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**PART 1 - GENERAL**

**1 PROJECT DESCRIPTION**

- .1 The main objective of this project is to replace the cedar shingles on the CEF (Canadian Experimental Farm) Building 88 with new products of the same nature and of same appearance. Accessory work mainly consists in addressing window trim boards and frames: these components must be re-stained but some damaged pieces of wood need to be replaced prior to being re-finished.

**1.1 MINIMUM STANDARDS**

- .1 Materials shall be new and work shall conform to the minimum applicable standards of the Canadian General Standards Board, the Canadian Standards Association, the National Building Code of Canada 2010 (NBC) and all applicable Provincial and Municipal codes. In the case of conflict or discrepancy the most stringent requirement shall apply.

**1.2 SHOP DRAWINGS**

- .1 Submit for the Departmental Representative's review, two copies of each shop drawing.
- .2 The review is for the sole purpose of ascertaining conformance with the general design concept, and does not mean approval of the design details inherent in the shop drawings, responsibility for which shall remain with the Contractor. Such review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of his responsibility for meeting all requirements of the Contract Documents.
- .3 Do not commence manufacture or order materials before shop drawings are reviewed by Departmental Representative.
- .4 The Contractor to review and sign the shop drawings prior to sending them to the Departmental Representative for review.

**1.3 SAMPLES**

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

**1.4 PRODUCT DATA**

- .1 Product data: manufacturers catalogue sheets, brochures, literature, performance charts and diagrams, used to illustrate standard manufactured products.
  - .2 Submit two copies of product data.
  - .3 Delete information not applicable to project.
  - .4 Cross-reference product data information to applicable portions of Contract Documents.
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## **1.5 TAXES**

- .1 Pay all taxes properly levied by law (including Federal, Provincial and Municipal).

## **1.6 FEES, PERMITS AND CERTIFICATES**

- .1 Pay all fees and obtain all permits. Provide authorities with plans and information for acceptance certificates. Provide inspection certificates as evidence that work conforms to requirements of Authority having jurisdiction.

## **1.7 FIRE SAFETY REQUIREMENTS**

- .1 Comply with the National Building Code of Canada 2010 (NBC) for fire safety in construction and the National Fire Code of Canada 2010 (NFC) for fire prevention, fire fighting and life safety in building in use.
- .2 Comply with Human Resources Development Canada (HRDC), Fire Commissioner of Canada (FCC) standards:
  - .1 No. 301: Standard for Construction / Operations
  - .2 No. 302: Standard for Welding and Cutting
  - .3 No. 374: Fire Protection Standard for General Storage (Indoor and Outdoor)
  - .4 available from Fire Protection Engineering Services, Labour Program, HRDC or following internet site:  
<http://www.hrsdc.gc.ca/asp/gateway.asp?hr=en/lp/lo/fp/standards/commissioner.shtml&hs=fzp>
  - .5 Retain all fire safety documents and standards on site.
- .3 Welding and cutting:
  - .1 At least 48 hours prior to commencing cutting, welding or soldering procedure, provide to the Departmental Representative:
    - .1 Notice "of intent, "indicating devices affected, time and duration of isolation or bypass.
    - .2 Completed welding permit as defined in FC 302.
    - .3 Return welding permit to Departmental Representative immediately upon completion of procedures for which permit was issued.
  - .2 A fire watcher as described in FC 302 shall be assigned when welding or cutting operations are carried out in areas where combustible materials within 10m may be ignited by conduction or radiation.
- .4 Where work requires interruption of fire alarms or fire suppression, extinguishing or protection systems:
  - .1 Provide watchman service as described in FC 301; In general, watchman service is defined as an individual conversant with Fire Emergency Procedures, performing fire picket duty within an unprotected and unoccupied (no workers) area once per hour.
  - .2 Retain services of manufacturer for fire protection systems on daily basis or as approved by FCC, to isolate and protect all devices relating to:

- .1 modification of fire alarms, fire suppression, extinguishing or protection systems; and/or
- .2 cutting, welding, soldering or other construction activities which might activate fire protection systems.
- .5 Immediately upon completion of work, restore fire protection systems to normal operation and verify that all devices are fully operational.
- .6 Inform fire alarm system monitoring agency and local Fire Department immediately prior to isolation and immediately upon restoration of normal operation.

#### **1.8 HAZARDOUS MATERIALS**

- .1 Comply with the requirements of the Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and the provision of Material Safety Data Sheets (MSDS) acceptable to Human Resources Development Canada, Labour Program.
- .2 For work in occupied buildings give the Departmental Representative 48 hours notice for work involving designated substances (Ontario Bill 208), hazardous substances (Canada Labour Code Part II Section 10), and before painting, caulking, installing carpet or using adhesives.

#### **1.9 TEMPORARY UTILITIES**

- .1 Existing services required for the work, excluding power required for space heating, may be used by the Contractor without charge. Ensure capacity is adequate prior to imposing additional loads. Connect and disconnect at own expense and responsibility.
- .2 Connect to existing power supply in accordance with Canadian Electrical Code and provide meters and switching.
- .3 Notify the Departmental Representative and utility companies of intended interruption of services, obtain requisite permission.
- .4 Give the Departmental Representative 48 hours notice related to each necessary interruption of any mechanical or electrical service throughout the course of the work. Keep duration of these interruptions to a minimum. Carry out all interruptions after normal working hours of the occupants, preferably on weekends.

#### **1.10 REMOVED MATERIALS**

- .1 Unless otherwise specified, materials for removal become the Contractor's property and shall be taken from site.

#### **1.11 PROTECTION**

- .1 Protect finished work against damage until take-over.
  - .2 Protect adjacent work against the spread of dust and dirt beyond the work areas.
  - .3 Protect operatives and other users of site from all hazards.
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**1.12 USE OF SITE AND FACILITIES**

- .1 Execute work with least possible interference or disturbance to the normal use of premises. Make arrangements with the Departmental Representative to facilitate work as stated.
- .2 Maintain existing services to building and provide for personnel and vehicle access.
- .3 Where security is reduced by work provide temporary means to maintain security.
- .4 Where elevators, dumbwaiters, conveyors or escalators exist Contractor may use these at the Departmental Representative's discretion. Protect from damage, safety hazards and overloading of existing equipment.
- .5 Sanitary facilities will be assigned for Contractor's personnel. Others shall not be used. Keep facilities clean.
- .6 Closures: Protect work temporarily until permanent enclosures completed.

**1.13 SITE STORAGE**

- .1 The Departmental Representative will assign storage space which shall be equipped and maintained by the Contractor.
- .2 Do not unreasonably encumber site with materials or equipment.
- .3 Move stored products or equipment which interfere with operations of the Departmental Representative or other contractors.
- .4 Obtain and pay for use of additional storage or work areas needed for operations.

**1.14 CUT, PATCH AND MAKE GOOD**

- .1 Cut existing surfaces as required to accommodate new work.
- .2 Remove all items so shown or specified.
- .3 Patch and make good surfaces cut, damaged or disturbed, to the Departmental Representative's approval. Match existing material, colour, finish and texture.
- .4 Install fire stops and smoke seals in accordance with ULC-SI15-1995 around pipe, ductwork, cables, and other objects penetrating fire separations to provide fire resistance not less than the fire resistance rating of surrounding floor, ceiling, and wall assembly.

**1.15 SLEEVES, HANGERS AND INSERTS**

- .1 Co-ordinate setting and packing of sleeves and supply and installation of hangers and inserts. Obtain the Departmental Representative's approval before cutting into structure.

**1.16 SIGNS**

- .1 Provide common-use signs related to traffic control, information, instruction, use of equipment, public safety devices, etc. in both official languages or by the use of commonly-understood graphic symbols to the Departmental Representative's approval.
  - .2 No advertising will be permitted on this project.
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### 1.17 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.

### 1.18 SCAFFOLDS AND WORK PLATFORMS

- .1 Design, install, and inspect scaffolds and work platforms required for work in accordance with relevant municipal, provincial and other regulations.

### 1.19 PUBLIC WAY PROTECTION

- .1 Design, erect and maintain hoarding to provide protection complete with signs as required by authority having jurisdiction.

### 1.20 OPERATIONS AND MAINTENANCE MANUALS

- .1 Two (2) weeks prior to any scheduled training, submit to the Departmental Representative two (2) copies of approved Operations Data and Maintenance Manual in both official languages, compiled as follows:
  - .1 Bind data in vinyl hard cover 3 "D" ring type loose leaf binders for 212 x 275mm size paper. Binders must not exceed 75mm thick or be more than 2/3 full.
  - .2 Enclose title sheet labelled "Operation Data and Maintenance Manual," project name, date and list of contents. Project name must appear on binder face and spine.
  - .3 Organize contents into applicable sections of work to parallel project specifications breakdown. Mark each section by labelled tabs protected with celluloid covers fastened to hard paper dividing sheets.
- .2 Include following information plus data specified.
  - .1 Maintenance instruction for finished surface and materials.
  - .2 Copy of paint schedules.
  - .3 Description: Operation of the equipment and systems defining start-up, shut-down and emergency procedures, and any fixed or adjustable set points that affect the efficiency of the operation. Include nameplate information such as make, size, capacity and serial number.
  - .4 Maintenance: Use clear drawings, diagrams or manufacturers' literature which specifically apply and detail the following:
    - .1 lubrication products and schedules.
    - .2 trouble shooting procedures.
    - .3 adjustment techniques.
    - .4 operational checks.

- .5 Suppliers names, addresses and telephone numbers and components supplied by them must be included in this section. Components must be identified by a description and manufacturers part number.
- .5 Guarantees showing:
  - .1 Name and address of projects.
  - .2 Guarantee commencement date (date of Interim Certificate of Completion).
  - .3 Duration of guarantee.
  - .4 Clear indication of what is being guaranteed and what remedial action will be taken under guarantee.
  - .5 Signature and seal of Guarantor.
  - .6 Additional material used in project listed under various Sections showing name of manufacturer and source of supply.
- .3 Spare parts: List all recommended spares to be maintained on site to ensure optimum efficiency. List all special tools appropriate to unique application. All parts/tools detailed must be identified as to manufacturer, manufacturer part number and supplier (including address).
- .4 Include one complete set of final shop drawings (bound separately) indicating corrections and changes made during fabrication and installation.

#### **1.21 RECORDS**

- .1 As work progresses, maintain accurate records to show deviations from contract drawings. Just prior to the Departmental Representative's inspection for issuance of final certificate of completion, supply to the Departmental Representative one (1) set of white prints with all deviations neatly inked in. The Departmental Representative will provide two sets of clean white prints for this purpose.

#### **1.22 GUARANTEES AND WARRANTIES**

- .1 Before completion of work, collect all manufacturer's guarantees and warranties and deposit with Departmental Representative.

#### **1.23 CLEAN UP**

- .1 Clean up work area as work progresses. At the end of each work period and more often if ordered by the Departmental Representative, remove debris from site, neatly stack material for use, and clean up generally.
- .2 Upon completion remove scaffolding, temporary protection and surplus materials. Make good defects noted at this stage.
- .3 Wash and polish glass, stainless steel, baked or porcelain enamel, plastic laminate and other plastic surfaces, floors, hardware. Clean manufactured articles in accordance with manufacturer's directions.
- .4 Clean areas under contract to a condition at least equal to that previously existing and to approval of Departmental Representative.

**1.24 CONTRACT DOCUMENTS**

- .1 Drawings and specifications are complementary, items shown or mentioned in one and not in the other are deemed to be included in the contract work.

**1.25 BUILDING SMOKING ENVIRONMENT**

- .1 Smoking is not permitted in the Building. Obey smoking restrictions on building property.

**1.26 DUST CONTROL**

- .1 Provide dust tight screens or partitions to localize dust generating activities, and for protection of workers, finished areas of work and public.
- .2 Maintain and relocate protection until such work is complete.
- .3 Protect all furnishings within work area with 0.102 mm thick polyethylene film during construction. Remove film during non-construction hours and leave premises in clean, unencumbered and safe manner for normal daytime function.

**1.27 TESTING LABORATORY**

- .1 The Departmental Representative will appoint and pay for costs of inspection and testing services, unless indicated otherwise.
- .2 Provide safe working areas and assist with testing procedures, including provisions for materials or services and co-ordination, as required by testing agency and as authorized by Departmental Representative.
- .3 Where tests indicate non-compliance with specifications, contractor to pay for initial test and all subsequent testing of work to verify acceptability of corrected work.

**1.28 SCHEDULING**

- .1 On award of contract submit bar chart construction schedule for work, indicating anticipated progress stages and time of completion by 15 weeks of contract award. Contractor to provide schedule within 14 calendar days of award of contract.. When schedule has been reviewed by the Departmental Representative, take necessary measures to complete work within scheduled time. Do not change schedule without notifying the Departmental Representative.
- .2 Carry -out work between 7:00 and 18:00 Monday to Friday, excluding statutory holidays. Work overtime hours as required to meet the scheduled completion date.
- .3 Give the Departmental Representative 48 hours notice for work to be carried out on between 18:00 and 7:00 hours and for work to be carried out on weekends or holidays.
- .4 Carry out non noise generating work during "off hours" Monday to Friday from 16:00 to 09:00 hours and on Saturdays, Sundays, and statutory holidays.

**1.29 COST BREAKDOWN**

- .1 Ten days after Contract award and before submitting first progress claim, submit breakdown of Contract Amount in detail for the Departmental Representative's approval

and aggregating the Contract Amount. After approval by the Departmental Representative, the cost breakdown will be used as the basis of progress payments.

**PART 2 - PRODUCTS**

.1 Not used

**PART 3 - EXECUTION**

.1 Not Used.

**END OF SECTION 01 10 20**