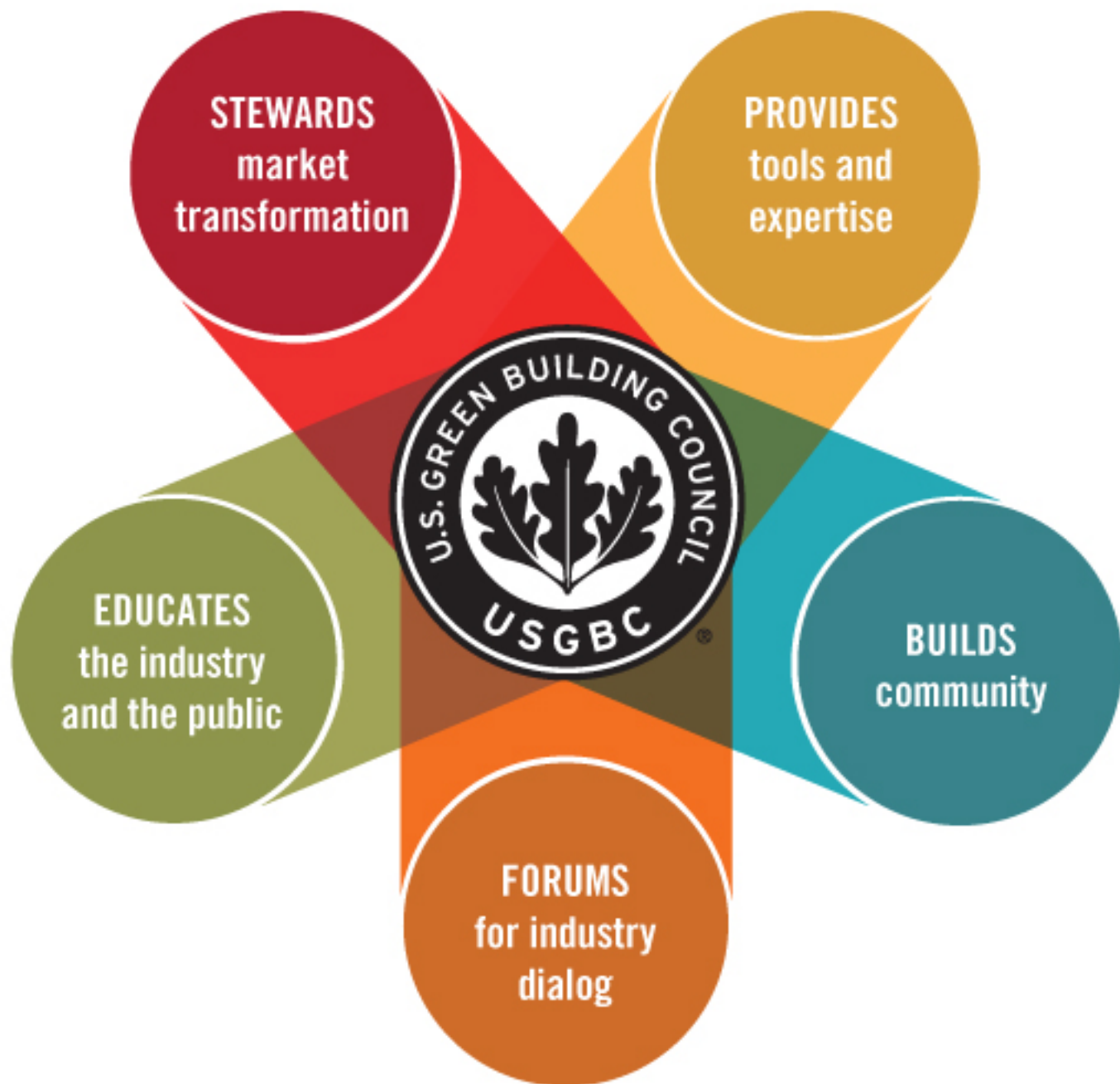




OUR MISSION

To transform the way buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy and prosperous environment that improves the quality of life.

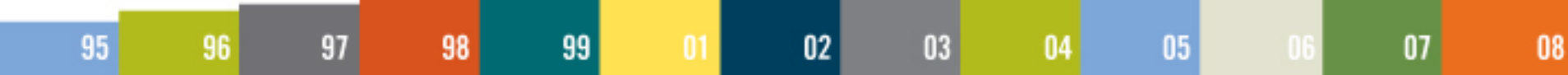


USGBC MEMBERSHIP

ENGINEERS NON PROFIT LEADERS INTERIOR DE
PRODUCT MANUFACTURERS ARCHITECTS CODE OFF
PROPERTY MANAGERS FEDERAL, LOCAL, AND STATE
GROUNDSKEEPERS CAPITAL PLANNING STAFF GR
LANDSCAPE ARCHITECTS UTILITY MANAGERS PLANNERS
BUILDING TENANTS FINANCIAL PLANNERS BUILDING
CODE OFFICIALS PRODUCT MANUFACTURERS ENGINEERS
BUILDING OWNERS INTERIOR DESIGNERS BUILDING
OFFICIALS FEDERAL, LOCAL, AND STATE GOVERNMENT
NON PROFIT LEADERS PROPERTY MANAGERS NON

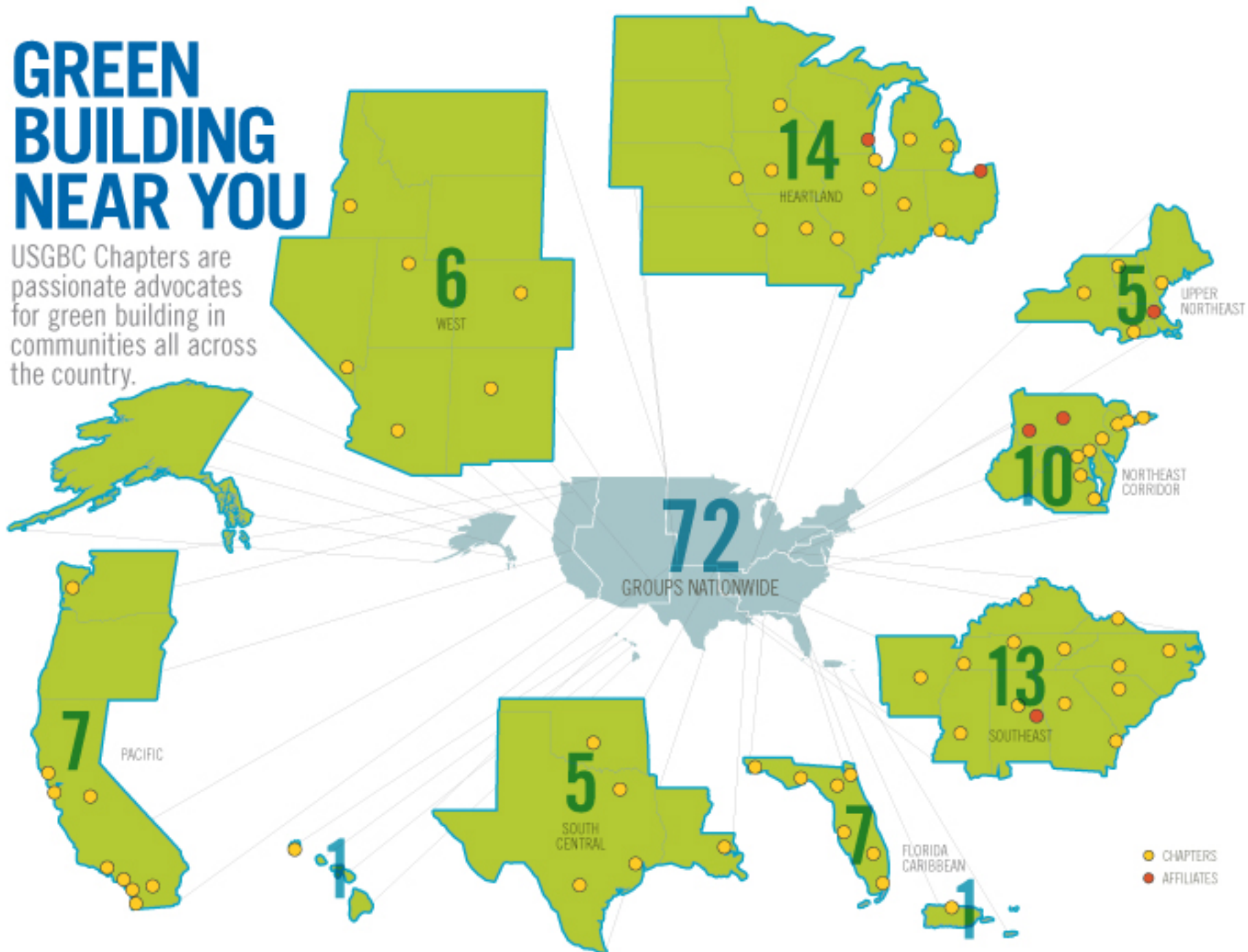
USGBC
membership
growth reflects
the expansion of
green buildings in
the market.

15,031 +



GREEN BUILDING NEAR YOU

USGBC Chapters are passionate advocates for green building in communities all across the country.





GREEN BUILDING CERTIFICATION INSTITUTE

HEREBY CERTIFIES THAT

49,762

HAS ACHIEVED THE DESIGNATION OF

LEED® ACCREDITED PROFESSIONAL

BY DEMONSTRATING THE KNOWLEDGE OF GREEN BUILDING PRACTICE
REQUIRED FOR SUCCESSFUL IMPLEMENTATION OF THE LEADERSHIP IN ENERGY
AND ENVIRONMENTAL DESIGN (LEED®) GREEN BUILDING RATING SYSTEM™.



RE

BUILDING

REEVALUATING

REGREENING RENOVATING

REDUCING REPOSITIONING RECLAIMING

REPLENISHING REPAIRING RECYCLING REPURPOSING

REVITALIZING RETHINKING RETROFITTING RETURNING RESTORING REFORMING

REIMAGINING REJUVENATING RECONSIDERING REDRESSING RECOVERING REINVENTING

RE  EVOLUTIONARY GREEN

GREEN  BUILD

INTERNATIONAL CONFERENCE & EXPO

COME TO BOSTON → NOVEMBER 19-21 2008



Leadership in Energy & Environmental Design



Nutrition Facts

Serving Size 8 crackers (28g)
Servings Per Container About 2

Amount Per Serving

Calories 120 Calories From Fat 30

% Daily Value*

Total Fat 3.5g 5%

Saturated Fat 1g 5%

Trans Fat 0g

Polyunsaturated Fat 1.5g

Monounsaturated Fat 0.5g

Cholesterol 0mg 0%

Sodium 140mg 6%

Total Carbohydrate 22g 7%

Dietary Fiber Less than 1g 3%

Sugars 7g

Protein 2g

Vitamin A 0% • Vitamin C 0%

Calcium 10% • Iron 4%

* Percent Daily Values are based on a 2,000 calorie diet.

CONTINUED ON OTHER SIDE



Leadership in Energy and Environmental Design

A leading-edge system
for certifying the
greenest performing
buildings in the world

LEED® Facts	
Building size 12,500 square ft	
Type of building	
LEED for Core & Shell Development Certification awarded July 27, 2006	
Platinum	49*
Sustainable Sites	13/15
Water Efficiency	5/5
Energy & Atmosphere	12/15
Materials & Resources	6/9
Indoor Environmental Quality	10/13
Innovation & Design	3/5

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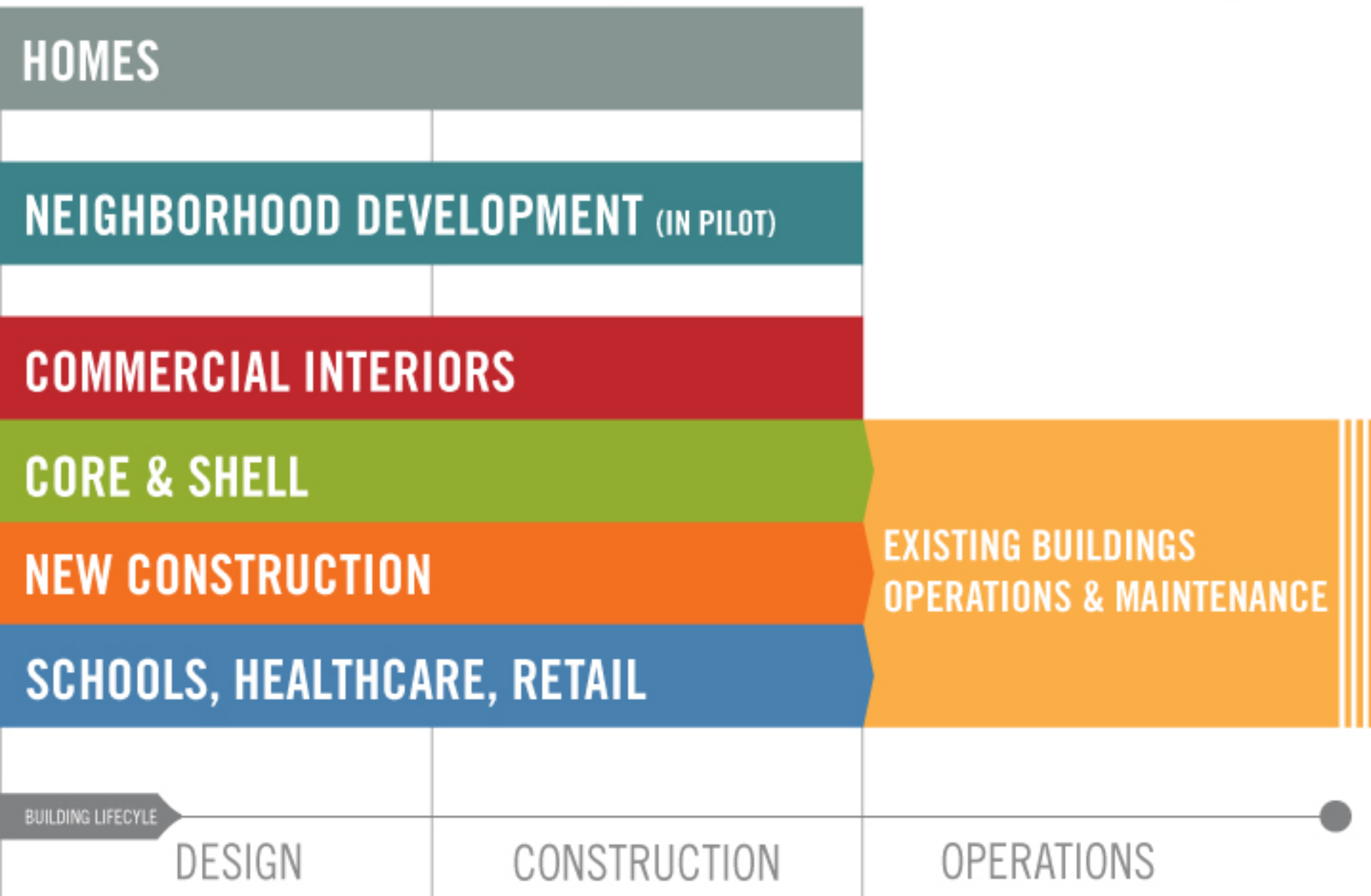
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Materials & Resources	6/9
Indoor Environmental Quality	10/13
Innovation & Design	3/5

*Out of a possible 62 points

What Is Green Building?



LEED address the complete lifecycle of buildings:



USGBC has four levels of LEED:



Sustainable Sites

Erosion and Sedimentation Control

Age of Building

Green Site and Building Exterior Management

High Development Density Building and Area Alternative Transportation

Reduced Site Disturbance

Stormwater Management

Heat Island Reduction

Light Pollution Reduction



Sustainable Sites

Efficient Water Use

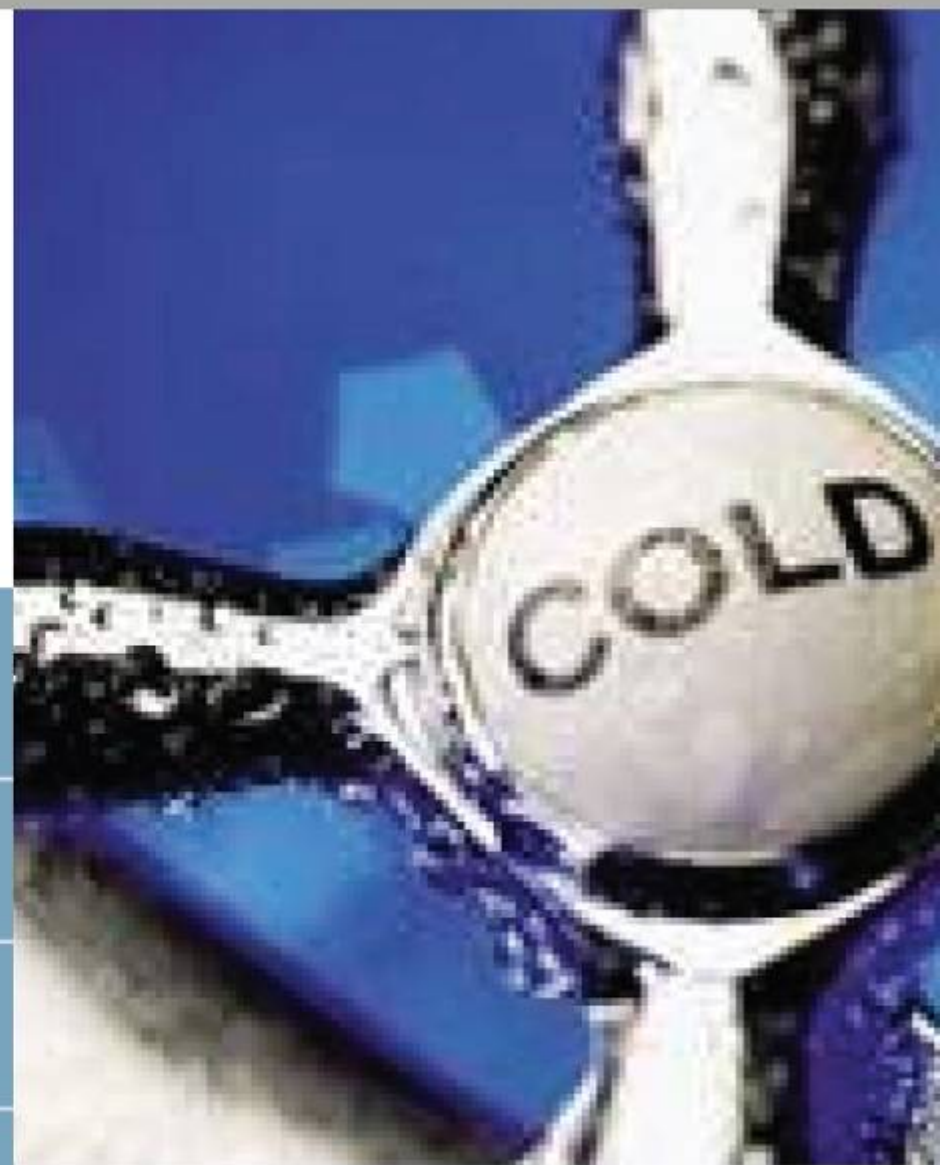
Minimum Water Efficiency

Discharge Water Compliance

Water Efficient Landscaping

Innovative Wastewater Technologies

Water Use Reduction



Sustainable Sites

Efficient Water Use

Energy & Atmosphere

Existing Building Commissioning

Minimum Energy Performance

Ozone Protection

Optimize Energy Performance

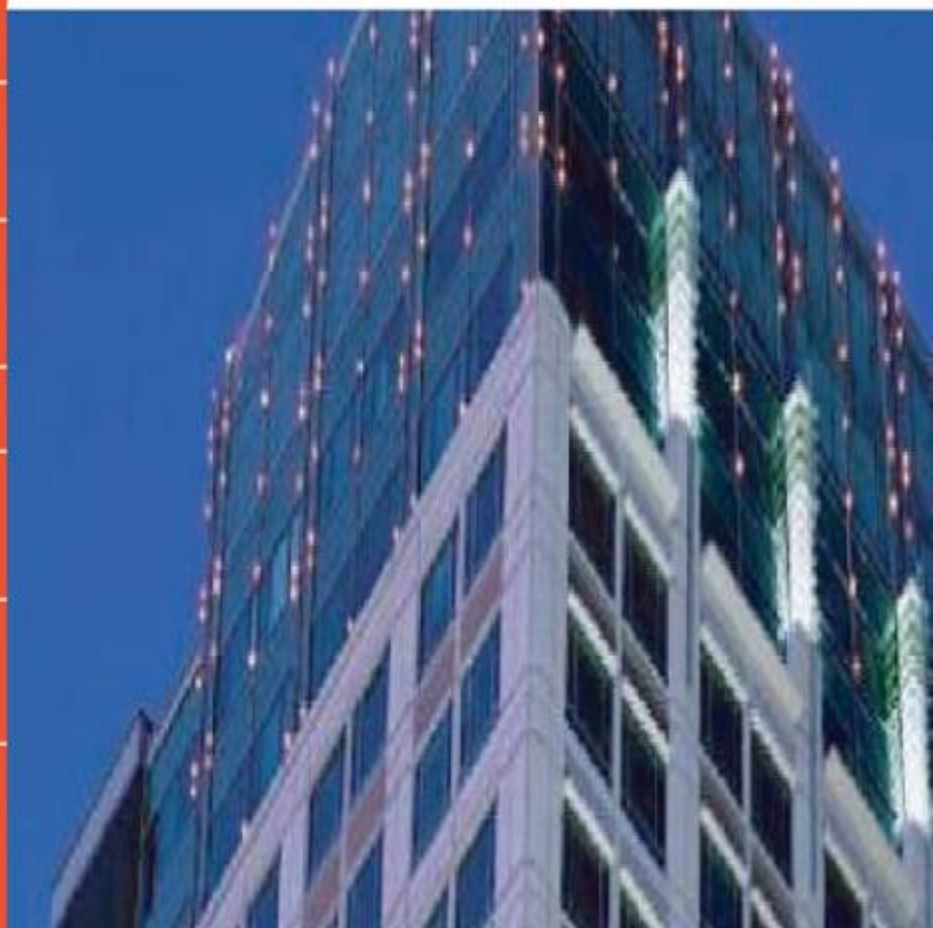
On/Off Site Renewable Energy

Building O&M

Additional Ozone Protection

Performance Measurement

Documenting Cost Impacts



Sustainable Sites

Efficient Water Use

Energy & Atmosphere

Materials & Resources



Source Reduction & Waste Management

Toxic Material Source Reduction

Construction Waste Management

Optimized Use of Alternative Materials

Optimized Use of IAQ Compliant Products

Sustainable Cleaning Products

Occupant Recycling

Additional Toxic Material Source Reduction

Recycled Content



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



- Outside Air Exhaust
- Tobacco Smoke Control
- Asbestos/PCB Removal
- Outdoor Air Delivery Monitoring
- Increased Ventilation Construction
- IAQ Management Plan
- Documenting Productivity Impacts
- Indoor Chemical & Pollutant Source Control
- Controllability of Systems
- Thermal Comfort
- Daylighting & Views
- Contemporary IAQ Practice
- Green Cleaning



- 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





U.S. GREEN BUILDING COUNCIL

LEED PLATINUM

2006

Case Study Seven World Trade Center

Silverstein
Properties, Inc.
developer

High-rise
commercial
office building
1.7 million sq ft

LEED Gold

17% energy savings

53% water savings

75% construction waste salvaged



Case Study Schuster Hall

Juniata College,
Penn Township, PA
owner

Dining Hall/Multi-
Purpose
5,994 sq ft

LEED Certified

30% energy savings

65% water savings

34% recycled content





Bronx Library Center New York, NY

90% of demolition
debris recycled

20% energy cost
savings

80% of wood is FSC
certified



**Boulder Associates,
Inc. Office
Boulder, CO**

39%

of materials and
furniture have
recycled content

43%

less water use

55%

of demolition/
construction
waste diverted
from landfill

Photography courtesy of Ed LaCasse



Sidwell Friends Middle School Washington, DC

90% reduced municipal
water use

60% less energy
demand than a
conventional school

80% native plant species
planted on site



Photograph Courtesy of Peter Aaron/ESTO



**Tepeyac Haven
Pasco, WA**

15 units per acre

29% improvement of
attic insulation heat
resistance over
state code energy

44 homes available for
low-income families





Orchard Garden Hotel San Francisco, CA

22% of building materials
manufactured
within 500 miles

77% of construction
waste diverted from
the landfill

100% of interior
spaces
designated
tobacco-free

Photograph Courtesy of
Orchard Garden

Steps to LEED Certification

REGISTER YOUR PROJECT

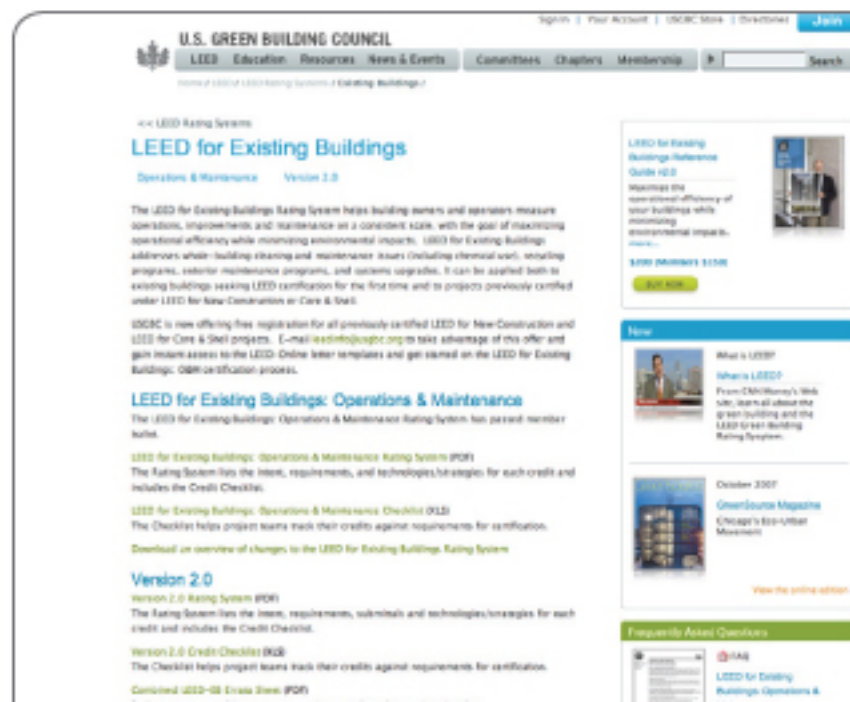
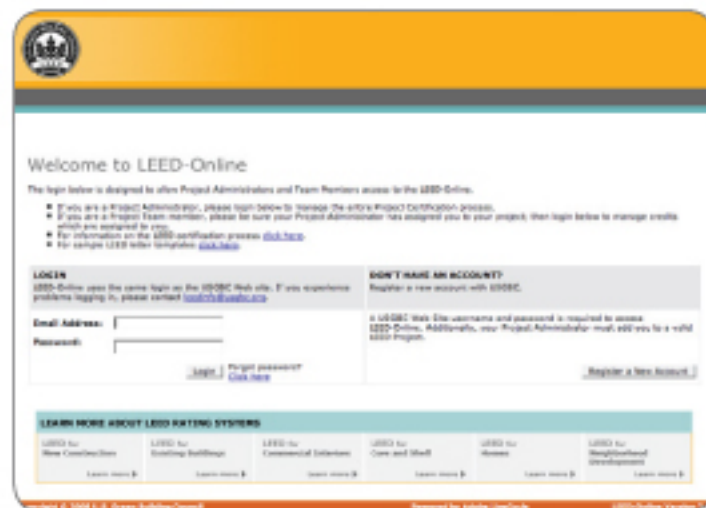
```
graph TD; A[REGISTER YOUR PROJECT] --> B[TRACK PROGRESS & DOCUMENT ACHIEVEMENT]; B --> C[APPLY FOR CERTIFICATION];
```

**TRACK PROGRESS &
DOCUMENT ACHIEVEMENT**

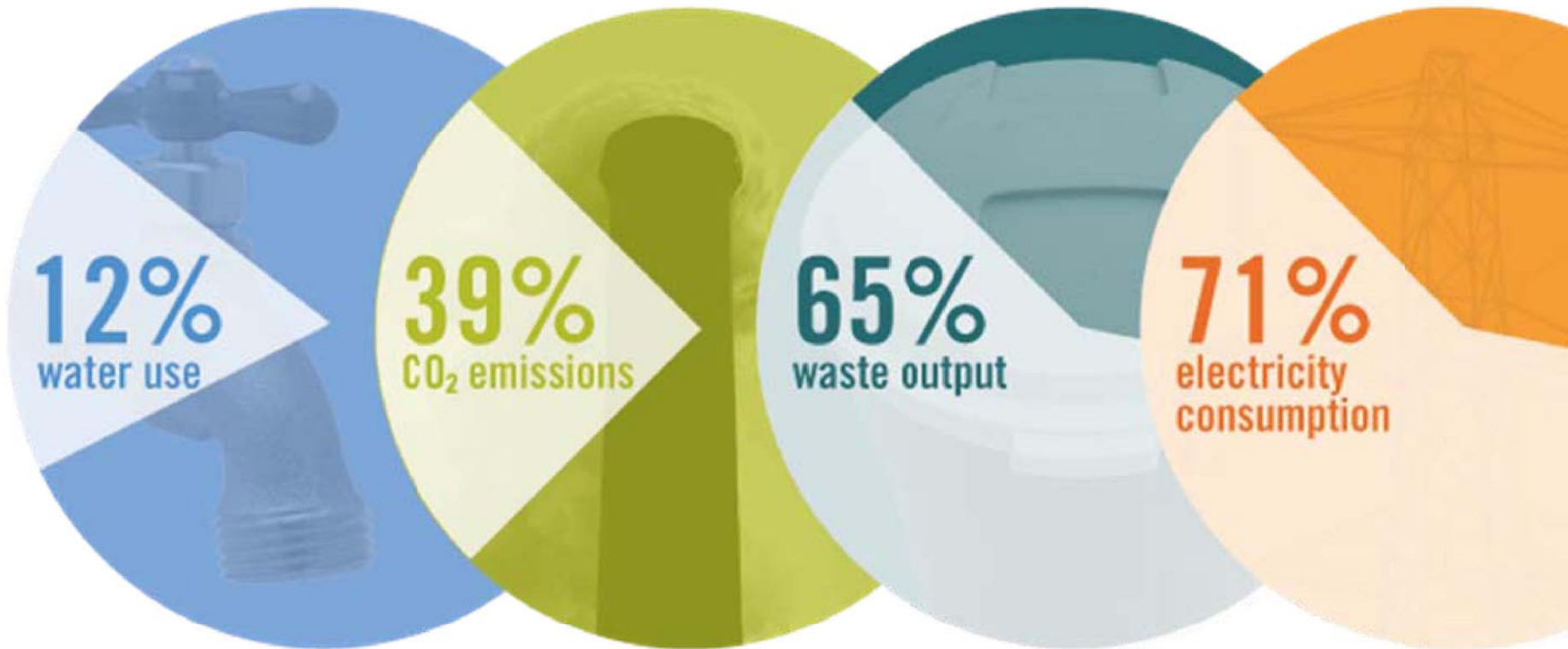
APPLY FOR CERTIFICATION

Tools

- Rating systems
- Reference guide
- Project checklist
- Credit Interpretation Requests (CIRs)
- LEED Online
- Educational workshops
- Project case studies
- www.usgbc.org



U.S. Building Impacts:



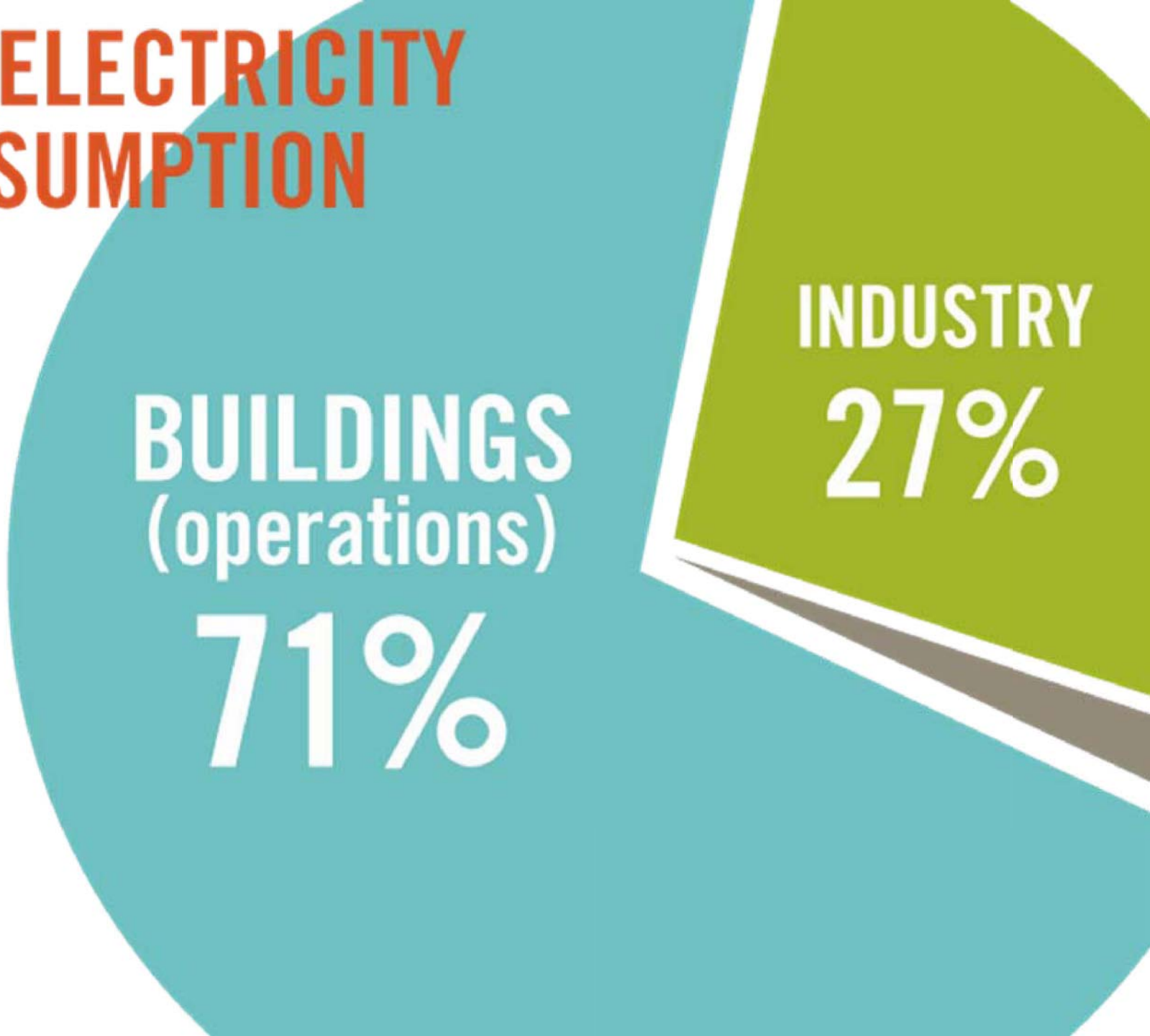
U.S. ELECTRICITY CONSUMPTION

BUILDINGS
(operations)

71%

INDUSTRY

27%

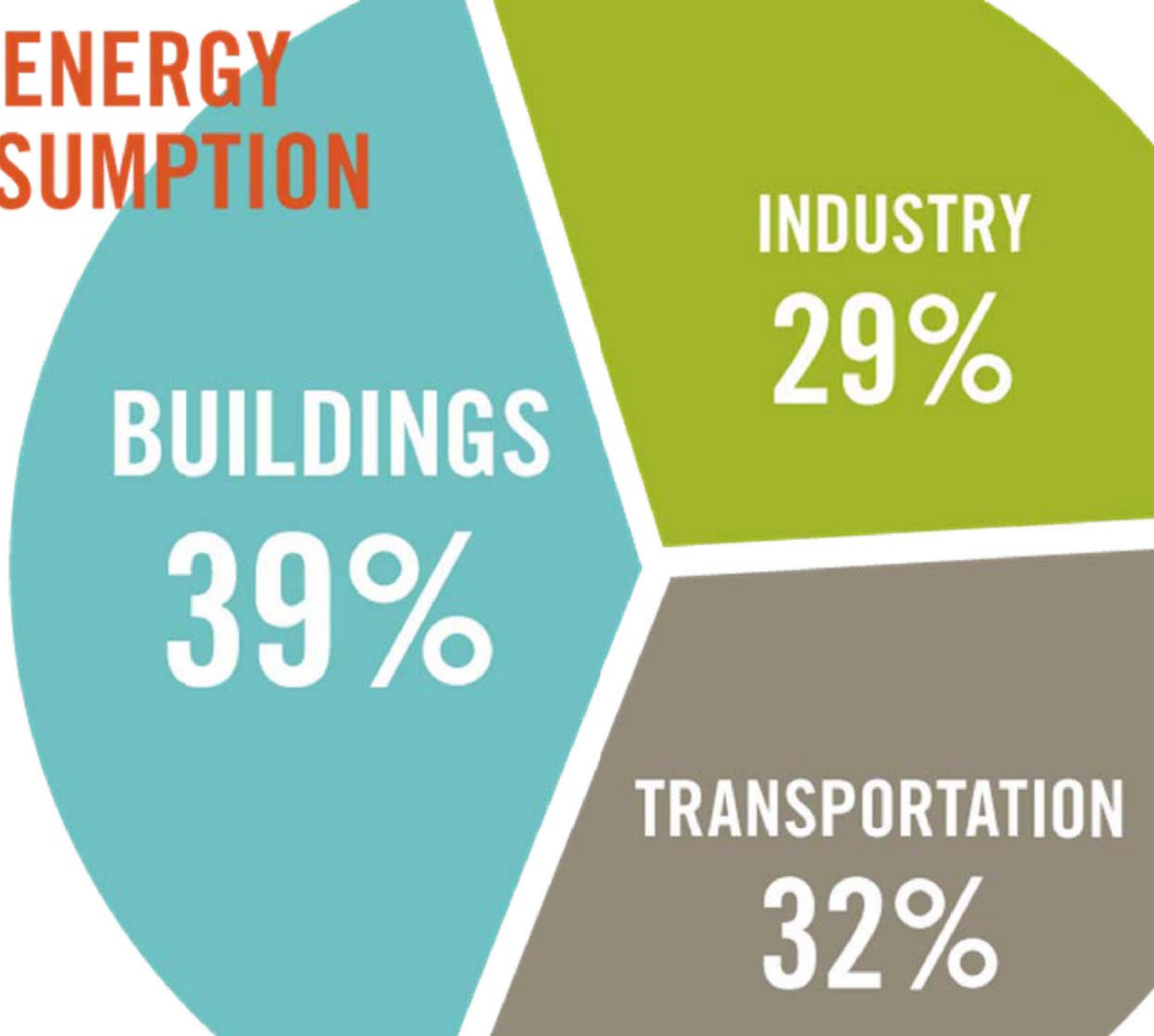


U.S. ENERGY CONSUMPTION

BUILDINGS
39%

INDUSTRY
29%

TRANSPORTATION
32%



U.S. BUILDINGS IMPACTS ON RESOURCES

39% of total energy consumption

71% of electricity consumption

39% CO₂ emissions

30% of raw materials use

30% of waste output

12% of potable water consumption

WORLDWIDE, BUILDINGS ACCOUNT FOR...

17% fresh water withdrawals

25% wood harvest

33% CO₂ emissions

40% material and energy use
45% in china

**THE NEXT
GENERATION'S
PERSPECTIVE
WILL INCREASE
GREEN BUILDING**

89% choose brands aligned
with social cause

74% listen to brands aligned
with social cause

69% shop for brands aligned
with social cause

66% recommend brands aligned
with social cause

PERCEIVED ADVANTAGES OF BUILDING GREEN

8-9% decrease in operating costs

7.5% increase in building values

6.6% improvement in ROI

3.5% increase in occupancy

3% rent increase

Increased Productivity.

SCHOOLS

**20%
BETTER TEST
PERFORMANCE**

HOSPITALS

**2 1/2 DAY
EARLIER
DISCHARGE**

RETAIL

**INCREASE
IN SALES
PER SQUARE
FOOT**

FACTORIES

**INCREASED
PRODUCTION**

OFFICES

**2-16%
PRODUCTIVITY
INCREASE**

LEED for Existing Buildings: Operations & Maintenance

Ongoing certification of all projects

The Basics

9 prerequisites

34 credits

3 - month performance period

Minimum Program Requirements

- Full occupancy for at least 12 continuous months
- Applies to whole buildings
- Federal, state and local environmental law/regulation compliance

Credit Categories & Distribution



12

POINTS Sustainable Sites (SS)

10

POINTS Water Efficiency (WE)

30

POINTS Energy & Atmosphere (EA)

14

POINTS Materials & Resources (MR)

19

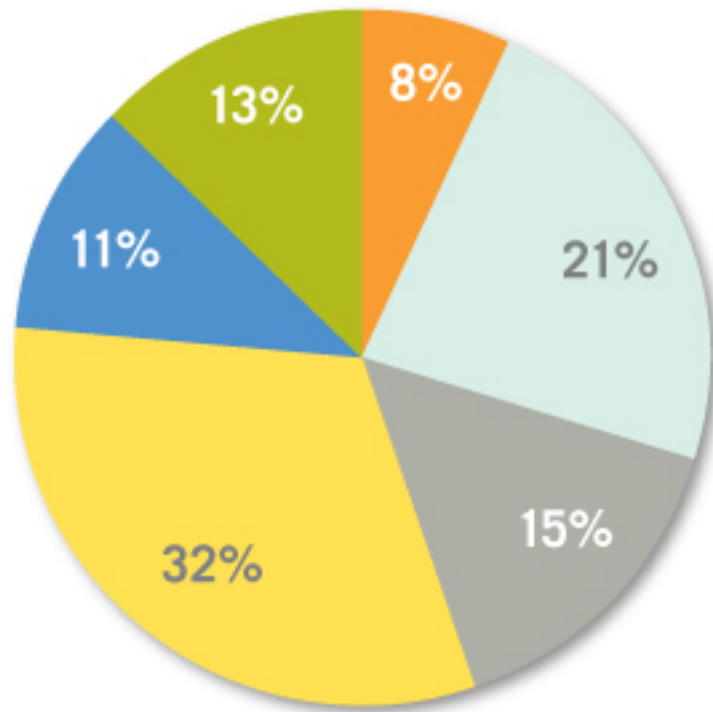
POINTS Indoor Environmental Quality (EQ)

7

POINTS Innovation in Operations (IO)

Point Distribution Comparison

Key: **SS** **WE** **EA** **MR** **EQ** **IO**



**LEED for Existing Buildings:
Operations & Maintenance**

Credits & Points

SS	WE	EA	MR	EQ	GC	IO
Credit 7						

SS	WE	EA	MR	EQ	GC	IO
Credit 2						

SS	WE	EA	MR	EQ	GC	IO
Credit 4						

IO	SS	WE	EA	MR	EQ	GC	IO
Credit 4							

SS	WE	EA	MR	EQ	GC	IO
Credit 1						

SS	WE	EA	MR	EQ	GC	IO
Credit 4						

SS	WE	EA	MR	EQ	GC	IO
Credit 2						

SS	WE	EA	MR	EQ	GC	IO
Credit 3						

SS	WE	EA	MR	EQ	GC	IO
Credit 4						

SS	WE	EA	MR	EQ	GC	IO
Credit 1						

SS	WE	EA	MR	EQ	GC	IO
Credit 8						

SS	WE	EA	MR	EQ	GC	IO
Credit 4						

SS	WE	EA	MR	EQ	GC	IO
Credit 7						

SS	WE	EA	MR	EQ	GC	IO
Credit 2						

SS	WE	EA	MR	EQ	GC	IO
Credit 4						

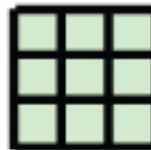
Sustainable Sites (SS)

Yes ? No

0 0 0

Sustainable Sites

12 Points



Credit 1	LEED Certified Design and Construction	1
Credit 2	Building Exterior and Hardscape Management Plan	1
Credit 3	Integrated Pest Management, Erosion Control, and Landscape Management Plan	1
Credit 4	Alternative Commuting Transportation	4



	10%	1
	25%	1
	50%	1
	75% or greater	1

Credit 5	Reduced Site Disturbance - Protect or Restore Open Space	1
----------	---	----------

Credit 6	Stormwater Management	1
----------	------------------------------	----------

Credit 7	Heat Island Reduction	2
----------	------------------------------	----------



	Non-Roof	1
--	----------	---

	Roof	1
--	------	---

Credit 8	Light Pollution Reduction	1
----------	----------------------------------	----------

Yes ? No

0 0 0

Water Efficiency

10 Points



Prereq 1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Required
----------	---	-----------------

Credit 1	Water Performance Measurement	2
----------	--------------------------------------	----------



	Whole building metering	1
--	-------------------------	---

	Submetering	1
--	-------------	---

Credit 2	Additional Indoor Plumbing Fixture and Fitting Efficiency	3
----------	--	----------



	10%	1
--	-----	---

Water Efficiency (WE)

Yes ? No

0 0 0

Water Efficiency

10 Points

Y

Prereq 1 **Minimum Indoor Plumbing Fixture and Fitting Efficiency** Required

Credit 1 **Water Performance Measurement** 2

Whole building metering 1

Submetering 1

Credit 2 **Additional Indoor Plumbing Fixture and Fitting Efficiency** 3

10% 1

20% 1

30% 1

Credit 3 **Water Efficient Landscaping** 3

Reduce Potable Water Use by 50% 1

Reduce Potable Water Use by 75% 1

Reduce Potable Water Use by 100% 1

Credit 4 **Cooling Tower Water Management** 2

Chemical Management 1

Non-Potable Water Source Use 1

Yes ? No

0 0 0

Energy & Atmosphere

30 Points

Y

Prereq 1 **Energy Efficiency Best Management Practices - Planning, Documentation, and Opportunity Assessment** Required

Y

Prereq 2 **Minimum Energy Efficiency Performance** Required

Y

Prereq 3 **Refrigerant Management - Ozone Protection** Required

--	--	--

Credit 1 **Optimize Energy Efficiency Performance** 15

Energy & Atmosphere (EA)

Yes ? No

0 0 0

Energy & Atmosphere

30 Points

Y	Prereq 1	Energy Efficiency Best Management Practices - Planning, Documentation, and Opportunity Assessment	Required
Y	Prereq 2	Minimum Energy Efficiency Performance	Required
Y	Prereq 3	Refrigerant Management - Ozone Protection	Required
	Credit 1	Optimize Energy Efficiency Performance	15
	Credit 2	Existing Building Commissioning	6
		Investigation and Analysis	2
		Implementation	2
		Ongoing Commissioning	2
	Credit 3	Performance Measurement	3
		Building Automation System	1
		System-Level Metering, 40%	1
		System-Level Metering, 80%	1
	Credit 4	Renewable Energy	4
		On-site 3% / Off-site 25%	1
		On-site 6% / Off-site 50%	1
		On-site 9% / Off-site 75%	1
		On-site 12% / Off-site 100%	1
	Credit 5	Refrigerant Management	1
	Credit 6	Emissions Reduction Reporting	1

Yes ? No

0 0 0

Materials & Resources

14 Points

Materials & Resources (MR)

Yes ? No

0 0 0

Materials & Resources

14 Points

Y

Prereq 1

Sustainable Purchasing Policy

Required

Y

Prereq 2

Solid Waste Management Policy

Required

Credit 1

Sustainable Purchasing

3



Ongoing Consumables, 40%

1

Ongoing Consumables, 60%

1

Ongoing Consumables, 80%

1

Credit 2

Sustainable Purchasing

2



Durable Goods, electric

1

Durable Goods, furniture

1

Credit 3

Sustainable Purchasing - Facility Alterations and Additions

1

Credit 4

Sustainable Purchasing

2



Reduced Mercury in Lamps, 90 pg/lum-hr

1

Reduced Mercury in Lamps, 70 pg/lum-hr

1

Credit 5

Sustainable Purchasing - Food

1

Credit 6

Solid Waste Management - Waste Stream Audit

1

Credit 7

Solid Waste Management

2



Ongoing Consumables, 50%

1

Ongoing Consumables, 70%

1

Credit 8

Solid Waste Management - Durable Goods

1

Credit 9

Solid Waste Management - Facility Alterations and Additions

1

Yes ? No

0 0 0

Indoor Environmental Quality

19 Points

Indoor Environmental Quality (EQ)

Yes ? No

0 0 0

Indoor Environmental Quality

19 Points

Y

Prereq 1 **Outdoor Air Introduction and Exhaust Systems**

Required

Y

Prereq 2 **Environmental Tobacco Smoke (ETS) Control**

Required

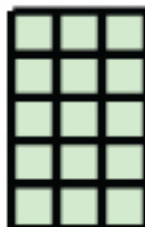
Y

Prereq 3 **Green Cleaning Policy**

Required

Credit 1 **IAQ Best Management Practices**

5



IAQ Management Program

1

Outdoor Air Delivery Monitoring

1

Increased Ventilation

1

Reduce Particulates in Air Distribution

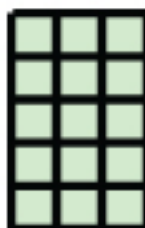
1

IAQ Management for Facility Alterations and Additions

1

Credit 2 **Occupant Comfort**

5



Occupant Survey

1

Occupant Controlled Lighting

1

Thermal Comfort Monitoring

1

Daylight and Views, 50% Daylight / 45% Views

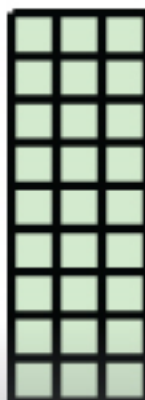
1

Daylight and Views, 75% Daylight / 90% Views

1

Credit 3 **Green Cleaning**

9



High Performance Cleaning Program

1

Custodial Effectiveness Assessment, < 4

1

Custodial Effectiveness Assessment, < 3

1

Sustainable Cleaning Products and Materials, 30%

1

Sustainable Cleaning Products and Materials, 60%

1

Sustainable Cleaning Products and Materials, 90%

1

Sustainable Cleaning Equipment

1

Entryway Systems

1

Indoor Integrated Pest Management

1

Innovation in Operations (IO)

Yes ? No

0 0 0

Innovation in Operations

7 Points



Credit 1	Innovation in Operations	4
	Innovation in Operations	1
	Innovation in Operations	1
	Innovation in Operations	1
	Innovation in Operations	1
Credit 2	LEED Accredited Professional	1
Credit 3	Documenting Sustainable Building Cost Impacts	2



Adobe Systems Incorporated, West Tower (Almaden)

37% energy savings

41% water savings

94% waste diverted

Source: Cushman & Wakefield of California,
Inc. as an agent for Adobe Systems Inc.





JohnsonDiversey Inc. Global Headquarters

\$90,000

annual energy cost savings

32%

water savings

49%

waste diverted

Source: JohnsonDiversey Inc.



New Jersey

Willow School *Gladstone, NJ*

LEED Gold



PNC Branch Bank NEW JERSEY

LEED Gold

Hamilton, Rockaway

LEED Silver

Mt. Laurel, Tom's River, Sickerville, Mt. Olive

LEED Certified

Freehold



New Jersey

Waterfront Technology Center

Camden, NJ

LEED Gold C&I

NJEDA



Summerfield Elementary School: Neptune, NJ

LEED GOLD



BASF

LEED Platinum

Paterson,

New Jersey



**Build green,
everyone profits.**



Thank you!

