

ACEER

**US Green Building
Council & LEED**

November 1, 2008

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President

**U.S. Green Building Council
Caribbean Chapter**



Architects

**Product
Manufacturers**

**Building
Owners**

**Federal,
Local,
and State
Governments**

Nonprofit Leaders

Planners

USGBC

Engineers

**Financial
Planners**

**Utility
Managers**

**Interior
Designers**

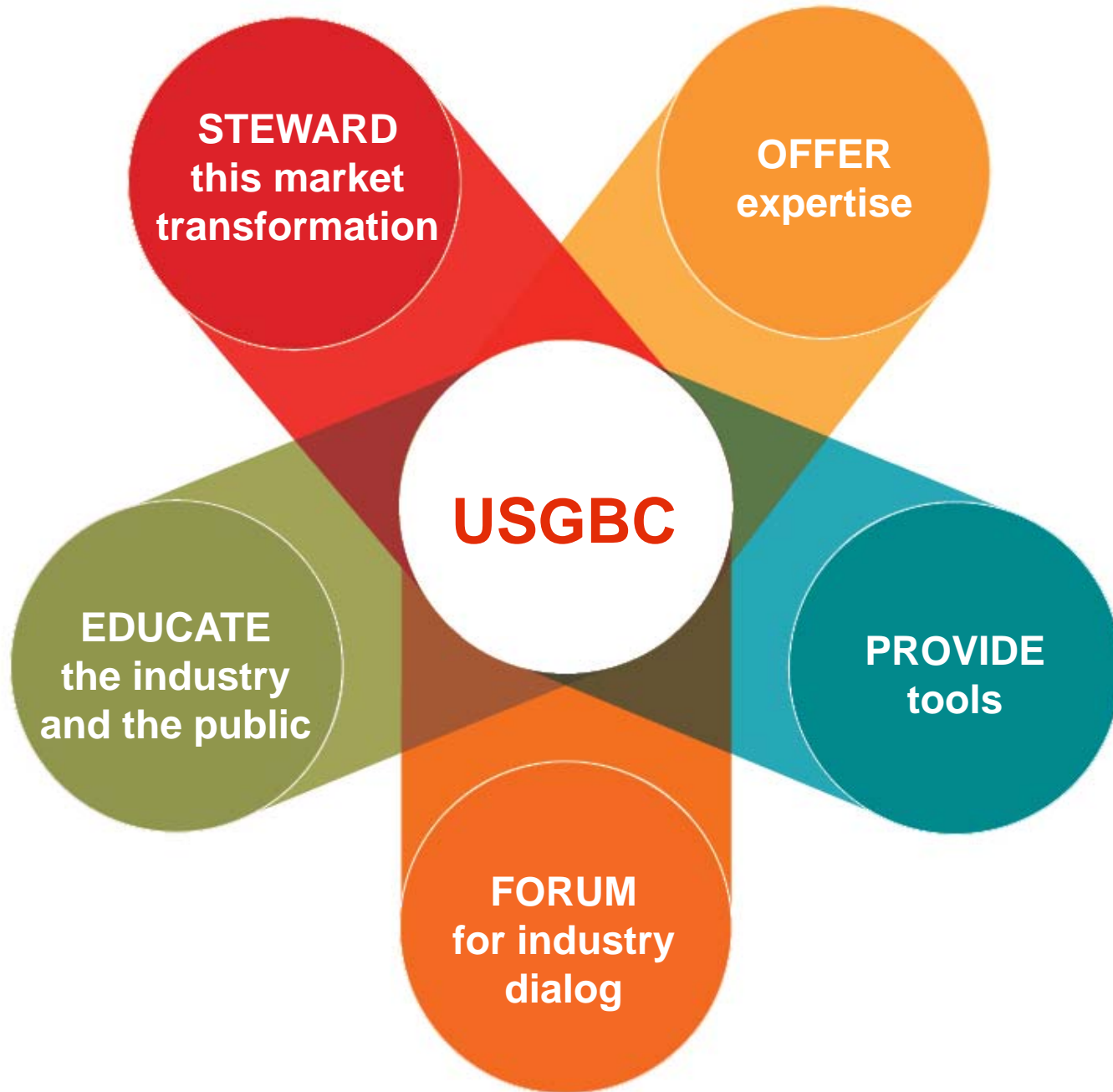
**Landscape
Architects**

**Building
Tenants**

**Property
Managers**

**Code
Officials**





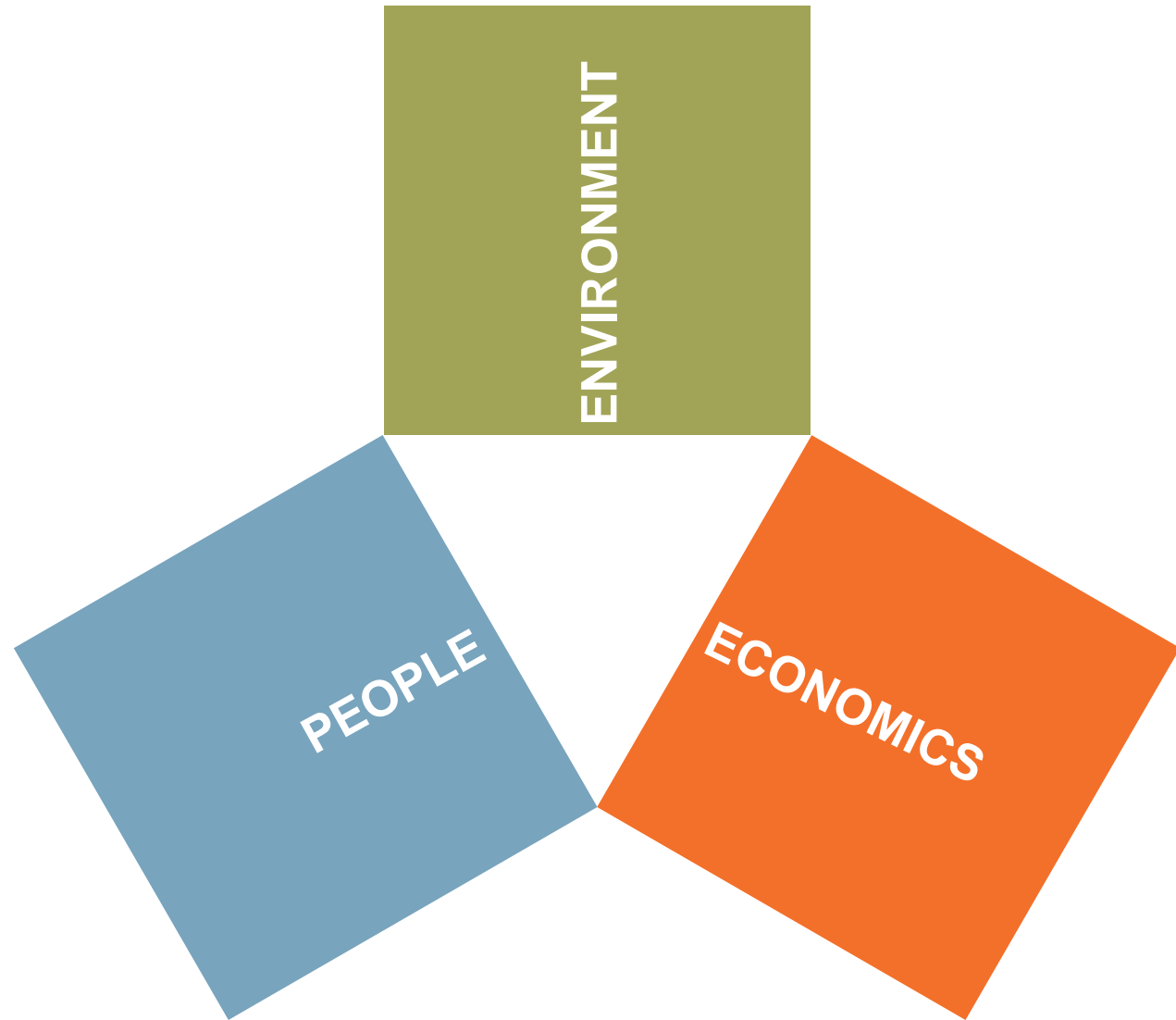
The Triple Bottom Line

Reduced
Environmental
Impact
Peak
Efficiency.

Improved
Capitalization
Rates.

Increased
Marketability.
Higher Lease
Rates.

Improved
Productivity.
Reduced
Absenteeism.



What is the LEED System?

LEADERSHIP in
ENERGY and
ENVIRONMENTAL
DESIGN

A leading-edge
system for
certifying
**DESIGN &
CONSTRUCTION**
of the greenest
buildings in the
world



LEED®

LEED is a third-party certification program and the nationally accepted benchmark for the design, construction and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance.

Categories of LEED Ratings

LEED for New Construction

LEED for Commercial Interiors

LEED for Existing Buildings

LEED for Core & Shell

NEW PROGRAMS

LEED for Homes

LEED for Neighborhood Development

LEED for Schools

Healthcare
Laboratories
Retail
Multi-building Campuses
Multi-family Residential



What is the LEED System?

LEADERSHIP in ENERGY and ENVIRONMENTAL DESIGN

A leading-edge system for certifying
DESIGN, CONSTRUCTION, & OPERATIONS of the greenest buildings in the world

Scores are tallied for different aspects of efficiency and design in appropriate categories.

For instance, LEED assesses in detail:

1. Site Planning
2. Water Management
3. Energy Management
4. Material Use
5. Indoor Environmental Air Quality
6. Innovation & Design Process

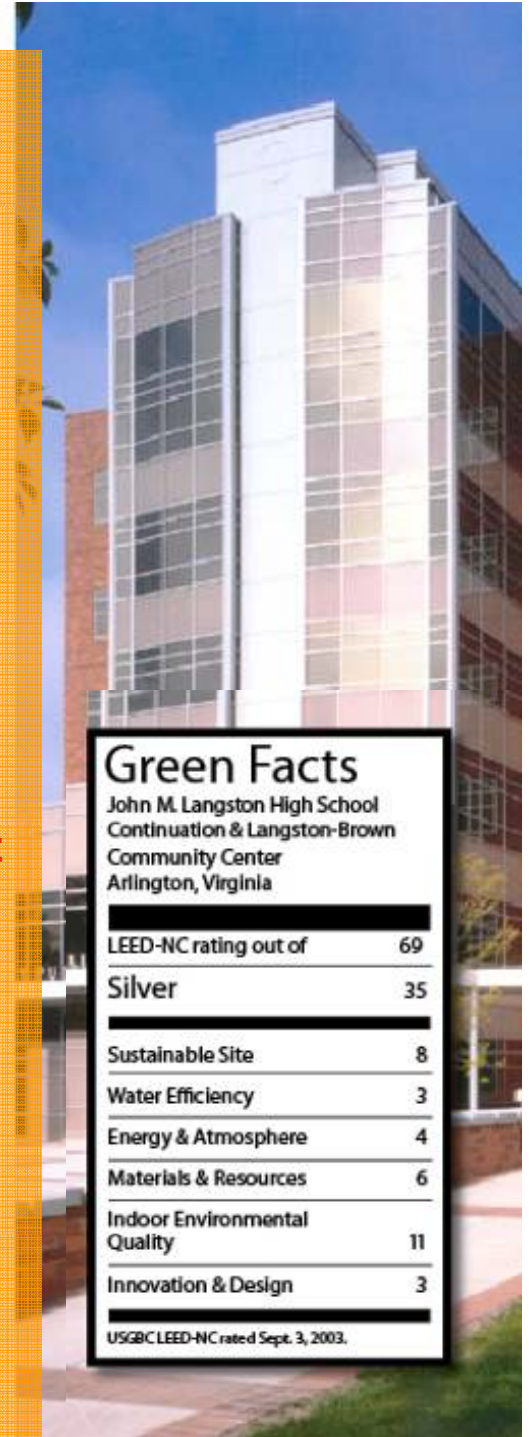


Green Facts

John M. Langston High School
Continuation & Langston-Brown
Community Center
Arlington, Virginia

LEED-NC rating out of	69
Silver	35
Sustainable Site	8
Water Efficiency	3
Energy & Atmosphere	4
Materials & Resources	6
Indoor Environmental Quality	11
Innovation & Design	3

USGBC LEED-NC rated Sept. 3, 2003.



Credits

INTENT

Objectives

Environmental benefits

Expected results

REQUIREMENTS

Conditions to achieve the credit

SUBMITTALS/TEMPLATES

Documentation that is required to prove compliance

Electronic templates

Technologies & Strategies

Suggestions for path compliance



LEED:
Streamlined,
refined,
and online.



LEED-NC 2.1 Letter Template

EA Credit 1.1-1.10: Optimize Energy Performance

(Architect, HVAC Engineer or Responsible Party)

I, _____, declare to USGBC the following reduction in design energy cost compared to the energy cost budget for energy systems regulated by ASHRAE/IESNA Standard 90.1-1999 (without amendments):

- | New Buildings | Existing Buildings |
|---------------------------|---------------------------|
| <input type="radio"/> 15% | <input type="radio"/> 5% |
| <input type="radio"/> 20% | <input type="radio"/> 10% |
| <input type="radio"/> 25% | <input type="radio"/> 15% |
| <input type="radio"/> 30% | <input type="radio"/> 20% |
| <input type="radio"/> 35% | <input type="radio"/> 25% |
| <input type="radio"/> 40% | <input type="radio"/> 30% |
| <input type="radio"/> 45% | <input type="radio"/> 35% |
| <input type="radio"/> 50% | <input type="radio"/> 40% |
| <input type="radio"/> 55% | <input type="radio"/> 45% |
| <input type="radio"/> 60% | <input type="radio"/> 50% |

I have provided the following supplementary information to support the declaration:

- quantitative summary table (as per LEED reference Guide) showing the energy saving measures incorporated in the building design. The summary table includes detailed data on both design and budget assumptions.
- summary printout from an energy simulation package demonstrating that the design energy cost is lower than the energy cost budget as defined in ASHRAE/IESNA 90.1-1999, Section 11. The summary printout contains all the information requested

Sustainable Sites

Site selection
Development Density & Community Connectivity
Brownfield Redevelopment
Alternative Transportation
Site Development
Storm Water Management
Heat island effect
Light Pollution Reduction



SUSTAINABLE SITES

Sustainable Sites

International Dark Sky Association



Defense Meteorological Satellite Program (DMSP) satellites

Sustainable Sites

Light Pollution



Sustainable
Sites

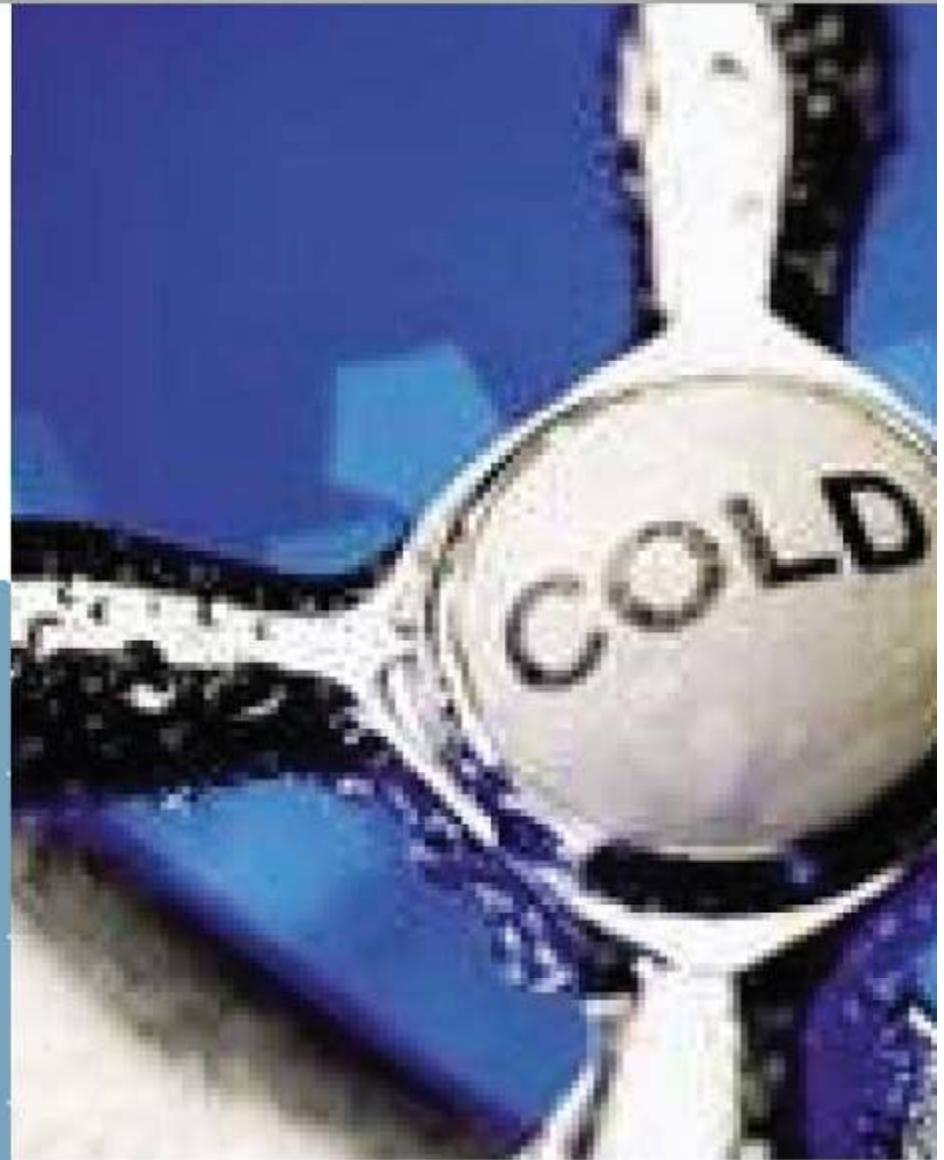
Efficient
Water Use

Water Efficient
Landscape –Reduce
50%

Water Efficient
Landscape-No
Irrigation

Innovative Waste
Water Technologies

Water Use Reduction



EFFICIENT WATER USE

Sustainable
Sites

Efficient
Water Use

**Energy &
Atmosphere**

**Optimize Energy
Performance**

**On site Renewable
Energy**

**Building
Commissioning**

Ozone Protection

**Performance
Measurement**

ENERGY & ATMOSPHERE



Sustainable Sites
Efficient Water Use
Energy & Atmosphere
Materials & Resources



Storage & collection of recyclable
Building Reuse
Construction & Solid Waste Management
Material Reuse
Recycle Content
Regional Materials
Sustainable Purchasing



Sustainable Sites

Efficient Water Use

Energy & Atmosphere

Materials & Resources

Indoor Environmental Quality



Environmental Tobacco Smoke Control

Construction IAQ

Low emitting materials

Green Cleaning

Daylight & Views

Controllability of Systems

Occupant Comfort



Sustainable
Sites
Efficient
Water Use
Energy &
Atmosphere
Materials &
Resources
Indoor
Environmental
Quality
Innovation



Up to 5 additional credits

LAP: 1 Credit

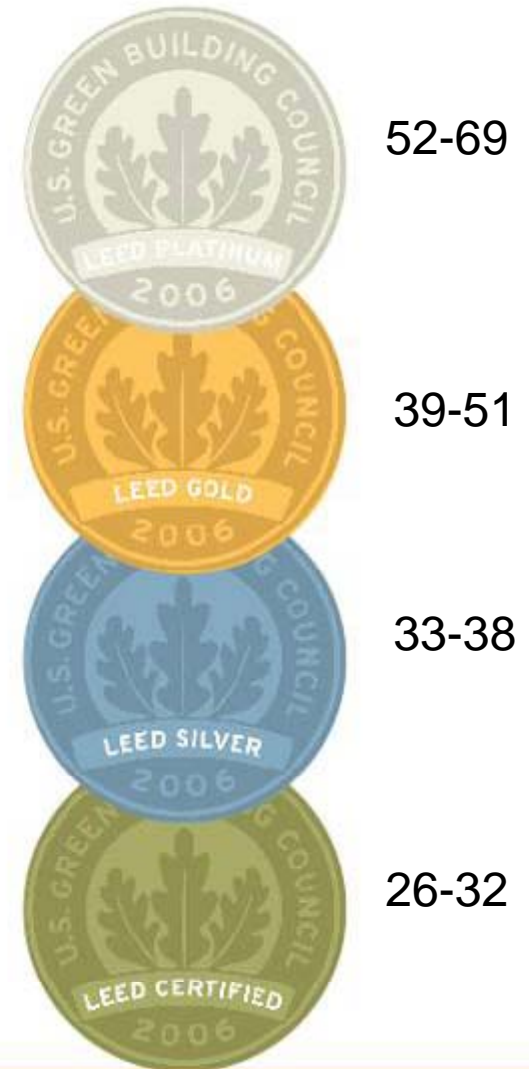
Innovation: 1–4 Credits



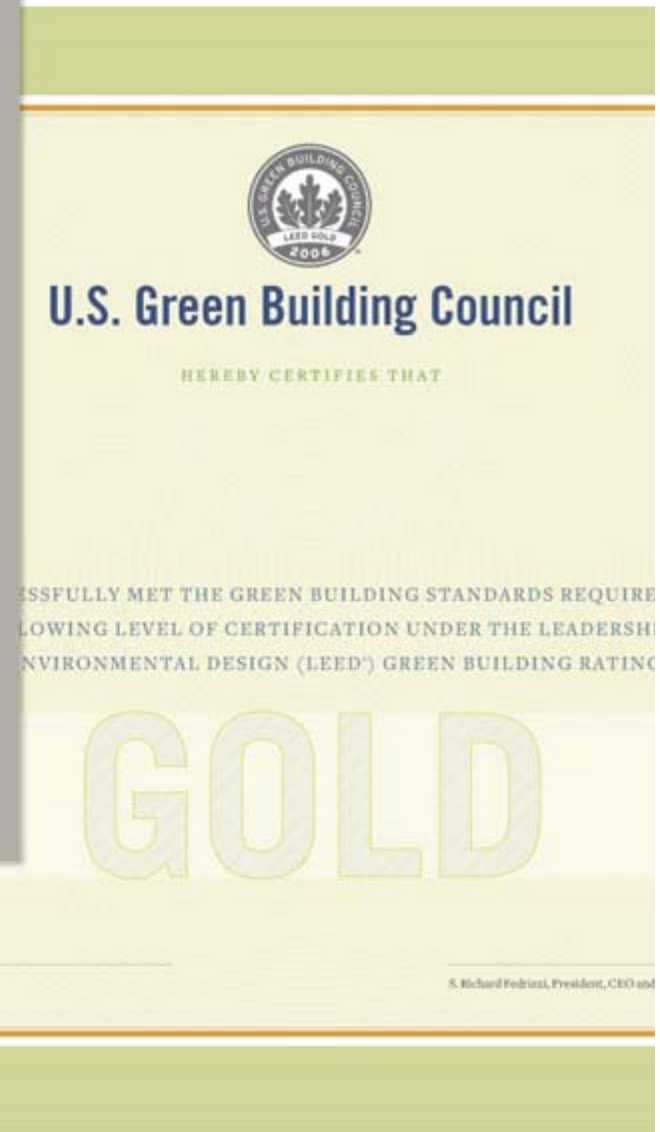
INNOVATION IN DESIGN

Levels of LEED Ratings

**Green Buildings
worldwide are certified
with a voluntary,
consensus-based
rating system.
USGBC has four
levels of LEED.**



Measurement & verification



Certificate Validation





U.S. GREEN BUILDING COUNCIL

LEED CERTIFIED

2006

Standard Refrigeration Headquarters

Puerto Rico

Office space
12,000 p.c

**LEED
PLATINUM**

70%
Energy Savings

40%
Water Savings



**Instituto
Internacional
de
Dasonomia
Tropical**

**USDA Forest
Service**

**Office
12,000 p.c.**

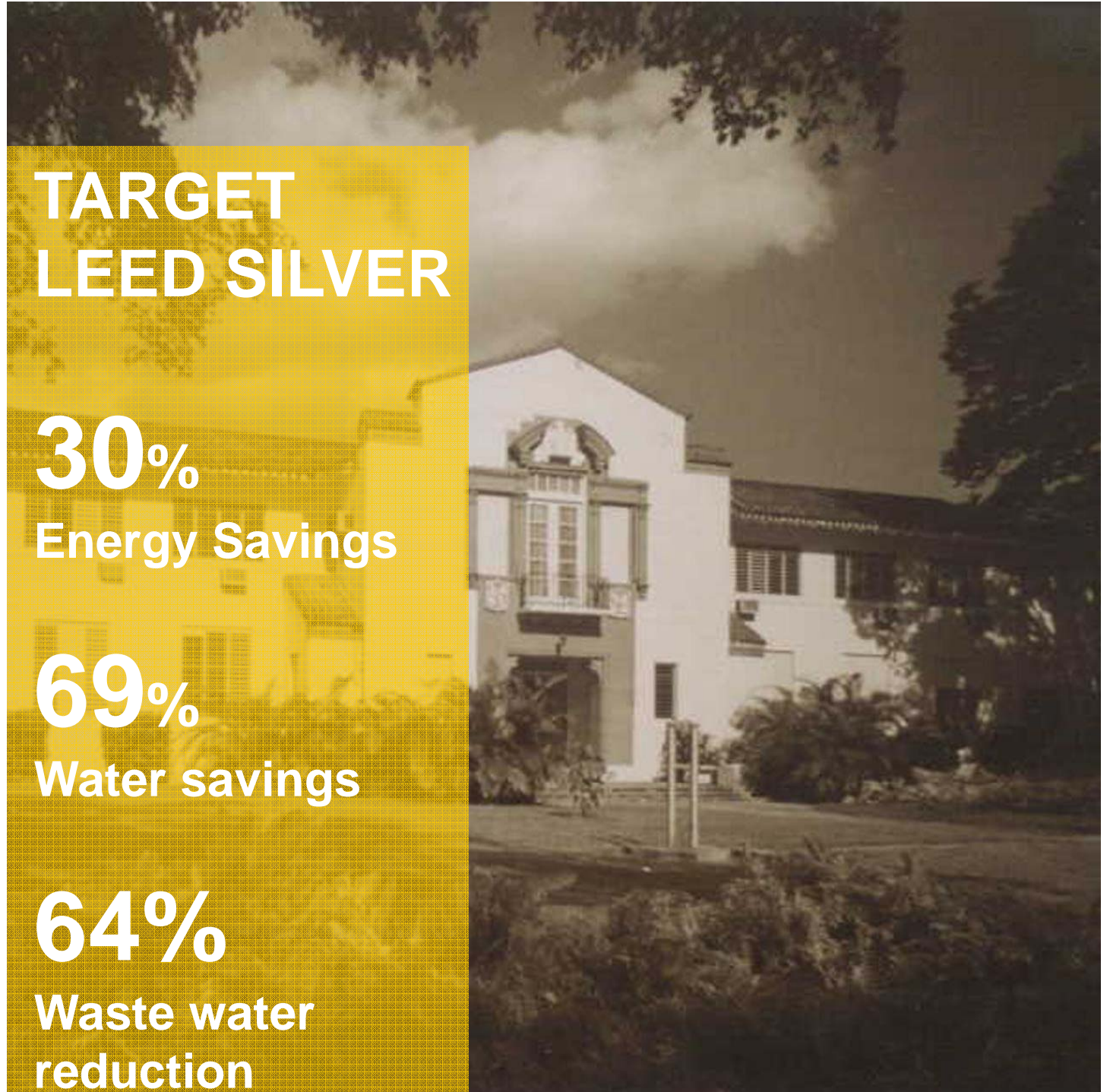


**TARGET
LEED SILVER**

30%
Energy Savings

69%
Water savings

64%
Waste water
reduction



LEED ADOPTIONS



8 Countries
17 States
54 Cities & Counties
33 Schools
9 Federal Agencies

**USGBC-
Caribbean
Chapter**

Non - Profit

**Incorporated in
2005**

**+250 members
national &
locales**

+ 30 LEED AP

**Members of the
Florida
Caribbean
Region**



**Education to public at
large & professionals**

**Alliance with National
Geographic for Kids to
educate Students K-12**

**Active participation on
COOL Cites**

**Continious seminars
with approved education
credits CAAPPR, CIAPR
AIA & Planners**

**Emerging Green
Builders at the UPR and
the Politecnic Insitute**



WWW.CARIBBEANGREENEXPO.ORG



December 4 & 5

The image features a dark blue background with a series of concentric, light-colored ripples emanating from the center, resembling a stone dropped into water. The text 'USGBC' is centered horizontally and vertically, rendered in a bold, white, sans-serif font. The letters are slightly shadowed, giving them a three-dimensional appearance as if they are floating on or resting on the water's surface.

USGBC