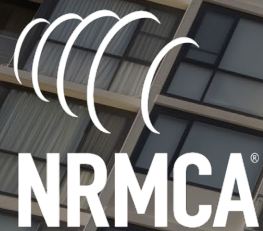


# Concrete's Contribution to LEED v5

Concrete Innovations Session 31  
LEED V5: Green Building Redefined  
July 16th, 2025

Matthew Lemay  
Manager, Codes and Sustainability Programs

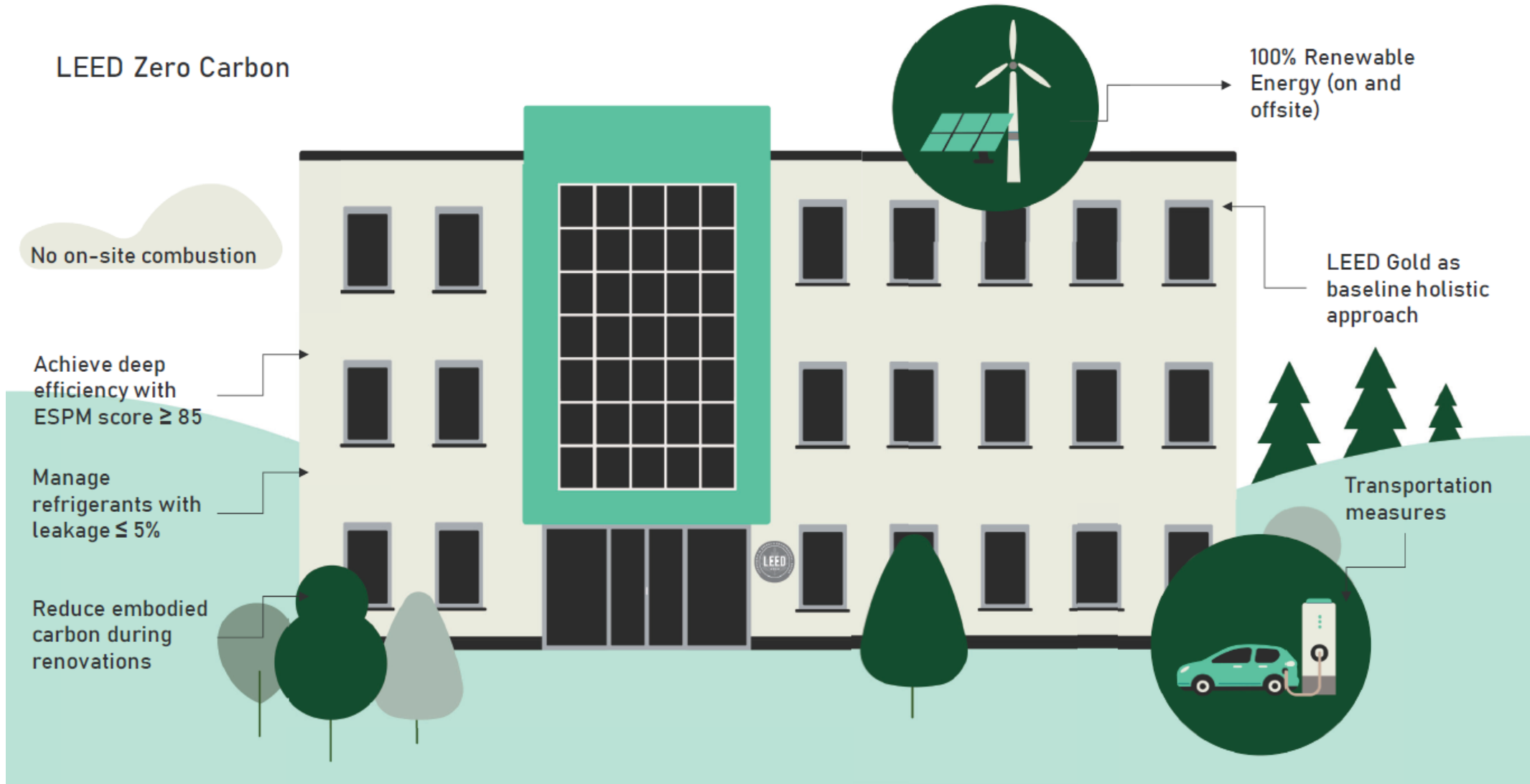
Tiffany Reed Villarreal  
Director, Sustainability Codes and Standards



# LEED v5 : System Goals

<b>SYSTEM GOALS</b>	<b>CLIMATE ACTION</b>	<b>QUALITY OF LIFE</b>	<b>ECOLOGICAL CONSERVATION &amp; RESTORATION</b>	
	<b>50% OF POINTS</b>	<b>25% OF POINTS</b>	<b>25% OF POINTS</b>	<b>WEIGHTINGS</b>

# LEED Zero Carbon



<b>Integrative Process, Planning &amp; Assessments</b>		<b>1</b>
Prereq	Climate Resilience Assessment	Required
Prereq	Social Equity Assessment	Required
Prereq	Carbon Assessment	Required
Credit	Integrative Design Process	1

<b>Location &amp; Transportation</b>		<b>15</b>
Credit	Sensitive Land Protection	1
Credit	Equitable Development	2
Credit	Compact and Connected Development	6
Credit	Active Travel Facilities	2
Credit	Transportation Demand Management	2
Credit	Electric Vehicles	2

<b>Sustainable Sites</b>		<b>11</b>
Prereq	Minimized Site Disturbance	Required
Prereq	Resilient Site Design	Required
Credit	Protect and Restore Biodiverse Habitat	2
Credit	Accessible Open Space	1
Credit	Rainwater Management	3
Credit	Enhanced Resilient Site Design	2
Credit	Heat Island Reduction	2
Credit	Light Pollution and Bird Collision Reduction	1

<b>Water Efficiency</b>		<b>9</b>
Prereq	Water Metering and Reporting	Required
Prereq	Minimum Water Efficiency	Required
Credit	Enhanced Water Efficiency	6
Credit	Water Reuse	2
Credit	Water Metering and Leak Detection	1

<b>Energy &amp; Atmosphere</b>		<b>33</b>
Prereq	Operational Carbon Projection and Decarbonization Plan	Required
Prereq	Minimum Energy Efficiency	Required
Prereq	Fundamental Commissioning	Required
Prereq	Energy Metering and Reporting	Required
Prereq	Fundamental Refrigerant Management	Required
Credit	Electrification	5
Credit	Reduce Peak Thermal Loads	5
Credit	Enhanced Energy Efficiency	10
Credit	Renewable Energy	5
Credit	Enhanced and Ongoing Commissioning	4
Credit	Grid Interactive	2
Credit	Enhanced Refrigerant Management	2

<b>Materials &amp; Resources</b>		<b>18</b>
Prereq	Planning for Zero Waste Operations	Required
Prereq	Assess Embodied Carbon	Required
Credit	Building and Materials Reuse	3
Credit	Reduce Embodied Carbon	6
Credit	Low Emitting Materials	2
Credit	Optimized Building Products	5
Credit	Construction and Demolition Waste Diversion	2

<b>Indoor Environmental Quality</b>		<b>13</b>
Prereq	Fundamental Air Quality	Required
Prereq	No Smoking or Vehicle Idling	Required
Prereq	Building Accessibility	Required
Credit	Enhanced Air Quality	1
Credit	Occupant Experience	6
Credit	Connecting with Nature	1
Credit	Enhanced Building Accessibility	1
Credit	Resilient Spaces	2
Credit	Air Quality Testing and Monitoring	2

<b>Project Priorities &amp; Innovation</b>		<b>10</b>
Credit	Project Priorities	9
Credit	LEED Accredited Professional	1

**Total Possible Points: 110**

# Materials & Resources (MR)

---

Materials and Resources (MR)		18
MRp1	Planning for Zero Waste Operations	Required
MRp2	Quantify and Assess Embodied Carbon	Required
MRc1	Building and Materials Reuse	3
MRc2	Reduce Embodied Carbon	6
MRc3	Low-Emitting Materials	2
MRc4	Building Product Selection and Procurement	5
MRc5	Construction and Demolition Waste Diversion	2

# Materials & Resources (MR)

---

Materials & Resources	18 Points	Concrete Contribution
MRp2: Quantify & Assess Embodied Carbon	Required	<ul style="list-style-type: none"><li>• Concrete is better-equipped to supply EPDs for a whole-building GWP calculation than other framing materials.</li></ul>
MRc2: Reduce Embodied Carbon	1-6	<ul style="list-style-type: none"><li>• Concrete can achieve carbon reductions of 20%-40% below benchmarks, contributing to 1-3 points from Option 2.</li></ul>
MRc5: Construction & Demolition Waste Diversion	1-2	<ul style="list-style-type: none"><li>• Divert at least 50% of total construction &amp; demolition material: 1 point</li><li>• Divert at least 75% of total construction &amp; demolition material: 2 points</li><li>• Concrete is highly recyclable and high-mass, so it can contribute to a large percentage of total recycling on a project.</li></ul>

# MRp2 Quantify and Assess Embodied Carbon

---

Quantify the embodied carbon impacts (global warming potential or GWP) of the structure, enclosure, and hardscape materials for the project.

- Cradle-gate (A1-A3) scope.
- For each material, total GWP is the product GWP times the amount of material used.

AND

- Identify the top three sources of embodied carbon on the project and describe strategies used to reduce the impact of these hot spots.

# MRp2 Quantify and Assess Embodied Carbon

Required materials: asphalt, concrete, masonry, structural steel, insulation, aluminum extrusions, structural wood and composites, cladding, and glass.

- Structural and paving materials are on an even playing field.
- Concrete is better-equipped than most materials to provide accurate GWP using EPDs.

Material	Currently valid EPDs
Asphalt	11,186
Concrete	77,060
Structural Steel	84
Wood (all types)	32
Source: Building Transparency EC3, 7/14/2025	

# Environmental Product Declarations (EPDs)

**CEMEX**  
ENVIRONMENTAL PRODUCT DECLARATION  
Mix 1534648 • Downtown - Marietta Blvd Plant

This Environmental Product Declaration (EPD) reports the impacts for 1 m<sup>3</sup> of ready mixed concrete mix, for use in business-to-business (B2B) communication meeting the following specifications:

- ASTM C94: Ready-Mixed Concrete
- UNSPSC Code 30111505: Ready Mix Concrete
- CSA A23.1/A23.2: Concrete Materials and Methods of Concrete Construction
- CSI Division 03-30-00: Cast-in-Place Concrete

**COMPANY**  
**CEMEX**  
10100 Katy Freeway, Suite 300  
Houston, TX 77043

**PLANT**  
**Downtown - Marietta Blvd Plant**  
1360 MARIETTA BOULEVARD NW  
Atlanta, GA 30318

**EPD PROGRAM OPERATOR**  
**ASTM International**  
100 Barr Harbor Drive  
West Conshohocken, PA 19428

**DATE OF ISSUE**  
09/04/2024 (valid for 5 years until 09/04/2029)  
(Portable plant validity is limited to location specified)

ISO 21930:2017 Sustainability in Building Construction — Environmental Declaration of Building Products: serves as the core PCR  
NSF/ASTM 1112-19 with 2024 deviation, PCR for Concrete, V2.3 – 2025 extension, serves as the sub-category PCR

Sub-category PCR review was conducted by Thomas P. Gloria • Industrial Ecology Consultants

Independent verification of the declaration, according to ISO 14025:2006:  internal  external

Third party verifier Thomas P. Gloria (t.gloria@industrial-ecology.com) • Industrial Ecology Consultants

**climate earth**  
EPDs made easy

For additional explanatory material  
Manufacture Representative: Sonny Foor (sonny.foor@cemex.com)  
Software Tool: CarbonCLARITY Suite, EPD Generator • Verification  
LCA & EPD Developer: Climate Earth (support@climateearth.com)

**ENVIRONMENTAL IMPACTS**  
**Declared Product:**  
Mix 1534648 • Downtown - Marietta Blvd Plant  
Description: 4000 EXT  
Compressive strength: 4000 PSI at 28 days

**Declared Unit:** 1 m<sup>3</sup> of concrete (1 cyd)

Global Warming Potential (kg CO <sub>2</sub> -eq)	303 (232)
Ozone Depletion Potential (kg CFC-11-eq)	1.14E-5 (8.70E-6)
Acidification Potential (kg SO <sub>2</sub> -eq)	1.27 (0.97)
Eutrophication Potential (kg N-eq)	0.18 (0.14)
Photochemical Ozone Creation Potential (kg O <sub>3</sub> -eq)	30.7 (23.5)
Abiotic Depletion, non-fossil (kg Sb-eq)	4.88E-5 (2.73E-5)
Abiotic Depletion, fossil (MJ)	2,127 (1,629)
Total Waste Disposed (kg)	1.28 (0.97)
Consumption of Freshwater (m <sup>3</sup> )	4.23 (3.23)

**Product Components:** crushed aggregate (ASTM C33), natural aggregate (ASTM C33), Portland cement (ASTM C150), fly ash (ASTM C618), batch water (ASTM C1602), admixture (ASTM C494), admixture (ASTM C260)

Additional detail and impacts are reported on page three of this EPD

**CEMEX**  
10100 Katy Freeway, Suite 300  
Houston, TX 77043  
713-650-6300

**DOWNTOWN - MARIETTA BLVD**  
1360 MARIETTA BOULEVARD NW  
Atlanta, GA 30318

EPDs are Third-party verified & registered documents that communicate environmental impacts...

**Declared Unit: 1 m<sup>3</sup> of concrete (1 cyd)**

**Global Warming Potential (kg CO<sub>2</sub>-eq)**

**303 (232)**

...most importantly GWP (global warming potential), measured in kg CO<sub>2</sub> equivalent per cubic yard, while protecting proprietary information such as

- Quantities in mix design
- Specific products and suppliers



[nrmca.org/epd](https://nrmca.org/epd)



**Concrete Innovations  
Session 13:  
Measuring and Reducing  
Environmental Impacts**

# MRC2 Reduce Embodied Carbon

---

Compare the embodied carbon (GWP) of the structure, enclosure, and hardscape materials to a benchmark.

Multiple compliance paths:

Option 1: Whole-building LCA	1-6 points	Conduct a cradle-to-grave whole-building life cycle assessment (WBLCA). <u>Rarely used.</u> Methods that cover all materials are not standardized.
Option 2, Path 1: EPD Analysis	1-3 points	Create a whole-building carbon budget for eligible materials & compare to a benchmark. <u>Achievable today using EPDs.</u>
Option 2, Path 2: Materials-type Approach	1-2 points	Achieve below-average GWP in 3 materials (1 point) or 5 materials (2 points). <u>Achievable today even with limited EPD availability.</u>

# MRc2 Reduce Embodied Carbon

## Option 2, Path 1: EPD Analysis

A whole-building carbon budget is created by multiplying the benchmark GWP of each product (concrete mix) by its volume, then totaling all concrete mixes' GWP.

NRMCA industry average benchmarks are referenced by Carbon Leadership Forum (CLF) and accepted by LEED V5.

Application	Strength (psi)	Benchmark GWP per yd (kg CO2e)	Quantity (yds)	Total GWP (kg CO2e)
Shear Walls	6,000	295	7,630	2,250,850
Columns	8,000	341	366	124,806
Floors 2-18	5,000	279	4,533	1,264,707
Floors B2-1	5,000	279	1,067	297,693
Basement Walls	5,000	279	444	123,876
Foundation	6,000	295	2,844	838,880
<b>Project Total GWP:</b>				<b>4,900,812</b>



# MRC2 Reduce Embodied Carbon

## Option 2, Path 1: EPD Analysis

Actual GWPs (from EPDs) are totaled. This is done for each required material.

Application	Strength (psi)	Benchmark GWP per yd (kg CO2e)	Actual GWP per yd (kg CO2e)	Quantity (yds)	Total GWP (kg CO2e)
Shear Walls	6,000	295	214 (-22%)	7,630	1,632,072
Columns	8,000	341	249 (-27%)	366	91,134
Floors 2-18	5,000	279	283 (+1.4%)	4,533	1,282,839
Floors B2-1	5,000	279	249 (-10.7%)	1,067	265,683
Basement Walls	5,000	279	229 (-10.7%)	444	101,676
Foundation	6,000	295	180 (-39%)	2,844	511,920
<b>Achieved concrete GWP:</b>					<b>3,886,072</b>
<b>Benchmark concrete GWP:</b>					<b>4,900,812</b>
<b>GWP reduction from concrete:</b>					<b>-20.7%</b>



# NRMCA Carbon Concrete Calculator

---

For ready-mix suppliers and concrete contractors to:

- Estimate the environmental impacts of concrete on a whole-building basis **using LEED methodology**
- Optimize concrete mix designs to meet reduction targets **for LEED and non-LEED projects**



[nrmca.org/sustainability](https://nrmca.org/sustainability)

# MRc2 Reduce Embodied Carbon

For Option 2, Path 1 EPD Analysis, points are awarded based on the total carbon reduction achieved across all materials.

For Path 2, Option 2 Materials-Type Approach, points are awarded based on the number of products that have better-than-average total GWPs compared to their industry benchmarks.

	Option 1 Whole-building LCA	Option 2	
		Path 1 EPD Analysis	Path 2 Materials-Type Approach
Meets baseline/industry average	2 points	1 point	3 materials: 1 point 5 materials: 2 points
10% reduction in GWP	3 points		
20% reduction in GWP (Platinum prerequisite)	4 points	2 points	
30% reduction in GWP	5 points		
40%+ reduction in GWP	6 points	3 points	

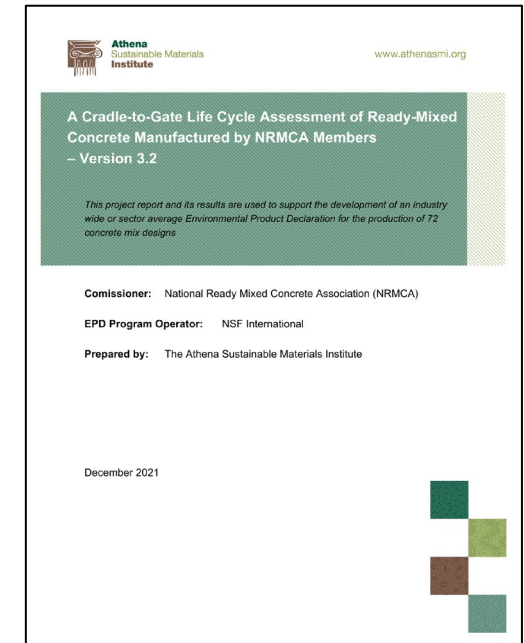
# MRc2 Reduce Embodied Carbon Benchmarks

"Industry averages for embodied carbon intensity values are defined by the U.S. EPA, **the most recent CLF Material Baselines report**, or similarly robust and widely recognized publications and industry-wide EPDs **applicable to the project region.**"



2025 CLF North American Material Baselines Report

June 2025



CLF Baselines incorporate NRMCA's regional benchmarks directly. A new regional benchmark will be published by end of year.



Figure D1-NRMCA Regions

# Materials & Resources (MR)

---

Materials & Resources	18 Points	Concrete Contribution
MRp2: Quantify & Assess Embodied Carbon	Required	<ul style="list-style-type: none"><li>Concrete is better-equipped to supply EPDs for a whole-building GWP calculation than other framing materials.</li></ul>
MRc2: Reduce Embodied Carbon	1-6	<ul style="list-style-type: none"><li>Concrete can achieve carbon reductions of 20%-40% below benchmarks, contributing to 1-3 points from Option 2.</li></ul>
MRc5: Construction & Demolition Waste Diversion	1-2	<ul style="list-style-type: none"><li>Divert at least 50% of total construction &amp; demolition material: 1 point</li><li>Divert at least 75% of total construction &amp; demolition material: 2 points</li><li>Concrete is highly recyclable and high-mass, so it can contribute to a large percentage of total recycling on a project.</li></ul>



<b>Integrative Process, Planning &amp; Assessments</b>		<b>1</b>
Prereq	Climate Resilience Assessment	Required
Prereq	Social Equity Assessment	Required
Prereq	Carbon Assessment	Required
Credit	Integrative Design Process	1

<b>Location &amp; Transportation</b>		<b>15</b>
Credit	Sensitive Land Protection	1
Credit	Equitable Development	2
Credit	Compact and Connected Development	6
Credit	Active Travel Facilities	2
Credit	Transportation Demand Management	2
Credit	Electric Vehicles	2

<b>Sustainable Sites</b>		<b>11</b>
Prereq	Minimized Site Disturbance	Required
Prereq	Resilient Site Design	Required
Credit	Protect and Restore Biodiverse Habitat	2
Credit	Accessible Open Space	1
Credit	Rainwater Management	3
Credit	Enhanced Resilient Site Design	2
Credit	Heat Island Reduction	2
Credit	Light Pollution and Bird Collision Reduction	1

<b>Water Efficiency</b>		<b>9</b>
Prereq	Water Metering and Reporting	Required
Prereq	Minimum Water Efficiency	Required
Credit	Enhanced Water Efficiency	6
Credit	Water Reuse	2
Credit	Water Metering and Leak Detection	1

<b>Energy &amp; Atmosphere</b>		<b>33</b>
Prereq	Operational Carbon Projection and Decarbonization Plan	Required
Prereq	Minimum Energy Efficiency	Required
Prereq	Fundamental Commissioning	Required
Prereq	Energy Metering and Reporting	Required
Prereq	Fundamental Refrigerant Management	Required
Credit	Electrification	5
Credit	Reduce Peak Thermal Loads	5
Credit	Enhanced Energy Efficiency	10
Credit	Renewable Energy	5
Credit	Enhanced and Ongoing Commissioning	4
Credit	Grid Interactive	2
Credit	Enhanced Refrigerant Management	2

<b>Materials &amp; Resources</b>		<b>18</b>
Prereq	Planning for Zero Waste Operations	Required
Prereq	Assess Embodied Carbon	Required
Credit	Building and Materials Reuse	3
Credit	Reduce Embodied Carbon	6
Credit	Low Emitting Materials	2
Credit	Optimized Building Products	5
Credit	Construction and Demolition Waste Diversion	2

<b>Indoor Environmental Quality</b>		<b>13</b>
Prereq	Fundamental Air Quality	Required
Prereq	No Smoking or Vehicle Idling	Required
Prereq	Building Accessibility	Required
Credit	Enhanced Air Quality	1
Credit	Occupant Experience	6
Credit	Connecting with Nature	1
Credit	Enhanced Building Accessibility	1
Credit	Resilient Spaces	2
Credit	Air Quality Testing and Monitoring	2

<b>Project Priorities &amp; Innovation</b>		<b>10</b>
Credit	Project Priorities	9
Credit	LEED Accredited Professional	1

**Total Possible Points: 110**

# Integrative Process, Planning and Assessment (IP)

## Integrative Process, Planning and Assessments (IP)

1

IPp1 Climate Resilience Assessment

IPp2 Human Impact Assessment

IPp3 Carbon Assessment

IPc1 Integrative Design Process

Required

Required

Required

1



# New Resilience Prerequisite LEED v5

## Prerequisites & Credits for Resilience

Identify observed, projected, and future natural hazards and assess relevant effects to the project site and building function.



**IP Prerequisite: Climate Resilience Assessment**



SS Prerequisite Resilient Site Design



SS Credit: Enhanced Resilient Site Design



EQ Credit: Resilient Spaces

- Drought
- Earthquake
- Extreme Heat and Cold
- Flooding
- Hurricane and High Winds
- Hail
- Landslide
- Sea Level Rise and Storm Surge
- Tornado
- Tsunami
- Wildfire and Smoke
- Winter Storm
- Other (Specify)



# Sustainable Sites (SS)

Sustainable Sites (SS)		11
SSp1	Minimize Site Disturbance	Required
SSc1	Biodiverse Habitat	2
SSc2	Accessible Outdoor Space	1
SSc3	Rainwater Management	3
SSc4	Enhanced Resilient Site Design	2
SSc5	Heat Island Reduction	2
SSc6	Light Pollution Reduction	1

Concrete's inherent properties make an excellent material for supporting V5 Sustainable Sites Credits.

# Sustainable Sites (SS)

Sustainable Sites	11 Points	Concrete Contribution
Heat Island Reduction	1-2	<ul style="list-style-type: none"><li>• Light colored pavements raise site albedo</li><li>• Parking under cover (concrete, solar panels)</li><li>• Trees and other overhead cover</li></ul>
Light Pollution Reduction	1	<ul style="list-style-type: none"><li>• Light colored pavements reduce lighting requirements</li></ul>
Rainwater Management	1-3	<ul style="list-style-type: none"><li>• Concrete water collection and distribution</li><li>• Pervious concrete pavement</li><li>• Storm pipe, Retention and Detention Systems</li></ul>

# Sustainable Sites (SS)

Sustainable Sites	11 Points	Concrete Contribution
Accessible Outdoor Space	1	<ul style="list-style-type: none"><li>• Light colored pavements improve site albedo</li><li>• Vegetated roofs</li><li>• Maximize outdoor access to nature and views for occupants</li></ul>
Enhanced Resilient Design	2	<ul style="list-style-type: none"><li>• Address 2 of the highest priority hazards identified in the IPp1: Climate Resilience Assessment.</li></ul>



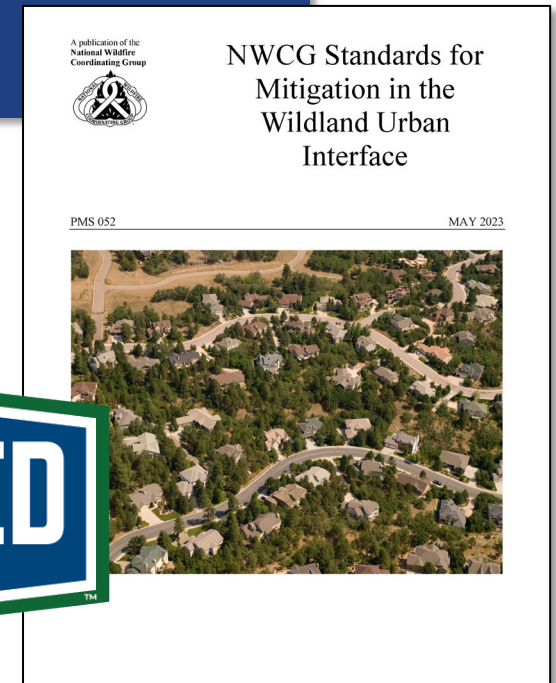
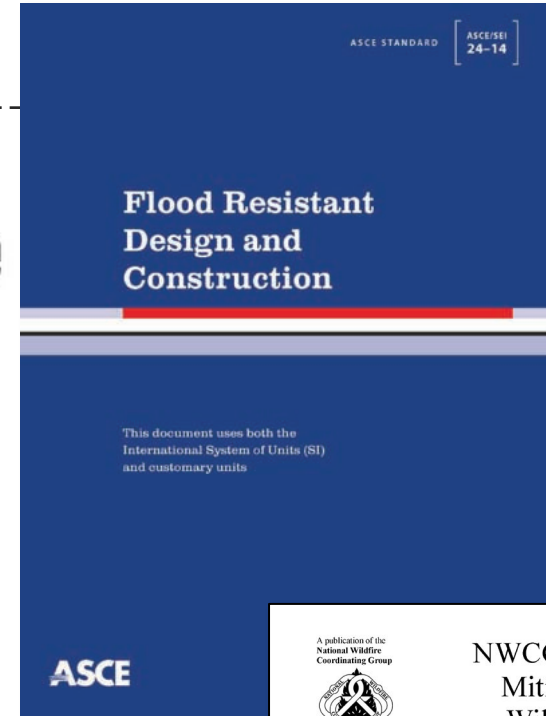
# LEED V5 : Resilience

## Prerequisites & Credits for Resilience

### 2 Points

- **Drought**
- **Earthquake**
- **Extreme Heat and Cold**
- **Flooding**
- **Hurricane and High Winds**
- **Hail**
- **Landslide**
- **Sea Level Rise and Storm Surge**
- **Tornado**
- **Tsunami**
- **Wildfire and Smoke**
- **Winter Storm**
- **Other (Specify)**

	IP Prerequisite: Climate Resilience Assessment
	SS Prerequisite Resilient Site Design
	<b>SS Credit: Enhanced Resilient Site Design</b>
	EQ Credit: Resilient Spaces



# Water Efficiency (WE)

Water Efficiency (WE)		9
WEp1	Water Metering and Reporting	Required
WEp2	Minimum Water Efficiency	Required
WEc1	Water Metering and Leak Detection	1
WEc2	Enhanced Water Efficiency	8

Water Efficiency	9 Points	Concrete Contribution
Water Reuse	1-2	<ul style="list-style-type: none"><li>Onsite water reuse systems can use concrete collection and storage</li></ul>

# Energy and Atmosphere (EA)

## Energy and Atmosphere (EA)

33

EAp1	Operational Carbon Projection and Decarbonization Plan	Required
EAp2	Minimum Energy Efficiency	Required
EAp3	Fundamental Commissioning	Required
EAp4	Energy Metering and Reporting	Required
EAp5	Fundamental Refrigerant Management	Required
EAc1	Electrification	5
EAc2	Reduce Peak Thermal Loads	5
EAc3	Enhanced Energy Efficiency	10
EAc4	Renewable Energy	5
EAc5	Enhanced Commissioning	4
EAc6	Grid Interactive	2
EAc7	Enhanced Refrigerant Management	2

# Energy and Atmosphere (EA)

## Energy & Atmosphere

33 Points Concrete Contribution

Reduce Peak Thermal Loads

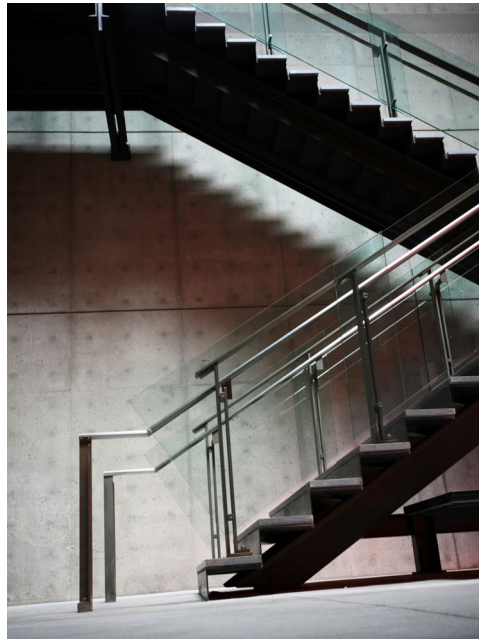
1-5

- Thermal mass to meet Passive House Requirements

Enhanced Energy Efficiency

1-10

- Thermal mass to improve energy efficiency



# Location and Transportation (LT)

## Location and Transportation (LT)

15

LTc1 Sensitive Land Protection

1

LTc2 Equitable Development

2

LTc3 Compact and Connected Development

6

LTc4 Transportation Demand Management

4

LTc5 Electric Vehicles

2

## Energy & Atmosphere

33 Points Concrete Contribution

Compact and Connected Development

6

- Compact Development - concrete excels for multi story construction

# Indoor Environmental Quality (EQ)

Indoor Environmental Quality (EQ)		13
EQp1	Construction Management	Required
EQp2	Fundamental Air Quality	Required
EQp3	No Smoking or Vehicle Idling	Required
EQc1	Enhanced Air Quality	1
EQc2	Occupant Experience	7
EQc3	Accessibility and Inclusion	1
EQc4	Resilient Spaces	2
EQc5	Air Quality Testing and Monitoring	2

Indoor Environmental Quality	13 Points	Concrete Contribution
Occupant Experience	1-7	<ul style="list-style-type: none"> <li>• Thermal mass to meet Passive House Requirements</li> </ul>
Resilient Spaces	2	<ul style="list-style-type: none"> <li>• Thermal mass to improve energy efficiency</li> </ul>

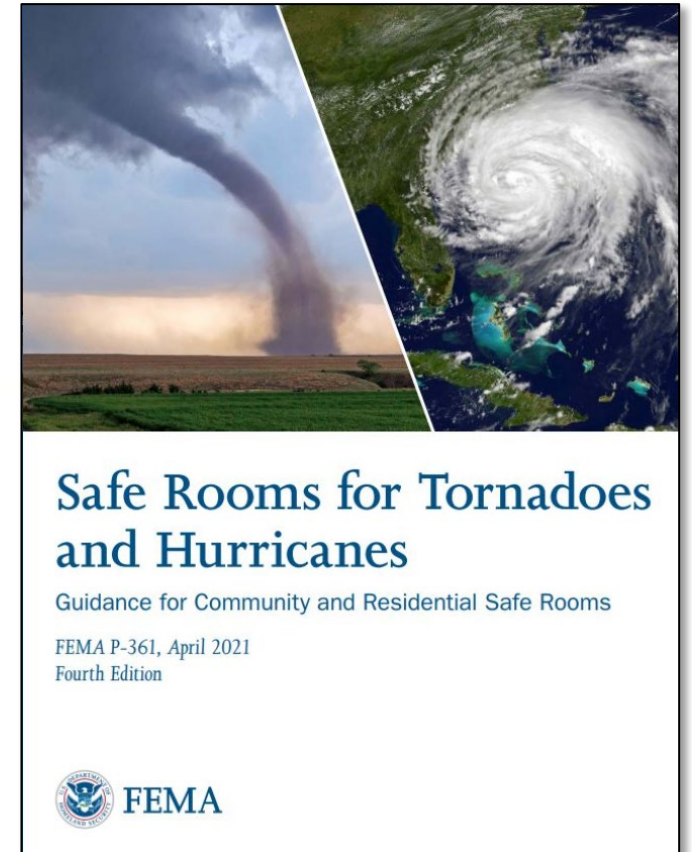
# Indoor Environmental Quality (EQ)

## Prerequisites & Credits for Resilience

	IP Prerequisite: Climate Resilience Assessment
	SS Prerequisite Resilient Site Design
	SS Credit: Enhanced Resilient Site Design
	<b>EQ Credit: Resilient Spaces</b>

### 1-2 Points

- Drought
- **Earthquake**
- **Extreme Heat and Cold**
- Flooding
- **Hurricane and High Winds**
- Hail
- Landslide
- Sea Level Rise and Storm Surge
- **Tornado**
- Tsunami
- Wildfire and Smoke
- Winter Storm
- Other (Specify)



# Concrete Innovations - Resilience

## Satisfying LEED v5 Resilience Requirements

**Julian Mills-Beale, PhD**

Director, Civil/Structural Codes and Standards  
NRMCA

---

May 14 2025 | 11:00 am

**BUILD WITH  
STRENGTH**



# Requirements BD+C for Platinum

<b>BD+C</b>	<b>22 Points</b>	
<b>Highly energy-efficient</b>	<b>10</b>	<ul style="list-style-type: none"><li>• Earn 10 points under EA credit Enhanced Energy Efficiency</li></ul>
<b>Has no GHGs from on-site emissions except emergency and backup needs</b>	<b>5</b>	<ul style="list-style-type: none"><li>• Earn 5 points under EA credit Electrification</li></ul>
<b>Has 100% renewable energy from on-site/off-site sources</b>	<b>5</b>	<ul style="list-style-type: none"><li>• Earn 5 points under EA credit Renewable</li></ul>
<b>Reduces embodied carbon</b>	<b>2</b>	<ul style="list-style-type: none"><li>• Earn 2 Points under Materials and Resources (MR) credit Reduce Embodied Carbon, Options 1-3</li></ul>

# Maximizing LEED Value of Concrete



## Embodied Carbon

Concrete innovations support MRp2 and MRc2 credits by enabling better quantification and reduction of embodied carbon, essential for achieving higher LEED ratings including Platinum level.



## Recycling Benefits

Concrete's role in MRc5 Construction and Demolition Waste Diversion helps reduce landfill waste and supports circular economy practices, contributing points toward LEED credits.



## Energy & Thermal Efficiency

Concrete's thermal mass properties aid in meeting EAc2 and EAc3 credits by reducing peak thermal loads and enhancing overall building energy efficiency.



## Resilience Contributions

Concrete enhances building resilience by supporting IPp1 Climate Resilience Assessment, EQc4 Resilient Spaces, and SSc5 Heat Island Reduction credits, improving durability and occupant comfort.



# Concrete's Contribution to LEED v5

Concrete Innovations Session 31  
LEED V5: Green Building Redefined  
July 16th, 2025

Matthew Lemay  
Manager, Codes and Sustainability Programs

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