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**PART 1 GENERAL**

**1.0 Related Sections**

- .1 01 35 29 – Health and Safety Requirements
- .2 01 74 21 – Construction/Demolition Waste Management and Disposal
- .3 02 41 22 – Selective Concrete Cutting, Removal and Disposal

**1.1 Description of Work**

- .1 As a National Historic Site and Designated Building, the importance of retaining and protecting existing features of both the site and the building cannot be overstated.
- .2 Work under this contract consists of concrete exploratory openings and inspection of the brick vault at a National Historic Site and federally designated heritage building operated by Parks Canada, located at 454 Whipple Street, Saint John, New Brunswick. The work is generally described as follows:
  - .1 Exploratory Opening: Carry out of one (1) exploratory opening (1000 mm W x 2000 mm L x +/-2450 mm D) at the reinforced concrete slab in the Lower Command Post Level as shown on Tender Drawings. Provide unit price for one (1) additional exploratory slab opening (1000 mm W x 2000 mm L x +/-2450 mm D), as required. Location to be approved by Departmental Representative.
  - .2 Provide access for on-site investigations to be carried out by the Departmental Representative, e.g. interior mobile scaffolding at Level 2 Main tower's floor.
  - .3 Provide all equipment and tools required to carry out Work.
  - .4 Refer to Tender Drawings and Section 02 41 22 Selective Concrete Cutting, Removal and Disposal.

**1.2 Familiarization with Site**

- .1 Before submitting the tender, it is highly recommended that tenderers visit and examine the site and its surroundings, and satisfy themselves as to the form and nature of the work and materials necessary for the completion of the work, the means of access to the site, the accommodation they may require, and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. No allowance shall be made subsequently in this connection on account of error or negligence to properly observe and determine the conditions that will apply.

**1.3 Standards**

- .1 Materials shall be new, and Work shall conform to the referenced standards, to 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.
- .2 Materials and workmanship must meet requirements of specified standards, codes and referenced documents.

**1.4 Taxes, Fees, Permits, and Certificates**

- .1 Contractor to pay all taxes properly levied by law (including federal, provincial and municipal).
  - .2 Contractor to obtain and pay all fees for all permits, certificates, licenses, and other permits as required by municipal, provincial, and federal authorities. Provide authorities with drawings and information for acceptance certificates. Provide inspection certificates as evidence that work conforms to the
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requirements of the authority having jurisdiction.

- .3 Submit to Departmental Representative, copy of application submissions and approval documents received for above referenced authorities.

## **1.5 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, firefighting and life safety in building in use.
- .2 Comply with Human Resources and Social Development Canada (HRSDC), 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, HRSDC or following internet site: [http://hrsdc.gc.ca/eng/labour/fire\\_protection/policies\\_standards/commissioner/index.shtml](http://hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/commissioner/index.shtml)
  - .5 Retain all fire safety documents and standards on site.
  - .6 Store flammable liquids in approved CSA containers inspected by the Departmental Representative. No open flame shall be used unless permitted and authorized by the Fire Prevention Unit.
- .3 Provide a Fire Safety Plan.
- .4 Cutting inside the building.
  - .1 At least 3 business days prior to commencing grinding and cutting work, provide Departmental Representative with:
    - .1 Notice of intent, indicating fire protection devices affected,
    - .2 Details of the activities, including exact locations, equipment proposed, and schedule and duration.
- .5 Immediately upon completion of work, restore fire protection systems to normal operation and verify that all devices are fully operational.
- .6 Burning rubbish and construction waste materials is not permitted on site.

## **1.6 Qualified workers**

- .1 Carry out Work using qualified licensed workers or apprentices in accordance with Provincial Act respecting manpower vocational training and qualification. Refer also to Section 01 50 00 Temporary Facilities.
- .2 Permit employees registered in Provincial apprenticeship program to perform specific tasks only if under direct supervision of qualified licensed workers.
- .3 Determine permitted activities and tasks by apprentices, based on level of training attended and demonstration of ability to perform specific duties.

## **1.7 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 labeling and the provision of Material Safety Data Sheets (MSDS) acceptable to Human Resources Development Canada, Labour Program.
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- .2 For work inside the building give the Departmental Representative 48 hours' notice for work involving designated substances (New Brunswick Occupational Health & Safety Act), hazardous substances (Canada Labour Code Part II Section 10).

#### **1.8 Removed Materials**

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

#### **1.9 Protection**

- .1 Protect finished work against damage until take-over.
- .2 Protect and cover the floor opening in the command post with a 19mm plywood cover until an inspection is done by the Departmental Representative.
- .3 Protect adjacent work against the spread of dust and dirt beyond the work areas.
- .4 Protect building users and the public from all hazards, including, but not limited to, protection against falling objects, etc. Refer to Section 01 35 29 Health and Safety Requirements and Section 01 50 00 Temporary Facilities.
- .5 Provide a restricted protection zone in the area of the work for a width of 2m.
- .6 Provide dust screens, barriers, warning signs in locations where work is adjacent to areas that will be operative during such work. Dust protection is required for all work requiring cutting and any activities in the building envelope and floors which can create dust.

#### **1.10 Building occupancy and constraints**

- 1. The Tower and Command Post where the opening and inspection are to take place will be closed to all visitors for the duration of the works. The majority of the site, however (Administrative Building, parking lot and grounds), will remain open to the public.
- .2 The Command Post will be made available for the contractor's use. The A/V room where the exploratory floor opening is located will be locked at all times when no activity is on site.
- .3 The building (tower and command post) will be fully closed for a 24-hour period following the completion of the exploratory floor opening work. No access is allowed to anyone during this 24-hour closure period. The morning following the 24-hour closure, the Departmental Representative will carry out an inspection prior to allowing access to the building.

#### **1.11 Use of Site and Facilities**

- .1 A barrier fence is in place, restricting access around the base of the building. The public are not restricted from other site access. Execute work with least possible interference or disturbance to the normal use of premises. Make arrangements with Departmental Representative to facilitate work as stated. Refer also to "Scheduling" below.
  - .2 Premises adjacent to the site will be occupied and operational at all times during the construction period.
  - .3 Maintain existing services to building and provide for personnel and vehicle access.
  - .4 Where security is reduced by Work provide temporary means to maintain security.
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- .5 Provide sanitary facilities for site personnel. Use of facilities inside the building is strictly forbidden.
  - .6 Use by construction personnel of facilities located at Carleton Martello Tower, such as staff offices, lunch areas, washroom facilities, etc. is strictly forbidden.

**1.12 Site Storage**

- .1 Coordinate and receive deliveries of materials on site. Coordinate and respect procedures required by Departmental Representative.
- .2 On-site storage of materials and equipment must be located inside the secured fenced protected zone. On-site storage capacity is limited.
- .3 Garbage bins, recycling bins and dump boxes must be located inside the secured construction zone, concealed from the site visitors' view.

**1.13 Examination**

- .1 Examine site and conditions likely to affect work and be familiar and conversant with existing conditions.
- .2 Prior to start of work, provide photographs of surrounding assemblies, objects and structures liable to be damaged or be the subject of subsequent claims.

**1.14 Signage**

- .1 Provide common-use signs related to traffic control, information, instruction, use of equipment, public safety devices, etcetera, 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.
- .3 Refer to Section 01 50 00 - Temporary Facilities.

**1.15 Access and Egress**

- .1 Design, construct and maintain temporary "access to" and "egress from" work areas, including stairs, runways, ramps or ladders and mobile scaffolding, independent of finished surfaces and in accordance with relevant municipal, provincial and other regulations.
- .2 Keep within limits of work and avenues of access and egress.
- .3 Use access to building as indicated.
- .4 Refer to Section 01 50 00 - Temporary Facilities.

**1.16 Guarantees and Warranties**

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

**1.17 Building Smoking Environment**

- .1 Comply with smoking restrictions. Smoking is not allowed in any part of the building or on jobsite, including roof areas.
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**1.18 Scheduling**

- .1 The contractor is to mobilize no later than the week of June 27<sup>th</sup>, 2016. The work described in the specifications and the drawings is to be completed by the end of July 2016.  
(see also item 1.10 Building Occupancy and Constraints).
- .2 Contractor must coordinate Work schedule with the Departmental Representative prior to work commencement.
- .3 Contractor to participate in a start-up meeting with the Departmental Representative and present a construction schedule at this meeting.
- .4 Should the Work Schedule change, five (5) day advance written notification is required from the Departmental Representative for approval of change;
- .5 Contractor to plan for 1 unscheduled work stoppage with a 1 hour notice at no charge to the Departmental Representative.
- .6 Contractor to advise the Departmental Representative 5 working days in advance of inspection of investigation opening.
- .7 "Stop work" orders for infractions of contract documents or violations of applicable health and safety regulations will not be considered as a "stop work" period.

**1.19 Documents Required**

- .1 Maintain at job site, one copy each document as follows:
  - .1 Contract Drawings.
    - .1 Provide one additional copy of drawings As-Found Conditions Recording.
  - .2 Specifications.
    - .1 Provide one additional copy of drawings As-Found Conditions Recording.
  - .3 Addenda.
  - .4 Reviewed Shop Drawings.
  - .5 Change Orders.
  - .6 Other Modifications to Contract.
  - .7 Field Test Reports.
  - .8 Copy of Approved Work Schedule.
  - .9 Health and Safety Plan and Other Safety Related Documents.
  - .10 Fire Safety Plan, Site-Specific Safety Plan, Working at Height Rescue Plan Risk Assessment, etc.
  - .11 Confined Space Entry Permit (re: confined spaces), if required.
  - .12 Other documents as specified.

**1.20 Cost Breakdown**

- .1 Following contract award submit breakdown of Contract Amount in detail. The breakdown should reflect the tasks described in the sequence of work and the nature of the works as identified in the specifications. The cost breakdown will be as required by Departmental Representative and aggregating the Contract Amount. After approval by Departmental Representative cost breakdown will be used as the basis of progress payments. Departmental Representative will provide required forms for application of progress payment.
- .2 Arrange the cost breakdown in accordance with the scope of work.

**1.21 Archaeology**

- .1 Protect relics, antiquities, items of historical or scientific interest such as cornerstones and their contents,
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commemorative plaques, inscribed tablets, and similar objects found during the course of the work.

- .2 If such items are encountered, stop work immediately and give immediate notice to Departmental Representative. Await Departmental Representative's written instructions before proceeding with work in this area.
- .3 Relics, antiquities, items of historical or scientific interest remain her Majesty's property.

#### **1.22 Meetings**

- .1 Contractor to plan for 3 site meetings including the start-up meeting. The Departmental Representative will record and distribute minutes of meetings. Contractor is to arrange for Subcontractors to attend meetings.
- .2 The Departmental Representative is to organize the startup meeting with the Contractor prior to all work.

#### **1.23 Work Coordination**

- .1 The Contractor is responsible for coordinating the work of the various trades, where the work of such trades interfaces with each other.
- .2 The Contractor shall convene meetings between trades whose work interfaces and ensure that they are fully aware of the areas and the extent of where interfacing is required. Provide each trade with the plans and specifications of the interfacing trade, as required, to assist them in planning and carrying out their respective work.
- .3 Shop drawing review and material ordering shall only commence after this coordination has taken place between trades and all conditions affecting the work of the interfacing trades has been made known and accounted for.
- .4 Ensure coordination and cooperation between trades in order to facilitate the general progress of the work and avoid situations of spatial interference.
- .5 Ensure that each trade provides all other trades reasonable opportunity for the completion of the work and in such a way as to prevent unnecessary delays, cutting, patching and the need to remove and replace completed work.
- .6 Public Works and Government Services Canada will not be responsible for or held accountable for any extra costs incurred as a result of the failure to carry out coordination work. Disputes between the various trades as a result of their not being informed of the areas and extent of interfaces work shall be the sole responsibility of the Contractor and shall be resolved by him at no extra cost to the Contract.

#### **1.24 Submittals and approvals**

- .1 All documentation to be compatible with Microsoft Office 2007 and AutoCAD 2009.
  - .2 The following documents will need to be submitted and reviewed by the Departmental Representative prior mobilization on site:
    - .1 Site Specific Health and Safety Plan, Fire Safety Plan, Working at Height Rescue Plan Risk Assessment, Confined Space Entry Permit
    - .2 Written description of the methodology for the slag fill removal at the floor exploratory opening in the Command Post (lateral shoring of the slag fill);
    - .3 Written description of the opening infill methodology and concrete pouring for the floor slab reinstatement.
    - .4 Written description of mitigation measures to reduce the vibrations on the main tower's components.
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- .3 All documentation to be provided to Departmental Representative on completion date.
- .4 The following work will need to be reviewed by the Departmental Representative:
  - .1 Ongoing presence during the execution of the floor exploratory opening at the Command Post;
  - .2 Floor exploratory opening infill prior reinstating the concrete slab;
  - .3 Reinstatement of the concrete slab.

#### **1.25 Brick Vault Inspection**

- .1 The contractor is to provide mobile scaffolding at Level 2 of the main tower for the Departmental Representative's inspection of the brick vault.
- .2 The contractor is to provide the personnel available to move the mobile scaffolding as required by the Departmental Representative during the full duration of the brick vault inspection (assume 3 full days from 9am to 5 pm).
- .3 The contractor to provide small tools to the Departmental Representative for the brick vault inspection (hammers of various sizes and chisels). Assume 3 full days from 9 am to 5 pm.

#### **1.26 Inspections from the Departmental Representative**

- .1 The contractor will need to advise the Departmental Representative 5 working days in advance prior the following activities:
  - .1 Commencing the exploratory opening in the A/V floor. No work is permitted on the exploratory floor opening until the Departmental Representative is on site for review and continuous presence during dismantling / removal of fill and during rebuilding.
  - .2 Demobilization.

### **PART 2 PRODUCTS**

#### **2.1 Not used**

### **PART 3 EXECUTION**

#### **3.1 Not Used**

END OF SECTION

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**PART 1      GENERAL**

**1.1          Related Sections**

- .1      Section 01 00 10 - General Instructions

**1.2          References**

- .1      Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1      Material Safety Data Sheets (MSDS).
- .2      Province of New Brunswick.
  - .1      Occupational Health and Safety Act, 1983.
  - .2      Occupational Health and Safety Act, General Regulation 91-191, Part XVII - Confined Space, sections 262-272

**1.3          Submittals**

- .1      Make submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2      Submit Site-Specific Health and Safety Plan, as per the paragraph 1.16.
- .3      Submit Fire Safety Plan, Working at Height Rescue Plan Risk Assessment, and Confined Spaces Plan.
- .4      Submit 3 copies of Contractor's authorized representative's work site health and safety inspection reports to Departmental Representative and, on request by authority having jurisdiction.
- .5      Submit name of designated Health & Safety site representative and support documentation specified in Safety Plan.
- .6      Submit copy of Letter of Good Standing from Provincial Workers Compensation or other department of labour organization.
- .7      Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.
- .8      Submit copies of incident and accident reports.
- .9      Submit WHMIS MSDS - Material Safety Data Sheets, where applicable.
- .10     Departmental Representative will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 5 working days after receipt of plan. Revise plan as appropriate and resubmit plan to Departmental Representative within 7 working days after receipt of comments from Departmental Representative.
- .11     Departmental Representative's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.
- .12     On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.



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**1.4 Filing of Notice**

- .1 File Notice of Project with Provincial authorities prior to beginning of Work.

**1.5 Safety Assessment**

- .1 Perform Site Specific Safety Hazard Assessment related to project

**1.6 Meetings**

- .1 Attend pre-construction health and safety meeting, convened and chaired by Departmental Representative, prior to commencement of Work at time, date and location as determined by Departmental Representative. Ensure attendance of:
  - .1 Site Superintendent.
  - .2 Designated health and safety site representative.
  - .3 Subcontractors.
- .2 This meeting is in addition to the meetings mentioned at item 1.22.1 of the section 01 00 10 General Instructions.

**1.7 General Requirements**

- .1 Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.
- .2 Departmental Representative may respond in writing where deficiencies or concerns are noted, and may request re-submission with correction of deficiencies or concerns.

**1.8 Responsibility**

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

**1.9 Site Control and Access**

- .1 Control work site and entry points to construction areas.
- .2 Approve and grant access only to workers and authorized persons. Immediately stop and remove non-authorized persons.
  - .1 Departmental Representative will provide names of persons authorized by Departmental Representative to enter Work Site and will ensure that such authorized persons have the requisite Health & Safety knowledge and training.
  - .2 Notwithstanding Clause 1 above, the Contractor remains responsible for the Health and Safety of authorized persons while at the Work Site.
- .3 Isolate Work Site from other areas of the Facility by use of appropriate means. Refer to requirements of Section 01 50 00 Temporary Facilities.
  - .1 Post signage at entry points and at other strategic locations indicating restricted access and conditions for access.

- .2 Signage must be professionally made, bilingual in both official languages or display internationally understood graphic symbols.
- .4 Provide safety orientation session to persons granted access to Work site. Advise of hazards and safety rules to be observed while on site.
- .5 Ensure persons granted site access wear appropriate personal protective equipment (PPE).
- .6 Secure Work Site against entry when inactive or unoccupied and to protect persons against harm.

#### **1.10 Compliance Requirements**

- .1 Comply with the Occupational Health and Safety Act for the Province of New Brunswick, and General Regulations made pursuant to the Act.
- .2 Comply with Canada Labour Code Part II, and the Canada Occupational Safety and Health Regulations made under Part II of the Canada Labour Code.
- .3 Observe and enforce construction safety measures required by:
  - .1 National Building Code of Canada;
  - .2 Municipal statutes and ordinances.
- .4 In event of conflict or discrepancy between above noted requirements, the most stringent provision will apply.
- .5 Maintain Workers Compensation Coverage in good standing for duration of Contract. Provide proof of clearance through submission of Letter of Good Standing.

#### **1.11 Work Stoppage and Protection**

- .1 Give precedence to health and safety of persons and protection of environment over cost and schedule considerations for Work.
- .2 Should unforeseen or peculiar safety related hazard or condition become evident during performance of work, immediately take measures to rectify the situation and prevent damage or harm. Advise Departmental Representative verbally and in writing.

#### **1.12 Filing of Notice**

- .1 File Notice of Project with relevant Provincial health and safety authorities prior to commencement of Work.
  - .1 Departmental Representative will assist in locating address for Filing Notice of Project if needed.

#### **1.13 Permits**

- .1 Post permits, licenses, compliance certificates specified in Section 01 00 10 - General Instructions.
- .2 Where particular permit or compliance certificate cannot be obtained, notify Departmental Representative in writing and obtain approval to proceed before carrying out that portion of work.

#### **1.14 Hazard Assessment and Unforeseen Hazards**

- .1 Conduct Site-Specific Health and Safety Hazard Assessment of the Work and site.
- .2 Carry out initial assessment prior to commencement of Work with further assessment as needed during progress of work.

- .3 Record results and address in Health and Safety Plan.
- .4 Keep documentation on site for entire duration of the Work.
- .5 When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of the Province of New Brunswick and advise Departmental Representative verbally and in writing.

#### **1.15 Project and Site Conditions**

- .1 The following is a non-exhaustive list of potential project related health, environmental and safety hazards at the site:
  - .1 Safety hazards due to existing site conditions and work inside Facility are:
    - .1 Work within a confined space
    - .2 Removal of slag fill (identified as a hazardous substance)
    - .3 Low head room at the main entrance.
- .2 Above list shall not be construed as being complete and inclusive of potential health, and safety hazards encountered during work. Include above items into hazard assessment process.
- .3 Include above items in the hazard assessment of the Work.
- .4 MSDS Data sheets of relevant hazardous and controlled products stored on site can be obtained from Departmental Representative.

#### **1.16 Health and Safety Plan**

- .1 Submit Site-Specific Health and Safety Plan within 7 working days after date of Notice to Proceed and prior to commencement of Work.
  - .1 Submit in electronic format and 1 hard copy.
  - .2 Departmental Representative will review Health and Safety Plan and provide comments.
  - .3 Revise plan as required and resubmit within 5 days of receipt of comments.
  - .4 Departmental Representative's review and comments shall not be construed as an endorsement, approval or implied warranty of any kind by Canada and does not reduce Contractor's overall responsibility for Health and Safety of the Work.
  - .5 Submit revisions and updates made to the Plan during the course of the Work.
- .2 Health and Safety Plan shall with include the following components:
  - .1 List of health risks and safety hazards identified by hazard assessment process.
  - .2 Control measures used to mitigate risks and hazards identified.
  - .3 On site contingency and emergency response plan as specified below.
  - .4 On site communications plan as specified below.
  - .5 Name of Contractor's designated Health & Safety Site Representative and information showing proof of his/her competence and reporting relationship in Contractor's company.
  - .6 Names, competence and reporting relationship of other supervisory personnel used in the Work for occupational health and safety purposes.
  - .7 Written safe work procedures to address the known hazards.
  - .8 Details and certifications of special safety measures for lifting.
- .3 On-site Contingency and Emergency Response Plan shall include:
  - .1 Operating procedures, evacuation measures and communication process to be implemented in the event of an emergency.
  - .2 Evacuation plan: to show escape routes, marshaling areas. Details on alarm notification methods, fire drills, location of fire fighting equipment and other related data.
  - .3 Name, duties and responsibilities of persons designated as Emergency Warden(s) and deputies.
  - .4 Emergency Contacts: name and telephone number of:
    - .1 General Contractor and subcontractors.

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- .2 Relevant Federal and Provincial Departments and Authorities Having Jurisdiction.
    - .3 Local emergency resource organizations.
  - .5 Harmonize plan with Facility's Emergency Response and Evacuation Plan. Departmental Representative will provide relevant data including name of PWGSC and Facility Management contacts.
  - .4 On-Site Communications Plan: Procedures for sharing of work related safety information to workers, subcontractors, including emergency and evacuation measures.
    - .1 List of critical tasks and work activities, which have a risk of endangering health and safety of Facility users, to be communicated with the Facility Manager.
  - .5 Fire Safety Plan: Procedures for evacuation and site notification in case of fire relating to visitor and contractor fire safety to meet Federal, Provincial, and Municipal requirements:
    - .1 emergency operations procedures to be used in case of fire, including
      - .1 sounding the fire alarm,
      - .2 notifying the fire department,
      - .3 instructing occupants on procedures to be followed when the fire alarm sounds,
      - .4 evacuating occupants, including special provisions for persons requiring assistance,
      - .5 confining, controlling and extinguishing the fire,
    - .2 the appointment and organization of designated supervisory staff to carry out fire safety duties,
    - .3 the training of supervisory staff in their responsibilities for fire safety,
    - .4 documents, including diagrams, showing the type, location and operation of the building fire emergency systems,
    - .6 the control of fire hazards in the building during the Work, and
    - .7 list of fire safety hazards identified during the Work.
  - .6 Confined Spaces Plan: Procedures for access into confined spaces to meet Federal and Provincial requirements.
    - .1 Operating procedures, safety measures and communication process to be implemented for safe entry.
    - .2 Confined Spaces Plan: notice of reasons for access with requirements for tagging protocol of space prior to entry, ventilation, fire extinguisher, PPE, lighting, communication method, access, egress, and rescue method, names of trained rescuers and first aid personnel. Protection around opening e.g. cordoning off approach.
    - .3 Name, duties and responsibilities of persons designated and trained to access confined spaces and first aid personnel.
    - .4 Emergency Contacts: name and telephone number of:
      - .1 General Contractor and subcontractors.
      - .2 Relevant Federal and Provincial Departments and Authorities Having Jurisdiction.
      - .3 Local emergency resource organizations.
  - .7 Address all activities of the Work including those of subcontractors.
  - .8 Review Health and Safety Plan and update regularly during the Work as conditions warrant.
  - .9 Departmental Representative will respond in writing where deficiencies or concerns are noted and may request re-submission of the Plan with correction of deficiencies or concerns.

#### **1.17 Safety Supervision**

- .1 The Health & Safety Site Representative may be the Superintendent of the Work or other person designated by Contractor and shall be assigned the responsibility and authority to:
  - .1 Implement, monitor and enforce daily compliance of health & safety requirements of the Work.
  - .2 Monitor and enforce Contractor's site-specific Health & Safety Plan.
  - .3 Conduct site safety orientation session to persons granted access to Work Site.
  - .4 Ensure that persons allowed site access are knowledgeable and trained in Health and Safety

- relative to their activities at site or are escorted by a competent person while on the Work Site.
- .5 Stop the Work as deemed necessary for reasons of health and safety.
- .2 Health & Safety Site Representative must:
  - .1 Be qualified and competent in Occupational Health and Construction Safety.
  - .2 Be on Work Site at all times during execution of Work.
- .3 All assigned supervisory personnel shall also be competent persons.
- .4 Inspections:
  - .1 Conduct regularly scheduled safety inspections of the Work on a minimum (bi-weekly) basis. Record deficiencies and remedial action taken.

#### **1.18 Training**

- .1 Use only skilled workers on Work Site who are effectively trained in occupational health and safety procedures and practices pertinent to their assigned tasks.
- .2 Maintain employee records and evidence of training received. Make data available to Departmental Representative when requested.

#### **1.19 Minimum Site Safety Rules**

- .1 Notwithstanding requirement to abide by federal and provincial health and safety regulations; ensure the following minimum safety rules are obeyed by persons granted access to Work Site:
  - .1 Wear personnel protective equipment (PPE) appropriate to Work or assigned task; the minimum requirements being hard hat, safety footwear and safety glasses and hearing protection.
  - .2 Immediately report unsafe activity or condition at site, near-miss accident, injury and damage.
  - .3 Maintain site and storage areas in tidy condition, free of hazards causing injury.
  - .4 Obey warning signs and safety tags.
- .2 Brief persons of disciplinary protocols for non-compliance. Post rules on site.

#### **1.20 Correction of Non-Compliance**

- .1 Immediately address Health and Safety non-compliance issues identified by authority having jurisdiction or by Departmental Representative.
- .2 Provide Departmental Representative with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 Departmental Representative will stop work if non-compliance is not corrected in a timely manner.

#### **1.21 Incident Reporting**

- .1 Investigate and report the following incidents to Departmental Representative:
  - .1 Injury requiring notification to Provincial Department of Occupational Safety and Health, Workers Compensation Board or to other regulatory agency.
  - .2 Medical Aid Injury.
  - .3 Property damage in excess of \$ 10,000.00,
  - .4 Interruption to Facility operations resulting in an operational loss to a Federal Dept. in excess of \$5000.00,
- .2 Submit report in writing.

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**1.22 Site Records**

- .1 Maintain on Work Site a copy of all health and safety related documentation and reports stipulated to be produced in compliance with Acts and Regulations of authorities having jurisdiction and of those documents specified herein.
- .2 Upon request, make available to Departmental Representative or other authorized Safety Officer for review.

**1.23 Posting of Documents**

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of the Province of New Brunswick, and in consultation with Departmental Representative.
- .2 Post other documents as specified herein, including:
  - .1 Site specific Health and Safety Plan.
  - .2 WHMIS data sheets.

**1.24 Correction of Non-Compliance**

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

**1.25 Blasting**

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

**1.26 Powder Actuated Devices**

- .1 Use powder actuated devices is not permitted.

**1.27 Special Safety Measures**

- .1 Provide and pay for necessary BCIN (Building Code Identification Number) certifications required by the authorities having jurisdiction.
- .2 Comply with the following safety measures during working and lifting over the building roof.
  - .1 Attach lanyards to tools and equipment.
  - .2 Crane and lifting device safety factors: increase by 25% over manufacturer's safety factor.
  - .3 Safety cushions (stunt blankets): Cover roof and unprotected work during lifting where tools, equipment and materials might fall.
  - .4 Equip material to be lifted with double (redundant) lift lines and attachments.
  - .5 Special safety measures shall be designed and certified by a qualified professional engineer registered in the Province of New Brunswick.

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**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 Related Sections**

- .1 Section 01 00 10 - General Instructions.

### **1.2 Site Access and Parking**

- .1 The Departmental Representative will designate Contractor's access to project site for equipment and storage. On-site parking for Contractor's employees is limited to 3 parking spaces at Fundy Drive end of parking lot, to be designated by Departmental Representative.
- .2 Limit the use of the premises and adjacent public property for the Work, for storage to:
  - .1 Allow for normal operation of site and buildings surrounding the Tower and Command Post. See Section 01 00 10 General Instructions.
  - .2 Conform to the requirements of the City of Saint John with respect to the municipal streets and property.
  - .3 Conform to the Departmental Representative's requirements with respect to the site use.
  - .4 Maintain clear access to all buildings and site entrances and exits for the duration of the Work.
- .3 Co-ordinate use of premises under direction of the Departmental Representative.
- .4 Provide for building personnel pedestrian traffic on property. Provide for vehicle access on property.
- .5 Provide and maintain access roads, sidewalk crossings, ramps and construction runways as may be required for access to Work.

### **1.3 Public Traffic Flow**

- .1 Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform Work and protect public.

### **1.4 Fire Routes**

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

### **1.5 Protection for Off-Site and Public Property**

- .1 Protect surrounding private and public property from damage during performance of Work.
- .2 Clean deposited mud and debris from surfaces of roadways around site within one (1) hour after deposition and immediately wash roadways free of soiling, to approval of Departmental Representative.
- .3 Be responsible for damage incurred.

### **1.6 Building Access**

- .1 Interior circulation routes, e.g. main entrance and stair within masonry wall, have restricted clearance. Care must be made to ensure no damage occurs to the existing building throughout the Work.



**1.7 Contractor's Site Office**

- .1 Be responsible for and provide own site office, if required, including electricity, heat, lights, telephone and water. Locate site office as directed by Departmental Representative.
- .2 The site office is considered a "No Smoking" area.

**1.8 Material Storage**

- .1 The site is in an inner city urban area. Material storage space on site is limited. Coordinate deliveries to minimize storage period on site before being needed for incorporation into work.
- .2 Obtain and pay for use of additional storage or work areas needed.
- .3 Be responsible for security of material stored on site. Provide secure enclosure around material storage area to a minimum standard as outlined in Clause 1.10 Site Enclosures.
- .4 No materials are permitted to be stored in building or roof areas.

**1.9 Installation and Removal**

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

**1.10 Site Enclosures**

- .1 Provide secure, rigid guard rails and barricades around deep excavations, open shafts, open stair wells, open edges of floors and roofs, and as required by governing authorities.
- .2 Provide and maintain barriers around interior platform to ensure safety and security of facility users during the course of work. Maintain and relocate protection as required until such work is complete.
- .3 Obtain Departmental Representative's approval beforehand of location and layout of all temporary fence enclosures.
- .4 Provide warning signs in English and French or international symbols affixed to all fenced areas, identifying those enclosed areas as "Construction Zones" with access restricted to only those persons so authorized by General Contractor.

**1.11 Pedestrian Walkways and Hoarding**

- .1 Ensure maximum safety and security to facility users and the public during the course of work.
- .2 Maintain access and egress to building entrances and fire exits indicated on drawings and designated by Departmental Representative to remain in use.
- .3 Obtain Departmental Representative's approval prior to removal of hoarding and protections.

**1.12 Dust Tight Screens**

- .1 Provide dust tight screens or insulated 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.

#### **1.13 Protection of Building Finishes**

- .1 Provide protection for finished and partially finished building finishes and equipment during performance of Work, to approval of Departmental Representative. Take into account additional protection required to prevent damage due to historic nature of material.
- .2 Provide necessary screens, covers, and hoardings and seals to protect existing wall openings, as specified. Remove and reinstall as required. Use materials and methods to prevent contact with adjacent masonry or existing building fabric, to approval of Departmental Representative.
- .3 Confirm with Departmental Representative locations and installation schedule 5 working days prior to installation.
- .4 The contractor is responsible for damage incurred due to lack of or improper protection.
- .5 Unless otherwise indicated protect Building window openings with 19 mm thickness Douglas Fir plywood sheathing grade on 38 x 89 wood studs.

#### **1.14 Sanitary Facilities**

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.
- .2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.
- .3 Washrooms in existing building are not permitted for use by construction work force.

#### **1.15 Power and Lighting**

- .1 Perform work and make all connections in accordance with the Canadian Electrical Code, in compliance with the federal and provincial Occupational Health and Safety Regulations as specified in Section 01 35 29 "Health and Safety Requirements."
- .2 Provide and maintain temporary lighting to conduct work. Ensure illumination level is not less than 162 lx in all locations.
- .3 Cost of electricity to be carried by the Departmental Representative.

#### **1.16 Water Supply**

- .1 Water supply on site is available without payment for Contractor use. Water connection is on Parks Canada Administration Building.
- .2 Make arrangements for the use and transportation of such services to work area through the Departmental Representative. Allow for cold weather operation and ensure that water supply lines do not freeze.
- .3 Contractor will be responsible for any damage caused to building interior by water leakage.

**1.17 Mobile Scaffolding**

- .1 Maintain mobile scaffolding in a rigid, secure and safe manner
- .2 Scaffolding must be self-supporting and not rely on the building structure.
- .3 Remove scaffolding when no longer required.

**1.18 Temporary Shoring and Bracing Support**

- .1 Contractor shall provide adequate temporary support at all exploratory openings, as required.
- .2 Temporary support shall be adequate to safely resist all applicable loads including the weight of masonry, live loads, wind loads, and any other loads as required by the National Building Code.
- .3 Contractor shall submit to Departmental Representative a detailed drawing, description, etc. adequately describing the proposed method of temporary support, for review, a minimum of 10 working days before start of Work.
- .4 Proposed method of temporary support submittal to the Departmental Representative shall be stamped by a professional engineer, licensed to practice in the Province of New Brunswick.
- .5 Trench safety regulations must be followed at the exploratory floor opening. The floor exploratory opening requires adequate side slopes and/or trench shoring.
  - .1 Size at the finished slab level will be larger than at base of opening to allow for adequate slopes / trench shoring. Sloping shallower than 45° or larger excavation pits are not permitted.
  - .2 Departmental Representative to be present at all times during excavation to monitor structural stability of the brick vault.

**1.19 Construction Sign and Notices**

- .1 Contractor or subcontractor advertisement signboards are not permitted on site.
- .2 Safety and Instruction Signs and Notices: Signs and notices for safety and instruction shall be in both official languages or commonly understood graphic symbols conforming to CAN/CSA-Z321-96(R2001).
- .3 Maintenance and Disposal of Site Signs: Maintain approved signs and notices in good condition for duration of project and dispose of off site on completion of project or earlier if directed by Departmental Representative.

**1.20 Removal of Temporary Facilities**

- .1 Remove temporary facilities from site upon completion of the work and when directed by Departmental Representative.

**1.21 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.

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**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 01 00 10 - General Instructions.
- .2      Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

**1.2            Project Cleanliness**

- .1      Maintain Work in tidy condition, free from accumulation of waste products and debris, including that caused by Departmental Representative or other contractors.
- .2      Clean up work area as work progresses, at end of each workday, and when directed by Departmental Representative, remove debris from site. Neatly stack material for use and clean up area.
- .3      During specified cleaning and waste removal times advise Departmental Representative in writing of defects noted.
- .4      Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .5      Provide on-site containers with removable covers for collection of waste materials and debris. Maintain covers tightly closed. Immediately clean up in event of over-spills of waste and debris. Locate containers for slag fill adjacent the road. Slag fill must be separately disposed of from other waste.
- .6      Provide and use clearly marked separate bins for recycling. Refer to Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .7      Remove waste material and debris from site and deposit in waste container at end of each working day.
- .8      Dispose of waste materials and debris at designated dumping areas off site.
- .9      Clean interior areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.
- .10     Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .11     Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
- .12     Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .13     Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly grouted surfaces nor contaminate building systems.
- .14     Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.

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### **1.3 Final Cleaning**

- .1 Complete final cleaning prior to application for Interim Certificate of Completion, and when directed by Departmental Representative:
  - .1 Remove surplus products, tools, construction machinery, mobile scaffold, temporary protection and equipment not required for performance of remaining Work. Make good defects noted at this stage.
  - .2 Clean existing and new elements and surfaces contained within the Project site. Obtain Departmental Representative's written approval on completion of cleaning.
  - .3 Remove promptly from site, all equipment, devices and accessories provided in accordance with requirements of Section 01 50 00 "Temporary Facilities".
- .2 Remove waste products and debris (other than that caused by others), and leave Work clean and suitable for occupancy.
- .3 Prior to final review, remove surplus products, tools, construction machinery and equipment.
- .4 Remove waste materials from site at regularly scheduled times or dispose of as directed by Departmental Representative. Do not burn waste materials on site.
- .5 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .6 Remove stains, spots, marks and dirt from sight exposed finished surfaces.
- .7 Clean lighting reflectors, lenses, and other lighting surfaces.
- .8 Vacuum clean and dust building interiors, behind grilles, louvres and screens.
- .9 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
- .10 Remove dirt and other disfiguration from exterior surfaces.
- .11 Clean and sweep roofs, gutters, and exterior roof decks.
- .12 Sweep and wash clean paved areas.
- .13 Clean equipment and fixtures to sanitary condition; clean or replace filters of mechanical equipment.
- .14 Clean roofs, downspouts, and drainage systems.
- .15 Broom clean and/or wash exterior surfaces and walkways; rake clean other surfaces of grounds.
- .16 Remove all debris and surplus materials from site.
- .17 Clean areas under contract to approval of Departmental Representative.

### **1.4 Waste Management and Disposal**

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

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**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 01 00 10 – General Instructions
- .2 02 41 22 – Selective Concrete Cutting, Coring, Removal and Disposal

**1.2 Definitions**

- .1 *Waste Summary Report (WSR)*: Relates to actual waste generated from project as per weigh bills, and is developed after demolition is complete.
- .2 *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.
- .3 *Waste Reduction Workplan (WRW)*: Written report that addresses opportunities for reduction, reuse, or recycling of materials. Refer to Schedule B. WRW is based on information acquired from WA (Schedule A).

**1.3 Documents**

- .1 Maintain at job site, one copy of following documents:
  - .1 Waste Audit.
  - .2 Waste Reduction Workplan.

**1.4 Submittals**

- .1 Prepare and submit following prior to project start-up:
  - .1 Submit 2 copies of completed Waste Audit (WA)

**1.5 Quality Assurance - Compliance Requirements**

- .1 Comply with the Clean Environment Act, C-6, current version (New Brunswick) for waste management program on construction and demolition projects.
- .2 Comply with the Canadian Environmental Protection Act, 1999 (CEPA 1999) for waste management program on construction and demolition projects.

**1.6 Waste Audit (WA)**

- .1 Conduct WA prior to project start-up.

**1.7 Waste Reduction Workplan (WRW)**

- .1 Prepare WRW prior to project start-up.
- .2 WRW should include but not be 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 on 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.

#### **1.8 Storage, Handling and Protection**

- .1 Unless specified or directed otherwise, materials for removal become Contractor's property.
- .2 Transport and deliver non-salvageable items to licensed disposal facility.
- .3 Protect structural components not removed for demolition from movement or damage.
- .4 Support affected structures. If safety of building is endangered, cease operations and immediately notify Departmental Representative.
- .5 Protect surface drainage, mechanical and electrical from damage and blockage.
- .6 Separate and store materials produced during dismantling of structures in designated areas.
- .7 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, or 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..

- .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.
- .6 Slag fill to be removed from exploratory opening(s) exceeds regulatory limits of barium, chromium, and lead, and therefore requires disposal as a hazardous material.

**1.10 Use of Site and Facilities**

- .1 Execute work with least possible interference or disturbance to normal use of premises.
- .2 Maintain security measures established by existing facility.

**1.11 Scheduling**

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

**PART 2 PRODUCTS**

**2.1 Not Used**

- .1 Not Used.

**PART 3 EXECUTION**

**3.1 Application**

- .1 Do Work in compliance with WRW.
- .2 Handle waste materials not reused 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 Separate hazardous materials from general waste stream and dispose of hazardous wastes in a timely fashion and in accordance with applicable provincial regulations.
  - .1 Mark containers or stockpile areas.

END OF SECTION