

Seattle, Hyatt, and the LEED Evolution

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Seattle, the so-called "Emerald City," is one of the greenest cities in the United States. Since launching a wide-ranging energy conservation initiative in 1977, the City of Seattle has established environmental responsibility as a fundamental element of its culture. This article looks at the growth of sustainable development in the city, including the recent opening of Seattle's first LEED-certified hotel, the Hyatt at Olive 8.

History of Seattle's Sustainability

The Northwest Regional Sustainability Plan was created in 1997 to serve as a map for the region's course toward sustainable development. The plan identified the most critical and practical steps needed to make sustainable building the standard practice in the Pacific Northwest, encouraging regional municipalities and organizations to embrace green building practices as a common goal.¹

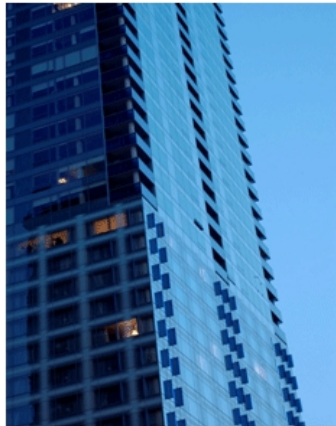
The Leadership in Energy and Environmental Design (LEED) program, originally established in 1998 by the U.S. Green Building Council (USGBC), provides a suite of standards for environmentally sustainable construction. LEED-certified buildings have reduced operating costs, support healthier and more productive occupants, and lessen the impact on natural resources. Projects are awarded Certified, Silver, Gold, or Platinum status depending on the number of credits they achieve.

In 2000, Seattle enacted the Sustainable Building Policy and became the first city to formally adopt the LEED standard. The strictures of the new policy mandated that new city-funded projects and renovations with over 5,000 square feet of occupied space must conform to the LEED Silver standard. In 2006, new zoning regulations for the downtown area included the Density and Height Bonus Incentive Program, which allows LEED Silver-certified commercial and residential buildings to exceed floor area and height restrictions. This allows developers to recoup the costs involved with LEED certification by both substantially lowering energy expenses and creating additional space in their building to rent, sell, or lease.

As of July of 2009, Seattle has 65 LEED-certified buildings, including 14 city-owned buildings, making Seattle the third-greenest city in the United States after Chicago, Illinois and Portland, Oregon. Notable LEED-certified buildings in Seattle include the Seattle Central Library, the Terry Avenue Office Building, Seattle University's Student Hall, and Mostler Lofts.

Seattle's First LEED Hotel: Hyatt at Olive 8

Global Hyatt Corporation has made a demonstrable commitment to becoming a green company since January of 2008, when Ms. Brigitta Witt was appointed as Vice President of Environmental Affairs to assist with the development of the company's official environmental policy. In April of 2009, Hyatt launched a worldwide training program to promote and reinforce a culture of environmental consciousness through Hyatt's global operations.



The Hyatt at Olive 8, which opened one block away from the Seattle Convention Center in January of 2009, is Hyatt's first LEED-certified property. Upon the completion of the final construction and interiors in July, it also became Seattle's first LEED-certified hotel, achieving the Silver certification. The 346-room hotel occupies 17

Summary

Seattle has one of the highest concentrations of LEED-certified buildings in the world, and the new Hyatt at Olive 8 marks the entrance of green hotels into the city's landscape.

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floors and includes 11,000 square feet of meeting space, the eco-friendly Elaia spa, a 65-foot lap pool, and the Urbane restaurant and bar. The top 22 floors of the building house 229 condominiums.

The following describes the Hyatt at Olive 8's most significant green features.

Sustainable Site: Green Roof

In the United States, approximately \$40 billion is spent annually to air-condition buildings.² Surfaces such as concrete roofs and paved parking areas absorb heat, artificially elevating temperatures by more than ten degrees Fahrenheit compared to suburban or undeveloped areas. In other words, roofs covered with vegetation do not require intensive temperature control and can significantly lower energy cost.

The approximately 8,000-square-foot green roof of the Hyatt is covered with three different species of Alpine plants that allow it to absorb up to 75% of rainwater, reducing storm water runoff to sewers. The roof also relieves heat gain, thereby decreasing heating and cooling loads, and provides habitat for birds, bees, and butterflies. The tree-lined roof also displays a more agreeable aesthetic than the bare tile, concrete, and mechanical equipment that compose the roofs of most urban buildings.

Water Efficiency

Efficient use of water is one of the chief benefits for LEED-certified hotels, as well as one of the most practical ways to achieve LEED certification, according to Ms. Rae-Anne Rushing, the President and founder of Rushing, a Seattle-based mechanical/electrical engineering and sustainability-consulting firm. Rushing provides energy analysis and LEED consulting for the Hyatt at Olive 8, which is expected to achieve a 32% reduction in water use by specifying low-flow shower heads, lavatories, and water closets, as well as dual-flush toilets and other water-saving technologies. Water-conservation practices also reduce the costs associated with heating water.

Energy Efficiency

The energy-efficient design of the Hyatt at Olive 8 includes:

- A well-insulated and light-filtering building exterior to reduce loss of heat during the winter and cool air during the summer;
- Light Emitting Diode (LED) lights throughout the hotel: LED lights last about ten times longer than compact fluorescents and use almost no energy;
- A pump that captures heat from outdoor air and supplies it as needed to the hotel. The efficiency of a heat pump quickly declines as temperatures drop below freezing. As such, Seattle's mild climate lends itself to their operation;
- Watt Stopper® master power systems to conserve electricity. This light-control system automatically turns off electricity in each guestroom when there are no occupants.

Material and Resources

u During construction, the hotel's developers incorporated recyclable material back into the building process, helping save 95 percent of construction debris from ending up in a landfill.

u Urbane, the hotel's restaurant and bar, sources the majority of its produce and meat from vendors within a 150-mile radius, thereby supporting the local economy and reducing transportation costs and environmental impact. In addition, Urbane uses the Natura water system to triple filter city water for use in the restaurant. The water is then sealed in reusable glass bottles for all restaurant guests, eliminating the need for disposable plastic bottles.

Indoor Environmental Quality: Daylight

With floor-to-ceiling windows in every guestroom, 75 percent of the hotel's interior has access to natural light, minimizing the need for energy-consuming artificial lighting. The triple-paned glass and a special optic coating on the exterior guards against excessive heat, reducing the hotel's cooling loads.³

Overall, the Hyatt at Olive 8 is expected to use 32 percent less water and 20 percent less power than a conventional, non-LEED-certified building of similar size and scope.

Costs and Benefits of LEED Certification

There is a belief that the costs to achieve LEED certification or to construct green buildings are incremental, and in most cases this proves true. Ms. Rushing says that "in our experience, LEED Silver can be obtained at an incremental cost of approximately \$1.50 per square foot, and LEED Gold for \$2.00 per square foot. These price points can only be met when all team members, such as engineers, architects, sustainability consultants, and owners, are on board from the first day."

As a result of LEED certification, developers, owners, and building occupants soon realize the following quantitative benefits:

- **Energy Savings.** Energy-efficient components such as HVAC (Heating, Ventilation, and Air-Conditioning), building exteriors, and green roofs significantly reduce demand for energy. For example, the Seattle Central Library saves approximately 33% in energy each year with triple-glazed windows and a computer-controlled HVAC system. Because of its recent opening, statistics on energy saving from the Hyatt at Olive 8 were not available; however, Mr. Mark Stiebeling, General Manager of the Hyatt at Olive 8 as well as the Grand Hyatt across the street, says that the eight-year-old, conventionally built Grand Hyatt will offer a good baseline for comparisons.
- **Marketing Power.** As of April of 2009, there are 18 LEED-certified hotels worldwide. 900 hotels are expected to be in the pipeline by the end of 2009, according to the USGBC.⁴ Along with increasing global awareness of environmental issues, the media has paid significant attention to LEED-certified hotel openings in recent years. Internet-based travel agencies such as Expedia, Orbitz, and Travelocity have created Green Hotels and Eco-Tourism services to help environmentally conscious travelers find hotels that align with their needs. The resulting marketing benefits for LEED-certified hotels are substantial. For instance, Gaia Napa Valley, the first LEED Gold hotel, received over \$2 million in free advertising.⁵
- **Increased Property Value.** *Green Value: Green Buildings, Growing Assets*, a study of twelve green buildings in the United States and Canada, discovered an increase in appraised property value of green buildings and the speed at which units were leased or sold.⁶ The study also noted that LEED buildings command rent premiums of \$11.33 per square foot over their non-LEED counterparts and have 4.1 percent higher occupancy. LEED buildings also sold for \$171 more per square foot.⁷
- **Incentives.** In August of 2008, Mayor Greg Nickels and Seattle City Light announced a new conservation plan to offer more efficiency options and incentives, doubling the budget available for Seattle's conservation programs over the next five years. Simultaneously, Puget Sound Energy revised its incentive program, and Seattle Public Utilities now offers incentives for systems that not only reduce water bills, but also contribute to energy savings.⁸ According to Rushing, the total incentive amount for the Hyatt at Olive 8 was roughly \$330,000, with approximately 70 percent of this total awarded for energy efficiency.
- **Better Health and Productivity for Building Occupants.** On average, Americans spend 90% of their time indoors, where levels of pollutants can run two to five times higher than outdoor levels. Green buildings have better indoor air quality, which reduces absenteeism among workers and illness among occupants, leading to increased productivity. According to the Institute for Market Transformation to Sustainability, people working in green buildings are 5 to 16 percent more productive than those in conventional buildings.⁹

Creative use of green buildings can bring more benefits. For instance, herbs, flowers, and vegetables are grown on the accessible green roof at the Fairmont Waterfront Hotel in Vancouver, saving its restaurant approximately \$30,000 in food costs per year.¹⁰

Conclusion

Participants from all fields, from city officials to building developers to residents to travelers, are needed to nurture a culture of sustainability. The City of Seattle has demonstrated strong leadership in encouraging local and national developers to go green, and the city's residents show broad support for sustainable initiatives. The cost-savings and marketing benefits make green hotels a "win" for developers and operators. Reductions in energy, materials, and waste make green building a "win" for the environment. The Hyatt at Olive 8 makes the case for this win-win in Seattle, and more sustainable hotel properties are sure to follow down the road.

¹ <http://www.seattle.gov/dpd/GreenBuilding/OurProgram/Overview/Programhistory/default.asp>

² Environmental Protection Agency

³ <http://www.hotelsmag.com/article/CA6646330.html>

⁴ <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=2000>

⁵ http://www.uptake.com/blog/travel_industry/leed-certification-hotels_719.html

⁶ http://designersi.com/users/12415/downloads/r_Green_Value_Report.pdf

⁷ <http://www.costar.com/News/Article.aspx?id=D968F1E0DCF73712B03A099E0E99C679>

⁸ Miller, Nathan, "How energy rebates can put more green in your pocket" November 6, 2008, Daily Journal of Commerce

⁹ LEED – NC Version 2.2 Reference Guide

¹⁰ "How Seattle can help green roofs to really grow" February 19, 2009, Seattle Daily Journal of Commerce