



# **Green Value – Myth or Reality?**

## **RICS Green Value Conference**

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- Green objectives and linkages to value
  - Sustainable site development
  - Water efficiency
  - Energy efficiency
  - Indoor environmental quality
  - Reduced consumption of building materials
- Case study examples
- Key findings of Green Value Study
- Recent examples of the reality of Green Value
- What's next for Green Buildings?

# Sustainable Site Development

| <b>Green Strategies/Features</b>   | <b>Green Impact</b>   | <b>Theoretical Linkage to Value</b>  |
|--|---|--|
| <ul style="list-style-type: none"><li>➤ Reduce site disturbance and soil erosion</li><li>➤ Use of natural drainage systems (e.g. swales)</li><li>➤ Preserve or restore natural site features</li></ul> | <ul style="list-style-type: none"><li>➤ Improve site aesthetics</li><li>➤ Greater public support for the development and accelerated local approval process, hence lower carrying costs</li></ul> | <ul style="list-style-type: none"><li>➤ Reduced development costs, improved marketability, reduced ongoing maintenance costs, improved natural appearance, higher sales/rents, absorption and re-tenanting, NOI/ROI benefits</li></ul> |
| <ul style="list-style-type: none"><li>➤ Landscape and orient building to capitalize on passive heating and cooling</li></ul>   | <ul style="list-style-type: none"><li>➤ Lower energy costs</li></ul>  | <ul style="list-style-type: none"><li>➤ For gross leases, higher NOI. May have impact for net leases if benefit can be demonstrated to tenants</li></ul>   |

# Water Efficiency

| <b>Green Strategies/Features</b>   | <b>Green Impact</b>   | <b>Theoretical Linkage to Value</b>   |
|--|---|---|
| <ul style="list-style-type: none"><li>➤ Use captured rainwater for landscaping, toilet flushing, etc.</li><li>➤ Treat and re-use greywater, excess groundwater, and steam condensate</li><li>➤ Use low flow fixtures and fittings (pressure assisted or composting toilets, waterless urinals etc.) and ozonation for laundry</li><li>➤ Use closed loop systems and other water reduction technologies for processes</li></ul> | <ul style="list-style-type: none"><li>➤ Lower water consumption/costs</li></ul> | <ul style="list-style-type: none"><li>➤ Lower tenant CAM charges. Direct NOI benefit for gross leases, potential for net leases requires communicating benefit to tenants</li></ul> |

# Energy Efficiency

| Green Strategies/Features   | Green Impact   | Theoretical Linkage to Value   |
|---|--|--|
| <ul style="list-style-type: none"> <li>➤ Use passive solar heating/cooling and natural ventilation</li> <li>➤ Enhance penetration of daylight to interior spaces to reduce need for artificial lighting</li> <li>➤ Use thermally efficient envelope to reduce perimeter heating and size of HVAC</li> </ul> | <ul style="list-style-type: none"> <li>➤ Lower capital costs</li> <li>➤ Occupant benefits</li> <li>➤ Lower energy costs</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Reduced operating costs, longer life cycle, lower development costs</li> <li>➤ Improved occupant productivity, lower churn, turnover, tenant inducements, etc.</li> <li>➤ Higher net income for gross leased buildings. Improved yield</li> </ul> |
| <ul style="list-style-type: none"> <li>➤ Use energy management systems, monitoring, and controls to continuously calibrate, adjust and maintain energy-related systems</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Operational savings (can offset higher capital costs)</li> <li>➤ Reduced capital cost of mechanical systems because control systems reduce the need for oversizing</li> </ul> | <ul style="list-style-type: none"> <li>➤ Lower operating costs. On gross leases, higher ROI/NOI. On net leases, potential for improved ROI/NOI</li> </ul>  |
| <ul style="list-style-type: none"> <li>➤ Use third party commissioning agent to ensure that the installed systems work as designed</li> <li>➤ Develop O&amp;M manuals and train staff</li> </ul>  | <ul style="list-style-type: none"> <li>➤ Lower operating costs</li> <li>➤ Lower maintenance costs</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Marginally higher initial soft costs should be offset by long term operating cost benefits, higher ROI</li> </ul>   |

# Indoor Environmental Quality

| <b>Green Strategies/Features</b>  | <b>Green Impact</b>  | <b>Theoretical Linkage to Value</b>  |
|---|--|--|
| <ul style="list-style-type: none"><li>➤ Control pollutant sources</li><li>➤ Use low-emission materials</li><li>➤ Ventilate before occupancy</li><li>➤ Enhance penetration of daylight and reduce glare</li><li>➤ Provide outdoor views</li><li>➤ Provide individual occupant controls when possible</li></ul> | <ul style="list-style-type: none"><li>➤ Superior indoor air quality, quality lighting and thermal quality</li><li>➤ Fewer occupant complaints</li><li>➤ Higher occupant productivity</li></ul> | <ul style="list-style-type: none"><li>➤ Risk reduction</li><li>➤ Greater marketability</li><li>➤ Faster sales and leasing</li><li>➤ Improved churn/turnover</li><li>➤ Higher ROI/NOI</li></ul> |

# Reduced Consumption of Building Materials

| <b>Green Strategies/Features</b>  | <b>Green Impact</b>   | <b>Theoretical Linkage to Value</b>   |
|---|---|---|
| <ul style="list-style-type: none"><li>➤ Select products for durability</li><li>➤ Eliminate unnecessary finishes and other products</li><li>➤ Reuse building shell from existing buildings and fixtures from demolished buildings</li><li>➤ Use salvaged/refurbished materials</li><li>➤ Design for adaptability</li></ul> | <ul style="list-style-type: none"><li>➤ Longer building lifecycle</li><li>➤ Lower maintenance costs</li></ul> | <ul style="list-style-type: none"><li>➤ Lower depreciation typically after higher investment costs</li><li>➤ Lower construction costs, probable lower operating/maintenance costs, higher ROI/NOI</li></ul> |

# Case Study Examples – Office Buildings



Green on The Grand,  
Kitchener (1996)



Phillips Eco-enterprise Centre,  
Minneapolis (office/industrial) - (1999)



260 Townsend St., San Francisco  
(1986, renovated in 2002)



SAS Building, Toronto  
(late 2005)



Vancouver Island Technology Park,  
Victoria (1969-71, renovated in 2001)



Ottawa Paramedics Building,  
Ottawa (late 2005)

# Case Study Examples – Retail/ Residential/ Institutional



Mountain Equipment Co-op,  
Montreal (retail) – (2003)



Cranberry Commons,  
North Burnaby  
(co-housing) – (2003)



The Liu Centre, UBC,  
Vancouver (educational) – (2000)



The Solaire, New York City  
(residential apartment) – (2003)



The CK Choi Building,  
UBC, Vancouver  
(educational) – (1996)

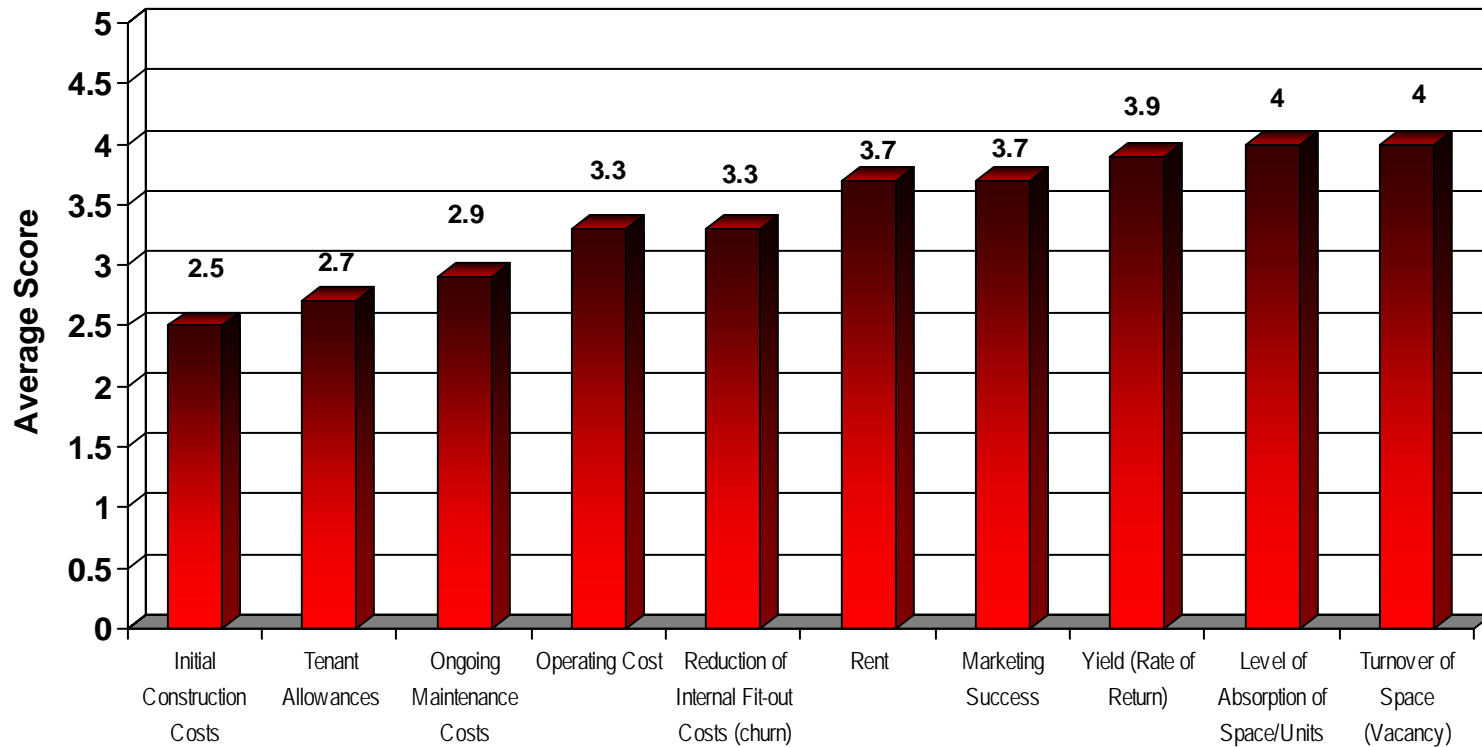


Oberlin College, Ohio  
(educational) – (1998)

# Assessment of Financial Benefits – Survey Results (owner perspective)

**Question: Do you think the following items have fallen below, met or exceeded your expectations by going green?**

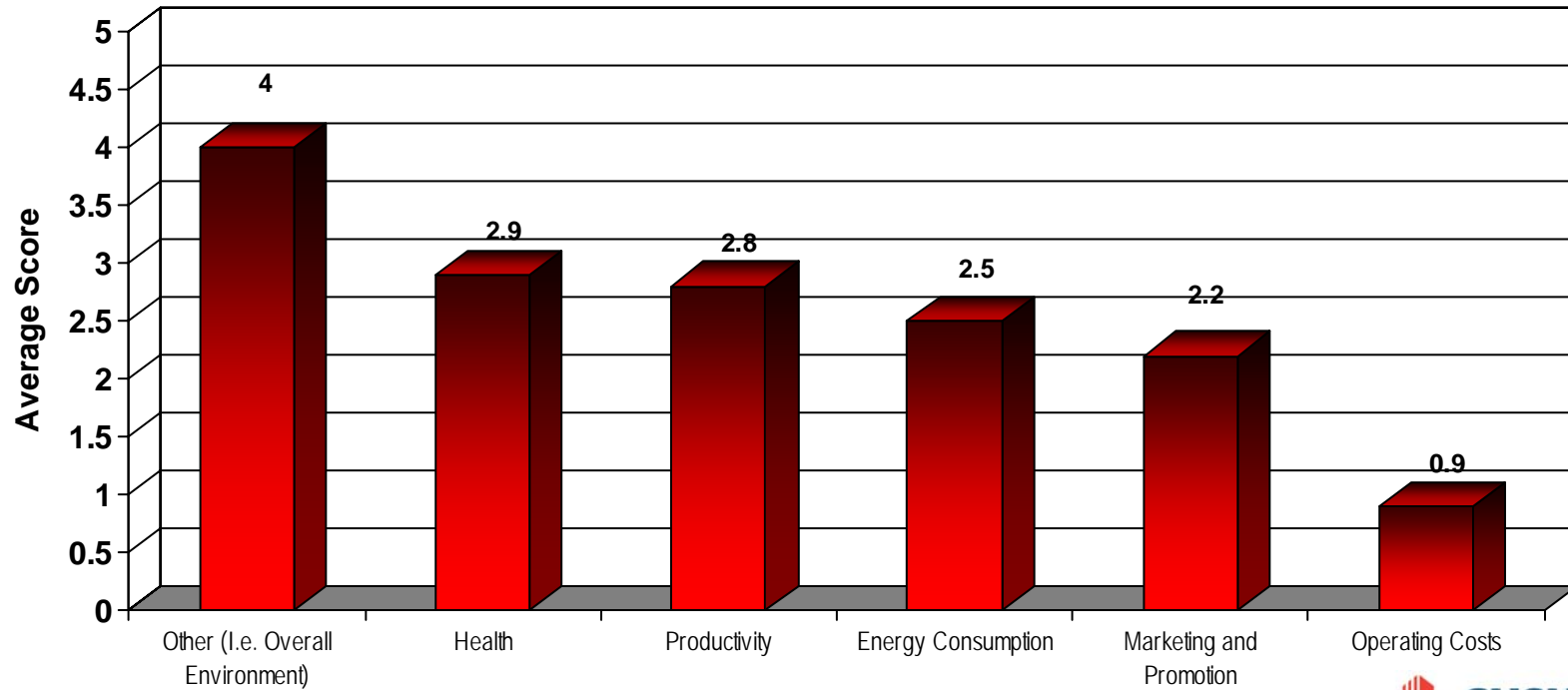
1 – Not Met, 2 – Partially Met, 3 – Met, 4 – Partially Exceeded, 5 - Exceeded



# Assessment of Financial and Non-financial Benefits – Survey Results (occupier perspective)

**Question: In terms of occupants/tenants, what is your assessment of the net relative direct and indirect financial benefits of the project (i.e. energy consumption, operating costs, health, productivity, marketing and promotion etc.)? Please rank these in order.**

5 – Top Ranked, 4 – Second Ranked, 3 – Third Ranked, 2 – Fourth Ranked, 1 – Fifth Ranked



- **Developers** – take initial development risk and finance construction costs, short term objective to maximize returns on equity, benefit from faster lease-up and higher rents
- **Owner/Investors** – seeking long-term stable returns, higher rents, lower operating costs (especially gross leases), higher tenant retention and lower ongoing capital all contribute to higher values
- **Owner/Occupiers** – seeking healthier work/living environment, higher employee retention, higher productivity, lower operating costs and lower ongoing capital costs
- **Tenants** – seeking healthy and productive work environment, higher employee retention, lower operating costs (especially net leases), lower rents
- **Financiers** – take long term risks with their capital, long term objective is greater security of collateral, stability of income/debt service, long term value increases and mitigation of re-financing rate

# Recent Examples of the Reality of Green Value



# What's next for Green Buildings?

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- Capital cost premiums for Green Buildings are eroding as materials and expertise are more readily available, therefore attention will turn more to existing buildings and their ongoing operation
- High energy prices and a lack of generating capacity are forcing governments to promote energy conservation and landlords and tenants to re-think their way of doing business – “win win” solutions are required (i.e. Green Lease)
- There is still a significant knowledge gap between the planners, architects and engineers and those responsible for financing, appraising and leasing Green buildings – this creates a significant opportunity for education and early adaptors

# What's next for Green Buildings? (cont.)

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- Shortages of skilled labour are forcing companies to focus more on employee retention and Green buildings will increasingly be seen as a key part of this strategy, as a result of their health and productivity benefits
- A greater focus on the distribution of the benefits of Green buildings will result in a better understanding of the business case and how and what to build and how best to operate the building
- More energy efficient and “healthy” buildings will increasingly make existing “conventional” buildings less competitive on both a financial and non-financial basis. Occupants will demand Green features

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For additional information on the Green Value Study please visit:

[www.rics.org/greenvalue](http://www.rics.org/greenvalue)

