

Site selection

SSc1 | Possible 3 points

Intent

Encourage tenants to select buildings with best practices systems and employed green strategies.

Requirements

3 points may be earned for locating the tenant space in a LEED Credited Building,

OR

Up to a total of 3 points may be earned in 1/2-point increments if the building in which the tenant space is located meets any of the stated requirements. Two 1/2 points are needed to earn 1 point; no rounding up is permitted. In the case of exceptional performance (for example, exceeding stated thresholds) an additional 1/2 point may be achieved; however, no single requirement may earn more than 1 point. The requirements below have been gathered from other LEED Rating Systems, and are elaborated on in the LEED-CI Reference Guide.

- Select a LEED Certified Building.

OR

- Locate the tenant space in a building that has in place two or more of the following characteristics at time of submittal:

Option A. Brownfield redevelopment: (½ point)

A building developed on a site that has been documented (by means of an ASTM E1903-97 Phase II Environmental Site Assessment)

OR

A building on a site that has been classified as a brownfield by a local, state or federal government agency. Effective remediation of site contamination must have been completed.

Option B. Stormwater management: quantity control: (½ point)

Case 1 — Existing imperviousness is less than or equal to 50%

A stormwater management plan has been implemented on the building site that prevents the postdevelopment peak discharge rate and quantity from exceeding the pre-development peak discharge rate and quantity for the one- and two-year 24-hour design storms.

OR

A stormwater management plan has been implemented on the building site that protects receiving stream channels from excessive erosion by implementing a stream channel protection strategy and quantity control strategies.

OR

Case 2 — Existing imperviousness is greater than 50%

A stormwater management plan has been implemented on the building site that results in a 25% decrease in the volume of stormwater runoff from the two-year 24-hour design storm.

For projects that are part of a master plan development

The credit requirements may be met using a centralized approach affecting the defined project site and that is within the master plan boundary. Distributed techniques based on a watershed approach are then required.

A master planning approach to storm water management and overall impervious surface management that is overall project-wide or based on the local watershed is preferred over stormwater management planning limited to one project site at a time. The master plan setting with larger boundaries and settings allows comprehensive stormwater management techniques to be applied on a larger scale and with more flexibility. This provides economies of scale and affords greater opportunities for clustering buildings, increasing natural settings, and applying distributed management techniques cost effectively. Phasing of projects may affect when a Master Plan is implemented and how the specific building(s) under consideration will be accommodated.

Option C. Stormwater management: treatment: (½ point)

A stormwater management plan has been implemented on the building site that reduces impervious cover, promotes infiltration, and captures and treats the stormwater runoff from 90% of the average annual rainfall¹ using acceptable best management practices (BMPs). BMPs used to treat runoff must be capable of removing 80% of the average annual post development total suspended solids (TSS) load based on existing monitoring reports. BMPs are considered to meet these criteria if (1) they are designed in accordance with standards and specifications from a state or local program that has adopted these performance standards, or (2) there exists in-field performance monitoring data demonstrating compliance with the criteria. Data must conform to accepted protocol (e.g., Technology Acceptance Reciprocity Partnership [TARP], Washington State Department of Ecology) for BMP monitoring.

For projects that are part of a master plan development

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Phasing of projects may affect when a Master Plan is implemented and how the specific building(s) under consideration will be accommodated.

Option D. Heat island reduction, non-roof: (½-1 ½ points)

Option 1

A building site that has any combination of the following strategies for 25% 50% or 75% of the site hardscape (including roads, sidewalks, courtyards and parking lots):

- Shade (within 5 years of occupancy)
- Paving materials with a Solar Reflectance Index (SRI)² of at least 29
- Open grid pavement system

OR

Option 2

A building that has 25%, 50% or 75% of parking spaces under cover (defined as under ground, under deck, under roof, or under a building). Any roof used to shade or cover parking must have an SRI of at least 29.

Option E. Heat island reduction, roof: (½ point)

Option 1

The building has roofing materials with a Solar Reflectance Index (SRI)³ equal to or greater than the values in the table below for a minimum of 75% of the roof surface.

OR

Option 2

The building has a vegetated roof for at least 50% of the roof area.

OR

Option 3

A building has high albedo and vegetated roof surfaces that, in combination, meet the following criteria:

$$(\text{Area of SRI Roof} / 0.75) + (\text{Area of vegetated roof} / 0.5) \geq \text{Total Roof Area}$$

Option F. Light pollution reduction: (½ point)

For interior lighting

The angle of maximum candela from each interior luminaire as located in the building shall intersect opaque building interior surfaces and not exit out through the windows.

OR

All non-emergency interior lighting shall be automatically controlled to turn off during non-business hours.

Provide manual override capability for after hours use.

AND

For exterior lighting

Only light areas as required for safety and comfort. Do not exceed 80% of the lighting power densities for exterior areas and 50% for building facades and landscape features as defined in ASHRAE/IESNA Standard 90.1-2004, Exterior Lighting Section, without amendments.

For projects that are part of a master plan development

Develop an exterior lighting master plan that includes the project site and the surrounding buildings in a comprehensive manner addressing the safety and security issues of the entire project environment by sharing exterior lighting amenities while minimizing light pollution and energy consumption. The lighting master plan must show that it incorporates the credit requirements as well as the following:

- How this plan will reduce light trespass and night sky access and specific projects fit into the overall design.
- How safety, security, and comfort will be enhanced by the use of a master plan.

All projects shall be classified under one of the following zones, as defined in IESNA RP-33, and shall follow all of the requirements for that specific zone:

LZ1 — Dark (park and rural settings)

Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.01 horizontal and vertical footcandles at the site boundary and beyond. Document that 0% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down).

LZ2 — Low (residential areas)

Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.10 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles 10 feet beyond the site boundary. Document that no more than 2% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.

LZ3 — Medium (commercial/industrial, high-density residential)

Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.20 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles 15

feet beyond the site. Document that no more than 5% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.

LZ4 — High (major city centers, entertainment districts)

Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.60 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles 15 feet beyond the site. Document that no more than 10% of the total initial designed site lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.

Option G. Water efficient irrigation: reduced potable water consumption: (½ point)

Option 1

Potable water consumption has been reduced for irrigation by 50% from a calculated mid-summer baseline case.

Reductions shall be attributed to any combination of the following items:

- Plant species factor
- Irrigation efficiency
- Use of captured rainwater
- Use of recycled wastewater
- Use of water treated and conveyed by a public agency specifically for non-potable uses.

For projects that are part of a master plan development

If landscape irrigation for the project is part of a master plan, enter aggregate data in the Submittal Template. Submit appropriate documentation supporting the design of the rainwater collection system, the landscape design, and the extent of the supplemental temporary irrigation system. Landscaping in the larger context of the master plan provides abundant opportunity to implement solutions that require less water and for capturing rainwater or recycled water. Large developments may consider treating its buildings' wastewater to standards for non-potable uses.

Option H. Water efficient irrigation: no potable use or no irrigation: (½ point in addition to prior requirement)

Option 1

Achieve Option G and:

Only captured rainwater, recycled wastewater, recycled greywater, or water treated and conveyed by a public agency specifically for non-potable uses for irrigation has been used for irrigation.

OR

Landscaping has been installed that does not require permanent irrigation systems. Temporary irrigation systems used for plant establishment are allowed only if removed within one year of installation.

For projects that are part of a master plan development

If landscape irrigation for the project is part of a master plan, enter aggregate data in the Submittal Template. Submit appropriate documentation supporting the design of the rainwater collection system, the landscape design, and the extent of the supplemental temporary irrigation system. Landscaping in the larger context of the master plan provides abundant opportunity to implement solutions that require less water and for capturing rainwater or recycled water. Large developments may consider treating its buildings' wastewater to standards for non-potable uses.

Option I. Innovative wastewater technologies: (½ point)

Option 1

Potable water use for building sewage conveyance has been reduced by 50% through the use of waterconserving fixtures (water closets, urinals) or non-potable water (captured rainwater, recycled greywater, and on-site or municipally treated wastewater).

OR

Option 2

50% of wastewater has been treated on-site to tertiary standards. Treated water must be infiltrated or used on-site.

For projects that are part of a master plan development

In a master plan development, a weighted average of the site buildings, based on square footage, must be used to meet the requirements of the credit. This method ensures that each building generally meets the performance requirements. Opportunities of scale may also allow more effective use of rain harvesting techniques or innovative and economical waste treatment technologies for the building(s) on the site. Options include packaged biological nutrient removal systems, constructed wetlands, and high-efficiency filtration systems.

Option J. Water use reduction: 20% reduction: (½ point)

A building that meets the 20% reduction in non-process water use requirement for the entire building and has an ongoing plan to require future occupants to comply.

Option K. Onsite renewable energy: (½ point)

A building that supplies at least 2.5% of the building's total energy use (expressed as a fraction of annual energy cost) through the use of on-site renewable energy systems.

Option L. Other quantifiable environmental performance: (½ point)

A building that had in place at time of selection other quantifiable environmental performance, for which the requirements may be found in other LEED rating systems.

¹In the United States, there are three distinct climates that influence the nature and

amount of rainfall occurring on an annual basis. Humid watersheds are defined as those that receive at least 40 inches of rainfall each year, Semi-arid watersheds receive between 20 and 40 inches of rainfall per year, and Arid watersheds receive less than 20 inches of rainfall per year. For this credit, 90% of the average annual rainfall is equivalent to treating the runoff from:

- (a) Humid Watersheds - 1 inch of rainfall;
- (b) Semi-arid Watersheds - 0.75 inches of rainfall; and
- (c) Arid Watersheds - 0.5 inches of rainfall.

³The Solar Reflectance Index (SRI) is a measure of the constructed surface's ability to reflect solar heat, as shown by a small temperature rise. It is defined so that a standard black (reflectance 0.05, emittance 0.90) is 0 and a standard white (reflectance 0.80, emittance 0.90) is 100. To calculate the SRI for a given material, obtain the reflectance value and emittance value for the material. SRI is calculated according to ASTM E 1980. Reflectance is measured according to ASTM E 903, ASTM E 1918, or ASTM C 1549. Emittance is measured according to ASTM E 408 or ASTM C 1371.