

re•use

noun | re 'yoōs |

the use of a material more than once in its same form for the same purpose¹

REUSE AND RESOURCE CONSERVATION

The Department of Defense collectively owns more than 19,000 properties listed in the National Register of Historic Places. Section 110 of the National Historic Preservation Act (16 U.S.C. 470 *et seq.*) requires that rehabilitations to these buildings meet the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 C.F.R. 68). Standard 6 states that "where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials." Reused building materials are compatible with the Secretary of the Interior's Standards when they match the design, color, texture, and other qualities of the original materials. Appropriately reused building materials therefore meet compliance requirements for rehabilitation.

WHEN TO USE HISTORIC BUILDING MATERIALS

Appropriate use:

- Repairing or replacing pre-WWII framing members with salvaged dimensional lumber.
- Replacing a missing fireplace surround with a salvaged one of the same style and time period.
- Using salvaged clay tiles to repair a historic clay tile roof.

Inappropriate use:

- Installing exposed salvaged wood beams in a space where beams were historically plastered over.
- Replacing a missing Federal-era fireplace surround with one from the Victorian-era.
- Installing salvaged clay tiles on a roof that was historically metal.

LEED AND SPiRiT POINTS FOR REUSED MATERIALS

Both the LEED and SPiRiT programs grant points for reused materials:

- *1 point* for specifying salvaged or refurbished materials for 5% of building materials
- *1 additional point* for specifying salvaged or refurbished materials for 10% of building materials

REUSE AND SUSTAINABILITY

Reuse of historic building materials is compatible with Federal and Department of Defense regulations and programs aimed at improving stewardship of the environment. Salvaged building materials reduce both consumption of resources and production of wastes. The U.S. consumes approximately 25% of the world's resources yet has only 5% of the world's population.² According to the Environmental Protection Agency's 2003 calculations, the U.S. produces about 164 million tons of construction and demolition (C&D) waste per year, comprising 25-40% of the solid waste stream. Of the C&D waste, approximately 9% results from new construction, 38% from renovations, and 53% from demolition.³ On military installations undergoing intensive construction, notably those affected by Base Realignment and Closure (BRAC), C&D debris can be as much as 80% of the solid waste stream.⁴



HOW TO PROCURE HISTORIC BUILDING MATERIALS

1. *Define requirement:* Write a description of the material needed. Be as specific as possible.
2. *Identify sources of supply:* List all potential suppliers of the material. See overleaf, *SOURCES OF SALVAGED MATERIALS*, for guidance.
3. *Estimate costs:* Estimate the cost of the material based on quotes from potential suppliers, catalog listings, and similar previous purchases.
4. *Prepare Purchase Request and Commitment (DA Form 3953):* In block 15, specify that the material must be salvaged. In block 25, state that the acquisition of salvaged materials complies with both the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and the *Procurement Guidelines for the Reuse of Historic Materials*.
5. *Attach additional documentation to DA Form 3953:* Include the written description of the materials, potential sources of supply, and cost estimates.

HISTORIC BUILDING MATERIALS AVERAGE COSTS⁵

Materials	Cost of salvage as percentage of new
sheathing boards, framing members, brick, windows, doors, shutters, fixtures	10-25%
hardwood flooring, dimensional lumber	50-85%
antique hardware, wide plank flooring, remillable lumber	100%+

HOW TO FIND HISTORIC BUILDING MATERIALS

The following web sites can help you locate sources of salvaged historic building materials. Also check yellow pages listings under the following categories: brick-used, building materials-used, building restoration and preservation, historical societies, lumber-used, materials-used, and salvage.

Build.Recycle.Net

www.build.recycle.net

Builder's Guide to Reuse and Recycling

www.buildersrecyclingguide.com

Building Materials Reuse Association

www.buildingreuse.org/directory/

Defense Reutilization Marketing Service

www.drms.dla.mil

Directory of Wood-Framed Building Deconstruction and Reused Building Materials Companies

Available as a .pdf at www.fpl.fs.fed.us (113 pp.)

Environmental Protection Agency

Exchanges by Material:

www.epa.gov/epaoswer/non-hw/debris-new/bytype.htm

International and National Materials Exchanges:

www.epa.gov/jtr/comm/exchnat.htm

State-Specific Exchanges:

www.epa.gov/jtr/comm/exchstate.htm

Environmental Yellow Pages

www.enviroyellowpages.com/swix/

Old House Journal

www.oldhousejournal.com

ReUse Development Organization

www.redo.org/FindReuse.html

Southern Waste Information Exchange

www.wasteexchange.org



Department of Defense
Legacy Resource Management Program



U.S. Army Corps of Engineers - Seattle District
For further information:
Center of Expertise for the Preservation
of Historic Buildings and Structures
1-800-265-9309



John Cullinane Associates, LLC
Architects and Preservation Planners

¹ U.S. Army Corps of Engineers. Construction and Engineering Research Laboratories. *Concepts for Reuse and Recycling of Construction and Demolition Waste*. Recycling is the reconstitution of a material into a new form.

² U.S. Environmental Protection Agency. Environmentally Preferable Purchasing Program.

³ Whole Building Design Guide. *Construction Waste Management*.

⁴ U.S. Army Corps of Engineers. *Public Works Technical Bulletin PWTB 420-49-32: Selection Methods for the Reduction, Reuse, and Recycling of Demolition Waste*.

⁵ U.S. Environmental Protection Agency, Urban and Economic Policy Division. *Deconstruction: Building Disassembly and Material Salvage: The Riverdale Case Study*.

PROCUREMENT GUIDELINES FOR THE REUSE OF HISTORIC BUILDING MATERIALS



Why should you consider using salvaged historic building materials?

- **Economics:** Salvaged historic building materials range in cost from 10% to 100+% that of new.
- **Sustainability:** Salvaged historic building materials reduce both waste sent to landfills and environmental impacts associated with production of new materials. In addition, they represent substantial savings in embodied energy
- **Compliance:** When used appropriately, salvaged historic building materials comply with historic preservation regulations.
- **Quality:** Salvaged historic building materials include old growth, high density timber, solid wood doors, and other high quality materials.

COMMON REUSABLE BUILDING MATERIALS

heavy timbers dimensional lumber structural steel
cabinets columns bricks stone slate shingle
clay tile wood panels trim wood floors siding
casework light fixtures plumbing fixtures doors
windows ceramic tile unique architectural items