

## **1 GENERAL**

### **1.1 RELATED SECTIONS**

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 45 00 - Quality Control.
- .3 Section 01 35 29.06 - Health and Safety Requirements.
- .4 Section 31 23 33.01 - Excavating, Trenching and Backfilling.

### **1.2 REFERENCES**

- .1 Canadian Council of Ministers of the Environment (CCME).
  - .1 PN1326, Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products.
- .2 Department of Justice Canada (Jus).
  - .1 Canadian Environmental Assessment Act (CEAA), 1995, c. 37.
  - .2 Canadian Environmental Protection Act, 1999 (CEPA), c. 33.
- .3 Health Canada/Workplace Hazardous Materials Information System (WHMIS).
  - .1 Material Safety Data Sheets (MSDS).
- .4 Transport Canada (TC).
  - .1 Transportation of Dangerous Goods Act, 1992 (TDGA), c. 34.

### **1.3 SUBMITTALS**

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

### **1.4 QUALITY ASSURANCE**

- .1 Regulatory Requirements: ensure Work is performed in compliance with CEPA, CEAA, TDGA, and applicable Provincial regulations.
- .2 Site Meetings.
  - .1 Arrange for site visit with Departmental Representative to examine existing site conditions adjacent to demolition work, prior to start of Work.
- .3 Health and Safety.
  - .1 Do construction occupational health and safety in accordance with Section 01 35 29.06 Health and Safety Requirements.

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

- .1 Storage and Protection.
  - .1 Protect in accordance with Section 31 23 33.01 - Excavating, Trenching and Backfilling.
  - .2 Protect existing items designated to remain and items designated for salvage. In event of damage to such items, immediately replace or make repairs to approval of Departmental Representative and at no cost to Owner.
  - .3 Remove and store materials to be salvaged, in manner to prevent damage.
  - .4 Store and protect in accordance with requirements for maximum preservation of material.

- .5 Handle salvaged materials as new materials.
- .2 Waste Management and Disposal.
  - .1 Separate waste materials for reuse and recycling.
  - .2 Divert excess materials from landfill to site approved by Departmental Representative.
  - .3 Separate for reuse and recycling and place in designated containers.
  - .4 Place materials defined as hazardous or toxic in designated containers.
  - .5 Handle and dispose of hazardous materials in accordance with CEPA, TDGA, Regional and Municipal, regulations.
  - .6 Label location of salvaged material's storage areas and provide barriers and security devices.
  - .7 Ensure emptied containers are sealed and stored safely.
  - .8 Source separate for recycling materials that cannot be salvaged for reuse including wood, metal, concrete and asphalt, and gypsum.
  - .9 Remove materials that cannot be salvaged for reuse or recycling and dispose of in accordance with applicable codes at licensed facilities.

## 1.6 SITE CONDITIONS

- .1 Site Environmental Requirements.
  - .1 Ensure that selective demolition work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.
  - .2 Do not dispose of waste of volatile materials including but not limited to, mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into watercourses, storm or sanitary sewers.
    - .1 Ensure proper disposal procedures are maintained throughout the project.
  - .3 Do not pump water containing suspended materials into watercourses, storm or sanitary sewers or onto adjacent properties.
  - .4 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authorities and as directed by Departmental Representative.
  - .5 Protect trees, plants and foliage on site and adjacent properties where indicated.
- .2 Existing Conditions.
  - .1 Remove contaminated or hazardous materials as directed by Departmental Representative from site, prior to start of demolition Work, and dispose of at designated disposal facilities in safe manner in accordance with TDGA and other applicable regulatory requirements.

## 1.7 SCHEDULING

- .1 Employ necessary means to meet project time lines without compromising specified minimum rates of material diversion.
  - .1 Notify Departmental Representative in writing when unforeseen delays occur.

## 2 PRODUCTS

### 2.1 EQUIPMENT

- .1 Leave machinery running only while in use, except where extreme temperatures prohibit shutting machinery down.

### **3 EXECUTION**

#### **3.1 PREPARATION**

- .1 Inspect site with Departmental Representative and verify extent and location of items designated for removal, disposal, alternative disposal, recycling, salvage and items to remain.
- .2 Locate and protect utilities. Preserve active utilities traversing site in operating condition.
- .3 Notify and obtain approval of utility companies before starting demolition.

#### **3.2 REMOVAL OF HAZARDOUS WASTES**

- .1 Remove contaminated or dangerous materials defined by authorities having jurisdiction, relating to environmental protection, from site and dispose of in safe manner to minimize danger at site or during disposal.

#### **3.3 REMOVAL OPERATIONS**

- .1 Remove items as indicated.
- .2 Do not disturb items designated to remain in place.
- .3 Removal of Pavements:
  - .1 Square up adjacent surfaces to remain in place by saw cutting.
  - .2 Protect adjacent joints and load transfer devices.
  - .3 Protect underlying and adjacent granular materials.
- .4 Prevent contamination with base course aggregates, when removing asphalt pavement for subsequent incorporation into hot mix asphalt concrete paving.
- .5 Excavate at least 300 mm below pipe invert, when removing pipes under existing or future pavement area.
- .6 Remove designated trees during demolition:
  - .1 Obtain written approval of Departmental Representative prior to removal of trees.
- .7 Stockpile topsoil for final grading and landscaping:
  - .1 Provide erosion control and seeding if not immediately used.
- .8 Signage:
  - .1 Remove signs as specified on the Drawings.
  - .2 Work shall be carried out in such a manner so as to avoid damage to the roadside sign, post(s) and the adjacent and surrounding roadway.
    - .1 The Contractor shall be responsible, at his own expense, for any repair of such damage resulting from this Work.
  - .3 Store signage in a dry location. Maintain in clean condition and protect from damage for the duration of construction.
  - .4 Replace rotted or damaged sign posts as directed by the Departmental Representative.
- .9 Salvage:
  - .1 Dismantle items containing materials for salvage and stockpile salvaged materials at locations as directed by Departmental Representative.

- .10 Disposal of Material:
  - .1 Dispose of materials not designated for salvage or reuse on site as instructed by Departmental Representative at authorized facilities.
  - .2 Trim disposal areas to approval of Departmental Representative.
- .11 Backfill:
  - .1 Backfill in areas as indicated and in accordance with Section 31 23 33.01 - Excavating, Trenching and Backfilling.

### **3.4 STOCKPILING**

- .1 Label stockpiles, indicating material type and quantity.
- .2 Designate appropriate security resources/measures to prevent vandalism, damage and theft.
- .3 Locate stockpiled materials convenient for use in new construction to eliminate double handling wherever possible.
- .4 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.

### **3.5 REMOVAL FROM SITE**

- .1 Remove stockpiled material as directed by Departmental Representative, when it interferes with operations of project.
- .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.
- .4 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.

### **3.6 RESTORATION**

- .1 Restore areas and existing works outside areas of demolition to conditions that existed prior to beginning of Work.
- .2 Use soil treatments and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

### **3.7 CLEANING**

- .1 Remove debris, trim surfaces and leave work site clean, upon completion of Work
- .2 Use cleaning solutions and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

**END OF SECTION**

## **1 GENERAL**

### **1.1 RELATED SECTIONS**

- .1 Section 01 74 21 - Construction/Demolition Waste Management And Disposal.

### **1.2 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 unused asphalt materials from landfill to local facility as approved by Departmental Representative.

## **2 PRODUCTS**

### **2.1 EQUIPMENT**

- .1 Cold milling, planning or grinding equipment with automatic grade controls capable of operating from stringline, and capable of removing part of pavement surface to depths or grades indicated.
- .2 Saw-cutting equipment capable of creating smooth face.
- .3 Construction equipment capable of fully removing asphalt pavement.

## **3 EXECUTION**

### **3.1 PREPARATION**

- .1 Prior to beginning removal operation, inspect and verify with Departmental Representative areas, depths and lines of asphalt pavement to be removed.

### **3.2 PROTECTION**

- .1 Protect existing pavement not designated for removal, light units and structures from damage. In event of damage, immediately replace or make repairs to approval of Departmental Representative at no additional cost.

### **3.3 REMOVAL**

- .1 Remove existing asphalt pavement to lines and grades as indicated.
- .2 Milling, at locations where specified on the drawings, is to be used as travel lane stabilization for detours, 150 mm thickness.
- .3 Where partial depth removal is indicated, use equipment and methods of removal and hauling which do not damage or disturb underlying pavement.
- .3 Prevent contamination of removed asphalt pavement by topsoil, underlying gravel or other materials.

- .4 Provide for suppression of dust generated by removal process.
- .5 All limits of asphalt removal shall have a saw-cut edge.

### **3.4 STOCKPILING OF MATERIAL**

- .1 Dispose of removed asphalt pavement by stock-piling off-site.

### **3.5 FINISH TOLERANCES**

- .1 Finished surfaces in areas where asphalt pavement has been removed to be within +/- 10 mm of grade specified but not uniformly high or low.

### **3.6 CLEANING**

- .1 Sweep remaining asphalt pavement surfaces clean of debris resulting from removal operations using rotary power brooms and hand brooming. Remaining asphalt pavement surfaces and cut faces to be pressure-washed as required.

**END OF SECTION**