

ORAU Applies for LEED Certification for Center for Science Education



Summary

- ORAU's new Center for Science Education, located across from the Pollard Technology Conference Center, hopes to attain LEED for New Construction Certification from the U.S. Green Building Council. *LEED* stands for Leadership in Energy and Environmental Design.
- The LEED Green Building Rating System is the nationally accepted benchmark for the design, construction and operation of high-performance, sustainable ("green") buildings.
- The Center for Science Education efficiently uses resources—energy, water and materials—while minimizing the building's effects on human health and the environment, as well as promoting economic performance.

LEED Criteria Highlights

Site Sustainability

- Pollution prevention during construction
- Four-story construction for smaller building footprint
- Integration with the main ORAU campus
- Closely located to the community
- Bicycle storage and changing rooms
- Parking area of zoning minimum size
- Retention ponds for storm water management
- Reflective roof as deterrent to heat retention
- Light pollution reduction

Materials and Resources

- Resources were conserved during construction and approximately 70% of waste was reused and diverted from landfills.
- Building products were obtained regionally to reduce transportation impacts.
- Wood was harvested from sustainable forests.

Water Efficiency

Water-efficient fixtures, automatic controls and faucets with low-flow aerators reduce water usage by more than 35 percent as compared with a standard-designed building.

Energy and Atmosphere

- Twenty-three percent less energy consumption than a standard-designed building
- Specially insulated and ventilated wall system for energy efficiency
- Lighting control system with motion-activated lighting, sensors to detect daylight levels within the building, and sensors to detect the presence of occupants in rooms for light on/off control
- Metering and control systems for monitoring, evaluation and adjustment of lighting and heating and air systems to ensure the building is performing as designed

Indoor Environmental Quality

- Indoor air quality was controlled during construction and was tested before occupancy to ensure minimal pollutants.
- Paints and adhesives are low VOC (volatile organic compounds).
- Carpet is Green Seal® certified, which requires that optimal environmental standards be met.
- No urea formaldehyde was added to any product.
- Significant control of the heating, ventilation and air conditioning system, as well as the lighting system, allow for maximum individual comfort.

About ORAU: Oak Ridge Associated Universities (ORAU) is a university consortium leveraging the scientific strength of 99 major research institutions to advance science and education by partnering with national laboratories, government agencies and private industry. ORAU manages the Oak Ridge Institute for Science and Education for the U.S. Department of Energy.

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