LEED for Homes Project Snapshot

Helenowski Residence
Square 1 Precision Lighting
Chicago, IL
LEED PLATINUM

87 % Expected Energy Savings
Based on HERS Score

94 % Construction Waste
Diverted from Landfill

Photo Courtesy of: Zukas Photography

STRATEGIES AND RESULTS

This gut-rehab single-family home has been a labor of love for the owner, and achieved one of the highest LEED for Homes point totals ever. The homeowner took meticulous care to use reclaimed materials: the exterior uses reclaimed copper roof with stitch-weld seams for durability, reclaimed stone from blast fragments, and cement with fly ash. Inside, recycled content in all tiles, reclaimed dimensional lumber, and recycled-content drywall was used throughout.

A HERS rating of 13 was achieved by using CFC-free soy-based foam insulation, coupled with solar PV and a vertical axis wind turbine, resulting in a net-zero energy home.

EXEMPLARY PERFORMANCE

Efficient lighting was not achieved with traditional toxic CFLs (mercury) or LEDs (arsenic), but instead used cold-cathode lighting, which uses very low power over a long lifespan, and is up to three times more efficient than LEDs.

Thermostats on the front (west) windows operate motorized blinds to control heating and cooling. Additional strategies include vegetative green roof and reflective white roof. 100% of the roof area is used to capture rainwater for drip irrigation.

A spa provides heat retention storage for excess heat from the geothermal HVAC system and passive solar thermal storage.

LEED™ Facts
Helenowski House

LEED for Homes
Certification Awarded August 13, 2010

Platinum	**113.5***
Innovation in Design	**9 /11**
Location & Linkages	**10 /10**
Sustainable Sites	**17 /22**
Water Efficiency	**13 /15**
Energy & Atmosphere	**35 /38**
Materials & Resources	**13 /16**
Indoor Environmental Quality	**15 /21**
Awareness & Education	**2 /3**

**Out of136 possible points*

PROJECT BASICS

Project Type	Single Family
Conditioned Space	3,300 sq ft
Bedrooms	6
Bathrooms	4
Lot Type	Previously Developed
Construction Type	Gut Rehab

KEYS TO SUCCESS

On Site Renewables	Solar PV, Vertical Wind
HVAC Type	Geothermal
Lighting	Cold-cathode fixtures
Air Filtration	0.07 ACH nat

Recycled content drywall ($1 per sheet premium).

92% of dimensional lumber is reclaimed.

Triple-paned FSC-wood windows w/internal blinds.

THE LEED FOR HOMES DIFFERENCE

Construction Waste Management Plan	☑ YES!
On-Site Performance Tests	☑ YES!
Custom Durability Planning Checklist	☑ YES!
Third-Party Verified Documentation	☑ YES!

About the Project Team

Square 1 Precision Lighting is led by Jacek Helenowski, who served as the builder and project manager on his home.

Architect: Mariusz Bleszynski, AIA
Mechanicals: Comfortable Heating Inc
Interior Design: Design Works
Green Rater: Kouba-Cavallo Inc

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

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

LEED™ FOR HOMES

Leadership in Energy and Environmental Design (LEED)
Certfication for homes

What is LEED for Homes?

LEED for Homes is a voluntary third-party certification system that promotes the design and construction of high-performance green homes.

LEED certification is something that consumers can look for to identify homes that have been third-party inspected, performance-tested and certified as green homes that will perform better than conventional homes.

Consumer benefits:

Green homes save money compared to a conventional home by:

- Using less energy – between 30% and 60% less in homes case studies
- Using less water – in case studies, as high as 50% less
- Using non-toxic building materials that lower exposure to mold and mildew, reducing healthcare costs
- Making owners eligible for advantageous home financing
- Lowering home insurance premiums by 5%
- Increasing home values up to 9.1% (see website for details)

How much does it cost?

When using AES as the LEED for Homes Provider, there are four required fees for a **typical** single-family home:

1. AES single-family home fee: $650
2. USGBC Registration fee: $150 / $225 *(depending on USGBC membership)*
3. Green Rater fee: Varies based on scope of work, typically $1350, +/- $300
4. USGBC Certification fee upon completion: $225 / $300 *(depending on USGBC membership)*

Total typical fees for LEED certification are around $2,500. For an exact proposal, call AES at 708-848-4980 or email info@leedforhomesillinois.org

What projects are eligible?

LEED for Homes includes affordable housing, mass-production homes, custom designs, stand-along single-family homes, duplexes and townhouses, suburban low-rise apartments, urban high-rise apartments and condos, and lofts in historic areas. LEED for Homes is also applicable to major home renovations (gut rehabs).

For more information, contact AES at (888-533-3274)

www.AllianceES.org - www.LEEDforHomesIllinois.org

LEED™ FOR HOMES

Builders -

How many of your competitors are building green homes?

Are their green homes the same as yours?

How are you differentiating your homes?

LEED Certification sets you apart from the rest

Builder Benefits

- Reduced costs (fewer callbacks, higher customer satisfaction and referrals)
- Increased revenue (higher closing rate, market premium, more sales)
- LEED Homes can easily be ENERGY STAR Certified *(Using the HERS Report required for LEED for Homes)*

alliance for environmental sustainability

www.allianceES.org

The Alliance for Environmental Sustainability (AES) provides LEED for Homes support services to builders of LEED projects.