C&D Disposal & Diversion Report

Construction and Demolition Debris Disposal and Diversion for Recycling in Eight Northeast States
September 4, 2026

WIN Waste Innovations © 2026

Purpose
The purpose of this report is to better understand the current disposal and recovery of construction and demotion debris (C&D) in the NEWMOA states. It provides a broad estimate of total C&D sent for disposal to what types of facilities, and how much material is currently being diverted for recycling. Each recycled material's endpoints are explored along with how much potential there is for increased diversion away from disposal.

Scope
The report covers material from construction, renovation, and demolition of *buildings* only— it attempts to exclude waste from roads and bridges. Bulky wastes such as furniture and carpeting are frequently handled as C&D waste and are therefore included in these estimates when categorized as C&D or when contained within mixed C&D loads.

The recycling diversion estimates may understate actual activity because heavy materials such as scrap metal and ABC (asphalt, brick, and concrete), are often recycled directly from job sites. Those tons are not usually captured in the facility data used for this study.

The region covered includes the eight NEWMOA member states: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

The report uses data from the calendar year 2024 provided by the environmental agencies from each of the member states. Each state's reporting requirements and definitions vary, so the findings should be considered to be generalized estimates for assessing relative magnitudes, trends, and potentials.

Summary of Findings
In 2024, an estimated 15,323,360 tons of C&D debris was disposed of, recycled, or reused from the eight Northeastern states. An estimated 13,665,272 tons were landfilled, incinerated, or used in landfills, while 1,658,088 tons were recycled, reused, or burned for fuel (see Appendix A for details). This yields a regional recycling rate of 11%. Estimating by composition of the C&D waste stream, a potential 7,346,767 tons of material could be available for recycling in a perfect world, giving a top potential recycling rate of 48%.

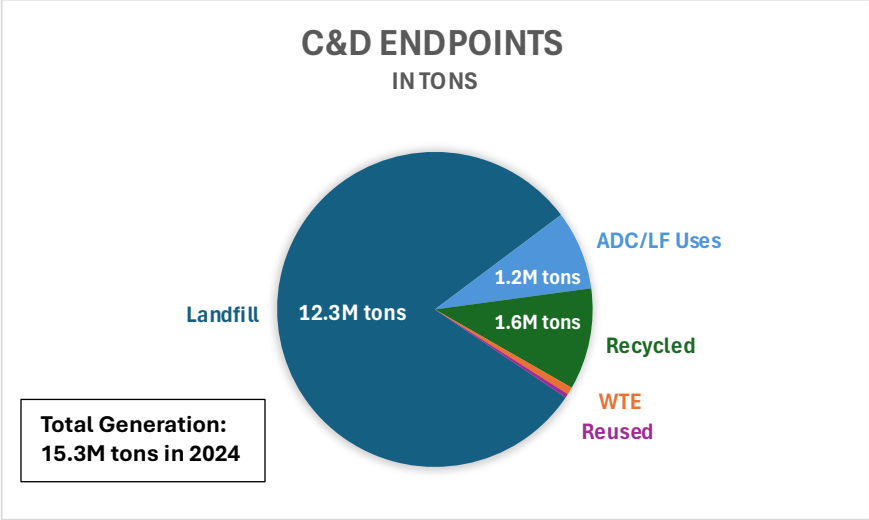
Metal and aggregate had high capture rates. Clean wood, clean gypsum wallboard, and asphalt shingles had low capture rates and therefore the highest potential for increased recycling and reduction of disposal.

- Clean wood can be used for particle board, fuel, and mulch. These markets could expand if contractors and processors could efficiently separate more of the material.
- Clean gypsum wallboard (GWB) is made into new gypsum products that are used for industry, lawns, gardens, and agricultural purposes. Two large recycling companies are considering expanding in the region. Since GWB is crushed and contaminated in a mixed C&D load, job site separation of cutoffs is the best pathway to increasing diversion.
- Asphalt shingles can be used in asphalt paving mixes and some other small-scale applications. Use in roads is limited by concerns of its performance in hot mix, and by long-standing DOT specifications which effectively exclude its use.

Disposal and Recycling Endpoints for C&D Debris in the Northeast

As shown in Figure 1, approximately 15,300,000 tons of C&D were sent for disposal or recycling from the region in 2024. The vast majority, 88%, was disposed of in landfills or used in landfill applications. Approximately 11% was recycled, which is significant, but well below the diversion goals of the states in the region. An analysis of each endpoint is outlined below. The recycling endpoints are then explored in more detail by each material's current uses, end markets, and potential for further recovery.

Figure 1



Landfills

Of this 15 million tons, 12.3 million tons were landfilled either within the region (7.0 million tons) or exported for landfilling in other states (5.3 million tons). Ohio received the majority of the C&D exported waste for landfilling, while Pennsylvania also received a significant amount from New Jersey.

C&D debris has qualities that can sometimes be helpful in managing landfills. C&D can be ground and used within landfills for daily cover, road building, or to adjust grades. Some landfills mix C&D debris with sludges to provide increased stability to the semi-solid cake. Accounting for the

additional 1,243,127 tons reported as being disposed for landfill uses, the total C&D debris sent to landfills was 13.5 million tons.

Waste-to-Energy
Due to its nature, waste identified as C&D is not commonly accepted at waste-to-energy (WTE) facilities for disposal. Only 117,136 tons are estimated to have been incinerated in the region in 2024. However, residential and small-business C&D may be underrepresented in these figures because it is often commingled with municipal solid waste (MSW) and not reported separately as C&D. Materials such as drywall, pallets, and small quantities of asphalt pavement may be placed in dumpsters, carts, or bags with regular trash, making this C&D waste stream, that may end up at a WTE facility, difficult to quantify.

Reuse
As long as there have been buildings, people have been salvaging and reusing the materials. Today, though, mechanical demolition is the norm, and building materials are crushed and mixed. Still, a process called "deconstruction" is growing in popularity, bringing back the tradition of salvage and reuse.[1] Studies have estimated that more than 75%[2] of C&D from demolitions or renovations could be reused or recycled. Efforts to capture the value of lumber, flooring, fixtures and other building materials are gaining momentum, but deconstruction is still uncommon compared to demolition.

Because deconstruction keeps materials out of the waste stream, they typically bypass C&D processing and disposal facilities. As a result, states have limited ability to track reuse data through existing facility reporting systems. A 2024 white paper from Cornell University[3] estimates that 0.4% of annual building demolition waste is diverted for reuse. Applied to the 15.3 million tons of waste disposed or recycled in the region in 2024, an estimated 60,000 tons of building materials were reused.

Further study of current reuse potential is warranted to better understand the opportunity deconstruction offers for waste reduction, and to identify ways states can encourage the practice as a waste reduction strategy (see Appendix C for discussion and resources).

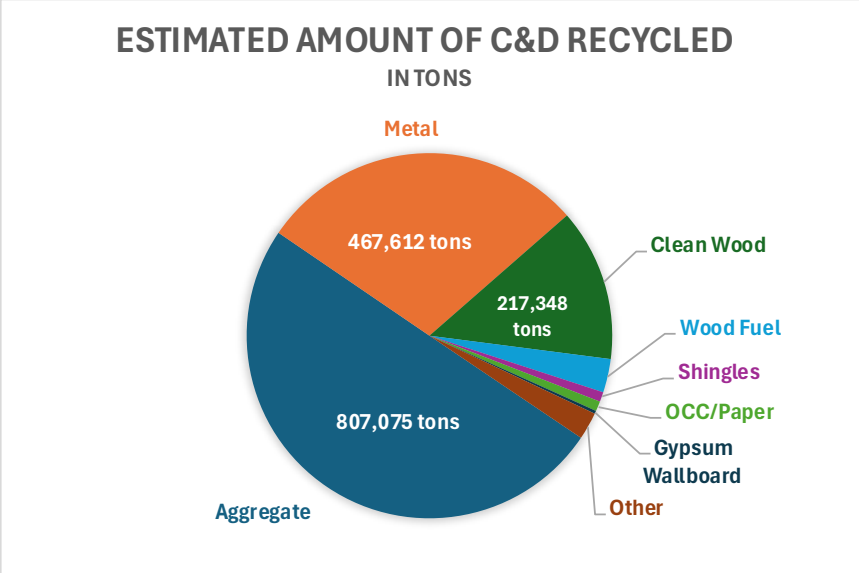
Recycling
C&D debris includes a wide variety of building materials, most often comingled together in mixed loads. The recyclability of each material depends on many factors including inherent recyclability of the material, contamination, ease of separation, and markets. Some materials, such as inert aggregates and scrap metal, are easily recyclable because they can be separated out at the job site or at a processing facility, and they have accessible markets. Wood is a large component of C&D that often can be recycled as well, although it presents significantly more challenges. Asphalt shingles and gypsum wallboard are also significant components of C&D which are recyclable, but currently face collection and market limitations.

For this report, we found that 1,611,272 tons of C&D debris were diverted for recycling from the region in 2024. As shown in Figure 2, aggregates, metal, and wood represent the large majority of materials recycled.

---

[1] See Appendix C for discussion and resources.
[2] Circular Economy of Construction and Demolition Waste: A Literature Review on Lessons, Challenges, and Benefits School of Engineering, The University of Waikato, Hamilton 3240, New Zealand, 2021.
[3] Constructing a Circular Economy in New York State: Deconstruction and Building Material Reuse Cornell Circular Construction Lab, Cornell Just Places Lab, and CR0WD, 2024.

Figure 2



Aggregate	807,075 tons
Metal	467,612
Clean Wood	217,348
Wood Fuel	47,897
OCC/Paper	14,233
Shingles	13,852
Gypsum Wallboard	4,237
Other	39,017
Total	**1,611,272 tons**

Aggregates

Aggregates are heavy materials, also known as "ABC" for asphalt, brick, and concrete. Aggregates represent the highest tonnage of material recovered in this study at approximately 800,000 tons. High diversion and recycling rates can be attributable to the fact that the material is costly to dispose of, is often separated during demolition as a matter of course, and has many local markets.

Many facilities that recycle aggregates do not face heavy permitting or regulatory burdens due to the inert nature of the material. The material is most often ground and used in fill, or in new concrete or road projects. It should be noted that coated ABC materials are not considered inert by most states, and therefore do not qualify for clean fill applications. Sometimes they can still be used under a Beneficial Use Determination (BUD).

Metal

Similar to ABC, scrap metal has value, is heavy, and is easy to separate. There are hundreds of scrap metal recyclers in the Northeast who can accept mixed metal in small loads and pay cash. Several of the states also ban landfilling of scrap metal. Metal diverted to a scrap yard directly from the job site will not show up in the C&D processing or disposal figures that we acquired, but it is likely that this is a common practice and amounts to a significant amount of diversion. At transfer stations, metal is picked from the tipping floor, and at processors it is separated via magnets.

After metal is collected at the numerous scrap yards in the region, they process the material and sell it into the global market.

Wood Waste

Wood waste accounts for a large portion of mixed C&D. There are recycling markets for several uses depending on the condition and type of wood. Because wood is not easily separated from other materials during demolition work, it generally needs to be separated at a processor before it can be recycled. Pressure-treated wood also needs to be separated and has very limited markets for recycling. Wood that does not have paint, treatment, or glues is known as clean wood[4] and clean wood has many more options available for recycling. Uses of clean wood sorted from mixed C&D may be more limited than source-separated clean wood.

Processors

C&D processing facilities employ several ways to separate wood wastes out of mixed C&D. Most wood has been crushed prior to arriving at the facility, or is size-reduced at the facility so that the longest dimension is no more than 2-3 feet to allow it to be handled in the bins and conveyors. Once loaded on the mechanical process line, the initial screening stage divides the C&D waste into "overs" and "unders" (the dimension of the initial screening varies but it is usually around 5-6 inches). The overs continue to the manual picking station where clean wood is manually separated from a conveyor belt, often referred to as the "A-line." The unders go through another series of mechanical processing equipment, often referred to as the "B-line," which includes a shake screen to remove fines, an air-density separator (or a float tank) to separate heavy stones and aggregate from light-weight materials, an in-line magnet to separate ferrous metals, and finally a small manual sorting station to separate clean wood. Processors also sort wood for the different grades, clean versus coated, treated vs. untreated, depending on their markets for the material.

Mulch

The largest market for clean wood is to grind it and use it as mulch. There are many lawn and garden operations, particularly on Long Island, who process tree waste and clean wood to make mulch and other products. Pallet waste can also be recycled in this manner if metal fasteners can be removed.

Wood that is not "clean" (contains contaminants such as painted wood or other non-hazardous components) can be ground into a mulch-like product and used as an alternative absorbent for tank cleanouts and other bulking uses.

Furniture

Another significant market for the New England states is a furniture manufacturer in Quebec called Tafisa. Tafisa single handedly accepted 91,770 tons of wood waste from the NEWMOA region to be recycled into particle board in 2024. Their specifications allow for all wood species, particleboards and OSB (without melamine or PVC edges), and nails and hardware up to 10 mm in diameter, but no treated wood, old painted wood, or foreign objects.

Fuel

C&D wood chips are also used as fuel at biomass energy production plants. This use appears to be decreasing in recent years for various reasons, such as an unfavorable Connecticut ruling concerning Renewable Energy Credits, and tightening of combustion specifications from the Quebec Ministry of Environment.[5] At least three plants in the region accepted clean wood from C&D for fuel in 2024: Plainfield Renewable Energy in Waterford, CT, McNeil in Burlington, VT, and ReGenerate in Livermore Falls, Maine.

---

[4] Clean wood is usually defined in waste characterization studies as wood that has not been glued, painted, stained or treated for moisture resistance. The category excludes plywood and fiberboard.

[5] p14. Construction and Demolition Debris Market Study, Final Report to MassDEP prepared by DSM Environmental Services, Inc. Page 14. 2017.

Asphalt Shingles

Asphalt roofing shingles are a significant component of C&D debris. Shingles that are mixed in with C&D are difficult to separate at processing plants. But there is good opportunity to separate them at the job site during roofing removal. Site separation allows them to be recycled if there are markets available. Prior to acceptance, the material does need to be tested for asbestos and remaining nails removed after grinding. Another concern is the level of leachable PFAS that may be present which could limit its use.

The material can be used in asphalt hot mix plants for road paving. Markets that are operational are scarce in the region, but existing recyclers could reportedly handle more material. Regional markets remain limited because asphalt from highly oxidized roofing shingles does not rejuvenate well, leading many road engineers to avoid its use. Also state transportation agencies use long-standing specifications that are infrequently updated. The opportunity for significant diversion of shingles exists if use in paving were to become more accepted and common. For example, there is potential for use in less demanding applications like parking lots, walkways, or below the top layer.

Gypsum Wallboard

Gypsum wallboard (GWB), also known as drywall or sheetrock, is a ubiquitous material in current construction. It is made of crushed gypsum rock sandwiched between two layers of paper. The material is heavy and easily recycled if uncontaminated by paint, joint compound, wallpaper, or attached studs or fixtures.

Clean GWB, for example cutoffs from a new construction project, has not been contaminated and can easily be recycled if kept separate from other C&D materials. On the other hand, demo GWB is very difficult or impossible to separate from contaminants, significantly limiting its markets.

When combined with mixed C&D, GWB breaks apart and becomes a fine material that is nearly impossible to separate at a processing facility. When gypsum fines are landfilled, they can generate problematic odors associated with hydrogen sulfide emissions. Also, resulting sulfur dioxide generation can create challenges for landfill gas management and permit compliance.[6]

Historically, there have been a handful of gypsum recyclers in the region, but currently the only viable endpoint is USA Gypsum, which can accept only clean GWB and is located in Pennsylvania. Despite the distance, USA Gypsum recycles GWB from C&D processors in the NEWMOA region when truckloads of clean material are available. USA Gypsum produces mostly agricultural products from the material.

Processors accept site separated loads, sometimes at a discount, and also do positive picking of clean GWB on the tip floor when loads come in with a high volume of cutoffs. USA Gypsum has noted that if a consistently high volume of clean GWB can be collected in the Northeast, they would consider building another plant in our region. Another gypsum recycler, New West, has significant presence in Canada and Europe, and recently has shown interest in New York State. New West has also accepted demolition GWB.

---

[6] Microbial degradation of gypsum ($CaSO_4 \cdot 2H_2O$) generates hydrogen sulfide (H_2S) gas, which smells like rotten eggs, and in high enough concentrations can be a health hazard. When the H_2S gas is captured by a landfill gas collection system and subsequently burned in a flare, then it can be oxidized to sulfur dioxide (SO_2), which may cause problems with air permit compliance. Gypsum can pose problems for municipal waste combustor air emissions as well.

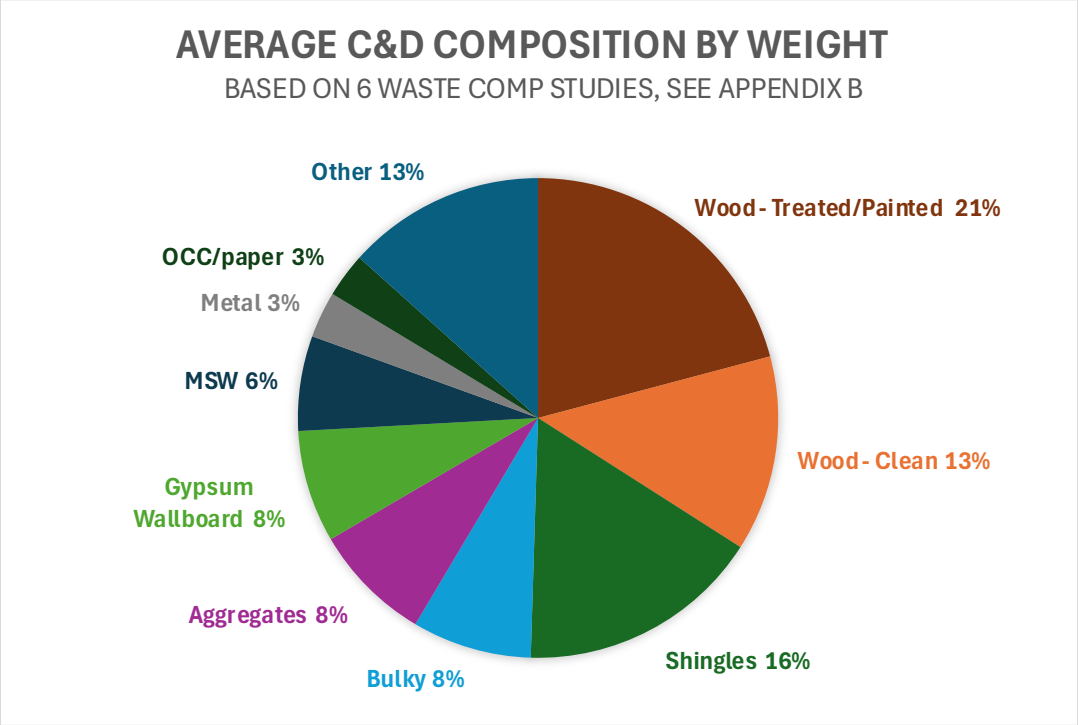
Cardboard
Old corrugated cardboard (OCC) or other paper is generated at construction sites from packaging, fixtures, and finish work. The material is highly recyclable with many collection opportunities. Annual facility reports intermittently indicate that cardboard is sent to recycling MRFs or paper recycling locations. Reports from several states do not include any OCC diversion numbers, so the reported recycling numbers may represent an undercount.

It is also frequently the case that OCC is thrown into the single mixed-waste roll-off at job sites, as evidenced by its significant presence in C&D waste composition studies.[7]

Composition of C&D Debris by Material Type

To inform policy and reduce waste generation, it is important to identify how much of each type of material is being generated. Waste composition studies are undertaken by states and other groups to get real data on what is included in the waste stream. For this report, six different C&D waste composition studies from the region were averaged and the average composition is presented in Figure 3 (see Appendix B for details).

Figure 3



These percentages were applied to the reported material tonnages going for disposal in 2024. This provides an estimate of the availability of each material type for recovery, presented in Figure 4.

[7] Average of five waste composition studies used in this report is 3%. The sixth study did not have OCC/paper as a category. See Appendix B, Figure B.1.

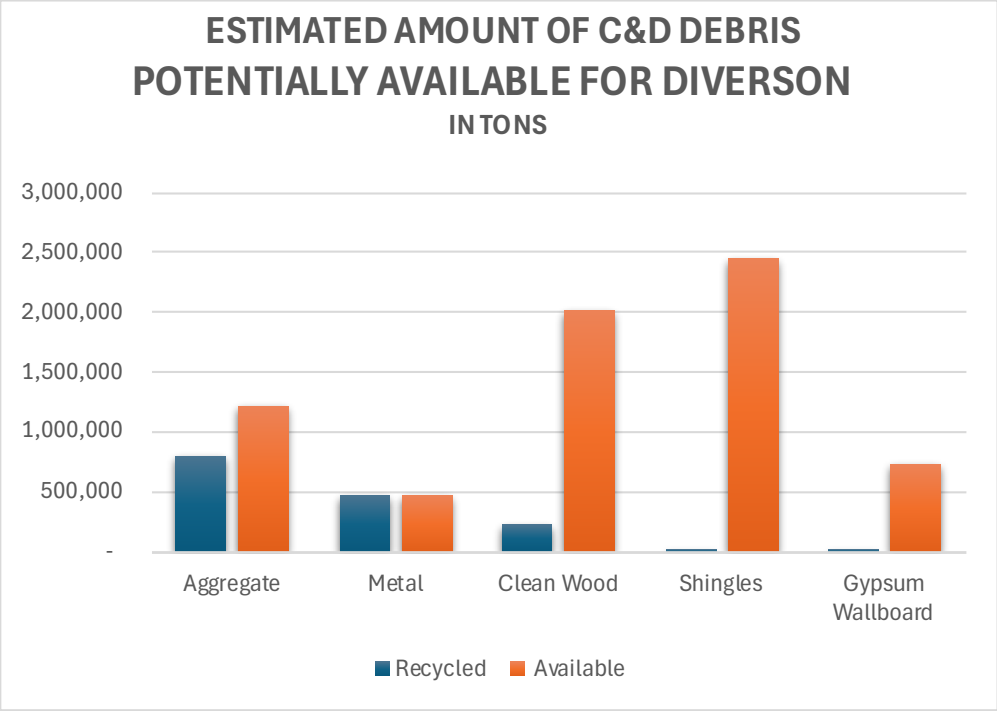
Figure 4

Potential Tons Available for Recovery from C&D, 2024			
	Portion of C&D	Recyclable	Tons Available
Wood- Treated/Painted	21%	No	—
Wood- Clean	13%	Yes	2,014,625
Shingles	16%	Yes	2,441,970
Aggregates	8%	Yes	1,220,985
Gypsum Wallboard	8%	Yes (up to 60%)[8]	732,591
Bulky	8%	No	—
MSW	6%	No	—
Metal	3%	Yes	475,675
OCC/Paper	3%	Yes	460,922
Other	13%	No	—
		Total	**7,346,767**

Potential for Increased Diversion

Figure 5 compares the estimated available material to what was known to be captured for recycling in 2024 for five materials.

Figure 5



[8] Construction & Demolition Waste Management in the Northeast in 2006, NEWMOA. 2009.

Wood Waste
In waste composition studies, wood waste totaled an average of 34% of C&D material. That third can be broken down into clean wood at 13%, and treated/painted wood at 21%. Since there are many more markets for it, clean wood is the portion used as potentially available for diversion in this report. While there are potential markets for treated/painted wood, they are not large enough or readily available enough to be included here.

In 2024, 265,245 tons of clean wood were recycled for furniture making, mulch, or used for fuel. At 13% of C&D, the total amount of clean wood available was 2,014,625 tons, which gives an estimated recycling rate of 13% and indicates that over 1.7 million tons of wood was disposed that had the potential to be recycled or used as fuel.

Currently, the capture rate for clean wood at C&D processors is low. Much more wood could be diverted if processors used their systems to full capacity with greater staffing of the belts and running both A and B lines.

Ways to increase the recycling rate of C&D wood could include:

- Contractors doing more deconstruction (versus demolition) where the demo wood is kept clean and separate;
- The development of more C&D processing capacity throughout the region;
- Processors capturing more wood that runs through their facilities;
- Increased use of Tafisa's capacity for wood recycling;
- Mulch producers having knowledge of and access to a supply of the material that meets their specifications;
- Processors near biomass plants making their product more attractive to use as fuel.
- States or other groups increasing accessibility of tub grinders (via grants or a rental program) to allow more facilities or contractors to process their clean wood into a marketable product.

Asphalt Shingles
In waste composition studies[9] asphalt shingles totaled an average of 16% of C&D material. In 2024, 13,852 tons of shingles were recycled while an estimated 2.4 million tons were sent for disposal, giving a recycling rate of 0.6%. This represents an opportunity for over 2 million tons of diversion for a material that is relatively easy to separate at the job site, if markets were to be available.

Further analysis is needed to determine if and where recycled asphalt shingles could be used more widely in paving mixtures. Currently, use may be limited due to contaminants such as asbestos and PFAS, reluctance to adopt new specifications, or to evidence that recycled shingles can compromise mix quality. Dialogue among departments of transportation, asphalt shingle manufacturers, and asphalt producers could help identify specification changes that meet DOT performance requirements and expand use of recycled shingles. Another potential area for expansion is lower-usage paving applications, such as parking lots, trails, and access roads, which could be explored as well.

[9] See Appendix B

Gypsum Wallboard
In waste composition studies, gypsum wallboard (GWB) totaled an average of 8% of C&D material. Of this, an estimated 60%[10] is clean GWB that can be recycled in the current market, which would indicate that clean GWB constitutes 4.8% of C&D. In 2024, 4,237 tons of clean GWB was recycled while an estimated 732,591 tons were sent for disposal, giving a recycling rate of 0.6%. This represents an opportunity for almost ¾ of a million tons of diversion if it were separated at the job site.

Ways to increase the recycling rate of clean gypsum wallboard could include:

- Contractors employing known systems for efficient separation of clean GWB at job sites during the wall-hanging stage of construction;
- Processors encouraging separated loads via economic or other incentives;
- Once a dependable stream of clean GWB is established in the region, USA Gypsum could develop a more local plant.

Potential Barriers to Recycling

One of the largest barriers to increasing diversion of C&D is the prevalence of demolition over site separation and deconstruction (see Appendix C). Without financial incentives and training to contractors on how to change common practices, the long-standing process of mechanical demolition and mixing of waste will continue.

Looking ahead, several construction trends may also make future C&D recycling more difficult. These include increased use of composite materials, such as wall and roof sheathing with integrated vapor barriers; greater use of adhesives and spray foam insulation; and higher fastener counts associated with tools such as nail guns. While these factors may not yet be major contributors to processing efficiency, they could reduce the recyclability of building materials as existing structures age or are damaged by extreme weather, making it more challenging to meet target recycling rates.

Conclusions

The recycling rate of C&D debris in the northeast states is around 11%. The total available material in the C&D headed for disposal presents an opportunity to increase this rate to 48%. Increasing the rate would require much more site separation of materials, more efficient use of infrastructure already in place, judicious use of regulations, and significant work on improving markets and market availability. The materials presenting the biggest opportunities for diversion are clean wood waste, clean gypsum wallboard, and asphalt shingles.

Furthermore, C&D processing alone is not enough to reach the region's C&D waste reduction and diversion goals. We will need to take an all-of-the-above approach including deconstruction, salvage, and jobsite source separation.

[10] Construction & Demolition Waste Management in the Northeast in 2006, NEWMOA. 2009.

Report by John Fay, Program Manager at NEWMOA, with contributions from:
Michael Elliott, MassDEP
Eric Hamlin, Maine DEP
Megan Mansfield-Pryor, Maine DEP
Kathleen Prather, NYS DEC
John Fischer, MassDEP

Many thanks to the assistance of these state staff in collecting and interpreting disposal and diversion data:
CT DEEP: Brenna Giannetti, Chesley Hahn, Luciana Granstrand
Maine DEP: Megan Mansfield-Pryor, Eric Hamlin
MassDEP: Michael Elliott
NH DES: Michael Nork
NJ DEP: Martin Bendorf, Kyle McHenry, John Nguyen, Corey Dues
NYS DEC: Kathleen Prather, Ka Wong, Emma Heitmuller, Rhys Thompson
RIDEM: Walid Ali, Kasandra McKenzie
VT DEC: Alyssa Eiklor

Appendix A: Data Table and Notes

NEWMOA asked member state staff to provide disposal and recycling data for the calendar year 2024. The vast majority of the data is aggregated from annual facility reports submitted to the states by solid waste facilities operating in each state. Since each state has different reporting requirements, and each reporting entity may interpret the categories differently, the data should be considered an imprecise accounting of actual activity. Nonetheless, the derived numbers provide enough accuracy to see trends and relative comparisons. Figure A.1 depicts disposal of C&D waste, and Figure A.2 depicts recycling of C&D derived materials.

Figure A.1

Disposal of C&D Waste from NEWMOA States, Calendar 2024 (in Tons)

	Total Disposed	Landfilled, In-Region^	Landfilled, Out-of-Region	Waste-to-Energy	ADC/ Landfill Uses
CT	1,307,250	64,450	1,130,745	107,523	4,532
ME	588,574	489,391	1,413	-	97,770
MA	1,448,175	259,672	1,151,163	876	36,464
NH	403,722	266,333	-	-	137,389
NJ	2,728,018	553,613	2,032,039	-	142,366
NY	6,379,257	5,230,904	452,165	8,737	687,451
RI	696,563	45,247	522,697	-	128,619
VT	113,713	105,177	-	-	8,536
Totals	**13,665,272**	7,014,787	5,290,222	117,136	1,243,127

^ In-region means disposed at any landfill within the eight NEWMOA states (CT, ME, MA, NH, NJ, NY, RI, VT)

Figure A.2

Materials Recycled from C&D Waste in NEWMOA States, Calendar 2024 (in Tons)

	Total Recycled	Metal	OCC cardboard	ABC/ Aggregate	Wood Tafisa	Wood Mulch/Other	Wood Fuel	Gypsum Wallboard	Asphalt Shingles	Other
CT	88,352	39,032	-	21,580	-	16,643	-	125	73	10,899
ME	31,786	5,586	-	9,246	13,286	-	2,256	-	1,068	344
MA	314,530	119,438	3,753	81,832	75,166	1,287	24,371	1,444	6,955	284
NH*	113,995	28,471	4,555	51,248	1,364	4,555	17,083	569	1,139	5,011
NJ	273,413	35,986	5,925	216,179	-	8,565	4,187	962	1,120	489
NY**	692,170	226,455	-	362,396	-	94,528	-	348	686	7,757
RI	78,879	12,256	-	64,594	1,954	-	-	75	-	-
VT	3,913	388	-		-	-	-	714	2,811	-
Totals	**1,597,038**	467,612	14,233	807,075	91,770	125,578	47,897	4,237	13,852	24,784

* Allocation of New Hampshire recycled tonnage into material type was estimated using best professional judgement based on known market conditions and data from recyclers and landfills.

** New York State data is from 2020.

Appendix B: C&D Waste Composition

NEWMOA derived its estimate of availability by material type by averaging figures published in C&D waste composition studies. Figure B.1 depicts the rates found in the six studies used, followed by references to each of the studies.

Figure B.1

Composition of C&D Waste from Six Studies									
	Wood		Bulky Waste	Asphalt Shingles	MSW	Metal	Inerts/ ABC	Gypsum Wallboard	OCC & Paper
	Clean/ Lumber	Treated/ Painted							
Maine[1]	11%	26%	11%	18%	6%	2%	4%	8%	N/A
Massachusetts[2]	17%[11]	15%	9%	13%	4%	6%	9%	8%	1%
DSWA[3]	17%	25%	2%	13%	2%	2%	12%	7%	5%
Vermont[4]	10%	22%	9%	26%	10%	1%	7%	6%	1%
New Hampshire[5]	14%	15%	8%	17%	11%	3%	7%	6%	2%
Connecticut[6]	12%	23%	10%	11%	6%	5%	9%	10%	5%
Average	**13%**	**21%**	**8%**	**16%**	**6%**	**3%**	**8%**	**8%**	**3%**

1. Maine Solid Waste Generation and Disposal Capacity Report for Calendar Years 2023 & 2024, Maine DEP Report to the Joint Standing Committee on the Environment and Natural Resources. 1/27/2026.
2. Statewide Bulky Waste Characterization Study, 2022, prepared for MassDEP by the Center for EcoTechnology (CET) and MSW Consultants. 6/30/2022.
3. Delaware Solid Waste Authority, *Construction and Demolition Waste Characterization: Jones Crossroad Landfill,* prepared by DSM Environmental Services, Inc. and Cascadia Consulting Group. December 2015. Not posted on the internet, but a summary is available on page 13 of 2020 DSWA Statewide Solid Waste Management Plan.
4. 2023 Vermont Waste Composition Study, prepared for Vermont DEC by MidAtlantic Solid Waste Consultants, LLC and DSM Environmental Services, Inc. 5/23/2024.
5. New Hampshire Waste Characterization Study, prepared for NH DES by MidAtlantic Solid Waste Consultants, LLC. April 2025.
6. Construction and Demolition Waste Characterization and Market Analysis, 2016; prepared for the CT DEEP by Green Seal Environmental, Inc. in partnership with Sovereign Consulting Inc. 2016.

[11] Clean wood for Massachusetts includes engineered wood because it is accepted at a major market, Tafisa.

Appendix C: The Potential of Deconstruction

As long as there have been buildings, people have been salvaging and reusing the materials. While mechanical demolition is currently the norm in many places, until around 1940, the typical process for bringing down a building was through careful disassembly, and the materials were often meticulously preserved for reuse.

Today, a process called "deconstruction" is once again growing in popularity, bringing back the tradition of salvage and reuse. Deconstruction is also referred to as "unbuilding" because it involves systematic dismantling of a structure to preserve materials for reuse. Deconstruction enables materials and components to be recovered in good condition so they can be reused again for their original intended purpose, which can reduce the environmental and climate impact and the cost of new construction. In addition to being an excellent waste reduction tool that preserves valuable landfill space, deconstruction also saves costs associated with transport and disposal, keeps valuable materials circulating within the local economy, supports good, local, green jobs and businesses, reduces exposure to lead dust and other materials released in demolition, and preserves heritage building materials and the skills it takes to reclaim them.

This process is in sharp contrast to mechanical demolition, which involves using an excavator to rip down an entire building and any materials within it, smashing all materials and placing them into dumpsters. The debris from demolition sites is referred to as "mixed construction and demolition debris" and is either sent for processing or directly to landfill. Processing facilities can recover some materials for recycling, such as metal or clean wood. However, the amount and quality of material that can be recovered in a traditional demolition process is substantially less than what can be recovered through deconstruction, and processed debris materials are not suitable for reuse although they may be recyclable.[12]

Studies have estimated that more than 75%[13] of CDD from demolitions or renovations could be reused or recycled. Efforts to capture the value of lumber, flooring, fixtures and other building materials are gaining momentum, but deconstruction is still relatively uncommon compared to demolition.

Whether deconstruction has a higher upfront cost than mechanical demolition greatly depends on the local organizations or businesses offering the service. Some nonprofit organizations offer deconstruction services at no cost in order to source building materials for affordable housing construction. Even in areas where deconstruction does cost more upfront that mechanical demolition, it still tends to be cost-competitive over the lifespan of a project due to significantly reduced waste disposal costs, cost savings from being able to reuse materials rather than purchase new, or the revenue or tax benefit from material sales or donations.

C&D REUSE RESOURCES

- Indestructible Appeal of the Wrecking Ball
- Cape Fear Habitat Decon Program
- Morris Habitat Decon Program
- NYC Circular Construction Whitepaper

[12] Reuse means using an item again in its original form without changing it, whereas recycle is an industrial process where a material is broken down and used as feedstock to manufacture something new.
[13] Circular Economy of Construction and Demolition Waste: A Literature Review on Lessons, Challenges, and Benefits

- C40 Circular construction and material reuse handbook for cities
- USGBC Zero Waste Blueprint (LEEDV5 has upped credits for adaptive reuse of structures and materials reuse)
- CARE (Carbon Avoided Retrofit Estimator)
- Carbon Leadership Forum Reclaimed and Reused: Recommended LCA Modeling Guidance to Support EPDs for Reused Construction Materials
- Treasure in the Walls: Reclaiming Value Through Material Reuse in San Antonio
- NYS Circularity, Reuse, and Zero Waste Development Network (CR0WD)