

MEMBER BUILDING CASE STUDY

Environment & Natural Resources 2

ENR2

FAST FACTS:

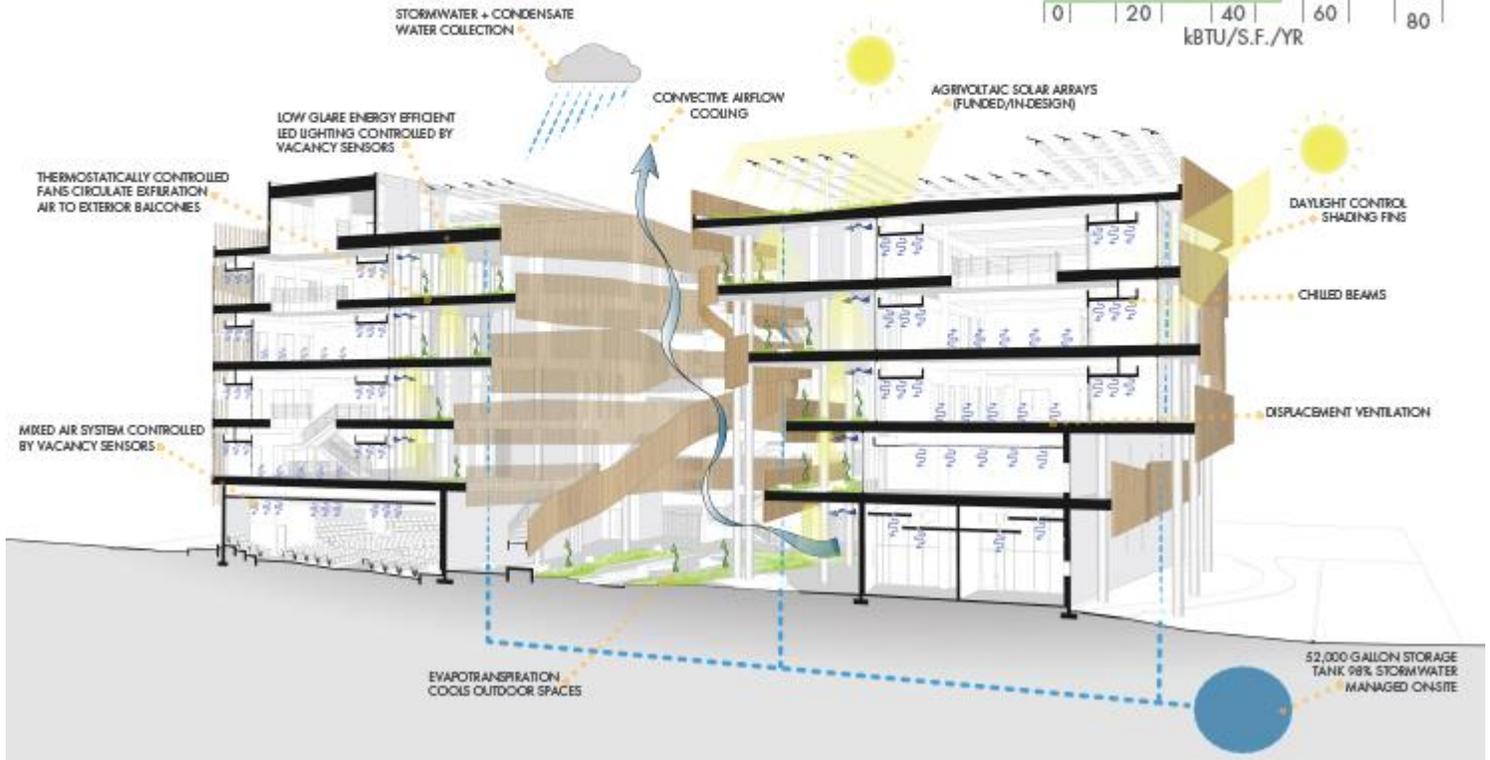
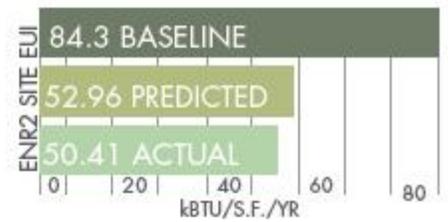
62% Energy Reduction

40% Water Reduction



THE UNIVERSITY
OF ARIZONA





Project Background:

Completed in 2015, ENR2 is part of the University of Arizona's commitment to environmental sustainability and interdisciplinary research and studies that focus on earth science, environmental programs, and natural resources. The building contains offices, classrooms, auditoriums and gathering rooms for public programs, in addition to a café. The Institute of the Environment shares the five-story structure with the School of Geography and Development, the School of Natural Resources and the Environment, the UA office of Sustainability and some divisions of the Department of Mathematics.

The courtyard is modeled after a slot canyon, a unique geologic feature of the Desert Southwest, which creates an exterior circulation effect, driving down internal temperatures by providing sheltered and shaded outdoor space. Vines hang from the canyon walls and plants grow from the floors.

Innovative Measures:

The Environment and Natural Resources 2 building at the University of Arizona has achieved LEED Platinum certification, the highest possible certification and one of the most distinguished sustainability designations in the country, and the largest project in the state of Arizona, by square footage, to earn the prestigious LEED certification under the (USGBC) LEED v2009 rating system.

The building is efficient in its water usage, resulting in a 40 percent reduction in the total amount of water used annually — a reduction of about 640,000 gallons. The water harvesting system will capture 260,000 gallons of rainwater runoff each year. Reclaimed water is use for irrigation.

The building supports alternative transportation, with bike racks and showers for people who arrive by bike and also provides a place to eat, so that people don't have to drive to lunch.

BUILDING STATISTICS

Owner: University of Arizona
 Building Type: College/University
 Architect: GLHN Architects & Engineers
 Location: 1064 E. Lowell St, Tucson
 Building Square Footage: 207,632
 Number of Floors: Five
 Constructed: 2015

ENERGY

EUI: 50.4 kBtu/sf/yr
 Baseline EUI: 132 kBtu/sf/yr
 2030 Challenge Goal: 61 kBtu/sf/yr
 Reduction from Baseline: **62%**
 Energy Fuel Mix = 48% District chilled water, 19% District steam and 33% Electric grid

WATER

Current WUI – 2.9 gal/s.f.
 Baseline WUI – 3.3 gal/s.f.
 Potable Water Use Reduction – 12%
 Total water use reduction – **40%**

TRANSPORTATION

A recent survey indicated that 15% of occupants use alternative transportation and 58% plan to use alternative transportation in the next 6 months

