

LEED for Homes Project Snapshot

FARR ASSOCIATES
YANNELL RESIDENCE
CHICAGO, IL
LEED PLATINUM

88% Expected Energy Savings
 Based on HERS Score

88% Construction Waste
 Diverted from Landfill



Photo Courtesy of: Chris Barret

STRATEGIES AND RESULTS

The Yannell Residence in Chicago, Illinois, is a home designed and built as an exercise in net zero energy living. The home produces at least as much energy as it uses over the course of a year. The design team focused on reducing the home's carbon footprint with the use of renewable energy generating systems and eco-friendly materials. The home's "butterfly" roof cleverly hides the house's 48 solar photovoltaic panels and doubles as a rainwater collector. The interior is remarkably light-filled, taking advantage of the house's views to the south. The Yannell Residence achieved one of the highest ever point totals within the LEED for Homes rating system.

EXEMPLARY PERFORMANCE

The Yannell Residence includes a green roof, butterfly roofing that collects rainwater and holds both solar thermal and solar PV, FSC cedar cladding, fiber cement board cladding, triple-paned windows, permeable pavers, pressed wheat and recycled plastic fencing, recycled content materials, no formaldehyde added cabinets, Paperstone countertops, low flow water fixtures, dual flush toilets, Energy Star appliances, fluorescent or LED lighting, and zero-VOC paints. Additionally, the home was built with one of Chicago's first grey water systems, together with three, 250-foot deep geothermal wells, and a solar system that generates roughly 18,000 kWh a year.

LEED™ Facts

Yannell Residence



LEED for Homes
 Certification Awarded August 2009

Platinum 115.5*

Innovation in Design 9/11

Location & Linkages 10/10

Sustainable Sites 18.5/22

Water Efficiency 14/15

Energy & Atmosphere 34/38

Materials & Resources 11.5/16

Indoor Environmental Quality 17/21

Awareness & Education 2/3

*Out of 136 possible points

PROJECT BASICS

Project Type	Single Family
Conditioned Space	4,200 sq ft
Bedrooms	4
Bathrooms	2
Lot Type	Previously Developed
Construction Type	New Construction

KEYS TO SUCCESS

HVAC Type	Geothermal
Window U Value	0.17
Insulation	R-29 wall / R-52 roof
Air Filtration	0.07 ACH Natural
100% drought-tolerant plants.	
On-site solar water heater and solar photovoltaics.	
Water fixtures > 30% more efficient than code.	

THE LEED FOR HOMES DIFFERENCE

Construction Waste Management Plan	<input checked="" type="checkbox"/> YES!
On-Site Performance Tests	<input checked="" type="checkbox"/> YES!
Custom Durability Planning Checklist	<input checked="" type="checkbox"/> YES!
Third-Party Verified Documentation	<input checked="" type="checkbox"/> YES!

About the Project Team

The Yannell Residence is a statement house. This net-zero house is about more than generating surplus energy - it offers a model for a new way of building and living.

Builder: Goldberg General Contracting
 Architect: Farr Associates

LEED for Homes Provider:
 Alliance for Environmental
 Sustainability (AES)
www.leadforhomesillinois.org

LEED for Homes Provider

AES

About LEED for Homes

LEED for Homes is a voluntary, third-party certification program developed by residential experts and experienced builders. LEED promotes the design and construction of high-performance green homes, and encourages the adoption of sustainable practices throughout the building industry.



www.usgbc.org/homes

The information provided is based on that stated in the LEED® project certification submittals. USGBC does 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.