

## 2009 RESNET Building Performance Conference

### I Am Certified! Now What?

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### Erin R. Wiggins Certifications / Affiliations

- Certified HERS Rater (Home Energy Rating System)
- RESNET Green Rater
- RESNET National Board of Directors (Residential Energy Services Network)
- LEED-H Associate (Leadership in Environmental and Energy Design)
- NAHB Green Verifier (National Association of Home Builders)
- Habitat For Humanity Partner
- Energy Star Partner
- Home Builders Association – Greater Des Moines

### Barb Yankie Certifications / Affiliations

- Certified HERS Rater (Home Energy Rating System)
- RESNET Green Rater
- RESNET National Board of Directors (Residential Energy Services Network)
- LEED 3<sup>rd</sup> party Rater (Leadership in Environmental and Energy Design)
- NAHB Green Verifier (National Association of Home Builders)
- Builder's Challenge Verifier
- Level II Certified Thermographer - ASNT Compliant
- NAHB 2008 & 2009 EVHA (Energy Value Housing Award) National Judge
- US Green Building Council
- BPI Technical Advisory Committee (Building Performance Institute)
- International Code Council
- Habitat For Humanity Partner
- Energy Star Partner
- Home Builders Association – National, OH, KY, Greater Cincinnati, Northern Kentucky
- Ohio Licensed Radon Tester
- Cincinnati & Northern Kentucky Boards of Realtors

## Overview

- Technical Knowledge Needed  
– Erin R. Wiggins
- Business Knowledge Needed  
– Barb Yankie

## Technical Knowledge Needed

### **YOU ARE NOW CONSIDERED AN EXPERT!**

You have taken a week training course,  
passed an exam and done a few  
preliminary ratings.

### **How Does This Make You Feel?**

## Additional Training

- Community Colleges in your area
  - Building Science
  - Combustion Safety
  - Carbon Monoxide / Combustion Analysis
  - General Construction
  - Physics
  - ACCA Manual J
- Conferences – Seminars – Workshops
  - RESNET (Residential Energy Services Network)
  - EEBA (Energy and Environmental Building Association)
  - MEEA (Midwest Energy Efficiency Alliance)
  - NAHB (National Association of Home Builders)
  - USGBC (United States Green Building Council)

## Programs to Memorize

- Energy Star
  - Prescriptive Path
  - Performance Path
- Tax Credit Incentives
  - Federal
  - State
  - Local
- Utility Programs
  - New Construction Rebates
  - Existing Homes Rebates

## Know Where to Find the Information

- Energy Star
  - Both Path Requirements
  - Thermal Bypass Guidelines
- Codes
  - IRC (International Residential Code)
  - IECC (International Energy Conservation Code)
- Rating Heating and Cooling Equipment
  - AHRI (Air-conditioning, Heating and Refrigeration Institute)
  - Preston's Guide
- Rating Ventilation Systems
  - HVI (Home Ventilating Institute)

## Equipment To Purchase ASAP

- Computer (With e-mail and Internet)
- Blower Door
- Duct Blaster
- Minimum of four hoses
- 2 - DG-700's (One with cruise control)
- Digital Camera
- Tape Measure
- Ladder
- Flashlight
- Screwdriver
- Pliers
- Utility Knife
- Tape – Masking and Blue
- Furnace Cover

## Equipment To Purchase Later

- Fog Machine
- IR Camera (Take Training Classes)
- Digital Thermometer
- Moisture Meter
- Cordless Drill
- Blower Door Extensions

## YOU MUST KNOW THESE THINGS!

- What Type of Insulation is Recommended for your Climate Zone
- What are the Pros and Cons of all Types of Insulation
- Poly vs. No Poly
- HRV vs. ERV
- What Energy Code is Your State Using

## What You Don't Learn In Class

- New Construction
- What you are going to run into in the field
- How to Handle Situations
- Where are the First Places to Look if a House Fails a Blower Door Test and/or a Duct Blaster Test

## Insulation Inspection Common Problems

- Framed Floor Above Garage
- Rim Joist
- Cantilevers
- Wall Cavity Insulation
- Attic Wire Penetrations
- Attic Knee Walls
- Dead Spaces
- Attic Eave Baffles
- Splitting Batts
- Front Porches
- Sheeting Behind Tubs/Showers & Fireplaces

Framed Floor Above Garage



Rim Joist



Rim Joist / Return



**Cantilever**



**Wall Cavities**



**Before**



**After**



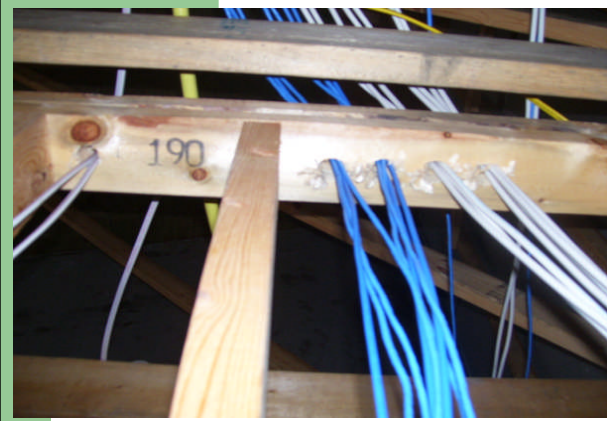
**Waste**



**HELLO!**



**Attic Wire Penetrations**



**Drilled Holes**



**Attic Knee Wall**



**Dead Space**



**Attic Eave Baffles**



**Splitting of Batts**



**Splitting of Batts**



**Front Porch**



**Tub Sheeting**



## Common Failure Locations

- Blower Door
  - Rim Joist
  - Sill Plate
  - Cantilevers
- Duct Blaster
  - Attic
  - Drywall
  - Duct Shaft Cavities

### Additional Resources and Websites

- Residential Energy – John Krigger
- Insulate and Weatherize – Bruce Harley
- RESNET – [www.natresnet.org](http://www.natresnet.org)
- Energy Star – [www.energystar.gov](http://www.energystar.gov)
- Air-conditioning, Heating and Refrigeration Institute – [www.ari.org](http://www.ari.org)
- Home Ventilating Institute – [www.hvi.org](http://www.hvi.org)

### Business Knowledge Needed

#### **YOU HAVE TO HAVE A PLAN!**

A lot of people have great ideas  
but don't have a plan on how to  
implement them.

#### **How Easy Does It Make Your Life?**

### Planning

- Long Term
- Failure Rate of Small Businesses
  - Theory of "thirds"
    - 1/3 eventually turn a profit
    - 1/3 break even
    - 1/3 never leave a negative earnings scenario
- Refer to your Attorney & CPA

### Cornerstones

- Perfect Business Plan
  - Run a good business
- Perfect Marketing Plan
  - Successfully put out the word that you run a good business

## Plans Needed

- Personal Goals
- Legal Plan
- Tax Plan
- Human Resources Plan
- Information Technology Plan
- Insurance Plan
- Cash Management Plan
- Banking Plan
- Marketing Plan
- Business Plan

## Personal Goals

- Definition of a corporation - "A legal entity designed for the sole and expressed purpose of benefiting its shareowners."
- Separate Personal goals from Business Goals
- Income needed
- Net worth

## Legal Plan

- "Best Offense is a Good Defense!"
- Corporate Set-up
  - Other items will determine this
- Contracts & Documents

## Tax Plan

- Corporate & Personal
  - Take other income into consideration
- Balance Sheet Planning
  - Different "looks" for different purposes
    - Expansion loan
    - Credit Agency
    - Line of Credit
    - Government agency financing

## Human Resources Plan

- Take Tax Plan into consideration
- Payroll Provider
  - Easiest (not most expensive) means “right”
  - Set it up correctly in the beginning so it should only take 5 to 10 minutes each payroll period

## Information Technology Plan

- Data Handling & Communication
  - How do you hold it?
  - What do you do with it?
  - How do you disseminate it?
  - Marketing Data
    - All data eventually becomes marketing data
  - Operational Data
    - Scheduling, Billing, etc.
- Communication Plan
  - Free Group-ware? (Google Groups)
- Software Plan
  - Cost – Free now – cost later?
- Hardware Plan
  - Who needs what?

## Insurance Plan

- Key Man
- Liability
- E & O
- Bonds
- Auto
- Other

## Cash Management Plan

- KISS
- Receipts!
  - How much is your time worth?
- Adequate Cash Flow

## Banking Plan

- How fast will checks clear?
- On-line banking
  - More than one account
- Employee access?
- Time involved
- Direct deposit
- Payroll account
- Administrative help

## Marketing Plan

- How you're going to tell others about your business
- How many people are going to come to you & how much effort do you have to put out to reach the others & reach your goal?

## Business Plan

- All encompassing
- How are you going to run your business?
- Revenue & Expense plan
  - How are you going to get revenue?
  - What is it going to cost to get that revenue?

**Thank You For  
Attending This Session**

## What Questions May We Answer?

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