



Str. Ialomicioarei nr. 21, 011277, Bucuresti, Romania
Tel: +40 (0) 21 222 0011; +40 (0) 260 0051, Fax: +40 (0) 21 223 1201
info@RoGBC.org

LEED INFORMATION PACKAGE

CONTENTS

1. AN INTRODUCTION TO LEED	1
WHAT LEED IS	2
WHAT LEED MEASURES	3
WHAT LEED DELIVERS	6
2. LEED BUILDING CERTIFICATION	7
ELIGIBILITY	8
LEED RATING SYSTEMS	9
STEPS TO ACHIEVING CERTIFICATION	12
3. BECOME A LEED PROFESSIONAL	14
CREDENTIALS	16
LEED EXAM	17

AN INTRODUCTION TO LEED

WHAT LEED IS

LEED, or Leadership in Energy and Environmental Design, is an internationally recognized certification system for green buildings, developed by the US Green Building Council (USGBC) in 2000.

LEED certification provides independent, third-party verification that a building, home or community was designed and built using strategies aimed at achieving high performance in key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED certification is the internationally recognized distinction that a building or neighborhood development is environmentally responsible, profitable and a healthy place to live and work.

With nearly 9 billion square feet of building space participating in the suite of rating systems and 1.6 million feet certifying per day around the world, LEED is transforming the way built environments are designed, constructed, and operated - from individual buildings and homes, to entire neighborhoods and communities. Comprehensive and flexible, LEED works throughout a building's life cycle.¹

¹ material from: <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1988>

WHAT LEED MEASURES

LEED promotes a whole-building approach to sustainability by recognizing performance in the following key areas:



Sustainable Sites

Site selection and development are important components of a building's sustainability. The Sustainable Sites category discourages development on previously undeveloped land; seeks to minimize a building's impact on ecosystems and waterways; encourages regionally appropriate landscaping; rewards smart transportation choices; controls stormwater runoff; and promotes reduction of erosion, light pollution, heat island effect and construction-related pollution.



Water Efficiency

Buildings are major users of our potable water supply. The goal of the Water Efficiency category is to encourage smarter use of water, inside and out. Water reduction is typically achieved through more efficient appliances, fixtures and fittings inside and water-conscious landscaping outside.



Energy & Atmosphere

According to the U.S. Department of Energy, buildings use 39% of the energy and 74% of the electricity produced each year in the United States. The Energy & Atmosphere category encourages a wide variety of energy-wise strategies: commissioning; energy use monitoring; efficient design and construction; efficient appliances, systems and lighting; the use of renewable and clean sources of energy, generated on-site or off-site; and other innovative measures.



Materials & Resources

During both the construction and operations phases, buildings generate a lot of waste and use large quantities of materials and resources. The Materials & Resources category encourages the selection of sustainably grown, harvested, produced and transported products and materials. It promotes waste reduction as well as reuse and recycling, and it particularly rewards the reduction of waste at a product's source.



Indoor Environmental Quality

The U.S. Environmental Protection Agency estimates that Americans spend about 90% of their day indoors, where the air quality can be significantly worse than outside. The Indoor Environmental Quality category promotes strategies that improve indoor air as well as those that provide access to natural daylight and views and improve acoustics.



Locations & Linkages

The LEED for Homes rating system recognizes that much of a home's impact on the environment comes from where it is located and how it fits into its community. Locations & Linkages encourages building on previously developed sites and away from environmentally sensitive areas.



Awareness & Education

The LEED for Homes rating system acknowledges that a home is only truly green if the people who live in it use its green features to maximum effect. The Awareness & Education category encourages home builders and real estate professionals to provide homeowners, tenants and building managers with the education and tools they need to understand what makes their home green and how to make the most of those features.



Innovation in Design

The Innovation in Design category provides bonus points for projects that use innovative technologies and strategies to improve a building's performance well beyond what is required by other LEED credits.



Regional Priority

USGBC's regional councils, chapters and affiliates have identified the most important local environmental concerns, and six LEED credits addressing these local priorities have been selected for each region of the country. A project that earns a regional priority credit will earn one bonus point in addition to any points awarded for that credit. Up to four extra points can be earned in this way.²

² Material from :<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1989>

WHAT LEED DELIVERS

Participation in LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. There are both environmental and financial benefits to earning LEED certification, including:

Lowering operating costs and increasing asset value.

Reducing waste sent to landfills.

Conserving energy and water.

Developing healthier and safer buildings for occupants.

Creating compact communities with good access to neighborhood amenities and transit

Protecting natural resources and farmland by encouraging growth to be located in areas with existing infrastructure.

Reducing harmful greenhouse gas emissions.

Qualifying for tax rebates, zoning allowances, and other incentives in hundreds of cities.

Demonstrating an owner's commitment to environmental stewardship and social responsibility.³

³ material from:<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1990>

LEED BUILDING CERTIFICATION

ELIGIBILITY

Building types that are eligible for certification include – but are not limited to – offices, retail and service establishments, institutional buildings (e.g., libraries, schools, museums and religious institutions), hotels and residential buildings of four or more habitable stories.

LEED points are awarded on a 100-point scale, and credits are weighted to reflect their potential environmental impacts. Additionally, 10 bonus credits are available, four of which address regionally specific environmental issues. A project must satisfy all prerequisites and earn a minimum number of points to be certified.

Sustainable building strategies should be considered early in the development cycle. An integrated project team will include the major stakeholders of the project, such as the developer/owner, architect, engineer, landscape architect, contractor, and asset & property management staff. Implementing an integrated, systems-oriented approach to green project design, development and operations can yield synergies and improve the overall performance of a building. Initial LEED assessment will bring the project team together to evaluate and articulate the project's goals and the certification level sought.¹

¹ material from: <http://www.gbci.org/main-nav/building-certification/certification-guide.aspx>

LEED RATING SYSTEMS

There are nine different LEED rating systems available:

LEED for New Construction

LEED for New Construction was designed primarily for new commercial office buildings, but it has been applied to many other building types by LEED practitioners. All commercial buildings, as defined by standard building codes, are eligible for certification as LEED for New Construction buildings. Examples of commercial occupancies include offices, institutional buildings like libraries, museums and churches, hotels, and residential buildings of four or more habitable stories.

LEED for New Construction addresses design and construction activities for both new buildings and major renovations of existing buildings. A major renovation involves major HVAC renovation, significant envelope modifications, and major interior rehabilitation.

LEED for Schools

LEED for Schools addresses design and construction activities for both new school buildings and major renovations of existing school buildings. LEED for Schools is for the construction or major renovation of an academic building on K-12 school grounds.

LEED for Schools recognizes the unique nature of the design and construction of K-12 schools. By addressing the uniqueness of school spaces and children's health issues, LEED for Schools provides a unique, comprehensive tool for schools that wish to build green with measurable results. The rating system addresses issues such as classroom acoustics, daylight and views, mold prevention, and environmental site assessment.

LEED for Core & Shell

The LEED for Core & Shell rating system acknowledges the limited level of influence a developer can exert in a speculatively developed building . LEED for Core & Shell was developed to serve the speculative development market, in which project teams do not control all scopes of a whole building’s design and construction.

LEED for Core & Shell can be used for projects in which the developer controls the design and construction of the entire core and shell base building, such as mechanical, electrical, plumbing, and fire protection systems, but has no control over the design and construction of the tenant fit-out. Examples of this type of project can be a commercial office building, medical office building, retail center, warehouse, and lab facility.

LEED for Retail

LEED for Retail: New Construction was designed primarily for the new construction or major renovation of retail buildings as defined by standard building codes. LEED for Retail: Commercial Interiors was designed to work hand-in-hand with the LEED for Core & Shell certification system. Retail tenants who lease their space or do not occupy the entire building are eligible.

LEED for Commercial Interiors

LEED for Commercial Interiors addresses the specifics of tenant spaces primarily in office, retail and institutional buildings.

LEED for Commercial Interiors was designed to work hand-in-hand with the LEED for Core & Shell certification system. LEED for Core & Shell is used by developers to certify the core and shell of a project; it prepares the building for environmentally conscious tenants; individual tenants may seek LEED for Commercial Interiors certification for their spaces whether the rest of the building is LEED-certified or not.

LEED for Existing Buildings: Operations & Maintenance

LEED for Existing Buildings: Operations & Maintenance was designed to certify the sustainability of ongoing operations in existing commercial and institutional buildings. All such buildings, as defined by standard building codes, are eligible for certification under LEED for Existing Buildings: Operations & Maintenance, including offices, retail and service establishments, institutional buildings like libraries, schools, museums and churches, hotels, and residential buildings of four or more habitable stories.

LEED for Neighborhood Development

The LEED for Neighborhood Development Rating System places emphasis on the site selection, design and construction elements that bring buildings and infrastructure together into a neighborhood and relate a neighborhood to its landscape and its local and regional context. It recognizes development projects that successfully protect and enhance the overall health, natural environment and quality of life in communities. It promotes the location and design of neighborhoods that reduce vehicle miles traveled and the creation of developments where jobs and services are accessible by foot or public transit. It also supports an array of green building and green infrastructure practices.

LEED for Homes

A LEED-certified home is designed and constructed in accordance with the rigorous guidelines of the LEED for Homes green building certification program. LEED for Homes is a consensus-developed, third party-verified, voluntary rating system which promotes the design and construction of high-performance green homes.

LEED for Healthcare

LEED for Healthcare guides the design and construction of both new buildings and major renovations of existing buildings, and can be applied to inpatient, outpatient and licensed long-term care facilities, medical offices, assisted living facilities and medical education and research centers.²

² material from: <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=222>

STEPS TO ACHIEVING CERTIFICATION

Registering a Project

After determining that LEED is right for a project, the next step is to register the project. Registration serves as a declaration of intent to certify a building or neighborhood development under the LEED Green Building Rating Systems. Registration provides access to a variety of tools and resources necessary to apply for LEED certification. Registered and certified projects are also listed in the online LEED project database.

Once the rating system has been determined and the appropriate registration fee has been paid, the project will be immediately accessible in LEED Online. From here the project team is assembled and the documentation process begins.

Prepare Applications

Each LEED credit and prerequisite has a unique set of documentation requirements that must be completed as a part of the application process. While preparing the application, the project team selects the credits it has chosen to pursue and assigns the credits to the responsible team members. The project team should begin to collect information and perform calculations for all prerequisites and the credits it has chosen to pursue. When the necessary documentation has been assembled, the project team will upload the materials to LEED Online and start the application review process. Before submitting the application, the project team is advised to double check each credit to ensure that project details have been entered accurately and consistently. This will help streamline the review process.

Submitting an Application

Only the LEED Project Administrator is eligible to submit an application for review. Requirements for a complete application vary according to the review path, but will always include payment of the appropriate certification review fee.

Prior to certification, all project teams are required to submit completed documentation requirements for all prerequisites and at least the minimum number of credits required to achieve certification, as well as completed general project information forms. Applications must be received in accordance with GBCI's established Rating System expiration terms.

Certification

Certification is the final step in the LEED review process. Once the final application review is complete, the project team can either accept or appeal the final decision. LEED certified projects:

1. Will receive a formal certificate of recognition
2. Will receive information on how to order plaque and certificates, photo submissions, and marketing
3. May be included (at the owner's discretion) in online LEED Project Directory of registered and certified projects
4. May be included (along with photos and other documentation) in the US Department of Energy High Performance Buildings Database³

³ material from: <http://www.gbci.org/main-nav/building-certification/certification-guide.aspx>

BECOME A LEED PROFESSIONAL

The LEED Professional Credentials indicate professional excellence and a strong depth of knowledge and practical understanding of the LEED Rating Systems. They were developed to encourage green building professionals to maintain and advance their knowledge and expertise. A LEED Professional Credential provides employers, policymakers, and other stakeholders with assurances of an individual's current level of competence and is the mark of the most qualified, educated, and influential green building professionals in the marketplace.

Preparing to take the LEED AP and LEED Green Associate exams is a process; it involves more than taking just one course.¹

If you are just starting on your path toward a LEED Professional Credential, remember these four steps:

1. Download the **candidate handbook** for the credential you are seeking.
2. Determine if you meet eligibility requirements.
3. Register for the exam
4. Start studying!

For more information about LEED Professional Credentials, visit this link: <http://new.usgbc.org/leed/credentials>

¹ material from: <http://www.gbci.org/main-nav/professional-credentials.aspx>

CREDENTIALS

LEED GA Green Associate

For professionals who support green building design, construction, and operations, and want to demonstrate green building expertise in non-technical fields of practice, the LEED Green Associate credential denotes basic knowledge of green building principles and practices and LEED.

Eligibility requirements:

Candidates must have experience in the form of:

- EITHER documented involvement on a project registered or certified for LEED
- OR employment (or previous employment) in a sustainable field of work
- OR engagement in (or completion of) an education program that addresses green building principles.

Fees:

- Application fee: \$50
- Exam fee: \$150 for members and full-time students and \$200 for all others
- Biennial CMP Renewal Fee - \$50

Exam Objective & Format

The LEED Green Associate exam is designed to measure your ability to understand and support green design, construction, and operations. The LEED Green Associate exam is comprised of 100 randomly delivered multiple choice questions and must be completed in two hours. Total seat time for the LEED Green Associate exam is two hours and 20 minutes including an optional tutorial and short satisfaction survey.

material from: <http://www.usgbc-in.org/storage/LEED20CMP20Presentation20-20NEI20Branch20March20201020.pdf>

LEED AP Accredited Professional

For professionals participating in the design and construction phases of high-performance, healthful, durable, affordable, and environmentally sound commercial, institutional, and high-rise residential buildings, the LEED AP exam is designed to measure your knowledge and skill in understanding the LEED Rating System and ability to facilitate the project certification process.

Eligibility requirements:

Candidates must have experience in the form of documented involvement on a project registered or certified for LEED.

Fees:

Application fee: \$100

Exam fee:

Combined exam LEED GA + LEED AP: \$300 for members and \$450 for nonmembers

Specialty exam only LEED AP: \$150 for members and \$250 for non-members

Exam Objective & Format

The first part of the exam is the LEED Green Associate section. The second part of the exam is the LEED AP specialty section. Each LEED AP specialty section is comprised of 100 randomly delivered multiple choice questions and must be completed in the second two hours of the exam appointment. Candidates must pass both sections to earn the LEED AP with specialty credential.²

LEED AP Specialties:

Building Design and Construction – for New Construction, Schools, Core & Shell

Operations and Maintenance – for Existing Buildings: O+M

Interior Design and Construction – for Commercial Interiors

Homes – for Homes

Neighborhood Development – for Neighborhood Development

For more details, visit: <http://new.usgbc.org/leed/credentials/leed-ap/overview>

² Material from: <http://www.gbci.org/main-nav/professional-credentials.aspx>

LEED EXAM

Application

In order to apply for an exam, first create an account at : www.gbci.org/My Credentials and demonstrate your eligibility. You will receive an application reference number and an eligibility ID.

Register for an exam

Once you have received your eligibility ID, go to: www.prometric.com/gbci to schedule an exam appointment. The exams in Romania are held at the following location:

8176: BUCHARESTLAB1, ROMANIA : RTS, CENTRUL DE FORMARE INFORMATICA : 1B EXPOZITIEI BVD

Preparation

GBCI website offers all the materials needed for the preparation of the LEED exams:

LEED for Green Associate Study guide and Reference Guide

LEED for Building Design and Construction Study guide and Reference Guide

LEED for Operations and Maintenance Study guide and Reference Guide

LEED for Interior Design and Construction Study guide and Reference Guide

LEED for Homes Study guide and Reference Guide

LEED for Neighborhood Development Study guide and Reference Guide

Visit www.gbci.org for step-by-step instructions and to apply for your exam.

For more information, please visit: <http://www.usgbc.org/> and : <http://www.gbci.org/homepage.aspx>