

Green Real Estate Education-Who we are what we teach

After teaching 4,000.....

Realtor/ Home Inspector/
Mortgage

Pro/Personality/Mindset

Why can't we all get along?



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Real Estate Industry

Cure the disconnect

Communication is a key

We teach networking-

Conduct EAS's-

Energy Awareness Seminars



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Incentivize but learn!

- Need everyone educated
- A real estate transaction-- has how many involved?
- All need this knowledge



Real Estate Environmental and Energy Education Series

Green Building for Real Estate Professionals©

First Tier: The **GCREP-GL** Green Leadership Certification

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G.D.M.C. - Green Design and Materials Certification

Late 2010

R.E.C. - Renewable Energy Certification

Late 2010

G.R.S. - Green Residential Specialist- Late 2012

G.C.S. - Green Commercial Specialist- Late 2012

This series is designed to allow time for laws, state and federal initiatives, and methodologies to come to a stable and **up to date** level of education.



The Kyoto Decision

In 1997 the Kyoto International Conference on Climate Change Challenged Governments Worldwide to Improve Their Environmental Performance by Reducing Pollution and Energy Demand.



Formal Green Definition

The practice of (1) increasing the efficiency with which structures and their sites use energy, water, and materials, and (2) reducing the impact on human health and the environment through better siting, design, construction, operation, maintenance, and waste removal through the complete building life cycle.



Green concepts date back to environmental movements of the 1960's-

Currently \$100+ billion Industry
projected to double by end of 2010
Renewable energy, ratings, audits, products, etc-

**Creating a
*"new industrial revolution."***



DOE – investing \$100 billion
for scientific discovery and development
of alternative energy resources:

EX: Office of Energy Efficiency and Renewable Energy



Why is this happening?
Human Factors- Health and
productivity is documented as better
in "Green" built structures-
Hospitals.....Schools.....Offices
Buildings.....

Source: USGBC-



AIR CONDITIONING EFFECT...WHAT
DID WE PLUG IN 30 years ago?

.....and what do we plug in now?



All are looking at:

- * Rise in cost of utility bills-
- * Global Climate concerns-
- * Increased concern for our carbon footprint



Consumer Energy Study

According to a www.energypulse.org

- 86% of Americans would choose one home over another based on energy efficiency.
- 78% of Americans who just bought property say nobody talked to them about energy efficiency.
- 62% of people want energy efficient dwellings.
- 63% say energy prices have increased enough to make them consider changing their consumption habits.



Considerations in Sustainable Design Include:

- high benefit lighting techniques
 - less toxic materials
- energy efficient air handling systems
 - access to natural day lighting
 - superior indoor air quality
- individual control of heat, light and ventilation
- landscapes designed to conserve rainwater & natural sunlight



NAR's building in Washington is LEED® Silver Certified- 2005

Benefits of Building Green.

30% Lower Operating Costs...

30% less energy...

30% less water used-

Nominal 2% increase in Construction Costs for green
upgrades-



High Performance Commercial Homes/Buildings

Higher tenancy rates	Decreased O and M costs up to 73%	Decreased energy costs up to 90%
Increased market value up to 100%	Reduction in liability insurance	Overall paybacks in 1-3 years



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Paints/Adhesives/Glues:

LITTLE TO NO TOXINS- LOW VOC's...

Volatile Organic Compounds

ODORLESS BREATHABLE GASES –

Freshly painted smell-
NOT GOOD!



Building Green

When “green” construction products are used, the chemicals have been reduced or are non-existent creating a higher degree of indoor air quality.



Some Examples of Green Materials

For CMA's- Suggest upgrades as carpeting made from healthier and recycled materials such as recycled tires; paints, adhesives, with LOW or no VOC's; tile made from recycled glass; fabrics for upholstery and accessories made from organic cotton; sidewalks and driveways made from recycled materials that absorb rainwater; recycle it through a pump and use it to flush toilets and water your yard in dry times.



Water conservation issues- presenting.....

Greywater systems that collect, filter, sanitize, store and pump water from your shower drains and laundry use to toilets for flushing. You will see dual flush toilets, designed for liquid and solid wastes-



Cisterns, Silos and Rain Barrels are making an appearance

Their effectiveness will be based on consumers needs- You would need 45 rain barrels to equal one 2500 gallon cistern. Get to know the contractors in your area.



****FACT****

Two in a household use 25,550 gallons of water a year to do laundry- We use 5 billion gallons of drinking water a year just to flush toilets.



Look for newer technology such as: Air sealing with spray-foam insulation.

The foam is blown through a membrane. The cellulose in the foam surrounds air bubbles for more effective insulation.



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Crawlspace ventilation system.

Sensors that measure temperature, relative humidity, and water vapor in the crawlspace to calculate when more or less ventilation is needed to lower moisture levels.



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Solar hot water.

Solar heaters reduce the use of gas and electricity to heat water.

Recycled and renewable flooring.

A lot of yellow pine flooring is available in abandoned factories, ready for reuse. Bamboo, cork, and eucalyptus are also available as sustainable alternatives to traditional hardwoods.

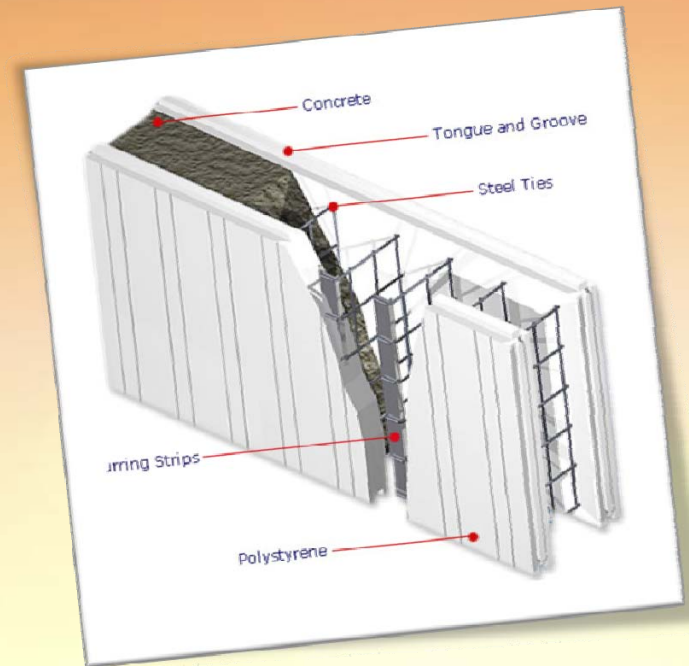


Spray in foam onto the underside of roof decks, tend not to support mold or mildew growth-

Look for increased use of stay in place forms:

ICF's- (Insulated Concrete Forms)

Withstand 250 MPH winds offering better R-Values



Turn to your neighbor..next to you..behind
and in front...

Discussion Session: 10 Minutes-

What are you seeing and hearing in your
market area..on energy efficiency or "green" -



Across the country, you will see activity in GREEN Building....

Rinker Hall at University of Florida has 1000+ people coming and going (washing hands, flushing toilets, drinking water, etc.) and over 43,000 square feet...yet, the building operates on the water equivalent for a family of 4.



Corporate Involvement

- ♻️ Toyota, Verifone, Harley Davidson, and Herman Miller have built green home offices.
- ♻️ BP has demonstrated leadership in resource and energy efficiency, climate change risk abatement, waste reduction and recycling, and overall environmental impact minimization.
- ♻️ The new World Trade Centers will be built green and achieve platinum LEED® ratings.



Green Building Standards

International Energy Conservation Code, IECC - Energy Star and DOE's US Green Building Council

**All have Building Energy Codes
Federal, State and Local levels-
All standards are guidelines for all
professions to follow-**



These Codes encourage energy conservation through efficiency in envelope design, mechanical systems, lighting systems and the use of new materials and techniques and are designed to provide up-to-date energy conservation provisions for both residential and commercial construction.



LEED®

The General Services Administration (GSA), which operates as the federal government's landlord, found the **LEED®** system to be the most credible among five *rating systems* evaluated.

Leadership in Energy and Environmental Design

USGBC-US Green Building Council
JOIN your local chapter-



Architects

**Product
Manufacturers**

**Federal,
Local,
and State
Governments**

**Building
Owners**

Nonprofit Leaders

Planners

USGBC

Engineers

**Financial
Planners**

**Utility
Managers**

**Interior
Designers**

**Landscape
Architects**

**Building
Tenants**

**Property
Managers**

**Code
Officials**



Some regions and states have created "green building" standards

- Built Green Washington
- Earth Craft (Georgia)
- Green Build New Mexico
- American Lung Association
 - Build It Green (Cal.)
 - Chicago Green Standard
- Florida Green Building Coalition
- EFL- (GE and Masco Contracting) in AZ-CA-COL-NC-TX-



On October 3, 2008, President Bush signed into law the “Emergency Economic Stabilization Act of 2008.” This bill extended tax credits for energy efficient home improvements (windows, doors, roofs, insulation, HVAC, and non-solar water heaters). Tax credits for these residential products, which had expired at the end of 2007, will now be available for improvements made during 2009.



Improvements made during 2008 are not eligible for a tax credit. The bill also extended tax credits for solar energy systems and fuel cells to 2016. New tax credits were established for small wind energy systems and plug-in hybrid electric vehicles. Tax credits for builders of new energy efficient homes and tax deductions for owners and designers of energy efficient commercial buildings were also extended.



Examples of Tax Credits

- Go to Energy Star website: Tax credits for residential solar photovoltaic and hot water heating systems
 - Tax deductions from local utilities
 - Tax credits for highly-efficient new homes
 - Tax credits for improvements to existing homes including high-efficiency air conditioners and other equipment
- http://www.energystar.gov/index.cfm?c=products.pr_tax_credits



Examples of Building Energy Efficiency Tax Incentives

IRS Code Section: 25D Residential Energy Efficient property credit to Dec: 31, 2016

Code 25C reinstated credits for certain upgrades put into place through 2009



Your state is active:
www.dsireusa.org

US Map-
Click on your state



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Discussion: How can you reach the Realtor Mindset?

Why do you need to reach the real estate?



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What are Renewable Resources?

A renewable resource is a natural occurrence and is depleted at a slower rate than that which it regenerates-

Crops, farm and forest debris, animal waste debris, rainwater, and wind and sun can all be processed into energy sources.



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The conversion process is known as **biotechnology** and will occur in a single facility sometimes called a **bio refinery**. Our manufacturers, farmers, scientists and engineers are working together to bring this to market for United States consumers.

Starting to see networking possibilities? Join these groups...

DO THEY OWN HOMES OR
BUSINESSES?



Green /Living Roofs

- They can reduce air conditioning and heating bills drastically
- Have a life expectancy of 50 years
- This is the state office building in Chicago



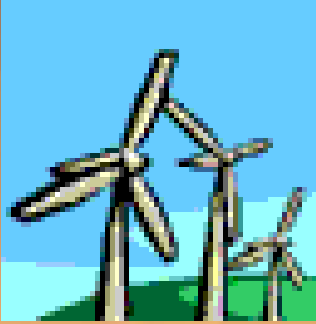
Impervious Surfaces

Parking Lots, Roads, Buildings, Black-Top
and Cement

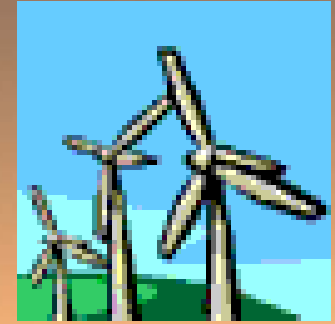
Does not allow rainwater into the ground,
which erodes streams; small waterways
causes flooding and contaminants to
thrive killing natural habitats and
therefore killing wildlife.

Pervious surfaces allow rainwater into the
ground-





Wind Power:



There is enough wind power in North and South Dakota to power the entire country.

As you travel, take note of the many windmills in various states. These will eventually power many of the homes we represent.



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Solar Thermal Plants

We can get enough power from the sun in 1 hour as it currently takes to get the same amount of electricity in a year.

There are solar thermal plants in Nevada that are so productive that if you took 10% of the land mass in Nevada and used it for solar thermal plants, they could produce enough power for the entire United States.



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What are our global climate challenges?

We are experiencing an observed increase in the average temperature of the Earth's atmosphere and oceans, resulting from an increase in the amount of carbon dioxide, and other gases in the atmosphere.



What Are Greenhouse Gases?

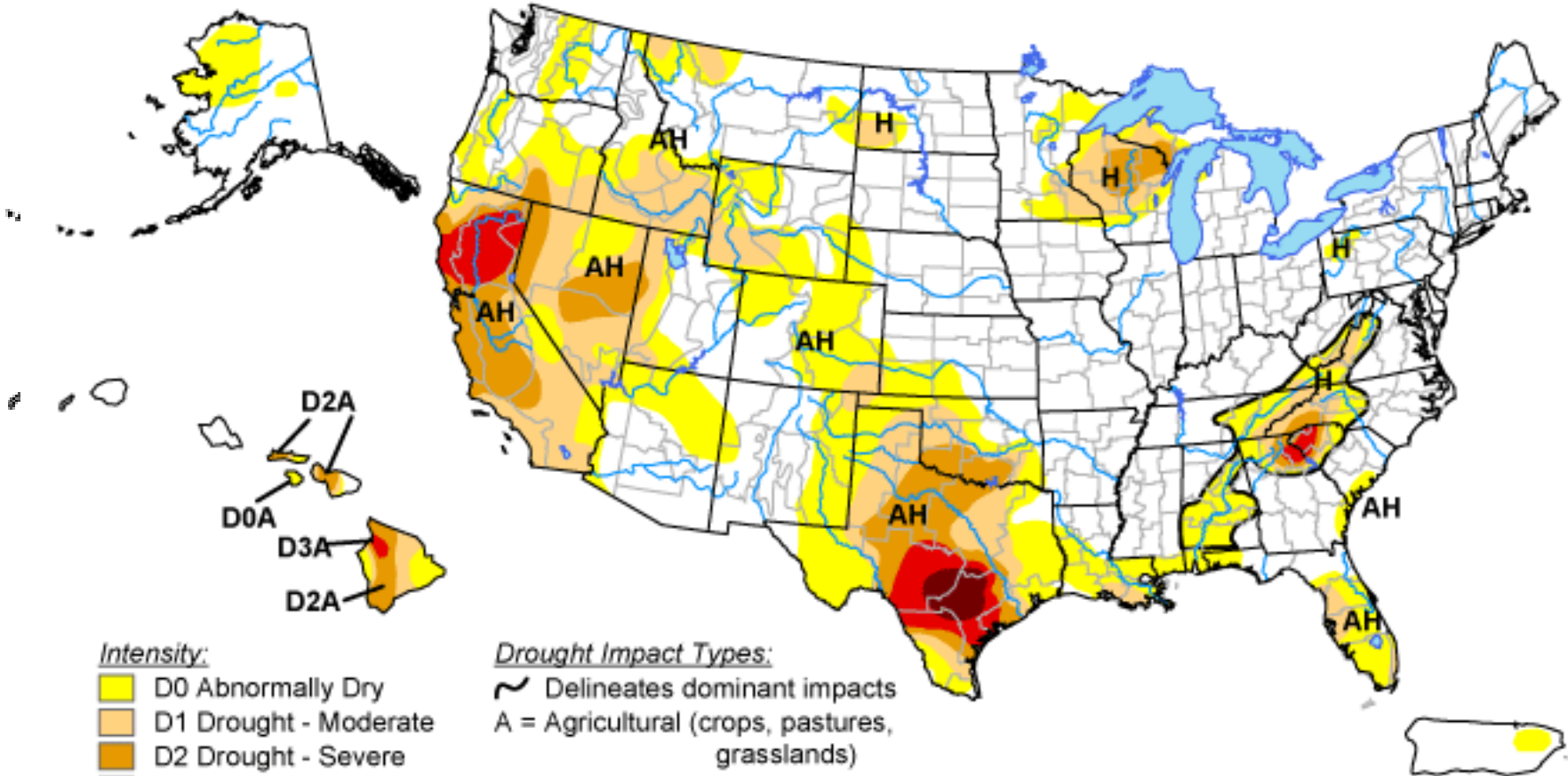
These gases are known collectively as greenhouse gases because they contribute to a warming of the Earth's surface and lower atmosphere, a phenomenon called the greenhouse effect. These gases are dense enough to trap the radiation from the sun which warms the planet to dangerous levels








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U.S. Drought Monitor


February 3, 2009
Valid 8 a.m. EST



Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe
-  D3 Drought - Extreme
-  D4 Drought - Exceptional

Drought Impact Types:

-  Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>
<http://drought.unl.edu/dm>



Released Thursday, February 5, 2009

Author: Eric Luebehusen, U.S. Department of Agriculture

Author: Brian Fuchs, National Drought Mitigation Center

***A 3000 Square foot home
can put 13,500 lbs of
carbon dioxide into the
air.... a year!***



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If only 50% of homeowners reduced their carbon footprint impact by 5,000 pounds, it adds up to 14.5 billion pounds. Nationwide, that's 187.7 billion pounds of reduced carbon dioxide in the air



Your Reputation!

Those in the real estate industry can provide homeowners with tips for saving energy.

Visit energysavers.gov to learn more about home energy efficiency initiatives.



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Teaching clients how to do Energy Star Audits-

Watch the liability!

http://www.energystar.gov/index.cfm?c=home_improvement.hm_improvement_audits



Become a Part of the Solution

Position yourself to educate your
farm area—

Teach them about energy
efficiency!



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Air Handling Tips

- Install a programmable thermostat
- Keep the thermostat switch in the "auto" position
- Use ceiling fans and raise or lower the thermostat settings two to three degrees
- When you leave home set the thermostat a few degrees up or down-



Lighting Tips

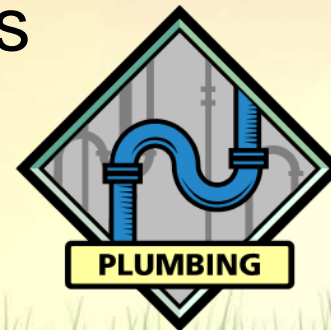


- Turn off lights in unoccupied rooms
- Consider task/sensor lighting
- Change incandescent bulbs to compact fluorescent bulbs (CFLs)
- Take advantage of daylight



Caulk/Seal:

- Windows
- Doors
- Electrical Outlets and Switches
- Air Leaks where plumbing, ducting, electrical wiring passes through walls, floors and ceilings



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Roberta Fernandez has studied with Al Gore and his Climate Project organization. She works with businesses, organizations, individuals and local governments across the state of Florida and around the world. Her goal is to assist others in becoming more efficient environmental stewards.

She asks that we all....



Carpool, walk, ride a bike, use mass transit, or work at home: If every commuter did this 1 day each week, we'd save 5.85 billion gallons of gas and 143 billion tons of CO²



Unplug everything you are not using: Standby power can account for 9-10% of household energy;

A television uses 25% of its energy when turned off!

Take shorter showers:

Aim for no more than 5 minutes; use low flow shower heads-



Stop junk mail:

The production of junk mail consumes as much energy as 2.8 million cars. There are 200 million trees cut for junk mail every year – Equivalent to cutting down the Rocky Mt. National Park 3 times per year-



Energy Efficient Mortgage These Concepts:

Energy Efficient incentives offering
guidelines within loan products-

Introduced by Fannie Mae in 1979

Use a rating of your current home to what
you want to borrow to accomplish better
energy efficiency-



Home Energy Ratings (HERS)

RESNET: Residential Energy Services Network

The Residential Energy Services Network's mission is to ensure the success of the built structures' energy performance-



HERS Process:

Systems are analyzed by a 100 point rating system and the results are presented to the lender to determine loan amount for the improvements needed to qualify for the energy efficiency mortgages products.





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Availability of EEM concepts within:

- Federal Housing Administration (FHA)
- Veterans Affairs (VA)
- Fannie Mae
- Freddie Mac
- Private Companies



How important are Green Standards/Certifications?

If a licensee, appraiser, contractor or anyone involved in a real estate transaction is not educated on the certification process, it can have a negative impact on a structures' value in the future.



“Green” Interactive Scenario

“I” am “your” agent and after showing you 46 homes you decide on two. Price is within \$10,000 of each other. Both properties have the floor plan you love, school system you want for your children, both are freshly painted, new carpeting and tile, have perfect room sizes, are close to everything, with beautiful landscaping, etc. You and your family like them equally and both are all you have dreamed of but...



One is built with healthy materials, uses less energy, emits fewer greenhouse gas emissions, and has a utility bill up to 65% less than the other,
which one will you choose?



"When we were created, we were not supposed to come to this earth just to "take what we can"- we were meant to contribute to its well being, and to leave it a better place for future generations"

For your use: Kerry Mitchell

President- Green Real Estate Education



Questions & Discussions
How can you add in "green" to
your practice?



CONGRATULATIONS!!

**GCREP/GCHI/GCMP-GL!
Green Leadership!**

**This is the first Green Real Estate
Professional© Certification-
Building Systems Division- mid 2009
for subs- contractors-carpentry-
Concrete- solar-lighting-HVAC-**



*I am GL Certified logo
& certificate to use!*

