

Green Building

What it means to you



1877 Broadway, Suite 608
Boulder, Co 80302
303-442-6565
www.bittnercom.com

Why Green Building?

We believe the future for conservation and sustainability in construction and maintenance lies in the energy efficiency of buildings, reduction of the negative impact to the occupants within buildings, and the improvement of one's environment through the implementation of green building guidelines.

The benefits of building green include cost savings from reduced energy - as simple as changing a light bulb, water-filtration systems, and avoiding waste like the use of carpet. Lowering operations and maintenance costs through such things as installing energy sensors as well as enhancing tenant productivity and health through the use of different paint choices are also some of the many benefits green building has to offer. In the end, the financial benefits of going green lay somewhere between \$50 and \$70 per square foot. This is over 10 times the additional cost associated with building green. Read "The Costs and Benefits of Building Green" report for more information: www.cap-e.com.

The following information will further tell you what green building is, its costs, and why it is a beneficial, investment option.





What are Green Buildings?

“Green” or “sustainable” buildings stem from a philosophy that considers the interrelation of site, energy, materials, indoor air quality, acoustics, and natural resources in order to build more efficiently and mindfully. The purpose of going green is to increase a structure’s energy efficiency, water efficiency, and overall sustainability. Sustainable building considers the structure as a whole and examines how its various subsystems work best together to save energy and reduce environmental impact. From the raw materials chosen for construction to the positioning of the building on its site, everything is designed to reduce the environmental footprint.

Some simple ways to make buildings more “green” are:

- Change incandescent light bulbs to fluorescent
- Choose a low or no Volatile Organic Chemical Paint (called “VOC” paint)
- Use alternate floor coverings instead of carpet, as it is not an easy product to recycle.
- Include regular maintenance and service of your mechanical systems.
- Install light sensors that turn lights on and off as you enter and leave a room
- Install energy saving glass or film on current windows



- Install indoor and outdoor water conservation measures for irrigation and plumbing. (including toilets, faucets, and showers.)

For additional information see:

http://en.wikipedia.org/wiki/green_building

<http://www.greenbuilder.com/sourcebook/IndoorWater.html>

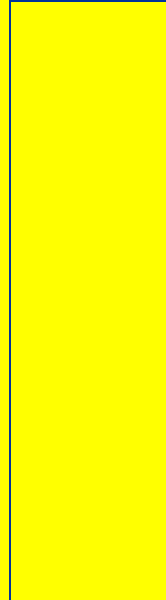
Furthermore, with more natural light and better air quality, green buildings are known to contribute to improved employee health, comfort, and productivity, which contribute to the financial benefits of investors as well.

How much more do Green Buildings cost?

Green buildings currently cost more initially but the cost is only going to get cheaper. Due to the increased architectural and engineering (A&E) design time, modeling costs and time that it takes to integrate sustainable building practices into projects, going green typically cost about 2%, or \$3-5/ft more than conventional buildings (www.cap-e.com).¹ However, keep in mind the cost difference has already dropped due to the increase in green buildings being built; and the

¹ "The Costs and Benefits of Building Green", a report to California's Sustainable Building Task Force, Oct. 2003. Principle author Greg Kats.





sooner these designs are incorporated into the building process the cheaper the costs will be. Furthermore, the pay off of increasing worker productivity, health and well being as well as decreasing energy costs make these initial expenses vanish in the end.

For further information see:

http://www.energystar.gov/index.cfm?c=Products.pr_tax_credits#s8

or

<http://www.energy.gov/taxbreaks.htm>

What are the Financial Benefits of Green Building?

As suggested before, the benefits include energy and water savings, reduced waste, improved indoor environmental quality, greater employee comfort and productivity, reduced employee health costs and lower operations and maintenance costs. The top financial benefits are energy savings and employee health and productivity costs. Here are the key aspects:

Tax Advantages

The Energy Policy Act of 2005 allows for up to \$1.86 per square foot of tenant improvement costs to be deducted.



See our related article in “News” or the Wikipedia article at:

http://en.wikipedia.org/wiki/Energy_Policy_Act_of_2005

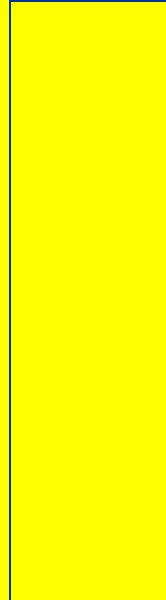
Energy

On average, green buildings use 30% less energy than conventional buildings. The energy savings mainly come from reduced electricity purchases. There are also reductions from peak energy needs. The financial benefits of reducing buildings energy consumption often equal out or pay for more than the average additional cost associated with building green in the first place.

Productivity and Health

There is growing recognition of the large health and productivity costs imposed by poor indoor environmental quality (IEQ) in commercial buildings—estimated variously at up to hundreds of billions of dollars per year. Measuring the exact financial impact of healthier, more comfortable and greener buildings is difficult. The costs of poor indoor environmental and air quality—including higher absenteeism and increased respiratory ailments,





allergies and asthma—are hard to measure and have generally been “hidden” in sick days, lower productivity, unemployment insurance and medical costs.²

However, four attributes associated with green building design—better ventilation, temperature control, increased control and more efficient day lighting—have been correlated with improved productivity. Recent research suggests that a well-designed workplace can increase employee productivity by 20 percent. (For report details on the breakdown of each attribute and its effects on worker productivity check out: www.cap-e.com).

Investment benefits from increased worker productivity have been documented:

For example, a 5 minute increase in work each day equals to \$600 to \$700 per employee per year. A bit more than 7 minutes of additional work per day is equal to about \$1000 per year.

The trend is self evident. Even small changes in productivity and health translate into large financial benefits. And finally, creating healthy and enjoyable working environment is just good business sense for increased employee satisfaction and retention.

And of course, recycle!

2. “The Costs and Benefits of Building Green”, a report to California’s Sustainable Building Task Force, Oct. 2003. Principle author Greg Kats.



For further information:

U.S. Green Building Council – www.usgbc.org

Boulder Green Building Guild – <http://www.bgbg.org>

Center for Resource Conservation –
www.conservationcenter.org

U.S Department of Energy – Energy Efficiency and
Renewable Energy Clearinghouse –
<http://www.eere.energy.gov>

For more assistance

Please contact us at Bittner Commercial Advisors (303-442-6565) to learn more about the benefits of Green Building or Commercial Real Estate Investing.

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