



# DECONSTRUCTING DECONSTRUCTION: Dismantling Buildings for Reuse in New Hampshire

## Understanding Deconstruction

New Hampshire Department of Environmental Services (NHDES) [solid waste management plan](#) released in 2022, emphasizes an equal significance of reducing municipal solid waste (MSW) and construction and demolition debris (C&D). The aim is to reduce MSW and C&D by 25% by 2030 and 45% by 2025 from being disposed of by the state.

Deconstruction and C&D recycling are important strategies that can help New Hampshire achieve its waste reduction goals and present several advantages to construction projects.

Dismantling buildings for materials reuse may seem intimidating, but a variety of strategies can be employed to reuse building materials. While full deconstruction involves carefully dismantling a building piece by piece to reclaim useable cabinets, fixtures, doors, windows, flooring, and other building materials, there are a variety of methods that are easy to implement. Contractors may choose to deconstruct portions of a building, focus on salvaging certain materials, or start by conducting a clean out of spaces prior to demolition.

## Benefits of Deconstruction

**Cost:** While costs vary by project, deconstruction provides an opportunity to save on disposal costs and receive associated tax deductions when donating to qualified nonprofits, potentially offsetting any additional labor costs.

**Marketing:** Deconstruction projects small and large are a great way to leverage brand recognition and can highlight your commitment to the community.

**Job Development:** Reusing and recycling C&D materials creates jobs. In fact, deconstruction creates 6 to 8 jobs for every 1 job that demolition creates.

**Environmental:** Deconstruction reduces greenhouse gas (GHG) emissions and embodied carbon, and preserves natural resources.

## Deconstruction Pathways

		SCALE: MIN → IMPACT → MAX				
TYPE	Pre-Demo Clean Out	Soft-Stripping	Partial Deconstruction	Full Deconstruction	Adaptive Reuse	
DEFINITION	Removing items like furniture that can be donated before the project begins	High value and easy to remove materials like appliances, lighting, cabinetry, and architectural items	Additional material including doors, trim, flooring, and windows	Salvaging all materials with value and outlets	Maintaining a building structure while renovating its interior for different purpose	

### Planning Ahead

For more involved deconstruction activities advanced planning is important. It can be helpful to plan 6 months to a year ahead of the project start date to provide lead time for creating a waste management plan. This timeline aligns with a typical timeline for large demolition projects, so additional time isn't necessarily needed, rather this is just an alternative route to take. Additionally, bid specifications for a contractor should include parameters for deconstruction. Work with your architect to set deconstruction goals into bid specifications and consider incorporating secondhand materials into the project.

The EPA's 2018 Advancing Sustainable Materials Management Fact Sheet shows there was 600 million tons of C&D debris generated in the United States in 2018. Of that total, demolition represents over 90 percent while construction represents less than 10 percent. This represents a huge potential for reuse and recycling. NH DES defines C&D debris as materials "waste generated from the construction, remodeling, repair or demolition of structures and roads."

# Waste Management Plan

A waste management plan can be beneficial to help maximize building material reuse and C&D recycling by identifying materials that can be diverted from disposal, potentially saving money on disposal costs.

With a waste management plan, you can determine what materials you will generate in advance and identify specific waste diversion opportunities for those materials, be it through deconstruction, source separation, or mixed C&D recycling. It communicates the who, what, where, and how of materials management, including where items generated from a project are going, and which sub-contractors, haulers, vendors, onsite staff, and other service providers will be responsible. Please use our template (pictured right)!

Onsite staff should be trained on the waste management plan and the method for deconstructing, consolidating, and transporting materials to their storage locations.



Project Name:

Date:

## Draft Solid Waste Recycling and Management Plan

Material	Onsite Storage Location	Transportation	Hauler/Service Provider	Estimated Quantities	
				Quantity	Units
Reusable Materials	i.e. 1 <sup>st</sup> floor unit	i.e. use dollies or hampers. Take the freight elevator.			
Soils					
Asphalt					
Brick					
Block					
Concrete w/ Rebar					
Arch. Salvage					
Windows					

QUESTIONS? CALL THE ONSITE SUPERVISOR AT: XXX-XXX-XXXX

# Material Outlets and Collection Methods Donation

Building materials can often be donated to local nonprofit reuse stores, which often offer free or affordable pickup services. To donate:

- Identify your local reuse store at the start of your project to find out what materials they do and do not accept.
- Contact reuse outlet(s) to schedule a walkthrough at the job site (or share photos of specific items) to verify materials for donation.
- Have items appraised before removal for future tax deductions.
- Remove materials from the building.
- Separate and store materials for donation at the job site in a safe, accessible place. Consider siting a trailer during demolition or deconstruction to store donatable materials as they are removed.

There are many ways to reuse materials from a job site, from informal reuse strategies to donating material to a nonprofit reuse store or building materials salvage store. Examples of informal reuse strategies include:

- Reuse materials on-site
- Save leftover materials for use on a future project
- Offer materials for free or sale through networking sites such as Craigslist, Freecycle or Buy Nothing
- Deliver reusable materials to a 'swap shop' or 'free shed' at a local transfer station
- There are at least 5 Habitat for Humanity ReStores in New Hampshire. To find the ReStore closest to you, [search here](#).

## Source Separation

Most material is taken from construction sites in mixed construction dumpsters and hauled to C&D processing locations. Some materials are challenging for C&D processors to handle and separate and may be better candidates for collecting separately on the jobsite. This is known as source separation. By source-separating some materials, you may be able to increase the overall recycling rate of the project.

If space constraints do not allow for more than one dumpster for collection, some haulers offer live loading, in which materials are loaded into a truck while the hauler waits. Contractors should include dumpster staging in the construction planning and timeline to optimize source separation.

When contracting with haulers for removal of C&D ask where their materials are delivered and what services they have available. The hauler will be able to tell you whether they take mixed containers to a C&D processing facility and whether they offer containers for source-separated materials such as clean gypsum and cardboard.

In the demolition of a residential property, from [The Reuse People of America](#), the savings on disposal costs, coupled with the tax deduction from donated materials, off-set the cost of deconstruction to save the property owner over \$10,000 when compared to what they would have paid for demolition.

## Contact us for more information

If you have any questions about dismantling buildings for materials reuse, contact our hotline at 888-813-8552 or email [WastedFood@cetonline.org](mailto:WastedFood@cetonline.org).



The Northeast Resource Recovery Association (NRRRA) conducted a [feasibility study of recycling asphalt, brick, and concrete \(ABC\)](#) in New Hampshire's North Country. The study found that options exist for municipalities to have ABC hauled away and recycled and onsite crushing can be done so the material can be used for new construction.



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**If you have any questions or feedback, please contact CET:  
888-813-8552 | [WastedFood@cetonline.org](mailto:WastedFood@cetonline.org) | [cetonline.org/work-with-us](https://cetonline.org/work-with-us)**

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