

BEYOND

SMART CITIES

GREEN BUILDING RATING SYSTEMS

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GREEN BUILDING RATING SYSTEMS

What is Green Building Rating System ?

Green Building Rating Systems

Leadership in Energy and Environmental Design (LEED)

Global Sustainability Assessment System (GSAS)

WHAT IS A GREEN BUILDING RATING SYSTEM?

☒ A Quantitative System to evaluate and measure the environmental impact of a building on the environment.

☒ Site
☒ Water
☒ Materials
☒ Energy
☒ Indoor Environment

☒ It evaluates the "whole building"
☒ Integration of systems is crucial to achieving Green

☒ The Most Widely Used Rating System is LEED



GREEN BUILDING RATING SYSTEMS

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| ☒ Reduce energy consumption | ☒ Reduce Toxins in environment |
| ☒ Reduce water consumption | ☒ Improve productivity |
| ☒ Reduce materials waste | ☒ Preserve open space |
| ☒ Reduce heat island effect | ☒ Preserve species habitat |
| ☒ Improve indoor air quality | ☒ Improve asset value |
| ☒ Reduce absenteeism | ☒ Increase infrastructure vitality |

LEED GREEN BUILDING RATING SYSTEM

LEED (Leadership in Energy and Environmental Design) is the most widely used green building rating system in the world.
Developed by the **U.S. Green Building Council**

www.usgbc.org





U.S. GREEN BUILDING COUNCIL

The U.S. Green Building Council (USGBC), co-founded by Mike Italiano, David Gottfried and Rick Fedrizzi in 1993, is a private 501(c)3, membership-based non-profit organization that promotes sustainability in building design, construction, and operation.

- ☒ Non-profit organization with 6,000+ members.
- ☒ Voluntary, diverse membership that operates on consensus principles
- ☒ Developer and administrative authority of the LEED Green Building Rating System

LEED PRINCIPALS

LEED Primary Objective

"Transform existing building markets so that sustainable design, construction, and operations practices are mainstreamed."

- ☑ Consensus process involving many stakeholders in the building industry
- ☑ To define, promote, and standardize green design
- ☑ To promote a whole-building integrated design process



GSAS PRINCIPALS

The Global Sustainability Assessment System (GSAS) is a performance-based sustainable building rating system developed for the creation of a sustainable built environment that not only minimizes its ecological impact but also preserves the values, traditions and identity of the region.

- ☑ The primary objective of GSAS is to create a sustainable, built environment that minimises ecological impact while addressing specific regional needs and those of the surrounding environment
- ☑ GSAS criteria include the measurement of energy and water consumption and indoor environmental performance of buildings. The application of GSAS criteria to a building's design and construction contributes to the improvement of the overall quality, maintenance requirements and life span of the building.

LEED SCORECARD

- 📍 LOCATION AND TRANSPORTATION (0PR/7C/16P)
- 🌱 SUSTAINABLE SITES (1PR/6C/10P)
- 💧 WATER EFFICIENCY (3PR/4C/11P)
- ☀️ ENERGY AND ATMOSPHERE (4PR/6C/33P)
- ♻️ MATERIALS AND RESOURCES (1PR/5C/13P)
- 🏠 INDOOR ENVIRONMENTAL QUALITY (2PR/9C/16P)
- 🌿 INTEGRATIVE PROCESS (0PR/1C/1P)
- 💡 INNOVATION (0PR/2C/6P)
- 🏆 REGIONAL PRIORITY (0PR/1C/4P)
- 🏆 TOTAL (11 PRE REQUISITE / 44 CREDIT / 110 POINT)


