

HOME REMODELING

GREEN BUILDING GUIDELINES

The Alameda County Waste Management Authority & Source Reduction and Recycling Board

The Alameda County Waste Management Authority is a public joint-powers agency comprised of the County of Alameda, each of the fourteen cities within the county, and two sanitary districts that also provide refuse collection services. The Authority is governed by a Board of Directors made up of elected officials, primarily mayors and city council members, appointed by each member agency. Funding is derived solely from waste disposal and waste import mitigation fees collected at the Altamont, Tri-Cities, and Vasco Road landfill sites. The agency receives no general tax funds.

Together with its specialized arm – the Alameda County Source Reduction and Recycling Board – the Authority offers a wide range of programs in the areas of public education, green building, recycled product procurement, waste reduction, market development and technical assistance.

Acknowledgements

Special thanks to the following building professionals for their commitment, input and direction in developing these Guidelines:

Development Committee 2003

Seth Melchert
Master Builders

Michael McCutcheon
McCutcheon Construction Inc.

Dennis and Connie McCullah
Odin's Hammer

Mercedes Corbell
Mercedes Corbell Design & Architecture

Marc Richmond
Austin Energy

Project Team

Alameda County Waste Management Authority & Source Reduction and Recycling Board

777 Davis Street, Ste. 100
San Leandro, CA 94577
510.614.1699 tel
510.614.1698 fax
www.stopwaste.org

Contact: Meri Soll or Karen Kho

What's Working

57 Acorn Lane
Boulder, CO 80304
303.444.7044 tel
303.444.7013 fax
www.whatsworking.com
Contact: David Johnston

Disclaimer

The information provided in these Guidelines should be considered by contractors, architects and other professionals, as well as owners, in the course of designing and constructing new or modified structures. They are provided as a public service by the Alameda County Waste Management Authority and Recycling Board in an attempt to provide environmental benefits and reduce costs. The Guidelines are not a substitute for the exercise of sound judgement in particular circumstances and are not intended as recommendations for particular products or processes.

These Guidelines are designed for professional contractors and homeowners

The Guidelines offer:

- Cost-effective suggestions to minimize construction-related waste, create healthier and more durable homes, reduce operating costs for homeowners and support local manufacturers and suppliers of resource-efficient building materials.
- Methods to reduce the impacts of building in Alameda County communities; including solid waste management, water conservation, energy efficiency and resource conservation.

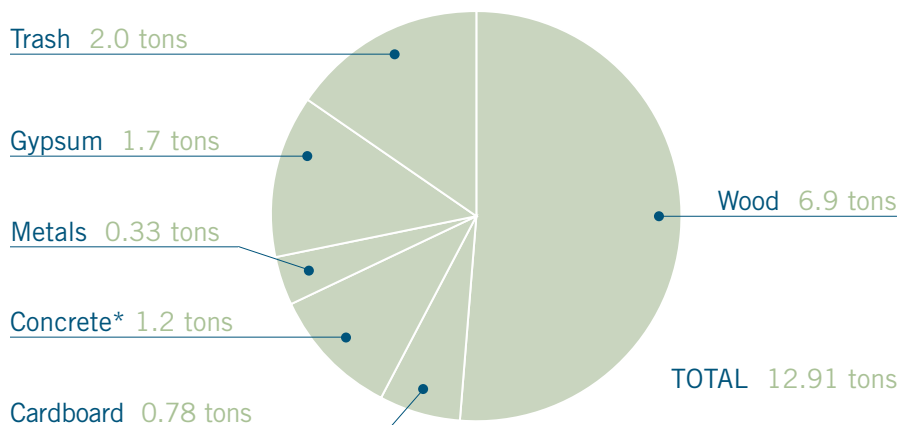
The practices contained in these Guidelines were selected for their viability in today's market and their ability to promote sustainable building. Builders using this booklet will differentiate themselves in the marketplace while protecting our environment.

The Guidelines were developed through a partnership among local developers, architects, contractors, green building experts and staff of the Alameda County Waste Management Authority and Recycling Board.

Agency Involvement

Construction and demolition debris comprise up to 30% of materials disposed in California landfills. The Alameda County Waste Management Authority and Recycling Board is working in partnership with the construction and building industry on ways to reduce this waste stream. Through job site recycling, efficient use of materials, use of recycled-content building materials and similar practices, the Green Building Guidelines provide an effective tool to decrease the amount of materials that ends up in landfills.

Construction Waste Generated from a 2,000 Square Foot New Home



Source: Alameda County Waste Management Authority Case Study of Citation Homes (1999)

* Concrete figure includes waste generated by sidewalk pour.

Table of Contents

1. OVERVIEW OF GREEN BUILDING 5

Introduction	6
Benefits of Green Building	8

2. GREEN POINTS 9

3. GREEN BUILDING METHODS AND MATERIALS 14

A. Site	15
B. Foundation	19
C. Structural Frame	20
D. Exterior Finish	23
E. Plumbing	25
F. Electrical	27
G. Appliances	28
H. Insulation	29
I. Windows	31
J. Heating, Ventilation and Air Conditioning (HVAC)	33
K. Renewable Energy and Roofing	38
L. Natural Heating and Cooling	40
M. Indoor Air Quality / Finishes	41
N. Flooring	44

4. SUMMARY OF GREEN BUILDING BENEFITS 46

5. GREEN REMODELING ILLUSTRATIONS 51

New Addition	52
Second Floor	54
Bathroom	56
Kitchen	58

GREEN BUILDING MATERIALS LISTING (supplementary insert)