

SELECTIVE SITE DEMOLITION

1. GENERAL

1.1 Summary

- .1 Section Includes.
 - .1 Methods and procedures for demolishing, salvaging, recycling and removing sitework items designated to be removed in whole or in part, and for backfilling resulting trenches and excavations.
 - .2 Sustainable requirements for construction and verification.
 - .1 Not used.

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 Management Coordinator (WMC): contractor representative responsible for supervising waste management activities as well as coordinating related, required submittal and reporting requirements.
- .4 Waste Reduction Workplan (WRW): written report which addresses opportunities for reduction, reuse, or recycling of materials. WRW is based on information acquired from WA.

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1.4 Action and Informational 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 the Contractor.
- .4 Hazardous Materials: provide description of Hazardous Materials and Notification of Filing with proper authorities prior to beginning of Work as required.
- .5 Certificates: submit copies of certified weigh bills, bills of lading, and receipts from authorized disposal sites and reuse and recycling facilities for material removed from site upon request of the Contract Administrator.

1.5 Quality Assurance

- .1 Regulatory Requirements: ensure Work is performed in compliance with CEPA, CEAA, TDGA, and applicable Provincial/Territorial regulations.
- .2 Site Meetings.
 - .1 Hold project meetings every month.
 - .2 Ensure key personnel, site supervisor, subcontractor representatives attend.
 - .3 Contractor will provide written notification of change to meeting schedule established upon contract award twenty-four (24) hours prior to scheduled meeting.
- .3 Health and Safety.
 - .1 Refer to Bid Opportunity documents.

1.6 Delivery, Storage and Handling

- .1 Perform Work in accordance with Section 01 35 43 - Environmental Procedures.
- .2 Storage and Protection.
 - .1 Protect in accordance with Section 31 23 10 – 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 Contract Administrator and at no cost to the City.
 - .3 Remove and store materials to be salvaged, in manner to prevent damage.

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- .4 Store and protect in accordance with requirements for maximum preservation of material.
- .5 Handle salvaged materials as new materials.
- .3 Waste Management and Disposal.
 - .1 Separate waste materials for reuse and recycling.
 - .2 Divert excess materials from landfill to site approved by Contract Administrator.
 - .3 Separate for reuse and recycling and place in designated containers for Steel, Metal, and Plastic waste in accordance with Waste Management Plan.
 - .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.

1.7 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 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.
 - .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 as directed by Contract Administrator.
 - .6 Protect trees, plants and foliage on site and adjacent properties where indicated.

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.2 Existing Conditions.

- .1 Remove contaminated or hazardous materials listed as hazardous as defined by Authorities Having Jurisdiction 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.

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.

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 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.
- .4 Disconnect and Cap Designated Mechanical Services.
 - .1 Storm Drainage Lines.
 - .2 Abandoned underground fuel lines and secondary containment lines.
 - .3 Other Underground Services: remove and dispose of as indicated and as directed by Contract Administrator.

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.

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- .3 Removal of Pavements, Curbs and Gutters:
 - .1 Square up adjacent surfaces to remain in place by saw cutting or other method approved by Contract Administrator.
 - .2 Protect adjacent joints and load transfer devices.
 - .3 Protect underlying and adjacent granular materials.
- .4 Excavate at least 300 mm below pipe invert, when removing pipes under existing or future pavement area.
- .5 Salvage.
 - .1 Dismantle items containing materials for salvage and stockpile salvaged materials at locations as indicated or as directed by the City.
- .6 Disposal of Material.
 - .1 Dispose of materials not designated for salvage or reuse on site as instructed by Contract Administrator at authorized facilities.
 - .2 Trim disposal areas to approval of Contract Administrator.
- .7 Backfill.
 - .1 Backfill in areas as indicated and in accordance with Section 31 23 33 - 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 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 and receiving organizations and in accordance with applicable regulations. GWWD will haul out

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from site to designated area for transfer by Contractor and disposal by Contractor. Loading and unloading on/off of GWWD train will be the Contractor's responsibility.

- .4 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.

- .1 Disposal Facilities: approved by the City.

3.6 Restoration

- .1 Restore areas and existing works outside areas of demolition to conditions that existed prior to beginning of Work and match condition of adjacent, undisturbed areas.
- .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