

### **3.3.1 Building Trades: Construction/Remodeling**

*Tip Sheet #1*

**WASTE ORIGIN:** Design and Materials Purchasing

**WASTE TYPES:** Wood, Drywall (Sheetrock, Gypsum Board), Packaging (Plastic, Paper, and Corrugated Cardboard), Metals, Masonry, and Shingles

**WASTE REDUCTION AND RECYCLING METHODS:**

- ! Design **floor plans to make efficient use** of whole 4' x 8' panels and standard lumber lengths; design to make efficient use of standard lengths of heating duct materials, metal pipes, wiring, siding, and gutters.
- ! Consider **advanced framing techniques** which reduce and more efficiently use materials.
- ! Use **recycled wood materials or wood alternative**; consult resource guides that list companies selling building materials of recycled, low-toxic, natural, and sustainably harvested forest products.
- ! Consult **building trades publications** promoting resource efficient building.
- ! Ask manufacturers to **reduce unnecessary paper packaging** on their materials; convince manufacturers to deliver items in reusable packaging that can be hauled back to the manufacturer for reuse.
- ! Consult local or state agencies, building trade associations, or other cooperating construction or remodeling firms for **resource efficient designs and techniques**.
- ! Consider **design for disassembly where possible** as an alternative to demolishing the structure when the time comes; easily salvaged building materials can mean future materials sales or a valuable source of materials for volunteer organizations.
- ! **Work with designers, contractors, and suppliers** with a reputation for resource-efficient design and construction.
- ! Choose to **extend the useful life** of a new or existing building:
  - ! Designing with **higher quality, more durable materials** extends life of the structure and allows easier remodeling, preservation, or conversion.

**Sources:**

*Rethinking Debris: Construction and Demolition Waste Reduction and Recycling Tips*, Wisconsin Department of Natural Resources, Bureau of Solid and Hazardous Waste Management, Draft Document, January 1996.

*Builders' Guidebook to Reducing, Reusing and Recycling Residential Construction Waste in Wisconsin*, University of Wisconsin-Madison Enterprise Center, October 1993.

*Resource Efficient Building: Reducing Material Use, Toxicity and Waste in Design and Construction*, Waste Reduction Institute for Training & Applications Research (WRITAR), Minneapolis, MN, March 1995.

### **3.3.1 Building Trades: Construction/Remodeling**

*Tip Sheet #2*

**WASTE TYPES:** Construction/Remodeling Phase

**WASTE ORIGIN:** Wood, Drywall (Sheetrock, Gypsum Board), Packaging (Plastic, Paper, and Corrugated Cardboard), Metals, Masonry, and Shingles

**WASTE REDUCTION AND RECYCLING METHODS:**

- ! **Coordinate with suppliers** to take back or buy back unused wood, pallets, and crates.
- ! **Order in large quantities** that can be custom cut to fit unusual designs;
- ! Develop **incentive programs** for framing contractors and crews to reduce wood use;
  - ! **Reuse scraps** whenever possible. Small scraps can be used as bridging, splicers, wall components, filler, scabs, and spacers;
  - ! **Talk about source reduction methods** with contractors, subcontractors, and material/product suppliers over the course of the project. Useful information can be used on another construction phase or on the next project.
- ! **Designate a supervisor or worker** on-site whose responsibilities would include overseeing source reduction, recycling, or reuse activities.
- ! **Provide on-site color-coded containers** for specific reusable or recyclable materials; make sure all contractors and subcontractors are involved.
- ! **Reduce drywall use** by keeping all cutoffs in a central, dry location that is easily accessible to workers until every room is fully drywalled.
- ! **Reduce use of corrugated cardboard**, boxboard, brown wrapping paper, office paper, and other waste by:
  - ! **Separating** corrugated cardboard and office paper for selling to a recycler or pickup by municipal recycling program;
  - ! Buy materials like ceiling tiles made from **recycled paper fibers**.
- ! **Reduce metal use** by:
  - ! **Asking homeowners** if they would like to keep scrap for their own future projects;
  - ! **Using damaged metal** construction materials on other projects.

**Sources:**

*Rethinking Debris: Construction and Demolition Waste Reduction and Recycling Tips*, Wisconsin Department of Natural Resources, Bureau of Solid and Hazardous Waste Management, Draft Document, January 1996.

*Builders' Guidebook to Reducing, Reusing and Recycling Residential Construction Waste in Wisconsin*, University of Wisconsin-Madison Enterprise Center, October 1993.

*Resource Efficient Building: Reducing Material Use, Toxicity and Waste in Design and Construction*, Waste Reduction Institute for Training & Applications Research, March 1995.

### **3.3.1 Building Trades: Construction/Remodeling**

*Tip Sheet #3*

**WASTE ORIGIN:** Scraps, Damaged Materials and Packaging

**WASTE TYPES:** Wood, Drywall (Sheetrock, Gypsum Board), Packaging (Plastic, Paper, and Corrugated Cardboard), Metals, Masonry, and Shingles

**WASTE REDUCTION AND RECYCLING METHODS:**

- ! Coordinate with manufacturers to **take or buy back unused** products.
- ! **Research possible markets** for reusable and recyclable materials.
- ! Establish a construction **waste recycling program**:
  - ! Talk with co-workers and contractors to **drum up interest**;
  - ! Develop specific salvage, reuse, or recycling **guidelines for subcontractors** to follow as part of a contract;
  - ! Set up a **monitoring system** with haulers and subcontractors to track the program's effectiveness;
  - ! Find a **hauler to handle the job**; clearly mark and locate the collection bins;
  - ! Provide **monthly reports** to owner/contractor on amounts of materials salvaged, reused, or recycled and the money saved;
  - ! Establish a **recognition program** to encourage employees participation;
  - ! Develop a **troubleshooting plan**: Check in with haulers to discuss the project, and periodically visit the site.
- ! Contact local or state government agencies about **local options for recycling** building materials:
  - ! Construction site **recycling guides** contain listings of recyclers grouped by materials they process. Guides often include concise descriptions of material specifications and pricing;
  - ! Many **solid waste management programs** exist at the state and local level. These can provide financial or technical start-up assistance for constructing a waste recycling program.
- ! **Recycling markets directories and materials exchange** programs can help find local, state, regional, or national networks to sell, barter, or buy surplus products and unspent materials.
- ! Ask suppliers to haul **scrap drywall** back to their plant and recycle it into new drywall; **donate scrap drywall** to low-income housing projects.
- ! Contact **local scrap/salvage yards** to see if they accept unused metal.
- ! Place an **ad in the local newspaper** for excess materials.
- ! Excess **scrap wood** can often be given to farmers or landscapers to chip for bedding or mulching.

**Sources:**

*Rethinking Debris: Construction and Demolition Waste Reduction and Recycling Tips*, Wisconsin Department of Natural Resources, Bureau of Solid and Hazardous Waste Management, Draft Document, January 1996.

*Builders' Guidebook to Reducing, Reusing and Recycling Residential Construction Waste in Wisconsin*, University of Wisconsin-Madison Enterprise Center, October 1993.

*Resource Efficient Building: Reducing Material Use, Toxicity and Waste in Design and Construction*, Waste Reduction Institute for Training & Applications Research, March 1995.

*Promoting Building Industry Recycling: A How-to Guide*, Resource Recycling Magazine, December, 1995.