

# How to Make Money with LEED for Homes

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# What is LEED?

**Leadership in Energy & Environmental Design** 





### A Word about USGBC



- HOMES NEIGHBORHOOD DEVELOPMENT (IN PILOT) COMMERCIAL INTERIORS **CORE AND SHELL** NEW CONSTRUCTION EXISTING BUILDINGS SCHOOLS, RETAIL, HEALTHCARE DESIGN CONSTRUCTION OPERATIONS
- Non Profit, not a government agency
- Owns the LEED brand
  - Developed the LEED for Homes Green Rating System
    - (Home Depot grant)
  - LEED for Homes rolled out of Pilot in November, 2007

### A Word about USGBC

**LEED For Homes** 





### **Provider Network**

- LH Certification
- Rater Training
- Quality Assurance

Ferrier Custom Homes
Heather's Home
Weatherford, Texas
SIP
1st LEED Platinum in Texas

# **LH Program Provider**





- 13 Original Providers, 20 new Providers in 2008
- Providers Certify the LEED Homes
- LH Green Raters contract with a Provider
  - Local Provider not a necessity

# LEED for Homes Program





First LEED- H Certified Home in the Nation

Ideal Homes, production home Oklahoma City, Oklahoma

- 1. Voluntary Program
- 2. Simple 2-page Checklist
- 3. Planning Team
- 4. Durability Planning
- 4. Third Party Inspections
- 5. Energy Star Certification

# LEED for Homes



LEED for Homes is a floating point rating system with 4 Certification Levels.

This scale slides per a calculation which considers the square footage of the house per bedroom ratio. For a 4 bedroom 2,600sf Home the scale is:



Platinum: 90 – 129

Gold: 75 – 89

• Silver: 60 – 74

Certified: 45 – 59

## **8 Categories of Points**

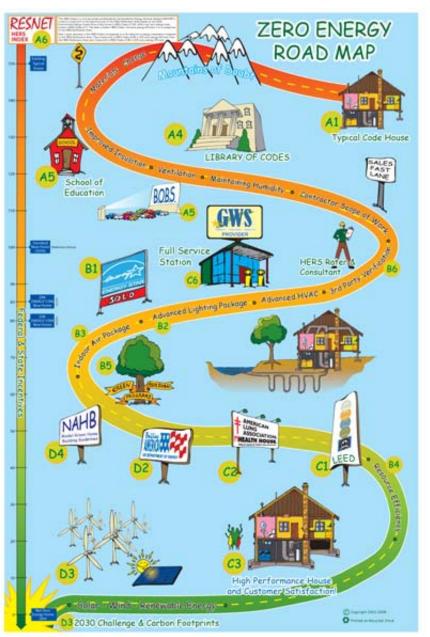


- 1. Innovation and Design
- 2. Location and Linkages
- 3. Sustainable Sites
- 4. Water Efficiency

- 5. Energy and Atmosphere
- 6. Materials and Resources
- 7. Indoor Environmental Quality
- 8. Awareness and Education

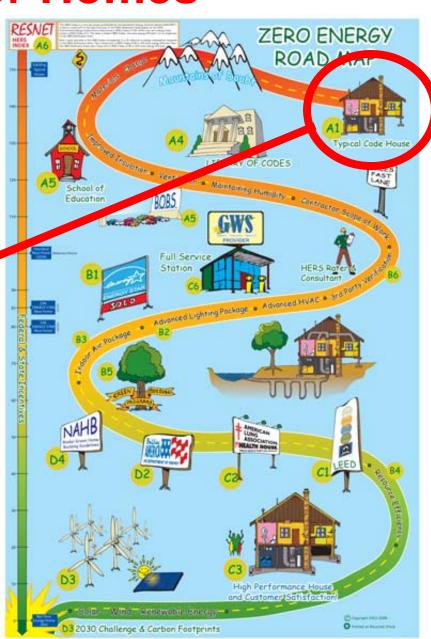


fit in the market?



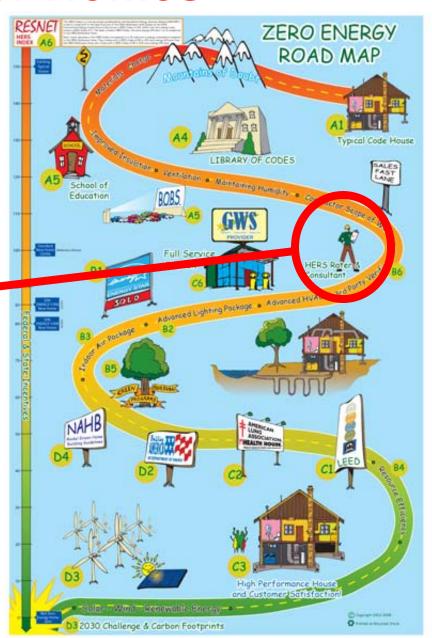
fit in the market?

TYPICAL BUILDER



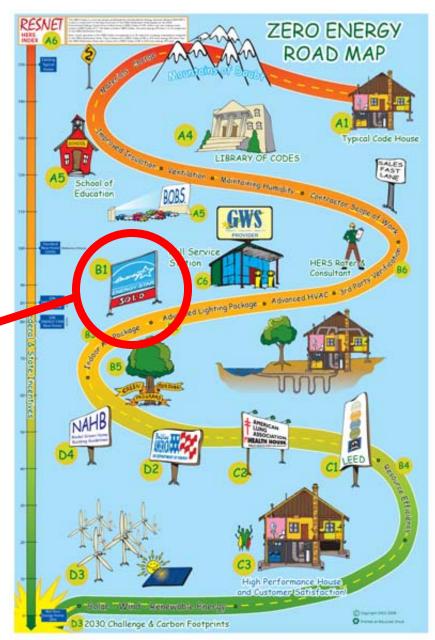
fit in the market?

RATER



fit in the market?





fit in the market?





### **LEED for Homes Current Statistics**

• 12,940 Registered Homes

490 Certified Homes



720 Registered Buildings

# How to develop the LEED for Homes market?

- Join the local USGBC Chapter
- http://www.usgbc.org/Chapters/



# How to develop the LEED for Homes market?

Find your local LEED for Homes Advocate



Offer to help your advocate.

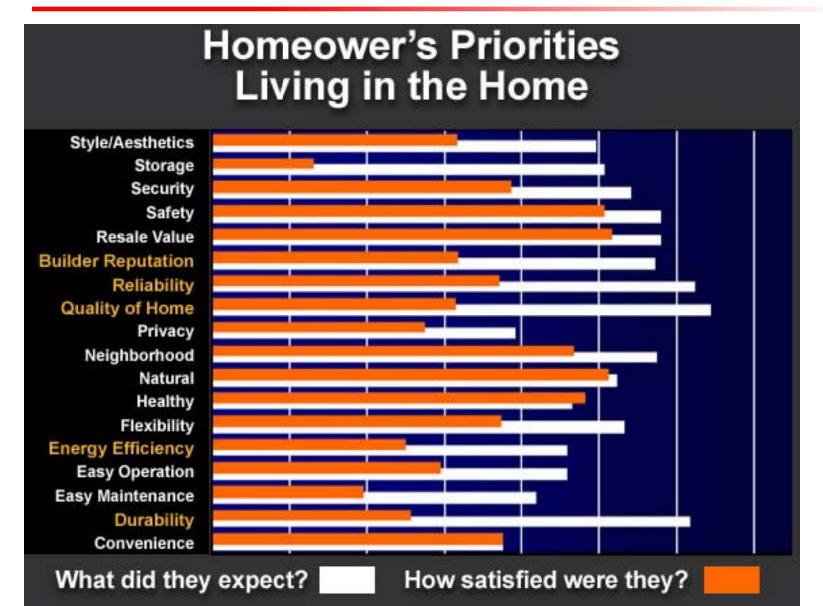
 Offer to speak about Energy Star, a major component of LEED for Homes

# How to develop the LEED for Homes market?

- LEED for Homes decision makers
  - Architects
  - Developers
  - Government projects
  - Habitat for Humanity
  - Custom Builder
  - Production Builder
- Become knowledgeable of the benefits of LEED for Homes

#### **Home Buyer's Expectations**





### **LH Certification Cost**



#### LEED for Homes Fees

#### **USGBC**

Builder Registration \$250 - \$350
Certification Fee \$250 - \$450 Per Home

#### Provider

LEED for Homes Ratings (Ask Your Local Provider)
 Preliminary Design Review
 Inspections and Certification
 With Sampling (high volume)
 \$ 300 - 600
 \$ 600 - 1,200
 \$ 250 - 500

#### Other Support

Design Assistance \$ VariableTraining \$ Variable



### **LH Home Owner Cost**



### **How Much Does a LEED Home Cost?**

Comparison Criteria	Code Home	LEED Home	Difference	
			(\$.Month)	(\$/Day)
Sticker Price	\$ 300,000	\$ 308,500		
Mortgage Payment	\$1,890	\$ 1,945	+ \$ 55	+ \$ 1.80
Energy Bill	\$150	105	- \$ 45	-\$1.50
Water Bill	\$ 30	\$ 20	- \$ 10	- \$ 0.30
Net Cost of Ownership	\$ 2,070	\$ 2,070	- \$ 0	- \$ 0
LEED.				



# **LH Builder Cost**





Possible increase of 0.5% to 3%

# Benefits of a Certified LEED Home



- Higher quality
- 30-50% more energy efficient
- More comfortable living environment
- 30-50% more water efficient
- More durable home design and materials
- 100 cfm of fresh air every hour
- 50% better air filtration
- 30-50% of building materials are environmentally preferable
- Non-toxic pest management
- Ozone safe refrigerant
- 50% less waste to landfill (during construction)
- 30% less storm water run-off (less pollution into watersheds)
- Higher resale



# LEED for Homes



### BENEFITS OF GREEN



Clean

**Healthy** 

**Durable** 

**Marketable** 

Comfortable



**Lower Environmental Impact** 

### Visual Verifications vs. Inspections

# So What Inspections Can a HERS Rater Do for a LEED for Homes Provider?



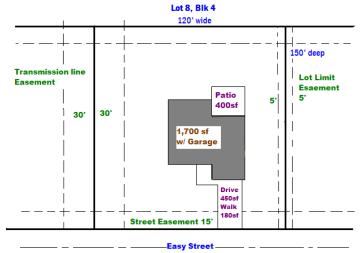
### Visual Verifications vs. Inspections

- Visual Verification
  - The Builder is solely responsible for
    - Choosing LEED for Homes Features
    - Proper Installation
  - USGBC representatives only verify completion
    - Not a warranty
      - Not Appropriateness
      - Not Quality of installation
- Third Party Inspection
  - Energy Star
    - Proper Installation



### Visual Verifications

- LEED for Homes verifications
  - Visually Verify
    - Formal documentation does not need to be submitted to or held by the LH Green Rater or LH Provider
    - Photo documentation is acceptable upon the discretion of the LH Green Rater or LH Provider
    - Calculations, simply that they were done, need not recalculate for errors



- Visually Verify
  - Things that can be verified from the office
    - Office Verifications
      - Housing Density
        - » Calculated from plot plans
  - Things that must be verified on site
    - Field Verifications
      - Erosion Controls
      - Rain water harvesting installed



- Innovation and Design
  - Durability Checklist, 3<sup>rd</sup> Party, 3 points
- Location and Linkages
  - Edge development, Infill, Previously developed, access to open spaces, community resources

ATTACHMENTS				
Durability Inspection	on Checklist			
Buil Address of LEED Home (Street, C	Ider Name: 0			
	иц, ашетр			
Durability Strategies by Issue Type For each of the high and moderate risk areas indicated in the Enclosure Evaluation, list the durab		osure or, if none ar	e used, provide a	brief statement
Durability Strategies by Issue Type	bility strategies used in the enci Location in Drawings, Specs,	Pro-work Adv.nowledgement	Completion Acknowledgement	Construction Varified (Rater)
Durability Strategies by Issue Type  For each of the high and moderate risk areas indicated in the Enclosure Evaluation, list the durab  explaining why not. Remove "example strategies"; add lines as needed.  Exterior Water  Example Strategy: Site graded to drain rainwater away from building	bility strategies used in the encl	Pro-work	Completion	Construction
Durability Strategies by Issue Type For each of the high and moderate risk areas indicated in the Enclosure Evaluation, list the durab explaining why not. Remove "example strategies"; add lines as needed.	bility strategies used in the enci Location in Drawings, Specs,	Pro-work Acknowledgement (Builderkrade)	Completion AdvanceHedgement (Buildertrade)	Construction
Durability Strategies by Issue Type  For each of the high and moderate risk areas indicated in the Enclosure Evaluation, list the durab explaining why not. Remove "example strategies"; add lines as needed.  Exterior Water  Example Strategy: Site graded to drain rainwater delay from building  Strategies/Explanation:	bility strategies used in the end  Leader in  Drawings, Specs, ander Scapes  Location in	Pro-work Acknowledgement (Buildertrade)  Pro-work	Completion Advanced adjustment (Buildest trade)  Completion	Construction
Durability Strategies by Issue Type For each of the high and moderate risk areas indicated in the Enclosure Evaluation, list the durab explaining why not. Remove "example strategies"; add lines as needed.  Exterior Water  Example Strategy: Site graded to draw ranwater away from building  Strategies/Explanation:  Interior Water (Wet Rooms)	bility strategies used in the encl Location in Drawings, Specs, anthor Seages	Pro-work Acknowledgement (Buildertrade)	Completion Advancededgement (Buildestrade)	Construction Varified (Roter)
Durability Strategies by Issue Type  For each of the high and moderate risk areas indicated in the Enclosure Evaluation, list the durab  explaining why not. Remove "example strategies"; add lines as needed.  Exterior Water  Example Strategy: Site graded to drain rainwater away from building	Location in Drawings, Spece, an after Seapes	Pre-work Acknowledgement (Reiblettrade)  Pre-work Acknowledgement	Completion Acknowledgement (Buildertrade)  Completion Acknowledgement	Construction Varified (Roter)

### Sustainable Sites

 Erosion control measures in place, no-disturbance zones marked, terraces, retaining walls, Pest controls

### Water Efficiency

Rain water harvesting, gray-water reuse, low flow fixtures and fittings



- Energy and Atmosphere
  - Hot water distribution system, Pipe insulation, renewable energy system
- Materials and Resources

Advanced framing techniques used, panelized or

modular components



- Indoor Environmental Quality
  - Energy Star Indoor Air Package
  - Enhanced combustion venting
  - Moisture equipment installed
  - Thermostat controls
  - Walk off mats
  - vacuum systems
  - No attached garage



### Third Party Inspections

- Innovation and Design
  - Durability Checklist, 3<sup>rd</sup> Party, 3 points
- Water Efficiency
  - Irrigation system inspection
- Energy and Atmosphere
  - Energy Star



### Third Party Inspections

- Indoor Environmental Quality
  - Combustion Venting
  - Outdoor air ventilation
  - Room vent flows
  - Kitchen exhaust flows
  - Bathroom exhaust flows
  - Radon resistant construction
  - No HVAC in garage
  - Garage exhaust



### **How to Sell LEED for Homes**

### Join a Provider

- Contact a Provider and become a LH Green Rater for them.
- Contact USGBC LH Advocate and Chapter
- Sell LH directly to:
  - Architects
  - Builders
  - Affordable Housing
  - Developers

### **How to Sell LEED for Homes**

### Sell Verification & Inspection Services

- Contact a Provider and develop a pricing for verification and inspections for LH Category Points.
- Sell those verification and inspections services to a Green Rater or Provider

(Become a Rater's Rater)



# How to Make Money with LEED for Homes

### THANK YOU

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