

# Marketing Green Buildings to Owners of Leased Properties

Prepared for the Canada  
Green Building Council

By

*Sonja Persram, BSc., MBA, LEED AP, Mark Lucuik, P.Eng., LEED AP &*

*Nils Larsson, MRAIC*

*August 23, 2007*



## Marketing Green Buildings to Owners of Leased Properties

Green properties are associated with a variety of positive impacts for owners, including: higher building asset values, greater net operating income (NOI) and ROI, opportunities to take action for sustainability, and enhanced corporate brand image to customers, investors, and community.

Benefits associated with green buildings are significant:

<b>Sustainability goals</b>	Mitigation of greenhouse gases Conservation of natural resources: energy, water & materials Waste and wastewater reduction Conservation of native species
<b>Marketing</b>	Tenants' talent attraction & retention
	Higher occupant performance: specific green building measures are associated with productivity gains and lower health care costs
	Salaries are the highest costs over the lifecycle of building. Higher productivity delivers salaries savings: an increase of 1% in productivity means about \$2/fts/yr (\$21.50/m <sup>2</sup> /yr). This translates to higher rents.
	Altruistic sustainability brand: opportunity for differentiation
	Rapid market growth
	Current competitive advantage
	Viewed by corporate execs as key to market leadership, from economic, environmental and social standpoints
	Seen as key to remaining competitive in future
	Transparent evidence of sustainability
	Associated with innovative technologies
	High LEED brand recognition
	Seen as inevitable: government will mandate
<b>Investment</b>	Higher profitability: low capital costs, higher ROIs
	Higher building performance
	Lower operations and maintenance costs
	Higher Net Operating Income
	Higher building value
	Higher retail sales
	Larger customer base
	Lower churn rates
	Mitigated risks from: <ul style="list-style-type: none"> <li>• opportunity costs due to inaction on climate change</li> <li>• volatile and rising energy prices</li> <li>• business interruptions due to power failures</li> <li>• occupant health concerns</li> <li>• inclement weather impacts</li> <li>• employee turnover costs</li> </ul>
	Better investor relations
	Greater access to capital

## Owning green leased property is a strategic sustainability decision

91% of Canadians today are concerned about global warming and 89% support immediate action,<sup>1</sup> and employees are increasingly making professional decisions based on corporate ethics and social responsibility.<sup>2</sup> Buildings contribute 35% of Canada's greenhouse gases, as well as other major environmental impacts: they represent 33% of Canada's energy production, 50% of natural resources extracted, and 25% of waste going to landfill. Internationally, buildings are recognized as accounting for a minimum of 40% of energy consumption and 40% of GHG emissions over their lifespans.<sup>3</sup>

Owners value green buildings as sustainability solutions. 74% state 'being part of an industry that values the environment' is a rationale for their engagement in green buildings.<sup>4</sup> Green buildings facilitate:

- Mitigation of greenhouse gases to address global warming and climate change
- Conservation of natural resources: energy, water and materials (reducing, reusing, recycling)
  - Diversion of waste from landfill and reduction of wastewater
  - Preservation and habitat protection of native species, promoting biodiversity

## Owning green leased property is a strategic marketing decision

Green buildings provide opportunities for market differentiation and leadership, and are associated with altruistic value and innovative technologies.<sup>5</sup> They contribute to sustainability and enhance your corporate brand.<sup>6 7</sup>

37% of U.S. building owners surveyed in 2006 recognize a market differentiation benefit from the higher PR value of green buildings, while 40% appreciate the opportunity to help transform the marketplace.<sup>8</sup>

Leased property that meets green building certification standards such as LEED associates you with a high quality brand value.

Green buildings can provide owners with competitive advantage through opportunities and specific measures associated with helping to mitigate risks.<sup>9 10 11</sup>

Select building features and their associated employee **health and productivity benefits** contribute to **tenant attraction and retention**.<sup>12</sup>

Although market penetration of green leased space is now fairly low, it is expected to rise significantly. Green leased space offers owners an opportunity to distinguish themselves from the rest of the marketplace:

- 48% of building professionals, government leaders and product manufacturers surveyed in the U.S. by McGraw Hill Construction believe that the office building sector will 'experience substantial growth in green construction.'<sup>13</sup>
- As Dermot Sweeny of Sweeny Sterling Finlayson & Co. Architects Inc. has noted,<sup>14</sup> pension funds now own significant holdings in commercial property in Canada - and greening their property asset holdings is a significant means of achieving earnings and asset growth. For instance, over 50% of British Columbia Investment Management Corporation's real estate office building portfolio is certified green. BCIMC invests for 7 pension funds in BC, with 9.5 billion of a total \$83 billion invested in Canadian real estate.<sup>15</sup> 21% of U.S. building owners are largely focused on green buildings, and the same proportion have moderate to significant green building activity.<sup>16</sup>
- A recent international study (not including Canada)<sup>17</sup> reported that 9% of owners and tenants have been involved in green projects.
- **Green buildings are here to stay:** McGraw Hill Construction's 2007 study of corporate America's leaders indicates **47% expect government to eventually mandate green building**.<sup>18</sup>
- **A green building tipping point is at hand:** 80% of corporate leaders in the US anticipate that by 2009 they will be involved in green a minimum of 15% of the time, and 20% anticipate they will be involved in green for 60% of the time. 40% believe that ignoring green building will result in public relations problems.<sup>19</sup>

## Owning green leased property is a strategic investment decision

Greening your building asset portfolio may very well be your company's single most strategic investment decision.

Investors, insurers, consumers, communities and employees expect corporations to achieve greater accountability to society and to the environment - and transparency in how these goals are achieved.<sup>20</sup> The (global) Association of Chartered Certified Accountants and investment index FTSE are urging companies to improve reporting on measures they take to mitigate and adapt to climate change.<sup>21</sup> Mercer Investment Consulting states that managing climate risk represents pension trustees' fiduciary responsibility.<sup>22</sup> These publics are clamouring for green corporate action. Owners who invest capital in order to achieve operations savings in sustainable properties have found that a variety of benefits are associated with green buildings throughout their lifecycle, including:

- **Higher ROI:**<sup>23</sup>
  - ROI increases of about 6.6% are expected in green buildings.<sup>24</sup> 68% of leading US executives whose companies are involved in green buildings experience superior ROIs compared to conventional buildings.<sup>25</sup>
  - **Lower capital costs** arising from addressing environmental goals and due to the integrated design process.<sup>26</sup>
  - The Canada Green Building Council's Ian Theaker, LEED Program Manager, has seen ROIs in Canadian LEED buildings of 15-20% on the energy efficiency measures - not even counting additional O&M benefits from other green features.<sup>27</sup> 15% of owners surveyed by McGraw Hill Construction stated they thought operations costs would be reduced by 20%; 38% expected at least a 10% decrease.<sup>28</sup>
  - Productivity gains in owner-occupied space<sup>29 30</sup> have been found to leverage significant ROI. (Moving to a green building from an average one has been found to provide productivity gains of about 2-10%.<sup>31</sup> ) Green workplaces that implement measures associated with higher employee

satisfaction, help to attract and retain employees, thus lowering tenant HR costs. As well, where green building measures enhance employees' productivity and health, these benefits are associated with contributing to tenant retention via owners' increased absorption and renewal rates, occupancy ratios, longer leases, and higher rents of about 3% according to McGraw Hill Construction,<sup>32</sup> and a consolidated estimate of green building benefits in a recent Davis Langdon Australia study are reported to enable gross lease increases of \$40-\$50/m<sup>2</sup>/year in \$Australian (for Australian Green Star ratings of 45 and 5-6 respectively). These include carbon tax impacts.

- Higher retail sales<sup>33 34</sup>
  - Larger customer base<sup>35 36</sup>
  - Lower churn rates arising from greater design flexibility which makes it easier to move staff workstations<sup>37</sup>
  - Higher building performance through smart solutions. Integrating low-cost design systems for energy efficiency and other green goals, reduces the required size - and cost - of mechanical systems.
- Lower O&M costs mean higher NOI.
  - Higher NOI translates to higher building value,<sup>38</sup> which is related to the amount of greening, ranging between 50 and 400 \$/ft<sup>2</sup> (540 to 4300 \$/m<sup>2</sup>)<sup>39</sup> And, according to McGraw-Hill, average expected green building value increases are about 7.5%.<sup>40</sup>
  - Better investor relations<sup>41</sup>
  - Participation in market growth: The Canada Green Building Council's expansion into LEED Complete is expected to accelerate industry growth. While LEED standards originated in the U.S., they are being used worldwide, and have been adapted for Canada via national experts' input and guidance throughout all sectors of industry.
  - Reduced risk, and future-proofing to avoid<sup>42 43</sup>:
    - reduction of corporate value through ignoring climate change

- obsolescence<sup>44</sup>
- volatile energy markets and escalating costs<sup>45</sup>
- business interruption due to power failures
- damage due to fire, wind, ice and water
- due to safer indoor spaces and lighting
- air quality litigation due to 'Sick Building Syndrome' and mould
- employee turnover costs

## Costs of green buildings

Green buildings do generally cost slightly more, but this is typically offset by operational savings in 5 to 8 years.

- Lucuik et al. in 2005 noted that capital cost premiums for greening buildings are about 2% according to U.S. consensus reports.<sup>46</sup> A recent international study of 6 countries and regions indicates that in these regions the green building cost premium is about 5% (Brazil, China, Europe, India, Japan, and the US).<sup>47</sup> And, the cost of achieving LEED Gold or Silver is around 2-3% of construction cost according to CaGBC's Ian Theaker.<sup>48</sup>
- Major U.S. studies have been conducted by Davis Langdon<sup>49</sup> and Greg Kats et al.<sup>50</sup>
  - Davis Langdon's 2004 study assessed 138 U.S. buildings: laboratories, academic and libraries), of which 45 were 'LEED seeking' i.e. defined as green, and the balance of buildings were identified as conventional. Although construction costs had a high variance, there was no significant difference between green and conventional buildings' capital costs.
  - Greg Kats et al.'s 2003 study, *The Costs and Financial Benefits of Green Buildings*, included an analysis of 33 green, LEED U.S. buildings, comparing actual construction costs with those estimated for a comparable, conventional (non-green) design. Their findings are that most green buildings have a cost premium of about 2%, with different premiums depending on LEED certification level.

## Process to achieve a green building

It takes a little longer to achieve a green building, and costs a bit more. One of the primary considerations of both time and cost is how early green goals are identified in the building design and construction process. If green is requested by a building owner at the outset, and an [integrated design process](#) (IDP) is utilized, this can reduce overall green building duration and cost considerably, although the IDP iterative process does take time.<sup>51</sup> If green is requested after project initiation, greening the building may take longer and will likely cost more.

Stakeholder education also adds time to the green building process.

Some governments recognize that green buildings benefit infrastructure by decreasing the need for expansion and maintenance, and offer measures such as fast-tracked permits and other incentives which can considerably reduce green building projects' time and costs.

For more information on green buildings, see:

- Greater Vancouver Regional District: Build Smart
- U.S. Green Building Council: Green Building Links
- U.S. [Whole Building Design Guide](#)

Whether you decide to develop a new green building, or you green your existing portfolio - the benefits are real and are expected to far outweigh the costs. Greening your building portfolio is becoming recognized as an inevitable, critical success factor to achieving market leadership - and remaining competitive.



## REFERENCES

Bernstein, Harvey M., *Green Building: Trends Driving Change*, presentation to WorldGBC International Congress, Toronto, July 9, 2007.

Kats, Greg, *Greener Buildings: "The New Normal?"*, presentation to Green Real Estate Conference, Toronto, April 18, 2007.

Kats, G., Alevantis, L., Berman, A., Mills, E., and Perlman, J., *The Costs and Financial Benefits of Green Buildings*, October 2003, Capital E for the California Sustainable Building Task Force.

Loftness, Vivian, *e-Bids: Linking Energy to Productivity and Health*, presentation to Energy 2005.

Lucuik, M., Trusty, W., Larsson, N., and Charette, R., *A Business Case for Green Buildings in Canada*, Morrison Hershfield, 2005, presented to Industry Canada.

Madew, Romilly, *The Dollars and Sense of Green Buildings 2006: Building the Business Case for Green Commercial Buildings in Australia*, the Green Building Council of Australia.

Matthiessen, L.F. and Morris, P., *Costing Green: A Comprehensive Cost Database and Budgeting Methodology*, Davis Langdon, 2004.

McGraw Hill Construction, *2006 Green Building Smart Market Report*, McGraw Hill Construction and the U.S. Green Building Council:  
<http://www.construction.com/SmartMarket/overview.asp>.

McGraw Hill Construction, *The 2007 Greening of Corporate America Smart Market Report*, McGraw Hill Construction and Siemens:  
<http://www.construction.com/SmartMarket/overview.asp>.

Persram, Sonja, *Green Buildings: A Strategic Analysis of the North American Markets*, Frost & Sullivan, 2006: <http://www.frost.com/prod/servlet/report-brochure.pag?id=F856-01-0000-00>.

Royal Institute of Chartered Surveyors, *Green Value: Green buildings, growing assets*, Ross Davies, ed., 2005.

Turner Construction, *2005 Survey of Green Building plus Green Building in K-12 and Higher Education*, [www.turnerconstruction.com](http://www.turnerconstruction.com).

Yudelson, Jerry, *Green Marketing: Make Your Building Stand Out*, Building Operating Management, July 1, 2007.

Yudelson, Jerry, *The Insider's Guide to Marketing Green Buildings*, Green Building Marketing, 2004.

## ENDNOTES

- <sup>1</sup> tns Canadian Facts: *Environment and Global Warming Top Issues, Canadians Say*, July 25, 2007: <http://www.tns-cf.com/news/07.07.25-green-power.pdf>
- <sup>2</sup> Pembina Institute, *CANMET Energy Technology Sector - Buildings Group*, January 2004, & Riccones, Dianna, *The Green Buildings Resources Guide*, US EPA Region 5, 2000. Data cited in Lucuik, M., Trusty, W., Larsson, N., and Charette, R., *A Business Case for Green Buildings in Canada*, Morrison Hershfield, 2005, presented to Industry Canada.
- <sup>3</sup> World Business Council for Sustainable Development, *Energy Efficiency in Buildings: Business Realities and Opportunities*, Summary Report, 2007, <http://www.wbcasd.org/DocRoot/SNblkDfP3KIQLTGfoPCm/EEBSummaryReportFINAL.pdf>
- <sup>4</sup> McGraw Hill Construction, *2006 Green Building Smart Market Report*, McGraw Hill Construction and the U.S. Green Building Council: [www.smartmarket.construction.com](http://www.smartmarket.construction.com)
- <sup>5</sup> Bernstein, Harvey M., *Green Building: Trends Driving Change*, presentation to WorldGBC International Congress, Toronto, July 9, 2007.
- <sup>6</sup> *ibid*: 52% of corporate America believes green is a market differentiation opportunity, 57% believe 'green fosters innovation' and 31% see their organizations involved in sustainability as a form of market leadership. 80% anticipate that by 2009 they will be involved in green a minimum of 15% of the time, and 20% anticipate they will be involved in green for 60% of the time.
- <sup>7</sup> Royal Institute of Chartered Surveyors, *Green Value: Green buildings, growing assets*, Ross Davies, ed., 2005.
- <sup>8</sup> *Ibid*.
- <sup>9</sup> Bernstein, Harvey M., *Green Building: Trends Driving Change*, presentation to WorldGBC International Congress, Toronto, July 9, 2007. 52% of corporate America believe green is a market differentiation opportunity and 31% see their organizations involved in sustainability as a form of market leadership.
- <sup>10</sup> Royal Institute of Chartered Surveyors, *Green Value: Green buildings, growing assets*, Ross Davies, ed., 2005.
- <sup>11</sup> Mercer Investment Consulting: *A Climate for Change: A Trustee's guide to understanding and addressing climate risk*, the Carbon Trust and the Institutional Investors Group on Climate Change, 2005 [http://www.westpac.com.au/manage/pdf.nsf/945DA27657594286CA2572E50023F268/\\$File/ACLimateforChange.pdf?OpenElement](http://www.westpac.com.au/manage/pdf.nsf/945DA27657594286CA2572E50023F268/$File/ACLimateforChange.pdf?OpenElement)
- <sup>12</sup> Persram, S., Larsson, N., and Lucuik, M., *Marketing Green Buildings to Tenants of Leased Properties*, Canada Green Building Council, August 2007.
- <sup>13</sup> McGraw Hill Construction, *2006 Green Building Smart Market Report*, McGraw Hill Construction and the U.S. Green Building Council: [www.smartmarket.construction.com](http://www.smartmarket.construction.com).
- <sup>14</sup> Sweeny, Dermot, personal communication with Sonja Persram, 2007.
- <sup>15</sup> Pearce, Doug, *Responsible Property Investing*, presentation to Green Real Estate Conference, April 18, 2007.
- <sup>16</sup> McGraw Hill Construction, *2006 Green Building Smart Market Report*, McGraw Hill Construction and the U.S. Green Building Council: [www.smartmarket.construction.com](http://www.smartmarket.construction.com)
- <sup>17</sup> World Business Council for Sustainable Development, *Energy Efficiency in Buildings: Business Realities and Opportunities*, Summary Report, 2007, <http://www.wbcasd.org/DocRoot/SNblkDfP3KIQLTGfoPCm/EEBSummaryReportFINAL.pdf>
- <sup>18</sup> Bernstein, Harvey M., *op. cit.*
- <sup>19</sup> *Ibid*.

August 23, 2007

Sonja Persram, Mark Lucuik &amp; Nils Larsson

20

Conference Board of Canada, *Powering Sustainability*, Spring 2007, Vol 11, No 2:

[http://www.conferenceboard.ca/insidedge/pdf/ie\\_q2\\_07.pdf](http://www.conferenceboard.ca/insidedge/pdf/ie_q2_07.pdf)

21

Association of Chartered Certified Accountants and FTSE, *improving climate change reporting*, August 2007

22

Mercer Investment Consulting, *A Climate for Change: A trustee's guide to understanding and addressing climate risk*, Institutional Investors Group on Climate Change and Carbon Trust, 2005

23

RICS, op. cit.

24

McGraw Hill Construction, 2006, op. cit.

25

Kats, Greg, *Greener Buildings: "The New Normal?"*, presentation to Green Real Estate Conference, Toronto, April 18, 2007

26

In *Marketing Green Buildings to Owners*, a 2002 presentation to the Sustainable Design of Green Buildings, Developer and Chartered Accountant Joe van Belleghem of Windmill Development Group describes how environmental solutions lower capital costs up front. By working toward a goal of greater energy efficiency (rather than a smaller incremental difference from the building code requirements), the innovations obtained by means of the integrated design process reduced the overall costs through achieving design components that work together synergistically: "it often costs less to save a lot of energy than a little energy." Passive solar design, for instance, uses sophisticated *design* configurations to lower the need for mechanical equipment - saving on initial capital costs. For the Vancouver Island Technology Park, the company also engineered a bioswale to address stormwater management by using the ecological function of wetlands to clean water and slow its return to the water table. And, to reduce waste for the project, they reused 100% of a building's structure and 91% of the shell, for a \$600,000 saving. By salvaging materials from an existing structure (including roof tiles, ductwork, river rock, lighting and doors), they saved 23% of anticipated project material costs and diverted these materials from landfill.

[http://www.architecture.uwaterloo.ca/faculty\\_projects/terri/sustain\\_casestudies/RAIC\\_201/Support/1-1.pdf](http://www.architecture.uwaterloo.ca/faculty_projects/terri/sustain_casestudies/RAIC_201/Support/1-1.pdf)

27

Osborne, Toby, *Canada's greenest buildings*, in Summit, April/May 2006,

[http://findarticles.com/p/articles/mi\\_qa3993/is\\_200604/ai\\_n17173047/pg\\_2](http://findarticles.com/p/articles/mi_qa3993/is_200604/ai_n17173047/pg_2)

28

McGraw Hill Construction, 2006 *Green Building SmartMarket Report*, in association with the U.S. Green Building Council, pg. 18.

29

McGraw Hill Construction, 2006 *Green Building Smart Market Report*, McGraw Hill Construction and the U.S. Green Building Council: [www.smartmarket.construction.com](http://www.smartmarket.construction.com)

30

Turner Construction, 2005 *Survey of Green Building plus Green Building in K-12 and Higher Education*, [www.turnerconstruction.com](http://www.turnerconstruction.com)

31

Lucuik, M., Trusty, W., Larsson, N., and Charette, R., *A Business Case for Green Buildings in Canada*, Morrison Hershfield, 2005, presented to Industry Canada. These productivity gains would come from "high quality natural light, exceptional ventilation, and possibly user controls."

32

McGraw Hill Construction, 2006, op. cit.

33

Heschong Mahone Group, *Skylighting and Retail Sales*, August 20, 1999, <http://www.h-m-g.com/projects/daylighting/summaries%20on%20daylighting.htm>. : adding daylight to stores increased sales by 40%

34

Heschong Mahone Group, *Daylight and Retail Sales*, October 2003, <http://www.h-m-g.com/projects/daylighting/summaries%20on%20daylighting.htm>

35

McGraw Hill Construction, 2006 *Green Building SmartMarket Report*, in association with the U.S. Green Building Council, pg. 14

36

Lazerus, Eve, *A Forest in Your Credit Union Branch?*, newspaper article, The Globe and Mail, March 29, 2005, cited in Lucuik et al. : greater employee satisfaction and productivity led to happier bank customers in Victoria, BC and a 400% customer increase due to referrals

August 23, 2007

Sonja Persram, Mark Lucuik &amp; Nils Larsson

<sup>37</sup> Kats, Greg, *The Costs and Financial Benefits of Green Buildings - A Report to California's Sustainable Building Task Force*, Capital E, 2003. Raised floor systems are associated with decreased costs for churn of \$0.40/ft<sup>2</sup>/year, or \$4.31/m<sup>2</sup>/yr.

<sup>38</sup> Davis Langdon, Australia *The Cost and Benefit of Achieving Green Buildings*, 2007.

<http://www.davislangdon.com/ANZ/Research/Research-Finder/Info-Data-Publications/Info-DataGreen-Buildings/>

<sup>39</sup> Lucuik et al, 2005: "whole building studies have concluded that the net present values for pursuing green buildings instead of conventional buildings range from 50 to 400 \$/ft<sup>2</sup> (540 to 4300 \$/m<sup>2</sup>) dependent on the time analyzed (20 to 60 years) and the degree to which the buildings employ green strategies."

<sup>40</sup> McGraw Hill Construction, 2006, op. cit.

<sup>41</sup> Davis Langdon, Australia *The Cost and Benefit of Achieving Green Buildings*, 2007.

<http://www.davislangdon.com/ANZ/Research/Research-Finder/Info-Data-Publications/Info-DataGreen-Buildings/>

<sup>42</sup> Mills, Evan, *Going Green Reduces Losses*, Reinsurance Magazine, March 1997, Vol 27, No 12. <sup>43</sup> Ross, C., Mills, E., and Hecht, S.B., *Limiting Liability in the Greenhouse: Insurance Risk Management Strategies in the Context of Global Climate Change*, Stanford Environmental Law Journal and the Stanford Journal of International Law, Symposium on Climate Change Risk, 2007, Vol 26A/43A:251-334. *In press*.

<http://eetd.lbl.gov/EMills/PUBS/PDF/Liability-in-theGreenhouse.pdf>

<sup>44</sup> Davis Langdon, Australia *The Cost and Benefit of Achieving Green Buildings*, 2007.

<http://www.davislangdon.com/ANZ/Research/Research-Finder/Info-Data-Publications/Info-DataGreen-Buildings/>

<sup>45</sup> See: National Energy Board: *High and Volatile Prices to Continue*, July 2007:

<http://www.neb.gc.ca/clf-nsi/rthnb/nwsrIs/2007/fctsh17-eng.html>

<sup>47</sup> Lucuik, M., Trusty, W., Larsson, N., and Charette, R., *A Business Case for Green Buildings in Canada*, Morrison Hershfield, 2005, presented to Industry Canada. <sup>47</sup> World Business Council for Sustainable Development, *Energy Efficiency in Buildings: Business Realities and Opportunities*, Summary Report, 2007,

<http://www.wbcd.org/DocRoot/SNbkDfP3KIQLTGfoPCm/EEBSummaryReportFINAL.pdf>

<sup>48</sup> Osborne, Toby, *Canada's greenest buildings*, in Summit, April/May 2006,

[http://findarticles.com/p/articles/mi\\_qa3993/is\\_200604/ai\\_n17173047/pg\\_2](http://findarticles.com/p/articles/mi_qa3993/is_200604/ai_n17173047/pg_2)

<sup>49</sup> Matthiessen, L.F. and Morris, P., *Costing Green: A Comprehensive Cost Database and Budgeting Methodology*, Davis Langdon, 2004.

<sup>50</sup> Kats, G., Alevantis, L., Berman, A., Mills, E., and Perlman, J., *The Costs and Financial Benefits of Green Buildings*, October 2003, Capital E for the California Sustainable Building Task Force.

<sup>51</sup> Larsson, Nils., *The Integrated Design Process*, International Initiative for a Sustainable Built Environment, January, 2004:

[http://greenbuilding.ca/down/gbc2005/Other\\_presentations/IDP\\_overview.pdf](http://greenbuilding.ca/down/gbc2005/Other_presentations/IDP_overview.pdf)