



HACIENDA JAJA
ALAMO HEIGHTS, TEXAS

79% reduced energy use

90% of roof area used to harvest rainwater

100% of all installed plants are drought-tolerant

LEED® Facts
HACIENDA JAJA

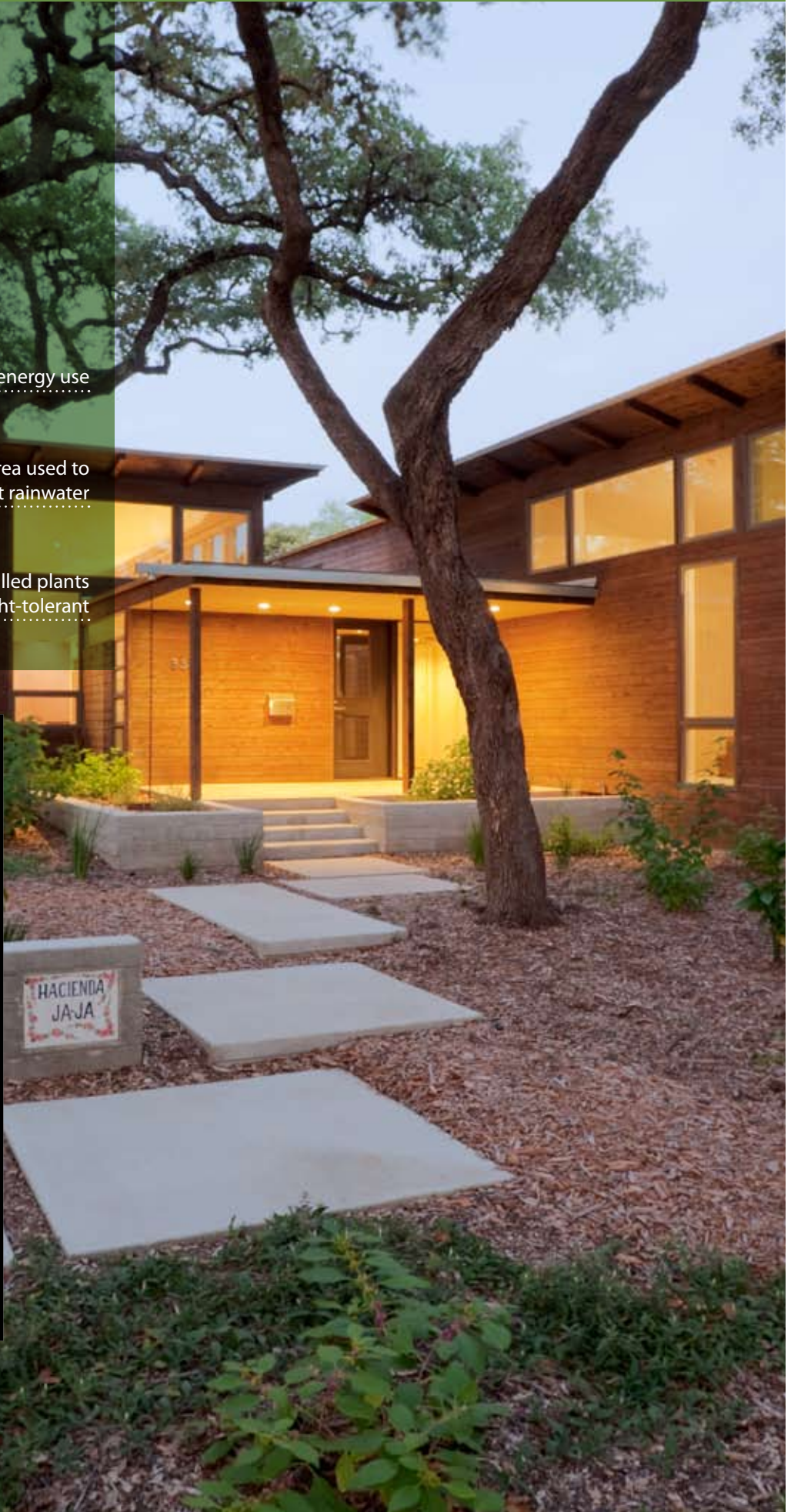
LEED for Homes
Certification awarded September 17, 2010

Platinum 100*

Innovation & Design	5/11
Location & Linkages	5/10
Sustainable Sites	16/22
Water Efficiency	14/15
Energy & Atmosphere	35/38
Materials & Resources	13/16
Indoor Environmental Quality	10/21
Awareness and Education	2/3

*Out of a possible 136 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.



HACIENDA JAJA

At Home Among Oaks

PROJECT BACKGROUND

Nestled beneath the canopy of the live oaks, the scale Hacienda JaJa makes it a natural partner with its neighbors. A professional couple returning to Texas from San Francisco, the clients also sought porches that allowed engagement with activity on their street. The residence's careful siting places preservation and protection of surrounding live oak trees as a paramount goal of the overall design. Orientation to maximize natural ventilation and solar benefits was also considered vital to the projects goal of reducing overall energy usage.

STRATEGIES AND RESULTS

The home utilizes layout and roof geometry to avoid solar thermal gain during the summer and capitalizes on passive solar heating during cooler winter months. A high-efficiency HVAC system including MERV 10 filters augments these passive strategies and improves overall indoor air quality. The use of expanding spray foam insulation further protects the residence from typical air infiltration and additional heat gains.

Hacienda JaJa's carbon footprint is further reduced with the implementation of a 7 kilowatt photovoltaic array. This lessens the home's reliance on external, carbon producing sources of electricity. In addition, solar thermal panels were installed, providing a majority of the residence's domestic hot water.

The design utilizes a variety of low embodied energy or recycled building materials in its construction. Rapidly renewable framing materials and fly-ash concrete elements compose the design's structure. Locally harvested cedar siding wraps the home's exterior and sustainable cork flooring is in its interior.

Rainwater is collected from the roofs and stored in a below ground tank. Although all plants used in the landscape design are drought-tolerant, captured rain water supplants the use of domestic water for all landscape irrigation needs.

The thoughtful implementation of environmentally conscious systems and strategies at Hacienda JaJa produced a residence that has been awarded a LEED for Homes Platinum Certification. This is the highest level of certification provided by the U.S. Green Building Council and is evidence of the design's commitment to reduced resources and energy consumption, and overall environmental initiative.

REAL-TIME SYSTEMS ANALYSIS

Shortly after completion of Hacienda JaJa, an energy dashboard system was installed to monitor energy use of various components within the home. Daylight, humidity, and temperature monitors were also installed. These monitoring system displays real-time building performance data, offering a detailed glimpse of daily household energy consumption.

Lake|Flato will continue to monitor and verify occupancy energy consumption with an energy dashboard system. The system will be installed in the home and will monitor and display real-time building performance data, offering a detailed glimpse of daily household energy consumption.

"When we first saw the site, we fell in love with the live oak trees, and from the beginning wanted a house that would fit into its natural surroundings both visually and environmentally. This house achieves these goals beautifully and effortlessly."

Client, Hacienda JaJa Residence



Architect: Lake | Flato Architects
 Contractor: Truax Construction
 Landscape Architect: Rialto Studio
 LEED Consultant: Contexts LLC
 Lighting Designer: George Sexton Associates
 MEP Engineer: Southwest Mechanical
 Interior Designer: M. Robbins Black
 Project Size: 2,329 square feet
 Total Project Cost: Withheld by owner's request
 Cost Per Square Foot: Withheld by owner's request

Photographs Courtesy of: Frank Ooms

ABOUT THE CENTRAL TEXAS-BALCONES CHAPTER

The Central Texas - Balcones Chapter of the U.S. Green Building Council (USGBC CT-B), founded in 2003, is a 501c3 non-profit comprising industry leaders from Austin, San Antonio and the surrounding communities of Central Texas. Members include building industry professionals, facility managers, property owners and others committed to accelerating growth in sustainable building and land development practices through innovation, advocacy and partnerships. The Chapter hosts Leadership in Energy & Environmental Design (LEED) Green Building Rating System™ workshops, holds educational sessions on sustainable technologies and applications, and offers networking events for green-building professionals in the region.



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