



**LOWER COLORADO RIVER AUTHORITY
EMERGENCY OPERATIONS CENTER
AUSTIN, TX**

83% water cost savings

32% energy cost savings

82% construction waste diverted

LEED® Facts

LCRA Emergency Operations Center
Austin, TX

LEED® for New Construction
February 2009

Gold 39*

Sustainable Sites 10/14

Water Efficiency 4/5

Energy & Atmosphere 2/17

Materials & Resources 7/13

Indoor Environmental Quality 11/15

Innovation & Design 5/5

**Out of a possible 69 points*

The information provided is based on that stated in the LEED® project certification submittals. USGBC and Chapters do not warrant or represent the accuracy of this information. Each building's actual performance is based on its unique design, construction, operation, and maintenance. Energy efficiency and sustainable results will vary.

LCRA EMERGENCY OPERATIONS CENTER

Leading by Example

LCRA demonstrates commitment to environmental education and water conservation

PROJECT BACKGROUND

The success of the Lower Colorado River Authority's Emergency Operations Center was predicated on a 2004 project team charrette that helped shape the goals for the new facility: state-of-the-art offices and flexible space for river management operations; a building and site with scalable levels of security appropriate to different emergency situations; a healthy, inviting and attractive workplace; an efficient, functional and durable design; and a public outreach component that would demonstrate LCRA's environmental stewardship. The design incorporates all of these functions into a 35,000 square foot building and intricate landscape design feature, culminating in a scenic overlook above the Colorado River. The Emergency Operations Center, also referred to as Redbud Center, received LEED® Gold certification and a Four Star rating from the Austin Energy Green Building program in 2008, and is the first building of its type to achieve this distinction.

FOCUS ON WATER

Water conservation is a principle mission of LCRA. Redbud Center demonstrates this commitment by increasing water savings by 83% – the equivalent of 110,500 gallons per year. One of the defining characteristics of the facility is its four cisterns, totalling 31,100 gallons of storage capacity, which are prominently located to the east of the building. This rainwater collection system is intended to be used in a variety of ways: primarily for sewage conveyance, but also for the make-up water for the interpretive water feature and for irrigation. Sloping down the northern edge of the building, the water feature is intended to educate visitors about the Colorado River system and the challenges of managing water resources. The interactive series of reservoirs, rivers, channels and dams allow visitors to turn valves and release or restrict the water flow through the miniature model. Redbud Center earned a total of five LEED® points for innovation and design including exemplary performance in Wastewater Technologies and Water Use Reduction.

STRATEGIES AND RESULTS

Redbud Center is oriented with its long axis running east-west, so that the exterior walls are optimally positioned to minimize direct sun in the summer and maximize southerly sunlight in the winter. The long south wall features a green screen and 10' overhang to reduce heat gain and glare in addition to providing an attractive, green façade. The Center's office layout inverts the standard workplace floorplan by placing the enclosed offices at the core of the building and the cubicle space along the windowed periphery. As a result the floor-to-ceiling windows flood the open floorplan with natural light that is able to travel over the low cubicle partitions to reach the windows of the interior offices. This greatly reduces the need for overhead lighting. To offset the solar gain as a result of the abundant natural lighting, the project team selected windows with high efficiency glazing for the walls that would bear the brunt of sunlight. In total, the energy efficient strategies employed by the design team are expected to yield a 32% savings in energy costs annually.

The interior aesthetic of Redbud Center is very clean and free of unnecessary adornment. Aesthetically and environmentally, this is a "less is more" approach. Using less material means that fewer surfaces and products need to be sealed, adhered, finished, or cleaned – minimizing the toxins in the indoor environment. A concerted effort was made to source local and recycled materials and products whenever possible, and 82% of construction waste was diverted from the landfill.

ABOUT THE LOWER COLORADO RIVER AUTHORITY (LCRA)

LCRA plays a variety of roles in Central Texas including delivering electricity, managing the water supply and environment of the lower Colorado River basin, developing water and wastewater utilities, providing public recreation areas, and supporting community and economic development.

"As primary stewards of the Colorado River in Central Texas, we recognize the importance of environmental awareness and the conservation of natural resources. Redbud Center represented an ideal opportunity to demonstrate our commitment to these principles in a way that will inform the broader community."

Christopher Kennedy
LCRA Chief Administrative Officer



Architect and Interior Architect:
Barnes Gromatzky Kosarek Architects
Owner: Lower Colorado River Authority (LCRA)
General Contractor: Thos. S. Byrne, Ltd.
Structural Engineer: Jose I. Guerra, Inc.
MEP Engineer: Jose I. Guerra, Inc.
Civil Engineer: MWM Design Group
Landscape Design: J. Robert Anderson
Interpretive Design: Overland Partners
Sustainable Design: Austin Energy Green Building Program, Barnes Gromatzky Kosarek Architects, and Monarch Consulting
Commissioning Agent: ACR Engineering
Photography: ©Thomas McConnell Photography
Project Size: 35,000 square feet
Total Project Cost: \$11,088,000
Cost Per Square Foot: \$313 includes sitework

ABOUT LEED

The LEED® Green Building Rating System™ is the national benchmark for the design, construction, and operations of high-performance green buildings. Visit the U.S. Green Building Council's website to learn more.



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