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Energy Codes Conference

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What is **Green** Building?

Incorporating environmental considerations and resource efficiency into every step of the home building and land development process to minimize environmental impact

Most home builders are already incorporating some elements of green building

Greening the American Dream...

NAHB is the national voice for America's home building industry members who want to engage in 'green' construction, design and development

Is it catching on?

- **Green Building is at a tipping point among the builder population**

Data indicates **2006 to 2007** is the time frame from which the builder population moves from a majority less involved to more involved with Green Building

- **20% increase over last year in terms of those builders dedicated to green building issues**

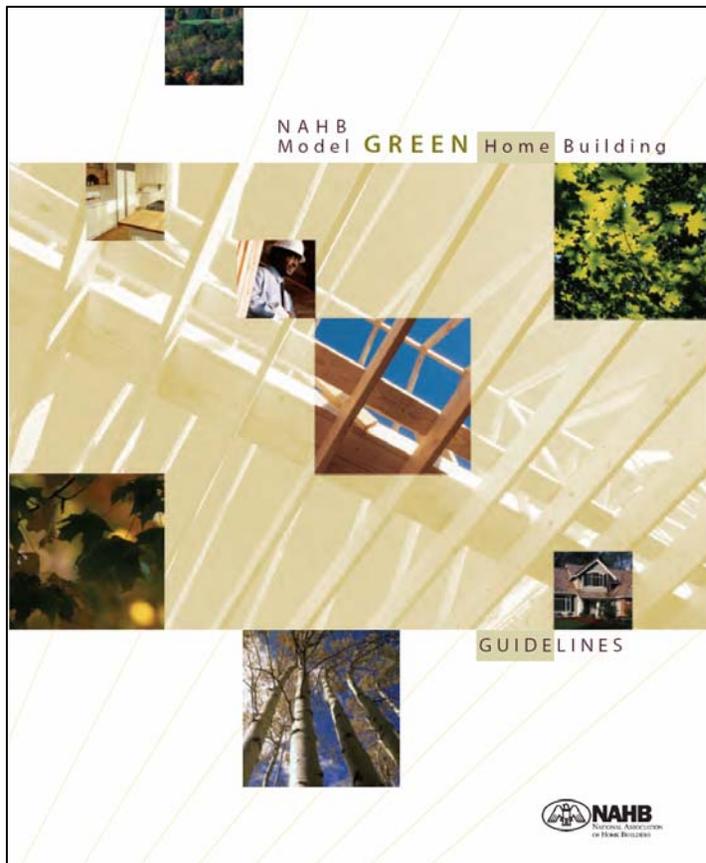
Expected to rise in 2007 by another 30%

NAHB Milestones

- 1998 – Subcommittee formed
- 1999 – 1st Green Building Conference
- 2003 – Green policy established
- 2004 – Green Building Guidelines process begins
- 2005 – Guidelines debut at I.B.S.
- 2006 – Pilot C.G.B. course



The NAHB Model Green Home Building Guidelines



- Usable and affordable for the mainstream home builder
- Tool kit for the individual builder and local HBA's looking to create their own green programs
- Builders choose from distinct line items

Guiding Principles

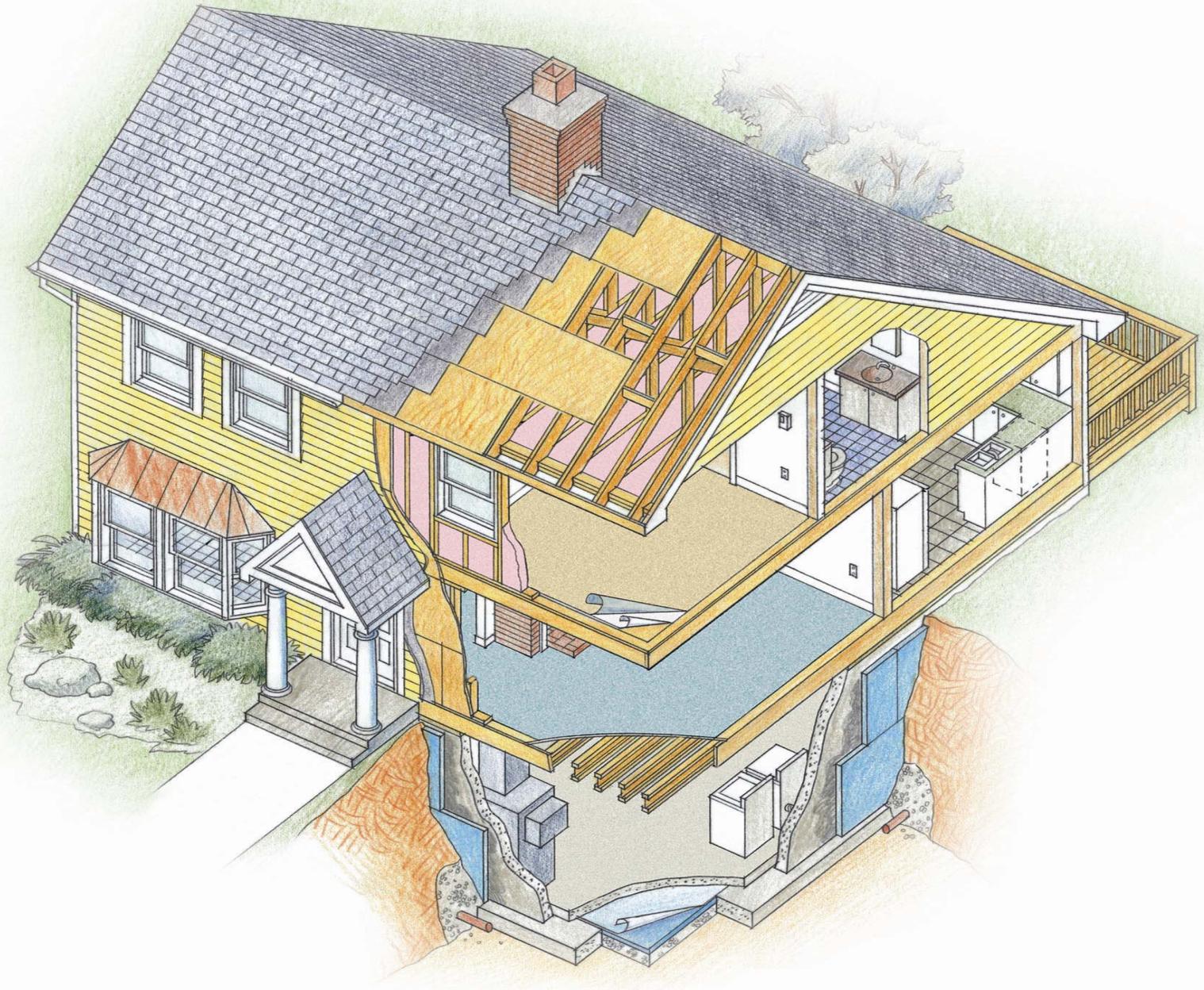
- Lot Design, Preparation and Development
- Resource Efficiency
- Energy and Water Efficiency
- Indoor Environmental Quality
- Operation, Maintenance, and Education



Energy Efficiency

- **Techniques for:**
 - each component of the building envelope - foundation, wall assemblies, windows, doors, floors and ceilings





The Point System

- **Three lenses:**
 - environmental impact
 - building science and best practices
 - ease of Implementation

Points Required for the Three Different Levels of Green Building

	Bronze	Silver	Gold
Lot Design, Preparation, and Development	8	10	12
Resource Efficiency	44	60	77
Energy Efficiency	37	62	100
Water Efficiency	6	13	19
Indoor Environmental Quality	32	54	72
Operation, Maintenance, and Homeowner Education	7	7	9
Global Impact	3	5	6
Additional points from sections of your choice	100	100	100

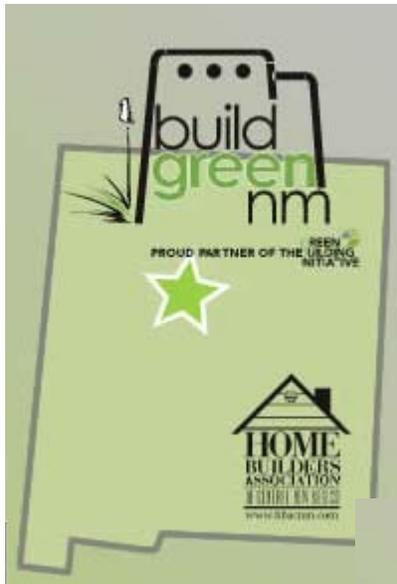
3.1 IMPLEMENT AN INTEGRATED AND COMPREHENSIVE APPROACH TO ENERGY-EFFICIENT DESIGN OF BUILDING SITE, BUILDING ENVELOPE, AND MECHANICAL SPACE CONDITIONING SYSTEMS

REQUIREMENTS—The home must meet the following conditions listed in 3.1.1 through 3.1.3 below.

The home must also achieve the equivalent of at least 37 points (Bronze level) from the optional guidelines in the performance path (Section 3.2) or the prescriptive path (Section 3.3).

GUIDELINE	PTS	HOW TO VERIFY
<p>3.1.1 Home is equivalent to the IECC 2003 or local energy code, whichever is more stringent. Conformance shall be based on plan analysis using software such as ResCheck or other as approved by green building program administrator.</p>	Req.	ResCheck Analysis (only necessary if the local energy code does not at least meet the IECC 2003 requirements)
<p>3.1.2 Size space heating and cooling system/equipment according to building heating and cooling loads calculated using ANSI/ACCA Manual J 8th Edition or equivalent. Computerized software recognized by ACCA as being in compliance with Manual J 8th Edition may be used.</p>	Req.	Manual J load calculations
<p>3.1.3 Conduct third-party plan review to verify design and compliance with the Energy Efficiency section. When multiple homes of the same model are to be built by the same builder, a representative sample (15%) of homes may be reviewed subject to a sampling protocol.</p>	Req.	Plan review may be completed by Green Building Program administrator, energy program administrators, architect/engineer, consultant, or other party outside of the builder's company and acceptable to the Green Building Program administrator.

Already a handful of programs based on the Guidelines – in the first year!

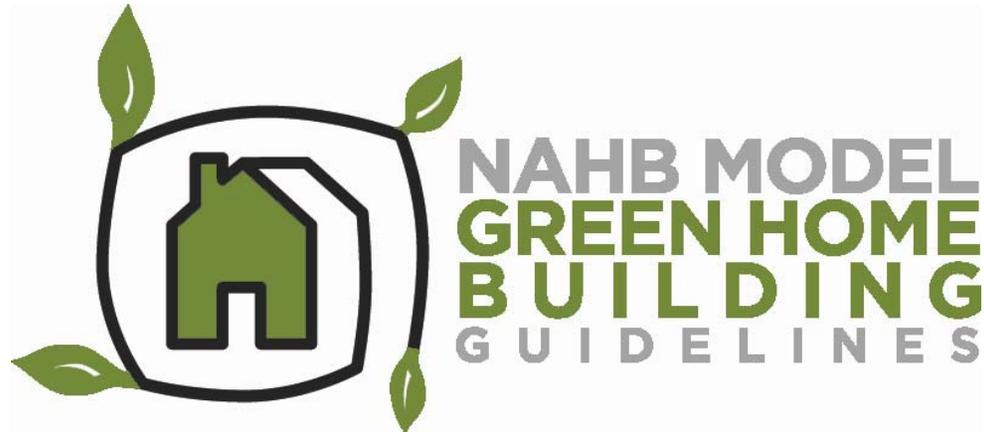


- Boston
- Phoenix
- South Florida
- Las Vegas
- New Orleans
- Chicago
- State of Connecticut
- State of New Jersey
- Etc.

Green Built Michigan, Inc.

The NAHB Model Green Home Building Guidelines are:

- intended to assist you in voluntarily incorporating elements of green building into your construction practices
- designed to be flexible and adaptable, so relevant sections can be easily picked up and adopted by HBA's developing their own green programs
- a cost-effective alternative to onerous and potentially costly local mandates



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***Download the Guidelines at
www.nahb.com/gbg***