



OV Engineering, LLC - Construction Consultants

Delivering Sustainable Properties. Main Benefits of Green Building Certifications.



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Introduction

Buildings have extensive direct and indirect impacts on the environment. During their construction, occupancy, renovation, repurposing, and demolition, buildings use energy, water, and raw materials, generate waste, and emit potentially harmful atmospheric emissions.

Green property, or sustainable property, refers to buildings that are healthier for their inhabitants, more durable, conserves water and energy, uses recycled content and have a smaller carbon footprint than traditional buildings and constructions.



Services:

- Feasibility Study
- Certification Consulting
- Building Energy Performance
- Sustainable Design



Environmental Issues

Environmental issues are the harmful effects of human activities on the environment.

These include:

- air & water pollution
- soil degradation
- global warming
- climate change
- waste disposal
- the greenhouse effect
- biodiversity loss
- ozone layer depletion

Green buildings can not only reduce or eliminate negative impacts on the environment, by using less water, energy or natural resources, but they can have a positive impact on the environment (at the building or city scales) by generating their own energy or increasing biodiversity.



What is Green Building

A "Green Building" is a building that, in its design, construction or operation, reduces or eliminates negative impacts, and can create positive impacts, on our climate and natural environment.

Green buildings preserve precious natural resources and improve our quality of life.

Green Building is also a process that applies to buildings, sites, interiors, operations & communities in which there are located. It goes through the entire life cycle of the project - planning, design, construction, maintenance & operations till end of life recycling or renewal of the structure.

Green building design strategies are being applied across a very diverse range of projects from office buildings to schools, stadiums, hospitals, and entire neighborhoods.

Green Building pursues solutions that represents a healthy, dynamic balance between environmental, social & economic benefits.



Green Buildings Registered & Certified Worldwide

83,452

LEED projects
registered & certified

590,000

BREEAM projects
certified

2,217,000

BREEAM projects
registered



BREEAM & LEED CERTIFICATIONS

The push toward sustainable design increased with the launch in 1990 of Building Research Establishment's Environmental Assessment Method ([BREEAM](#)) the first green building rating system in the world.

In 2000, the U.S. Green Building Council (USGBC) followed suit and developed and released criteria also aimed at improving the environmental performance of buildings through its Leadership in Energy and Environmental Design ([LEED](#)) rating system for the new construction, later added interiors, existing buildings, maintenance & operations, neighborhoods, homes.

The Certification:

- Mitigates life cycle impacts of the buildings on the environment
- Provides a credible environmental label for the buildings
- Stimulates demand and creates value for sustainable buildings, stakeholders, products & supply chains
- Rewards best practices innovations



Aim is to promote better buildings, give brighter & healthier spaces to live & work

What is BREEAM Certification

Rating system

BREEAM rating system:

- Outstanding ***** (85+ score earned)
- Excellent **** (70-84 score earned)
- Very Good *** (55-69 score earned)
- Good ** (45-54 score earned)
- Pass * (30-44 score earned)
- Uncertified (less than 30 score earned)

Schemes

There are different BREEAM schemes for different type of the asset:

- New Construction (all building functions, international use)
- Refurbishment & Fit-out (most building type, international use)
- Infrastructure (international use)
- Home Quality Mark (for UK only)
- Communities, Data Centers, In-Use, etc.

Categories

Each BREEAM scheme has own technical standards known as BREEAM Manual, each standard is divided into the environmental categories: **Energy, Health & Wellbeing, Innovation, Land Use, Materials, Management, Pollution, Transport, Waste, Water.**

Categories refer to different environmental topic BREEAM scheme covers. The categories made of issues which are specific impacts BREEAM wants to address.

The assessment criteria details all of the credits which contribute to the BREEAM rating.

To achieve the exact number of credits all the criterion must be met, & evidence provided.

To be awarded the rating, an asset must meet minimum standards.

What is LEED Certification

Rating system

LEED rating system:

- Platinum (80+ points earned)
- Gold (60-79 points earned)
- Silver (50-59 points earned)
- Certified (40-49 points earned)

Comprehensive and flexible, LEED is applicable to buildings at any stage in their life-cycles.

The following are addressed by LEED rating systems:

- New Construction
- Existing Buildings, Operations & Maintenance
- Commercial Interiors
- Cities & Communities

All building types:

- Schools, Retail, Healthcare, Residential, Data Centers, Hospitality, etc.

The major categories for LEED rating system:

Location & Transportation, Sustainable Sites, Water efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, Innovation.

Achieving LEED certification requires satisfying all prerequisites and earning a minimum number of credits. Each LEED rating system corresponds to a LEED reference guide that explains credit criteria, describes the benefits of complying with the credit, and suggests approaches to achieving credit compliance.

Certification type

Categories

Main Benefits

Investor



- Achievement with little or no additional cost
- Low risk of building devaluation in the future
- Positive impact on collateral value
- Higher Return on Investment

Developer / Owner



- Increased the value of the building
- Reduced running costs during operation
- Shorter payback periods for investments
- Improved productivity of building occupants
- Commitment to sustainability
- Opens door to funding options
- Tax incentives

Project Team



- Reduced time for project completion
- Meeting client's requirements
- Cheaper project delivery

Funding, Cost & Profit

Funding

Commitment to obtain green building certificate open doors for various funding options.

As per EBRD report, it offers direct, sustainable financing to large corporate clients in sectors such as agribusiness, industry, power and energy utilities, property, tourism and transport, as well as to municipalities.

Indirect financing is extended through Green Economy Finance Facilities (GEFFs), which provide credit lines to local financial institutions for on-lending to small and medium-sized enterprises and homeowners.

Metrics



21%

Premium on sales transaction prices



18%

Premium on rental rates



26%

Less energy used



33%

Lower emissions of CO2

Cost

Certification as a green building is not a significant indicator of the construction cost. The public overestimates the marginal cost of green building.

Initial cost of green building is only 2-3% higher than conventional building cost if commitment made at the early stage. Adding green features to the project late in the process is expensive and least effective approach.

In terms of energy improvement the added costs are balanced by long-term savings.

Profit

The initial expenditures continue to payback over time like a good investment.

For example, certified office buildings have significantly higher rents and increased occupancy.

Banks and developers have a chance to define the future outlook of a climate-smart built environment that is good for the environment and good for business.

Green Building certification offers unique opportunity for innovation and strategic partnerships to differentiate the brands, build climate-smart real estate portfolios that reflect global trends.

Ready to get started?

[Get In Touch](#)



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