



**RETURN BIDS TO:**

**RETOURNER LES SOUMISSIONS À:**

Travaux publics et Services gouvernementaux  
Canada

Place Bonaventure, portail Sud-Oue

800, rue de La Gauchetière Ouest

7<sup>e</sup> étage, suite 7300

Montréal

Québec

H5A 1L6

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**SOLICITATION AMENDMENT**

**MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**

Raison sociale et adresse du  
fournisseur/de l'entrepreneur

**Issuing Office - Bureau de distribution**

Travaux publics et Services gouvernementaux Canada

Place Bonaventure, portail Sud-Oue

800, rue de La Gauchetière Ouest

7<sup>e</sup> étage, suite 7300

Montréal

Québec

H5A 1L6

<b>Title - Sujet</b> Fence replacement at Scheffervill	
<b>Solicitation No. - N° de l'invitation</b> EF997-200848/B	<b>Amendment No. - N° modif.</b> 001
<b>Client Reference No. - N° de référence du client</b> R.096391.001	<b>Date</b> 2019-09-04
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$MTC-560-15453	
<b>File No. - N° de dossier</b> MTC-9-42107 (560)	<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> <b>on - le 2019-09-18</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Heure Avancée de l'Est HAE
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Ghali, Camille	<b>Buyer Id - Id de l'acheteur</b> mtc560
<b>Telephone No. - N° de téléphone</b> (514) 607-2190 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

Instructions: See Herein

Instructions: Voir aux présentes

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<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</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

Solicitation No. - N° de l'invitation

EF997-200848/B

Client Ref. No. - N° de réf. du client

R.0096391.001

Amd. No. - N° de la modif.

001

File No. - N° du dossier

MTC-9-42107

Buyer ID - Id de l'acheteur

mtc560

CCC No./N° CCC - FMS No/ N° VME

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Work to partially replace the fence at Schefferville Airport on behalf of Transport Canada.

## **AMENDMENT No. 1**

This amendment aims to include the Specifications, hereafter.

**- All other terms and conditions remain unchanged –**



**Repairs of the perimeter fences,  
Schefferville airport, Quebec.**

Project PWGSC : R.096391.001

**TECHNICAL SPECIFICATION FOR TENDER**

**August 2018**



Services publics  
et Approvisionnement  
Canada

Public Services and  
Procurement  
Canada



Transports  
Canada

Transport  
Canada

Schefferville Airport  
Schefferville (Quebec)

Repairs of the perimeter fences.  
August 2018

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Schefferville Airport  
Schefferville (Quebec)

Repairs of the perimeter fences.  
August 2018

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**1.1 DESCRIPTION OF WORKS**

- .1 Works under this contract included the supply of the labour, the equipments and materials required to the repairs of the fences at Schefferville airport.
- .2 The types of fences to be repaired are square link wire fence and chain link fence. The departmental representative will indicate on site the exact nature of repairs to be done.
- .3 Removal of bushes within 3 m on both side of the fence
- .4 Note that the works are located inside the restricted area of the airport and are subject to certain enactments related to airport security. Theses enactments are describe in section 01 35 13.13 – Airport in uses.

**1.2 WORK SCHEDULE**

- .1 The contractor shall take notice and into consideration that works on the movement areas of the airport shall be realized in a manner to permits the airport operations.
- .2 The contractor must have the means and necessary equipments to move the materials and the required pieces of equipments for the work day.
- .3 Unless the Departmental Representative otherwise permitted, the work will be performed during the day, between 07:00 and 17:00 from Monday to Friday inclusive
- .4 At the request of the airport authority or the departmental representative, the contractor must free the movement areas and approaches surfaces of all equipment within a maximum of 30 minutes.
- .5 The Departmental Representative will identify on-site the repairs to be done and will establish the scheduling of the works.
- .6 All the fences damages and broken parts encountered along the fence perimeter of the airport shall be repaired.

**1.3 REGULATED ZONE**

- .1 The works of the present contract are located inside of a regulated zone of the airport. Please refer to the requirements of section 01 35 13.13 – Special project procedures for airport facilities, for information regarding the requirements in terms of safety and security at airports.

**1.4 CONTRACTOR USE OF PREMISES**

- .1 Use of site is restricted to the designed areas for the execution of works and for storage.
- .2 Co-ordinate use of premises under direction of the departmental representative
- .3 If necessary and for the purposes of this contract, storage areas will be made available to the contractor, however it is the contractor responsibility to secure and monitor the storage areas.

**1.5 OWNER OCCUPANCY**

- .1 Owner will occupy premises during entire construction period for execution of normal operations.
- .2 Co-operate with Owner in scheduling

**1.6 PARTICULAR CONDITIONS**

- .1 Security of the airport enclosure will be maintained at all times. After each works shift, the perimeter fencing should be closed and no breach will be tolerated. The use and the type of temporary fence should be approved by the Departmental Representative.
- .2 The repairs on existing fences will be executed as directed by the departmental representative. Transport Canada will provide the escort required to circulate on the air side of the airport.

**1.7 EXISTING SERVICES**

- .1 Notify the departmental 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 departmental representative 48 hours 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 the operations.
- .3 Establish location and extent of service lines in area of work before starting Work. Notify the departmental representative of findings.
- .4 Submit schedule to and obtain approval from the departmental 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.
- .5 Where unknown services are encountered, immediately advise the departmental representative and confirm findings in writing.
- .6 Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction.
- .7 Record locations of maintained, re-routed and abandoned service lines.

**1.8 ADDITIONAL DRAWINGS**

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

**1.9 DOCUMENTS REQUIRED**

- .1 Maintain at job site, one copy each document as follows:
  - .1 Contract Drawings.

Project R.096391.001

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

**1.10 PROJECT MEETINGS**

- .1 The departmental representative will arrange project meetings and assume responsibility for scheduling them. He will also record and distribute the minutes of these meetings.

**1.11 TYPE OF CONTRACT**

- .1 Tenders will be made on a unit and/or a lump sum price to include labour, materials, equipment and all other cost pertaining to the work or as set forth in the contract.
- .2 All expenses incurred to meet the requirements of the present contract and non covered by item of payment of the unit price table will have to be included in the overheads of the contractor and distributed proportionally on the different items of tender.

**1.12 SCHEDULE TO COMPLETE ALL WORKS**

- .1 All works must be completed at least at the end of the month of December of the year of the contract award.

**1.13**

**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            CASH ALLOWANCES**

- .1        Include in Contract Price specified cash allowances.
- .2        Cash allowances, unless otherwise specified, cover net cost to Contractor of services, products, construction machinery and equipment, freight, handling, unloading, storage and other authorized expenses incurred in performing Work.
- .3        Contract Price, and not cash allowance, includes Contractor's overhead and profit in connection with such cash allowance.
- .4        Contract Price will be adjusted by written order to provide for excess or deficit to each cash allowance.
- .5        Where costs under a cash allowance exceed amount of allowance, Contractor will be compensated for excess incurred and substantiated plus allowance for overhead and profit as set out in Contract Documents.
- .6        Include progress payments on accounts of work authorized under cash allowances in monthly certificate for payment.
- .7        Amount of each allowance, for Work specified in respective specification Sections is as follows:
  - .1        Section 01 35 13.13- Airports in use, include allowance of \$5 000 for the supply of airport escort services.

**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 PRECONSTRUCTION MEETING**

- .1 Within 5 days after award of Contract, the departmental representative will request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
- .2 Senior representatives or Departmental Representative, Contractor, major Subcontractors, field inspectors and supervisors will be in attendance.
- .3 The departmental representative will establish time and location of meeting and notify parties concerned minimum 5 days before meeting.
- .4 Agenda to include:
  - .1 Appointment of official representative of participants in the Work.
  - .2 Schedule of Work, Construction Progress Schedules - Bar (GANTT) Chart.
  - .3 Schedule of submission of shop drawings, samples, colour chips. Submit submittals in accordance with Section 01 33 00 - Submittal Procedures.
  - .4 Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences in accordance with Section 01 52 00 - Construction Facilities.
  - .5 Delivery schedule of materials.
  - .6 Site security in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.
  - .7 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements.
  - .8 Record drawings in accordance with Section 01 33 00 - Submittal Procedures.
  - .9 Monthly progress claims, administrative procedures, photographs, hold backs.
  - .10 Appointment of inspection and testing agencies or firms.
  - .11 Insurances, transcript of policies.

**1.2 PROGRESS MEETINGS**

- .1 During course of Work and 2 weeks prior to project completion, the departmental Representative will establish progress meetings.
- .2 Contractor, major Subcontractors involved in Work Departmental Representative are to be in attendance.
- .3 The departmental Representative will notify parties minimum 5 days prior to meetings.
- .4 The departmental representative will record minutes of meetings and circulate to attending parties and affected parties not in attendance within 3 days after meeting.
- .5 Agenda to include the following:
  - .1 Review, approval of minutes of previous meeting.
  - .2 Review of Work progress since previous meeting.

- .3 Field observations, problems, conflicts.
- .4 Problems which impede construction schedule.
- .5 Review of off-site fabrication delivery schedules.
- .6 Corrective measures and procedures to regain projected schedule.
- .7 Revision to construction schedule.
- .8 Progress schedule, during succeeding work period.
- .9 Review submittal schedules: expedite as required.
- .10 Maintenance of quality standards.
- .11 Review proposed changes for affect on construction schedule and on completion date.
- .12 Other business.

**Part 2 Products**

**2.1 NOT USED**

**Part 3 Execution**

**3.1 NOT USED**

**END OF SECTION**

**Part 1            General**

**1.1               RELATED SECTIONS**

- .1        Section 32 31 26.01 - Fences Repairs.

**1.2               ADMINISTRATIVE**

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

**1.3               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        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.

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

- .10 Submit electronic copies or 3 copies of product data sheets or brochures for requirements requested in specification Sections and as requested by Departmental Representative where shop drawings will not be prepared due to standardized manufacture of product.
- .11 Submit electronic copies or 3 copies of test reports for requirements requested in specification Sections and as requested by Departmental 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.
- .12 Submit electronic copies or 3 copies of certificates for requirements requested in specification Sections and as requested by Departmental 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.
- .13 Submit electronic copies or 3 copies of manufacturers instructions for requirements requested in specification Sections and as requested by Departmental 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.
- .14 Submit electronic copies or 3 copies of Manufacturer's Field Reports for requirements requested in specification Sections and as requested by Departmental Representative.
  - .1 Documentation of the testing and verification actions taken by manufacturer's representative to confirm compliance with manufacturer's standards or instructions.
- .15 Submit electronic copies or 3 copies of Operation and Maintenance Data for requirements requested in specification Sections and as requested by Departmental Representative.
- .16 Delete information not applicable to project.
- .17 Supplement standard information to provide details applicable to project.
- .18 If upon review and approval by Departmental Representative, no errors or omissions are discovered or if only minor corrections are made, 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.
- .19 The review of shop drawings by Public Works and Government Services Canada (PWGSC) is for sole purpose of ascertaining conformance with general concept.
  - .1 This review shall not mean that PWGSC approves detail design inherent in shop drawings, responsibility for which shall remain with Contractor submitting same, and such review shall not relieve Contractor of responsibility for errors or

omissions in shop drawings or of responsibility for meeting requirements of construction and Contract Documents.

- .2 Without restricting generality of foregoing, Contractor is responsible for dimensions to be confirmed and correlated at job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of Work of sub-trades.

#### **1.4 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 Departmental Representative's business address.
- .3 Notify Departmental 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 Departmental Representative are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Departmental Representative prior to proceeding with Work.
- .6 Make changes in samples which Departmental Representative may require, consistent with Contract Documents.
- .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

#### **1.5 MOCK-UPS**

- .1 Erect mock-ups in accordance with 01 45 00 - Quality Control.

#### **1.6 CERTIFICATES AND TRANSCRIPTS**

- .1 Immediately after award of Contract, submit Workers' Compensation Board status.

### **Part 2 Products**

#### **2.1 NOT USED**

### **Part 3 Execution**

#### **3.1 NOT USED**

**END OF SECTION**

**Part 1            General****1.1               RELATED SECTIONS**

- .1        Section 00 11 11 – Description of Work.
- .2        Section 01 52 00 – Construction Facilities.
- .3        Section 01 21 00 – Allowances.

**1.2               DEFINITIONS**

- .1        Restricted or secured area: Any area on airport property to which access is restricted by sign and/or monitored is a secured or restricted area.
- .2        Movement area: Airport surfaces used for movement of aircrafts including apron, taxiways and runways.

**1.3               GENERAL PROTECTION**

- .1        The Contractor shall familiarize himself with the rules and regulations pertaining to persons using an airport and give appropriate instructions to his employees and sub-contractors.
- .2        Rules and regulations are available or at the following Web Site: <http://www.tc.gc.ca/acts-regulations> under “Airport Traffic Regulations”.
- .3        Be responsible for construction, personnel and vehicles employed on project and requiring access to restricted areas.

**1.4               RESPONSIBLE PERSONNEL**

- .1        Provide airport manager and departmental representative with list of responsible personnel and those of sub-contractors who may be contacted after working hours in case of emergency.

**1.5               ESCORTS**

- .1        Airport operator will provide the airport escort services. Airport operator will also supply the escort vehicles and the radio with the flight station services (FSS) frequency. Every vehicle or person entering the restricted area must be escorted and every vehicle must be equipped with a amber rotary beacon.
- .2        The Contractor and his employees must instantly observe orders given by the escort.
- .3        Contractor will advise the airport operator at least 12 hours in advance of any schedule or program modifications when escorts are required. This requirement is necessary to organize the escort’s working schedules.
- .4        Contractor will supply radios needed for the communications between the contractor, departmental representative and the escort officer.

**1.6 DAILY SECURITY**

- .1 On the apron area, no torch work, fire will be tolerated under penalty of fine to the person infringing airport regulations. This is because of ever present motor-fuel conduits and vapour.

**1.7 MESUREMENTS FOR PAYMENTS**

- .1 The contractor will have to the airport operator directly for the expenses associated with escort services. These services are subject to an allowance included in the contract price and will be reimbursed as described in section 01 21 00 – Allowances.
- .2 All others associated coast with meeting the requirements of this section of the specifications shall be included in the cost of the different items of the tender.

**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 Contractor shall manage his operations so that safety and security of the public and of site workers always take precedence over cost and scheduling considerations.

**1.2 REFERENCES**

- .1 Canada Labour Code - Part II, Canadian Occupational Safety and Health Regulations.
- .2 Canadian Standards Association (CSA)
- .3 Workplace Hazardous Materials Information System (WHMIS)
- .4 Act Respecting Occupational Health and Safety, R.S.Q. Chapter S-2.1.
- .5 Construction Safety Code, S-2.1, r.6.

**1.3 SUBMITTALS**

- .1 Submit the documents required according to section 01 33 00 - (Documents and samples to be submitted).
- .2 Submit to Departmental Representative, the CSST, the Association paritaire en santé et sécurité du secteur de la construction (ASP Construction) the site-specific safety program, as outlined in 1.8 at least 10 days prior to start of work. The Contractor must review his program during the course of the project if any change occurs in work methods or site conditions. The Departmental Representative may, after receiving the program or at any time during the project, ask the Contractor to update or modify the program in order to better reflect the reality of the construction site and activities. The Contractor must make the required changes before work begins.
- .3 Submit to Departmental Representative the site inspection sheet, duly completed, at the intervals indicated in 1.12.1.
- .4 Submit to Departmental Representative within 24 hours a copy of any inspection report, correction notice or recommendation issued by federal or provincial inspectors.
- .5 Submit to Departmental Representative within 24 hours an investigation report for any accident involving injury and any incident exposing a potential hazard.
- .6 Submit to Departmental Representative all safety data sheets for hazardous material to be used at the site at least three days before they are to be used.
- .7 Submit to Departmental Representative copies of all training certificates required for application of the safety program, in particular:
  - .1 General construction site safety and health courses;
  - .2 Safety officer attestations;
  - .3 First aid in the workplace and cardiopulmonary resuscitation;

- .4 Work likely to release asbestos dust;
  - .5 Work in confined spaces;
  - .6 Lockout procedures;
  - .7 Wearing and fitting of individual protective gear;
  - .8 forklift truck;
  - .9 positioning platform;
  - .10 Any other requirement of Regulations or the safety program.
- .8 Medical examinations : Wherever legislation, regulations, directives, specification or a safety program require medical examinations, Contractor must:
- .1 Prior to start-up, submit to Departmental Representative certificates of medical examination for all concerned supervisory staff and employees who will be on duty when the site opens.
  - .2 Thereafter, submit without delay certificates of medical examination for any newly hired concerned personnel as and when they start work at the site.
- .9 Emergency plan : The emergency plan, as defined in 1.8.3, shall be submitted to Departmental Representative at the same time as the site-specific safety program.
- .10 Notice of site opening : Notice of site opening shall be submitted to the Commission *de la santé et de la sécurité du travail* before work begins . A copy of such notice shall be submitted to Departmental Representative at the same time and another posted in full view at the site. During demobilization, a notice of site closing shall be submitted to the CSST, with copy to Departmental Representative.
- .11 Plans and certificates of compliance : Submit to the CSST and to Departmental Representative a copy signed and sealed by engineer of all plans and certificates of compliance required pursuant to the Construction Safety Code (S-2.1, r. 6), or by any other legislation or regulation or by any other clause in the specifications or in this contract. Copies of these documents must be on hand at the site at all times.
- .12 Certificate of compliance delivered by the CSST: The certificate of compliance is a document delivered by the CSST confirming that the contractor is in rule with the CSST, i.e. that he had pay out all the benefits concerning this contract. This document must be delivered to Departmental Representative at the end of the work.

#### **1.4 HAZARDS ASSESSMENT**

- .1 The contractor must identify all hazards inherent in each task to be carried out at the site.
- .2 The contractor must plan and organize work so as to eliminate hazards at source or promote mutual protection so that reliance on individual protective gear can be kept to a minimum. Where individual protection against falling is required, workers shall use safety harness that meets standard Can - CSA- Z-259.10 - M90. Safety belts shall not be used as protection against falling.
- .3 Equipment, tools and protective gear which cannot be installed, fitted or used without compromising the health or safety of workers or the public shall be deemed inadequate for the work to be executed.

- .4 All mechanical equipment shall be inspected before delivery to the site. Before using any mechanical equipment, submit to Departmental Representative a certificate of compliance signed by a qualified mechanic. Whenever he suspects a defect or accident risk, Departmental Representative may at any time order the immediate shut-down of equipment and require a new inspection by a specialist of his own choosing.

## **1.5 MEETINGS**

- .1 Contractor decisional representative must attend any meetings at which site safety and health issues are to be discussed
- .2 Set up a site safety committee, and convene meetings every in accordance with the Construction Safety Code (S-2.1, r.6).

## **1.6 LEGAL AND REGULATORY REQUIREMENTS**

- .1 Comply with all legislation, regulations and standards applicable to the site and its related activities.
- .2 Comply with specified standards and regulations to ensure safe operations at site containing hazardous or toxic materials.
- .3 Regardless of the publication date shown in the construction safety code, always use the most recent version.

## **1.7 SITE-SPECIFIC CONDITIONS**

- .1 At the site, the contractor must take account of the following specific conditions:
  - .1 Occurrence of peat bog and swampy land near the airport site.

## **1.8 SAFETY AND HEALTH MANAGEMENT**

- .1 Acknowledge and assume all the tasks and obligations which customarily devolve upon a principal Contractor under the terms of the Act Respecting Occupational Health and Safety (R.S.Q., chapter S-2.1) and the Construction Safety Code (S-2.1, r.6).
- .2 Develop a site-specific safety program based on the hazards identified and apply it from the start of project work until close-out is completed. The safety program must take account of all information appearing in 1.7 and must be submitted to all parties concerned, in accordance with the provisions set forth in 1.3. At a minimum, the site-specific safety program must include :
  - .1 Company safety and health policy.
  - .2 A description of the work, total costs, schedule and projected workforce curve.
  - .3 Flow chart of safety and health responsibility.
  - .4 The physical and material layout of the site.
  - .5 First-aid and first-line treatment standards.
  - .6 Identification of site-specific hazards.
  - .7 Risk assessment for the tasks to be carried out, including preventive measures and the procedures for applying them.

- .8 Training requirements.
  - .9 Procedures in case of accident/injury
  - .10 Written commitment from all parties to comply with the prevention program.
  - .11 A site inspection schedule based on the preventive measures.
- .3 The contractor must draw up an effective emergency plan based on the characteristics and constraints of the site and its surroundings. Submit the emergency plan to all parties concerned, pursuant to the provisions of 1.3. The emergency plan must include:
- .1 Evacuation procedure;
  - .2 Identification of resources (police, firefighters, ambulance services, etc.);
  - .3 Identification of persons in charge at the site;
  - .4 Identification of those with first-aid training;
  - .5 Training required for those responsible for applying the plan;
  - .6 Any other information needed, in the light of the site characteristics.

## **1.9 RESPONSIBILITIES**

- .1 No matter the size of the construction site or how many workers are present at the workplace, designate a competent person to supervise and take responsibility for health and safety. Take all necessary measures to ensure the health and safety of persons and property at or in the immediate vicinity of the site and likely to be affected by any of the work.
- .2 Take all necessary measures to ensure application of and compliance with the safety and health requirements of the contract documents, applicable federal and provincial regulations and standards as well as the site-specific safety program, complying without delay with any order or correction notice issued by the Commission de la santé et de la sécurité du travail.
- .3 Take all necessary measures to keep the site clean and in good order throughout the course of the work

## **1.10 COMMUNICATIONS AND POSTING**

- .1 Make all necessary arrangements to ensure effective communication of safety and health information at the site. As they arrive on site, all workers must be informed of their rights and obligations pertaining to the site specific safety program. The Contractor must insist on their right to refuse to perform work which they feel may threaten their own health, safety or physical integrity or that of other persons at the site. The Contractor must keep and update a written record of all information transmitted with signatures of all affected workers.
- .2 The following information and documents must be posted in a location readily accessible to all workers:
  - .1 Notice of site opening;
  - .2 Identification of principal Contractor;
  - .3 Company OSH policy;
  - .4 Site-specific safety program;

- .5 Emergency plan;
- .6 Data sheets for all hazardous material used at the site;
- .7 Minutes of site committee meetings;
- .8 Names of site committee representatives;
- .9 Names of those with first-aid training;
- .10 Action reports and correction notices issued by the CSST.

#### **1.11 UNFORESEEN CIRCUMSTANCES**

- .1 Whenever a source of danger not defined in the specifications or identified in the preliminary site inspection arises as a result of or in the course of the work, immediately suspend work, take appropriate temporary measures to protect the workers and the public and notify Departmental Representative, both verbally and in writing. Then the Contractor must modify or update the site specific safety program in order to resume work in safe conditions.

#### **1.12 INSPECTION OF SITE AND CORRECTION OF HAZARDOUS SITUATIONS**

- .1 Inspect the work site and complete the site inspection sheet at least once a week.
- .2 Immediately take all necessary measures to correct any lapses from legislative or regulatory requirements and any hazards identified by a government inspector, by the Departmental Representative, by the site safety and health coordinator or during routine inspections.
- .3 Submit to Departmental Representative written confirmation of all measures taken to correct lapses and hazardous situations.
- .4 Give the safety officer or, where there is no safety officer, the person assigned to safety and health responsibilities, full authority to order interruption and resuming of work as and when deemed necessary or desirable in the interests of safety and health. This person should always act so that the safety and health of the public and site workers and environmental protection take precedence over cost and scheduling considerations.
- .5 Without limiting the scope of sections 1.8 and 1.9, Departmental Representative may order cessation of work if, in his/her view, there is any hazard or threat to the safety or health of site personnel or the public or to the environment.

#### **1.13 BLASTING**

- .1 Blasting and other use of explosives are forbidden unless authorized in writing by Departmental Representative.
- .2 Any operation involving explosives must be carried out under the supervision of a qualified shot firer.
- .3 The purchase, carriage, storage and use of explosives must comply with all applicable federal and provincial legislation:

- .1 Canada: Explosives Act (E-17)1, Explosives Regulations (C.R.C. CH. 599), Standard for Storage of Blasting Charges and Detonators, Transportation of Dangerous Goods Act and Regulations.
- .2 Quebec: Explosives Act (E-22), Explosives Regulations (E-22, r.1), Safety Code for the Construction Industry (S-2.1, r.6), Transportation of Dangerous Goods Regulations.
- .4 Contractor shall obtain all permits required pursuant to the legislation and regulations referred to above and keep copies on hand at the site.
- .5 Contractor shall facilitate inspection of the site, stored explosives and vehicles used to transport explosives by any government representatives or police officers whose jurisdiction encompasses explosives.

#### **1.14 POWDER ACTUATED DEVICES**

- .1 Use of power hammers and other explosive-actuated devices must be authorized by Departmental Representative.
- .2 Any person using a power hammer shall hold a training certificate and meet all requirements of Section 7 of the Construction Safety Code (S-2.1, r. 6).
- .3 Any other explosive-actuated device shall be used in accordance with the manufacturer's directions and applicable standards and regulations

**END OF SECTION**

**Part 1 General****1.1 RELATED SECTIONS**

- .1 Section 32 31 26.01 - Fences Repairs.

**1.2 DEFINITIONS**

- .1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade environment aesthetically, culturally and/or historically.
- .2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction. Control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

**1.3 SUBMITTALS**

- .1 Submittals: in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Prior to commencing construction activities or delivery of materials to site, submit Environmental Protection Plan for review and approval by Departmental Representative. Environmental Protection Plan is to present comprehensive overview of known or potential environmental issues which must be addressed during construction.
- .3 Address topics at level of detail commensurate with environmental issue and required construction task[s].
- .4 Environmental protection plan: include:
  - .1 Names of persons responsible for ensuring adherence to Environmental Protection Plan.
  - .2 Names and qualifications of persons responsible for manifesting hazardous waste to be removed from site.
  - .3 Names and qualifications of persons responsible for training site personnel.
  - .4 Descriptions of environmental protection personnel training program.
  - .5 Erosion and sediment control plan which identifies type and location of erosion and sediment controls to be provided including monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations.
  - .6 Drawings showing locations of proposed temporary excavations or embankments for haul roads, stream crossings, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials on site.
  - .7 Traffic control plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. Plans include measures to

minimize amount of mud transported onto paved public roads by vehicles or runoff.

- .8 Work area plan showing proposed activity in each portion of area and identifying areas of limited use or non-use. Plan to include measures for marking limits of use areas including methods for protection of features to be preserved within authorized work areas.
- .9 Spill Control Plan: including procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
- .10 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
- .11 Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, do not become air borne and travel off project site.
- .12 Contaminant prevention plan that: identifies potentially hazardous substances to be used on job site; identifies intended actions to prevent introduction of such materials into air, water, or ground; and details provisions for compliance with Federal, Provincial, and Municipal laws and regulations for storage and handling of these materials.
- .13 Waste water management plan that identifies methods and procedures for management and/or discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, dewatering of ground water, disinfection water, hydrostatic test water, and water used in flushing of lines.
- .14 Historical, archaeological, cultural resources biological resources and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands.
- .15 Pesticide treatment plan: to be included and updated, as required.

#### **1.4 FIRES**

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

#### **1.5 DISPOSAL OF WASTES**

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

#### **1.6 DRAINAGE**

- .1 Provide erosion and sediment control plan that identifies type and location of erosion and sediment controls to be provided. Plan: include monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations.
- .2 Storm Water Pollution Prevention Plan (SWPPP) to be substituted for erosion and sedimentations control plan.
- .3 Provide temporary drainage and pumping as necessary to keep excavations and site free from water.

- .4 Do not pump water containing suspended materials into waterways, sewer or drainage systems.
- .5 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements. The departmental representative can ask to build a sedimentation basin and the use of sediment barriers if required. Consider to have on work site a minimum of 120m of sediment barriers

### **1.7 WORK ADJACENT TO WATERWAYS**

- .1 Do not operate construction equipment in waterways.
- .2 Do not use waterway beds for borrow material without Departmental Representative's approval.
- .3 Do not dump excavated fill, waste material or debris in waterways.
- .4 Design and construct temporary crossings to minimize erosion to waterways.
- .5 Do not skid logs or construction materials across waterways.
- .6 Avoid indicated spawning beds when constructing temporary crossings of waterways.
- .7 Do not blast under water or within 100 m of indicated spawning beds.

### **1.8 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 and waterways 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.

### **1.9 HISTORICAL / ARCHAEOLOGICAL CONTROL**

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

**1.10 NOTIFICATION**

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

**Part 2 Products****2.1 NOT USED****Part 3 Execution****3.1 NOT USED**

END OF SECTION

**Part 1 General****1.1 RELATED SECTIONS**

- .1 Section 32 31 26.01 - Fences Repairs.

**1.2 INSPECTION**

- .1 Allow Departmental 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 by Departmental Representative instructions, or law of Place of Work.
- .3 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.
- .4 Departmental Representative will order part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction.

**1.3 INDEPENDENT INSPECTION AGENCIES**

- .1 Independent Inspection/Testing Agencies will be engaged by Departmental Representative for purpose of inspecting and/or testing portions of Work. Cost of such services will be borne by Departmental Representative.
- .2 Provide equipment required for executing inspection and testing by appointed agencies.
- .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, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Departmental Representative at no cost to Departmental Representative. Pay costs for retesting and reinspection.

**1.4 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.

**1.5 PROCEDURES**

- .1 Notify appropriate agency and Departmental 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 specifically requested in specifications. Submit with reasonable promptness and in orderly sequence to not cause delays in Work.
- .3 Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

#### **1.6 REJECTED WORK**

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

#### **1.7 REPORTS**

- .1 Submit the required reports of testing and dosage form inspection and test reports to Departmental Representative.
- .2 Provide copies to subcontractor of work being inspected or tested.

#### **1.8 TEST AND DOSAGE FORM**

- .1 Submit the required reports of testing and dosage form.

#### **1.9 MOCK-UPS**

- .1 Prepare mock-ups for Work specifically requested in specifications. Include for Work of Sections required to provide mock-ups.
- .2 Construct in locations acceptable to Departmental Representative.
- .3 Prepare mock-ups for Departmental Representative review with reasonable promptness and in orderly sequence, to not cause delays in Work.
- .4 Failure to prepare mock-ups 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.
- .5 If requested, Departmental Representative will assist in preparing schedule fixing dates for preparation.
- .6 Mock-ups may remain as part of Work.

**1.10 MILL TESTS**

- .1 Submit mill test certificates as requested in the different section of the spec.

**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        REFERENCES**

- .1 Canadian Standards Association (CSA International)
  - .1 CSA-A23.1/A23.2-04, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
  - .2 CSA-0121-M1978(R2003), Douglas Fir Plywood.
  - .3 CAN/CSA-S269.2-M1987(R2003), Access Scaffolding for Construction Purposes.
  - .4 CAN/CSA-Z321-96(R2001), Signs and Symbols for the Occupational Environment.

**1.2        SUBMITTALS**

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

**1.3        INSTALLATION AND REMOVAL**

- .1 Prepare site plan indicating proposed location and dimensions of area to be used by Contractor, number of trailers to be used, avenues of ingress/egress to fenced area.
- .2 Identify areas which have to be gravelled to prevent tracking of mud.
- .3 Indicate use of supplemental or other staging area.
- .4 Provide construction facilities in order to execute work expeditiously.
- .5 Remove from site all such work after use.

**1.4        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 weight or force that will endanger Work.

**1.5        CONSTRUCTION PARKING**

- .1 If required, provide and maintain adequate access to project site.
- .2 Clean surfaces that where used by Contractor's equipment.

**1.6        SECURITY**

- .1 If necessary, provide and pay for recognized security personnel to guard site and contents of site after working hours and during holidays.

**1.7 OFFICES**

- .1 If required, provide an office for the contractor uses and his employees.
  - .1 This office must have sufficient size to accommodate site meetings and furnished with drawing laydown table.
  - .2 Maintain in clean condition.
- .2 If needed, provide marked and fully stocked first-aid case in a readily available location.
- .3 If needed, subcontractors to provide their own offices as necessary. Direct location of these offices.
- .4 Supply four (3) portable radios U.H.F. 4 watts with antenna (Motorola type or equivalent), two (2) high capacity batteries per radio, three (3) fast chargers, three (3) microphones and three (3) leather casings. One portable radio will be for the exclusive use of the departmental representative, a second one for the escort personal use and the other for the contractor.

**1.8 EQUIPMENT, TOOL AND MATERIALS STORAGE**

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

**1.9 SANITARY FACILITIES**

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

**1.10 PROTECTION AND MAINTENANCE OF TRAFFIC**

- .1 Provide access and temporary relocated roads as necessary to maintain traffic.
- .2 Maintain and protect traffic on affected roads during construction period except as otherwise specifically directed by Departmental Representative.
- .3 Provide measures for protection and diversion of traffic, including provision of watch-persons and flag-persons, erection of barricades, placing of lights around and in front of equipment and work, and erection and maintenance of adequate warning, danger, and direction signs
- .4 Protect travelling public from damage to person and property.
- .5 Contractor's traffic on roads selected for hauling material to and from site to interfere as little as possible with public traffic.

- .6 Verify adequacy of existing roads and allowable load limit on these roads. Contractor: responsible for repair of damage to roads caused by construction operations.
- .7 Provide necessary lighting, signs, barricades, and distinctive markings for safe movement of traffic.
- .8 Dust control: adequate to ensure safe operation at all times.

**1.11 CLEAN-UP**

- .1 Remove construction debris, waste materials, packaging material from work site daily.
- .2 Clean dirt or mud tracked onto paved or surfaced roadways.
- .3 Store materials resulting from demolition activities that are salvageable.
- .4 Stack stored new or salvaged material not in construction facilities.

**Part 2 Products**

- .1 N/A

**Part 3 Execution**

- .1 N/A

**END OF SECTION**

**Part 1        General****1.1        RELATED SECTIONS**

- .1        Section 32 31 26.01 - Fences Repairs.

**1.2        PROJECT CLEANLINESS**

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

**1.3        DAILY CLEANING**

- .1        Keep the works cleaned.

**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.

**1.5        WASTE MANAGEMENT AND DISPOSAL**

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

**Part 2        Products****2.1        NOT USED**

- .1        Not Used.

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**Part 3            Execution**

**3.1                NOT USED**

.1            Not Used.

**END OF SECTION**

**Part 1            General**

**1.1            WASTE MANAGEMENT GOALS**

- .1       Prior to start of Work conduct meeting with Departmental Representative to review and discuss PWGSC's Waste Management Plan and Goals.
- .2       Accomplish maximum control of solid construction waste.
- .3       Preserve environment and prevent pollution and environment damage.

**1.2            RELATED SECTIONS**

- .1       Section 32 31 26.01 - Fences Repairs.

**1.3            DEFINITIONS**

- .1       Class III: non-hazardous waste - construction renovation and demolition waste.
- .2       Cost/Revenue Analysis Workplan (CRAW): based on information from WRW, and intended as financial tracking tool for determining economic status of waste management practices.
- .3       Demolition Waste Audit (DWA): relates to actual waste generated from project.
- .4       Inert Fill: inert waste - exclusively asphalt and concrete.
- .5       Materials Source Separation Program (MSSP): consists of series of ongoing activities to separate reusable and recyclable waste material into material categories from other types of waste at point of generation.
- .6       Recyclable: ability of product or material to be recovered at end of its life cycle and re-manufactured into new product for reuse.
- .7       Recycle: process by which waste and recyclable materials are transformed or collected for purpose of being transferred into new products.
- .8       Recycling: process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for purpose of using in altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- .9       Reuse: repeated use of product in same form but not necessarily for same purpose. Reuse includes:
  - .1       Salvaging reusable materials from re-modelling projects, before demolition stage, for resale, reuse on current project or for storage for use on future projects.
  - .2       Returning reusable items including pallets or unused products to vendors.
- .10      Salvage: removal of structural and non-structural materials from deconstruction/disassembly projects for purpose of reuse or recycling.
- .11      Separate Condition: refers to waste sorted into individual types.

- .12 Source Separation: acts of keeping different types of waste materials separate beginning from first time they became waste.
- .13 Waste Audit (WA): detailed inventory of materials in building. Involves quantifying by volume/weight amounts of materials and wastes generated during construction, demolition, deconstruction, or renovation project. Indicates quantities of reuse, recycling and landfill. Refer to Schedule A.
- .14 Waste Management Co-ordinator (WMC) : contractor representative responsible for supervising waste management activities as well as coordinating related, required submittal and reporting requirements.
- .15 Waste Reduction Workplan (WRW): written report which addresses opportunities for reduction, reuse, or recycling of materials. Refer to Schedule B. WRW is based on information acquired from WA (Schedule A).

#### **1.4 DOCUMENTS**

- .1 Maintain at job site, one copy of following documents:
  - .1 Waste Reduction Workplan.
  - .2 Material Source Separation Plan.

#### **1.5 SUBMITTALS**

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Prepare and submit following prior to project start-up:
  - .1 Submit 2 copies of completed Waste Reduction Workplan (WRW): Schedule B.
  - .2 Submit 2 copies of Materials Source Separation Program (MSSP) description.
- .3 Submit before final payment summary of waste materials salvaged for reuse, recycling or disposal.
  - .1 Failure to submit could result in hold back of final payment.
  - .2 Provide receipts, scale tickets, waybills, and show quantities and types of materials reused, recycled or disposed of.
  - .3 For each material reused, sold or recycled from project, include amount in tonnes and the destination.
  - .4 For each material land filled or incinerated from project, include amount in tonnes of material and identity of landfill, incinerator or transfer station.

#### **1.6 WASTE REDUCTION WORKPLAN (WRW)**

- .1 Prepare WRW prior to project start-up.
- .2 WRW should include but not limited to:
  - .1 Destination of materials listed.
  - .2 Deconstruction/disassembly techniques and sequencing.
  - .3 Schedule for deconstruction/disassembly.
  - .4 Location.

- .5 Security.
- .6 Protection.
- .7 Clear labelling of storage areas.
- .8 Details on materials handling and removal procedures.
- .9 Quantities for materials to be salvaged for reuse or recycled and materials sent to landfill.
- .3 Structure WRW to prioritize actions and follow 3R's hierarchy, with Reduction as first priority, followed by Reuse, then Recycle.
- .4 Describe management of waste.
- .5 Identify opportunities for reduction, reuse, and recycling of materials. Based on information acquired from WA.
- .6 Post WRW or summary where workers at site are able to review content.
- .7 Set realistic goals for waste reduction, recognize existing barriers and develop strategies to overcome these barriers.
- .8 Monitor and report on waste reduction by documenting total volume and cost of actual waste removed from project.

#### **1.7 MATERIALS SOURCE SEPARATION PROGRAM (MSSP)**

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

#### **1.8 STORAGE, HANDLING AND PROTECTION**

- .1 Store, materials to be reused, recycled and salvaged in locations as directed by Departmental Representative.
- .2 Protect, stockpile, store and catalogue salvaged items.

- .3 Separate non-salvageable materials from salvaged items. Transport and deliver non-salvageable items to licensed disposal facility.
- .4 Separate and store materials produced during dismantling of structures in designated areas.
- .5 Prevent contamination of materials to be salvaged and recycled and handle materials in accordance with requirements for acceptance by designated facilities.
  - .1 On-site source separation is recommended.
  - .2 Remove co-mingled materials to off-site processing facility for separation.
  - .3 Provide waybills for separated materials.

## **1.9 DISPOSAL OF WASTES**

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

## **1.10 USE OF SITE AND FACILITIES**

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

## **1.11 SCHEDULING**

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

## **Part 2 Products NOT USED**

## **Part 3 Execution**

### **3.1 APPLICATION**

- .1 Do Work in compliance with WRW.

- .2 Handle waste materials not reused, salvaged, or recycled in accordance with appropriate regulations and codes.

### 3.2 CLEANING

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

### 3.3 DIVERSION OF MATERIALS

- .1 From following list, separate materials from general waste stream and stockpile in separate piles or containers, as reviewed by Departmental Representative, and consistent with applicable fire regulations.

- .1 Mark containers or stockpile areas.
- .2 Provide instruction on disposal practices.

- .2 On-site sale of salvaged is not permitted.

- .3 Demolition Waste:

Material Type	Recommended Diversion %	Actual Diversion %
- Concrete debris, big stones	100%	Transport to an approved quarry.
- Steel, metallic pieces	100%	Transport to recycling facilities

- .4 Construction Waste:

Material Type	Recommended Diversion %	Actual Diversion %
Cardboard	100%	Transport to recycling facilities
Plastic Packaging	100%	Transport to recycling facilities
Steel	100%	Transport to recycling facilities
Wood (uncontaminated)	100%	Transport to recycling facilities
Bituminous concrete residue	100%	Transport to an approved recycling facilities.

### 3.4 WASTE REDUCTION WORKPLAN (WRW)

- .1 Schedule B:

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

### 3.5 CANADIAN GOVERNMENTAL DEPARTMENTS CHIEF RESPONSIBILITY FOR THE ENVIRONMENT

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

Province	Address	General Inquires	Fax
Québec	Ministère de l'Environnement et de la Faune, Siège social 150, boul, René-Lévesque Est Québec QC G1R 4Y1	418-643-3127 1 800-561-1616	418-646-5974

**END OF SECTION**

**Part 1 General****1.1 SECTION INCLUDES**

- .1 Requirements for the repairs of chain link, wire and wooden fencing, gates, wood and steel posts used in the construction of wire fences.

**1.2 RELATED SECTIONS**

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 74 21 - Construction/Demolition Waste Management And Disposal.

**1.3 MEASUREMENT PROCEDURES**

- .1 Fence repairs works description;
  - .1 These works consist in re-plumbing of rounded and 'T' steel post, replacement of 'T' post driven into the soil, re-driving into the ground of 'T' post, the replacement of mesh section, the re-tie of mesh on the different frames and the rehabilitation of the barbed wire on all the perimeter fence of the airports. The upper tie on each post will have to be doubled with galvanised steel wire. The removal of bush on 3 meter wide both side of the fence are included into these section and it is an integer part of the works paid by an hourly rate price. The backfilling under the fences with borrow material are also included into this section and are treated in a separated item.
  - .2 The fence repairs will be paid on an hourly rate controlled expenses tendered for the repairs crew,
  - .3 The fences repairs works will be executed as indicated on drawings and under the instructions and directives of the departmental representative. The contractor will prepare and submit for approval and signature of the departmental representative a daily detailed work order. Only the authorised works accompanied with a signed by the departmental representative work order will be taken into consideration in the calculation for payment.
    - .1 The fill of the ground under the fences with borrow materials will be paid in cubic meter of borrow materials incorporated into the works. The contractor must supply, load, transport and install these materials at the location where it was required and as indicated on drawings.
    - .2 Repairs of existing wire fence and chain link fence will be measured and paid an hourly rate. The hourly rate must include a team of three men (fence installers), one foreman and all necessary tolls, vehicles, 4 wheels VTT, trailer, machineries and equipment required to the achievement of the works like a mini excavator, an small loader on track and an all-terrain transporter. All of these and including cost for transportation, handling, administration fees and profit.
    - .3 The required materials for the repairs of fence are described inside the following list. The buying of theses materials will be paid as a lump sum. The price must include the cost for transportation, handling, administration fees and profit.

List of materials required for the fence repairs works.

Item No.	Unit of measure	Description
1	50 un.	Supply of galvanized 'T' post, heavy style for wire fence, length of 12', minimum weight of 1.55 lbs per feet with an reinforcement rib obtain by cold rolling. (voir <a href="http://www.northyorkiron.com/a_prod_t_bar.php">http://www.northyorkiron.com/a_prod_t_bar.php</a> )
2	10 un.	Supply of stiffening post; pipe diam. 88.9mm (3-1/2") x 12'-6" long , wall of 7.62mm galv. With plate as per drawing.
3	10 un.	Supply of line post; pipe diam. 63mm (2-3/8") x 12'-6" long , Schedule 40, wall of 0.216" galv.
4	10 un.	Supply of top rail; pipe diam. 43mm (1-7/8") x 10'-6" long , wall of 0.145" galv.
5	20 un.	Supply of barbed wire arm for post diam. 88.9mm (3-1/2").
6	30 un.	Supply of barbed wire arm for post diam. 63mm (2-3/8").
7	75 un.	Supply of T-post piece barbed wire arm.
8	5 un.	Supply of wired fence game type, cal.12.5, vertical wire every 6'', in roller of 100m length, 72 inch height.
9	50 un.	Supply of tie for wire fence link fence on 'T' post, pack of 600 unit.
10	10 un.	Supply of galvanised steel tie for chain link fence, pack of 100 unit.
11	1 un.	Supply of barbed wire; 2 strand, 12.5ga class III, roller of 400m.
12	50 m.	Bottom wire 5mm diam. galvanised
13	5 un.	Galvanised wire tie for bottom wire, pack of 100 unit
14	10 un.	Top rail sleeve for 48.3mm diam. pipe (1-7/8").
15	20 un.	Brace bands 88.9mm (3-1/2") diam.
16	20 un.	Brace bands 63mm (2-3/8") diam.

**1.4 TOOLS AND MACHINERY**

- .1 The contractor shall provide all the necessary tools and machinery for the advancement and completion of the work.

- .2 The contractor must provide a chain saw and a clearing saw (bushman) and all others necessary tools or machinery's to remove bushes, trees and shrubs in the route of the fence and that in sufficient quantity to permit the good advancement of the work.

## **1.5 SUBMITTALS**

- .1 Product Data:
  - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Manufacturer's Instructions:
  - .1 Submit manufacturer's installation instructions.

## **1.6 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal, and with Waste Reduction Workplan.
- .2 Place materials defined as hazardous or toxic waste in designated containers.
- .3 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .4 Separate steel, metal and plastic for recycling and dispose of it in accordance with Waste Management Plan.
- .5 Handle and dispose of hazardous materials in accordance with Regional and Municipal regulations.
- .6 Divert unused concrete materials from landfill to local quarry or facility as approved by Departmental Representative.
- .7 Do not dispose of preservative treated wood through incineration.
- .8 Do not dispose of preservative treated wood with other materials destined for recycling or reuse.
- .9 Dispose of treated wood, end pieces, wood scraps and sawdust at sanitary landfill approved by the municipality.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Borrow material
  - .1 Borrow material; granular material approved by the departmental representative.
- .2 Wire fence:
  - .1 Farm-field type: to CSA G42, standard.

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- .2 Barbed wire: to CAN/CGSB-138.2, 2.5 mm diameter zinc or aluminum coated steel wire.
- .3 stiffening and angle post; pipe diam. 88.9mm (3-1/2") x 12'-6" long , Schedule 40, wall of 0.216" galv Post.
- .4 Line post; pipe diam. 63mm (2-3/8") x 12'-6" long , Schedule 40, wall of 0.216" galv.
- .3 Gates:
  - .1 Frame: to ASTM A53, galvanized steel pipe, standard weight, 45mm outside diameter pipe for outside frame, 35mm outside diameter pipe for interior bracing.
  - .2 Size: as indicated.
  - .3 Joints: electrically welded.
- .4 Steel posts:
  - .1 Corner, end, gate and intermediate posts, projection arm with clips, corner and gate post braces, gate posts as indicated.
  - .2 Galvanizing: zinc coating, minimum 92 g/m<sup>2</sup> of surface area.
  - .3 Paint: to CAN/CGSB-1.69.
- .5 Gates: to CAN/CGSB-138.4.
- .6 Gate frames: to ASTM A53/A53M, galvanized steel pipe, standard weight 45 mm outside diameter pipe for outside frame, 35mm outside diameter pipe for interior bracing.
  - .1 Fabricate gates as indicated with electrically welded joints, and hot-dip galvanized after welding.
  - .2 Furnish gates with galvanized malleable iron hinges, latch and latch catch with provision for padlock which can be attached and operated from either side of installed gate.
  - .3 Furnish double gates with chain hook to hold gates open.
- .7 Touch-up; organic zinc-rich coating: to CAN/CGSB-1.181.

### **Part 3 Execution**

#### **3.1 FENCE REPAIRS**

- .1 Wire fence on "T" post ;
  - .1 Replacement of damaged existing post installed in concrete base; remove the existing post, backfill the hole and compact it by tamping, drive directly into the soil the new post. Keep the post levelled.
  - .2 Existing post driven into the ground; re-drive into the ground the post if it was not damaged and it is recoverable.
  - .3 Replacement of existing post driven into the ground; remove the existing damaged post and drive into the ground a new one at the same location.
  - .4 Mesh section to be replaced; cut the mesh vertically at the post and install a new section and tie it to the post.
  - .5 Attach the mesh to the frame with galvanized tie.

- .6 Replace the broken and missing barb arm.
- .7 Install barb to the arms, replace missing an damaged section.
- .2 Chain link fence;
  - .1 Replacement of installed in concrete base, damaged and can not be straightened; remove the existing post, dig the hole to the deepening specified by the departmental representative, install the new post and backfill with granular material and compact by pounding the gravel by layer of 100mm, keep the post levelled
  - .2 Damaged top rail must be replaced.
  - .3 Straighten crooked post.
  - .4 Repair or replace broken pieces.
  - .5 Attach the mesh to the frame with galvanized tie.

### **3.2 MANUFACTURER'S INSTRUCTIONS**

- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

### **3.3 FILL OF LAND UNDER THE FENCES**

- .1 Fill depressions under fences in excess of design tolerances with borrow material. The contractor must provide equipment for handling these materials for the fill of land work.

### **3.4 CLEANING**

- .1 Perform cleaning as soon as possible after installation.
- .2 Clean and trim areas disturbed by operations. The surplus of material buy for the repairs of the fences will be left to the airport manager. Dispose of others surplus material.
- .3 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

**END OF SECTION**