

## LEED for Existing Buildings Operations and Maintenance: Adobe Systems, Incorporated

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General Manager, Cushman & Wakefield

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## ■ George Denise

- General Manager Facilities for Cushman & Wakefield, overseeing Adobe Systems Incorporated headquarters buildings
- 7 Buildings, 1.4 million square feet
- Property manager 27 years
- Cushman & Wakefield 17 years
- Cushman & Wakefield Energy Committee Chairman, Western Region
- Member USGBC LEED Core Committee
- San Francisco State University, BA, Psychology
- Certified Facilities Manager (CFM), International Facilities Management Association, Certified Property Manager (CPM), Institute of Real Estate Management, Facilities Management Administrator (FMA) and a Real Property Administrator (RPA), Building Owners and Managers Association.

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- Cushman & Wakefield Partners With Adobe Systems Incorporated to Provide Facilities Management Services
  - C&W is one of the world's largest, full-service global real estate services provider
    - Founded in New York in 1917
    - Privately held firm - strong financials
    - Pure service organization; no real estate ownership conflicts
  
- EXPERIENCE
  - More than 8,000 properties totaling some 500 million square feet of corporate real estate under management worldwide
  - 195 offices, 55 countries, 6 continents
  - Major clients include Citigroup, eBay, Fireman's Fund Insurance Company, Novell, Nokia, Symantec and, of course, Adobe Systems Incorporated.



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## We **Create Value**

by developing client-specific strategies that enhance clients' businesses.

## We **Optimize Value**

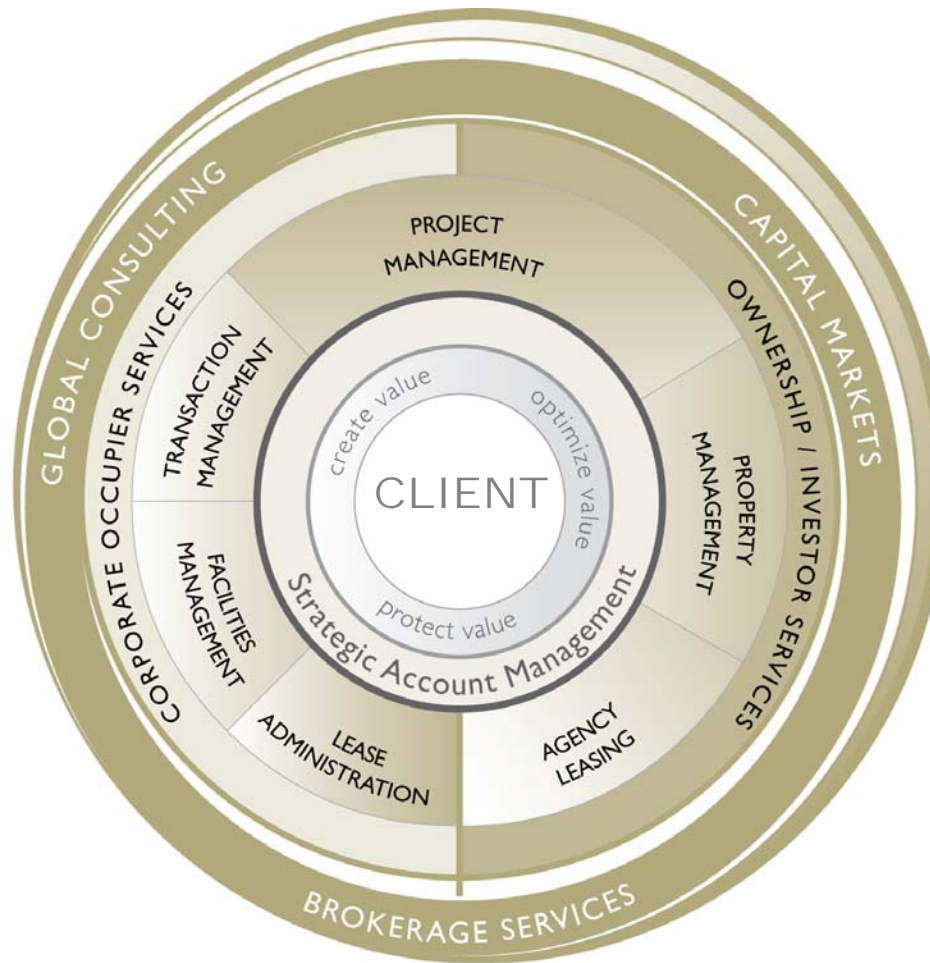
by implementing solutions that emphasize cost effectiveness.

## We **Protect Value**

by ensuring quality through superior performance and accountability.

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Client Solutions



## CLIENT SOLUTIONS

### CORPORATE OCCUPIER SERVICES

- Transaction Management
- Facilities Management
- Project Management
- Lease Administration

### OWNERSHIP / INVESTOR SERVICES

- Property Management
- Agency Leasing
- Project Management

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## ■ C&W's SUSTAINABILITY RECORD

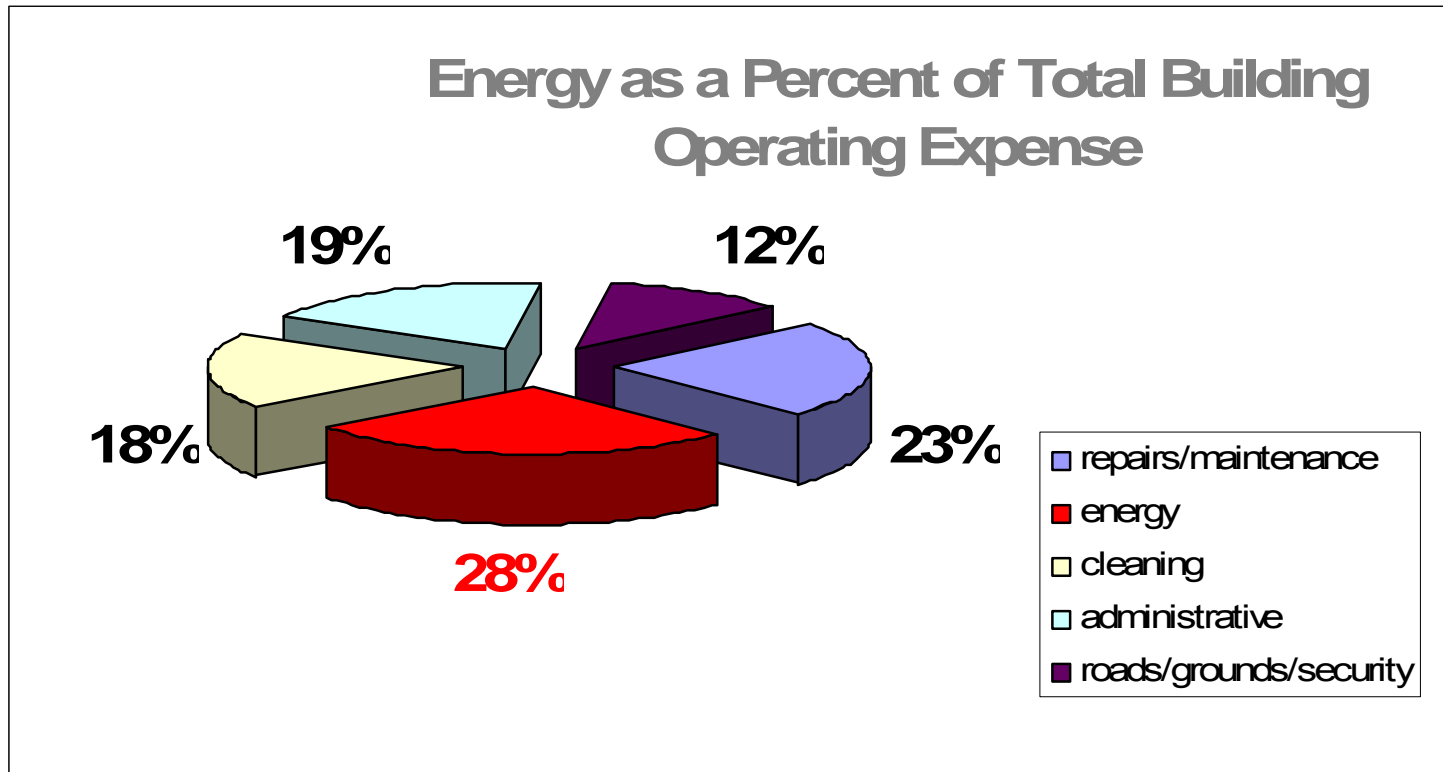
- Member of USGBC for five years
- Partner in the USGBC's LEED Portfolio Program
- Representation on LEED-EB Core Committee
- C&W requests all of its managers to benchmark their properties with Energy Star
- C&W encourages their managers to certify their buildings as Green Buildings where it is in accord with the client's goals

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- In the United States, commercial buildings account for:
  - 36% of total energy use
  - 65% of electricity consumption
  - 30% of greenhouse gas emissions
  - 30% of raw materials use
  - 30% of waste output: 136 million tons annually
  - 12% of potable water consumption

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According to the Environmental Protection Agency, the average commercial building should be able to reduce its energy consumption by 30%, easily.

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A 30% reduction in energy use in America's 4.7 million commercial office buildings would be the equivalent of 5 ½ years of America's total projected energy growth.

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Over the past six years the price of oil  
has gone from \$25 per barrel to  
just under \$60 per barrel

This is an increase of 280%

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Political and economic forces suggest that energy prices will fluctuate, but will continue to trend higher over the long-term.

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## Forces Driving Increased Costs

- Instability in Middle East
- Increased demand from emerging nations
  - China
  - India
- Increased Costs of Production
- Environmental Restrictions

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## Energy Conservation Has Already Made An Impact:

Over the past ten years, conservation efforts  
in America have saved over \$150 billion

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## ENERGY IS:

- The single largest operating expense in commercial buildings
- Costs are projected to remain high
- Largest potential impact on our economy and environment
- Easiest to reduce

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On Friday, June 9, Adobe Systems Incorporated's West Tower in downtown San Jose became the first platinum certified Green Building in the USGBC's permanent LEED program for Existing Buildings.

On Friday, December 4, Adobe's Almaden and East Towers joined West Tower in being certified, also at the platinum level.

(The Joe Serna Jr. Building in Sacramento was the first and only platinum certified in an earlier pilot program.)

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The project was the culmination of five years of collaborative work between Adobe's facilities management team and their facilities management partner, Cushman & Wakefield.

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- Adobe Towers is Adobe Systems Incorporated World Headquarters
- Three office towers connected at the first, second, sixth, fourteenth, and fifteenth floors
- 989,358 square feet occupied space resting above 938,473 square feet of semi-enclosed garage
- Software development, marketing, sales, office support services

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- Adobe helped launch the desktop publishing revolution in 1982
- Adobe expanded into desktop software applications with Adobe Illustrator and Adobe Photoshop
- Adobe released Adobe Acrobat and Adobe Portable Document Format (PDF)
- With the acquisition of Macromedia in 2005, Adobe significantly expanded its technology foundation and portfolio of customer solutions

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## Sample Projects:

Retrofitted Variable Frequency Drives on Main Supply Fan



Cost: \$126,960, Annual Savings: **\$47,000**

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Chillers account for almost 30% of building energy consumption.

Installed AFD (Adaptable Frequency Drive)



**Cost: \$65,000,**      **Savings: \$39,000**

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## Modified Garage Fan Programming

Reduced on-time  
without sacrificing  
air quality.



**Cost: \$100, Annual Savings: \$67,000**

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## Automatic Faucet Valves and Waterless Urinals



**Cost: \$145,732**

**Annual Savings: \$32,100**



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Installed Automated Drip Irrigation System



**Cost: \$3,610, Annual Savings: \$9,001**

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## Recycling At Adobe

Sidesaddle waste baskets have been installed at every desk to separate compostables from recyclables.

Batteries, toner cartridges, light bulbs, office paper and others are all recycled.

Grass clippings are cycled back into the grass, kitchen grease is recycled, cafeteria waste is composted.



**Percentage Total Waste Recycled: 95%**

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## In the Process of Certifying Green:

Adobe spent \$1.4 million on energy and related projects, received \$389,000 in rebates and we have reduced operating costs by \$1.2 million per year (primarily through energy conservation).

This is an average payback of 10 months with a return on investment of 121%.

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## Along the way, Adobe Has:

- Effectively reduced electricity use 35%
- Effectively reduced natural gas use 41%
- Reduced domestic water use 22%
- Reduced landscape water use 76%
- Diverts up to 87% of its solid waste through composting and recycling
- Reduced total pollution by 26%
- Reduced CO<sup>2</sup> emissions by 16%.

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## Benefit: Reduced Operating Costs

Operating costs for Adobe have been reduced by \$1.2 million per year

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## Benefit: Increased Building Value

Net Operating Income = Income – Operating Expenses

Building Value = Net Operating/Cap Rate

A decrease in Operating Expenses of \$1.2 million per year increases building value by \$15 million

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## Benefit: Increased Productivity

Studies by Carnegie Mellon show that production increases from .4% to 18% in Green Buildings.

An increase of just 1% is equivalent to the entire energy costs of most buildings.

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## Benefit: Increased Investor Market

Over 100 firms rate publicly traded companies on their social and environmental responsibility.

Fully 12% of investors only invest in socially and environmentally responsibility companies. And that percentage is growing.

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## Benefit: Increased Market for Potential Employees

Fortune Magazine publishes a list of the top 100 companies to work for in America. One measure has to do with the company's social and environmental responsibility. What is it worth in terms of a company's ability to attract new employees to receive a high rating on that list?

Adobe was 13 on that list two years ago, and 6 last year.

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## Benefit: Reduced Environmental Footprint

Resource conservation, waste reduction, environmental protection, and sustainability are important to all of us,... or at least they should be.

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## The USGBC's LEED Green Building Program is about:

- Increasing operating efficiency,
- Reducing operating costs,
- Creating healthier work environments, and
- Promoting sustainability.

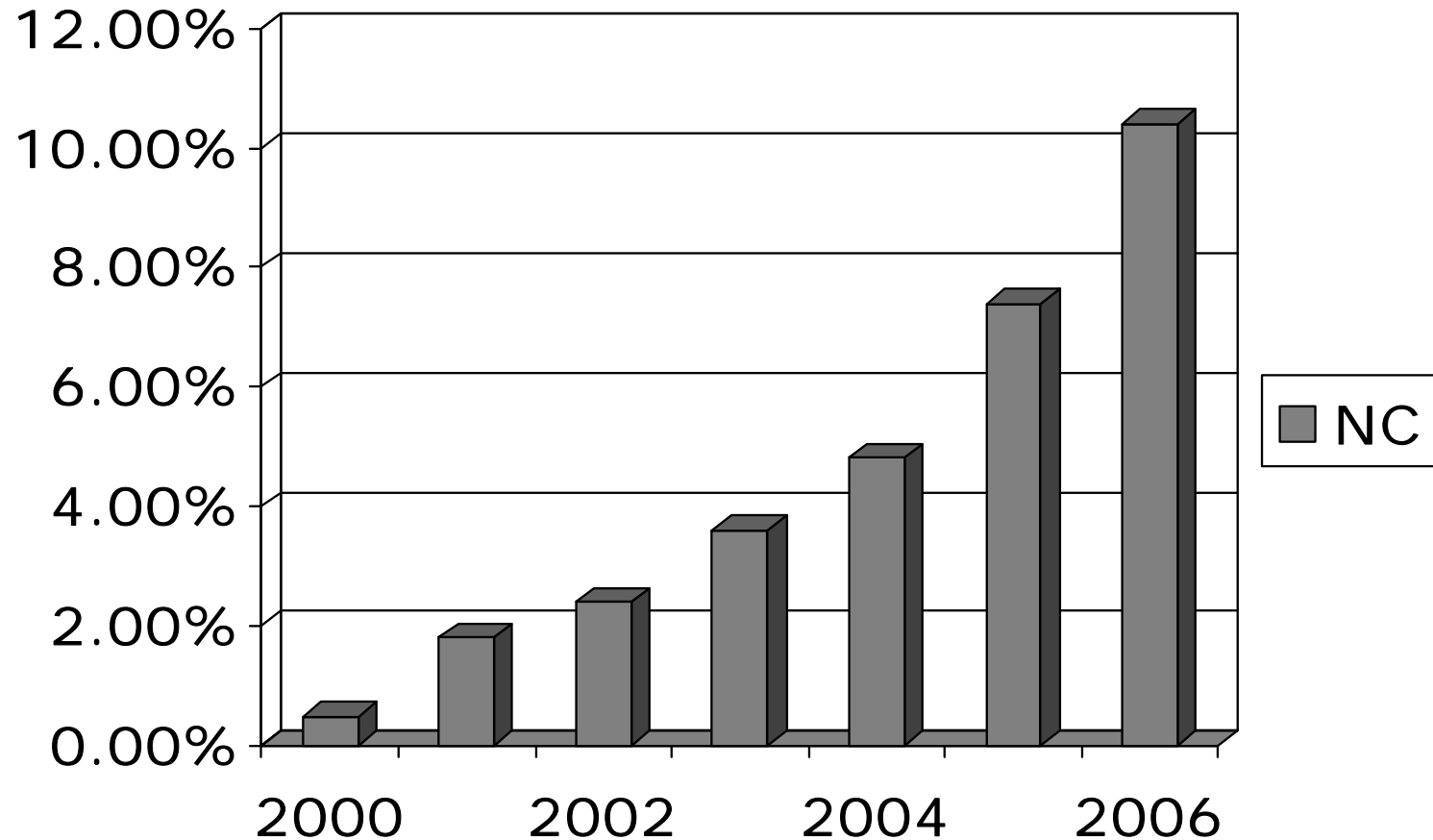
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- LEED for New Construction was launched in 1998.
- Just 12 initial projects were certified in the first two years of that pilot program.
- Today, over 650 projects have been certified as Green Buildings, representing over 600 million square feet of building space.

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Percent of Total New Construction



Growth in **LEED-NC**

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At the current rate of growth for LEED-NC,  
in seven years all new properties  
constructed will be certified as Green  
Buildings.

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LEED-EB (LEED for Existing Buildings) is a new program, showing an even faster growth rate than LEED-NC.

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26 buildings were certified in the pilot program for Existing Buildings (twice as many as in the NC program).

If the Existing Buildings program continues in the footsteps of LEED-NC, then in something like ten years, all existing buildings in the United States will have been certified as Green Buildings.

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- It's dangerous to take a young growth curve like this and extend it too far into the future.
- Many, maybe most buildings will never be certified as Green Buildings.
- At the same time, many of today's standards for Green Building certification will be adopted into tomorrow's building codes.

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I predict that the growth curve will actually accelerate!

As more and more buildings become certified, and as more and more big name companies certify, we will soon reach critical mass.

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In the next three to five years, I believe we will reach a point where in order to be considered a Class A office building, a building will need to be certified as a Green Building.

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Given a choice between a building certified to have lower operating costs, managed more efficiently, to have a healthier environment and to be operated sustainably and one that is not, which would you prefer?

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Companies like Adobe Systems Incorporated and Cushman & Wakefield are leading the way!

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“The role of the facility manager has changed dramatically from the just keep it functional day-to-day focus, to that of an individual who is competent, passionate, and a lover of facility management, and who embraces change as a necessary component of today’s business environment...Along with all his other roles, he must also be a futurist.” -- adapted from IFMA’s The Certified Facility Manager, Teena Shouse, CFM, editor

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Questions?