
Part 1 General

1.1 REFERENCE STANDARDS

- .1 CSA Group (CSA)
 - .1 CSA S350-M1980 (R2003), Code of Practice for Safety in Demolition of Structures.
- .2 National Fire Protection Association (NFPA)
 - .1 NFPA 241 - 2019, Standard for Safeguarding Construction, Alteration, and Demolition Operations
- .3 National Research Council Canada (NRC)
 - .1 National Building Code of Canada 2015 (NBC).
 - .2 National Fire Code of Canada 2015 (NFC).

1.2 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 wellbeing or environment if handled improperly.
- .3 Construction Waste Management Plan (CWM Plan): Written plan addressing opportunities for reduction, reuse, or recycling of materials prepared in accordance with Section 01 74 19 - Waste Management and Disposal.

1.3 ADMINISTRATIVE REQUIREMENTS

- .1 Coordination: Coordinate with Departmental Representative for the material ownership including but not limited to:
 - .1 Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Departmental Representative's property, demolished materials shall become Contractor's property and shall be removed from Project site.
 - .2 Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Departmental Representative that may be encountered during demolition remain Departmental Representative's property.
- .2 Scheduling:
 - .1 Employ necessary means to meet project time lines without compromising specified minimum rates of material diversion.
 - .2 In event of unforeseen delay notify in writing to Departmental Representative.

1.4 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Action Submittals: Provide the following submittals before starting any work of this Section:
 - .1 Submit in accordance with Section 01 33 00 - Submittal Procedures and 01 74 19 - Waste Management and Disposal.
 - .2 Schedule of Demolition Activities: Coordinate with Section 01 32 16.19 - Construction Progress Schedule - Bar (Gantt) Chart.

1.5 QUALITY ASSURANCE

- .1 Regulatory Requirements: Ensure Work is performed in compliance with applicable Provincial/Territorial and Municipal regulations.
- .2 Comply with hauling and disposal regulations of Authority Having Jurisdiction.
- .3 Standards: Comply with ANSI A10.6 and NFPA 241.

1.6 SITE CONDITIONS

- .1 If material resembling spray or trowel-applied asbestos or other designated substance listed as hazardous be encountered, stop work, take preventative measures, and notify Departmental Representative immediately.
 - .1 Proceed only after receipt of written instructions have been received from Departmental Representative.
- .2 Notify Departmental Representative before disrupting building access or services.

1.7 EXISTING CONDITIONS

- .1 Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - .1 Hazardous materials will be as defined in the Hazardous Materials Act.
 - .2 Hazardous materials will be removed by Departmental Representative before start of the Work.

Part 2 Products

2.1 EQUIPMENT

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

Part 3 Execution

3.1 EXAMINATION

- .1 Survey existing conditions and correlate with requirements indicated to determine extent of demolition required.

- .2 Review Project Record Documents of existing construction provided by Departmental Representative.
- .3 Departmental Representative does not guaranty that existing conditions are the same as those indicated in Project Record Documents.
- .4 Inventory and record the condition of items being removed and salvaged.
- .5 When unanticipated mechanical, electrical, or structural elements are encountered, investigate, and measure the nature and extent of the element.
- .6 Promptly submit a written report to Consultant.
- .7 Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during demolition operations.
- .8 Verify that hazardous materials have been remediated before proceeding with demolition operations.

3.2 PREPARATION

- .1 Temporary Erosion and Sedimentation Control:
 - .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to: requirements of authorities having jurisdiction.
- .2 Protection of In-Place Conditions:
 - .1 Prevent movement, settlement, or damage to adjacent utilities, structures, and parts of building to remain in place. Provide bracing and shoring required.
 - .2 Keep noise, dust, and inconvenience to occupants to minimum.
 - .3 Protect building systems, services, and equipment.
 - .4 Provide temporary dust screens, covers, railings, supports and other protection as required.
 - .5 Do Work in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- .3 Demolition/Removal:
 - .1 Demolish parts of structures as indicated.
 - .2 Remove parts of existing building to permit new construction.
 - .3 Square up adjacent surfaces to remain in place by saw cutting. Saw cut areas of concrete removal, reinforcement removal, and structural steel removal.
 - .4 Trim edges of partially demolished building elements to tolerances as defined by Departmental Representative to suit future use.
 - .5 At end of each day's work, leave Work in safe and stable condition.
 - .6 Protect interiors of parts not to be demolished from exterior elements at all times.
 - .7 Demolish to minimize dusting. Keep materials wetted as directed by Departmental Representative.

- .8 Only dispose of material specified by selected alternative disposal option as directed by Departmental Representative.

3.3 SITE RESTORATION & REPAIRS

- .1 General: Promptly repair damage to adjacent construction caused by demolition operations.
- .2 Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
- .3 Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

3.4 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools, and equipment in accordance with Section 01 74 00 - Cleaning.
- .3 Refer to demolition drawings and specifications for items to be salvaged for reuse.

END OF SECTION

Part 1 General

1.1 REFERENCE STANDARDS

- .1 Canadian Environmental Protection Act,1999 (CEPA 1999)
 - .1 Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2005-149).
- .2 Department of Justice Canada (Jus)
 - .1 Transportation of Dangerous Goods Act, 1992 (TDG Act) 1992, (c. 34).
 - .2 Transportation of Dangerous Goods Regulations (T-19.01-SOR/2001-286).
- .3 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 WHMIS Safety Data Sheets (SDS).
- .4 National Research Council Canada (NRC)
 - .1 National Fire Code of Canada 2015 (NFC).

1.2 DEFINITIONS

- .1 Dangerous Goods: product, substance, or organism specifically listed or meets hazard criteria established in Transportation of Dangerous Goods Regulations.
- .2 Hazardous Material: product, substance, or organism used for its original purpose; and is either dangerous goods or material that will cause adverse impact to environment or adversely affect health of persons, animals, or plant life when released into environment.
- .3 Hazardous Waste: hazardous material no longer used for its original purpose and that is intended for recycling, treatment, or disposal.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Hazardous waste classification: identify waste codes applicable to each hazardous waste material based on applicable federal and provincial acts, regulations, and guidelines. Waste profiles, analyses, and classification submitted to contract offices for review and approval.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Transport hazardous materials and wastes in accordance with Transportation of Dangerous Goods Act, Transportation of Dangerous Goods Regulations, and applicable provincial regulations.

- .1 When exporting hazardous waste to another country, ensure compliance with Export and Import of Hazardous Waste and Hazardous Recyclable Materials Regulations.
- .4 Storage and Handling Requirements:
 - .1 Co-ordinate storage of hazardous materials with Departmental Representative and abide by internal requirements for labelling and storage of materials and wastes.
 - .2 Store and handle hazardous materials and wastes in accordance with applicable federal and provincial laws, regulations, codes, and guidelines.
 - .3 Store and handle flammable and combustible materials in accordance with National Fire Code of Canada (NFC) requirements.
 - .4 Keep no more than 45 litres of flammable and combustible liquids such as gasoline, kerosene, and naphtha for ready use.
 - .1 Store flammable and combustible liquids in approved safety cans bearing the Underwriters' Laboratory of Canada or Factory Mutual seal of approval.
 - .2 Storage of quantities of flammable and combustible liquids exceeding 45 litres for work purposes requires the written approval of the Departmental Representative.
 - .5 Transfer of flammable and combustible liquids is prohibited within buildings.
 - .6 Transfer flammable and combustible liquids away from open flames or heat-producing devices.
 - .7 Solvents or cleaning agents: non-flammable or have flash point above 38 degrees C.
 - .8 Store flammable and combustible waste liquids for disposal in approved containers located in safe, ventilated area. Keep quantities to minimum.
 - .9 Observe smoking regulations, smoking is prohibited in areas where hazardous materials are stored, used, or handled.
 - .10 Storage requirements for quantities of hazardous materials and wastes in excess of 5 kg for solids, and 5 litres for liquids:
 - .1 Store hazardous materials and wastes in closed and sealed containers.
 - .2 Label containers of hazardous materials and wastes in accordance with WHMIS.
 - .3 Store hazardous materials and wastes in containers compatible with that material or waste.
 - .4 Segregate incompatible materials and wastes.
 - .5 Ensure that different hazardous materials or hazardous wastes are stored in separate containers.
 - .6 Store hazardous materials and wastes in secure storage area with controlled access.
 - .7 Maintain clear egress from storage area.
 - .8 Store hazardous materials and wastes in location that will prevent them from spilling into environment.

- .9 Have appropriate emergency spill response equipment available near storage area, including personal protective equipment.
- .10 Maintain inventory of hazardous materials and wastes, including product name, quantity, and date when storage began.
- .11 When hazardous waste is generated on site:
 - .1 Co-ordinate transportation and disposal with Departmental Representative.
 - .2 Comply with applicable federal, provincial, and municipal laws and regulations for generators of hazardous waste.
 - .3 Use licensed carrier authorized by provincial authorities to accept subject material.
 - .4 Before shipping material obtain written notice from intended hazardous waste treatment or disposal facility it will accept material and it is licensed to accept this material.
 - .5 Label containers with legible, visible safety marks as prescribed by federal and provincial regulations.
 - .6 Only trained personnel handle, offer for transport, or transport dangerous goods.
 - .7 Provide photocopy of shipping documents and waste manifests to Departmental Representative.
 - .8 Track receipt of completed manifest from consignee after shipping dangerous goods. Provide photocopy of completed manifest to Departmental Representative.
 - .9 Report discharge, emission, or escape of hazardous materials immediately to Departmental Representative and appropriate provincial authority. Take reasonable measures to control release.
- .12 Ensure personnel have been trained in accordance with Workplace Hazardous Materials Information System (WHMIS) requirements.
- .13 Report spills or accidents immediately to Departmental Representative. Submit a written spill report to Departmental Representative within 24 hours of incident.
- .5 Develop Waste Reduction Workplan and Construction Waste Management Plan related to Work of this Section.
- .6 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management and Disposal.
 - .1 Dispose of hazardous waste materials in accordance with applicable federal and provincial acts, regulations, and guidelines.
 - .2 Recycle hazardous wastes for which there is approved, cost effective recycling process available.
 - .3 Send hazardous wastes to authorized hazardous waste disposal or treatment facilities.
 - .4 Burning, diluting, or mixing hazardous wastes for purpose of disposal is prohibited.

- .5 Disposal of hazardous materials in waterways, storm, or sanitary sewers, or in municipal solid waste landfills is prohibited.
- .6 Dispose of hazardous wastes in timely fashion in accordance with applicable provincial regulations.
- .7 Minimize generation of hazardous waste to maximum extent practicable. Take necessary precautions to avoid mixing clean and contaminated wastes.
- .8 Identify and evaluate recycling and reclamation options as alternatives to land disposal, such as:
 - .1 Hazardous wastes recycled in manner constituting disposal.
 - .2 Hazardous waste burned for energy recovery.
 - .3 Lead-acid battery recycling.
 - .4 Hazardous wastes with economically recoverable precious metals.

Part 2 Products

2.1 MATERIALS

- .1 Description:
 - .1 Bring on site only quantities hazardous material required to perform Work.
 - .2 Maintain WHMIS Safety Data Sheets (SDS) in proximity to where materials are being used. Communicate this location to personnel who may have contact with hazardous materials.
 - .3 Sustainability Characteristics:
 - .1 Adhesives and Sealants in accordance with Section 07 92 00 - Joint Sealants.
 - .2 Paints, Coatings, and Primers in accordance with manufacturer's recommendations for surface conditions and Section 09 91 23 - Interior Painting.
 - .4 Spill Response Materials: provide spill response materials which can be used for absorbing/shoveling and containing hazardous materials.
 - .5 Provide personal protective equipment.

Part 3 Execution

3.1 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools, and equipment in accordance with Section 01 74 00 - Cleaning.

END OF SECTION