NARAGHI HALL OF SCIENCE

CALIFORNIA STATE UNIVERSITY, STANISLAUS

■ Energy/Modeling ■ LEED Commissioning ■ Mechanical

LEED Silver Certified

Energy Efficient Mechanical Systems - Exceeds California Energy Code by 24.8%

Featured poster project at 2005 Labs for the 21st Century Conference, *"LEED Your Labs to the Environment - Creative Mechanical Design for the New Generation Labs"*

This new, 3-story laboratory building for the interdisciplinary sciences, supporting the departments of physics, astronomy, biology, chemistry and geology. It provides 25 wet and dry laboratories, 16 science-project prep rooms, 4 classrooms, group study areas, an observatory, an vivarium, a greenhouse, and 58 faculty and department offices. A model of sustainable design for laboratories, this building also features wireless internet connectivity and leading edge technological infrastructure.

Our mechanical design features such energy-efficient measures as low-velocity ductwork, VAV fume hoods in the laboratories, pre-cooling of outside air using a cooling tower that also provides process water cooling for lab equipment (which reduces the chiller plant load by 35%), condensing boilers and mixed-mode HVAC for the atrium. Other features include dust-collection systems, a high-pressure air system for "air tracks" in the physics labs, and a greenhouse using radiant heating and evaporative cooling. Our energy analysis resulted in a design that exceeds the California energy code by 24.8 percent. The project is LEED Silver certified.

OWNER
California State University, Stanislaus
SCOPE
115,000 SF
SERVICES
HVAC, Plumbing
Laboratory Systems
Energy Analysis
Commissioning
COST
$54 Million
COMPLETED
2008

The circular structure serves as the entrance point on the ground level, meeting rooms on the second and third levels, and the observatory on the roof level.