

FAS ECO-COMPETITION

NOVEMBER FOCUS AREA: Sustainability Sites

Total available points: 4

- 1. Alternative Transportation: Bike Storage (1pt)**
- 2. Light Pollution Reduction (2pt)**
- 3. Heat Island Reduction (1pt)**

1. Alternative Transportation: Bike Storage (1pt)

Goal: Encourage and facilitate alternative modes of transportation among building occupants

The environmental effects of automobiles include emissions that contribute to smog and other air pollutants, as well as environmental impacts from oil extraction and petroleum refining. Bicycling offers various environmental benefits as it produces no emissions and no demand for petroleum based products. It also relieves traffic congestion¹.

EITHER

I _____ (your name) declare that bicycle storage capacity in my building meets 100% of the peak demand for bicycle parking, or accommodate 1% of full time equivalent of building users, as confirmed by the visual audit conducted by CERP earlier this month.

OR

I _____ (your name) declare that by March 08 I will install ____ (#) additional bike racks in order to meet the needs of my building's occupants. The number of additional storage apparatus was determined in the audit conducted by CERP earlier this month.

2. Light Pollution Reduction (up to 2pts)

Goal: Eliminate light trespass from the building and site, improve night sky access and reduce development impact on nocturnal environments

Outdoor lighting is necessary for illumination connections between buildings but light pollution from outdoor lighting may affect the nocturnal ecosystem on the site and hinders enjoyment of the night sky by building occupants and neighbors. In addition, avoiding unnecessary outdoor lighting will generate energy savings that can be substantial over the lifetime of the building.

Shielding (1pt)

EITHER

I _____ (your name) declare that all outdoor luminaries 50W and over are shielded so that they don't directly emit light to the night sky.

OR

I _____ (your name) declare that by March 08, I will provide shielding for all outdoor luminaries 50W so that they don't directly emit light to the night sky.

¹ Based on the Reference Guide for LEED EB 2.0

Time schedule (1pt)

EITHER

I _____ (your name) declare that the exterior lighting in my building has been put on a night schedule, from _____ PM to _____ AM to prevent night pollution and reduce energy consumption.

OR

I _____ (your name) declare that by March 08, the exterior lighting in my building will put on a night schedule, from _____ PM to _____ AM to prevent night pollution and reduce energy consumption.

3. Heat Island Reduction (1pt)

Goal: Reduce heat islands (thermal gradient differences between developed and undeveloped areas) and reduce cooling loads in summer

Dark, non-reflective surfaces absorb solar radiation and contribute to heat island effect (ambient temperatures in urban areas are elevated by 2-10F compared to suburban areas. This results in increased cooling loads in the summer.

EITHER

Roof

I _____ (your name) declare that during future renovations of my building's roof, the new roofing material will be ENERGY STAR-compliant, high reflectance and high emissivity (min. value .9). Contractors or/and vendors will be asked to provide materials compliant with the forementioned emissivity requirement.

OR

Non-Roof

I _____ (your name) declare that during future renovations of the site's non-roof impervious surfaces (parking lots and walkways), only light-colored, high-albedo materials will be used (reflectance of at least .3) Contractors or/and vendors will be asked to provide materials compliant with the aforementioned reflectance requirement.