



FACT SHEET

COSTS AND BENEFITS

DEFINITIONS

Life Cycle Cost (LCC), n.
an accounting method that extends beyond capital cost to include the present value of operation, maintenance, and replacement costs.

LEED

IN A STUDY COMPARING THE CONSTRUCTION COST OF 45 LEED CERTIFIED BUILDINGS WITH 93 NON-LEED BUILDINGS, NO STATISTICAL DIFFERENCE IN COST WAS OBSERVED.

(Costing Green, Davis Langdon)

HIGH PERFORMANCE BUILDINGS are good investments – period. Savvy investors and owners are realizing that there is greater value and higher returns in buildings that use energy, water and materials more efficiently and provide healthy, productive environments for occupants. Evidence is beginning to show that these buildings lease or sell faster, have lower operating costs and receive less resistance from the surrounding communities. All of these factors lead to higher returns for owners and investors. In addition to the direct economic benefits, high performance buildings also benefit the entire community by reducing dependence on auto-based transportation systems, reducing energy consumption, protecting water, air and soil quality and supporting responsible business and manufacturing practices. The bottom line: **YOU CAN MAKE BETTER RETURNS, BETTER BUILDINGS, AND BETTER COMMUNITIES.**

GREEN BUILDING STRATEGIES

This fact sheet is the first in a series of six sheets outlining savings, costs, social and environmental benefits of green building. If you are a building owner, developer, architect, engineer or concerned citizen, this series provides a quick introduction to these important green building strategies:

GREEN ROOFS, vegetated roof systems that passively perform no less than eight highly beneficial and cost-saving functions.

DAYLIGHTING, because people respond, concentrate, and think better with diffuse, full-spectrum light provided by the sun.

ON-SITE RENEWABLE ENERGY, produced from “fuels” that have a stable, predictable supply such as solar, wind, biomass and ground source.

NATURAL VENTILATION, which can replace all or part of mechanical ventilation systems, improving indoor air quality and occupant comfort.

INTEGRATED DESIGN, the method by which the design team identifies systems early in the process to provide a coordinated implementation of efficiency and building methods, realizing an exponential gain in savings and comfort.

ADDED VALUE

High performance buildings don't have to cost more. With the right team communicating early in the process (see Integrated Design Fact Sheet), you can actually lower first costs and have better systems. When certain measures do cost more, these costs can often be offset through incentives (see On-Site Renewables and Green Roofs Fact Sheets). Even when there is a premium, studies are showing that they are in the range of 0.7 – 7% (an average of \$4/sq ft) and that the Return On Investment for these measures is often between \$50 – \$65/sq ft. (*Kats, et al. Oct. 2003*)

CASE STUDY

NORDHEIM COURT; UNIVERSITY OF WASHINGTON

Nordheim Court, a modern student village near the edge of the University of Washington campus, exemplifies how careful selection of sustainable strategies can yield long term operational benefits while keeping initial construction costs down. Built on tight budget of \$85 per square foot, this project achieves energy efficiency well beyond the stringent Washington State Energy Code requirements using additional insulation and passive solar design. Through an initial investment in water-conservation plumbing fixtures, the project uses 30 percent less water than conventional buildings. Reduced utility costs will offer dividends to the owner and tenants

throughout the lifetime of the building. The project's construction practices also delivered environmental and economic value. Nordheim Court's commitment to divert 81 percent of construction waste not only prevented 589 tons of landfill, but also yielded a net savings of \$14,582. Nordheim Court demonstrates that the benefits of sustainability and energy efficiency do not have to come at the cost of excellent design. The surprisingly low cost of this LEED-certified building is enhanced by the environmental and financial benefits for users, owners and the environment alike.

Case Study Courtesy of Mithun.



RESOURCES

THE FOLLOWING RESOURCES SERVE AS A STARTING POINT FOR A LARGE QUANTITY OF AVAILABLE INFORMATION:

CASCADIA REGION GREEN BUILDING COUNCIL
Post Occupancy Evaluation of 11 LEED Buildings

www.cascadiagbc.org

US GREEN BUILDING COUNCIL

www.usgbc.org

DAVIS LANGDON STUDY

Costing Green

www.davislangdon.com

US GENERAL SERVICES

ADMINISTRATION

LEED Cost Study

www.wbdg.org/newsevents/news_040105.php

FOR MORE INFORMATION ON THIS TOPIC AND OTHERS, VISIT

www.cascadiagbc.org

Location: Seattle, Washington

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A ROADMAP FOR SUSTAINABLE BUILDING

