



AGGREGATE • BLOCK • CONCRETE

Concrete Masonry LEED Credits

Concrete masonry units of all types are excellent building materials for commercial and industrial building. The wide variety of products offers flexibility and ease of installation attributes for a cost-effective, durable and attractive end result.

There is flexibility in regards to the design and construction. Often no skilled labor or heavy machinery is required allowing for reduction of labor and equipment. Concrete masonry's strength and durable composition along with its green building advantages make it a strong building alternative to other building options.

Concrete masonry plays an important role in realizing Leadership in Energy and Environmental Design (LEED) projects. The qualification for LEED certification begins at 26 credit points. Masonry's contribution of up to 35 LEED credit points offers a great way to reach LEED certification while keeping costs reasonable, reducing maintenance and extending sustainability.

Below please find the credit locations and points where concrete masonry is applicable:

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Sustainable Sites: 6 Points

Credit 2 Development Density & Community Connectivity
Construct or renovate building on a previously developed site AND in a community with a minimum density of 60,000 square feet per acre net.

- Masonry enables designs that take advantage of challenging urban sites.
- Small modular units do not require large equipment for delivery and placement.
- Masonry provides firewall/separation.
- Minimum staging area required.

Points: 1

Credit 5.2 Maximize Open Space.
Provide a high ratio of open space to development footprint to promote biodiversity.

- Use load-bearing masonry to stack building program.
- Use concrete and CMU for below building parking.

Points: 1

Credit 6.1 Storm water Design, Rate and Quantity Control Limit disruption of natural water flows by managing storm water runoff.

- Permeable masonry units available to address runoff.

Points: 1

Credit 6.2 Storm water Design, Treatment. Implement a Storm water management plan that reduces impervious cover, promotes on-site filtration and eliminates contaminants.

- Use permeable pavers and flexible masonry pavements to allow water to filter back into the ground.

Points: 1

Credit 7.1 Heat Island Effect, Non-Roof. *Reduce heat islands.*

- Use light-colored masonry units with a Solar Reflectance Index (SRI) of at least 29.
- Use open-cell pavers with vegetation.

Points: 1

Credit 7.2 Heat Island Effect, Roof. *Reduce heat islands - minimize impact on microclimate.*

- Use light-colored masonry units with a Solar Reflectance Index (SRI) of at least 29.
- Use open-cell pavers with vegetation.

Points: 1

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Energy and Atmosphere: Up to 10 Points

- Credit 1 Optimize Energy Performance.
Improve energy efficiency above ASHRAE baseline prerequisites.
- The building envelope is an important component of the facility which impacts energy consumption, occupant comfort and indoor air quality.
 - Incorporate energy efficient thermal mass masonry designs to reduce peak heating and cooling loads, shift peak loads to non-peak hours, moderate indoor temperature swings, and reduce size of HVAC systems.
 - Masonry wall assemblies can easily achieve high R-values.
- Points: 10**

Indoor Environmental Quality: Up to 4 Points

- Credit 3.1 Construction IAQ Management Plan, During Construction
Reduce indoor air quality problems resulting from the construction/renovation process to help sustain the comfort and well-being of construction workers and building occupants.
- Masonry materials are not a food source for mold.
 - Masonry materials are easily protected from moisture during construction.
- Points: 1**
- Credit 4.1 Low-Emitting Materials: Adhesives & Sealants: Reduce quantity of indoor contaminants.
- Most masonry materials do not require adhesives or sealants.
 - Ceramic, Stone, and Terrazzo Tiles can be installed with low-VOC adhesives and sealants.
- Points: 1**
- Credit 4.2 Low-Emitting Materials: Paints & Coatings: Reduce quantity of indoor contaminants.
- Use Masonry materials such as concrete block or AAC that allow for low-VOC paint applications.
- Points: 1**
- Credit 7.1 Thermal Comfort, Design.
- Use Masonry materials such as concrete block or AAC for increased thermal energy resistance.
 - Insulated masonry wall systems provide superior R values for consistent temperatures.
- Points: 1**

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Materials & Resources: Up to 11 Points

- Credit 1.1 Building Reuse.
- Maintain 75% of Existing Walls, Floors & Roof
- Points: 1**
- Credit 1.2 Building Reuse.
- Maintain 100% of existing Walls, Floors & Roof 1
- Points: 1**
- Credit 1.3 Building Reuse.
- Maintain 50% of Interior Non-Structural Elements
 - Masonry's inherent durability allows for reuse of the entire building or core and shell. Consider reuse of existing masonry building rather than new construction.
- Points: 1**
- Credit 2.1 Construction Waste Management.
- Divert 50% from Disposal. Masonry materials are easily recycled at the jobsite and be crushed and recycled into new materials or aggregates.
- Points: 1**
- Credit 2.2 Construction Waste Management.
- Divert 75% from Disposal. Masonry materials are easily recycled at the jobsite and be crushed and recycled into new materials or aggregates.
- Points: 1**
- Credit 3.1 Materials.
- Reuse, 5%. Salvage and reuse masonry materials.
- Points: 1**
- Credit 3.2 Materials.
- Reuse, 10%. Salvage and reuse masonry materials.
- Points: 1**
- Credit 4.1 Recycled Content.
- 10% (post-consumer + 1/2 pre-consumer)
 - Masonry production uses many post-consumer and post-industrial recycled products.
 - Use materials manufactured with percentage of recycled content.
 - Grout may contain recycled products such as fly ash.
 - Use recycled concrete as an aggregate in new concrete
- Points: 1**

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- Credit 4.2 Recycled Content.
- 20% (post-consumer + 1/2 pre-consumer) 1
 - Masonry production uses many post-consumer and post-industrial recycled products.
 - Use materials manufactured with percentage of recycled content.
 - Grout may contain recycled products such as fly ash.
 - Use recycled concrete as an aggregate in new concrete.
- Points: 1**

- Credit 5.1 Regional Materials.
- 10% Extracted, Processed & Manufactured Regionally 1
 - Masonry materials are available locally and assembled on-site.
- Points: 1**

- Credit 5.2 Regional Materials.
- 20% Extracted, Processed & Manufactured Regionally
 - Masonry materials are available locally and assembled on-site.
- Points: 1**

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Innovation and Design Process: 4 Points

Note: The Innovation and Design credits are awarded for exceptional performance above LEED requirements. Below are some areas to consider that go standard applications.

- Credit 1.1 Innovation in Design: Structural advantages.
- Use Structural Masonry systems such as Load Bearing Walls and Post tensioned masonry.
- Points: 1**
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- Credit 1.2 Innovation in Design: Life-cycle benefits.
- Analyze life-cycle and durability potential of masonry materials.
- Points: 1**
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- Credit 1.3 Innovation in Design: Acoustic Performance.
- Incorporate masonry elements to address acoustic requirements.
- Points: 1**
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- Credit 1.4 Innovation in Design: Improved Air Quality.
- Masonry materials improve air quality by reducing the possibility of mold.
- Points: 1** |

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