

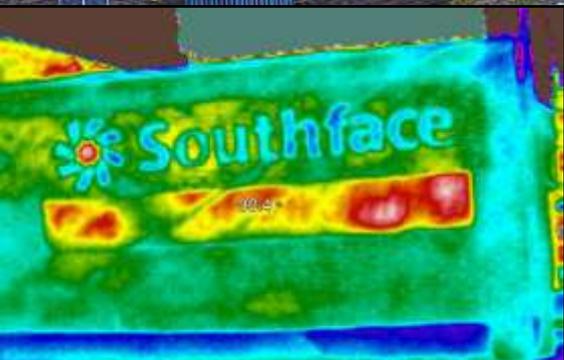
Real World Appraisals: Is Our Current System Broken?

Ray Ivy, LEED AP

March 2, 2011
RESNET Conference, Orlando, FL



Southface promotes sustainable homes, workplaces and communities through education, research, advocacy and technical assistance.



Training

Green Building: EarthCraft, LEED

Building Audits & Assessments

Charrettes

Sustainability Planning

Affordable Housing

Modeling





GREENPRINTS

SAVE THE DATE

March 14 & 15, 2011

Sheraton – Atlanta, GA

ENERGY WATER ECONOMY

REGISTER NOW!

Greenprints 2011 – the Lowest Pricing Structure Ever!

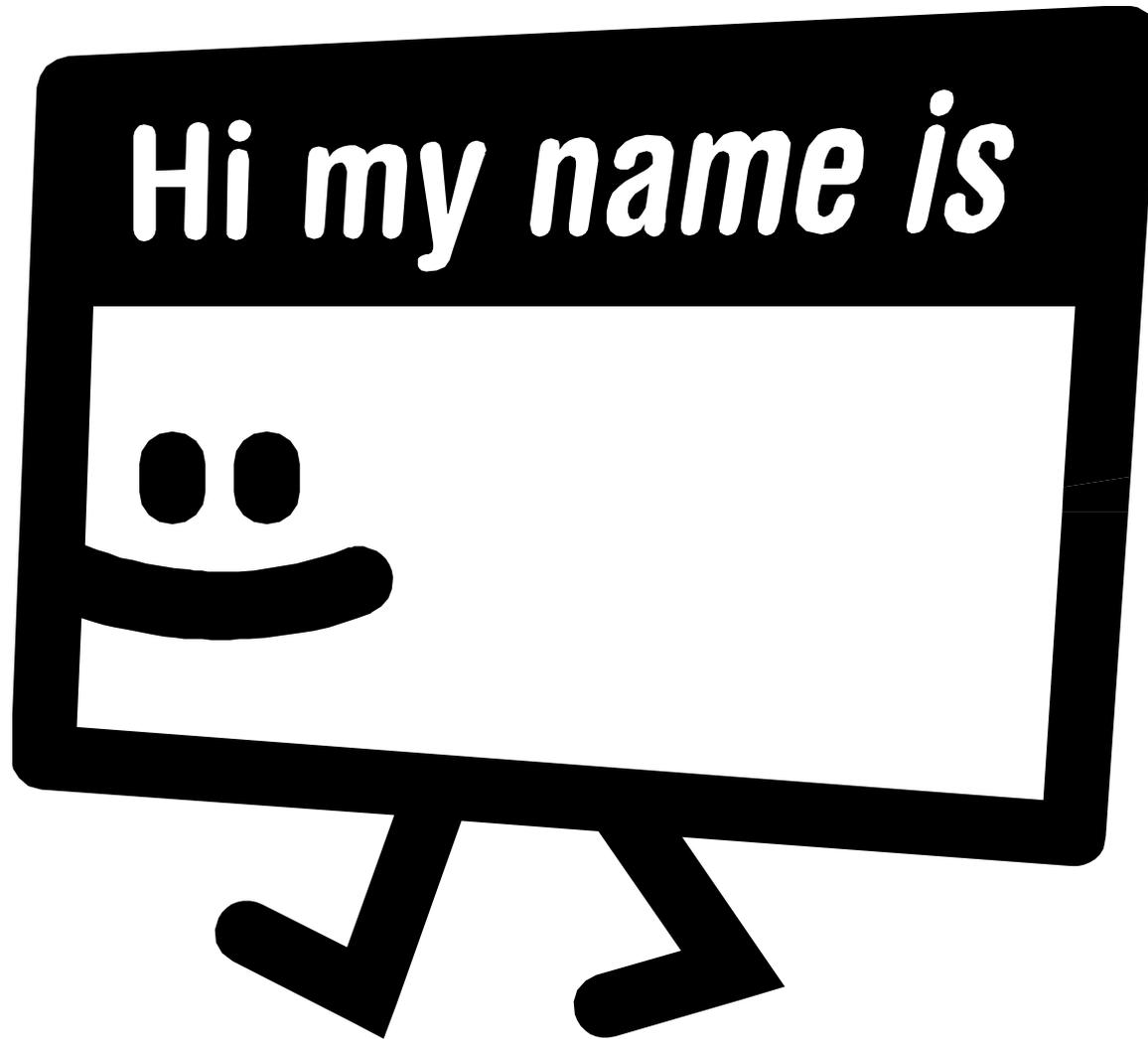
Two Day Conference and Tradeshow \$375.00 (\$295 before Feb. 28)

One Day Conference and Tradeshow - Monday \$250.00

One Day Conference and Tradeshow - Tuesday \$250.00

Conference Sessions Only (no meals) \$195.00

www.greenprints.org



- Stimulate discussion about “green” appraisals
- Generate ideas on how to improve situation

1. Appraisal Basics

2. How value is determined

3. What role does “sustainable” play?

4. Where we are now and how we got here

5. Issues and potential solutions

Scenario

No value in high performance?

- Chapel Hill, NC
- Built to ENERGY STAR and GBI standards
- Passive solar design
- Solar hot water
- Spray foam in the roof
- High-performance windows
- Approved for \$400k loan
- Solar, foam valued at 1/2 price
- Had to scale back green features



188844 Active Property Leased Residential LP: \$ 499,000

88 Bingham Ridge Drive
City: Faison
Zip: 27312 AreaSub: 300C
Subdivision: Bingham Ridge
Seller's Name: VCF Builders of Chatham Co.
List Type: SA
Yr Bld: 2018
Market: Green House: 19/0000
SP: Sold Dt:

School Information
Elementary 1: Chatham - Perry Hancock
Middle 1: Chatham - Perry Hancock
High 1: Chatham - Newwood
Elementary 2: Middle 2:
High 2:

Directions: From Chapel Hill: 15.5M E. TN on Morris Chapel Rd. Go 2 miles. Turn on Poythress Rd. Bear left at the white chapel onto Lambert Newwood Rd. Go 2 miles. Turn on Bingham Ridge Dr. From Raleigh: SA W, TN on 15-501 N 7 1/2 Morris Chapel

Remarks: This high performance Chatham style home seamlessly blends energy efficiency and elegant design in a truly modern home. Energy Star and GBI certified active SOLAR built to provide years of low operating costs & pleasant living in the open sunny landscape. Energy efficient living in the quiet, safe embrace of only 16 homes. \$22,000* in Renewable Energy Tax Credits (Applicable)

Rooms / Split Information
Living Area: Above Grade: 2821 Total: 2821
Other Area: Above Grade: 475 Total: 475
Rooms: 8 Below Grade: 0 Total: 0
Baths: 5 Full Baths: 5

Living Area Room Divs/Lays
Living: Office/Study: Master BR:
Dining: Kitchen: Bedroom 2:
Family: Breakfast: Bedroom 3:
Bedroom 4:
Bedroom 5:
Bedroom 6:
Bedroom 7:
Bedroom 8:
Utility:
Bonus:
Sunset Porch:
Deck:
Main:
Deck:
Main:
Deck:
Main:
Deck:
Main:
Deck:
Main:

General Information
Lot Dim: Irregular Lot # 21 Area Acres: 2.00 Foundation: Slab on Crawl Spring
New Construction: Yes HUD Certified Senior Housing:
Builder's Name: WJ Assoc. Mgmt. Resale/Lease/Condo: Y In City: No
HOA Name: HOA Phone: Total HOA Dues \$ 200 Annually Replace: 1
HOA Phone:

Financing and Taxes
Tax Value: Tax Rate: 0.0142 Financing and Taxes: TWR(PART) or Dual Pkg:
Prepaid Comments: No # 1: \$156,040.00
Legal Desc: Lot 21 Plat 516 20080000

Design: 2 Story
Property Type: Detached
Construction Type: SITEBLY
Acre: 1.2 8 Acres
Exterior Floor Cover: Finish:
Roof: 20 Year Warranty 30year/60ft Age 0.9 Years
A/C: Central Air Heat Pump/Ceiling 0-0 Floor:
Fuel Heat: Solar Electric Solar
Fragplate: Duct Vent Gas Logs in Great Room
Deck:
Lot Desc: Hardwood Trees, Partial Cr

Features
Solarium Deck, Columns, No. Windows, Landscaped, Pkwy, Screen Porch, Walking 10
Features:
Style: Active Book, Chatham, Passive Book, Photovoltaic
Basement:
Flooring: Carpet, Ceramic Pl, Hardwood, Stone/Stone
Heating: Dual Zone, Forced Air, Solar Radiant/Age 0.9 Yr
Water Heater: Solar
Water/Sewer: Septic Tank, Well
Parking: 2 Garage, DW/Carport
Financing: New/Builder
Sprink: See Remarks
Washer/Dryer: 1st Floor, Utility Room
Low:
Interior: 9 Ft Ceiling, 400 Pull Down, Bookshelves, Ceiling Fan, Ceiling Walk, Cr
Features: Counter Tops, Smoke Alarm, W1, Double

Assumption: No Assumption
Other:
Remarks:

Spec: BRG
Green: Solar Hot Water System Over Space, No Low VOC's
Features: Partial-Security Windows, Spray-Foam Insulation, Engineered Wood
Green Cert: ENERGY STAR Home, GBA Green Certified Home

Showing Instructions
Show Instruct: Appointments Only
List Agent: C2582 Betty Cross
List Office: 2525 Silverwood, Nc
Co List Agent:
Comm to Buy Agt: 2.5% To B
List Type: SA-Exclusive Agency
*Copyright 2017-2018 by The Carolina Real Estate Council

Agent Phone: 919-671-1233 Agent Appt Ph: 919-671-6666
Office Phone: 919-643-0214 Co List Agent Ph:
Comm to Sell Agt: 0% To B LADCR 52 CDRM 52
Possession: ATC PE: Nc
Date: 12/17/18

Why do we appraise?

- To help establish a property's market value
- To protect the bank from getting stuck with property that's worth less than they invested
- To protect the homeowner from paying more than a home is worth (often an emotional decision)



Who Are The Players?

- **Home Builders**- Sell new homes based on current market value
- **Lenders**- Approve or deny a mortgage based on a property's appraised value and the anticipated ability of a borrower to repay the loan
- **Appraisers**- Establish a property's fair market value, which is used by the banks as the basis for issuing a mortgage loan
- **Realtors**- Help homeowners identify the best property for their situation and guide them through the mortgage process



This affordably priced green duplex is in the NAHB National Green Building Award-winning community of Rosewood Hills in Columbia, S.C.

So, how is value determined?

Appraisal Methods

Sales Comparison Approach (Comps)

Usually compare with 2 or 3 other homes

Within a stated radius

Size, square footage, age, condition, features, etc...

Cost Approach

Usually for new homes

Reproduction costs



So, how is value determined?

Somewhat subjective...

Report includes:

- Explanation of how value is determined
- Size, condition and improvements
- Any structural issues
- Notes about the surrounding area
- Issues harmful to the property
- Recent area market sales trends
- Estimate of sales time
- Comparative market analysis (3 homes)
- Maps, photos, sketches



Where does “green” fit in?

It's Only One Part of the Picture...

...but it can be a significant part

Benefits:

- Lower operating costs
- Minimize chances of poor IAQ
- Reduce chances of combustion safety issues
- Maximize occupant comfort
- Reduce moisture issues
- Efficient use of resources
- Less impact on environment
- ...?



A Tale of Two Homes

Same house, same area, same age, same condition
Different builders, different standards

Which home is more valuable?

House 1



House 2



• House 1

- “Code” built home
- Average tightness
- 25% duct leakage
- Average batt insulation
- Long axis faces west with 300 sf of glass, 0.45 SHGC, 6” overhang
- HVAC “rule of thumb”
- AH and ducts in attic (vented)
- Builder grade finishes and products

• House 2

- ENERGY STAR home
- Very tight envelope
- 4% duct leakage
- All spray foam insulation
- Long axis faces west with 150 sf of glass, 0.28 SHGC, 3 ‘ overhang
- HVAC Man J, S and D
- AH and ducts in attic (roof foamed)
- Low VOC finishes and products

What is the total cost of home ownership?

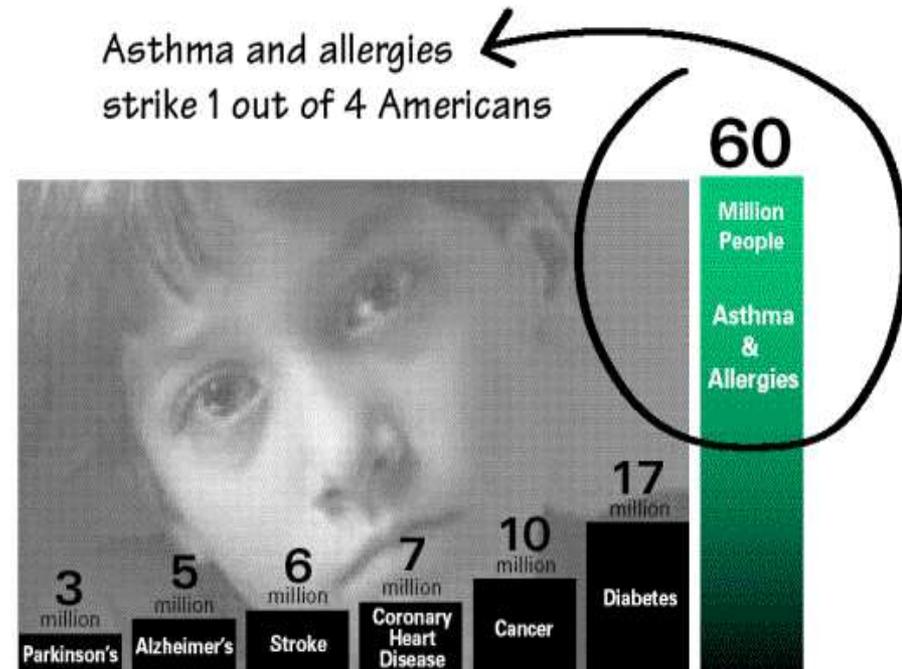
	House 1	House 2	
Purchase Price	\$250,000	\$257,500	
Down Payment	\$50,000	\$51,500	
Loan Amount	\$200,000	\$206,000	
Interest	5.5%	5.5%	
Monthly P&I	\$1,136	\$1,170	(+\$34)
Energy Cost	\$250	\$188	(-\$62)
-----	-----	-----	
Total Expenses	\$1,386	\$1,358	(-\$28)
			(\$28 x 12 = \$336 savings/year!)

Based on 30 year mortgage; 3% increased construction costs; 25% utility savings

Are energy costs going up or down?

Which Home is more valuable?

- Direct costs accounted for nearly \$6 billion (\$5.7 billion in medications and \$300 million in office visits). [\[11\]](#)
- Allergies are the most frequently reported chronic condition in children, limiting activities for more than 40% of them
- Each year, allergies account for more than 17 million outpatient office visits, primarily in the spring and fall. [\[3\]](#)
- For adults, allergies (hay fever) is the 5th leading chronic disease and a major cause of work absenteeism and “presenteeism,” resulting in nearly 4 million missed or lost workdays each year, resulting in a total cost of more than \$700 million in total lost productivity. [\[12\]](#)



Which Home is more valuable?

“I have allergies and in our 1940’s Cape Cod house it was really bad. It’s amazing how much better I feel after a year and a half in my EarthCraft House.”



Which Home is more valuable?

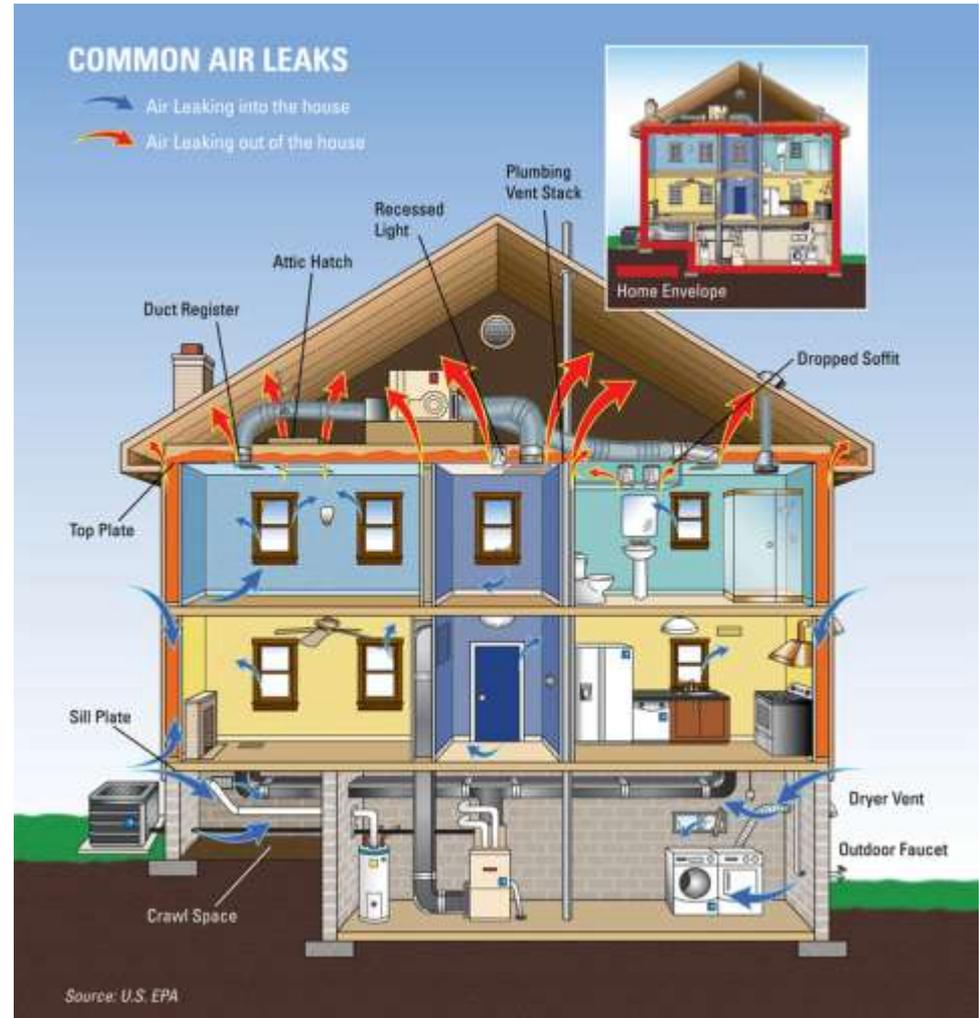
- Each year, more than 400 Americans die from unintentional CO poisoning, more than 20,000 visit the emergency room and more than 4,000 are hospitalized due to CO poisoning. (2009, CDC)



Subjective cost savings

Which Home is more valuable?

- Maximize occupant comfort
- Reduce moisture issues
- Efficient use of resources
- Lower impact on environment
- Etc...



How did we get to where we are? Southface

- Lending industry decision to bundle and sell mortgage loans as securities made lenders less concerned about accurate appraisals
- Builders, banks and lenders benefitted from cheap money and higher prices; the higher the selling price, the higher the profits
- Risk was transferred to buyers of mortgage securities, government guarantors (Fannie Mae, Freddie Mac) and homeowners
- Appraisals sometimes were unduly influenced by non-market forces (builders, mortgage companies)
- Everyone was happy until prices started falling...

Home Valuation Code of Conduct (HVCC)

Goal: More accurate appraisals through arms-length appraiser selection process

- Not legislation, but a settlement between Fannie Mae, Freddie Mac and the NY Attorney General
- Person who selects the appraiser cannot be involved with loan production
- Lender response: employ third-party Appraisal Management Company (AMC)
- AMC picks appraiser approved list, usually on a rotating basis

Home Valuation Code of Conduct (HVCC)

Reality:

- Selected appraiser often not from the area and might not be familiar with local prices and trends (might not be able to find the house!)
- Often not be a member of local MLS; might have more issues accessing area information
- AMC's control the appraiser selection process
- Banks pay AMC's who pay appraisers a % of the fee (40% in GA)
- AMC appraisal reviewers not required to be licensed by the state in which the property is located

Other appraisal industry issues:

- Many experienced appraisers have left the industry
- More appraisals, more work, less money
- Many MLS don't list green home features
- Appraisers probably not be familiar with accurate valuation of sustainable construction
- Misperception that Realtor and appraiser cannot communicate



So Where Are We?

USA Today

It's currently difficult to get a correct appraisal for a "code-built" home and even more so for a high performance home.



Prime example...

- Live/Work, Atlanta, GA, LEED Platinum
- Bad timing; construction began in 2007
- Original Realtor didn't understand sustainable construction and priced property too high
- Original appraiser didn't understand green or live/work and misappraised property
- Jennifer Spivey, EcoBroker, hired to market property
- Jennifer worked with bank to get a more qualified appraiser selected
- Properly priced, appraised and marketed, 3 offers were received and property sold in 78 days



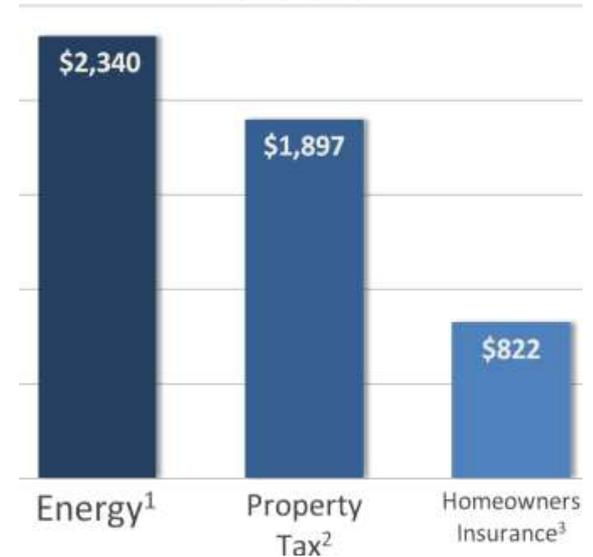
- Take-away: Property would have sold much faster for higher price if original players had understood the product and market
- Appraiser was replaced

SAVE (Sensible Accounting to Value Energy) Act

Method:

- Defines how to calculate Energy Factor (E)
- E based on SF of home and average energy costs/sf in area based on DOE data (database already exists)
- Property with E lower than average (based on HERS index) would have Net Present Value of energy savings (over life of loan) added to appraised value
- Homeowner qualifies for larger loan based on higher value
- Home with no HERS rating would be normal appraisal
- Valuation method would apply to all loans (no need for special program, i.e. EEM)

Average U.S. Homeowner Costs
2007-2008



Taxes and insurance are underwritten in mortgage. Why are energy costs not considered?

SAVE (Sensible Accounting to Value Energy) Act

Benefits:

- Provide an accurate picture of repayment risk and the expected costs of home ownership
- Accelerate the supply of and demand for energy-efficient homes
- Consistently and accurately account for energy efficiency in appraisals
- Encourage the purchase of energy-efficient homes
- Rewards results, not approach

Average U.S. Homeowner Costs
2007-2008



Taxes and insurance are underwritten in mortgage. Why are energy costs not considered?

Issues

- Regulatory environment that went from very lax to very burdensome, clunky and inefficient
- Lack of data showing the market will pay more for high performance features
- Lack of cost data for green selections that appraisers can use to justify higher valuation

Potential solutions

- SAVE Act
- Activism
- Studies generally support conclusion that markets will pay more for above code homes and/or homes sell faster
- We need more studies and data
- Varies by region
- This is changing as more green homes are built and data is collected
- Marshall & Swift Green Building Costs available
- NREL Natl. Eff. Measures Database

Issues

- Perception that green homes have higher out-of-pocket costs
- Fact that home buying is often more emotional than rational
- No standardization of value for high performance features

Potential solutions

- Remember slide 15?
- Down payment might be higher
- Education
- Varies greatly with the individual. This probably won't change much
- Education can modify purchase decision to a degree
- This is changing as more green homes are built and data is collected
- Industry organizations could help define standards
- Needs to be climate specific

Issues

- Appraisers are gun shy about adding value for green features without proof of added value
- Subjective definitions of “green”
- Lack of basic knowledge of green features and programs among homeowners, appraisers, Realtors, lenders

Potential solutions

- Studies show green homes sell faster, usually for more money (see Resources for websites)
- Certifications like Energy Star, NAHBGreen, LEED-H, EarthCraft House are very objective and whole-house orientated; 3rd party verified
- How to define for individual components (HVAC, windows, etc..)?
- Will get better with time and effort
- Government involvement should be helpful here
- Good ideas to spread the word?

Issues

- Homeowners- lack knowledge of how a home can perform if built correctly
- Realtors- lack of desire to gain knowledge, fear of turning off buyers who like a particular property
- Appraisers- fear of overvaluing green features, don't know how to appraise "hidden" features

Potential solutions

- How best to spread the word to educate consumers?
- Rising energy costs will help
- If prospects request it, they will come
- Educational programs are available through NAR, NAHB, Southface,...
- Other educational programs?
- Educational programs through Appraisal Institute
- Building science basics courses widely available

Issues

- Lenders- fear of overvaluing property, lack of understanding that sustainable programs usually reduce overall ownership costs
- Custom homes are not included in comparables
- Lack knowledge of how to value retrofits of existing homes

Potential solutions

- Studies show green commercial properties are good risks; green premium vs. brown discount
- Need residential data
- Educational courses targeting lenders?
- How to get them in the MLS?
- Big issue as the bulk of homes in the US were built before 2000
- As more homes are retrofitted, costs and market values will surface

Issues

- Poor understanding of how to value subjective benefits such as increased comfort, health, safety, durability, etc...
- Lack of sales/activity
- Lack of green data in MLS

Potential solutions

- Need objective descriptions which can be measured
- Sales/activity appears to have bottomed out in many places
- Some areas better than others
- MLSs are slowly being greened
- Market demand will speed things up

Issues

- Mislabeled of green and non-green features
- Many green features are not “sexy”; energy efficiency competes with granite countertops and hardwoods for mortgage \$
- Low energy costs

Potential solutions

- Increase knowledge base , especially among Realtors
- MLS self-policing
- Promote “braggin’ rights”
- Economic downturn moving many toward simpler life
- SAVE Act
- Self correcting problem
- Will become a bigger factor in decision making process

Issues

- Artificially low valuations due to foreclosure/short sale comps
- Explaining high performance homes involves technical information that is difficult to understand
- Lenders largely ignore energy expenses as they are not a part of standard mortgage underwriting criteria

Potential solutions

- Should become less of an issue as these homes are moved off the market
- Need to educate our industry on how best to focus on explaining solutions, not products or procedures
- SAVE Act
- Lender education
- Local lenders might be open to discussions of issues

Green Appraisal Resources

http://www.greenresourcecouncil.org/greening_the_mls.cfm

http://www.appraisalinstitute.org/education/green_offerings.aspx

<http://www.greenthemls.org>

<http://www.dsireusa.org>

[http://pacenow.org/documents/EnergyEfficiency\(2\)_appraisal%20J.PDF](http://pacenow.org/documents/EnergyEfficiency(2)_appraisal%20J.PDF)

<http://www.hud.gov/offices/hsg/sfh/203k/203kabou.cfm>

<http://www.marshallswift.com/p-145-marshall-swift-green-building-costs.aspx> (\$99)

<http://www.ecobroker.com/>

http://www.greenresourcecouncil.org/pdfs/Traverse_City_MI-Green_Disclosure_Stmt.pdf

http://www.appraiserresearch.org/fileadmin/user_upload/green-guide/pdf/Appraisers-Guide-for-Recognizing-Green-Building-Features-in-Homes.pdf

<http://agrea.org/>

<http://www.grist.org/article/2010-08-18-bennet-bill-would-make-energy-efficient-mortgages-mainstream/>



SAVE Act

Sponsored by Sen. Michael Bennet (D-Colo.)

<http://bennet.senate.gov/>

Contact your federal representatives and tell them you support this legislation

Educate Realtors, lenders, builders and homeowners on the hard and soft cost savings associated with high performance homes



Questions or Comments?

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<http://www.aafa.org/display.cfm?id=9&sub=30>

[3] “CDC Fast Facts A-Z,” Vital Health Statistics, 2003

[11] “Chronic Conditions: A Challenge for the 21st Century,” National Academy on an Aging Society, 2000

[12] “Chronic Conditions: A Challenge for the 21st Century,” National Academy on an Aging Society, 2000

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http://www.imt.org/files/SAVE_Act.pdf

1Energy & Cost Savings Analysis of 2009 IECC Efficiency Improvements.

http://www.thirtypercentsolution.org/solution/EECC-Savings_Analysis-Jan-2009.pdf

2U.S. EPA ENERGY STAR Program.

http://www.energystar.gov/index.cfm?c=new_homes.hm_index

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<http://www.southeastcharlottehomes.com/Blog/Is-the-SAVE-Act-the-Answer>

