

LEED, or Leadership in Energy and Environmental Design, is an internationally-recognized green building certification system. Developed by the U.S. Green Building Council (USGBC) in March 2000, LEED provides building owners and operators with a framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

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LEED®
Project
Profile

Hertz Center

tulane university
new orleans, louisiana

Project Summary

The Hertz Center is the team operations home base for Tulane's Division 1-A Women's Volleyball, Men's Basketball and Women's Basketball. The 43,310 square foot facility contains two courts for daily practices as well as team locker rooms and coaches' office suites. Other amenities include training and weight rooms, film room, conference rooms, as well as equipment storage. This building is Tulane's first athletics building to pursue LEED certification for New Construction, and the third campus project to seek LEED certification.

Energy Efficiency

A computer energy model constructed during the design phase estimates that the building's energy costs will be 36% lower than a baseline building. The building's energy efficient features include occupancy sensors that reduce energy use when the building has adequate natural light and when it is empty. Air handling units have variable supply fan control for energy efficiency and thermal comfort. The outside air to the building is pretreated through the Energy Recovery Units using exhaust air for additional energy efficiency. CO² sensors are used to adjust the ventilation of the building based on the number of occupants inside. Condensing boilers with 95% thermal efficiency rating are used to provide heating hot water. A complete Building Automation System is provided to allow the building to act as efficiently as possible through scheduling of all mechanical systems operations.

The building's roof and mechanical room were designed to be solar-ready. In the future, a solar photovoltaic system could be added without having to renovate roof access or equipment connections. Space for machinery and wiring has been provided in the mechanical room for the system to be installed once a solar program is selected.

The building's energy systems were reviewed by an independent engineering team, called a Commissioning Authority, during design, installation, and initial operation as well as a 10 month post-occupancy inspection. The Commissioning Authority helps to promote best practices in installation and start up procedures as well as to identify issues or installation concerns in the mechanical and electrical systems before they become major problems. The Commissioning Authority also organized and recorded training for the end user and Facilities Services staff to facilitate proper operation in the future. Utility metering installed in the building will be used to verify and monitor energy performance for efficient operation.

Efficient Water Use

Through the use of efficient fixtures, the Hertz Center will reduce the building's water use by 37%. These fixtures have reduced flush and flow rates in order to conserve water. They include high-efficiency toilets (1.28 gallons per flush), urinals (.5 gallons per flush), lavatories (.5 gallons per minute) and showers (1.5 gallons per minute). Outside the building, an irrigation system was installed to provide water as the plantings are established. The components were chosen for their efficiency and use controls that allow the irrigation system to be adjusted seasonally. Moisture sensors shut off the system if there has been sufficient rainfall.

PROJECT DETAILS

- Completed: November 2011
- Project Size: 43,310 sf.
- Total Project Cost: \$13 million



Recycling & Sustainable Materials

Measured by cost, 36% of the material purchased for construction was made of recycled content. The building's steel, concrete and metal panels all contain recycled content. During the preparation of the site and construction, 86% of construction waste and debris was recycled or re-purposed. Recycling rooms are provided on each floor as well as office recycling service through the janitorial contractor.

In selecting building materials, the contractor also made extensive use of materials with other sustainable attributes. The court floor is made of wood that was grown and harvested sustainably and responsibly under strict certification by the Forest Stewardship Council. Measured by cost, 30% of the building's materials came from within 500 miles of New Orleans, such as the St. Joe Brick used on the exterior. By purchasing regional materials, shipping emissions are reduced because of the shorter distances materials must travel.

Indoor Environmental Quality

During construction, the contractor was required to take proactive measures to protect the indoor air quality inside the building, such as protecting the HVAC system from dirt and dust and protecting materials from moisture. All paints, primers, adhesives, sealants, and coatings such as wood finishes were screened to ensure that they meet low-VOC standards. (Volatile organic compounds or VOCs vaporize at room temperature and can be harmful to both installers and occupants). Grates placed inside the main entryway help to prevent dirt and pollutants from getting inside the building.

The designers recognized that daylight and views create a much more pleasant and comfortable building, and are important even inside athletic facilities. Most spaces in the building are naturally lit with artificial lighting controlled by occupants to reduce their use when not needed, while 91% of regularly occupied spaces have views outside. Occupant surveys will regularly check on the comfort of the building's users to understand their comfort levels.

Transportation

By virtue of its location on a dense, urban campus that has several public and university-run transportation options and many services, such as the restaurants, within walking distance, the project earns a number of LEED credits for encouraging alternatives to driving. To encourage bicycle use, 44 bicycle parking spots are on the project site.

The Hertz Center project restored a sidewalk to this segment of Ben Weiner Drive linking the Athletics section of campus to the core residential campus. This provides an important missing link for students who use Ben Weiner to walk to Turchin Stadium or the Claiborne area restaurants. The project makes it safer and more pleasant to walk in this part of campus by placing a public plaza at the front entrance, providing a wide tree-lined sidewalk along Ben Weiner, limiting the width of the driveway to the service area, and by providing the dramatic metal cladding and overhang—a stunning view for passing pedestrians!



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Prerequisites

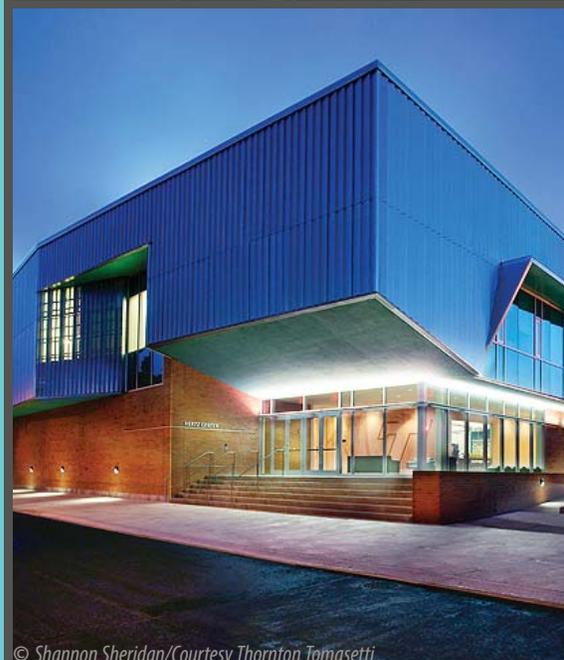
C	R	SSp1	Construction Activity Pollution Prevention
C	R	EAp1	Fundamental Commissioning of the Building Energy Systems
D	R	EAp2	Minimum Energy Performance
D	R	EAp3	Fundamental Refrigerant Management
D	R	MRp1	Storage and Collection of Recyclables
D	R	EQp1	Minimum Indoor Air Quality Performance
D	R	EQp2	Environmental Tobacco Smoke Control

Earned Points - 39

D	1	SSc1	Site Selection
D	1	SSc2	Development Density & Community Connectivity
D	1	SSc3	Brownfield Redevelopment
D	1	SSc4.1	Alternative Transportation - Public Transportation Access
D	1	SSc4.2	Alternative Transportation - Bicycle Storage & Changing Rooms
D	1	SSc4.3	Alternative Transportation - Low-Emitting & Fuel Efficient Vehicles
D	1	SSc4.4	Alternative Transportation - Parking Capacity
C	1	SSc5.1	Site Development - Protect or Restore Habitat
D	1	SSc5.2	Site Development - Maximize Open Space
C	1	SSc7.1	Heat Island Effect - Non-Roof
D	1	WEc1.1	Water Efficient Landscaping
D	2	WEc3.1-2	Water Use Reduction (34% reduction)
D	2	EAc1	Optimize Energy Performance (14.3% energy cost savings)
C	1	EAc3	Enhanced Commissioning
C	1	EAc5	Measurement & Verification
C	1	MRC1.1	Building Reuse - Maintain 75% of Existing Shell (94% achieved)
C	1	MRC1.3	Building Reuse - Maintain 50% of Non-Structural Elements (51% achieved)
C	2	MRC2	Construction Waste Management - Divert 75% from Disposal (76% achieved)
C	2	MRC3	Materials Reuse - 10% (51% achieved)
C	1	MRC4	Recycled Content - 10% (12% achieved)
C	1	MRC7	Certified Wood (64% achieved)
D	1	EQc1	Outdoor Air Delivery Monitoring
C	1	EQc3.1	Construction IAQ Management Plan - During Construction
C	1	EQc4.1	Low-Emitting Materials - Adhesives & Sealants
C	1	EQc4.2	Low-Emitting Materials - Paints & Coatings
C	1	EQc4.3	Low-Emitting Materials - Carpet Systems
D	1	EQc6.1	Controllability of Systems - Lighting
D	1	EQc7.1	Thermal Comfort - Design
D	1	EQc7.2	Thermal Comfort - Verification
D	1	EQc8.1	Daylighting and Views - Daylight 75% of Spaces (81% achieved)
D	1	EQc8.2	Daylighting and Views - Views for 90% of Spaces (97% achieved)
D	1	IDc1.2	Innovation in Design - Green Cleaning
D	1	IDc1.3	Innovation in Design - Public Education
C	1	IDc1.4	Innovation in Design - Exemplary Performance: MRC3 Materials Reuse
C	1	IDc2	LEED® Accredited Professional

LEED Certification Thresholds

CERTIFIED - 26+ pts. SILVER - 33+pts. **GOLD - 39+pts.** PLATINUM - 52+pts.



PROJECT TEAM

Architect: Gould Evans Associates, Kansas City, MO

Local Architect: Lee Ledbetter & Associates, New Orleans, LA

Mechanical, Electrical and Plumbing: Lucien T. Vivien, Jr., & Associates Inc., Metairie, LA

Construction: Brice Building Company, Metairie, LA

Commissioning: Thompson Building Energy Solutions, Baton Rouge, LA

Energy Modeling: Lucien T. Vivien, Jr., & Associates Inc., Metairie, LA

Capital Projects, Facilities Services, Office of Environmental Affairs, Office of the University Architect