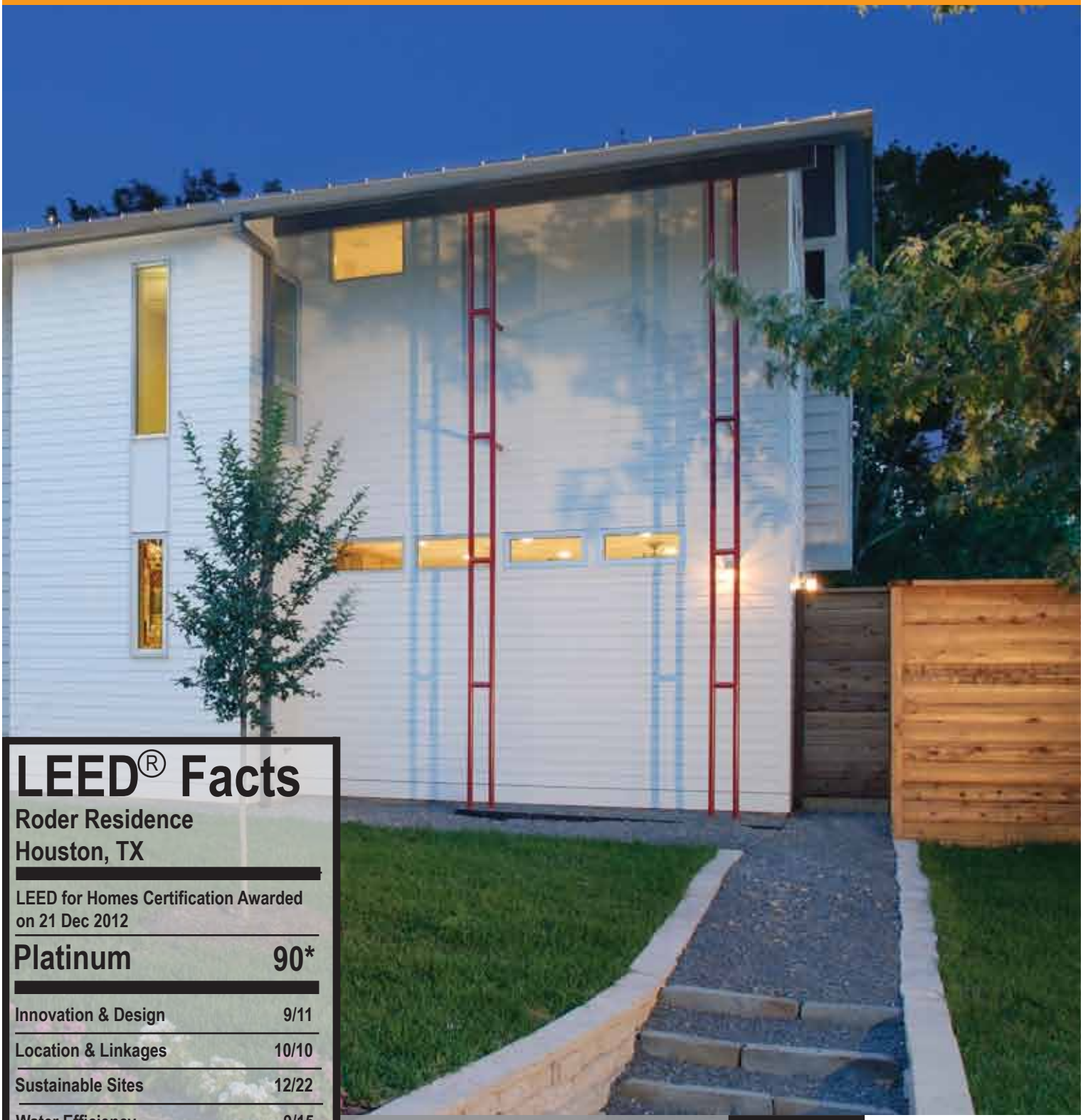
GREEN BUILDING TOURS

January 18, 2013

GREATER HOUSTON PARTNERSHIP



LEED® Facts

Roder Residence
Houston, TX

LEED for Homes Certification Awarded on 21 Dec 2012

Platinum	**90***
Innovation & Design	9/11
Location & Linkages	10/10
Sustainable Sites	12/22
Water Efficiency	9/15
Energy & Atmosphere	24.5/38
Materials & Resources	8.5/16
Indoor Environmental Quality	17/21
Awareness & Education	2/3

*Out of a possible 136 points

Roder Residence

Houston, Texas

Leed for Homes

100 % Exceptional Location and Linkages
100 % Drought Tolerant Plants
52 % Rainwater Harvesting from Roof
Highly Efficient Framing

GLASSMAN
SHOEMAKE
MALDONADO
ARCHITECTS

RODER RESIDENCE Houston, TX
LEED Platinum

PROJECT BACKGROUND
This 2,487 square foot house replaces the owner's childhood home on the site. The house faces the western street while the lap pool slides along the south, leaving space for fruit, vegetable and rose gardens to the rear. The two story house is oriented to maximize afternoon cooling of the private rear gardens. The bar-plan of the house is activated with cantilevered elements that protect the exterior doors and conceal retractable awning that shades the east-facing windows. The first floor ope n plan flows onto the outdoor pool deck and patios. The guest bedrooms on the second floor double as studies and convert into one space.

INNOVATION IN DESIGN
The Owner defined a Durability Checklist to document the construction goals for the building. An integrated team began with a design charrette and continued with regular meetings throughout the design and construction process.

LOCATION & LINKAGES
The house is built above the flood plain and is an infill site which allows it to use existing infrastructure. The neighborhood has many amenities and open park space within ½ mile to reduce car trips.

SUSTAINABLE SITES
A limited amount of drought tolerant turf was used on site. All plants are native or drought resistant. Rainwater runoff from the roof is captured and reused to water the landscaping. Various fruit trees are provided in the plantings. The gravel drive and walks help rain percolate.

WATER EFFICIENCY
A high-efficiency irrigation system and the use of low flow fixtures reduce potable water usage.

ENERGY & ATMOSPHERE
Double paned insulated glass was used throughout the house. The house is well insulated and tightly constructed. Blower door tests confirm the house has a low rate of air infiltration. A/C ducts are placed in the 2nd floor plenum and HVAC equipment is installed in conditioned space.

MATERIALS & RESOURCES
The original house was deconstructed instead of being put in a landfill. Many materials are green products manufactured less than 500 miles from the project. 25% flyash is used in the concrete mix. 25% of construction waste was diverted from landfills. Open web floor trusses were used with framing at 24" o.c. to minimize framing materials and to maximize insulation in the walls. Polished concrete floors are used at entries for easy clean-up.

INDOOR ENVIRONMENTAL QUALITY
Low-emitting materials, adhesives, and sealants were used to reduce off-gassing. Humidifiers and outside air ducts maximize air quality while minimizing energy consumption. The main entrance has a shoe changing area to minimize dirt migration into the house. High quality filters are used to clean the air.

AWARENESS & EDUCATION
Owner training on major systems was performed to facilitate correct usage of all systems. Public awareness was provided by opening the house for four weekends for tours. The building and its LEED attributes are featured on the Architect's website.

Owner: Roder Family
Architect: Glassman Shoemake Maldonado Architects, Inc.
LEED Consultant: Contects
Structural Engineer: The Interfield Group
Project Size: 2,487 sf
Photography: Bruce Glass

"We are only the second LEED Platinum home in all of Houston – that is truly amazing to us. We think our home is unique because we (owners, architect, builder) were able to design and build a LEED (Learning Energy Efficiency through Design) Platinum home without extraordinary features . . ."

David and Mary Roder
Owners