

Construction and Demolition Management

Introduction

The California Integrated Waste Management Board has identified construction and demolition (C&D) materials as a top priority under its 2005 Action Plans. Many natural resources are saved by recycling C&D materials which, according to the Board's 2004 *Statewide Waste Characterization Study*, account for almost 22 percent of the waste stream.

Common C&D materials include lumber, drywall, metals, masonry (brick, concrete, etc.), carpet, plastic, paper, cardboard, or green waste related to land development. Of these, metals are the most commonly recycled material while lumber makes up the majority of debris that still goes to a landfill. However, all of these materials can be recycled into other products.

Anyone constructing or renovating an office building or a home has an opportunity to significantly contribute to resource conservation through the reduction, reuse, and recycling of C&D waste.

Reducing, reusing, and recycling C&D materials is just one component of a larger, holistic practice called "sustainable" or "green" building. More than 80 percent of green buildings certified by the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED™) program divert at least 50 percent of C&D waste. Sixty percent of the buildings divert 75 percent or more C&D waste.

The key to successful C&D reduction, reuse, and recycling is early planning. Working with an architect can help to avoid sending useful demolition material to the landfill. Another waste reduction practice would be to select a building contractor with a favorable attitude toward C&D

reduction, reuse, and recycling. Here are some resources to help you get started.

Steps to Success

Reduce: Waste Prevention

- Use durable materials.
- Apply dimensional planning to design.
- Avoid unneeded materials.
- Design for deconstruction.

Reuse: Resources and Whole Buildings

- Use salvaged and refurbished products.
- Encourage deconstruction rather than demolition.

Recycle: Divert C&D From Landfills

- Use C&D waste management plans.
- Require contractors to recycle their waste.
- Allocate space for storage and collection of recyclables.

Buy Recycled: Close the Loop

- Purchase recycled-content products.
- Maximize postconsumer content.
- Ensure products are recyclable at the end of their useful life.

Where to Bring C&D Materials to Be Recycled

C&D Debris Recyclers Database. Access this online database at www.ciwmb.ca.gov/ConDemo/Recyclers/ to find hundreds of sites throughout California that receive construction and/or demolition materials for recycling or reuse. Entries are sorted by county. Material categories include asphalt, concrete, brick, appliances, flooring, glass, drywall, paint, plastic, and wood.

Where to Find Building Materials and Furnishings Made From Recycled Materials

Recycled-Content Product Directory for Construction Materials. Access this online database to find hundreds of manufacturers (and a few distributors) of recycled-content construction products sold in California. Product categories include asphalt and concrete, masonry, flooring, walls, insulation, fixtures, paint, roofing, and wood substitutes such as fiberboard.

www.ciwmb.ca.gov/RCP/Product.asp?VW=CAT&CATID=257

Recycled-Content Product Database. This database has thousands of listings of recycled-content products. It is available on the CIWMB website at www.ciwmb.ca.gov/RCP/. Note: the Recycled-Content Product Directory for Construction Materials is part of this database.

California Materials Exchange (CalMAX). This is a free service designed to help find markets for nonhazardous materials that have been traditionally discarded. Businesses, schools, nonprofit organizations, and individuals benefit by finding free or low-cost materials. To view listings of materials wanted and available, visit us online at www.ciwmb.ca.gov/CalMAX/.

C&D Resources on the Web

For more information, including fact sheets and case studies, visit CIWMB's Construction and Demolition Debris Recycling website at www.ciwmb.ca.gov/ConDemo/.

Information on C&D model ordinances is on CIWMB's website at www.ciwmb.ca.gov/LGLibrary/CandDModel/Instruction/.

National Association of Home Builders (NAHB) has several publications on construction waste management, including fact sheets, available online at www.nahbrc.org, or call NAHB at (301) 249-4000.

The Building Materials Reuse Association provides information to facilitate building deconstruction and the reuse/recycling of recovered building materials. See <http://building-reuse.org/>.

San Mateo County Recycleworks has information on C&D recycling, including waste management plans at www.recycleworks.org/con_dem/index.html.

Alameda County provides information on C&D recycling, including a builder's guide to reuse and recycling. See <http://stopwaste.org/home/index.asp?page=292>.

King County, Washington, has helpful tools to obtain high recycling rates on C&D projects, including job site waste guidelines. See www.metrokc.gov/dnrp/swd/construction-recycling/index.asp.

