



MASSDEP DECONSTRUCTION WORKGROUP

SWAC UPDATE

JANUARY 26, 2023

2030 Solid Waste Master Plan

Reduce & Reuse Working Group

Reduce & Reuse Action Plan

December 2021

Deconstruction Workgroup

WHAT IS DECONSTRUCTION?



Photo courtesy of Timonie Hood, US EPA

- The process of dismantling a structure to maximize the recovery of reusable material.
- Sometimes called “construction in reverse” or “unbuilding,” deconstruction removes a building by selective disassembly of structural and non-structural building components.
- This stands in contrast to conventional demolition, which uses mechanical equipment like bulldozers and wrecking balls, resulting in limited reusability.

Definition courtesy of [Build Reuse](#)

GOALS FOR THIS DECONSTRUCTION WORKGROUP

- ❑ Increase awareness about our Waste Disposal Crisis
- ❑ Grow the Reuse Industry in MA for valuable building materials
- ❑ Align with MassDEP's R&R Action Plan
- ❑ Connect our work with Climate Impacts
- ❑ Job Training and Workforce Development
- ❑ Support Diversity, Equity, and Inclusion



Basic Operating Principle:

Working for the greater good, collaboration, equal opportunity for all stakeholders

WHO ATTENDS THESE MEETINGS



GENERAL CONTRACTORS

ARCHITECTS & ENGINEERS

DECONSTRUCTION CONTRACTORS

DEMOLITION CONTRACTORS

HISTORIC PRESERVATIONISTS

BUSINESSES, INSTITUTIONS AND SCHOOLS

REUSE ORGANIZATIONS

SOLID WASTE AND RECYCLING INDUSTRY

FEDERAL, STATE, AND LOCAL OFFICIALS

CONSULTANTS AND NGOS



SEPTEMBER 2022 KICK-OFF MEETING: **DEMYSTIFYING DECONSTRUCTION**

A FEW HIGHLIGHTS

- **30% of ALL discarded materials in MA are from C&D activities.** We dispose of ~1.6M tons of C&D annually- goal is to reduce by 260K tons by 2030.
- **Embodied Carbon** in the built environment comes from emissions from extraction, manufacturing, transportation, installation, maintenance, and disposal of materials.
- As buildings become more energy efficient, an **estimated 49% of GHG emissions from buildings built between 2020-2050 will be from embodied carbon** as operational emissions fall.
- Mandatory deconstruction ordinances, executive orders, incentives, plans, and advisory groups are popping up all over the US and Canada.
- **What is needed to enable more reuse in this sector:** understanding benefits, technologies, training opportunities, partnerships and assistance.





DECEMBER 2022 MEETING: INSPIRATION AND PRACTICE: TAKING BUILDINGS APART

A FEW TAKEAWAYS

- **Demolition of one American home** that is 2400 sq. ft is **equivalent to a lifetime's worth of trash** for one individual (~120,000 lbs.)
- **25 categories of materials that can be captured for reuse**, such as: doors, windows, hardware, lumber, HVAC, flooring, roofing, cabinets, appliances & landscaping
- Experience with deconstruction demonstrates what is possible:
 - **>60% of a house can go to reuse**
 - 34% to recycling and
 - 5% for disposal as trash
- Deconstruction supports **green collar jobs**: some Oregon jurisdictions employ inner city youth, homeless veterans, and previously incarcerated.
- The future includes **Design for Disassembly**: Photo shown-> 99% saved for reuse!
- A trained workforce can deconstruct a house on a **cost-competitive** basis, **reduce toxins**, reduce waste, and **help low-income and cost-conscious renovators**.

NEXT DECONSTRUCTION WORKGROUP MEETING

March 15, 2023, from 1:30-3:00 p.m. (virtual)

TOPIC: Reuse Markets for Building Materials

[Register at this link](#)

Reduce and Reuse Working Group

<https://www.mass.gov/service-details/massdep-reduce-reuse-rr-working-group>