

Green Building

Student Services Center
(under construction)
CSU, Chico:
Designed to obtain
LEED Gold
Certification



What is green building?

Green buildings are sited, designed, constructed, and operated to enhance the well being of their occupants and support a healthy community and natural environment.

Why build green now?

Green building practices are more important now than ever due to climate change, natural resource depletion, rising energy costs, pollution and the related impacts on health, and overall reduced quality of life. For example:

- The U.S. has only 4.5% of the world's population but contributes 25% of the world's carbon dioxide emissions – *World Resources Institute*
- Buildings in the U.S. account for 70% of its total electricity consumption – *U.S. Department of Energy*
- Buildings (all types) in the U.S. consume 15 trillion gallons of water per year – *U.S. Geological Service*
- Most Americans spend over 90% of their time indoors, but indoor air pollutants are generally 2–5 times higher than outside air – *EPA*
- The prevalence of asthma has doubled since 1976 – *EPA*
- The average U.S. household loses \$150 worth of energy in the form of heated or cooled air escaping through holes and cracks every year – *American Council for an Energy Efficient Economy*
- For every \$1 reduction in annual utility costs resulting from energy efficiency retrofits, the market value of a home increases by \$10-\$25 – *Appraisal Journal*
- 10 million Americans drive more than an hour to work, 50 percent more than in 1990 – *The Preservation Institute*

Solar
home



Green building
(not in Chico)
features
roof-mounted solar
water heating,
light shelves which
shade in summer
and maximize light
in winter,
reflective roof



Does green building cost more?

Taking into account a range of construction factors including climate, location, market conditions and local standards, a 2004 study by Davis Langdon Adamson found that for many of the green projects, pursuing LEED certification had little or no budgetary impact.

In 2003, California's Sustainable Building Task Force, a group of more than 40 California state government agencies, concluded that the average premium for all 33 studied green buildings was slightly less than 2 percent.