

LEED for Homes Project Snapshot

GreenPath Homes
House on Elm St.
Indianapolis, IN
LEED PLATINUM

47% Expected Energy Savings
 Based on HERS Score

69% Monthly Water Savings as
 a % of Total Water Use



Photo Courtesy of: <http://takethegreenpath.com/1055projectphotos/finish-photos/>

STRATEGIES AND RESULTS

This home, built in 1910 served as a way for local green building contractor & consultant William Wagon of GreenPath Homes to demonstrate a LEED Platinum redevelopment. He sought to prove that this type of project can be economically viable and provide a better living environment for the homeowners. The formerly abandoned home now features healthy and

EXEMPLARY PERFORMANCE

The floor plan was changed to allow for a contemporary living style. Raised ceilings and other space improvements provide for maximum storage in the home. A rain garden now sits at the front of the house fed by a drain pipe from the roof. The backyard deck looks out onto a single-car garage, raised planters for growing vegetables, and a patch of lawn. The management of roof run-off and the site's permeable lot earned this project more points toward its platinum certification. The homes exceptional energy efficiency was also a large contributor to its prestigious Platinum score.

PROJECT BASICS

Project Type	Single Family
Conditioned Space	960 sq ft
Bedrooms	2
Bathrooms	1
Lot Type	Infill
Construction Type	Gut Rehab

KEYS TO SUCCESS

Flooring	90% Hardwood
High Lot Density	1 unit/0.1 acre
Insulation	on Hot Water Pipes
HVAC Type	Dehumidification Mode
Installed plants are 100% drought tolerant	
Access to outstanding community resources	
Team used the project for educating contractors	

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

- Green Path Homes
- William Wagon
- James Poisel
- Jason Schlafer
- Amy Forbush: Forbush Design, INC
- Christine Freiman: Silver Leaf Studios
- Parker Williams: Green Design Consultant
- Doug Pond: Land Planning

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.

LEED™ Facts

House on Elm St.



LEED for Homes
 Certification Awarded December, 2013

Platinum 87.5*

Innovation in Design 7/11

Location & Linkages 10/10

Sustainable Sites 16/22

Water Efficiency 5/15

Energy & Atmosphere 23.5/38

Materials & Resources 9/16

Indoor Environmental Quality 15/21

Awareness & Education 2/3

*Out of 136 possible points

V4 Homes WorkBook

WATER REDUCTION CALCULATOR

Use this calculator to determine if your building uses less water than the requirements of WE Credit Total Water Use.

Note: This calculator is a relative measure of water use based on how the products are designed and not how they actually perform in the field. Therefore, please use values/rates from the product specifications. Measurements from field testing should not be used in this calculator, but may be used to identify improperly installed or malfunctioning products.

Daily Use

Number of bedrooms	2
Number of homes or units	1
Occupants	3

Outdoor Water Use

[Numbers from WaterSense Water Budget Calculator](#)

Baseline for the site (gal/peak month)	9,513.00
Landscape water requirement for site (gal/month)	1,448.00
Rainwater or graywater (gal/month)	0.00

Indoor Water Use

Enter the water use of each shower, faucet, clothes washer, dishwasher, and toilet. For Showers

Shower Name	Flow Rate (gpm)
Shower 1	1.75
Shower 2	
Average shower flow rate	1.75

Faucets

Faucet Name	Flow Rate (gpm)
Bathroom 1 Faucet	1.15
Bathroom 2 Faucet	
Average faucet flow rate (gpm)	1.15

Toilets

Toilet Name	Flush Rate (gpf)
Standard House Toilet	1.30
Bathroom 2 Toilet	
Average toilet flush rate (gpf)	1.30

Clothes Washers

Clothes Washer Name	Water Factor (WF)
Clothes washer 1	6.00
Clothes washer 2	
Average clothes washer flow rate (WF)	6.00

Dishwashers

Dishwasher Name	Gallons per Cycle (gpc)
Dishwasher 1	4.25
Dishwasher 2	
Average dishwasher flow rate (gpc)	4.25

Results

Daily Use

Fixture	Baseline (gal/month)	House (gal/month)	Savings (gal/month)
Showers (gpm)	15.38	10.76	4.61
Faucets (gpm)	11.00	5.75	5.25
Toilets (gpf)	8.08	6.57	1.52
Clothes washers (WF)	12.21	7.77	4.44
Dishwashers (gpc)	0.65	0.43	0.23
Monthly indoor water use	4,258.35	2,814.53	1,443.83
Monthly outdoor water use	9,513.00	1,448.00	8,065.00
Total	13,771.35	4,262.53	9,508.83

Baseline

Monthly baseline indoor water use (gal/month)	4,258.35
Monthly baseline outdoor water use (gal/month)	9,513.00
Monthly baseline total water use (gal/month)	13,771.35

Calculated

Monthly calculated indoor water use (gal/month)	2,814.53
Monthly calculated outdoor water use (gal/month)	1,448.00
Monthly calculated total water use (gal/month)	4,262.53

Savings

Total monthly water savings (gal/month)	9,508.83
Total monthly water savings as a percentage of total water use (%)	69.05%

Assumptions

Fixture	Daily Usage	Units	Code			WaterSense			Super Efficient		
			Req't	Units	Daily Water Use (gal)	Req't	Units	Daily Water Use (gal)	Req't	Units	Daily Water Use (gal)
Showers	6.15	minutes	2.5	gal/minute	15.38	2.5	gal/minute	15.38	1.5	gal/minute	0.15
Faucets	5	minutes	2.2	gal/minute	11.00	1.5	gal/minute	0.13	1	gal/minute	0.08
Toilets	5.05	flushes	1.6	gal/flush	8.08	1.28	gal/flush	6.46	1.08	gal/flush	5.45
Clothes wa	0.37	loads	33	gal/load	12.21	n/a	n/a	n/a	28	gal/load	10.36
Dishwashe	0.1	cycles	6.5	gal/cycle	0.65	n/a	n/a	n/a	n/a	n/a	n/a

Water Budget Tool Report

P.Mesler | GreenPath Construction
1055 Elm St. Indianapolis , IN 46203

Your landscape is 89% below the baseline for this site.

Single Site or Development?
Single Site

Landscape Water Allowance
9513 gal/month

Landscape Area
3396.0 sq.ft

Landscape Water Requirement
1448 gal/month

Irrigation?
No

Potential Peak Watering Savings
8065 gal/month

Total Area of Turfgrass, Pools/Spas, and Water Features
0 sq. ft

Summary of Hydrozones

Zone	Area (sq. ft.)	Plant Type / Landscape Feature	Water Demand	Irrigation Type	Required Water (gal/month)
1	3396	Groundcover	Low	None	1448