

Appendix E

Project Waste Management

1. General

1.1. *Waste Management Goals for the Project*

The Province has established that this Project shall generate the least amount of waste possible and that processes shall be employed that ensure the generation of as little waste as possible including prevention of damage due to mishandling, improper storage, contamination, inadequate protection or other factors as well as minimizing over packaging and poor quantity estimating,

Of the inevitable waste that is generated, the waste materials designated in this specification shall be salvaged for reuse and or recycling. Waste disposal in landfills or incinerators shall be minimized. On new construction projects this means careful recycling of job site waste, on demolition projects this also means careful removal for salvage.

1.2. *Section Includes*

Submission and implementation of a Project Waste Management Plan

1.1.1. Definitions

The following definitions apply:

Demolition: Rapid deconstruction of a building with or without prior removal of hazardous materials.

Reduce: decreasing the volume, weight or toxicity of materials entering the waste stream, including activities which result in greater ease or efficiency of reuse of a product.

Reuse: repeated use of a product in the same form but not necessarily for the same purpose.

Salvage: removal of structural and non-structural building materials from residential, industrial, commercial and institutional buildings demolition projects for the purpose of reuse or recycling.

1.3. *Code of Practice*

In addition to other requirements specified herein it is a requirement for the Work of this project that the Proponent complies with the GVRD's "3Rs Code of Practice for the Building Industry". Refer also to "Job Site Recycling: A Guide for Builders and Developers" and "Demolition & Salvage: A Guide for Developers and Renovators." All documents are available from the GVRD, Policy and Planning Department, Telephone: 604-437-GVRD(4873). Website address: www.gvrd.bc.ca/services/garbage/index.html.

1.4. *REGULATORY REQUIREMENTS*

Conform to applicable codes and regulations for disposal and removal of common and hazardous waste. Handle and dispose of all hazardous and banned materials in accordance with the BC Waste Management Act and 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

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substances), freon from cooling equipment, lead-based paints, smoke detectors, and mercury containing switches.

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 Proponent for the recycling and disposal of waste materials generated at deconstruction and renovation projects.

1.5. Waste Management Plan

Within 10 calendar days after receipt of Notice of Award, or prior to any waste removal, whichever occurs sooner, the Proponent shall submit to the Province a Waste Management Plan. Attached is a sample format together with sample waste generation rates to aid the Proponent in formulating the Plan. The Proponent may use this form or provide a custom form containing the same information.

The Plan shall contain the following:

- 1) Analysis of the proposed job site waste to be generated, including the types of recyclable and waste materials generated (by volume or weight). In the case of demolition, a list of each item proposed to be salvaged during the course of the project should also be prepared (Refer to the Job Site Recycling Guide for a directory of service providers. This list is not necessarily complete. The Proponent may use any of these or other service providers).
- 2) Threshold: Should the Proponent be able to demonstrate to the Province that there is a cost advantage to disposal for a project or if the project generates less than 35 cubic yards, than the waste can be disposed at an approved facility in accordance with Section 1.3.
- 3) Alternatives to Land filling: the Proponent shall designate responsibility for preparing a list of each material proposed to be salvaged, reused, or recycled during the course of the Project (Refer to the Job Site Recycling Guide, Directory section).
- 4) List of compulsory materials to be recycled, shall include, at minimum, the following designated materials:
 - old corrugated cardboard;
 - clean dimensional wood, palette wood;
 - concrete/brick/concrete block/asphalt;
 - scrap metal;
 - drywall; and
 - landclearing debris.
- 5) List of optional materials to be salvaged (demolition projects only)
 - dimensioned lumber and heavy timbers;
 - wood siding;
 - structural steel;

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- wood panelling, moulding, trim and wainscoting;
 - heritage architectural elements such as mantle pieces, columns, etc;
 - cabinets and casework;
 - insulation;
 - brick and block;
 - electric equipment and light fixtures;
 - plumbing fixtures and brass;
 - windows, doors and frames;
 - hardwood flooring.
- 6) Meetings: The Proponent shall conduct Project Waste Management meetings. Meetings shall include subcontractors affected by the Waste Management Plan. At a minimum, waste management goals and issues shall be discussed at the following meetings:
- pre-bid meeting;
 - pre-construction meeting; and
 - regular job-site meetings.
- 7) Materials Handling Procedures: prevent contamination of materials to be recycled and salvaged and handle materials consistent with requirements for acceptance by designated facilities. Where space permits, source separation is recommended. Where materials must be co-mingled they must be taken to a processing facility for separation off site.
- 8) Transportation: The Proponent may engage a hauling subcontractor or self haul or make each subcontractor responsible for their own waste. In any case compliance with these requirements is mandatory.
- 9) The Proponent is required to maintain way-bills, invoices and other documentation confirming that all materials have been hauled to the required locations, and to submit this documentation at the completion of the project if requested by the Province.
- 10) Waste Management Plan Implementation:
- Manager: The Proponent shall designate an on-site party (or parties) responsible for instructing workers and overseeing and recording results of the Waste Management Plan for the project.
 - Distribution: The Proponent shall distribute copies of the Waste Management Plan to the Job Site Foreman, each Subcontractor, and the Province.
 - Instruction: The Proponent shall provide on-site instruction of appropriate separation, handling, and recycling to be used by all parties at the appropriate stages of the Project. On demolition projects the Proponent shall provide on-site instructions for salvage and requirements for reusing salvaged materials within the project, either in new construction or in a renovation.

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- Separation facilities: The Proponent shall lay out and label a specific area to facilitate separation of materials for recycling and salvage. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination of materials. The requirement for separation will only be waived if the Proponent can demonstrate to the Province that there is insufficient room to accommodate it. If this is the case the materials must be sent to a processing facility for separation off site. The Province may conduct periodic site visits to confirm that waste management procedures are being followed.
- 11) Project Waste Summary: The Proponent shall submit annually or at the end of the project, whichever occurs first, a summary of waste materials, recycled, salvaged and disposed of by the Project using the form appended to this specification or a form generated by the Proponent containing the same information.
- 12) Completion of project: The Proponent shall submit **once the Project reaches Substantial Completion** a summary of waste materials, recycled, salvaged and disposed of by the Project using the form appended to this specification or a form generated by the Proponent containing the same information. Submitted with this form will be documentation (receipts/scale tickets/waybills) showing the amounts and types of materials recycled and the amounts of material land filled.j

The Summary shall contain the following information:

For each material salvaged and recycled from the Project, include the amount (in cubic yards or tonnes or in the case of salvaged items state quantities by number, type and size of items) and the destination (i.e. recycling facility, used building materials yard). For each material land filled or incinerated from the Project, include the amount (in cubic yards or tonnes) of material and the identity of the landfill, incinerator and/or transfer station.

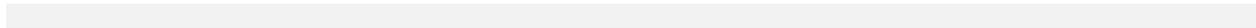
Waste Management Plan

Construction & Demolition Projects

Name of Company		Contact Person	Telephone No.
Project Site/Location		Project Type <input type="checkbox"/> Construction <input type="checkbox"/> Demolition	Project Size (in square feet)

	Pre-Project	Project Updates	
		For Period:	to
Material	Estimated Generation	Salvaged/Recycled/Disposed	Facility
Total			

Signature	Title	Date
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Explanatory note:

Column 1 - "Material" -- enter materials targeted for recycling and/or salvage and include a category for waste materials requiring disposal

Column 2 - "Estimated Generation" -- enter estimated volumes (cu.yd.) or quantities (metric tonnes) of recyclable and waste materials generated and state number of salvageable items

Column 3 - "Recycled/Salvaged/Disposed" -- enter volumes (cu.yd.) or quantities (metric tonnes) of materials recycled and disposed and state number of items salvaged

Column 4 - "Facility" -- enter end-destination of salvaged, recycled and disposed materials.