



GREEN BUILDING TOURS

November 18, 2011



KENDALL LIBRARY & COMMUNITY CENTER

Houston Public Library
Houston Parks & Recreation Department
Houston, Texas

LEED for New Construction

45% Water Use Reduction

85% Construction waste diverted from landfill

36% Recycled Content

LEED® Facts

Kendall Library & Community Center
Houston, TX

LEED for New Construction v.2.2
Certification awarded March 16, 2011

Silver 38*

Sustainable Sites 9/14

Water Efficiency 4/5

Energy & Atmosphere 4/17

Materials & Resources 7/13

Indoor Environmental Quality 9/15

Innovation & Design 5/5

*Out of a possible 69 points

KENDALL LIBRARY & COMMUNITY CENTER

609

Kendall Library & Community Center A New Way to Reduce Environmental Impact

PROJECT DESCRIPTION

The Kendall Library and Community Center (Kendall) is Houston's first combined library and community center. The Project, located in Houston, Texas, lies a short distance from Interstate 10 within an area known as the Energy Corridor. The three-story, 28,600 sq. ft. facility contains classrooms, reading and stacks areas, gathering and meeting rooms, multiple computer areas, a gymnasium, a drive through service window and an automated book return.

Ample glazing provides daylighting and views which contribute to the library's organizational goal of providing safe, welcoming, and exciting facilities to customers. Use of durable, sustainable materials decreases facility maintenance costs and improves public perception.

SUSTAINABLE SITE (9/14)

Public transportation access is less than 1/4 miles away with two bus lines servicing the area. Nearby Terry Hershey park also offers hike and bike trails that run through the neighboring residential areas for easier access to the library. Paved surfaces are sloped toward bioswales, which naturally filter pollutants from the rainwater and provide a natural habitat of native plants. The bioswales connect to a 325,000 gallon underground raintank. The tank retains water for so that potable water is not used for irrigation. A low-slope, cool roof minimizes solar heat gain and increases energy efficiency.

WATER EFFICIENCY (4/5)

Native landscaping was planted for its drought resistant, low maintenance characteristics. Thus reducing emissions from regular maintenance and reducing the quantity of water required for irrigation by more than 50%. The use of water efficient plumbing fixtures reduces water consumption by 45% inside the facility.

ENERGY & ATMOSPHERE (4/12)

A commissioning agent was retained during design development through construction to ensure the fundamental building system design was as efficient as possible. ■ Low-E window glazing improves the thermal efficiency of the building, allows increased transmittance of visible light, and decreases the dependence on artificial lighting which helps reduce energy needs. ■ The facility exceeds the minimum energy standards to achieve an energy savings of 14.7% a year. The owner has also agreed to a minimum two-year contract for 70% renewable energy for this facility. The two elevators (compared to hydraulic elevators) consume 70% less energy, eliminate the need for 160 gallons of hydraulic oil, and reduce noise pollution.

MATERIALS & RESOURCES (7/13)

■ Multiple finishes and building materials contain recycled content, some of which are 100% post-consumer recycled content. Over 36% of all building materials consists of recycled content. ■ Over 31% of the building materials were manufactured within a 500-mile radius and 85% of construction waste was diverted from landfills. ■ 80% of the wood used is FSC Certified.

INDOOR ENVIRONMENTAL QUALITY (9/15)

■ Ample glazing provides views to the outside from 90% of the regularly occupied spaces. ■ Low-E window glazing improves the thermal efficiency of the building, decreases transmittance of harmful UV-rays, and allows increased transmittance of visible light. ■ Low VOC paints and adhesives were used throughout the project to protect staff and visitors from airborne contaminants. ■ Rubber flooring was installed for its low maintenance needs as well as low off-gassing properties. The floor does not need to be waxed, thereby reducing exposure to hazardous chemicals and contaminants.

INNOVATION & DESIGN (5/5)

■ The facility has a Green Housekeeping Program in place to reduce exposure of the building occupants and maintenance personnel to potentially hazardous chemical contaminants that impact air quality, occupant well being, and the environment. ■ Exemplary levels were achieved on Water Use Reduction and Recycled Content surpassing the minimum requirements of LEED in an effort to reduce environmental impacts.

"We are delighted with this opportunity to co-locate City services. It provides better customer service while reducing our environmental impact."

-Wendy Heger, Assistant Director,
Houston Public Library



Owner: City of Houston
Architect: English + Associates Architects, Inc.
MEP: Jacobs Engineering
Structural: Henderson Rogers
Civil: Othon
Landscape: Asakura Robinson
Commissioning: Apollo BBC
Contractor: Teal Construction

Project Size: 28,600 s.f.
Total Project Cost: \$8,642,800
Completion: March 2010

Exterior photograph by Matthew Duggan. Interior photographs by G. Lyon Photography, Inc.

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 Web site at www.usgbc.org to learn more about how you can make LEED work for you.