OCTOBER 23, 2010



Two Questions Every Owner Must Answer in the LEED Process

BRAILSFORD & DUNLAVEY

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B&D INTRODUCTION

Established in **1993**

70+ Employees

Seven locations

327 Higher Education Clients

More than **100** Union-related Projects

Member of USGBC & ACUI

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B&D INTRODUCTION

SERVICES

Master Planning
Strategic Planning & Development
Financial Analysis & Budget Development
Economic Impact Analysis
Referendum Planning & Support Services
Program Development
Architecture / Engineering Selection
Construction Oversight
Business Planning
Market Analysis
Design Management
Feasibility & Market Study
Project Budget & Schedule Management
Project / Consultant Team Coordination

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B&D INTRODUCTION

CHET ROACH

Currently serving as Owner's Representative for over $200M in college and university projects.

Recent Projects in Southeast Region:

Young Harris College – Campus Center

Georgia Gwinnett College – Student Union

Savannah State University – Student Center

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STUDENT UNION EXPERIENCE

- Arizona State University
- Ball State University
- Baltimore City Community College
- Bowie State University
- Brooklyn College
- Buena Vista University
- California Polytechnic State U.
- California State U.-Channel Islands
- California State U.-San Marcos
- California State U.-Northridge
- California State U.-Stanislaus
- Case Western Reserve University
- Central State University
- Central Washington University
- Christopher Newport University
- Clayton State University
- Cleveland State University
- Columbia University
- Dartmouth College
- DePaul University
- Duke University
- East Carolina University
- Fairmount State University
- Fayetteville State University
- George Mason University
- Georgia Gwinnett College
- Georgia State University
- Immaculata University
- Indiana University
- Jackson State University
- Loyola University Chicago
- Louisiana State University
- Miami University
- Michigan State University
- Middle Tennessee State University
- Morehouse College
- New Mexico State University
- North Carolina State University
- North Georgia College & State U.
- Northeastern Illinois University
- Northern Kentucky University
- Northwestern University
- Oakland University
- Ohio Dominion University
- Ohio State U. at Mansfield
- The Ohio State University
- Oklahoma State University
- Oregon State University
- Queen's University
- The Richard Stockton College of NJ
- Roosevelt University
- St. Ambrose University
- San Diego State University
- San Jose` State University
- Savannah State University
- Southern Illinois U.-Edwardsville
- Springfield College
- University of Alabama
- University of Alaska-Fairbanks
- University of Arkansas
- University of Baltimore
- University of California-Riverside
- University of California-San Diego
- University of California-San Cruz
- University of Cincinnati
- University of Connecticut
- University of Houston
- University of Idaho
- University of Iowa
- University of Kentucky
- University of Mary Washington
- University of Maryland
- University of Memphis
- University of Miami
- University of Michigan
- University of Missouri-Kansas City
- University of Missouri-St. Louis
- University of Nevada-Las Vegas
- University of Nevada-Reno
- University of New Orleans
- University of North Texas
- University of Oregon
- University of San Diego
- University of Southern California
- University of South Florida-St. Pete
- University of Texas-Austin
- University of Utah
- University of Vermont
- University of Virginia
- University of West Florida
- University of Wisconsin-Eau Claire
- University of Wisconsin-Madison
- University of Wisconsin-Stout
- Washington State University
- Wayne State University
- Western Kentucky University
- Western Michigan University
- Young Harris College

WHY THIS TOPIC?

- B&D's "SAV" approach to planning & implementation
  - Identified LEED process could often be more of a frustration than opportunity
- To strengthen "**OWNER'S**" position in sustainability decision
  - Enhance clarity & consensus within the Project Team

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Buyer A vs. Buyer B

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TWO QUESTIONS

Question #1: Why are we pursuing a particular LEED status on our project?

- To minimize the environmental impact
- To reduce the long-term costs of operating the facility
- To create a highly visible publicity tool
- To meet a mandate or requirement

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TWO QUESTIONS

Question #2: How much money are we willing to invest to achieve LEED status on our project?

- *Failing to budget for the cost of implementing a LEED project will result in two outcomes:*

1. A facility that **does not meet** the institutional goals
2. A project that is **over budget** as a result of meeting its institutional goals

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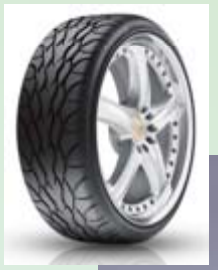
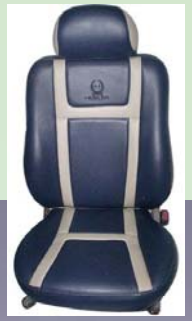
What Options Are Right for Me?





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PROCESS

Hold an Initial LEED Discussion

» Answer Questions One and Two

Preliminary Filtering Workshop

» What credits are / are not achievable?

Initial Presentation of Options to Owner

» Review all possible LEED credits

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PROCESS

SUSTAINABLE SITES **26 Possible Points**

Construction Activity Pollution Prevention
Site Selection
Development Density & Community Connectivity
Brownfield Redevelopment
Alternative Transportation, Public Transportation Access
Alternative Transportation, Bicycle Storage & Changing Rooms
Alternative Transportation, Low-Emitting & Fuel-Efficient Vehicles
Alternative Transportation, Parking Capacity
Site Development, Protect of Restore Habitat
Site Development, Maximize Open Space
Stormwater Design, Quantity Control
Stormwater Design, Quality Control
Heat Island Effect, Non-Roof
Heat Island Effect, Roof
Light Pollution Reduction

WATER EFFICIENCY **10 Possible Points**

Water Use Reduction
Water Efficient Landscaping
Innovative Wastewater Technologies
Water Use Reduction

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PROCESS

ENERGY & ATMOSPHERE **35 Possible Points**

Fundamental Commissioning of the Building Energy Systems
Minimum Energy Performance
Fundamental Refrigerant Management
Optimize Energy Performance
On-Site Renewable Energy
Enhanced Commissioning
Enhanced Refrigerant Management
Measurement & Verification
Green Power

MATERIALS & RESOURCES **10 Possible Points**

Storage & Collection of Recyclables
Building Reuse, Maintain 75% of Existing Walls, Floors & Roof
Building Reuse, Maintain 50% of Interior Non-Structural Elements
Construction Waste Management
Materials Reuse
Regional Materials
Recycled Content
Rapidly Renewable Materials
Certified Wood

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PROCESS

INDOOR ENVIRONMENTAL QUALITY **15 Possible Points**

Minimum IAQ Performance
Environmental Tobacco Smoke (ETS) Control
Outdoor Air Delivery Monitoring
Increased Ventilation
Construction IAQ Management Plan, During Construction
Construction IAQ Management Plan, Before Occupancy
Low-Emitting Materials, Adhesives & Sealants
Low-Emitting Materials, Paints & Coatings
Low-Emitting Materials, Carpet Systems
Low-Emitting Materials, Composite Wood & Agrifiber Products
Indoor Chemical & Pollutant Source Control
Controllability of Systems, Lighting
Controllability of Systems, Thermal Comfort
Thermal Comfort, Design
Thermal Comfort, Verification
Daylight & Views, Daylight 75% of Spaces
Daylight & Views, Views for 90% of Spaces

PROCESS

INNOVATION & DESIGN **6 Possible Points**

Innovation in Design: Provide Specific Title

REGIONAL PRIORITY **4 Possible Points**

Regional Priority: Provide Specific Title

Project Totals	100 Points

Certified: 40-49 Points
Silver: 50-59 Points
Gold: 60-79 Points
Platinum: 80+ Points

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PROCESS

Approaches to LEED for your project:

- Most Cost-Effective Method
- Completely Purpose/Goal Driven Method
- The Hybrid Approach

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Selection of Credits to Pursue:

- The functionality of each credit
  - What am I getting if I pursue this credit?
- The implementation method for each credit
  - How am I going to achieve this credit?
- The initial investment cost for each credit
  - How much am I going to spend to pursue this credit?
- The payback calculation for credits
  - How long will I have to use the building before I recover the cost of my investment?

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University of Vermont
Davis Student Center

Level:	Gold (39pts)
Opened:	2007
Architect:	WTW Architects
Total SF:	186,000
Enrollment:	10,940
Sf per Student:	17 SF
Total Cost:	$ 61 million
Cost per SF:	$ 328

Key Features:

- Advanced monitoring system
- 63% regional materials
- Smart Windows

http://buildingdashboard.com/clients/uvm/davis/

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University of Missouri-Kansas City
Student Union

Level:	Silver (maybe Gold!)
Opened:	2010
Architect:	Gould Evans
Total SF:	110,000
Enrollment:	13,500
Sf per Student:	8.1 SF
Total Cost:	$ 38 million
Cost per SF:	$347

Key Features:

- Green Roof
- Natural Daylighting
- Advanced Stormwater Management

http://www.umkc.edu/union/index.asp/

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CASE STUDIES

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BACK TO OUR TWO QUESTIONS

1. Why are we pursuing a particular LEED status on our project?

2. How much money are we willing to invest to achieve LEED status on our project?

DISCUSSION

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