submit duplicate samples of each type of material and colour.

- .5 Submit manufacturer's instructions in accordance with Section 01 33 00 - Submittal Procedures.

- .1 Instructions to include installation instructions for each product used.

#### **1.4 DELIVERY, STORAGE, AND HANDLING**

- .1 Deliver and store materials in original wrappings and containers with manufacturer's seals and labels, intact. Protect from freezing, moisture, water and contact with ground or floor.

#### **1.5 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 19 – Waste Management and Disposal.
- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal paper, plastic, polystyrene, corrugated cardboard and packaging material in appropriate contractor supplied on-site bins to be remove off site when full or work is complete.
- .4 Place materials defined as hazardous or toxic in designated containers supplied by contractor.
- .5 Handle and dispose of hazardous materials off site in accordance with the CEPA, TDGA, Regional and Municipal regulations.
- .6 Unused sealant material must not be disposed of into sewer system, into streams, lakes, onto ground or in other location where it will pose health or environmental hazard.
- .7 Divert unused joint sealing material from landfill to official hazardous material collections site off base.
- .8 Empty plastic joint sealer containers that are not recyclable. Do not dispose of empty containers with plastic materials destined for recycling.
- .9 Fold up metal banding, flatten, and place in designated area for recycling. Remove off site when for each work job is complete.

#### **1.6 PROJECT CONDITIONS**

- .1 Environmental Limitations:
  - .1 Do not proceed with installation of joint sealants under following conditions:
  - .2 When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 4.4°C.
  - .3 When joint substrates are wet.
- .2 Joint-Width Conditions:
  - .1 Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.
- .3 Joint-Substrate Conditions:
  - .1 Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

- .2 Do not apply joint sealants if concrete curing is not sufficiently complete or concrete strength has not developed enough to prevent sealant compound from tearing the concrete.

## **1.7 ENVIRONMENTAL REQUIREMENTS**

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of Safety Data Sheets (SDS) acceptable to Labour Canada.
- .2 Conform to manufacturer's recommended temperatures, relative humidity, and substrate moisture content for application and curing of sealants including special conditions governing use.

## **Part 2 Products**

### **2.1 SEALANT MATERIALS**

- .1 Where sealants are required to be used with primers use only the listed primers.

### **2.2 SEALANT MATERIAL DESIGNATIONS**

- .1 One Part, Hot Applied Oil Based Polymeric:
  - .1 Self-Levelling to ASTM D7116, Type III. (Fuel resistant)
  - .2 Self-Levelling to ASTM D6690, Type I, II, III.
- .2 Composed of 100% virgin polymer, asphalt plasticizers and inert, reinforcing fillers.
  - .1 Penetration: Less than 0.90 cm.
  - .2 Flow: Less than 0.3 cm.
  - .3 Bond: Passed 100% extension @ -17°C. Passed 50% extension @ -29°C.
  - .4 Resiliency: More than 60%
  - .5 Designed:
    - .1 Produce tough long lasting dependable joint seals.
    - .2 Provide excellent cohesive and adhesive quantities.
    - .3 To resist degradation from weathering.
    - .4 To remain ductile and resilient at low temperatures.
    - .5 Not to flow or migrate at temperatures up to 60°C.
- .3 Urethanes One Part.
  - .1 Non-Sag to CAN/CGSB-19.24, Type 2, MCG-2-25
- .4 Preformed Compressible and Non-Compressible back-up materials.
  - .1 Polyethylene, Urethane, Neoprene or Vinyl Foam.
    - .1 Extruded closed cell foam backer rod.
    - .2 Size: oversize 30 to 50 %.

- .5 Bond Breaker Tape.
  - .1 Polyethylene bond breaker tape which will not bond to sealant.

### **2.3 SEALANT SELECTION**

- .1 Asphalt joints / Cracks repair
  - .1 One Part, Hot Applied Oil Based Polymeric Self-Levelling to ASTM D6690
- .2 Exterior joints in horizontal concrete surfaces (as itemized):
  - .1 Hard stand joint Sealant type: one part hot-applied oil based polymeric Fuel resistant material
  - .2 Joints between concrete slabs and building foundations or bollards use one part Urethane sealant.

### **2.4 JOINT CLEANER**

- .1 Non-corrosive and non-staining type, compatible with joint forming materials and sealant recommended by sealant manufacturer.
- .2 Primer: as recommended by manufacturer.

## **Part 3 Execution**

### **3.1 PROTECTION**

- .1 Protect installed Work of other trades from staining or contamination.

### **3.2 SURFACE PREPARATION**

- .1 Prepare surfaces in accordance with manufacturer's directions and following:
  - .1 Examine joint sizes and conditions to establish correct depth to width relationship for installation of backup materials and sealants.
  - .2 Clean bonding joint surfaces of harmful matter substances including dust, rust, oil grease, and other matter which may impair Work.
  - .3 Do not apply sealants to joint surfaces treated with sealer, curing compound, water repellent, or other coatings unless tests have been performed to ensure compatibility of materials. Remove coatings as required.
  - .4 Ensure joint surfaces are dry and frost free.

### **3.3 PRIMING**

- .1 Prime sides of joints in accordance with sealant manufacturer's instructions immediately prior to seal application.

### **3.4 BACKUP MATERIAL**

- .1 Install joint sealants to achieve correct joint depth and shape, with approximately 30% compression.

**3.5 MIXING AND HEATING**

- .1 Mix and heat material in strict accordance with sealant manufacturer's instructions.

**3.6 APPLICATION**

- .1 Sealant.
  - .1 Apply sealant in accordance with manufacturer's written instructions.
  - .2 Apply sealant in continuous beads.
  - .3 Apply sealant using gun with proper size nozzle.
  - .4 Use sufficient pressure and heat to fill voids and joints solid.
  - .5 Form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities.
  - .6 Remove excess compound promptly as work progresses and upon completion.
- .2 Curing.
  - .1 Cure sealants in accordance with sealant manufacturer's instructions.
  - .2 Do not cover up sealants until proper curing has taken place.
- .3 Cleanup.
  - .1 Clean adjacent surfaces immediately and leave Work neat and clean.
  - .2 Remove excess and droppings, using recommended cleaners as work progresses.

**END OF SECTION**



**Part 1        General**

**1.1            MEASUREMENT PROCEDURES**

- .1        Measure pavement crack filling in linear metres.
- .2        Measure supply of asphalt material in litres of undiluted material at 15 degrees C, incorporated into Work.

**1.2            REFERENCE STANDARDS**

- .1        ASTM International
  - .1        ASTM C117-[04], Standard Test Method for Material Finer Than 0.075 mm (No.200) Sieve in Mineral Aggregates by Washing.
  - .2        ASTM C136-[06], Standard Method for Sieve Analysis of Fine and Coarse Aggregates.
  - .3        ASTM D2419-[09], Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
- .2        Canada Green Building Council (CaGBC)
  - .1        LEED Canada-NC Version 1.0-2004, LEED (Leadership in Energy and Environmental Design): Green Building Rating System for New Construction and Major Renovations (including Addendum 2007).
  - .2        LEED Canada-NC-2009, LEED (Leadership in Energy and Environmental Design): Green Building Rating System for New Construction and Major Renovations 2009.
  - .3        LEED Canada-CI Version 1.0-2007, LEED (Leadership in Energy and Environmental Design): Green Building Rating System for Commercial Interiors.
  - .4        LEED Canada-EB: O&M-2009, LEED (Leadership in Energy and Environmental Design): Green Building Rating System for Existing Buildings: Operations and Maintenance 2009.
- .3        Canadian General Standards Board (CGSB)
  - .1        CAN/CGSB-8.1-[88], Sieves Testing, Woven Wire, Inch Series.
  - .2        CAN/CGSB-8.2-[M88], Sieves Testing, Woven Wire, Metric.
  - .3        CAN/CGSB-16.1-[M89], Cutback Asphalts for Road Purposes.
  - .4        CAN/CGSB-16.2-[M89], Emulsified Asphalts, Anionic Type, for Road Purposes.
  - .5        CAN/CGSB-16.4-[M89], Emulsified Asphalts, Cationic Type, for Road Purposes.

**1.3            ACTION AND INFORMATIONAL SUBMITTALS**

- .1        Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2        Product Data:
  - .1        Submit manufacturer's instructions, printed product literature and data sheets for cleaning and filling materials and include product characteristics, performance criteria, physical size, finish and limitations.

- .3 Samples:
  - .1 Submit samples of materials proposed for use 2 weeks before beginning Work.
    - .1 One 4 L container of asphalt material. Submit emulsions in plastic container.
    - .2 One 20 kg sample of each aggregate gradation.
  - .2 Provide access DND Representative to sample materials actually incorporated into Work as required.
- .4 Certificates:
  - .1 Submit manufacturer's test data and certification that materials meet requirements of this Section 2 weeks before beginning Work.
- .5 Sustainable Design Submittals:
  - .1 LEED Canada submittals: in accordance with Section 01 35 21 - LEED Requirements.
  - .2 Construction Waste Management:
    - .1 Submit project Waste Reduction Work plan and Waste Management Plan highlighting recycling and salvage requirements.
    - .2 Submit calculations on end-of-project recycling rates, salvage rates, and landfill rates demonstrating that 50 % of construction wastes were recycled or salvaged.
    - .3 Recycled Content:
      - .1 Submit listing of recycled content products used, including details of required percentages of recycled content materials and products, showing their costs and percentages of post-consumer and post-industrial content, and total cost of materials for project.
      - .4 Regional Materials: submit evidence that project incorporates required percentage 20 % of regional materials and products, showing their cost, distance from project to furthest site of extraction or manufacture, and total cost of materials for project.

#### **1.4 DELIVERY, STORAGE AND HANDLING**

- .1 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .2 Storage and Handling Requirements:
  - .1 Store materials off ground in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect cleaning and filling materials from nicks, scratches, and blemishes.
  - .3 Replace defective or damaged materials with new.

## Part 2 Products

### 2.1 MATERIALS

- .1 Emulsified asphalt: to CAN/CGSB-16.4, grade CRS-1[CAN/CGSB-16.2, grade SS-1.
- .2 Cutback asphalt: to CAN/CGSB-16.1, grade RC-250.
- .3 Aggregate for crack filling: material to following requirements:
  - .1 Screened sand or screenings.
  - .2 Gradations to be within limits specified when tested to ASTM C117, ASTM C136. Sieve sizes to CAN/CGSB-8.1 and CAN/CGSB-8.2.

.3 Table:

Sieve Designation	% Passing	
Sand-asphalt slurry using emulsion	Sand-asphalt mix using cutback asphalt	
12.5 mm	-	-
9.5 mm	-	-
4.75 mm	-	-
2.00 mm	[100]	[100]
0.425 mm	[30-55]	-
0.180 mm	[12-30]	-
0.075 mm	[3-12]	[0-8]

- .4 Sand equivalent: to ASTM D2419, not less than 45%.
- .5 Mixing water: [free from foreign matter] [potable].

### 2.2 EQUIPMENT

- .1 Pressure applicator capable of applying mix and slurry at 100 kPa from one nozzle arrangement.
- .2 Manual pouring cones.
- .3 Hand tools.
- .4 Mechanical rotary routers specifically designed for following random irregular cracks without tearing, chipping or spalling edge and capable of producing clean, vertical side walls. Open "V" type grooves not permitted. Small diameter diamond bladed pavement saws.]

### 2.3 MIXES

- .1 Prepare sand asphalt slurry mix with following proportions:
  - .1 50 kg of aggregates.
  - .2 10 to 16 L of asphalt material as determined DND Representative.
  - .3 Water to produce uniform mix of consistency to achieve full penetration into cracks.
- .2 Heat cutback asphalt to temperature suitable for mixing and pumping to CAN/CGSB-16.1.

- .3 Hot mix asphalt concrete: in accordance with Section 32 12 16 - Asphalt Paving.

### **Part 3 Execution**

#### **3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for pavement crack cleaning and filling in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate in presence of DND Representative.
  - .2 Inform DND Representative of unacceptable conditions immediately upon discovery.
  - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from DND Representative.

#### **3.2 PREPARATION**

- .1 Clean cracks designated by DND Representative.
- .2 Remove existing sealer and loose materials
  - .1 From spalled edges and pavement surface.
  - .2 To minimum depth of 50 mm.
  - .3 Open "V" type grooves not permitted.
- .3 Saw designated cracks to width of 5 mm using pavement saws approved by DND Representative.
- .4 Saw designated cracks to depth between [25] mm and [30] mm.
  - .1 Clean cracks larger than 2 mm and less than 25 mm in concrete and asphalt pavement surfaces as directed by DND Representative
  - .2 SPEC NOTE: Choose only one of the following two paragraphs.
  - .3 Rout cracks between 2 mm and 10 mm to minimum width of 10 mm and depth of below pavement surface.
- .5 Clean loose material from cracks with oil free compressed air applied at pressure not less than [600] kPa.
- .6 Apply soil sterilant in crack prior to placing filler material.
- .7 Dispose of material removed from cracks to an offsite commercially approved site

#### **CRACK FILLING**

- .8 Ensure cracks are clean and dry immediately before filling.
- .9 Fill cracks designated and approved by DND Representative.
- .10 Do not use frozen aggregate.
- .11 Fill cracks when air temperature is above 10 degrees C.
  - .1 When daily low temperature does not fall below 5 degrees C.
  - .2 When no rain is forecast.

- .12 Finishing:
  - .1 For cracks routed to width of 10 mm: place joint sealant 2 - 4 mm above pavement surface to provide an over band seal over crack.
    - .1 Ensure sealant overlaps both sides of crack by 40 mm minimum and 80 mm maximum.
  - .2 For cracks routed to width of 25 - 30 mm: place joint sealant to ensure that upon cooling, sealant is recessed 2 mm below pavement surface.
- .13 Fill and tamp cracks with sufficient applications to ensure cured fill material is level with pavement surface.
- .14 Fill cracks wider than 50 mm with hot mix asphalt concrete and tamped, immediately before placement of asphalt concrete overlay, where and when approved by DND Representative].
- .15 Slightly overfill entire crack reservoir with filler material. Smooth with narrow V-shaped squeegee immediately after placement of filler material on each side of crack to within 25 mm. as directed by DND Representative.
- .16 Remove and dispose of excess filling material to offsite commercially approved facility
- .17 Road lanes to be opened to traffic only after filler material has set sufficiently that it will not pick up under traffic. Blotting material may be applied to filler material after surface has set.

### **3.3 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse, recycling in accordance with Section 01 74 19 – Waste management Disposal
  - .1 Remove recycling containers and bins from site and dispose of materials at commercially appropriate approved facility.

**END OF SECTION**

**Part 1 General**

**1.1 RELATED REQUIREMENTS**

- .1 32 11 16.01
- .2 32 11 2

**1.2 REFERENCE STANDARDS**

- .1 ASTM International
  - .1 ASTM D4791-[10], Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate.
- .2 Canada Green Building Council (CaGBC)
  - .1 LEED Canada-NC Version 1.0-[2004], LEED (Leadership in Energy and Environmental Design): Green Building Rating System for New Construction and Major Renovations (including Addendum [2007]).
  - .2 LEED Canada-NC-[2009], LEED (Leadership in Energy and Environmental Design): Green Building Rating System for New Construction and Major Renovations 2009.
  - .3 LEED Canada-CI Version 1.0-[2007], LEED (Leadership in Energy and Environmental Design): Green Building Rating System for Commercial Interiors.
  - .4 LEED Canada-EB: O&M-[2009], LEED (Leadership in Energy and Environmental Design): Green Building Rating System for Existing Buildings: Operations and Maintenance 2009.
- .3 U.S. Environmental Protection Agency (EPA)/Office of Water
  - .1 EPA 832/R-92-005, Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices.

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for aggregate materials and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Samples:
  - .1 Submit two samples.
  - .2 Provide front end loader or other suitable equipment including trained operator as necessary. Move samples to storage place as directed by DND Representative.
  - .3 Supply new or clean sample bags or containers according appropriate to aggregate materials.

- .4 Pay cost of sampling and testing of aggregates which fail to meet specified requirements.
- .5 Provide water, electric power and propane to Consultant laboratory trailer at production site.
- .4 Sustainable Design Submittals:
  - .1 LEED Canada submittals: in accordance with Section 01 35 43
  - .2 Construction Waste Management:
    - .1 Submit project Waste Management Plan highlighting recycling and salvage requirements.
    - .2 Submit calculations on end-of-project recycling rates, salvage rates, and landfill rates demonstrating that 75 % of construction wastes were recycled or salvaged.
  - .3 Erosion and Sedimentation Control: submit copy of erosion and sedimentation control plan in accordance with Section 01 35 21

#### **1.4 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Transportation and Handling: handle and transport aggregates to avoid segregation, contamination and degradation.
- .3 Storage: store washed materials or materials excavated from underwater 24 hours minimum to allow free water to drain and for materials to attain uniform water content.

### **Part 2 Products**

#### **2.1 MATERIALS**

- .1 Aggregate quality: sound, hard, durable material free from soft, thin, elongated or laminated particles, organic material, clay lumps or minerals, free from adherent coatings and injurious amounts of disintegrated pieces or other deleterious substances.
- .2 Flat and elongated particles of coarse aggregate: to ASTM D4791.
  - .1 Greatest dimension to exceed 3 times least dimension.
- .3 Fine aggregates satisfying requirements of applicable section to be one, or blend of following:
  - .1 Screenings produced in crushing of quarried rock, boulders, gravel or slag.
  - .2 Reclaimed asphalt pavement.
  - .3 Reclaimed concrete material.
- .4 Coarse aggregates 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.

- .3 Light weight aggregate, including slag and expanded shale.
- .4 Reclaimed asphalt pavement.

## **2.2 SOURCE QUALITY CONTROL**

- .1 Inform DND Representative of proposed source of aggregates and provide access for sampling 2 weeks minimum before starting production.
- .2 If materials from proposed source do not meet, or cannot reasonably be processed to meet, specified requirements, locate alternative source.
- .3 Advise DND Representative 2 week's minimum in advance of proposed change of material source.
- .4 Acceptance of material at source does not preclude future rejection if it fails to conform to requirements specified, lacks uniformity, or if its field performance is found to be unsatisfactory.

## **Part 3 Execution**

### **3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions are acceptable for topsoil stripping.
  - .1 Visually inspect substrate in presence DND Representative.
  - .2 Inform DND Representative of unacceptable conditions immediately upon discovery.
  - .3 Proceed with topsoil stripping, only after unacceptable conditions have been remedied and after receipt of written approval to proceed from DND Representative.

### **3.2 PREPARATION**

- .1 Topsoil stripping:
  - .1 Do not handle topsoil while in wet or frozen condition or in any manner in which soil structure is adversely affected.
  - .2 Begin topsoil stripping of areas as indicated as directed DND Representative after area has been cleared of brush, weeds or grasses and removed from site.
  - .3 Strip topsoil to depths as indicated on specifications. Avoid mixing topsoil with subsoil.
  - .4 Dispose of topsoil off site to an approved waste site
- .2 Aggregate source preparation:
  - .1 Prior to excavating materials for aggregate production, clear and grub area to be worked, and strip unsuitable surface materials. Dispose of cleared, grubbed and unsuitable materials to an approved site off Base. When clearing is required, leave screen of trees between cleared area and roadways as directed.
  - .2 Clear, grub and strip area ahead of quarrying or excavating operation sufficient to prevent contamination of aggregate by deleterious materials.



- .3 When excavation is completed dress sides of excavation to nominal 1.5:1 slope, and provide drains or ditches as required to prevent surface standing water.
- .4 Trim off and dress slopes of waste material piles and leave site in neat condition.
- .5 Provide silt fence or other means to prevent contamination of existing watercourse or natural wetland features.
- .3 Processing:
  - .1 Process aggregate uniformly using methods that prevent contamination, segregation and degradation.
  - .2 Blend aggregates, as required, including reclaimed materials that meet physical requirements of specification is permitted in order to satisfy gradation requirements for material and, percentage of crushed particles, or particle shapes specified.
    - .1 Use methods and equipment approved in writing by Departmental Representative.
- .4 When operating in stratified deposits use excavation equipment and methods that produce uniform, homogeneous aggregate gradation.
- .5 Where necessary, screen, crush, wash, classify and process aggregates with suitable equipment to meet requirements.
  - .1 Use only equipment approved in writing by Departmental Representative
- .6 Stockpiling:
  - .1 Stockpile aggregates on site in locations as indicated unless directed otherwise by DND Representative. Do not stockpile on completed pavement surfaces.
  - .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, within 48 hours of rejection.
  - .7 Stockpile materials in uniform layers of thickness as follows:
    - .1 Maximum [1.5] m for coarse aggregate and base course materials.
    - .2 Maximum [1.5] m for fine aggregate and sub-base materials.
    - .3 Maximum [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.

### **3.3 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Leave aggregate stockpile site in tidy, well drained condition, free of standing surface water.
- .4 Waste Management: separate waste materials for recycling, reuse in accordance with Section 01 74 19 - Construction/Demolition Waste Management and Disposal.
  - .1 Remove recycling containers and bins from site and dispose of materials at approved appropriate facility.
- .5 For temporary or permanent abandonment of aggregate source, restore source to condition meeting requirements of authority having jurisdiction.

**END OF SECTION**

**Part 1          General**

**1.1          SECTION INCLUDES**

- .1          This section specifies requirements for excavating, trenching and backfilling for structures, pipes, sewers, conduits and appurtenances.

**1.2          RELATED SECTIONS**

- .1          Section 01 33 00 - Submittal Procedures.
- .2          Section 31 05 16 – Aggregate Materials.

**1.3          REFERENCES**

- .1          American Society for Testing and Materials International (ASTM)
  - .1          ASTM C 117-13, Standard Test Method for Material Finer than 0.075 mm (No.200) Sieve in Mineral Aggregates by Washing.
  - .2          ASTM C 136-14, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
  - .3          ASTM D 422-639(2007) e2, Standard Test Method for Particle-Size Analysis of Soils.
  - .4          ASTM D 698-12e1, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft) (600 kN-m/m).
  - .5          ASTM D 4318-10e1, Standard Test Methods for Liquid Limit-10, 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          Reference Documents
  - .1          Alberta Transportation Standard Specifications for Highway Construction, latest edition.
  - .2          Transportation Association of Canada (TAC) National Guide to Sediment and Erosion Control on roadway Projects (2005)

**1.4          DEFINITIONS**

- .1          Excavation classes: two classes of excavation will be recognized; common excavation and rock excavation.
  - .1          Rock: solid material in excess of 1.00 m<sup>3</sup> and which cannot be removed by means of heavy duty mechanical excavating equipment. Frozen material not classified as rock.
  - .2          Common excavation: excavation of materials of whatever nature, which are not included under definitions of rock excavation.
- .2          Topsoil:

- .1 Material capable of supporting good vegetative growth and suitable for use in top dressing, landscaping and seeding.
- .2 Material reasonably free from subsoil, clay lumps, brush, objectionable weeds, and other litter, and free from cobbles, stumps, roots, and other objectionable material larger than 25 millimeters in any dimension.
- .3 Waste material: excavated material unsuitable for use in Work or surplus to requirements.
- .4 Borrow material: material obtained from locations outside area to be graded, and required for construction of fill areas or for other portions of Work.
- .5 Recycled fill material: material, considered inert, obtained from alternate sources and engineered to meet requirements of fill areas.
- .6 Unsuitable materials:
  - .1 Weak, chemically unstable, and compressible materials.
  - .2 Frost susceptible materials:
    - .1 Fine grained soils with plasticity index less than 10 when tested to ASTM D 4318, and gradation within limits specified when tested to ASTM D 422 and ASTM C 136: Sieve sizes to CAN/CGSB-8.2.
    - .2 Table:

<u>Sieve Designation % Passing</u>	
2.00 mm	100
0.10 mm	45-100
0.02 mm	10-80
0.005 mm	0-45
    - .3 Coarse grained soils containing more than 20 % by mass passing 0.075 mm sieve.
- .7 Unshrinkable fill: very weak mixture of cement, concrete aggregates and water that resists settlement when placed in utility trenches, and capable of being readily excavated.

## 1.5 SUBMITTALS

- .1 Make submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Quality Control: in accordance with Section 01 45 00 - Quality Control:
  - .1 Submit condition survey of existing conditions as described in EXISTING CONDITIONS article of this Section.
  - .2 Submit for review by DND Representative proposed dewatering and heave prevention methods as described in PART 3 of this Section.
  - .3 Submit to DND Representative written notice at least 7 days prior to excavation work, to ensure cross sections are taken.
  - .4 Submit to DND Representative written notice when bottom of excavation is reached.
  - .5 Submit to DND Representative testing and inspection results and report as described in PART 3 of this Section.
- .3 Preconstruction Submittals:

- .1 Submit construction equipment list for major equipment to be used in this section prior to start of Work.
- .2 Submit records of underground utility locates, indicating: location plan of existing utilities as found in field clearance record from utility authority location plan of relocated and abandoned services, as required.
- .4 Samples:
  - .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
  - .2 Inform DND Representative at least 4 weeks prior to beginning Work, of proposed source of fill materials and provide access for sampling.
  - .3 Submit 70 kg samples of type of fill specified including representative samples of excavated material
  - .4 Ship samples prepaid to DND Representative, in tightly closed containers to prevent contamination and exposure to elements.

## **1.6 QUALITY ASSURANCE**

- .1 Qualification Statement: submit proof of insurance coverage for professional liability.
- .2 Submit design and supporting data at least 2 weeks prior to beginning Work.
- .3 Design and supporting data submitted to bear stamp and signature of qualified professional engineer registered or licensed in the Province of Alberta, Canada.
- .4 Keep design and supporting data on site.
- .5 Engage services of qualified professional Engineer who is registered or licensed in Alberta to design and inspect cofferdams, shoring, bracing and underpinning required for Work.
- .6 Do not use soil material until written report of soil test results are reviewed and approved by DND Representative.
- .7 Health and Safety Requirements:
  - .1 Do construction occupational health and safety in accordance with Section 01 35 45 – CFB Suffield Health and Safety Requirements.

## **1.7 EXISTING CONDITIONS**

- .1 Buried services:
  - .1 DND Representative to process and provide clearance to dig permit. Clearance to dig permit to be provided by and available from DND Representative.
  - .2 Maintain copies of the approved clearance to dig permit and associated drawings on site during the work. Ensure all workers, trades and sub-contractors are aware of existing utilities. Contractor is also responsible for their own utility locates.
  - .3 Size, depth and location of existing utilities and structures as indicated are for guidance only. Completeness and accuracy are not guaranteed.
  - .4 Prior to beginning excavation Work, notify, DND Representative and applicable authorities having jurisdiction establish location and state of use of buried

- utilities and structures. Ensure such locations are clearly marked to present disturbance during work.
- .5 Confirm locations of buried utilities by careful test excavations methods.
- .6 Maintain and protect from damage, water, sewer, gas, electric, telephone and other utilities and structures encountered as indicated.
- .7 Where utility lines or structures exist in area of excavation, obtain direction of DND Representative before removing re-routing or otherwise disturbing utilities or structures. Pay Costs for such work.
- .8 Record location of maintained, re-routed and abandoned underground lines.
- .9 Confirm locations of recent excavations adjacent to area of excavation.
- .2 Existing buildings and surface features:
  - .1 Conduct, with DND Representative, condition survey of existing buildings, trees and other plants, lawns, fencing, service poles, wires, rail tracks, pavement, survey bench marks and monuments which may be affected by Work.
  - .2 Protect existing buildings and surface features from damage while Work is in progress. In event of damage, immediately make repair as directed by DND Representative.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Designation Type 5– Granular Sub-Base: shall be well graded granular material matching gradation and physical requirements outlined in section 31 05 16 Aggregate Materials. Granular Sub-Base material will be used to replace unsuitable material up to sub-grade level.
- .2 Designation Type 1 – Aggregate Base Course: shall be well graded granular material matching gradation and physical requirements outlined in section 31 05 16 Aggregate Materials.
- .3 All imported gravel to be visually inspected by DND Range Biologist for:
  - .1 Weed Seed - No noxious or prohibited noxious weed seeds, as defined by the Alberta Weed Act/Regulation, can be present.
  - .2 Hydrocarbons - Hydrocarbons must be below the criteria recommended under the Canadian Wide Standard for Petroleum Hydrocarbons in Soil (Alberta Tier 1 Soil and Groundwater Remediation Guidelines).

## **Part 3 Execution**

### **3.1 SITE PREPARATION**

- .1 Remove obstructions, ice and snow, from surfaces to be excavated within limits indicated.
- .2 Cut pavement or sidewalk neatly along limits of proposed excavation in order that surface may break evenly and cleanly.

### **3.2 PREPARATION/ PROTECTION**

- .1 Protect existing features in accordance with Section 01 56 00 - Temporary Barriers and Enclosures and applicable local regulations.
- .2 Keep excavations clean, free of standing water, and loose soil.
- .3 Where soil is subject to significant volume change due to change in moisture content, cover and protect to satisfaction of DND Representative.
- .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.

### **3.3 STOCKPILING**

- .1 Stockpile fill materials in areas designated by DND Representative.
  - .1 Stockpile granular materials in manner to prevent segregation.
- .2 Protect fill materials from contamination.
- .3 Implement sufficient erosion and sediment control measures to prevent sediment release off construction boundaries and into water bodies.

### **3.4 DEWATERING**

- .1 Keep excavations free of water while Work is in progress.
- .2 Provide for DND Representative's review approval details of proposed dewatering or heave prevention methods, including dikes, well points, and sheet pile cut-offs.
- .3 Protect open excavations against flooding and damage due to surface run-off.
- .4 Dispose of water in accordance with applicable federal, municipal and provincial regulations and in manner not detrimental to public and private property, or portion of Work completed or under construction.
  - .1 Provide and maintain temporary drainage ditches and other diversions outside of excavation limits.
- .5 Pump silt laden water into well vegetated area at a location in excess of 50 m from a watercourse or wetland. Ensure sediment laden water does not reach watercourse or wetland.

### **3.5 EXCAVATION**

- .1 Maintain sides and slopes of excavations in safe condition by appropriate methods and in accordance with Health and Safety Act for the Province of Alberta.
- .2 Excavate to lines, grades, elevations and dimensions as indicated.
- .3 Remove concrete, masonry, paving, walks, demolished foundations and rubble and other obstructions encountered during excavation.
- .4 Excavation must not interfere with bearing capacity and normal 1:1 (H:V) splay of adjacent foundations.
- .5 Do not disturb soil within branch spread of trees or shrubs that are to remain.

- .6 For trench excavation, unless otherwise authorized by DND Representative in writing, do not excavate more than 30 m of trench in advance of installation operations and do not leave open more than 15 m at end of day's operation.
- .7 Keep excavated and stockpiled materials safe distance away from edge of trench.
- .8 Restrict vehicle operations directly adjacent to open trenches.
- .9 Dispose of surplus and unsuitable excavated material offsite in accordance with applicable federal, municipal and provincial regulations.
- .10 Do not obstruct flow of surface drainage or natural watercourses.
- .11 Earth bottoms of excavations to be undisturbed soil, level, free from loose, soft or organic matter.
- .12 Obtain DND Representative approval of completed excavation.
- .13 Remove unsuitable material from trench bottom including those that extend below required elevations to extent and depth as directed by DND Representative.
- .14 Correct unauthorized over-excavation as follows and to satisfaction of DND Representative:
  - .1 Fill under bearing surfaces and footings with Engineered fill compacted to not less than 98% of corrected Standard Proctor maximum dry density, or lean concrete as indicated.
  - .2 Fill under other areas with approved fill compacted to not less than 98 % of corrected Standard Proctor maximum dry density.
- .15 Hand trim, make firm and remove loose material and debris from excavations.
  - .1 Where material at bottom of excavation is disturbed, compact foundation soil to density at least equal to undisturbed soil.

### **3.6 FILL TYPES AND COMPACTION**

- .1 Use types of fill as indicated. Compaction densities are percentages of maximum densities obtained from ASTM D 1557.
  - .1 Designation Type 5 to 98 % Standard Proctor Density; and
  - .2 Designation Type 1 to 100% Standard Proctor Density.

### **3.7 BEDDING AND SURROUND OF UNDERGROUND SERVICES**

- .1 Place and compact Type 4 granular material for bedding and surround of underground services.
- .2 Place bedding and surround material in unfrozen condition.

### **3.8 BACKFILLING**

- .1 Vibratory compaction equipment: as required to achieve specified compaction throughout layer. Lighter equipment to be used immediately adjacent structures.
- .2 Do not proceed with backfilling operations until completion of following:
  - .1 DND Representative has inspected and approved installations.



- .2 DND Representative has inspected and approved of construction below finish grade.
- .3 Inspection, testing, approval, and recording location of underground utilities.
- .4 Removal of concrete formwork.
- .3 Areas to be backfilled to be free from debris, snow, ice, water and frozen ground.
- .4 Do not use backfill material which is frozen or contains ice, snow or debris.
- .5 Place backfill material in uniform layers not exceeding 150 mm compacted thickness up to grades indicated. Compact each layer before placing succeeding layer. Thinner layers will be required where light compaction equipment is required.
- .6 Backfilling around installations:
  - .1 Place bedding and surround material as specified elsewhere.
  - .2 Do not backfill around or over cast-in-place concrete within 24 hours after placing of concrete.
  - .3 Place layers simultaneously on both sides of installed Work to equalize loading.

### **3.9 RESTORATION**

- .1 Upon completion of Work, remove waste materials and debris. Trim slopes, and correct defects as directed by DND Representative.
- .2 Replace topsoil and landscaping as indicated and to satisfaction of DND Representative.
- .3 Reinstate pavements and sidewalks disturbed by excavation to thickness, structure and elevation which existed before excavation.
- .4 Clean and reinstate areas affected by Work to DND Representative's satisfaction.
- .5 Protect newly graded areas from traffic and erosion and maintain free of trash or debris.

**END OF SECTION**

**Part 1            General**

**1.1            SECTION INCLUDES**

- .1        Temporary and permanent erosion and sediment control devices.

**1.2            RELATED SECTIONS**

- .1        Section 31 23 33.01 - Excavation, Trenching and Backfilling.

**1.3            REFERENCES**

- .1        ASTM D1777 96(2007) Test Method for Thickness of Textile Materials.
- .2        ASTM D3776 07 Test Methods for Mass Per Unit Area (Weight) of Fabric.
- .3        ASTM D4355 07 Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc Type Apparatus.
- .4        ASTM D4632 91(2003) Test Method for Grab Breaking Load and Elongation of Geotextiles
- .5        ASTM D4751 04 Test Method for Determining Apparent Opening Size of a Geotextile.
- .6        ASTM D6818 02 Test Method for Ultimate Tensile Properties of Turf Reinforcement Mats.
- .7        Reference Documents
  - .1        Alberta Transportation Standard Specifications for Highway Construction, latest edition.
  - .2        Transportation Association of Canada (TAC) National Guide to Sediment and Erosion Control on roadway Projects (2005).

**1.4            DEFINITIONS**

- .1        Erosion: Deterioration, displacement, or transportation of land surface by wind or water, intensified by land clearing practices related to construction activities.
- .2        Rain or Rain Storm: An event defined causing the pooling of water on road or other impervious surfaces.
- .3        Sediment: Particulate matter transported and deposited as a layer of solid particles within a body of water.
- .4        Snow Melt: An event in snow conditions when the temperature is above 0 degrees C or when environmental conditions causing snow on the ground to melt.

**1.5            PERFORMANCE REQUIREMENTS**

- .1        Design, supply, install and maintain erosion and sediment control system to prevent sedimentation of receiving streams and wetlands.

**1.6            SUBMITTALS FOR REVIEW**

- .1        Section 01 33 00: Submittal Procedures.

- .2 The Erosion and Sedimentation Control Plan (ESCP) is provided in the contract drawings. The measures indicated are the minimum requirement. Provide any changes or additional measures as required due to Contractor's schedule and Work Plan. Changes or additional measures are to be approved by the DND Representative. Submit plan for work a minimum of 14 days prior to the work.

## **1.7 SUBMITTALS FOR INFORMATION**

- .1 Section 01 33 00: Submittal Procedures.
- .2 Test Reports: Submit substantiating engineering data, test results of previous tests which purport to meet performance criteria, and other supportive data.
- .3 Installation Data: Manufacturer's special installation requirements.

## **1.8 QUALITY ASSURANCE**

- .1 Products of this Section: Manufactured to ISO 14000 certification requirements.
- .2 Any changes to the Erosion and Sediment Control Plan (ESCP) shall conform to applicable erosion and sedimentation control codes and standards and be under direct supervision of a Professional Engineer experienced in design of this Work and licensed in the Province of Alberta. All changes or additional measures are to be approved by DND Representative.

## **Part 2 Products**

### **2.1 SILT FENCING**

- .1 Geotextile: Woven polypropylene filter fabric, resistant to ultra violet degradation.
- .1 Rolls: 3m wide.
- .2 Efficiency: Minimum 85%.
- .3 Properties:

PHYSICAL PROPERTY	TEST METHOD	REQUIRED VALUE
Tensile Strength	ASTM D4632	41kg
Elongation	ASTM D4632	50%
Apparent Opening Size	ASTM D4751	0.60mm
Ultraviolet stability (retained strength after 500 hrs. of exposure)	ASTM D4355	70%

- .2 Posts: Wood or galvanized steel T bar, 1200 mm minimum length, painted fluorescent orange for safety.
- .3 Stabilization Plates: Galvanized, 115 cm<sup>2</sup> size.
- .4 Ties: Galvanized wire, minimum 2 mm diameter. Heavy duty plastic ties.
- .5 Wire Reinforcement: Galvanized, 1.9 mm wire with maximum 150 mm mesh spacing.

**2.2 CHECK DAMS**

- .1 Rock Check Dams: Well graded stone consisting of 200 mm rocks.

**Part 3 PART 3 - Execution**

**3.1 PREPARATION**

- .1 The Erosion and Sediment Control Plan shall conform to local erosion and sediment control codes and standards to meet the following:
- .2 Prevent loss of soil by storm water runoff.
- .3 Prevent sedimentation in receiving streams.
- .4 Prevent air pollution by dust and particulate matter.

**3.2 INSTALLATION**

- .1 Install silt fences and check dams as indicated in Site Specific Environmental Protection Plan and any approved revised plans.
- .2 Install filter fabric in catch basin.

**3.3 SILT FENCES**

- .1 Place silt fences at right angles of flow.
- .2 Install successive, parallel fences to achieve required degree of control.
- .3 Install silt fences in accordance with Alberta Transportation Standard Specification - Item 6.5.4.1 - Erosion Control Barrier (Silt Fence).
- .4 Ensure silt fences prevent silt infiltration into existing hardstand collection system catch basins.

**3.4 CHECK DAMS**

- .1 Supply and install check dams in accordance with Alberta Transportation Standard Specifications - Item 6.5.4.3 Rock Check Dams

**3.5 MONITORING AND MAINTENANCE**

- .1 Comply with maintenance requirements specified and with local standards.
- .2 Silt Fences:
  - .1 Maintain integrity of silt fences.
  - .2 Inspect silt fences within twenty four (24) of rainfall, and snow melt, and daily during prolonged rainfall or storm. Correct deficiencies.
  - .3 During holidays and when construction is not in progress, maintain and monitor silt fences on a weekly basis or as required by the DND Representative and the ESCP.
  - .4 Daily review location of silt fences in areas where construction activities have changed natural contours and drainage run off. Relocate or add additional measures as required to maintain required effectiveness.

- .5 Repair or replace damaged products within twenty four (24) hours.
- .6 Remove sediment deposits when deposit reaches approximately one third (1/3) the height of silt fence. Dispose of sediment in location where sediment will not erode into construction areas, offsite properties or watercourses.
- .7 Do not remove silt fences until directed by the DND Representative.
- .3 Check Dams:
  - .1 Inspect check dams regularly and after every runoff producing storm.
  - .2 Make necessary repairs.
    - .1 Remove accumulated leaves and sediments from behind dam when they reach a depth of one half the original height of the dam.
    - .2 Restore stone to maintain correct height.
    - .3 Sandbag Dams: Inspect sandbag fabric for signs of deterioration.

### **3.6 CLEAN-UP AND REMOVAL**

- .1 Remove check dams after final stabilization is achieved.
- .2 Remove and dispose of materials.
  - .1 Remove accumulated sediment or spread to match finished grade; ensure proper drainage.
- .3 Stabilize area disturbed by removal operations.
- .4 Clean, repair or re-instate erosion control measures that are designated as permanent.
- .5 Clean out existing catch basins and separation system as required.

**END OF SECTION**

**Part 1            General**

**1.1            SECTION INCLUDES**

- .1    Materials and installation of polymeric geotextiles used in filtration, drainage structures, and roadbeds, the purpose of which is to:
  - .1       Separate and prevent mixing of granular materials of different grading; and
  - .2       Act as hydraulic filters permitting passage of water while retaining soil strength of granular structure.

**1.2            RELATED SECTIONS**

- .1    Division 01 – General Requirements.
- .2    Section 31 23 33.01 - Excavating, Trenching and Backfilling.

**1.3            REFERENCES**

- .1    American Society for Testing and Materials International, (ASTM).
  - .1       ASTM D3786/D3786M-13 Standard Test Method for Bursting Strength of Textile Fabrics-Diaphragm Bursting Strength Tester Method
  - .2       ASTM D4491-15 Standard Test Methods for Water Permeability of Geotextiles by Permittivity.
  - .3       ASTM D4595-11, Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method.
  - .4       ASTM D4716-14, Test Method for Determining the (In-Plane) Flow Rate per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head.
  - .5       ASTM D4751-12, Standard Test Method for Determining Apparent Opening Size of a Geotextile.
- .2    Canadian General Standards Board (CGSB).
  - .1       CAN/CGSB-4.2 No. 11.2-M89 (April 1997), Textile Test Methods - Bursting Strength - Ball Burst Test (Extension of September 1989).
  - .2       CAN/CGSB-148.1, Methods of Testing Geotextiles and Complete Geomembranes.
    - .1           No.2-M85, Methods of Testing Geosynthetics - Mass per Unit Area.
    - .2           No.3-M85, Methods of Testing Geosynthetics - Thickness of Geotextiles.
    - .3           No.6.1-93, Methods of Testing Geotextiles and Geomembranes - Bursting Strength of Geotextiles Under No Compressive Load.
    - .4           No.7.3-92, Methods of Testing Geotextiles and Geomembranes - Grab Tensile Test for Geotextiles.
    - .5           No. 10-94, Methods of Testing Geosynthetics - Geotextiles - Filtration Opening Size.

- .3 Canadian Standards Association (CSA International).
  - .1 CAN/CSA-G40.20/G40.21-04, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
  - .2 CAN/CSA-G164-M92 (R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.
- .4 Alberta Transportation Standard Specifications for Highway Construction, latest edition.

#### **1.4 SUBMITTALS**

- .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
  - .1 Submit to DND Representative following samples at least 2 weeks prior to beginning Work.
    - .1 Minimum length of 2 m of roll width of geotextile.
    - .2 Minimum of 1 m seam with at least 300 mm of geotextile on both sides of seam.
  - .2 Submit to DND Representative copies of mill test data and certificate at least 4 weeks prior to start of Work, and in accordance with Section 01 33 00 - Submittal Procedures.

#### **1.5 DELIVERY, STORAGE AND HANDLING**

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

#### **1.6 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate waste materials for reuse and recycling.
- .2 Remove from site and dispose of all packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal paper plastic polystyrene corrugated cardboard packaging material in appropriate on-site bins for recycling in accordance with Waste Management Plan.
- .4 Fold up metal banding, flatten and place in designated area for recycling.

### **Part 2 Products**

#### **2.1 MATERIAL**

- .1 Geotextile fabric: non-woven synthetic fibre filter fabric, supplied in rolls, use **Type B** per Alberta Transportation Standard Specifications.
  - .1 Width: 3 m minimum.
  - .2 Length: 50 m minimum.
- .2 Composed of: minimum 85% by mass of polypropylene or polyester.

- .3 Physical properties: to Alberta Transportation Standard Specifications for Highway Construction - Section 5.31.2.1

The non-woven geotextile fabric shall meet the following requirements:

Property	ASTM Test	Material Specification Average Roll Value		
		Type A	Type B	Type C
Grab Tensile Strength (N)	D4632	400 min	650 min	875 min
Grab Tensile Elongation (%)	D4632	50% min	50% min	50% min
Mullen Burst (MPa)	D3786	1.2min	2.1 min	2.7 min
Puncture (N)	D4833	240 min	275 min	550 min
Trapezoid Tear (N)	D4533	180 min	250 min	350 min
Ultraviolet Stability (% Retained Strength)	D4355	70% @ 150h	70% @ 150h	70% @ 150h
Apparent Opening Size (mm)	D4751	0.2 max	0.2 max	0.2 max
Permittivity (per sec)	D4491	2.1 min	1.5 min	1.2 min
Flow Rate (l/sec/m <sup>2</sup> )	D4491	102 min	102 min	102 min
Minimum fabric lap shall be 300 mm				

Note:

- .1 All numeric values except A.O.S represent minimum average roll value as measured in the weaker principal direction;
- .2 Typically used with perforated pipe and similar applications;
- .3 Typically used in medium duty situation such as under Class 1M, 1 & 2 riprap;
- .4 Typically used in heavy duty applications such as under Class 3 riprap.
- .4 Backfill Materials:
  - .1 In accordance with details on Contract Documents.
- .5 Securing pins and washers: to CAN/CSA-G40.21-92, Grade 300W, hot-dipped galvanized with minimum zinc coating of 600 g/m<sup>2</sup> to CAN/CSA G164-M92 (R2003).
- .6 Factory seams: sewn in accordance with manufacturer's recommendations.
- .7 Thread for sewn seams: equal or better resistance to chemical and biological degradation than geotextile.

### Part 3 Execution

#### 3.1 INSTALLATION

- .1 Place geotextile material by unrolling onto graded surface in orientation, manner and locations indicated.
- .2 Place geotextile material smooth and free of tension stress, folds, wrinkles and creases.



- .3 Place geotextile material on sloping surfaces in one continuous length from toe of slope to upper extent of geotextile.
- .4 Overlap each successive strip of geotextile 600 mm over previously laid strip.
- .5 Protect installed geotextile material from displacement, damage or deterioration before, during and after placement of material layers.
- .6 After installation, cover with overlying layer within 4 h of placement.
- .7 Replace damaged or deteriorated geotextile to approval of DND Representative.
- .8 Place and compact soil layers in accordance with Contract Documents.

### **3.2 CLEANING**

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

### **3.3 PROTECTION**

- .1 Vehicular traffic not permitted directly on geotextile.

**END OF SECTION**

**Part 1        General**

**1.1        SECTION INCLUDES**

- .1        This section specifies requirements for obtaining and placing gravel or quarried stone as a granular sub-base to lines, grades and typical cross-section indicated on plans or as directed by DND Representative.

**1.2        RELATED SECTIONS**

- .1        Section 31 05 16 - Aggregate Materials.
- .2        Section 31 23 33.01 - Excavating, Trenching and Backfilling.

**1.3        REFERENCES**

- .1        American Society for Testing and Materials (ASTM)
  - .1        ASTM C 117-04, Standard Test Methods for Material Finer Than 75-micro m (No. 200) Sieve in Mineral Aggregates by Washing.
  - .2        ASTM C 131-06, Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
  - .3        ASTM C 136-06, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
  - .4        ASTM D 422-63 (2007), Standard Test Method for Particle-Size Analysis of Soils.
  - .5        ASTM D 698-07e1, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400ft-lbf/ft<sup>2</sup>) (600kN-m/m<sup>2</sup>).
  - .6        ASTM D 1557-09, Standard Test Methods for laboratory compaction characteristics of soil using modified effort 2,700 KN-M/m<sup>3</sup>.
  - .7        ASTM D 1883-07e2, Standard Test Method for CBR (California Bearing Ratio) of Laboratory Compacted Soils.
  - .8        ASTM D 4318-10, 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        Reference Documents
  - .1        Alberta Transportation Standard Specifications for Highway Construction, latest edition.
  - .2        Transportation Association of Canada (TAC) National Guide to Sediment and Erosion Control on roadway Projects (2005)
- .4        DND, Ranges and Training Area, Geometric and Construction Road Design Standards.

**1.4 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate and recycle waste materials.
- .2 Divert unused granular material from landfill to local facility to the satisfaction of the DND Representative.

**Part 2 Products**

**2.1 2.1 MATERIALS**

- .1 Granular sub-base material: in accordance with Section 31 05 16 - Aggregate Materials and following requirements:
  - .1 Type 5 – 50mm Gravel Fill / Sub base,

**Part 3 Execution**

**3.1 3.1 PLACING**

- .1 Place granular sub-base after subgrade is to the satisfaction of the DND Representative.
- .2 Granular Sub-Base to replace removed unsuitable material to line of sub-grade Substrate.
- .3 Ensure no frozen material is placed.
- .4 Place material only on clean, unfrozen surface, free from snow or ice.
- .5 Place granular sub-base materials using methods which do not lead to segregation or degradation.
- .6 Place material to full width in uniform layers not exceeding 200 mm compacted thickness. DND Representative may authorize thicker lifts (layers) if specified compaction can be achieved.
- .7 Shape each layer to smooth contour and compact to specified density before succeeding layer is placed.
- .8 Remove and replace portion of layer in which material has become segregated during spreading.

**3.2 COMPACTION**

- .1 Compaction equipment to be capable of obtaining required material densities.
- .2 Compact to density of not less than 98% as per section 31 23 33.01, of Maximum Modified Proctor Dry Density in accordance with ASTM D 1557.
- .3 Shape and roll alternately to obtain smooth, even and uniformly compacted sub-base.
- .4 Apply water as necessary during compaction to obtain specified density.
- .5 In areas not accessible to rolling equipment, compact to specified density with mechanical tampers to the satisfaction of the DND Representative.
- .6 Correct surface irregularities by loosening and adding or removing material until surface is within specified tolerance.

**3.3 SITE TOLERANCES**

- .1 Finished sub-base surface to be within 10 mm of elevation as indicated but not uniformly high or low.

**3.4 PROTECTION**

- .1 Maintain finished sub-base in condition conforming to this section until succeeding base is constructed, or until granular sub-base is to the satisfaction of the DND Representative.

**END OF SECTION**

**Part 1            General**

**1.1            SECTION INCLUDES**

- .1       This section specifies requirements for obtaining and placing crushed gravel or quarried stone as a granular base to lines, grades and typical cross sections indicated in this specification, or as directed by DND Representative.

**1.2            RELATED SECTIONS**

- .1       Section 31 05 16 - Aggregate Materials.
- .2       Section 31 23 33.01 - Excavating, Trenching and Backfilling.
- .3       Section 32 11 16.01 - Granular Sub-base.

**1.3            REFERENCES**

- .1       American Society for Testing and Materials (ASTM)
  - .1       ASTM C 117-04, Standard Test Methods for Materials Finer Than 75-micron Sieve in Mineral Aggregates by Washing.
  - .2       ASTM C 131-06, Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
  - .3       ASTM C 136-06, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
  - .4       ASTM D 698-07e1, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400ft-lbf/ft<sup>2</sup>) (600kN-m/m<sup>2</sup>).
  - .5       ASTM D 1883-07e1, Standard Test Method for CBR (California Bearing Ratio) of Laboratory-Compacted Soils.
  - .6       ASTM D 4318-10, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
- .2       Canadian General Standards Board (CGSB)
  - .1       CAN/CGSB-8.1, Sieves, Testing, Woven Wire, Inch Series.
  - .2       CAN/CGSB-8.2, Sieves, Testing, Woven Wire, Metric.
- .3       Reference Documents
  - .1       Alberta Transportation Standard Specification for Highway Construction, latest edition.
  - .2       Transportation Association of Canada (TAC) National Guide to Sediment and Erosion Control on roadway Projects (2005)

**1.4            WASTE MANAGEMENT AND DISPOSAL**

- .1       Divert unused granular material from landfill to local facility to satisfaction of DND Representative.

**Part 2 Products**

**2.1 MATERIALS**

- .1 Granular base material: Type 1 in accordance with Section 31 05 16 - Aggregate Materials and following requirements:

**Part 3 Execution**

**3.1 SEQUENCE OF OPERATION**

- .1 Place granular base after sub-base surface is to the satisfaction of the DND Representative.
- .2 Placing
  - .1 Construct granular base course to a minimum compacted thickness, above sub-base and below pavement structures and sub-base course to a minimum depth of 250 mm.
  - .2 Ensure no frozen material is placed.
  - .3 Place material only on clean unfrozen surface, free from snow and ice.
  - .4 Place material using methods which do not lead to segregation or degradation of aggregate.
  - .5 Place material to full width in uniform layers not exceeding 200 mm compacted thickness. DND Representative may authorize thicker lifts (layers) if specified compaction can be achieved.
  - .6 Shape each layer to smooth contour and compact to specified density before succeeding layer is placed.
  - .7 Remove and replace that portion of layer in which material becomes segregated during spreading.
- .3 Compacting
  - .1 Compaction equipment to be capable of obtaining required material densities.
  - .2 Compact to density not less than 100% of Maximum Modified Protector Dry Density in accordance with ASTM D 1557.
  - .3 Shape and roll alternately to obtain smooth, even and uniformly compacted base.
  - .4 Apply water as necessary during compacting to obtain specified density.
  - .5 In areas not accessible to rolling equipment, compact to specified density with mechanical tampers to the satisfaction of the DND Representative.
  - .6 Correct surface irregularities by loosening and adding or removing material until surface is within specified tolerance.

**3.2 QUALITY CONTROL TESTING**

- .1 Inspection and testing shall be carried out by the Contractor.
  - .1 Minimum Test Frequency: 1 test per 250 m<sup>2</sup>/lift.

- .2 Submit satisfactory compaction test results to DND Representative for review.
- .3 Contractor shall conduct and submit satisfactory compaction test results to DND Representative prior to placement of subsequent materials. Payment will not be considered for placement of Base Course, unless satisfactory test results are submitted by Contractor.

**3.3 SITE TOLERANCES**

- .1 Finished base surface to be within plus or minus 10 mm of established grade and cross section but not uniformly high or low.

**3.4 PROTECTION**

- .1 Maintain finished base in condition conforming to this Section until succeeding material is applied or is satisfactory to the DND Representative

**END OF SECTION**

**Part 1            General**

**1.1               RELATED SECTIONS**

- .1        Section 01 33 00 - Submittal Procedures.
- .2        Section 01 74 19 – Waste Management And Disposal.

**1.2               REFERENCES**

- .1        American Society for Testing and Materials International, (ASTM)
  - .1        ASTM D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (600 kN-m/m<sup>3</sup>).
  - .2        ASTM C88-05, Standard Test Method for Soundness of Aggregates by Use of Sodium Sulphate or Magnesium Sulphate.
  - .3        ASTM C117 04, Standard Test Method for Material Finer Than 0.075mm (No.200) Sieve in Mineral Aggregates by Washing.
  - .4        ASTM C123 04, Standard Test Method for Lightweight Particles in Aggregate.
  - .5        ASTM C127 07, Standard Test Method for Specific Gravity and Absorption of Coarse Aggregate.
  - .6        ASTM C128 07a, Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate.
  - .7        ASTM C131 06, Standard Test Method for Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
  - .8        ASTM C136 06, Standard Method for Sieve Analysis of Fine and Coarse Aggregates.
  - .9        ASTM C207 04, Standard Specification for Hydrated Lime for Masonry Purposes.
  - .10       ASTM D995 95b (2002), Standard Specification for Mixing Plants for Hot Mixed, Hot Laid Bituminous Paving Mixtures.
  - .11       ASTM D2419 02, Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
  - .12       ASTM D3203 05, Standard Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures.
  - .13       ASTM D4791 05e1, Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate.
- .2        American Association of State Highway and Transportation Officials (AASHTO)
  - .1        AASHTO M320-02, Standard Specification for Performance Graded Asphalt Binder.
  - .2        AASHTO R29-02, Standard Specification for Grading or Verifying the Performance Graded of an Asphalt Binder.
  - .3        AASHTO T245-97 (2001), Resistance to Plastic flow of Bituminous Mixtures Using Marshall Apparatus.



- .3 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-8.2-M88, Sieves Testing, Woven Wire, Metric.
  - .2 CAN/CGSB-16.3-M90, Asphalt Cements for Road Purposes.
- .4 The City of Medicine Hat Municipal Works Construction Specifications, Current Edition.

### **1.3 SAMPLES**

- .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit to DND Representative, samples of material for sieve analysis at least 1 week before beginning Work.

### **1.4 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate waste materials in accordance with Section 01 74 19 – Waste Management and Disposal.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Prime coat: SS-1 to CAN/CGSB-16.2.
- .2 Tack coat: SS-1 to CAN/CGSB-16.2.
- .3 Asphalt concrete: to City of Medicine Hat Type S2.
- .4 Granular sub-base: to Section 32 11 16.01 – Granular Sub Base.
- .5 Granular base: to Section 32 11 23 - Aggregate Base Courses.

## **Part 3 Execution**

### **3.1 GRANULAR SUB-BASE AND BASE**

- .1 Foundations for asphalt paved area comprise:
  - .1 300 mm compacted thickness of Type 5 granular base.
  - .2 100 mm compacted thickness of Type 1 granular base.
- .2 Compaction: near optimum moisture content and to 100% Standard Proctor Density. Maximum lift thickness: 150mm.

### **3.2 TRANSPORTATION OF MIX**

- .1 Transport mix to job site in vehicles cleaned of foreign material.
- .2 Paint or spray truck beds with limewater, soap or detergent solution, or non-petroleum based commercial product, at least daily or as required. Elevate truck bed and thoroughly drain. No excess solution to remain in truck bed.
- .3 Schedule delivery of material for placing in daylight, unless DCC Representative approves artificial light.

- .4 Deposit mix from surge or storage silo to trucks in multiple drops to reduce segregation. Do not dribble mix into trucks.
- .5 Deliver material to paver at uniform rate and in an amount within capacity of paving and compacting equipment.
- .6 Deliver loads continuously in covered vehicles and immediately spread and compact. Deliver and place mixes at temperature within range as directed by DND Representative, but not less than 135 degrees C.

### **3.3 PLACING**

- .1 Obtain DND Representative's approval of base and existing surface prior to placing asphalt.
- .2 Place asphalt concrete to thicknesses, grades and lines as indicated.
- .3 Placing conditions:
  - .1 Place asphalt mixtures only when air temperature is above 5 degrees C.
  - .2 When temperature of surface on which material is to be placed falls below 10 degrees C, provide extra rollers as necessary to obtain required compaction before cooling.
  - .3 Do not place hot-mix asphalt when pools of standing water exist on surface to be paved, during rain, or when surface is damp.
- .4 Place asphalt concrete in two (2) compacted lifts.
- .5 Spread and strike off mixture with self-propelled mechanical finisher.
  - .1 Construct longitudinal joints and edges true to line markings. Position and operate paver to follow established line closely.
  - .2 When using pavers in echelon, have first paver follow marks or lines, and second paver follow edge of material placed by first paver. Work pavers as close together as possible and in no case permit them to be more than 30 m apart.
  - .3 Maintain constant head of mix in auger chamber of paver during placing.
  - .4 If segregation occurs, immediately suspend spreading operation until cause is determined and corrected.
  - .5 Correct irregularities in alignment left by paver by trimming directly behind machine.
  - .6 Correct irregularities in surface of pavement course directly behind paver. Remove by shovel or lute excess material forming high spots. Fill and smooth indented areas with hot mix. Do not broadcast material over such areas.
  - .7 Do not throw surplus material on freshly screeded surfaces.
- .6 When hand spreading is used:
  - .1 Use approved wood or steel forms, rigidly supported to assure correct grade and cross section. Use measuring blocks and intermediate strips to aid in obtaining required cross-section.
  - .2 Distribute material uniformly. Do not broadcast material.

- .3 During spreading operation, thoroughly loosen and uniformly distribute material by lutes or covered rakes. Reject material that has formed into lumps and does not break down readily.
- .4 After placing and before rolling, check surface with templates and straightedges and correct irregularities.
- .5 Provide heating equipment to keep hand tools free from asphalt. Control temperature to avoid burning material. Do not use tools at higher temperature than temperature of mix being placed.

### 3.4 COMPACTING

- .1 Do not change rolling pattern unless mix changes or lift thickness changes.
- .2 Roll asphalt continuously to density not less than 97 % of blow Marshall density to AASHTO T245.
- .3 General:
  - .1 Provide at least two rollers and as many additional rollers as necessary to achieve specified pavement density. When more than two rollers are required, one roller must be pneumatic tired type.
  - .2 Start rolling operations as soon as placed mix can bear weight of roller without excess displacement of material or cracking of surface.
  - .3 Operate roller slowly initially to avoid displacement of material. Do not exceed 5 km/h for breakdown and intermediate rolling for static steel-wheeled and pneumatic tired rollers. Do not exceed 9 km/h for finish rolling.
  - .4 Use static compaction for levelling coarse less than 25 mm thick.
  - .5 For lifts 50 mm thick and greater, adjust speed and vibration frequency of vibratory rollers to produce minimum of 25 impacts per metre of travel. For lifts less than 50 mm thick, impact spacing not to exceed compacted lift thickness.
  - .6 Overlap successive passes of roller by minimum of 200 mm and vary pass lengths.
  - .7 Keep wheels of roller slightly moistened with water to prevent pick-up of material but do not over-water.
  - .8 Do not stop vibratory rollers on pavement that is being compacted with vibratory mechanism operating.
  - .9 Do not permit heavy equipment or rollers to stand on finished surface before it has been compacted and has thoroughly cooled.
  - .10 After traverse and longitudinal joints and outside edge have been compacted, start rolling longitudinally at low side and progress to high side. Ensure that all points across width of pavement receive essentially equal numbers of passes of compactors.
  - .11 When paving in echelon, leave unrolled 50 to 75 mm of edge which second paver is following and roll when joint between lanes is rolled.
  - .12 Where rolling causes displacement of material, loosen affected areas at once with lutes or shovels and restore to original grade of loose material before re-rolling.

- .4 Breakdown rolling:
  - .1 Begin breakdown rolling with static steel wheeled roller immediately following rolling of transverse and longitudinal joint and edges.
  - .2 Operate rollers as close to paver as necessary to obtain adequate density without causing undue displacement.
  - .3 Operate breakdown roller with drive roll or wheel nearest finishing machine. When working on steep slopes or super-elevated sections use operation approved by DND Representative.
  - .4 Use only experienced roller operators.
- .5 Intermediate rolling:
  - .1 Use pneumatic-tired, steel wheel or vibratory rollers and follow breakdown rolling as closely as possible and while paving mix temperature allows maximum density from this operation.
  - .2 Rolling to be continuous after initial rolling until mix placed has been thoroughly compacted.
- .6 Finish rolling:
  - .1 Accomplish finish rolling with two-axle or three-axle tandem steel wheeled rollers while material is still warm enough for removal of roller marks. If necessary to obtain desired surface finish, use pneumatic-tired rollers as directed by DND Representative. Conduct rolling operations in close sequence.

### 3.5 JOINTS

- .1 General:
  - .1 Remove surplus material from surface of previously laid strip. Do not deposit on surface of freshly laid strip.
  - .2 Construct joints between asphalt concrete pavement and Portland cement concrete pavement as indicated.
  - .3 Paint contact surfaces of existing structures such as manholes, curbs or gutters with bituminous material prior to placing adjacent pavement.
- .2 Transverse joints:
  - .1 Offset transverse joint in succeeding lifts by at least 600 mm.
  - .2 Cut back to full depth vertical face and tack face with thin coat of hot asphalt prior to continuing paving.
  - .3 Compact transverse joints to provide smooth riding surface. Use methods to prevent rounding of compacted surface at joints.
- .3 Longitudinal joints:
  - .1 Offset longitudinal joints in succeeding lifts by at least 150 mm.
  - .2 Cold joint is defined as joint where asphalt mix is placed, compacted and left to cool below 100 degrees C prior to paving of adjacent lane.

- .1 If cold joint cannot be avoided, cut back by saw cutting previously laid lane, by at least 150 mm, to full depth vertical face, and tack face with thin coat of hot asphalt of adjacent lane.
- .3 Overlap previously laid strip with spreader by 25 to 50 mm.
- .4 Before rolling, carefully remove and discard coarse aggregate in material overlapping joint with lute or rake.
- .5 Roll longitudinal joints directly behind paving operation.
- .6 When rolling with static or vibratory rollers, have most of drum width ride on newly placed lane with remaining 150 mm extending onto previously placed and compacted lane.
- .4 Construct feather joints so that thinner portion of joint contains fine graded material obtained by changed mix design or by raking out coarse aggregate in mix. Place and compact joint so that joint is smooth and without visible breaks in grade. Location of feather joints as indicated.
- .5 Construct butt joints as indicated.

### **3.6 FINISH TOLERANCES**

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

### **3.7 PAVEMENT THICKNESS**

- .1 Pavements for roadways (AR): 125mm (Two lifts, 75 mm and 50mm)
- .2 Pavements for parking lots (AP): 100mm (Two lifts of 50mm)

### **3.8 DEFECTIVE WORK**

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

**END OF SECTION**





Government  
of Canada

Gouvernement  
du Canada

Contract Number / Numéro du contrat

W6897-210036

Security Classification / Classification de sécurité  
Unclassified

**SECURITY REQUIREMENTS CHECK LIST (SRCL)**  
**LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)**

**PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE**

1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine		2. Branch or Directorate / Direction générale ou Direction ADM (IE) RPOU (West) Det. Suffield	
3. a) Subcontract Number / Numéro du contrat de sous-traitance		3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant	
4. Brief Description of Work / Brève description du travail Work under this Standing Offer Agreement (SOA) includes the provision of skilled and licensed labour, tools, equipment, supervision and material as requested by Defence Construction Canada or the Department of National Defence, in the form of call-ups for roads paving services at CFB Suffield, Alberta. Services are to be provided on an "as and when requested" basis in accordance with the Statement of Work attached. Requirements for specific tasks will be further detailed in each respective Commitment of Service, which will be accompanied with a statement of work and / or work order.			
5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?		<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?		<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
6. Indicate the type of access required / Indiquer le type d'accès requis			
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)		<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.		<input type="checkbox"/> No Non	<input checked="" type="checkbox"/> Yes Oui
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?		<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès			
Canada <input type="checkbox"/>	NATO / OTAN <input type="checkbox"/>	Foreign / Étranger <input type="checkbox"/>	
7. b) Release restrictions / Restrictions relatives à la diffusion			
No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/>	All NATO countries Tous les pays de l'OTAN <input type="checkbox"/>	No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/>	
Not releasable À ne pas diffuser <input type="checkbox"/>			
Restricted to: / Limité à: <input type="checkbox"/>	Restricted to: / Limité à: <input type="checkbox"/>	Restricted to: / Limité à: <input type="checkbox"/>	
Specify country(ies): / Préciser le(s) pays:	Specify country(ies): / Préciser le(s) pays:	Specify country(ies): / Préciser le(s) pays:	
7. c) Level of information / Niveau d'information			
PROTECTED A PROTÉGÉ A <input type="checkbox"/>	NATO UNCLASSIFIED NATO NON CLASSIFIÉ <input type="checkbox"/>	PROTECTED A PROTÉGÉ A <input type="checkbox"/>	
PROTECTED B PROTÉGÉ B <input type="checkbox"/>	NATO RESTRICTED NATO DIFFUSION RESTREINTE <input type="checkbox"/>	PROTECTED B PROTÉGÉ B <input type="checkbox"/>	
PROTECTED C PROTÉGÉ C <input type="checkbox"/>	NATO CONFIDENTIAL NATO CONFIDENTIEL <input type="checkbox"/>	PROTECTED C PROTÉGÉ C <input type="checkbox"/>	
CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	NATO SECRET NATO SECRET <input type="checkbox"/>	CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	
SECRET SECRET <input type="checkbox"/>	COSMIC TOP SECRET COSMIC TRÈS SECRET <input type="checkbox"/>	SECRET SECRET <input type="checkbox"/>	
TOP SECRET TRÈS SECRET <input type="checkbox"/>		TOP SECRET TRÈS SECRET <input type="checkbox"/>	
TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>		TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>	



**PART A (continued) / PARTIE A (suite)**

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets? ☒ No ☐ Yes  
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS? ☒ Non ☐ Oui

If Yes, indicate the level of sensitivity:

Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets? ☒ No ☐ Yes  
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate? ☒ Non ☐ Oui

Short Title(s) of material / Titre(s) abrégé(s) du matériel :

Document Number / Numéro du document :

**PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)**

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

- |   |   |   |  |
|---|---|---|--|
| <input checked="" type="checkbox"/> RELIABILITY STATUS<br>COTE DE FIABILITÉ | <input type="checkbox"/> CONFIDENTIAL<br>CONFIDENTIEL           | <input type="checkbox"/> SECRET<br>SECRET           | <input type="checkbox"/> TOP SECRET<br>TRÈS SECRET               |
| <input type="checkbox"/> TOP SECRET-SIGINT<br>TRÈS SECRET - SIGINT          | <input type="checkbox"/> NATO CONFIDENTIAL<br>NATO CONFIDENTIEL | <input type="checkbox"/> NATO SECRET<br>NATO SECRET | <input type="checkbox"/> COSMIC TOP SECRET<br>COSMIC TRÈS SECRET |
| <input type="checkbox"/> SITE ACCESS<br>ACCÈS AUX EMPLACEMENTS              |   |   |  |

Special comments:

Commentaires spéciaux :

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.

REMARQUE : Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work? ☒ No ☐ Yes  
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail? ☒ Non ☐ Oui

If Yes, will unscreened personnel be escorted?

Dans l'affirmative, le personnel en question sera-t-il escorté?

☐ No ☐ Yes  
☐ Non ☐ Oui

**PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)**

**INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS**

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises? ☒ No ☐ Yes  
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS? ☒ Non ☐ Oui

11. b) Will the supplier be required to safeguard COMSEC information or assets? ☒ No ☐ Yes  
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC? ☒ Non ☐ Oui

**PRODUCTION**

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises? ☒ No ☐ Yes  
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ? ☒ Non ☐ Oui

**INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)**

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data? ☒ No ☐ Yes  
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS? ☒ Non ☐ Oui

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency? ☒ No ☐ Yes  
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale? ☒ Non ☐ Oui





**PART C - (continued) / PARTIE C - (suite)**

For users completing the form manually use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.

Les utilisateurs qui remplissent le formulaire manuellement doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form online (via the Internet), the summary chart is automatically populated by your responses to previous questions.

Dans le cas des utilisateurs qui remplissent le formulaire en ligne (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

**SUMMARY CHART / TABLEAU RÉCAPITULATIF**

Category Catégorie	PROTECTED PROTÉGÉ			CLASSIFIED CLASSIFIÉ			NATO				COMSEC					
	A	B	C	CONFIDENTIAL  CONFIDENTIEL	SECRET	TOP SECRET  TRÈS SECRET	NATO RESTRICTED  NATO DIFFUSION RESTREINTE	NATO CONFIDENTIAL  NATO CONFIDENTIEL	NATO SECRET	COSMIC TOP SECRET  COSMIC TRÈS SECRET	PROTECTED PROTÉGÉ			CONFIDENTIAL	SECRET	TOP SECRET  TRÈS SECRET
											A	B	C			
Information / Assets Renseignements / Biens Production																
IT Media / Support TI																
IT Link / Lien électronique																

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?  
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?

☒ No  
Non

☐ Yes  
Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".

Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?  
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?

☒ No  
Non

☐ Yes  
Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).

Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquer qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).