

# Building a Healthy Future

The health care industry represents \$16 billion and more than 100 million square feet of construction per year. Shifting health care's building efforts to manifest the principle of "first do no harm" can be an enormous force for market transformation. In just the past year, the health care industry's demand for safer, less-toxic materials has created significant advancements in the market, including the development of new environmentally friendly products such as PVC-free carpeting, window treatment, guardrails and furnishings.

The Green Guide for Health Care is a catalyst in this important work. Major health care facilities around the world are using the Green Guide for Health Care to design, build, and operate the next generation of high-performance healing environments.

As of April 2006, there are more than 80 registered GGHC Pilot projects, representing more than 23 million square feet of construction. All types of projects are included among the Pilots, from small clinics to full-service medical campuses, new construction and renovations, with both public and private funding sources.

There is tremendous enthusiasm in the health care industry for the Green Guide for Health Care. Since its release in 2003, more than 7,500 people have registered on the website. GGHC registrants are represented in every state in the U.S., nine Canadian provinces, and 62 other countries.

## ACT TODAY!

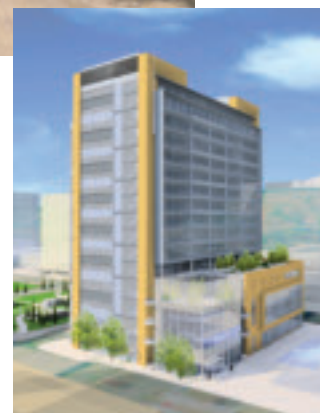
Register your project and join the Green Guide Forum to track your progress and network with peers in your field who are planning and building healthy hospitals. For more information and to sign up now, go to [www.gghc.org](http://www.gghc.org).

*"The Green Guide for Health Care is a superb resource. It helps the leaders and managers of health care institutions 'walk the talk,' promoting the health of patients, visitors, employees, community members, and the global community, while operating economically and efficiently. I hope that every medical center, hospital, and clinic in the nation gets a copy of the Green Guide and takes its lessons to heart."*

Howard Frumkin, M.D., Dr.P.H., FACP, FACOEM  
Director, National Center for Environmental Health  
Agency for Toxic Substances and Disease Registry  
U.S. Centers for Disease Control and Prevention



Mahlum Architects



GBD Architects

Above: Providence Newberg Medical Center, Newberg, OR (Providence Health Systems) Mahlum Architects with Mayer / Reed Landscape Architects. Designed to change the relationship between community and environment. Operational: June 2006. Seeking LEED 2.0 Silver.

Right: Center for Health & Healing, Portland, OR (Oregon Health & Science University). Interface Engineering with GBD Architects. Designed to be 61% more energy efficient than Oregon's Energy Code. Operational: Fall 2006. Seeking LEED 2.0 Platinum.



Cancer treatment centers built without materials linked to cancer

Pediatric clinics free of chemicals that trigger asthma

Hospitals with healthy food, fresh air, sunlight

Imagination is becoming reality today.

The dynamic new healthy building initiative being used by leading health care institutions is now available to you online at no cost.

[www.gghc.org](http://www.gghc.org)



**IMAGINE** bringing patients and staff together around a new shared vision of a true healing environment.



## Creating high performance healing environments

The Green Guide for Health Care (GGHC) is the premiere green building guide for the health care industry – and a transformational new tool for building hospitals that are healthy for people and the environment. Hospitals in North America and beyond are using the Green Guide to design and build the next generation of high performance healing environments.

The Green Guide is a voluntary, self-certifying system modeled with permission after the U.S. Green Building Council's LEED® rating system, with 96 design and construction points and 72 operations points. Unique features of the Green Guide:

- tailored to the particular structural and regulatory challenges of health care buildings
- introduces health issues as an explicit component of each point
- incorporates design elements that enhance patient healing and staff well being

*"As the first quantifiable sustainable design tool for hospitals, the Green Guide provides the framework for the health care industry to fulfill its commitment to 'first do no harm.'"*

Gail Vittori, Co-Director,  
Center for Maximum Potential Building Systems;  
Co-Coordinator GGHC Steering Committee

*"This well-conceived set of guidelines goes far beyond LEED in rating hospital projects. GGHC requires integrated design, something LEED only hints at. It covers both construction and operations, and it offers specific health policy reasons for each of its credits."*

Robert Cassidy, Editor in Chief  
Building Design and Construction magazine  
"14 Steps to Greener Hospitals," Feb. 8, 2006

Best practices in the Green Guide for Health Care include:

- incorporating healing design elements such as daylighting and views of nature
- using innovative technologies to reduce energy and water use
- reducing hazardous chemicals, such as mercury, lead, dioxin, cadmium, phthalates and halogenated flame retardants
- implementing green operations, ranging from organic food to housekeeping and landscaping protocols

### WANTED!

Your imagination and experience to help shape the Green Guide for Health Care. Register a project and access the Green Guide Forum to network with peers who are designing and building healthy facilities. Sign up now at [www.gghc.org](http://www.gghc.org).

### 3 PRINCIPLES OF HEALTHY BUILDING:

**PROTECT** ▶ the immediate health of building occupants  
▶ the health of the surrounding community  
▶ natural resources and the health of the global community

## Realize the Power of Imagination

### High performance healing environments:

#### BENEFIT THE BOTTOM LINE

- ▶ Significant savings over time due to energy and design efficiencies
- ▶ Reduce costs with better waste management, smaller building footprints
- ▶ Increased philanthropic opportunities
- ▶ Federal, state, and municipal incentives for green design
- ▶ Hospitals are using purchasing power and economies of scale to buy green alternatives at equal or lesser price.

**Indirect cost savings:** Patients with views of nature went home 3/4 of a day sooner, had a \$500 lower cost per case, used fewer heavy medications and exhibited better emotional well being. (Ulrich, R. 1984. Science 224 (647): 420-21.)

#### IMPROVE PATIENT SATISFACTION:

- ▶ Reduce stress
- ▶ Increase comfort
- ▶ Positively influence patient/staff perception and well being
- ▶ Improve performance-related outcomes

#### PROTECT HEALTH

- ▶ Enhance indoor and outdoor air quality
- ▶ Reduce exposure to carcinogens, reproductive toxicants, allergens, asthma triggers
- ▶ Curtail building-related illness
- ▶ Reduce chronic diseases

Chronic diseases linked to hazardous chemicals are on the rise – including certain cancers, birth defects, learning disabilities, fertility problems, autism and asthma. Total annual costs of environmentally attributable diseases in American children are estimated at \$55 billion. (Landrigan, P. 2002. EHP volume 110, number 7)

#### ATTRACT AND RETAIN STAFF

- ▶ Improve emotional and physical well being
- ▶ Reduce injuries and absenteeism due to illness
- ▶ Strengthen recruitment opportunities
- ▶ Improve health and retention with views, outdoor walking areas, natural light

#### REDUCE FOSSIL FUEL EMISSIONS

- ▶ Reduce costs with energy efficient technologies
- ▶ Reduce dependence on fossil fuel
- ▶ Support renewable energy initiatives
- ▶ Mitigate global warming associated with CO<sub>2</sub> releases from burning fossil fuels

*"It's only fitting that Boston's healthcare industry should embrace green technology. It's good for public health. It's good for the environment. It's good for your bottom line. And it's good for the overall economy."*

Boston Mayor Thomas Menino. Boston-area hospitals Brigham and Women's, Dana Farber Cancer Center, and Beverly Hospital are piloting the Green Guide.

Patrick H Dollard Discovery Health Center, Harris, New York.  
Guenther 5 Architects, LEED® 2.0 Certified, Winner 2004  
ASHE Vista Sustainable Design Award, NYSERDA & Kresge Grant Recipient.  
Designed using the Green Guide 1.0.



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