



ASU BIODESIGN INSTITUTE BUILDING A

Tempe, AZ

The ASU Biodesign Institute is a massive multi-building learning and research center built to meet the demands of an ever-changing world. The Biodesign Institute represents the State of Arizona's largest investment in bioscience-related research. Green Ideas implemented several sustainable strategies into the design, development and construction of the project allowing the Institute to achieve LEED Gold level certification. Building A has an impressive atrium that spans the entire space, offering extensive views to the surrounding landscape while saving energy. Other sustainable features include a state-of-the-art storm drain system, easy access to alternative and public transportation, and the use of a reflective roof membrane to reduce solar heat gain. These green building elements not only help save energy, but foster a unique learning environment for the next generation of researchers and scientists to grow and develop. Considered the "lab of the future," the ASU Biodesign Institute is now the benchmark for new research facilities.



ARCHITECT
GOULD EVANS +
LORD, AECK & SARGENT

LEED CONSULTANT
GREEN IDEAS

CONTRACTOR
SUNDT, DPR CONSTRUCTION

SUSTAINABLE STRATEGIES

- Generation of onsite renewable energy with a 166.8 kW photovoltaic (PV) system
- High-performance, reflective roofing system and cool paving reduce the Urban Heat Island Effect
- Low VOC-emitting materials for the building's interior creates enhanced Indoor Environmental Quality
- 5,000 gallon cistern harvests enough water to eliminate use of potable water for irrigation
- Occupancy sensors and permanent monitoring systems were installed to minimize energy use
- Low-flow fixtures reduce domestic water use
- Exterior solar louvers automatically adjust in response to heating and cooling needs

PROJECT RESULTS

- LEED** for New Construction GOLD level achieved
- 100%** reduction of potable water use for irrigation
- 22%** energy cost savings above ASHRAE 90.1-1999 energy standard
- 90%** of building occupants have individual lighting controls
- 35%** of building's electricity supplied by renewable energy

LEED Facts

LEED for New Construction v2.2
Size: 176,018 SF
Certification Date: June 2007



POINTS ACHIEVED	40/69
Sustainable Sites	12/14
Water Efficiency	4/5
Energy & Atmosphere	6/17
Materials & Resources	3/13
Indoor Environmental Quality	10/15
Innovation in Design	5/5

Think

Design

Build



Green Ideas®

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