

OP 1: Building Design and Construction

Rationale

This credit recognizes institutions that have incorporated sustainability requirements and standards into the design and construction of their buildings.

Applicability

Applicable to institutions that have completed one or more construction or major renovation projects within the previous five years.

Points available

A maximum of 3 points are available for this credit.

Criteria

1.1 Percentage of new floor area designed and constructed to green building standards

An institution earns 3 points when all new campus buildings and **major renovation** projects completed within the previous five years have been third party certified to a comprehensive **green building standard** that addresses, at a minimum, energy, indoor environmental quality (IEQ), materials/waste, transportation, water, and the ecological aspects of the site. Incremental points are available based on the certification status of new building space and earned as outlined in Table I.

Table I. Points earned for indicator 1.1

Certification status	Floor area of new building space with each status		Total floor area completed within the previous five years		Factor		Points earned
A. Third party certified to a comprehensive green building standard that addresses energy, IEQ, materials/waste, transportation, water, and the ecological		÷		×	3	=	

aspects of the site							
B. Third party certified to a less comprehensive green building standard		÷		×	2	=	
C. Built to green building standards, but not third party certified		÷		×	1	=	
Total points earned →							

Measurement

Report on the current status of the institution’s buildings. Include all new buildings and major renovation projects completed within the previous five years, parking structures included. Building space that is yet to be occupied or commissioned, temporary and mobile structures, de minimis projects (e.g., less than 500 square meters in size), and projects that are otherwise ineligible for certification may be excluded.

Third party certification may include formal certification under an external green building rating system or leadership recognition program, commissioning to verify adherence to a green building standard, inspection for compliance with a green building code, or the equivalent, as long as the process is conducted by entities and/or personnel who are not affiliated with the institution and are independent of the building design and construction process.

Any standard definition of building space may be used (e.g., ASHRAE, ANSI/BOMA, IECC) as long as it is used consistently. Building space that meets more than one criterion (e.g., projects certified under a comprehensive green building rating system AND certified to be in compliance with a less comprehensive green building code) may not be double-counted. Building space reported here may be excluded from the Building Operations and Maintenance credit.

For further guidance and an updated list of qualifying green building standards, see the [STARS Help Center](#).

Documentation

Report the following information in the online Reporting Tool, with floor area figures provided in square meters. To convert square feet, multiply by 0.09290304.

- Total floor area of newly constructed or renovated building space (required). Square meters. Parking structures included.
- Floor area of new building space third party certified to a comprehensive green building standard (required). Square meters. Include only those projects that have achieved third party

certification to a green building standard that addresses energy, IEQ, materials/waste, transportation, water, and the ecological aspects of the site.

- Floor area of new building space third party certified to a less comprehensive green building standard (required). Square meters. Include projects that have achieved third party certification to a green building standard that addresses some, but not all, of the attributes listed above.
- Floor area of new building space built to green building standards, but not third party certified (required). Square meters. Include projects completed in accordance with the institution's custom green building standards or an external green building standard, but that have not been third party certified (including space that is pending certification).
- List and description of building and renovation projects completed within the previous five years (required). Include the standards to which the recent projects were designed and constructed and their certification/verification status.

If reporting on the institution's custom green building standards, at least one of the following two fields is also required:

- Online location of the institution's green building standards. Website URL.
- Copy of the institution's green building standards. Upload.

Glossary

Green building rating systems – Tools and certifications used to assess and recognize buildings that meet sustainability requirements or standards. Rating systems vary in their approach and can be applied to the design and construction of new buildings and major renovations or to the operations and maintenance of existing buildings. An extensive – but non-comprehensive – list of green building rating tools may be found on the [World Green Building Council](#) (WorldGBC) website.

Green building standards – Formal sets of criteria that go beyond minimum code requirements to raise the bar for energy efficiency, water efficiency, and other sustainability attributes. Green building standards may be administered by government entities, non-governmental organizations, higher education institutions, and/or professional research bodies and typically include third party certification or verification of compliance. Examples include:

- Green building rating systems, including – but not limited to – those administered by World Green Building Council (WorldGBC) member organizations
- Green building codes such as the International Green Construction Code (IgCC) and the California Green Building Standards Code (CALGreen Code)
- Standards such as ASHRAE Standard 189.1 for the Design of High-Performance Green Buildings, CEN/TC 350 standards for sustainable construction, ENERGY STAR, Nearly Zero Energy Buildings (NZEB), and Passive House
- Custom green building standards adopted by the institution, e.g., minimum criteria that are linked to a green building rating system

Major renovation – A project that includes major HVAC improvements, significant building envelope modifications, and/or major interior rehabilitation, for example that require occupants to vacate the

space, as specified in a green building standard or rating system or the institution's own policies or standards.