

## CONSTRUCTION ENVIRONMENTAL HEALTH & SAFETY EXHIBIT SOLID WASTE MANAGEMENT

## I. General Requirements

- A. All Contractors and Subcontractors performing work on projects conducted at or on behalf of the University shall comply with all applicable federal environmental regulations (EPA, OSHA, etc.), state environmental regulations (MassDEP, Department of Public Health, Massachusetts Water Resources Authority, etc.), and local environmental regulations and ordinances (as appropriate) as well as the University-specific guidelines outlined in the following Sub-Sections.
- B. The requirements included in the following Sub-Sections have been developed to aid Contractors and Subcontractors in navigating through relevant environmental regulations and potential environmental issues that may arise over the course of construction, therefore helping to minimize the overall impacts to the environment and to students, faculty, staff, and the general public. Where codes/regulations/requirements conflict, the more stringent guidelines shall apply.
- C. It is the University's goal to salvage and recycle as much non-hazardous demolition and construction debris as possible. Materials that have the potential to be recycled and that should be considered for reuse or recycling prior to disposal include such construction and demolition materials as the following:
  - 1. Asphaltic concrete paving
  - 2. Concrete and concrete reinforcing steel
  - 3. Brick and concrete masonry units (uncoated)
  - 4. Wood studs, wood joists, plywood, oriented strand board, paneling and trim (uncoated)
  - 5. Casework and cabinetry
  - 6. Structural steel, miscellaneous steel and rough hardware
  - 7. Roofing
  - 8. Insulation
  - 9. Doors, door frames and door hardware (non-lead-based paint coated)
  - 10. Windows and glazing
  - 11. Metal studs
  - 12. Gypsum board (new unpainted scrap)
  - 13. Acoustical tile and panels
  - 14. Carpet and carpet pad
  - 15. Demountable partitions
  - 16. Equipment for re-use
  - 17. Plumbing fixtures, piping, supports, hangers, valves and sprinklers
  - 18. Mechanical equipment and refrigerants
  - 19. Electrical conduit, copper wiring, lighting fixtures, lamps, and ballasts
  - 20. Electrical devices, switchgear, panel boards and transformers
  - 21. Packaging: 100 percent of the following uncontaminated packaging materials: Paper, cardboard, boxes, plastic sheet/film, polystyrene packaging, wood crates, plastic pails
- D. For regulated material (e.g., coated concrete) the Contractor shall engage the services of one of the several disposal facilities utilized by Harvard University Environmental Health and Safety. This includes those facilities that dispose of regulated construction and demolition debris.
- E. All construction and demolition debris shall be handled in accordance with MassDEP's land ban for solid waste disposal and shall meet the MassDEP's Massachusetts Solid Waste Master Plan. It is the General Contractor's responsibility to ensure that the solid wastes shipped are not hazardous waste.



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## **II. Solid Waste Management**

- A. The General Contractor shall develop a Waste Management Plan consisting of waste identification, waste reduction, source segregation, and cost/benefit analysis. Include separate sections in the plan for demolition and construction waste. Indicate quantities by weight throughout the Waste Management Plan.
  - 1. Waste identification shall consist of anticipated types and quantities of demolition, site-clearing and construction waste generated by the work and shall include estimated quantities and assumptions for estimates.
  - 2. The Waste Management Plan shall list each type of waste and whether it will be salvaged, recycled, disposed in a landfill or incinerated. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
  - 3. The source segregation and cost/revenue analysis included in the Waste Management Plan shall indicate total cost of waste disposal as if there was no Waste Management Plan and net additional cost or net savings resulting from implementing the Waste Management Plan.
- B. The Contractor shall be responsible for registering the solid waste management containers in accordance with the local ordinance applicable to the site, including the payment of any fees.
- C. The General Contractor's (or University's if designated by contract) designated waste management Contractor shall provide containers, storage, signage, transportation, and other items as required to implement Waste Management Plan during the entire duration of the construction project. All containers used to store waste must be designed and operated to be "Pest proof" at all times.
- D. The General Contractor shall be responsible for implementing, monitoring, and reporting status of Waste Management Plan.
- E. The General Contractor, as part of the Safety Orientation, shall train on-site personnel and suppliers on proper waste management procedures, as appropriate for the Work.
- F. All other requirements for salvaging demolition waste, recycling demolition and construction waste, and disposal of waste are included in the Construction Waste Management Specification, available through HUEHS or Harvard Office for Sustainability.
- G. The Contractor shall comply with all applicable laws, standards and guidance applicable to solid waste, including but not limited to the Massachusetts Solid Waste Management Regulations at 310 CMR 19.000.
- H. Except for items or materials to be salvaged, recycled, or otherwise reused, waste materials shall be removed from the Project site and shall be legally disposed of at a landfill or incinerator approved to accept such materials.
- I. Burning of waste materials on-site is prohibited.

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