

- [Credits](#)
- [Green infrastructure & buildings](#)
 - [Awareness & education](#)
 - [Energy & atmosphere](#)
 - [Indoor environmental quality](#)
 - [Innovation & design process](#)
 - [Location & linkages](#)
 - [Material & resources](#)
 - [Sustainable sites](#)
 - [Water efficiency](#)
- [GIB11 | Heat island reduction](#)
 - [GIB101 | Certified green building](#)
 - [GIB102 | Minimum building energy performance](#)
 - [GIB103 | Indoor water use reduction](#)
 - [GIB104 | Construction activity pollution prevention](#)
 - [GIB105 | Certified green buildings](#)
 - [GIB106 | Outdoor water use reduction](#)
 - [GIB107 | Building reuse](#)
 - [GIB108 | Historic resource preservation and adaptive reuse](#)
 - [GIB109 | Minimized site disturbance](#)
 - [GIB110 | Rainwater management](#)
 - [GIB111 | Heat island reduction](#)
 - [GIB112 | Solar orientation](#)
 - [GIB113 | Renewable energy production](#)
 - [GIB114 | District heating and cooling](#)
 - [GIB115 | Infrastructure energy efficiency](#)
 - [GIB116 | Wastewater management](#)
 - [GIB117 | Recycled and reused infrastructure](#)
 - [GIB118 | Solid waste management](#)
 - [GIB119 | Light pollution reduction](#)
 - [GIB902 | Optimize building energy performance](#)
 - [GIB903 | Indoor water use reduction](#)
 - [GIBc1 | Certified green buildings](#)
 - [GIBc10 | Solar orientation](#)
 - [GIBc11 | On-site renewable energy sources](#)
 - [GIBc12 | District heating and cooling](#)
 - [GIBc13 | Infrastructure energy efficiency](#)
 - [GIBc14 | Wastewater management](#)
 - [GIBc15 | Recycled content in infrastructure](#)
 - [GIBc16 | Solid waste management infrastructure](#)
 - [GIBc17 | Light pollution reduction](#)
 - [GIBc2 | Building energy efficiency](#)
 - [GIBc3 | Building water efficiency](#)
 - [GIBc4 | Water efficient landscaping](#)
 - [GIBc5 | Existing building reuse](#)
 - [GIBc6 | Historic resource preservation and adaptive use](#)
 - [GIBc7 | Minimized site disturbance in design and construction](#)
 - [GIBc8 | Stormwater management](#)
 - [GIBc9 | Heat island reduction](#)
 - [GIBp1 | Certified green building](#)
 - [GIBp2 | Minimum building energy efficiency](#)
 - [GIBp3 | Minimum building water efficiency](#)
 - [GIBp4 | Construction activity pollution prevention](#)

Our "watch" feature allows you to stay current on all aspects of this specific credit. In your account, you can control what you get updated on and how you receive your notifications. [Hide](#)

LEED ND: Built Project | v4 - LEED v4

Heat island reduction

Possible 1 point

1 result in All .

- [Glossary](#)

Intent

To minimize effects on microclimates and human and wildlife habitats by reducing heat islands.

Requirements

Option 1. Nonroof (1 point)

Use any combination of the following strategies for 50% of the nonroof site paving (including roads, sidewalks, courtyards, parking lots, parking structures, and driveways).

- Use the existing plant material or install plants that provide shade over the paving areas on the site within 10 years of plant material installation.
- Install and plant planters, either at grade or raised. Plant material cannot include artificial turf.
- Provide shade with structures covered by energy generation systems, such as solar thermal collectors, photovoltaics, and wind turbines, that produce energy used to offset some nonrenewable resource use.
- Provide shade with architectural devices or structures that have a three-year aged [solar reflectance \(SR\)](#) value of at least 0.28. If three-year aged value information is not available, use materials with an initial SR of at least 0.33 at installation.
- Provide shade with vegetated structures.
- Use paving materials with a three-year aged solar reflectance (SR) value of at least 0.28. If three-year aged value information is not available, use materials with an initial SR of at least 0.33 at installation.
- Use an [open-grid pavement system](#) (at least 50% unbound).

OR

Option 2. High-reflectance and vegetated roofs (1 point)

Use roofing materials that have an SRI equal to or greater than the values in Table 1. Meet the three-year aged SRI value (if three-year aged value information is not available, use materials that meet the initial SRI value) for a minimum of 75% of the roof area of all new buildings within the project, or install a vegetated ("green") roof for at least 75% of the roof area of all new buildings within the project. Combinations of SRI-compliant and vegetated roofs can be used, provided they satisfy the equation in Option 3.

Table 1. Minimum solar reflectance index value, by roof slope

	Slope	Initial SRI OR	3-year aged SRI
Low-sloped roof	≤ 2:12	82	64
Steep-sloped roof	> 2:12	39	32

OR

Option 3. Mixed nonroof and roof measures (1 point)

Use any of the strategies listed under Options 1 and 2 that in combination meet the following criterion:

$$\frac{\text{Area of Nonroof Measures}}{0.5} + \frac{\text{Area of High-Reflectance Roof}}{0.75} + \frac{\text{Area of Vegetated Roof}}{0.75} \geq \frac{\text{Total Site Paving Area}}{\text{Total Roof Area}}$$

Alternatively, an SRI and SR weighted average approach may be used to calculate compliance.

0 comments [Leave a comment](#)

Leave a comment Don't have an account? [Create one](#)

You must be signed in to leave a comment.

Email

Password