

Green Building for Hospitals – Resources and References

- **LEED for Healthcare**

The LEED for Healthcare Green Building Rating System was developed to meet the unique needs of the health care market, including inpatient care facilities, licensed outpatient care facilities, and licensed long term care facilities. LEED for Healthcare may also be used for medical offices, assisted living facilities and medical education & research centers. LEED for Healthcare addresses issues such as increased sensitivity to chemicals and pollutants, traveling distances from parking facilities, and access to natural spaces.

For a copy of the LEED for Healthcare draft contact Bruce Maine at [**Bruce.Maine@hdrinc.com**](mailto:Bruce.Maine@hdrinc.com)

- **Green Guide for Healthcare**

The Green Guide for Health Care is a best practices guide for healthy and sustainable building design, construction, and operations for the healthcare industry. This *Guide* provides the healthcare sector with a voluntary, self-certifying metric toolkit of best practices that designers, owners, and operators can use to guide and evaluate their progress towards high performance healing environments.

<http://www.gghc.org/>

- **The Dollars and Sense of Green Retrofits**

A growing number of companies are implementing green retrofits of their buildings to save money, improve productivity, lower absenteeism and health care costs, strengthen employee attraction and retention, and improve their corporate sustainability reports and brand equity – all at a relatively modest cost.

<http://www.deloitte.com/dtt/article/0,1002,sid%3D2232&cid%3D213564,00.html>

- **The Cost of Green Revisited**

The 2006 study shows essentially the same results as 2004: there is no significant difference in average costs for green buildings as compared to non-green buildings. Many project teams are building green buildings with little or no added cost, and with budgets well within the cost range of non-green buildings with similar programs.

<http://www.davislangdon.com/USA/Research/ResearchFinder/2007-The-Cost-of-Green-Revisited/>

- **Kaiser Permanente Eco-Toolkit**

Guide developed by Kaiser Permanente for use by its design teams based upon the ASHE Guidance Statement, LEED and internal research on green construction in its healthcare facilities.

http://www.healthybuilding.net/healthcare/Eco_ToolKit_2.0_copyrighted.pdf

- **Designing the 21st Century Hospital: Environmental Leadership for Healthier Patients, Facilities, & Communities – Center for Health Design White Paper**

The nation's healthcare system is anticipating a hospital construction boom worth \$200 billion over the next decade. At this pivotal moment, hospitals leaders are asking, what is the role of hospitals in the 21st century in improving patient and community health? Evidence suggests that when hospitals adopt green building and design approaches that minimize ecological harm, patient healing and staff satisfaction increases, and hospitals serve as leading environmental stewards in their communities.

<http://www.healthdesign.org/research/reports/GreenPapers.php>

- **The Impact of Light on Outcomes in Healthcare Settings**

Studies show that higher light levels are linked with better performance of complex visual tasks and light requirements increase with age. By controlling the body's circadian system, light impacts outcomes in healthcare settings by reducing depression among patients, decreasing length of stay in hospitals, improving sleep and circadian rhythm, lessening agitation among dementia patients, easing pain, and improving adjustment to night-shift work among staff. This issue paper was funded by a grant from the Robert Wood Johnson Foundation.

<http://www.healthdesign.org/research/reports/light.php>

- **The Business Case for Greening the Healthcare Sector**

The traditional business case for green construction has rested on financial savings through energy efficiency. However, now that the health-care industry has several successful green projects under its belt, more sophisticated business cases for green hospital construction are emerging. These extended cases are more persuasive for hospital executives and boards, especially in nonprofits that need to demonstrate community benefit to governmental and funding agencies.

http://www.practicegreenhealth.org/page_attachments/0000/0059/BusinessCaseForGreening.pdf

- **Health Benefits of Gardens in Hospitals**

This paper selectively reviews scientific research on the influences of gardens and plants in hospitals and other healthcare settings. The discussion concentrates mainly on health-related benefits that patients realize by simply *looking* at gardens and plants, or in other ways passively experiencing healthcare surroundings where plants are prominent. The review also briefly addresses other advantages of gardens and plants in hospitals, such as lowering the costs of delivering healthcare and improving staff satisfaction.

http://greenplantsforgreenbuildings.org/pdf/HealthSettingsUlrich_copy.pdf