



LEED v5: What does a new era in green building standards mean for the use of wood?

Lead Author: Sarah Harris

**Contributing Authors: Kathryn Fernholz, Dr. Jim Bowyer,
Teresa Floberg**

Special thanks for the technical review by Ashley Cagle, Senior Technical Director, WoodWorks; Sarah Puls, Manager of Sustainability Standards, American Wood Council; Annie Perkins, LEED Green Associate, Sr. Director, Green Building and Supply Chain, Sustainable Forestry Initiative; and Edie Sonne Hall, Founder and Principal, Three Trees Consulting.

September 2025

Table of Contents

Executive Summary	4
Table 1. Overview of potential wood-use-related credits in LEED v5	5
Background	7
About USGBC and LEED	7
Aside: Green building standards	7
LEED certification:	8
Table 2. Example of LEED v5 BD+C: New Construction Credits and Certification Threshold	8
Focus of this report	9
Overview of LEED v5	9
Emphasis of the new LEED rating systems	9
Key changes from LEED 4 / 4.1	10
LEED v5 revision process and implementation timeline	10
Wood Products' Contribution to LEED v5 Projects	11
MRp2 - Quantify and Assess Embodied Carbon (prerequisite)	11
Aside: What is embodied carbon?	11
Table 3. Common Industry-Wide EPD Data for North America that May be Used for MRp2 when Manufacturer Published EPDs are Not Available	12
MRc1 - Building and Materials Reuse (potential for 1-2 Points associated with wood use)	13
Table 4. Material Use Types, including Targeted Materials and Other Materials, Applicable to Option 2 of MRc1	14
Table 5: Thresholds for material reuse and point allocation	15
MRc2 - Reduced Embodied Carbon (potential for 1-6 Points associated with wood use)	16
Table 6: Points for embodied carbon reductions	16
MRc3 - Low-emitting Materials (potential for 1-2 Points associated with wood use)	18
Table 7. Thresholds for low-emitting materials	18

Table of Contents

MRc4 – Building Product Selection and Procurement (potential for 1-5 Points associated with wood use)	20
Aside: Required Documentation for Legality:	21
MRc5 – Construction and Demolition Waste Diversion (potential for 1-2 Points associated with wood use)	23
EQc2 – Occupant Experience (potential for 1-3 Points associated with wood use)	23
Aside: Promoting Your Product	24
<i>The Bottom Line</i>	25
<i>Annex I - Calculating points for MRc4</i>	26
<i>Additional Resources</i>	27
LCA and EPD Resources	28



Executive Summary

Dovetail Partners published a report in 2023 on the latest Leadership in Energy and Environmental Design (LEED) v4.1 standard and examined the Building Design + Construction (BD+C) rating system, changes to the Materials and Resources credits, and possible impacts to the use of wood. That examination led us to identify changes in LEED v4.1 that could support the more efficient documentation of specific credits related to sourcing materials and positively impact the use of wood, provided that required product information continues to be made available by manufacturers. Also, we noted that the approach to recognizing legal, responsible, and certified sources of wood, which was a pilot credit in earlier standards, continued to be recognized in LEED v4.1. Overall, the changes at that time were described as reflecting feedback from the marketplace to improve participation and project outcomes. LEED v4.1 provided modest updates and addressed a goal of improving credit uptake, including the Whole Building Life Cycle Assessment (WBLCA) credit and the Environmental Product Declaration (EPD) credit usage. These changes increased awareness of the role of embodied carbon and contributed to mainstreaming these practices in codes and procurement policies.

When we released the report on LEED v4.1 in 2023, we noted that LEED v5 was already in development. The first public comment period for LEED v5 launched in April 2024. Following further comments and revisions, LEED v5 was ratified by members on March 28, 2025 and published in April 2025. Registration for LEED v5 is now available for BD+C: New Construction, BD+C: Core and Shell, ID+C: Commercial Interiors, and O+M: Existing Buildings.¹

Although the requirements for LEED v5 have been finalized, v5 rating system reference documentation, other supporting documentation, and auditor training and testing, are still under development. USGBC plans to publish a set of addenda later this year (November 2025) which are anticipated to have substantive additions to how wood is addressed in LEED v5.

Building from our review in 2023, this report is about understanding the opportunities for wood and forest products in LEED v5. We focus on the LEED BD+C rating system for New Construction and Major Renovations and specifically the credits that are relevant for wood products: Materials & Resources (MR) prerequisite 2 and credits 1, 2, 3, 4, and 5 and Indoor Environmental Quality (EQ) credit 2.

Based on our analysis, wood products have the potential to contribute toward earning a total of up to 20 points in LEED v5 projects (Table 1). This is more than in prior LEED standards and can be attributed in part to the focus on decarbonization – one of three “central areas of impact” for the new standard.

¹ Registration to LEED v4 and v4.1 is targeted to remain open for project teams to register their projects until the end of Q1 2026 (targeted). There is the possibility for projects to transfer from v4 or 4.1 to v5 by contacting USGBC.

Table 1. Overview of potential wood-use-related credits in LEED v5

LEED v5 Credit	Potential Points	Overview of Potential for Wood to Contribute Toward Earning Points	See Page
MRp2	0	Qualify and Assess Embodied Carbon No points. Mandatory requirement (prerequisite) for all projects which may drive more projects to consider using mass timber in place of steel and concrete.	12
MRc1 (option 2)	1-2	Building and Materials Reuse Up to 2 points for sourcing reclaimed wood in several of the product categories: ceiling, interior walls, and furniture (targeted); dimensional lumber, doors, casework, and flooring (other materials), and windows (project defined other).	14
MRc2	1-6	Reduce Embodied Carbon 1-6 points for reducing embodied carbon in major structure, enclosure, and hardscape materials. There is potential for the use of wood products in place of materials with higher embodied carbon such as steel, concrete, and insulation.	16
MRc3	1-2	Low-emitting Materials Wood/forest products are included in 6 of the 8 available product categories, allowing for low VOC verified products to contribute toward earning up to 2 points if the requirements of Path 2 or Path 3 are met.	18
MRc4	1-5	Building Product Selection and Procurement There are many unknowns for the MRc4 credit at this time, but certified wood products have the potential to contribute toward a project earning up to the maximum of 5 points. This includes forest management certifications (FSC, PEFC, SFI) as well as reclaimed material and low VOC certifications.	20
MRc5	1-2	Construction and Demolition Waste Diversion Use of wood as a principal building material could contribute toward earning up to 2 points.	24
EQc2	1-3	Occupant Experience Option 1 Path 1 can earn 1 point for Biophilic Design, and/or Option 4 Path 2 can earn 2 points for Acoustic Criteria for Indoor and Outdoor Spaces.	25

Credit MRc4 is of note for the potential recognition of the use of wood in LEED v5. Wood products (primarily for nonstructural applications) could potentially be included in six of the nine product categories for this credit.² Furthermore, wood products may qualify for multiple (if not all) criteria areas with the potential to earn several points under this credit. This could be possible given the wide-spread use of multi-attribute sustainability standards, independent third-party certification, and public reporting in wood product manufacturing and marketing. Sustainability commitments and product innovations have transformed forest product supply chains over the last three decades and these systems align very well with the six Criteria Areas of Climate Health, Human Health, Ecosystem Health, Social Health and Equity, and Circular Economy. At the time of publication, not all achievement level criteria have been defined in the LEED v5 guidance. Ensuring the sustainability achievements of the forestry sector are reflected in the completion of the *LEED v5 Additional Guidance for the Materials & Resources Credit* is essential³ to having wood products contribute toward points for green building projects under MRc4.

Completion of the *LEED v5 Additional Guidance for the Materials & Resources Credit* is essential to having wood products contribute toward points for green building projects under MRc4.

We found in our review that, although LEED v5 retains many of the typical complications we've come to expect (i.e., multi-attribute formulas, reference lists that vary across credits, and gaps in available guidance), there are notable improvements. Specifically, the use of Whole Building Life Cycle Assessment (WBLCA) is more focused and achievable and industry-wide Environmental Product Declarations (EPDs) are a recognized option. The consistent use of prerequisites has the potential to establish standard and baseline practices in the sector, and the innovative consideration of occupant experience and biophilic design elevates the human connection to green building.

As we noted in our past reporting, there continues to be widespread interest in green building concepts. Innovation is occurring through voluntary green building programs as well as building code changes and procurement policies. Buildings constructed now, and in the future, will continue to be significantly more energy efficient than those of past generations, and more attention will be given to minimizing environmental impacts wherever possible using increasingly sophisticated science-based tools to identify lowest impact alternatives. In this situation, wood can be the building material of choice, especially if the wood products industry continues to ensure sustainability and provide the information requested by green building project developers.

As we see in LEED v5, green building is evolving into sustainable building. Energy-efficiency was an early measure of success for this sector that often translated into direct cost-savings and established the business case for green building. Over time, innovations saw these economic benefits being considered side-by-side with environmental concerns. Today, we see green building programs, including LEED v5, increasingly incorporating social and human impact considerations into their standards. This holistic approach to sustainability is essential for a leadership standard to continue to push design and construction forward.

² Flooring, walls (including wall frames, windows and doors), ceilings, insulation, furniture, and composite wood

³ *LEED v5 Additional Guidance for the Materials & Resources Credit: Building Product Selection & Procurement: Criteria Areas & Achievement Levels in LEED v5*, LEED v5 BPSP Criteria Areas and Achievement Levels. <https://www.usgbc.org/resources/leed-v5-bpsp-criteria-areas-and-achievement-levels>



Background

About USGBC and LEED

The U.S. Green Building Council (USGBC) was founded in 1993 to promote sustainability in the building and construction industry through education, advocacy, and consensus-based standards.⁴ The first Leadership in Energy and Environmental Design (LEED) rating system was publicly launched in March 2000. The organization's mission today is, "to scale actions that advance building decarbonization, enhance community resilience, restore ecosystems, and improve occupant well-being."

LEED offers three rating systems to choose from based on the scope of the project:

LEED Building Design and Construction (BD+C) – for new buildings or substantial renovations

LEED Interior Design and Construction (ID+C) – for building projects focused on new interiors

LEED Operations and Maintenance (O+M) – for existing, operational, and occupied buildings where the project is focused on improving the building's operations and interior spaces (with little to no construction)

Each rating system includes adaptations within the credits for specific project types, e.g., schools, hospitals, and data warehouses, where applicable.

Aside: Green building standards

There are several green building certification systems that are used globally or regionally. Some of the other well-known green building standards are:

Living Building Challenge (Global) – International Living Future Institute (ILFI), focused on regenerative, self-sufficient buildings that create net positive energy, water, and waste.

Green Globes (US, Canada) – Green Building Initiative (GBI), focused on environmental sustainability, health & wellness, and resilience of commercial real estate.

BREEAM (UK and Europe) – Building Research Establishment Environmental Assessment Method, focused on environmental performance.⁵

Green Star (Australia, New Zealand, and South Africa) – Green Building Council of Australia, focused on environmental, social, and economic sustainability.

WELL Building Standard (Global) – International WELL Building Institute (IWBI), focused on human health and wellness.⁶

Fitwel (US, Global) – Center for Active Design (CfAD),⁷ focused on human health and well-being.

⁴ USGBC Mission and Vision. <https://www.usgbc.org/about/mission-vision>

⁵ BREEAM is the largest green building rating system in terms of number of buildings certified globally.

⁶ GBCI is the review body for WELL.

⁷ Fitwel was originally developed by the U.S. Center for Disease Control and the U.S. General Services Administration. The CDC remains the research and evaluation partner for Fitwel.

LEED certification:

Building owners or project teams register a project for certification with LEED by first selecting the rating system that best fits their project (e.g., Building Design and Construction BD+C) and the applicable adaptation (e.g., New Construction and Major Renovation, or Core and Shell Development).

There are Minimum Program Requirements that must be met for all projects, as well as prerequisites for each rating system. Credits are organized under different credit categories, which are based on the broad objectives of each rating system. For each credit there are often options, and paths within options, for meeting the requirement. The varied paths for meeting credit requirements provide the possibility of achieving a range of points up to a defined maximum.

For each credit, there are documentation requirements for the project team to demonstrate conformance with the applicable credit criteria. This is all submitted for independent review by credentialed LEED reviewers at GBCI.⁸

LEED BD+C: New Construction is one of the most commonly used rating systems. In LEED v5 BD+C: New Construction there are eight credit categories⁹ with 53 credits, worth a total potential of 110 points. To achieve LEED Certified status, the lowest level of LEED certification available, all program requirements and prerequisites must be met and a minimum of 40 points achieved from the available credit categories. For LEED Platinum, the highest level of LEED certification available, the project must meet all program requirements and prerequisites, and earn at least 80 points from credits, including specific decarbonization credits. Certification is also awarded for LEED Silver (50-59 points) and LEED Gold (60-79 points), as summarized in Table 2.

Table 2. Example of LEED v5 BD+C: New Construction Credits and Certification Threshold

No. of Credit Categories	8
No. of Credit	53
No. of Total Potential Points	110
Threshold for LEED Certified Status	Meet all program requirements and prerequisites plus 40-49 points
LEED Silver	Meet all program requirements and prerequisites plus 50-59 points
LEED Gold	Meet all program requirements and prerequisites plus 60-79 points
LEED Platinum	Meet all program requirements and prerequisites plus a minimum of 80 points and specific decarbonization credits (EAc1, EAc3, EAc4, MRc2). ¹⁰

⁸ About GBCI. <https://www.gbci.org/about>

⁹ The eight credit categories are: Integrative Process, Planning, and Assessments (IP); Location and Transportation (LT); Sustainable Sites (SS); Water Efficiency (WE); Energy and Atmosphere (EA); Materials and Resources (MR); Indoor Environmental Quality (EQ); and Project Priorities (PR).

¹⁰ Platinum Requirements (New Construction) version 5. USGBC <https://www.usgbc.org/credits/new-construction/v5?return=/credits/New%20Construction/v5>

Focus of this report

This report is about understanding the opportunities for wood and forest products in LEED v5. As such, we focus on the LEED BD+C rating system for New Construction and Major Renovations and specifically the credits that are relevant for wood products: Materials & Resources (MR) prerequisite 2 and credits 1, 2, 3, 4, and 5, and Indoor Environmental Quality (EQ) credit 2.

Overview of LEED v5

Emphasis of the new LEED rating systems

Version 5 of the LEED rating system focuses on three central areas of impact: Decarbonization, Quality of Life, and Ecological Conservation and Restoration. Each prerequisite / credit is connected to one or more impact area. The impact areas are also highlighted in the scorecards to help teams communicate the sustainability outcomes of their projects.

The goals of the Materials and Resources (MR) category are to reduce embodied carbon (MRp2, MRc2), protect human and environmental health (MRc3, MRc4), and foster a circular economy (MRp1, MRc4, MRc5). The credits in this category ask project teams to evaluate the sourcing, manufacturing process, and overall environmental and social impacts of the products and materials they select, with a key focus on embodied carbon.

The goals of the Indoor Environmental Quality (EQ) category are to encourage the development of buildings that “enable human activities, foster health, and cultivate safety and comfort.” The credits in this category address indoor air quality, thermal comfort, daylight and views, and acoustics, as well as design considerations (e.g., biophilia, accessibility, adaptability, and responsiveness.)



Key changes from LEED 4 / 4.1

LEED v5 is a substantial revision to the rating system, resulting in many changes to project prerequisites, individual credits, and credit categories. For example, the Innovation and Regional Priority credit categories have been merged into a new Project Priorities credit category, offering project teams greater flexibility to address the unique context of their project and the project's goals. LEED v5 also introduces mandatory (prerequisite) assessments to evaluate climate-related hazard risks and human health, equity, and quality of life, at the project level.

The Materials and Resources credit category includes several new credits and new approaches. Notably, the Sourcing of Raw Materials and Material Ingredients credits have been merged into one: Building Product Selection and Procurement. Instead of referencing specific certifications in the credit itself (e.g. the language, "FSC or USGBC-approved equivalent"), the new credit introduces a multi-attribute scoring framework for products based on third-party assessments, testing, and/or certification. USGBC is still developing the requirements that will be used to rank materials and products at an Achievement Level of 1, 2, or 3. The criteria and qualifying product documentation are included in a separate [guidance document for the Building Product Selection & Procurement \(BPSP\) credit](#) which will be updated over time.

There are also new credits included in the Materials and Resources credit category for Building and Materials Reuse, Reduced Embodied Carbon, and a new prerequisite to Quantify and Assess Embodied Carbon. Other credits from LEED v4.1 have been renamed or incorporated into others.

The Indoor Environmental Quality credit category includes several new credits (e.g., Accessibility and Inclusion, Resilient Spaces, Enhanced Air Quality, and Occupant Experience), as well as several modified credits (e.g., Enhanced Indoor Air Quality Strategies). The Low-Emitting Materials credit has been moved to the Materials and Resources category (MRc4). And some credits from LEED v4.1 are now prerequisites, (e.g., Construction Indoor Air Quality Management Plan is now 'ESp Construction Management', and Environmental Tobacco Smoke Control has been incorporated into a new No Smoking or Vehicle Idling prerequisite).

For a full summary of the changes between LEED v4 and/or LEED v4.1 to LEED v5 for each of the rating systems, please see LEED's [Summary of Changes](#) Documents.

LEED v5 revision process and implementation timeline

LEED v5 was ratified by members on March 28, 2025 and published in April 2025. Registration for v5 is now available for BD+C: New Construction, BD+C: Core and Shell, ID+C: Commercial Interiors, and O+M: Existing Buildings. Registration to LEED v4 and v4.1 is targeted to remain open for project teams to register their projects until the end of Q1 2026 (targeted)¹¹. There is the possibility for projects to transfer from v4 or 4.1 to v5 by contacting USGBC.

Although the requirements for v5 have been finalized, v5 rating system reference documentation, other supporting documentation, and auditor training and testing, are still under development. GBCI anticipates making LEED v5 exams available sometime in 2026.

¹¹ Once a project is registered is has 6 years to be completed (sunset date).



Wood Products' Contribution to LEED v5 Projects

The following sections provide a detailed explanation of the prerequisite and point-earning credits that are most relevant for wood products. Based on our analysis, wood products have the potential to contribute toward earning a total of up to 20 points in LEED v5 projects (see Table 1 above). The significant increase of available points associated with wood in v5 can be attributed to USGBC's aim to provide clear, actionable steps to deliver "ultra-low-carbon buildings"; 50% of all points in v5 are attributed to decarbonization.¹²

The points specified in the headings below e.g., "(1-2 Points)" indicates the range of points that we estimate are potentially available to project teams from the use of qualifying wood products.

MRp2 - Quantify and Assess Embodied Carbon (prerequisite)

MRp2 is a prerequisite (i.e., mandatory and not point earning) for all BD+C New Construction (and Core and Shell) projects and aligns with the Decarbonization impact area. The intention of this credit is "to quantify the embodied carbon impacts of the structure, enclosure, and hardscape of a project and assess the top sources of embodied carbon."

The prerequisite has two requirements: 1. The cradle-to-gate¹³ (A1-A3) embodied carbon emissions must be quantified for each material used in the structure, enclosure, and hardscape to calculate the project's overall Global Warming Potential (GWP) based on the GWP/unit for material usage or the total embodied carbon (if using LCA or embodied carbon software tools that report this figure); and 2. The top three sources of embodied carbon must be identified and the strategies considered by the project to reduce these impacts must be described.

Aside: What is embodied carbon?

Embodied carbon is defined as the total sum of emissions released during the manufacturing, transportation, construction, use, and end of life phases. The World Green Building Council (WGBC) attributes 11% of all global carbon emissions to the embodied carbon in buildings and infrastructure.¹⁴ As emissions from operations is expected to decline over time – with improved energy efficiency and gradual transition to more renewable energy – embodied carbon, aka "upfront carbon" is anticipated to account for about half of the total carbon footprint (embodied carbon + operations emissions) of new construction between now and 2050.

¹² U.S. Green Building Council Launches New, More Comprehensive LEED Rating System for Sustainable Buildings, USGBC (April 28, 2025). <https://www.usgbc.org/articles/us-green-building-council-launches-new-more-comprehensive-leed-rating-system-sustainable>

¹³ Emissions associated with raw material extraction (A1), transportation to the manufacturing site (A2), and the manufacturing process (A3).

¹⁴ Bringing Embodied Carbon Upfront. World Green Building Council. https://worldgbc.s3.eu-west-2.amazonaws.com/wp-content/uploads/2022/09/22123951/WorldGBC_Bringing_Embodied_Carbon_Upfront.pdf

To determine embodied carbon values for each material, product-specific Environmental Product Declarations (EPDs) published by the manufacturer must be used where available. Where these are unavailable, the LEED reference guide provides a hierarchy of other acceptable data sources that includes:

1. Carbon Leadership Forum (CLF) Material Baselines reports,
2. publications or databases that are widely used, well-established, authoritative and supported by extensive peer-reviewed research, and
3. industry-wide EPDs relevant to the project region.

Table 3. Common Industry-Wide EPD Data for North America that May be Used for MRp2 when Manufacturer Published EPDs are Not Available¹⁵

Material	Organization
Concrete	National Ready Mixed Concrete Association (NRMCA)
Steel	American Institute of Steel Construction (AISC)
	Steel Recycling Institute (SRI)
Masonry	National Concrete Masonry Association (NCMA)
Wood	American Wood Council (AWC)
Insulation	North American Insulation Manufacturers Association (NAIMA)

USGBC's reference guide lists free tools and databases that are available to assist with calculating embodied carbon.

Although there are no points awarded for a prerequisite, all projects are required to meet the requirements and thus will need to assess the embodied carbon of the materials used in their design and strategize how to reduce the embodied carbon in the top three sources.

Steel and concrete are called out in the reference guide for their high embodied carbon values. However, the examples of strategies to reduce embodied carbon do not specifically mention wood product use or opportunities for substitution (e.g., glulam or cross-laminated timber (CLT) which can replace steel and concrete). Insulation is another material type identified as having typically high embodied carbon for which there is a wood alternative to fiberglass, mineral wool, foam board, and spray foam insulations.

¹⁵ LEED v5 Reference Guide: Building Design And Construction, p.399

MRc1 - Building and Materials Reuse (potential for 1-2 Points associated with wood use)

MRc1 is about reuse of building components and materials. The credit is valued at up to 3 points and aligns with the Decarbonization and Ecological Conservation and Restoration impact areas. The intention of this credit is “to incorporate reused materials into new building design, thereby reducing embodied carbon, keeping materials in circularity, reducing demand for virgin material sourcing, preserving resources and histories, and increasing demand for reused materials.”

There are two Options for MRc1, which can be combined or applied selectively:

Option 1: Reuse of structure, structural elements, and enclosure materials of the existing building in-situ or from offsite procurement of salvaged materials; and/or

Option 2: Reuse of nonstructural materials (especially targeted materials) from the existing building or from offsite procurement of salvaged materials.

Option 1 is only applicable for major renovation projects with deconstruction or demolition in scope. For such projects, up to 3 points can be earned, depending on the percentage by project area of the existing structure and enclosure that was reused (i.e., 1 point for 20%, 2 points for 35%, and 3 points for 50%). Further details on the calculation and documentation requirements for MRc1 Option 1 are available in the LEED v5 BD+C Reference Guide.

For Option 2, up to 2 points can be earned depending on the percentage of reused materials (nonstructural) per material type. Targeted materials are called out because of their high embodied carbon, toxic impacts in landfills, and high potential for recovery despite low recovery rates to date (see MRc1 Table 4, also reproduced as Table 4 below).



Table 4. Material Use Types, including Targeted Materials and Other Materials, Applicable to Option 2 of MRc1

Material Type	Unit
Targeted Materials	
Carpeting	Surface area
Ceilings	Surface area
Furniture (ancillary and systems)	Pieces, weight, volume, or floor area
Interior Walls	Linear or surface area
Other Materials	
Dimensional Lumber	Board foot or linear
Doors	Count
Casework	Linear
Floor-covering materials (not including carpet)	Surface Area
Lighting fixtures	Count
Plumbing fixtures	Count
Mechanical equipment	Count
Door hardware	Count
Project defined other	Project defined

Note: ceilings and interior walls is understood to mean materials/products used for ceilings and interior walls, not that an entire ceiling or interior wall must be reused.

To earn points under MRc1 Option 2, the project team must conduct a salvage assessment to identify materials that could be sourced as reclaimed instead of new (either from the existing building, where applicable, or from other sources of salvaged materials) and submit a worksheet that shows that the thresholds for material reuse were met.

The assessment must cover all relevant materials, address safety concerns with the reuse of materials, and provide actionable guidance for the implementation of effective reuse/recycling strategies. Qualifying materials include materials that are reused for the same original purpose, reused for a different purpose, or materials that are modified and reinstalled (where deconstruction/demolition is in the project scope).

The reuse threshold to earn points is 15% or 30% depending on the type and number of materials.

The equation for calculating percentage of reuse per material type is:¹⁶

Equation 1. Reuse % per material type

$$\text{Reuse \% per material type} = \frac{\text{Amount of material type reused}}{\text{Total amount of material type in New Construction scope}}$$

The thresholds for material reuse are shown in MRc1 Table 3¹⁷ (Table 5 of this report):

Table 5: Thresholds for material reuse and point allocation.

Reuse materials threshold	Points
Reuse at least 15% of 1 targeted material type OR Reuse at least 15% of 2 other material types OR Reuse an equivalent weighted average of targeted and other material types	1 point

Reuse materials threshold	Points
Reuse at least 30% of 1 targeted material type OR Reuse at least 15% of 2 targeted material types OR Reuse at least 15% of 4 other material types OR Reuse an equivalent weighted average of targeted and other material types	2 points

To earn points for the use of wood under this credit, there is the potential for sourcing reused wood-based products in several product type categories, including targeted material types: ceilings, furniture, and interior walls; and other material types: dimensional lumber, doors, and casework, as well as windows (project defined other). It is notable that engineered lumber is excluded from Option 2 despite its high potential for reuse.

16 LEED v5 Reference Guide: Building Design And Construction, p.403

17 LEED v5 Reference Guide: Building Design And Construction, p.403

MRc2 - Reduced Embodied Carbon (potential for 1-6 Points associated with wood use)

MRc2 is about reducing the embodied carbon of major structure, enclosure, and hardscape materials, and thus aligns with the Decarbonization impact area. It is worth up to 6 points. The intention of this credit is “to track and reduce embodied carbon of major structural, enclosure, and hardscape materials from construction processes on new construction and renovation projects.”

There are three available options for this credit which can be used individually or in combination to earn the maximum 6 points. Option 1 is to use a WBLCA,¹⁸ Option 2 is to analyze EPDs for the procured materials, and Option 3 is to track emissions from construction activities. The following provides greater detail on Options 1 and 2, where the specification of wood products could contribute toward earning points for the project.

To earn the maximum 6 points for MRc2 through Option 1 alone, the team must:

- conduct a cradle-to-grave whole-building life-cycle assessment, and
- compare the results to a baseline for a comparable project using standard design and material selection, and
- demonstrate a 40%+ reduction in global warming potential (GWP).

Through Option 1, 2-6 points are awarded per the Option 1 column of Table 1 of MRc2 (see Table 6 below¹⁹) based on the degree to which the project meets the baseline/industry average or demonstrates a 10-40% reduction in GWP.

Table 6: Points for embodied carbon reductions

	Option 1. Whole-building life cycle assessment	AND/ OR	Option 2.EPD Analysis	
			Path 1. Project-average approach	OR Path 2. Materials-type approach
Meet baseline or industry average	2		1	Three material categories for one point OR Five or more material categories for two points
10% reduction in GWP	3		–	–
20% reduction in GWP	4		2	–
30% reduction in GWP	5		–	–
40%+ reduction in GWP	6		3	–

NOTE: Meeting the baseline or industry average in Table 1 can achieve no more than two points.

¹⁸ Introduction to Whole Building Life Cycle Assessment: The Basics. WoodWorks Wood Products Council.
<https://www.woodworks.org/resources/introduction-to-whole-building-life-cycle-assessment-the-basics/>

¹⁹ LEED v5 Reference Guide: Building Design And Construction, p.411

MRc2 Option 2 requires the project team to demonstrate reduced embodied carbon based on the analysis of Type III EPDs (instead of a WBLCA). The two available Paths for Option 2 are:

Path 1: Demonstrate a reduction of embodied carbon for the project based on product or facility-specific Type III EPDs for the installed materials, compared to industry average values²⁰ using the weighted average of all material categories in the project (1-3 points based on the percentage reduction), or

Path 2: Demonstrate a reduction of GWP for selected material types compared to industry average values based on product-specific Type III EPDs (1 point for demonstrating at least baseline/industry average embodied carbon for three material categories, or 2 points for five).

The LEED v5 BD+C Reference Guide includes a table of resources for finding product EPDs. These are also included in the Resources section at the end of this report: LCA and EPD Resources.

Projects can use a combination of these Options and Paths to earn points. A 20% reduction in embodied carbon is required for LEED Platinum projects.

There are several ways in which the specification of wood products, in place of materials with higher embodied carbon, can demonstrate reductions in GWP and contribute toward a project earning points under the MRc2 credit. One study found that replacing steel with mass timber reduced the mass of the building's foundation by 35% due to the lower overall weight of the building. Experiences indicate that it is highly feasible to achieve at least a 20% reduction in GWP by using²¹ mass timber as the preferred building material and analysis by a WBLCA (Option 1).²²

²⁰ "Industry averages for material categories are defined by the U.S. Environmental Protection Agency (EPA), the most recent Carbon Leadership Forum (CLF) Material Baselines report, or similarly robust and widely recognized publications, and industry-wide EPDs applicable to the project region."

²¹ Comparison of Embodied Carbon Footprint of a Mass Timber Building Structure with a Steel Equivalent.
<https://doi.org/10.3390/buildings14051276>

²² LEED v4.1: Understanding the Changes and Implications for Wood Use" Dovetail Partners, Inc.
<https://dovetailinc.org/portfoliodetail.php?id=64ff26fea8ec7>

MRc3 - Low-emitting Materials (potential for 1-2 Points associated with wood use)

The low-emitting materials credit is about reducing indoor air contaminants in buildings for the benefit of the workers during construction as well as the future building occupants. This credit aligns with the Quality of Life impact area. The intention of the Low-emitting Materials credit is “to reduce concentrations of chemical contaminants that can damage air quality and the environment. To protect human health and the comfort of installers and building occupants.” Projects can earn up to 2 points by using a vast majority (>80 or 90%) of materials and products that meet the specified low-emitting criteria in the following product categories.

To earn one point, greater than 90% of the products in the paints and coatings, flooring, and ceilings product categories must meet the low-emissions criteria. To earn an additional point, either more than 80% of the products in the adhesives and sealants, walls, insulation, and composite wood product categories must be low-emitting or more than 80% of the furniture must be low-emitting. (See MRc3 Table 1, included as Table 7 below²³)

Table 7. Thresholds for low-emitting materials

Pathway	Product categories	Threshold	Points
Path 1	Achieve all three categories: <ul style="list-style-type: none">• Paints and coatings• Flooring• Ceilings	>90% of all products in each product category	1
Path 2	Achieve Path 1, plus any two of these additional categories: <ul style="list-style-type: none">• Adhesives and sealants• Walls• Insulation• Composite wood	>80% of each additional product category	2
Path 3	Achieve Path 1 plus the furniture category	>80% of the furniture product category	2

The qualifying product categories include:

- interior **paints and coatings** (wet applied on-site)
- interior **adhesives and sealants** (wet applied on-site)
- nonstructural **flooring** material (excluding composite wood subflooring),
- nonstructural finish **wall** materials/treatments, e.g., gypsum wallboard, doors, millwork, paneling, railings, and trim/moldings
- nonstructural **ceiling** finishing materials, e.g., ceiling panels and tiles, suspension grids, and gypsum wallboard or plaster
- thermal and acoustic **insulation**, e.g., batts, rolls, blankets, loose fill, blown, or sprayed
- **furniture** purchased for the project, including furniture that is permanently installed or moveable/demountable (e.g., seats, desks, partitions, shelving, casework, and countertops), and furnishing items (e.g., window treatments, area rugs, and mattresses)
- **composite wood** (including composite wood subflooring).

²³ LEED v5 Reference Guide: Building Design And Construction, p.420

To qualify as low-emitting the product must have a third-party certificate²⁴ (valid at the time of purchase) or a qualifying laboratory report (testing conducted within three years of the purchase date) demonstrating compliance with the California Department of Public Health (CDPH) Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, v1/2-2017 (aka California Specification 01350). For formaldehyde, the limit is $\leq 9 \mu\text{g}/\text{m}^3$. Alternatively, a product is considered to meet the low-emitting criteria if it is inherently non-emitting (e.g., stone, ceramic, or unfinished or untreated solid wood) or is salvaged or reused material that is more than one year old.

The LEED Reference Guide advises project teams to find compliant products by searching third-party certification program databases, programs listed on the CDPH website, and online aggregated product databases such as Ecomedes, the Sustainable Minds® Transparency Catalog™, Building Ease, and UL SPOT®.

Wood products are included in six of the eight product categories in this credit²⁵ – all but paints and coatings, and adhesives and sealants. As such, treated wood products that can demonstrate low Volatile Organic Compounds (VOCs)^{26,27}, through product certification and/or testing can contribute towards earning points for projects under this credit. Untreated and unfinished solid wood is inherently non-emitting and thus are considered compliant without any VOC emissions testing.²⁸



24 LEED v4 EQ Credit Low-Emitting Materials Third Party Certifications and Labels. <https://www.usgbc.org/sites/default/files/2022-08/Low%20Emitting%20Third%20Party%20Certifications%20and%20Labels%20July%202022.pdf> (This reference guide may yet be updated for LEED v5)

25 Structural wood products are limited to the composite wood category.

26 What are volatile organic compounds (VOCs)? United States Environmental Protection Agency (EPA). <https://www.epa.gov/indoor-air-quality-iaq/what-are-volatile-organic-compounds-vocs>

27 Volatile Organic Compounds' Impact on Indoor Air Quality. United States Environmental Protection Agency (EPA) <https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality>

28 LEED v5 Reference Guide: Building Design And Construction, p.431 - Inherently Non-emitting Criteria

MRc4 – Building Product Selection and Procurement (potential for 1-5 Points associated with wood use)

The Building Product Selection and Procurement credit is about procuring nonstructural materials and products based on their environmental, social, and economic impacts. The credit is worth up to 5 points and aligns with the Quality of Life and Ecological Conservation and Restoration impact areas.

The intention of MRc4 is “To encourage the use of products and materials that have sustainability information available and that have environmentally, economically, and socially preferable impacts in alignment with industry momentum. To reward project teams for selecting products from manufacturers who have disclosed sustainability information about their products and optimized their products across multiple criteria areas.”

MRc4 is applicable to select (nonstructural) interior and enclosure materials in nine specified Product Categories:

1. paints and coatings,
2. adhesives and sealants,
3. flooring,
4. walls,
5. ceilings,
6. insulation,
7. furniture,
8. composite wood, and
9. plumbing fixtures.

Across these nine product categories, projects must demonstrate achievement in one or more of five Criteria Areas:

1. Climate Health,
2. Human Health,
3. Ecosystem Health,
4. Social Health and Equity, and
5. Circular Economy.

For each criteria area, there are three Achievement Levels that a product can be assessed as meeting: (1) “a first step toward sustainability,” to (2) “a leadership position in the marketplace,” to (3) “the forefront of sustainability.” According to LEED, this framework follows the structure used by others, including the American Institute of Architects’ (AIA) ‘Architecture and Design Materials Pledge’²⁹ and mindful MATERIALS’ ‘Common Materials Framework’ (CMF).³⁰

²⁹ AIA Materials Pledge. <https://www.aia.org/design-excellence/climate-action/zero-carbon/materials-pledge>

³⁰ mindful MATERIALS CMF Reference Guide. <https://www.mindfulmaterials.com/cmfr-reference-guide>

Achievement Levels for Products³¹

Level 1	A product in this level achieves a first step towards sustainability for a criteria area. Widespread achievement of these practices drives market transformation towards sustainability outcomes within the criteria area. Products scored at this level earn a 1x multiplier.
Level 2	This level represents a leadership position in the marketplace for a given sustainability attribute. Products at this level are optimized and demonstrate a level of sustainability that peers aspire to achieve. Products scored at this level earn a 2x multiplier.
Level 3	Products that earn this level are elite and represent the forefront of sustainability. Products scored at this level earn a 3x multiplier.

Individual products can earn a *multi-attribute* score by adding up the achievement level scores (1, 2 or 3) for each of the five criteria areas, up to a maximum of 5 points. For example, the multi-attribute score of a product that is evaluated at a level 1 for its benefits to climate health and level 2 for ecosystem health would have a product multi-attribute score of 3.

LEED has released a first version of *LEED v5 Additional Guidance for the Materials & Resources Credit: Building Product Selection & Procurement: Criteria Areas & Achievement Levels in LEED v5*³² (BPSP). This document will be updated as the underlying criteria for each achievement level are defined, and certification programs are assessed.

At the time of publication, for the Ecosystem Health Criteria Area, only the Level 1 criteria had been developed. Wood products that can demonstrate that they are not from illegal sources would meet Level 1.

Aside: Required Documentation for Legality:

1. Source Disclosure from the product manufacturer (unless the product is FSC, SFI, or PEFC certified – including other PEFC-endorsed certification systems, or is salvaged or reused wood). For primary products, the manufacturer is expected to provide information about the source area of logs it procures (Level 2 disclosure to the supply area, per the Climate Smart Wood Group Procurement Guide^{33, 34}). The primary manufacturer may, for example, provide information about the counties of origin or anonymized landowner types. For secondary products, the manufacturer is expected to disclose information about the location of the primary manufacturers that supply at least 90% of the annual wood content in their product (e.g., a breakdown of annual volume by landowner type) or disclose geolocation data for the source forestry management units.³⁵
2. Risk Assessment completed by a credible international organization and the source country's corruption perception index (CPI) score is 51 or greater. Note: The USA and Canada are indexed at above 50.³⁶
3. Risk Mitigation (i.e. implement best practices to avoid illegal wood sourcing). Risk mitigation is necessary for non-salvaged/reused wood where the CPI score of the source country is 50 or below.³⁶ The guide includes several options to demonstrate risk mitigation, including FSC, PEFC, and SFI certification, third-party legality verification programs, FLEGT license documentation and wood ID testing evidencing the declared origin/species.³⁷

31 LEED V5 Additional Guidance. Materials & Resources Credit: Building Product Selection & Procurement: Criteria Areas & Achievement Levels in LEED v5 Version 1.0, April 2025 (Page 3)

32 LEED v5 Building Product Selection & Procurement: Criteria Areas and Achievement Levels in LEED v5. <https://www.usgbc.org/resources/leed-v5-bpsp-criteria-areas-and-achievement-levels>

33 Climate Smart Wood Group Procurement Guide. https://www.climatesmartwood.net/wp-content/uploads/2023/09/2023-09_CSWG_Disclosure.pdf

34 Previously, the LEED pilot credit for legal wood referenced ASTM D7612-10 the internationally recognized standard to define legality of wood, whereas the Climate Smart Wood Group is a mission-driven coalition of nonprofit organizations and green building leaders.

35 See LEED v5 BPSP Criteria Areas and Achievement Levels. <https://www.usgbc.org/resources/leed-v5-bpsp-criteria-areas-and-achievement-levels>, Page 10-11.

36 Corruption Perceptions Index, Transparency International. <https://www.transparency.org/en/cpi/2024>.

37 Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC), Sustainable Forestry Initiative (SFI), Forest Law Enforcement, Governance and Trade (FLEGT)

The achievement level definitions are subjective, so until there are defined criteria for them it is hard to predict how forest products and applicable supply chain assurances for their responsible procurement will be assessed. USGBC plans to release an update of the BPSP in November, 2025 which is expected to include scoring of the various forest certification standards.

Wood products (excluding structural wood) could potentially be included in six of the nine product categories: flooring, walls (including wall frames, windows and doors), ceilings, insulation, furniture, and composite wood. Thus, wood products that have been third-party certified against environmental and social requirements in line with LEED criteria areas could contribute significantly to achieving points in this credit. Based on the current guidance, this requires demonstrating legal sourcing as well as another documentation (e.g. product-specific EPD, or health certification) to get above the 100% threshold. (See Annex 1: Calculating points for MRc4.)

Given the wide-spread use of multi-attribute sustainability standards, third-party certification, and public reporting in wood product manufacturing and marketing, we would expect wood products to qualify under all criteria areas and at Level 2 or 3 of the achievement. For example, treated wood products with certifications or test reports that demonstrate low VOS may meet Human Health criteria. Wood products with product-specific EPDs that quantify and disclose their lifecycle GWP may meet Climate Health criteria. Wood products could also meet criteria for Circular Economy given that they are biobased and can often be reused. Wood products sourced from sustainable forest management and meeting goals for protection, enhancement or restoration could demonstrate that they meet the criteria for Ecosystem Health. And, although certified wood products are not currently included in the Social Health & Equity criteria area (only a Cradle-to-Cradle certificate at the Bronze or Silver level is included as qualifying product documentation for Level 1), we are hopeful that this is still under assessment.

Sustainability commitments and product innovations have transformed the forest product marketplace and supply chains for wood over the last three decades. Ensuring these achievements are reflected in the updates to the LEED v5 Guidance will be essential to having wood products contribute toward earning points for green building projects under MRc4.



MRc5 – Construction and Demolition Waste Diversion (potential for 1-2 Points associated with wood use)

The construction and demolition waste diversion credit is about incentivizing planning and design for waste minimization. The credit is worth up to 2 points and is in alignment with the Decarbonization, and Ecological Conservation and Restoration impact areas.

The intention of this credit is to reduce disposal into landfills and incineration facilities and create green jobs and new markets for materials. To earn points, the project team must develop a construction and demolition materials management plan and then follow the plan and provide a report detailing the waste generated and how it was disposed of or diverted. Diversion strategies include off-site salvage, source-separation for single-material recycling, mixed construction and demolition recycling, and take-back programs where available. The LEED Reference Guide specifies standardized diversion rates (baseline assumptions are used unless the facility can provide third-party verification of recycling rates) for credit calculations and required details of the management plan. Project teams earn 1 point for 50-74% diversion of the total construction and demolition material including ³⁸10% or more being salvaged or source-separated for single-material recycling. If diversion of 75% or more is achieved, including at least 25% being salvaged or source-separated for single-material recycled, then the project team can earn 2 points.

Timber beams and columns can be reused for many applications and otherwise wood and fiber waste can be recycled into numerous products. Additionally, mass timber buildings have high potential for disassembly and reuse and, because they are prefabricated, this minimizes waste on the construction site.³⁹ Waste avoidance should be rewarded as part of this credit and factored into the point calculation, but this is not addressed in the current version of the Reference Guide for LEED V5.

EQc2 – Occupant Experience (potential for 1-3 Points associated with wood use)

The Indoor Environmental Quality (EQ) Occupant Experience credit is about designing spaces that enhance the experience of the building occupants through material use, use of space, and thermal, sound, and lighting conditions. This credit is worth up to 7 points in total and is in alignment with the Quality of Life, and Ecological Conservation and Restoration impact areas.

The intention of the Occupant Experience credit is “to move beyond neutral or sufficient spaces toward human-centered design that supports customization, enjoyment, and emotional connections between people and the building, thus increasing the likelihood of consistent satisfaction and ongoing stewardship.” Option 1, Path 1 of EQc2 is Integrated Biophilic Design. This path is highly relevant for wood products and can earn 1 point. Wood also has potential to contribute towards earning up to 2 points for Option 4, Path 2 - Acoustic Criteria for Indoor and Outdoor Spaces.

³⁸ LEED v5 Reference Guide: Building Design And Construction, p.433

³⁹ Meeting Sustainability Objectives with Wood Buildings, for more about the benefits of wood buildings
<https://www.woodworks.org/resources/meeting-sustainability-objectives-with-wood-buildings/>

To earn the available point for Integrated Biophilic Design, projects must demonstrate compliance with each of the following five principles, adapted from *The Practice of Biophilic Design* by Kellert and Calabrese:⁴⁰

1. Biophilic design requires repeated and sustained engagement with nature.
2. Biophilic design focuses on human adaptations to the natural world that, over evolutionary time, have advanced people's health, fitness, and well-being.
3. Biophilic design encourages an emotional attachment to the building and building location.
4. Biophilic design promotes positive interactions between people and nature that encourage an expanded sense of relationship and responsibility for the human and natural communities.
5. Biophilic design encourages mutual reinforcing, interconnected, and integrated architectural solutions.

Aside: Promoting Your Product

Manufacturers are permitted to promote their products that meet the LEED performance criteria as *contributing toward earning* the points needed for LEED certification, e.g., "Product 'A' contributes toward satisfying Credit 'X' under LEED®. Products cannot be said to earn points toward LEED on their own. ([See USGBC Trademark Policy and Branding Guidelines](#))

Wood is a prominent material often used in biophilic design. A report prepared for Forest & Wood Products Australia, by the market research organization Pollinate, found that natural-looking wooden surfaces in the workplace are strongly associated with increased employee wellbeing and satisfaction.⁴¹

Another opportunity for wood products to contribute toward earning points under EQc2 is Option 4, Path 2 - Acoustic criteria for indoor and outdoor spaces. Wood could play a significant role in building design for acoustical comfort, given its natural sound-absorbing properties. For example, wood can be used to minimize echoes and reverberations.⁴²



40 Kellert, S. and Calabrese, E. *The Practice of Biophilic Design*, (2015), <https://www.biophilic-design.com>

41 Workplaces: Wellness + Wood = Productivity. https://assets.ctfassets.net/fqjwh0badmlx/1sm3iELG79J0j7xOP6kPW7/a1dc483345d724fcc2dc9de177f2e883/Make_It_Wood_-_Wellness_Wood_report.pdf

42 <https://www.naturallywood.com/wood-performance/acoustic-performance/#:~:text=Mass%20timber's%20solid%20mass%20helps,a%20wood%20structure's%20acoustic%20performance.>



The Bottom Line

LEED v5 is a substantive revision to USGBC's green building rating system, focused on three central areas of impact: Decarbonization, Quality of Life, and Ecological Conservation and Restoration. Although many credits are familiar, there are several approaches for earning points that are new. For example, MRc4 - Building Product Selection and Procurement, which replaces and combines the Sourcing Raw Materials and Material Ingredients credits.

For the wood products industry, there continue to be abundant opportunities for wood products to contribute towards projects earning points for several credits. With the emphasis on decarbonization, in LEED v5 there is a significantly greater number of potential points available for projects that use qualifying wood products (up to 20), than in the currently applicable rating systems (v4.0 and v4.1 estimated at 10-12 points). This includes a new Occupant Experience credit that integrates former credits as Options and includes a new Option for Integrated Biophilic Design, which has great potential for wood use. Although structural wood is limited or even excluded from some credits or Options, its use could play a major role in helping projects meet the Materials and Resources Quantify and Assess Embodied Carbon prerequisite (MRp2) if it offsets the use of steel and/or concrete. Wood is also recognized in the standard as a material with high potential for reuse and recycling.

The requirements for LEED v5 are final, but rating system guides and auditor training and testing are still under development. This includes essential guidance on the Materials and Resources Credit (MRc4). Currently, this guidance includes wood products with legal sourcing disclosure as meeting level 1 in the Ecosystem Health Criteria Area. We consider certified wood products to have potential for recognition under all five Criteria Areas given their leadership position in the marketplace for multi-attribute standards and continuous improvement over the past 30 years.

LEED v5 demonstrates how green building is evolving into sustainable building, considering economic benefits of energy-efficiency alongside environmental concerns and incorporating social and human impacts. This holistic approach to sustainability is essential for a leadership standard to continue to push design and construction forward.

Annex I - Calculating points for MRc4

To determine the number of points earned for MRc4, project teams will need to:

1. Categorize all eligible products under the nine eligible product categories.
2. Collect product documentation (meeting BPSP criteria – USGBC-approved list of eligible product documentation) from manufacturers to demonstrate the achievement score of each product.
3. Calculate the value (cost, area, volume, unit) of each product in each category, and the total value of all products in each category. NOTE: value units must be consistent within a product category but can vary between product categories (i.e., if all products in the flooring category use area as the value unit, and products in the paints and coatings category use cost).
4. Determine the multi-attribute score for each product in each category by summing the Value x Score for each product x 100 / Total value of all products in the category.

Points are earned based on calculations that consider the product/material's level of use in the project and the number of criteria areas they benefit.

The *product category adjusted value* for LEED is then calculated by summing the individual products' multiple attribute score multiplied by its value (cost, area, volume or unit) and then dividing by the total value of all products. The formula for calculating the multi-attribute adjusted value of a product category is:

Equation 1. Calculate the multi-attribute adjusted value of a product category

Product category adjusted value for LEED

$$= 100 \times \frac{\left(\frac{\text{Product A multi-attribute score} \times \text{Product A value}}{\text{Product A value}} \right) + \left(\frac{\text{Product B multi-attribute score} \times \text{Product B value}}{\text{Product B value}} \right) + \left(\frac{\text{Product C multi-attribute score} \times \text{Product C value}}{\text{Product C value}} \right) + \left(\frac{\text{Product D multi-attribute score} \times \text{Product D value}}{\text{Product D value}} \right)}{(\text{Total value of all products in the product category})}$$

The project earns 1 point for each product category where the *adjusted value for LEED* is greater than 100%.

Additional Resources

- Comparison of Embodied Carbon Footprint of a Mass Timber Building Structure with a Steel Equivalent. MDPI <https://www.mdpi.com/2075-5309/14/5/1276>
- Embodied Carbon Guidelines. City of Vancouver (October 2023) <https://vancouver.ca/files/cov/embodied-carbonguidelines.pdf>.
- Embodied Carbon Reduction in New Construction, Reference Guide. U.S. Department of Energy (February 2024) <https://www.energy.gov/sites/default/files/2024-02/bto-abc-embodied-carbon-022624.pdf>
- ISO 14040 Environmental management – Life cycle assessment – Principles and framework. ISO (2006) <https://www.iso.org/standard/37456.html>
- Measuring Embodied Carbon (Figure 1), Carbon Leadership Forum (CLF), (2023), <https://carbonleadershipforum.org/toolkit-2-measuring/>.
- National guidelines for whole-building life cycle assessment. Bowick, Matthew, O'Connor, Jennifer; et al. National Research Council Canada. <https://doi.org/10.4224/40002740>
- North American Material Baselines Report. Carbon Leadership Forum (CLF) <https://carbonleadershipforum.org/clf-material-baselines-2023/>
- NRMCA average EPDs. nrmca.org/association-resources/sustainability/environmentalproduct-declarations/
- The Nature of Wood – An Exploration Of The Science On Biophilic Responses To Wood. Terrapin Bright Green. https://thinkwood-wordpress.s3.amazonaws.com/wp-content/uploads/2022/01/22155521/5734-The-Nature-of-Wood_Terrapin_DRAFT_21-12-14.pdf
- The Practice of Biophilic Design, Kellert, S. and Calabrese, E. (2015) <https://www.biophilic-design.com>
- Whole Building Life Cycle Assessment: Reference Building Structure and Strategies, American Society of Civil Engineers (ASCE), (2018), <https://sp360.asce.org/personifyebusiness/Merchandise/Product-Details/productId/239605051>.

LCA and EPD Resources

LCAs and EPDs are published in several online databases (including those below) and can also be found on manufacturers' and industry-specific associations' websites.

Current EPDs for Wood Products, WoodWorks Wood Products Council.

<https://www.woodworks.org/resources/current-epds-for-wood-products/>

LCA Digital Commons, Federal LCA Commons <https://www.lcacommons.gov/>

OpenLCA Nexus, Open LCA Nexus <https://nexus.openlca.org/>

Published EPDs, Institut Bauen und Umwelt e.V. <https://ibu-epd.com/en/published-epds/>

Search EPD Database, EPD Australasia <https://epd-australasia.com/epd-search/>

Search the EPD Library, The International EPD System, (n.d.), <https://environdec.com/library>

The International EPD System, EPD International AB. <https://environdec.com/library>

Transparency Catalog, Sustainable Minds. <https://www.sustainableminds.com/>

UL Spot, UL LLC. <https://spot.ul.com>

Connect with us.



www.dovetailinc.org



Dovetail Partners' mission is to provide authoritative information about the impacts and trade-offs of environmental decisions, including consumption choices, land use and policy alternatives.

Dovetail Partners is a non-profit 501(c)(3) organization