



LEED 2009 for Existing Buildings: Operations and Maintenance

SS CREDIT 7.2: HEAT ISLAND EFFECT - ROOF

All fields and uploads are required unless otherwise noted.

ALL OPTIONS

This static sample form has been modified for offline access. All sections of the form are visible. Sample forms are for reference only.

Select one of the following:

- ☐ LEED Design & Construction Streamlined Path. The project earned at least one point related to roof-related heat island reduction strategies under LEED for New Construction, LEED for Core and Shell, or LEED for Schools
- ☐ Operations & Maintenance Submittal Path. The project team will document compliance with the heat island reduction requirements of LEED-EB: O&M SS Credit 7.2



DESIGN & CONSTRUCTION STREAMLINED PATH

Upload L-7. Provide the USGBC-generated LEED Certification Scorecard of the previously-certified building.

- ☐ The project earned an exemplary performance point for roof-related heat island reduction strategies under LEED for New Construction, LEED for Core and Shell, or LEED for Schools.

Select one of the following:

- ☐ **Change:** The design and construction elements that contributed to the previously-earned credit related to heat island reduction through roof strategies have been altered, replaced, or removed since D&C certification of the project.
- ☐ **No Change:** The design and construction elements that contributed to the previously-earned credit related to heat island reduction through roof strategies have not been altered, replaced, or removed since D&C certification of the project. These changes do not put into question the potential achievement of EB SSc7.2.

ELEMENTS CHANGED

Describe the circumstances of these changes.

Select one of the following:

- ☐ **High-Albedo Roof:** As part of the LEED D&C application, high SRI roofing materials were used to demonstrate credit compliance.
- ☐ **Vegetated Roof:** As part of the LEED D&C application, vegetated roofing was used to demonstrate credit compliance.
- ☐ **Combination:** As part of the LEED D&C application, both high SRI roofing materials and vegetated roofing were used to demonstrate credit compliance.

Select one of the following:

- ☐ **Option 1:** High-albedo materials covering a minimum of 75% of the roof area.
- ☐ **Option 2:** Vegetated roof covering a minimum of 50% of the roof area.
- ☐ **Option 3:** A combination of high-albedo and vegetated roof covering the minimum required area .

HIGH-ALBEDO ROOF

Table SS^c7.2-1. Reflective Materials: Roof

Complete the table below for all roof surfaces where materials with high reflectance are used to reduce heat absorption. For each material, enter the description and amount of coverage (sf). SRI values can be entered manually (if known), or calculated based on material reflectance and emissivity.

Material Description / ID	Square Footage (sf)	Reflectance (0-1)	Emittance (0-1)	SRI value (actual or calculated)		Roof Slope	Percent compliant (%)
Total roof area (excluding mechanical equipment, photovoltaic panels, and skylights) (sf)							
High-albedo roof area, as a percentage of total roof area (must be greater than or equal to 75 ¹) (%)							

¹Note that the calculated percentage may reach above 100%, in the case of a weighted calculation.

VEGETATED ROOF

Total roof area (excluding mechanical equipment, photovoltaic panels and skylights):

sf

Total vegetated roof area:

sf

Vegetated roof area, as a percentage of total roof area:

%

The vegetated roof area must be at least 50% of the total roof area to earn 1 point, and 100% to achieve exemplary performance.

HIGH-ALBEDO AND VEGETATED ROOF

Table SS^c7.2-2. Combination Reflective Materials and Vegetated Roof

Complete the table below for all vegetated roof surfaces and surfaces where highly- reflective materials are used to reduce heat absorption. For each reflective material, enter the description and amount of coverage (sf). SRI values can be entered manually (if known), or calculated based on material reflectance and emissivity.

Material Description / ID	Square Footage (sf)	Reflectance (0-1)	Emittance (0-1)	SRI value (actual or calculated)		Roof Slope	Area of Weighted Contributing High-Albedo Roof (sf)
Total weighted contributing high-albedo roof area (sf)							
Total vegetated roof area (sf)							
Total weighted vegetated roof area (sf)							
Total roof area, excluding mechanical equipment, photovoltaic panels, and skylights (sf)							
Total weighted roof area in compliance (sf) (must be greater than or equal to total roof area)							

HIGH-ALBEDO ROOF MAINTENANCE

☐ A maintenance program is in place to ensure that SRI surfaces of these devices maintain good reflectance over time, including cleaning at least every two years.

Describe the cleaning procedures and schedule.

VEGETATED ROOF MAINTENANCE

☐ A maintenance program is in place to ensure that the areas of vegetated roof are sustaining vegetation over time.

Describe the maintenance procedures and schedule.

A Licensed Professional Exemption (LPE) for a Registered Architect is available in lieu of a roof plan and product information.

Select one of the following:

- ☒ Streamlined Path: LPE (RA).
- ☐ Full Documentation Path.



NOTE: For each Licensed Professional Exemption claimed, the relevant licensed professional must complete the corresponding Exemption Signature on the Licensed Professional Exemptions tab in order to be considered a valid submittal.

Licensed Professional Exemption claimed by:

Upload SSc7.2-1. Provide the project roof plan(s) or drawing(s) depicting project roof area and highlighting the location and quantity of specific roofing materials areas and/or vegetated roofing systems as applicable.



Upload SSc7.2-2. For each reflective roofing material, provide documentation (product specifications such as manufacturer cut sheets) verifying SRI values and/or emittance and reflectance percentages.



ADDITIONAL DETAILS

☐ Special circumstances preclude documentation of credit compliance with the submittal requirements outlined in this form.

SPECIAL CIRCUMSTANCES

Describe the circumstances limiting the project team's ability to provide the submittals required in this form. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

Upload SSc7.2-SC. Provide any additional documentation that supports the claim to special circumstances. (Optional)

☐ The project team is using an alternative compliance approach in lieu of standard submittal paths.

ALTERNATIVE COMPLIANCE PATH

Describe the alternative compliance path used by the project team. Include justification that this path meets the credit intent and requirements. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

Upload SSc7.2-ACP. Provide any additional documents that support the alternative compliance path approach (Optional).

☐ The project team is using the above alternative compliance path to document exemplary performance of SS Credit 7.2.

SUMMARY

SS Credit 7.2: Heat Island Effect - Roof Points Documented:

SS Credit 7.2: Heat Island Effect - Roof Exemplary Performance Documented:

One exemplary performance point is available to project teams for vegetated roof systems that cover 100% of the total roof area (excluding mechanical equipment, photovoltaic panels and skylights).

☐ The project team reserves 1 point in the Innovation in Operations credit category for exemplary performance in SS Credit 7.2