



Construction Waste Reduction Case Study

Department of Environmental Conservation
Waste Management Division

Program Highlights

Benefits/Cost Savings

- Cost Savings:
Approximately \$3,125
- 16 tons reused & recycled
- 38 % diversion rate

Materials Reused & Recycled

- 3 tons Clean Wood
- 0.5 tons Cardboard
- 6 tons Concrete
- 2 tons Scrap Metal
- 1 ton landclearing debris
- 3.24 tons Salvaged/Used Building Materials

Project Statistics

- **Size:**
New construction 7,020 sf
Remodeling = 3,300 sf
- **Location:** Townshend, VT

General Contractor

Bob Furlone
American Construction Inc.
14 Terrace Street
Marlborough, NH 03455
(603) 876-3331

Waste Reduction Manager

Gordon Bristol
Gordon Bristol Consulting
(802) 257-5594

*Note: amounts for concrete, clean wood and salvaged materials are estimates.

"The recycling efforts didn't impact the building project at all. Any minor effort to dispose of items appropriately is far out-weighted by the cost savings in tipping fees alone." Gordon Bristol, Waste Reduction Manager



Salvage and Recycling Saves \$3,125

Background: Mary Meyer Corporation, a manufacturer of stuffed toys, needed to expand its corporate office in Townshend, Vermont. The State's land use planning law, Act 250, required a Recycling Plan for the project and the Company hired Gordon Bristol Consulting to develop and implement it.

Reuse and Recycling Plan: Bristol's Plan emphasized reuse of the discarded materials on the job site and by Mary Meyer staff to minimize recycling and disposal costs. Contractors reused the excavated materials and the concrete foundation as fill for the new wing. Some of the salvaged materials from the remodeling job were reused in the new building design. Bristol built three 10' x 10' wire fence pens on the edge of the job site for storing the reusable materials. He encouraged Mary Meyer employees to take items home for free. The location of the pens, next to the 30-yard trash dumpster, was safe for employees to use and convenient for contractors to recycle and dispose of any leftover waste at the end of the project.

Estimated Savings: Bristol estimated the reuse program reduced the need for five dumpsters, saving the Company \$3,125 in rental, hauling and disposal fees. Approximately 38 % of the discarded materials was reused and recycled.

TIPS FOR REDUCING WASTE IN RURAL AREAS

1. **Allow for extra time** to salvage in the construction schedule.
2. **Inform your demolition crew** of salvage procedures and expectations.
3. **Go for the easy things** – don't try to salvage everything. Items that are easily damaged are often not cost effective to salvage without proper on-site storage.
4. **Site the salvage and reuse area next to the waste and recycling bins.** At the end of the project, crews can easily throw away materials not sold or taken.
5. **Minimize the number of times you move things.** Excessive moving leads to higher labor costs and increases the risk of damage.
6. **Be flexible in the design – use what you have on hand.** Mary Meyer saved money by reusing a set of interior glass panel doors inside the building, which added natural light to another location. It also cut costs by keeping two windows and adding a new storm window for insulation rather than buying new insulated windows.

RESOURCES

Vermont Business Materials Exchange:

A free service that matches companies with excess goods with companies that can use the materials. <http://www.vbmex.net>

Vermont Construction Site Reuse and Recycling Directory:

Lists markets for reusable and recyclable construction waste and demolition debris. Available online or in booklet form (802-241-3477).

http://www.anr.state.vt.us/dec/cf/wm/CandD_SearchList.cfm

Visit Vermont's Construction Waste Reduction Page Online

<http://www.anr.state.vt.us/dec/wastediv/recycling/c&d.htm>

For more information:

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Good Business**

