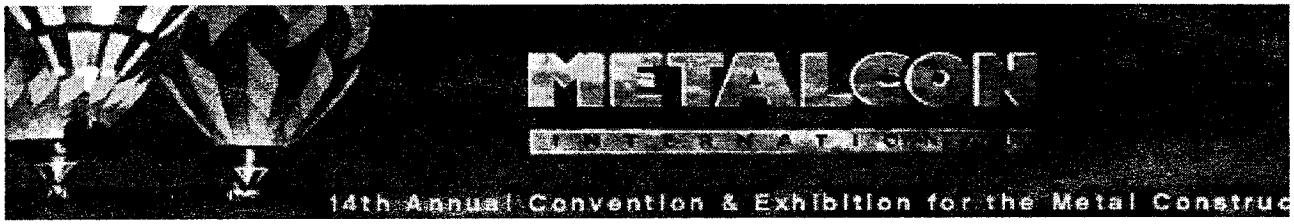
EXHIBIT 2
DATE 01/22/07
HB 308

LEED®: A "Value-Based" Perspective

Being smart about sustainability



October 20, 2004

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DATE 01/22/07
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Sustainability

- What makes a building sustainable?

Sustainable designed, high performance buildings are those that through their siting, orientation, design, construction and operation are highly energy efficient, have lower operating costs, are better for the environment in broad and specific terms, and promote whole health for their users and occupants with ***measurable*** *results.*

Sustainability

Why do Owner's Choose Sustainable Buildings?

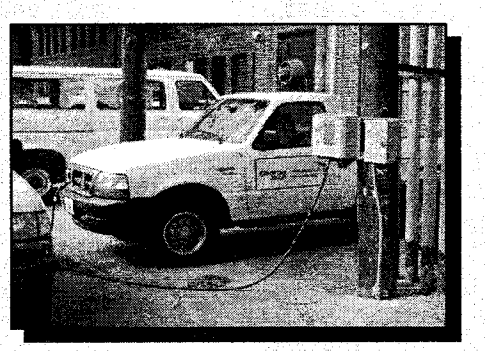
- High quality of life/healthier buildings
- Greater productivity, efficiency, and learning
- Reduced liability/cost of compliance
- Strategic leadership opportunities
- Reduced O & M requirements
- Improved environmental quality
- It's the "right" thing to do!

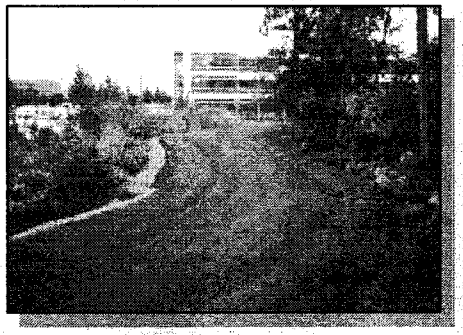
Sustainability

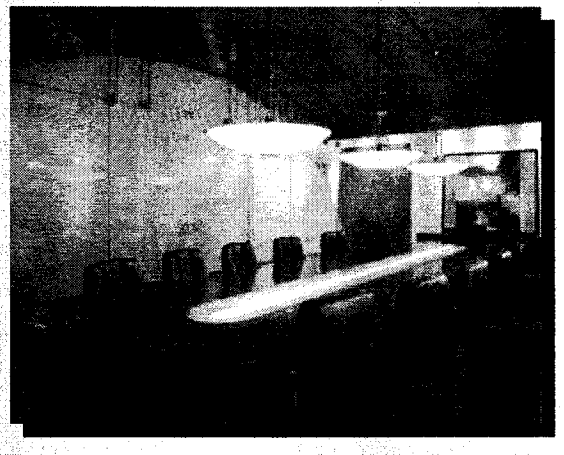
What's different about Sustainability ?

Mindset Of Design / Construction (Constantly Changing)

- Focus On Efficiency, Environmental Impact, Quality Of Life, Innovative Products
- No Specific Clear Cut Path / Rules
- Results / Ideas May Vary







About LEED™

- Leadership in Energy & Environmental Design
- Point based Green Building Rating System
- Developed by the US Green Building Council
- Ratings = Certified, Silver, Gold, Platinum
- Categories = Site, Water, Energy, Materials, Indoor Environmental Quality

About LEED™

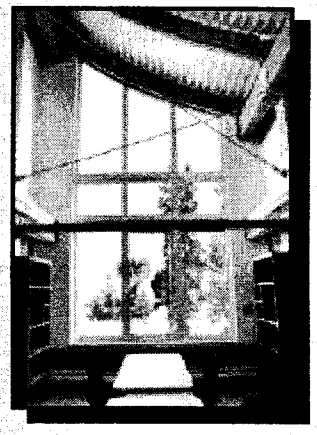
USGBC LEED™ Terms to Know:

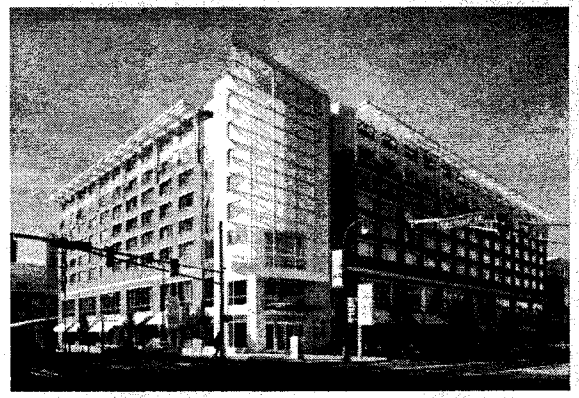
- No "s" – Pronounced **LEED™** not Leed's!
- **LEED™ "*Accredited*"** – title given to an INDIVIDUAL who has passes the LEED accreditation exam.
- **LEED™ *Registered*** – title given to a BUILDING project that submits to USGBC seeking a certification.
- **LEED™ *Certified*** – title given when a BUILDING achieves a minimum of 26 points.

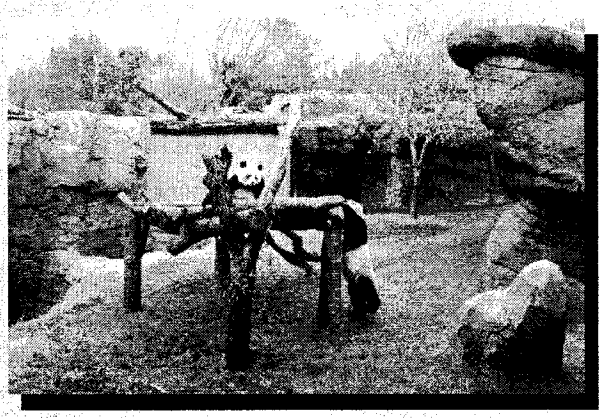
About LEED™

What's different with LEED™

- Our Understanding Of LEED™ Established Guideline / Format To Achieve Ratings
- Understanding Of Formal Required Documentation
- Rulings Issued By USGBC For Clarity
- Costs Associated With LEED™ Registration







The Percentage Fallacy

- How much does LEED™ cost?

~~Approximately 2-4% of Construction Cost~~

The Percentage Fallacy

What is the industry saying?

A recent study of 35 LEED™ projects indicates that LEED™ costs on average 2% more

Note: Good rule of thumb but be careful in making decisions off this type of analysis

The Percentage Fallacy

For the 35 projects cited….

What levels of certification were achieved?

What is the pay back on investment?

Was a Value-Based approach used?

The Percentage Fallacy

- Owners deserve a sustainability review
- Every project is unique
- Contractors/Architects Role

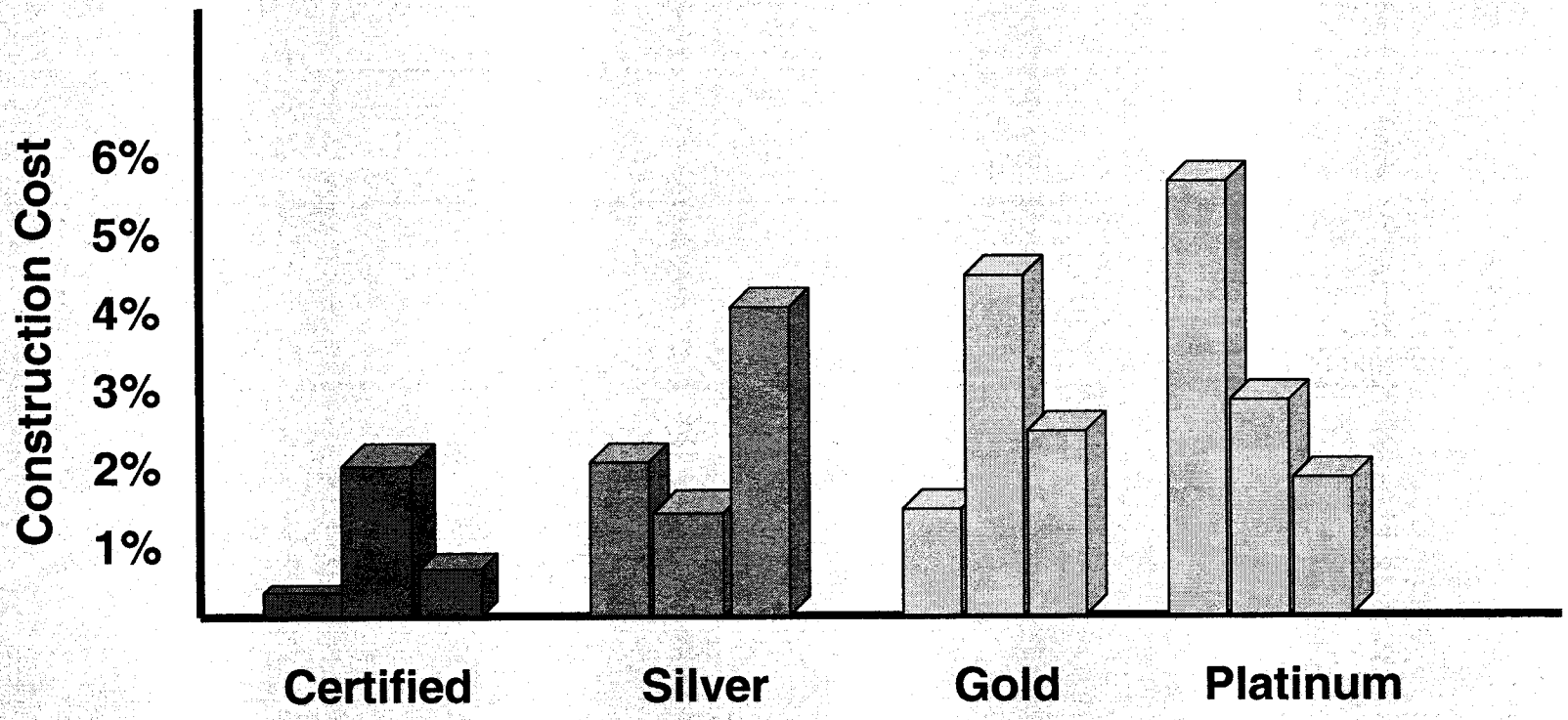
Don't dismiss LEED™ or sustainability due to the percentage fallacy !!

The Real Answer

LEED™ Cost depends on the following:

- Owner's definition of Value and project goals
- Project specific circumstances, site, etc.
- Level of Certification desired
- Initial cost vs. Life cycle costs/occupancy benefits

Cost Depends !



What are your project circumstances ?

The Real Answer

It is very likely that….

- LEED™ certification may be achieved for little cost

Because….

The Real Answer

All LEED™ Points are NOT Created Equal !

In Other Words…

- Depending on your project situations, many of the LEED™ points can be achieved for little or no cost

If we can build better, higher performance buildings for little cost impact….why wouldn't we?

LEED™ Certification is an added bonus !

In Other Words

Almost every project scores <u>some</u> amount of LEED® points by virtue of the base design !

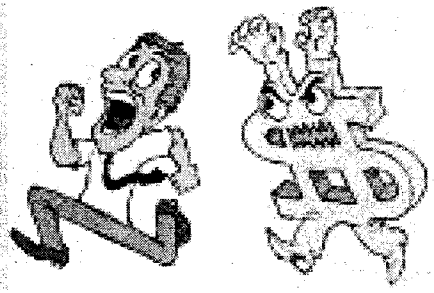
Why not track this accomplishment and participation in sustainability?

A "Value-Based" Perspective

Most LEED® credits are all worth one point….

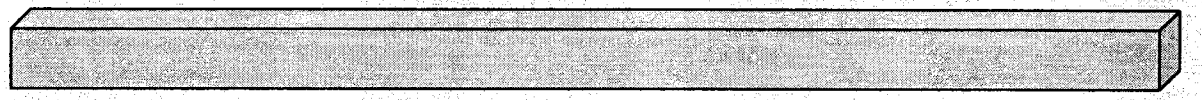
But they don't cost the same

However, this presentation is not about finding the "cheap" way to LEED® certification. It is about sharing information that disputes the high cost myth.



The Sustainable Misconception

A "Value-Based" Perspective



"Green" Roof

Structural Impact	50,000 SF x $0.25 /SF =	$ 12,500
Waterproofing	50,000 SF x $3.00 /SF =	$150,000
Soil	1,851 CY x $50 /CY =	$ 92,500
Landscaping	50,000 SF x $0.75 /SF =	$ 37,500
TOTAL		**$292,500**

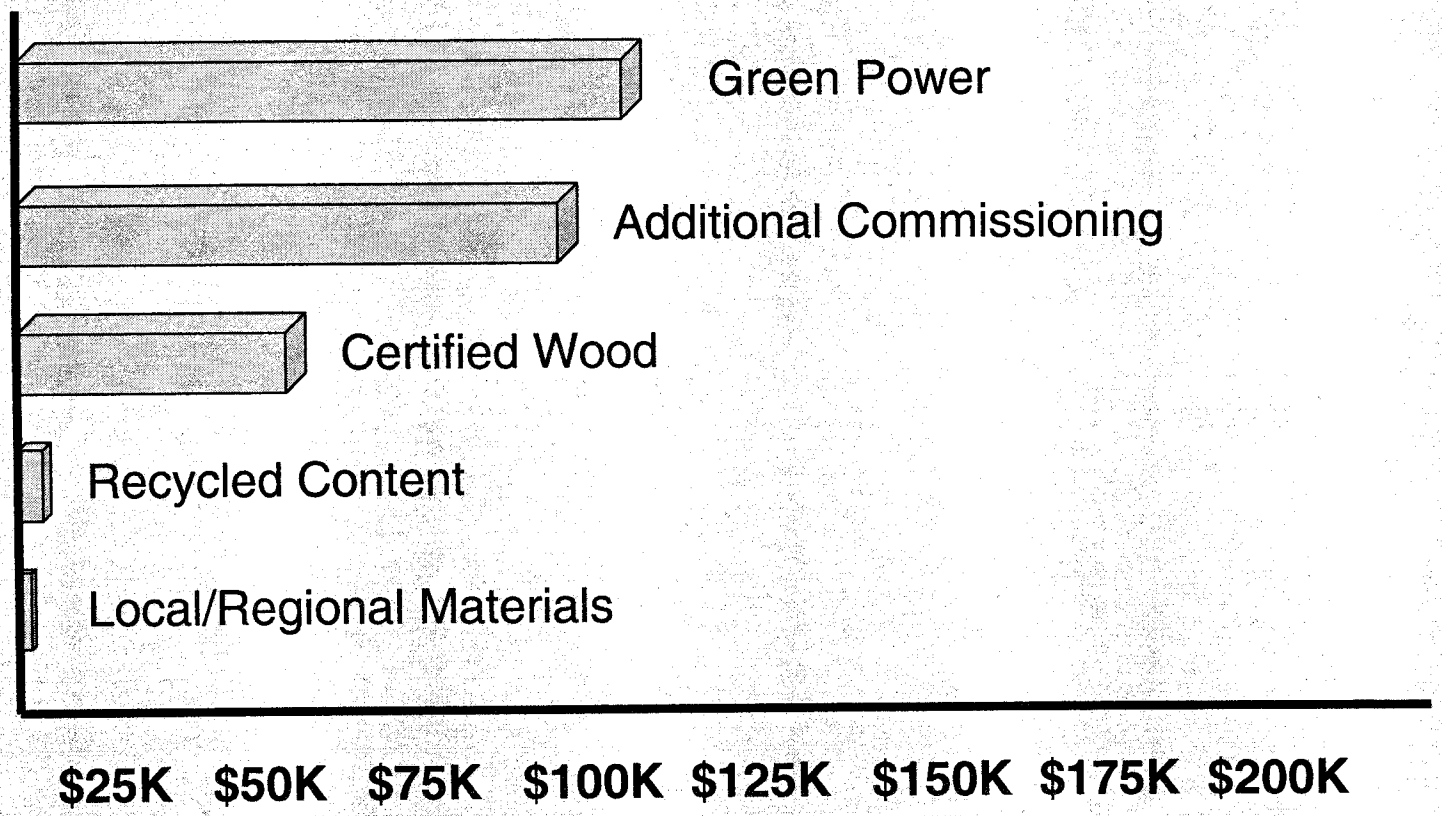
White Reflective Roof

Roof Premium	50,000 SF x $0.10 /SF =	$5,000
TOTAL		**$5,000**

And also ....

Significantly Less Maintenance !

A "Value-Based" Perspective



They're all worth one point !

A "Value-Based" Perspective

- LEED™ points are organized based on scope
  - Sustainable Sites
  - Water Efficiency
  - Energy and Atmosphere
  - Materials and Resources
  - Indoor Environmental Quality
  - Innovation and Design Process

A "Value-Based" Categorization

- Type 1 – Little or No Cost premium
- Type 2 – Cost premium but short term return on investment
- Type 3 – Cost premium with long term return on investment or no return

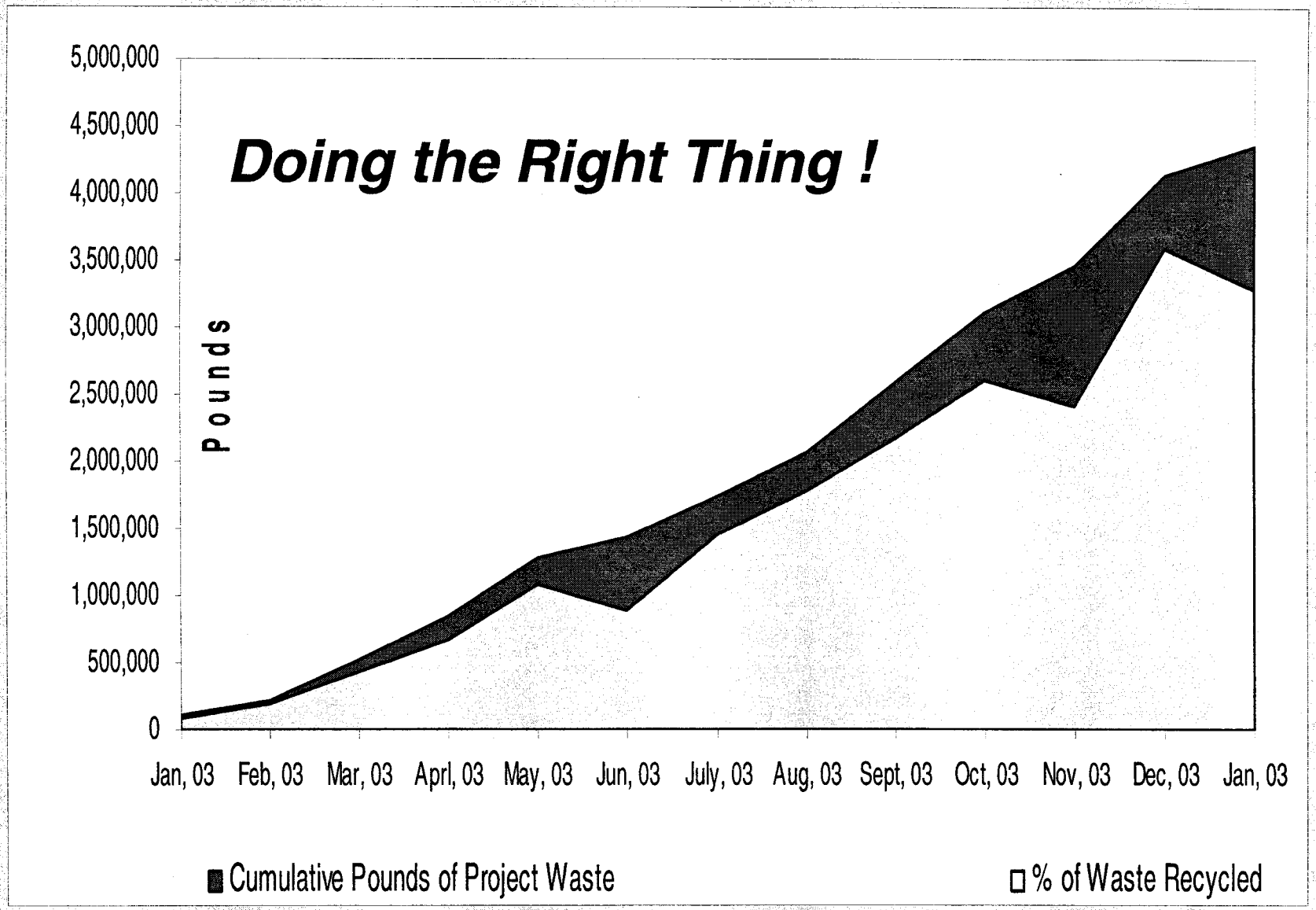
This value based approach allows Owners to decide their level of sustainable participation based on their definition of value

Examples of Type 1 Points

- Site Dependent Type 1
  - SS Credit 1 - Site Selection
  - SS Credit 2 - Urban Redevelopment
  - SS Credit 4.1 - Public Transportation Access
  - MR Credit 5.2 - Local/Regional Materials
- Not Site Dependent Type 1
  - MR Credit 4 - Recycled Content
  - MR Credit 2.1 – Waste Management **Next Slide**
  - IEQ Credit 4.1-4.3 - Low Emitting Materials
  - DE Credit 1.1-1.4 - Innovation in Design
  - DE Credit 2 - LEED™ Accredited Professional

That's 14 of the 26 points ! And that's only a portion of the Type "1" points !

Being Smart and Being Green



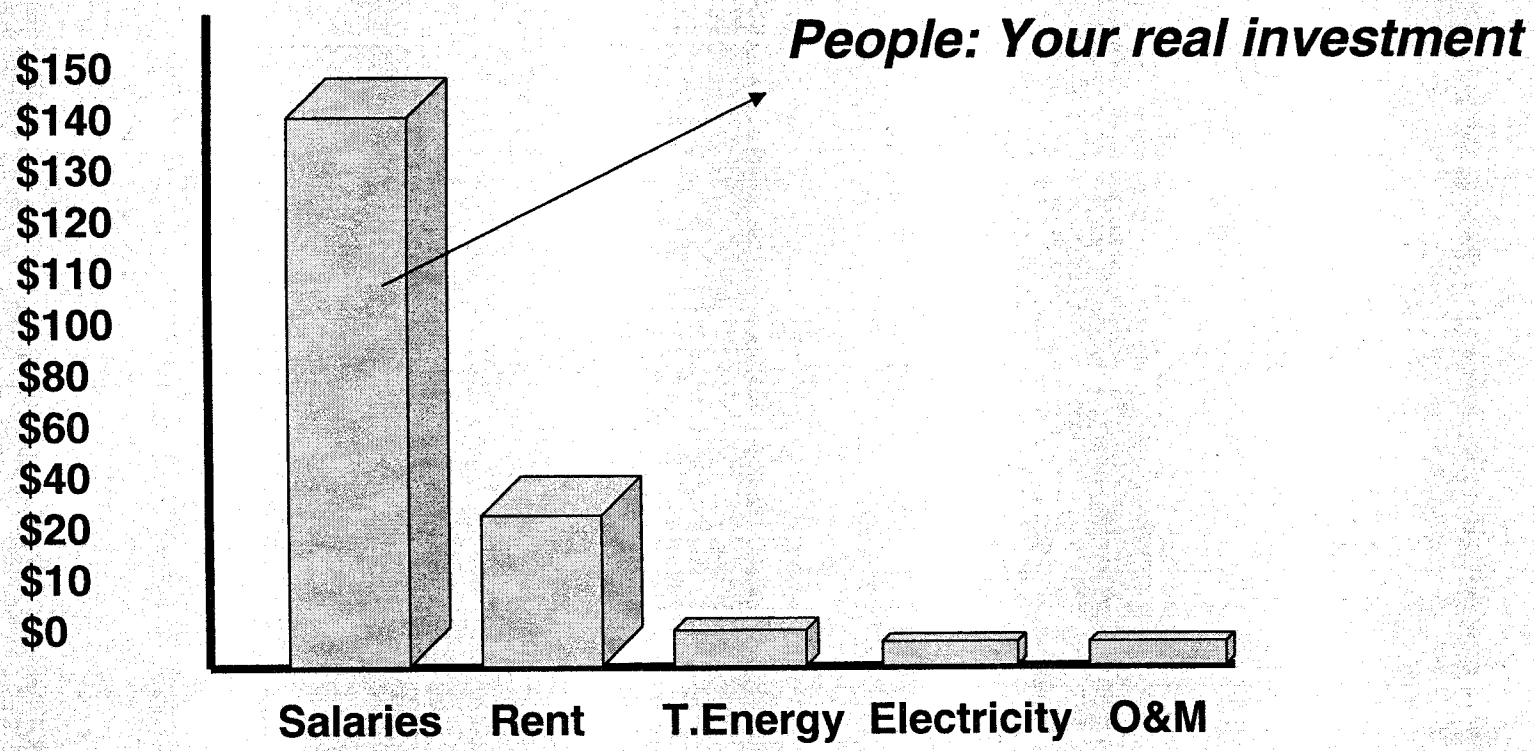
Examples of Type 2 Points

- Type 2
  - WE Credit 1.1 - Water Efficient Landscaping
  - EA Credit 1.1 - Optimize Energy Performance
  - IEQ Credit 1 - Carbon Dioxide Monitoring
  - IEQ Credit 2 - Increased Ventilation
  - IEQ Credit 6.1 - Controllability of Systems
  - IEQ Credit 5 - Indoor Chemical and Pollutant Control

Many Type 2 points are a return on investment through improved performance, improved productivity and less absenteeism !

Being Smart and Being Green

- Getting the most for your money



Source: 1991 BOMA statistics

Examples of Type 3 Points

- Type 3
  - EA Credit 3 - Additional Commissioning
  - EA Credit 6 - Green Power
  - EA Credit 1.3 - Optimize Energy Performance 60%
  - IEQ Credit 8.1 - Daylight and Views 75%
  - IEQ Credit 8.2 - Daylight and Views 90%

Creation of a "Value-Based" Approach

- Using this approach will facilitate powerful historical data and allow each project to be evaluated in a value-based manner

Holder Construction Company

LEED - "All Points are Not Created Equal"

May 28, 2003

Sum of Points Available				
Class	Category	Credit	Description	Total
1. Little or No Cost	1. Sustainable Sites	Credit 1	Site Selection	1
		Credit 2	Urban Redevelopment	1
		Credit 4.1	Alternative Transportation; Public Transportation Access	1
		Credit 4.2	Alternative Transportation; Bicycle Storage & Changing Rooms	1
		Credit 4.4	Alternative Transportation; Parking Capacity	1
		Credit 5.2	Reduce Site Disturbance; Development Footprint	1
		Credit 7.1	Landscape & Exterior Design to Reduce Heat Islands; NonRoof	1
		Credit 7.2	Landscape & Exterior Design to Reduce Heat Islands; Roof	1
		Credit 8	Light Pollution Reduction	1
		Prereq 1	Erosion & Sedimentation Control	0
	2. Water Efficiency	Credit 1.1	Water Efficient Landscaping; Reduce by 50%	1
	3. Energy and Atmosphere	Credit 4	Ozone Depletion	1
		Credit 5	Measurement & Verification	1
		Prereq 2	Minimum Energy Performance	0
		Prereq 3	CFC Reduction in HVAC&R Equipment	0
	4. Material and Resources	Credit 4.1	Recycled Content; Specify 25%	1
		Credit 4.2	Recycled Content; Specify 50%	1
		Credit 5.1	Local/Regional Materials, 20% Manufactured Locally	1
		Credit 5.2	Local/Regional Materials, 20% Above, 50% Harvested Locally	1
		Credit 7	Certified Wood	1
		Prereq 1	Storage & Collection of Recyclables	0
	5. Indoor Enviornmental Quality	Credit 2	Increase Ventilation Effectiveness	1
		Credit 3.2	Construction IAQ Management Plan; Before Occupancy	1
		Credit 4.1	Low-Emitting Materials; Adhesives and Sealants	1
		Credit 4.2	Low-Emitting Materials; Paints	1
		Credit 4.3	Low-Emitting Materials; Carpets	1
		Credit 5	Indoor Chemical & Pollutant Source Control	1
		Prereq 1	Minimum IAQ Performance	0
		Prereq 2	Environmental Tobacco Smoke (ETS) Control	0
	6. Innovative & Design Process	Credit 1.1	Innovation in Design: Specific Title	1
		Credit 1.2	Innovation in Design: Specific Title	1
		Credit 1.3	Innovation in Design: Specific Title	1
		Credit 1.4	Innovation in Design: Specific Title	1
		Credit 2	LEED Accredited Professional	1
1. Little or No Cost Sum				28

LEED®: A "Value Based" Perspective

The Value Analysis Process

HOLDER

VALUE ANALYSIS LOG — **Options and Alternates**

Project Name — **DATE**

	Item of Work/Description	Class A B	Date Presented to Team	Pending	Acceptable	In Project Documents	Rejected	Date of Project Document Set	Comments
1	**Sustainable Sites**								
A	SS Prerequisite 1 - Erosion and Sedimentation Control								
B	SS Credit 1 - Site Selection								
C	SS Credit 2 - Urban Redevelopment								
D	SS Credit 3 - Brownfield Redevelopment								
E1	SS Credit 4.1 - Alternative Transportation, Locate Near Public Transportation								
E2	SS Credit 4.2 - Alternative Transportation, Bicycle Storage & Changing Rooms								
E3	SS Credit 4.3 - Alternative Transportation, Alternative Fuel Refueling Stations								
E4	SS Credit 4.4 - Alternative Transportation, Minimum or No New Parking								
F1	SS Credit 5.1 - Reduced Site Disturbance, Protect or Restore Open Space								
F2	Ss Credit 5.2 - Reduced Site Disturbance, Reduce Footprint & Increase Open Space								
G1	SS - Credit 6.1 - Stormwater Management, No Net Increase or 25% Decrease								
G2	SS Credit 6.2 Stormwater Management, Treatment Systems								
H1	SS Credit 7.1 - Landscape & Exterior Design to Reduce Heat islands, Site Surfaces								
H2	SS Credit 7.2 - Landscape & Exterior Design to Reduce Heat Islands, Roof Surfaces								
I	SS Credit 8 - Light Pollution Reduction								

Incorporate Sustainability into your project Value Analysis Process !

If the cost for the item is $0, why not accept it?

Page 1

Under Favorable Conditions…

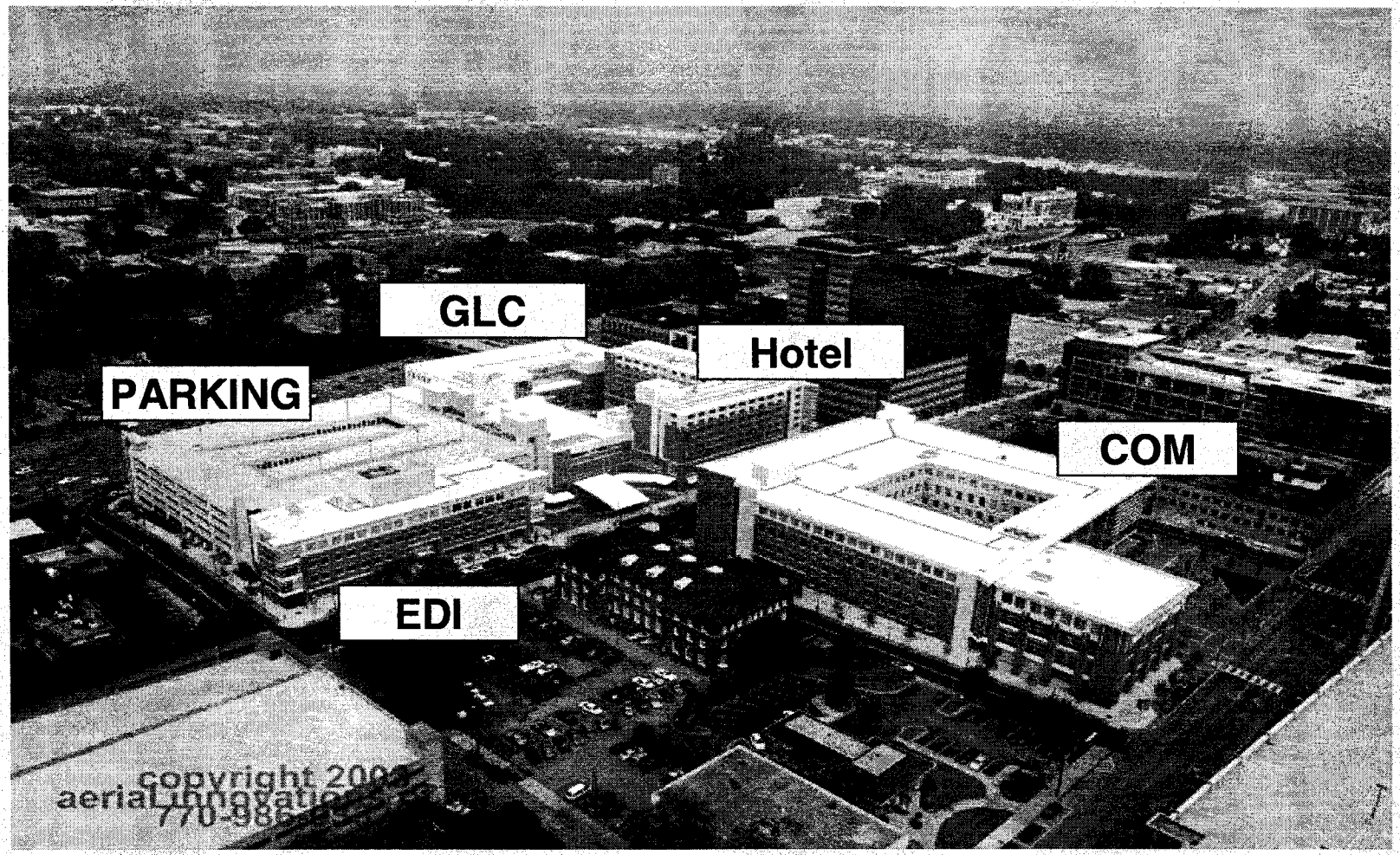
- Type 1 – 28 points
- Type 2 – 17 points
- Type 3 – 24 points

Case Study

- Georgia Tech's Technology Square
  - COM – College of Management
  - GLC – Global Learning Center
  - EDI – Economic Development Institute
  - Hotel and Conference Center
  - Parking Deck

Case Study

- Georgia Tech's Technology Square



Case Study

- Georgia Tech's Technology Square
  - Strategic Focus of Georgia Tech
  - Focus on Sustainability
  - Pursued LEED™ Certification on the College of Management Building
  - Effort Led by The Epsten Group
  - Silver Rating

Case Study

- Getting the Best Value
  - Start Early!
  - Make sure the team has experience
- Learning Curve Improving
  - Architects/Engineers
  - Contractors

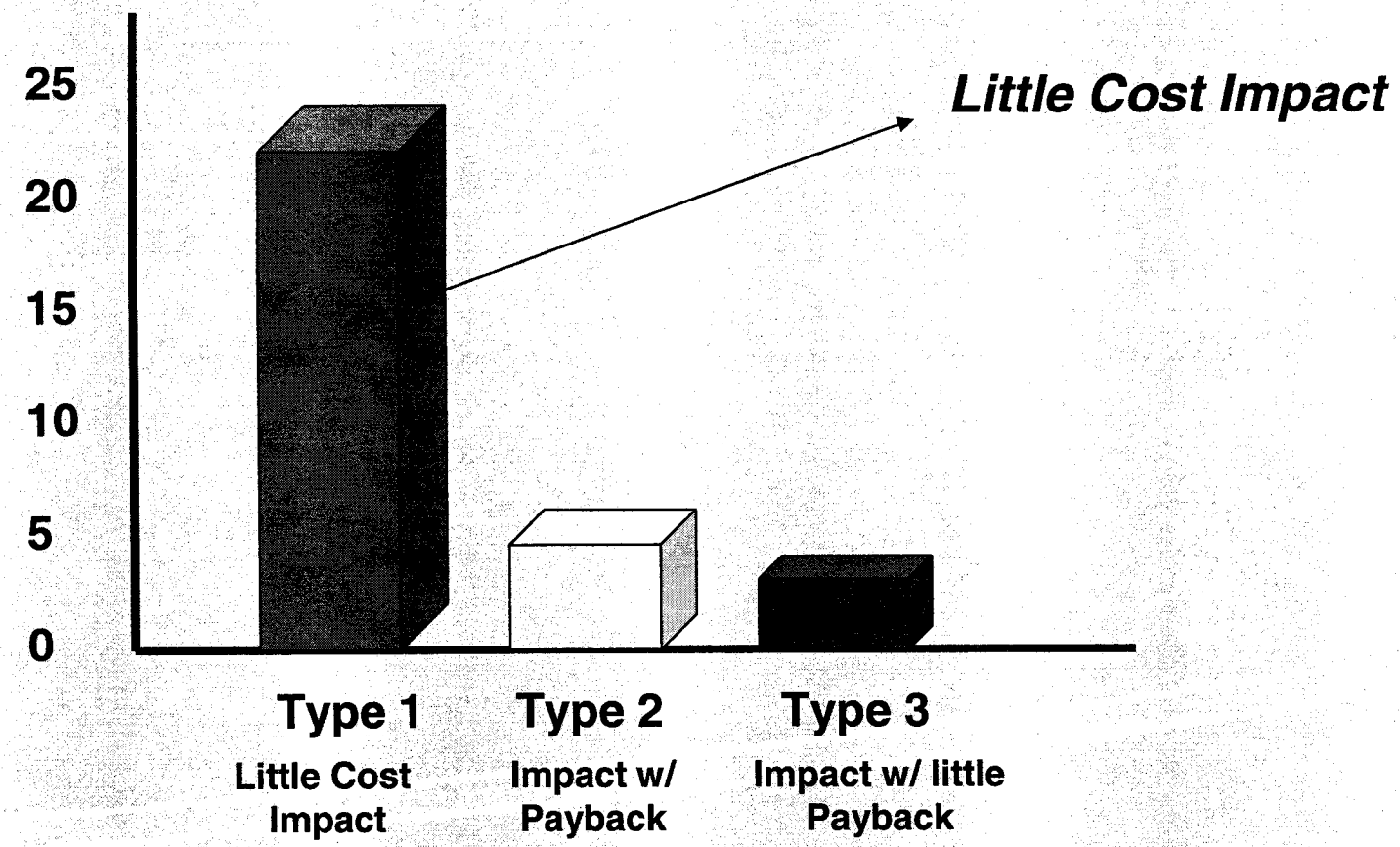
Case Study

- Application of a "Value Based" Perspective
  - One Building of the Four pursued "Official Certification"
  - 22 of the 26 points for certification were considered Type 1 or 2 and were incorporated into the other three (3) Buildings

    Examples
    - Recycled Content
    - Local/Regional Materials
    - Low Emitting Materials
    - Indoor Pollutant Source Control

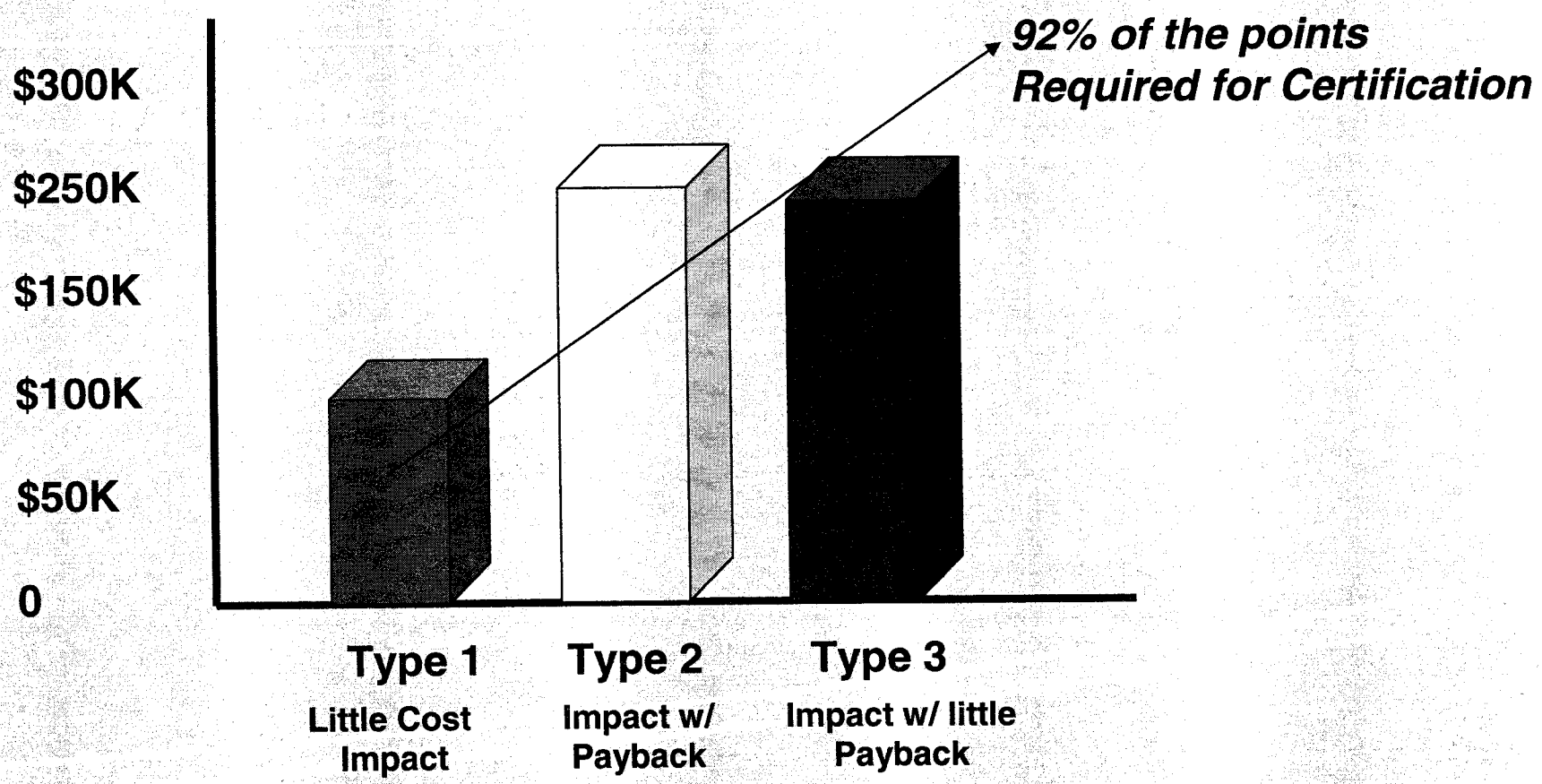
Technology Square

- The "Value-Based" Approach Summary – By Points

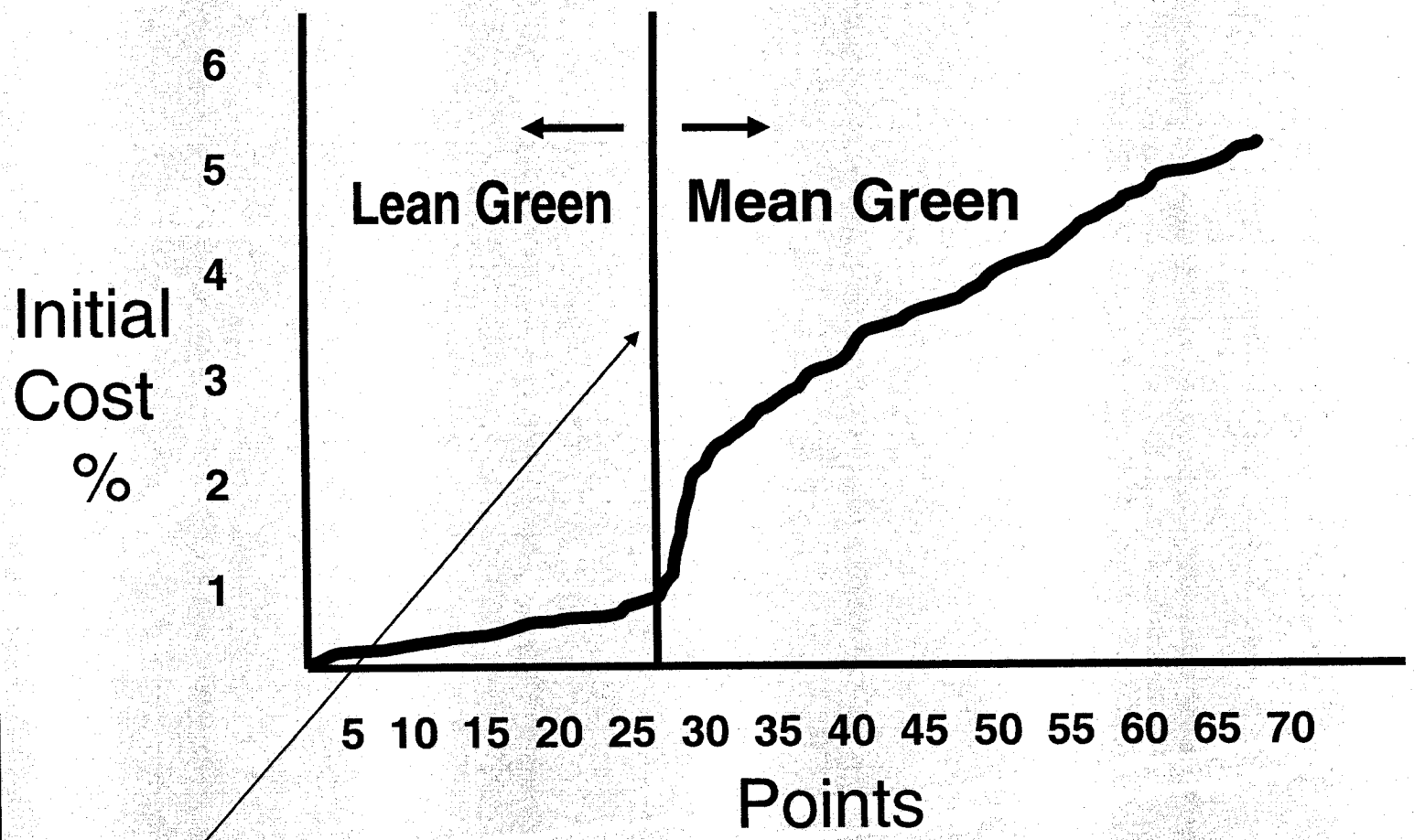


Technology Square

- The "Value-Based" Approach Summary – By Cost



A Common Curve – Favorable Site



Doing the right thing gets LEED™ Certification !

Historical Data

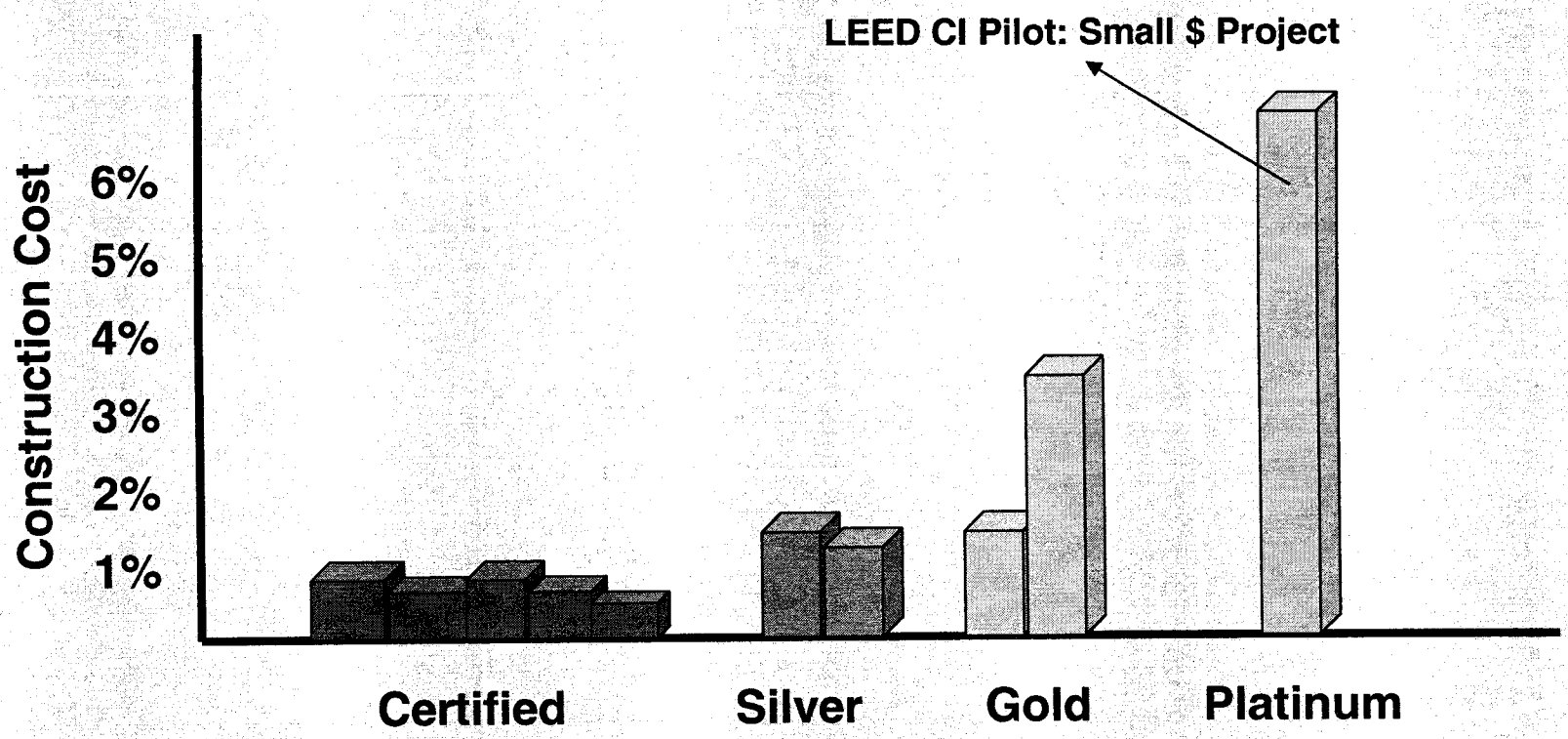
Remember the Percentage Fallacy. However, Day One Investment was

Project	Level	Approx %
Georgia Tech – Technology Square	Silver	1.5%
Emory University – Candler Library*	Silver/Cert.	0.8%
Navy Federal Credit Union	Certified	1.6%
Interface Showroom (CI Pilot)	Platinum	7%
Interface Showroom (CI Pilot)	*If Certified*	0.5%
Interface Showroom (CI Pilot)	*If Silver*	1.3%
Interface Showroom (CI Pilot)	*If Gold*	3.9%
Emory Business School Phase II*	*If Gold*	1.5%
Emory Business School Phase II*	*If Certified*	0.9%
Fannie Mae (19 points - $0)*	Certified	0.8%
Corporate Campus #1	Certified	0.5%

* Projects are estimates/pending certification

LEED®: A "Value Based" Perspective

Cost Depends !



The Case is Building !

Summary

- Be Smart about Sustainability
- Do the right thing
- Many LEED™ points can be achieved for little or no cost
- Added Value through Value Decisions
- Parting Thought – The Compounding Effect!