

**Part 1 General**

**1.1 SUMMARY**

- .1 Section Includes.
  - .1 Methods and procedures for demolishing, salvaging, recycling and removing items designated to be removed in whole or in part.
- .2 Measurement Procedures.
  - .1 Coordinate to Section 01 74 21 – Waste Management and Disposal.

**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 DEFINITIONS**

- .1 Demolition: rapid destruction of building following removal of hazardous materials.
- .2 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, may include but not limited to: asbestos PCB's, CFC's, HCFC's poisons, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health or well being or environment if handled improperly.
- .3 Waste Audit (WA): detailed inventory of materials in building. Indicates quantities of reuse, recycling and landfill.
  - .1 Involves quantifying by volume/weight amounts of materials and wastes generated during construction, demolition, deconstruction, or renovation project.
  - .2 Indicates quantities of reuse, recycling and landfill.
- .4 Waste Management Coordinator (WMC): Contractor representative responsible for supervising waste management activities as well as coordinating related, required submittal and reporting requirements.
- .5 Waste Reduction Workplan (WRW): written report which addresses opportunities for reduction, reuse, or recycling of materials. WRW is based on information acquired from WA.

#### 1.4 SUBMITTALS

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data: submit WHMIS MSDS - Material Safety Data Sheets.
- .3 Shop drawings.
  - .1 Submit for approval drawings, diagrams or details showing sequence of demolition Work and supporting structures and underpinning, where required by authorities having jurisdiction.
  - .2 Submit drawings stamped and signed by qualified professional engineer registered or licensed in Province of Manitoba, Canada.
- .4 Hazardous Materials: provide description of Hazardous Materials and Notification of Filing with proper authorities prior to beginning of Work as required.
- .5 Waste Reduction Workplan: 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.

#### 1.5 QUALITY ASSURANCE

- .1 Regulatory Requirements: ensure Work is performed in compliance with CEPA, CEEA, TDGA, and applicable Provincial/Territorial regulations.
- .2 Site Meetings.
  - .1 Convene pre-installation meeting one week prior to beginning Work of this Section to:
    - .1 Verify project requirements.
    - .2 Co-ordination with other building subtrades.
  - .2 Arrange for site visit with Contract Administrator to examine existing site conditions adjacent to demolition Work, prior to start of Work.
  - .3 Hold project meetings every week.
  - .4 Ensure key personnel, site supervisor, project manager, Subcontractor representatives, WMC attend.
  - .5 Reporting Requirements: WMC to complete.
  - .6 WMC must provide written report on status of waste diversion activity at each meeting.
  - .7 Contract Administrator will provide written notification of change to meeting schedule established upon contract award 24 hours prior to scheduled meeting.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- .1 Perform Work in accordance with Section 01 35 43 - Environmental Procedures.
- .2 Storage and Protection.
  - .1 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 Contract Administrator and at no cost to the City of Winnipeg.

- .2 Remove and store materials to be salvaged, recycled and donated, in manner to prevent damage.
- .3 Store and protect in accordance with requirements for maximum preservation of material.
- .4 Handle salvaged and donated materials as new materials.
- .3 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.

## **1.7 SITE CONDITIONS**

- .1 Site Environmental Requirements.
  - .1 Perform Work in accordance with Section 01 35 43 - Environmental Procedures.
  - .2 Ensure that selective demolition Work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.
  - .3 Do not dispose of waste or 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.
  - .4 Do not pump water containing suspended materials into watercourses, storm or sanitary sewers or onto adjacent properties.
  - .5 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authorities and as directed by Contract Administrator.
  - .6 Protect trees, plants and foliage on site and adjacent properties where indicated.
- .2 Existing Conditions.
  - .1 Remove contaminated or hazardous materials as directed by Contract Administrator 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 and Section 02 81 01 - Hazardous Materials.

## **1.8 SCHEDULING**

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

## **Part 2 Products**

### **2.1 EQUIPMENT**

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

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**Part 3 Execution**

**3.1 PREPARATION**

- .1 Inspect site with Contract Administrator 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 on drawings.
- .2 Do not disturb items designated to remain in place.
- .3 Salvage.
  - .1 Dismantle items containing materials for salvage and stockpile salvaged materials at locations specified by Contract Administrator.
- .4 Disposal of Material.
  - .1 Coordinate to Section 01 74 21 – Waste Management and Disposal.

**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 Contract Administrator 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, facilities, receiving organizations listed in Waste Reduction Workplan and in accordance with applicable regulations.
  - .1 Written authorization from Contract Administrator is required to deviate from haulers, facilities, receiving organizations listed in Waste Reduction Workplan.

- .4 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.
  - .1 Disposal Facilities: approved and listed in Waste Reduction Workplan.
  - .2 Written authorization from Contract Administrator is required to deviate from disposal facilities listed in Waste Reduction Workplan.

**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**