

**SECTION 02400
DEMOLITION - ARCHITECTURAL**

PART 1 - GENERAL

1.1 SUMMARY

- A. Carry out demolition of existing construction below and at grade.
- B. Remove entirely all concrete foundations and footings of previously demolished building.
- C. Remove entirely all redundant concrete pads, retaining walls, patio, walkways and fencing.
- D. Grade the site as required and indicated and to applicable codes and regulations for safety.
- E. Ensure demolition permit has been issued from authority having jurisdiction.

1.2 RELATED SECTIONS

- A. Divisions 0 and 1, issued by B.C. Housing.

1.3 REFERENCES

- A. Metro Vancouver BuildSmart programme (source at gvr.d.bc.ca/buildsmart/construction-waste.htm)
- B. National Fire Protection Association "Standard for Safeguarding Construction, Alteration and Demolition Operations": NFPA 241.

1.4 SUBMITTALS

- A. Proposed Dust-Control and Noise-Control Measures: Submit statement or drawing indicating proposed dust control and noise control measures, proposed locations for barriers and proposed time frame for their incorporation. Identify options if proposed measures are later determined to be inadequate.
- B. Schedule of Demolition Activities, indicating the following:
 - 1. Detailed sequence of demolition and removal work, with starting and ending dates for each activity.
 - 2. Interruption of utility services.
 - 3. Coordination for shutoff and capping of utility services.

1.5 QUALITY ASSURANCE & REGULATORY REQUIREMENTS

- A. Demolition Firm Qualifications: the company is to be experienced and specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Qualifications of Workers: Provide a Supervisor who shall be present at all times during the Work and who shall be thoroughly familiar with the work required and who shall direct all work. Provide one (1) person on site who is responsible for maintaining the safety barriers and protection of the workers and the public.
- C. Regulatory Requirements:
 - 1. Conform to applicable codes and regulations for demolition of buildings, safety of adjacent structures, dust control, and disposal and removal of common and hazardous waste. Refer also to Article 1.6 of this section.
 - 2. Codes and Regulations: Complete all demolition work according to the requirements of Municipal Building By-laws, the Provincial Workers' Compensation Board Regulations, BC Waste Management Act and Special Waste Regulation, and the Canadian Construction Safety Code.
 - 3. Obtain required permits from authorities having jurisdiction.

4. Notify the Owner and affected utility companies before starting Work, and comply with their requirements.
 5. Do not close or obstruct safety exits, adjacent sidewalks, hydrants, parking or storage areas without prior approval of Owner.
 6. Conform to applicable regulatory procedures in the event of discovering hazardous or contaminated materials not documented prior to this Contract.
 7. Licensed facilities: Only those brokerage, storage, transfer and disposal facilities which comply with the requirements of the "Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996 as amended by Bylaw 183, 1996" and those licensed by other jurisdictions shall be used by the Contractor for the recycling and disposal of waste materials generated.
- D. Standards: Comply with NFPA 241, "Standard for Safeguarding Construction, Alteration and Demolition Operations".

1.6 PROJECT CONDITIONS

- A. The contractor shall accept the site as it exists and be responsible for all demolition and deconstruction work as required.
- B. Maintain access to existing walkways, and other adjacent occupied or used facilities.
- C. The Owner assumes no responsibility for condition of areas to be demolished.
- D. Before demolition, ensure items intended for salvage and recycling have been removed and safely stored.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Survey existing conditions and correlate with requirements indicated to confirm extent of demolition required.
- B. Perform regular inspections as the Work progresses to detect hazards resulting from demolition activities.

3.2 PREPARATION

- A. Dangerous Materials: Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with demolition operations.
- B. Handle and dispose of all hazardous and banned materials in accordance with the Special Waste Regulation, and Regional and Municipal regulations. These hazardous and banned materials include but are not limited to asbestos, drywall (banned from disposal), underground storage tanks, Polychlorinated Biphenyls (PCBs), abandoned chemicals (gasoline, pesticides, herbicides, flammable and combustible substances), freon from cooling equipment, lead-based paints, smoke detectors, and mercury containing switches.
- C. Site Access and Temporary Controls: Conduct demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

2. Erect temporary protection, such as walks, fences, railings, where required by authorities having jurisdiction. Provide protection to ensure safe passage of people around demolition area and to and from site.
3. Protect existing appurtenances and landscaping to remain.
4. A landscape damage security will be held by the Owner. Prior to submitting a tender, the Contractor is to conduct a site visit with the responsible representative to determine which soft landscaping (significant trees and shrubs) must be protected during demolition. City of Vancouver guidelines will dictate the method of protection. Contractor to supply and erect landscape protection for soft landscaping as indicated on the site plan.

3.3 UTILITY SERVICES

- A. Existing Utilities: Maintain services indicated to remain and protect them against damage during demolition operations.
- B. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utilities serving areas to be demolished.
 1. Arrange to shut off indicated utilities when required.
 2. If utility services are required to be removed, relocated, or abandoned, before proceeding with demolition, provide temporary utilities that bypass area of selective demolition and that maintain continuity of service to other parts of the project.

3.4 POLLUTION CONTROLS

- A. Dust Control: Use water mist, temporary enclosures, and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations.
- B. Disposal: Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

3.5 DEMOLITION

- A. Demolish and remove existing construction below, at and above grade, to the extent indicated.
- B. Cease operations immediately if adjacent structures appear to be in danger. Notify Owner. Do not resume operations until directed by Owner.
- C. Provide and maintain all legal and necessary guards, railings and warning signs during the execution of the work to fully protect all persons and Owner from loss, damage, death or injury through the neglect, carelessness or incompetence of the Contractor or his employees or the condition or handling of equipment.
- D. The Contractor shall assume full responsibility for the design and adequacy of any temporary shoring and/or bracing required during deconstruction. Include all necessary signs, barricades and screens as required for the safety of the structure, third parties and workmen.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. Do not allow demolished materials to accumulate on-site.
- B. Burning: Do not burn any demolished materials.
- C. Do not bury materials on site unless it can be processed for use as fill, is authorized by the Owner and meets all applicable Provincial, Regional and Municipal codes and policies.
- D. Legally transport demolished materials off Owner's property and legally dispose of them.
- E. Of the inevitable waste that is generated, the waste materials designated shall be salvaged for reuse and/or recycling. Waste disposal in landfills or incinerators shall be minimized.

3.7 CLEAN-UP

- A. During progress of the Work and at completion, keep all surrounding areas clean and free from debris.
- B. Clean adjacent structures and appurtenances of dust, dirt, and debris caused by operations. Return adjacent areas to condition existing before operations began.
- C. Excavated materials not required or suitable for backfill where so indicated or specified, shall be disposed of off site by the Contractor.

END OF SECTION