

LEED for Homes Project Snapshot

Eco Metrics LLC

13691 Beckwith Drive NE

Lowell, MI

LEED PLATINUM

82% Expected Energy Savings
Based on HERS Score

79% Construction Waste
Diverted from Landfill



Photo Courtesy of: Sam Pobst

STRATEGIES AND RESULTS


Energy efficiency was a primary goal, so Passive House energy standards were integrated into the design. Though we did not achieve PH certification, we did design the building to be a net-zero energy consumer by installing a grid tied solar array. Indoor environmental quality was a critical component of the design, with daylighting, access to views, indoor air quality, and thermal comfort central to the design and construction. Water efficient plumbing fixtures and rainwater harvesting for irrigation water helped to minimize water use. Maintaining the natural elements of the site was a priority with only native plants installed to restore the site to its original condition.

EXEMPLARY PERFORMANCE

The installation of a grade level rainwater harvesting system eliminates the need for gutters, provides a natural vegetative barrier and a maintenance strip around the perimeter of the home. Water collected from this system is used for irrigating our Food Garden, the excess production of which is donated to the local food pantry.

A significant element for our continued use was the Design for Adaptability. The home was designed on a single floor with grade level entry access, wide halls, wide doors, barrier free bathrooms, barrier free shower, grab bars, and sinks and vanities designed to be lowered at a future date for barrier free access.

LEED™ Facts



13691 Beckwith Dr

LEED for Homes
Certification Awarded December 18, 2012

Platinum	105.5*
Innovation in Design	9 / 11
Location & Linkages	4 / 10
Sustainable Sites	13.5 / 22
Water Efficiency	12 / 15
Energy & Atmosphere	33.5 / 38
Materials & Resources	15.5 / 16
Indoor Environmental Quality	16 / 21
Awareness & Education	2 / 3

*Out of 136 possible points

PROJECT BASICS

Project Type	Single Family
Conditioned Space	2547 sq ft
Bedrooms	3
Bathrooms	2
Lot Type	Edge
Construction Type	New Construction

KEYS TO SUCCESS

Wall Insulation Value	R59
Roof Insulation Value	R90
Window U Value	0.07
Under Slab Insulation	R30
Air Infiltration	0.44 ACH @50PA
Lighting - Energy Star	100%
On Site Renewables	100%

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

Sam Pobst, owner of Eco Metrics LLC is a LEED AP with accreditation in four categories, and a member of the USGBC Faculty™. Team members include John Semmelhack; Passive House consultant of Think Little, Esther Durnwald; landscape consultant of Michigan Wildflower Farm, Vic Forester arborist of West Michigan Tree Service, Michael Holcomb; Green Rater of Home Inspector General. Special thanks to Brett Little of the Alliance for Environmental Sustainability.

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.