

**Part 1 General**

**1.1 RELATED REQUIREMENTS**

- .1 Section 02 83 10 – Lead-Base Paint Abatement – Minimum Precautions
- .2 Section 05 12 33 – Structural Steel for Bridges

**1.2 REFERENCES**

- .1 Canadian Standards Association (CSA International)
  - .1 CSA S350-M1980(R2003), Code of Practice for Safety in Demolition of Structures.
- .2 Department of Justice Canada (Jus).
  - .1 Canadian Environmental Assessment Act (CEAA), 2012.
  - .2 Canadian Environmental Protection Act (CEPA), 1999, c. 33.
  - .3 SOR/2003-2, On-Road Vehicle and Engine Emission Regulations.
  - .4 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34.

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop Drawings:
  - .1 Provide shop drawings and product data in accordance with Section 01 33 00 - Submittal Procedures.
  - .2 Provide drawings stamped and signed by professional engineer registered or licensed in Provinces of Ontario and Quebec.
- .3 Prior to beginning of Work on site submit detailed Waste Reduction Workplan in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal and indicate:
  - .1 Descriptions of and anticipated quantities in percentages of materials to be salvaged, reused, recycled and landfilled.
  - .2 Schedule of selective demolition.
  - .3 Number and location of dumpsters.
  - .4 Anticipated frequency of tippage.
  - .5 Name and address of haulers, waste facilities, and waste receiving organizations.
- .4 Where required by authorities having jurisdiction, submit for approval drawings, diagrams or details showing sequence of demolition work and supporting structures and underpinning.
- .5 Submit drawings stamped and signed by qualified professional engineer registered or licensed in Provinces of Ontario and Québec, Canada.

#### **1.4 INCLUSIONS**

- .1 Costs associated with the work described in this section will not be measured and is deemed to be included in the overall bid price of the contract, either in the general lump sum portion of the contract or in the cost of the associated work paid under an article of the Unit Price Table.

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

- .1 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.
  - .2 Divert excess materials from landfill to site approved by Departmental Representative.
- .2 Environmental Protection
  - .1 Ensure Work is done in accordance with Section 01 35 43 - Environmental Procedures
  - .2 Ensure that demolition work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.
  - .3 Fires and burning of waste or materials is not permitted on site.
  - .4 Do not bury rubbish waste materials on site.
  - .5 Cover or wet down dry materials and waste to prevent blowing dust and debris. Control dust on all temporary roads.
- .3 Scheduling
  - .1 Employ necessary means to meet project time lines without compromising specified minimum rates of material diversion.
    - .1 In event of unforeseen delay notify Departmental Representative in writing.

#### **1.6 SITE CONDITIONS**

- .1 Review designated substance report and take precautions to protect environment.
- .2 All hazardous materials must be handled in accordance with Section 01 14 25 – Designated Substances, and Section 02 83 10 – Lead-Base Paint Abatement – Minimum Precautions. Should previously unidentified designated substances or materials listed as hazardous be encountered in course of demolition, stop work, take preventative measures, and notify Departmental Representative immediately. Do not proceed until written instructions have been received.
- .3 Should material resembling spray or trowel-applied asbestos or other designated substance be encountered, stop work, take preventative measures, and notify Departmental Representative immediately.
  - .1 Do not proceed until written instructions have been received from Departmental Representative.
- .4 Notify Departmental Representative before disrupting access or services.

- .5 Remove, protect and store salvaged items as directed by Departmental Representative. Salvage items as identified by Departmental Representative. Deliver to Departmental Representative or leave in place as specified in Contract Documents or directed by Departmental Representative.
- .6 Take photographs of all elements in vicinity of removals which could be adversely affected by the proposed work or which are presently damaged or deteriorated. The photographs must be provided to the Departmental Representative as a proof in case of dispute whether damage to structure was present prior to contract or caused by construction operation.

Failure to present the photographic documentation will result in an absolute discretion for the Departmental Representative to decide on the probability of the cause for damages found.

## **Part 2 Products**

### **2.1 EQUIPMENT**

- .1 Leave equipment and machinery running only while in use, except where extreme temperatures prohibit shutting down.
- .2 Demonstrate that tools and machinery are being used in manner which allows for salvage of materials in best condition possible.

## **Part 3 Execution**

### **3.1 PREPARATION**

- .1 Do Work in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- .2 Protection:
  - .1 Prevent movement, settlement, or damage to adjacent structures, services, walks, paving, trees, landscaping, adjacent grades, and parts of existing structure to remain.
    - .1 Provide bracing and shoring required.
    - .2 Repair damage caused by demolition as directed by Departmental Representative.
  - .2 Keep noise, dust, and inconvenience to occupants to minimum.
  - .3 Support affected structures and, if safety of the structure being demolished or adjacent structures or services appears to be endangered, take preventative measures, stop Work and immediately notify Departmental Representative.
  - .4 Prevent debris from blocking surface drainage systems which must remain in operation.
- .3 Locate and protect utility lines. Do not disrupt active or energized utilities designated to remain undisturbed.

### **3.2 DEMOLITION SALVAGE AND DISPOSAL**

- .1 The location and limits of removals are as shown on the contract drawings.
- .2 The actual locations and extent of removal and replacement for miscellaneous deteriorated steel components will be determined on site by the Departmental Representative.
- .3 Air hammers must not come in contact with reinforcing bars in a manner which will cause debonding of bars in adjacent concrete areas not being repaired.
- .4 Jack hammers must be used for the removal of concrete in front of and between the reinforcing bars. Only chipping hammers must be used for the removal of concrete behind and within 25 mm of any reinforcing bars that are to remain and that are located within 100 mm of concrete to remain in place.
- .5 Sawing of concrete will be permitted. However, all effluent from sawcutting operations must be collected and disposed of to prevent environmental contamination.
- .6 Demolish to minimize dusting. Keep materials wetted as directed by Departmental Representative.
- .7 Remove parts of existing structure to permit new construction. Sort materials into appropriate piles for reuse and recycling.
- .8 Refer to demolition drawings and specifications for items to be salvaged for reuse.
- .9 Remove items to be reused, store as directed by Departmental Representative, and re-install under appropriate section of specification.
- .10 Trim edges of partially demolished building elements to tolerances as defined by Departmental Representative to suit future use.
- .11 Dispose of removed materials, to appropriate facilities except where specified otherwise, in accordance with authority having jurisdiction.
- .12 At end of each day's work, leave Work in safe and stable condition.

### **3.3 STOCKPILING**

- .1 Label stockpiles, indicating material type and quantity.
- .2 Designate appropriate security resources/measures to prevent vandalism, damage and theft.
- .3 Stockpile materials designated for alternate disposal in location which facilitates removal from site and examination by potential end markets, and which does not impede disassembly, processing, or hauling procedures.
- .4 Supply separate, clearly marked disposal bins for categories of waste material. Notify the Departmental Representative prior to removal of bins from site.
- .5 Stockpiling any material on structures, including temporary platforms, is prohibited at all times.

### **3.4 REMOVAL FROM SITE**

- .1 Remove stockpiled material as directed by Departmental Representative, when it interferes with operations of project construction.

- .2 Remove stockpiles of like materials by alternate disposal option once collection of materials is complete.
- .3 Transport material designated for alternate disposal using approved haulers, facilities, and receiving organizations listed in Waste Reduction Workplan and in accordance with applicable regulations.
  - .1 Written authorization from Departmental Representative is required to deviate from haulers, facilities and receiving organizations listed in Waste Reduction Workplan.
- .4 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.
  - .1 Disposal facilities must be those approved of and listed in Waste Reduction Workplan.
  - .2 Written authorization from Departmental Representative is required to deviate from disposal facilities listed in Waste Reduction Workplan.

### **3.5 CLEANING AND RESTORATION**

- .1 Keep site clean and organized throughout demolition procedure.
- .2 Upon completion of project, reinstate areas affected by Work to condition which existed prior to beginning of Work.

**END OF SECTION**