

How GreenGrid® Contributes to LEED® Certification

The wide variety of benefits associated with green roofs is captured to varying degrees in the U.S. Green Building Council's LEED rating system. While every green roof project is different, and the extent to which a green roof on any building can help earn credits varies, this guide offers basic direction in maximizing your GreenGrid® roof design to help achieve LEED certification.

Credits are organized by their role category—prominent, supporting, or ancillary.



The LEED® green building certification program is the nationally accepted benchmark for the design, construction, and operation of green buildings.



Credits Where GreenGrid® Plays a Prominent Role

Sustainable Sites

SS Credit 5.1 – Site Development – Protect or Restore Habitat (1 point)

- Projects earning SS2 (Development Density and Community Connectivity) may include vegetated roof surface in this calculation if the plants are native or adapted, provide habitat, and promote biodiversity.
- Once established, native/adapted plants require minimal or no irrigation; do not require active maintenance such as mowing or chemical inputs such as fertilizers, pesticides or herbicides; and provide habitat value and promote biodiversity through avoidance of monoculture plantings.

SS Credit 5.2 – Site Development – Maximize Open Space (1 point)

- Projects in urban areas earning SS credit 2, vegetated roofs can contribute to credit compliance

SS Credit 6.1 – Storm Water Design: Quantity Control (1 point)

- Specify vegetated roofs, pervious paving and other measures to minimize impervious surfaces.

SS Credit 6.2 – Storm Water Design: Quality Control (1 point)

- Use alternative surfaces (e.g., vegetated roofs, pervious pavement, grid pavers) and nonstructural techniques (e.g., rain gardens, vegetated swales, disconnection of imperviousness, rainwater recycling) to reduce imperviousness and promote infiltration and thereby reduce pollutant loadings.

SS Credit 7.2 – Heat Island Effect: Roof (1 point)

- Install a vegetated roof for at least 50% of the roof or Install high albedo and vegetated roof in combination
 $(\text{Area of SRI roof}/0.75) + (\text{Area of Veg Roof}/0.50) \geq \text{Total Roof Area}$
- Exemplary Performance Credit – Vegetate 100% (less mechanicals, pv, skylight, etc.) of the roof (ID Credit 1.1 – 1 point)

Based on USGBC LEED® for New Construction Version 3 (2009)



Credits Where GreenGrid® Roofs Play a Supporting Role

Water Efficiency

WE Credit 1 -Water Efficient Landscaping (**Potential: 2-4 Points**)

- If this credit is pursued, be sure to design the green roof system without permanent irrigation, or if irrigation is necessary, minimize potable consumption with drip irrigation and/or irrigation with reclaimed water.
- **Option 1:** 2 points for reducing potable water for irrigation by 50%
- **Option 2:** 4 points for no potable water use for irrigation. Temporary irrigation systems for plant establishment acceptable if removed within 1 year to 18 months of installation.
- If the percent reduction of potable water is 100% AND the percent reduction of total water is equal to or greater than 50%, both Option 1 and Option 2 are earned.

Energy and Optimization

EA Credit 1 - Optimize Energy Performance (**Potential: Up to 19 Points**)

- Vegetated roofs can aid in the reduction of the energy demand for the project. Demonstrate a percentage improvement in the proposed building performance rating compared with the baseline building performance rating.

Credits Where GreenGrid® Provides Additional Impact

Materials and Resources

MR Credit 3 – Material Reuse (**Potential: 1-2 Points**)

- Reuse building materials and products to reduce demand for virgin materials and reduce waste, thereby lessening impacts associated with the extraction and processing of virgin resources.
- The sum of reused materials must constitute at least 5% or 10%, based on cost, of the total value of materials on the project.

MR 4 – Recycled Content (**Potential: 1-2 points**)

- Modules, pavers, edge treatments, and growth media components (compost) are from both pre-consumer and post-consumer materials
- Contributes towards having 10% to 20% of the total value of project materials originating from recycled material
- Potential 1 to 2 points (10% or 20%, respectively), depending on the overall percent of project recycled materials

MR 5.1 – Regional Material (**Potential: 1-2 points**)

- 10% or 20% of product, depending on the overall percent of materials extracted, must be manufactured and assembled within 500 miles.

Summary

Overall, the GreenGrid® Green Roof system installed on 50% or more of the roof surface virtually guarantees 2 LEED® points and can contribute an additional 7+ points toward LEED® certification, almost 20% of the total needed to certify.

For More Information

Local contacts are available on our Web site
www.GreenGridRoofs.com
or contact our headquarters office at
847-918-4000

