

Changes in the GBP Rating

All members of The Green Building Program should have received a letter from Mary McLeod about a change to the GBP rating tool. A new requirement for a Three-Star Rating has been added in 2005. Under the Testing category, item T3, formally only a requirement for a Four or Five-Star Rating, is now **required** for a Three-Star Rating. The item reads "A direct duct-pressure test must be performed by a GBP-approved testing company; air leakage may be no greater than 10% (not required if all ductwork is located within the thermal envelope)."

A direct duct-pressure test tells you how much conditioned air is being lost (or how much unwanted unconditioned air is being gained) through leaks in the duct system. Thousands of tests have shown that most duct systems--including new ones--leak over 25%. The cost of testing is a tiny fraction of the cost of building a house and worth every penny for homeowners to find out if they're getting the intended system performance. It should be stated in the specifications and/or agreement between the general and mechanical contractors that this test will be conducted by a third-party testing contractor and that duct system air-tightness must meet the test requirement (allowable air leakage no greater than 10%).

For an additional nine points on the Rating, we suggest that a blower-door test for envelope leakage, a room-by-room air-flow test and a safety backdraft test be done at the same time (all the above required for 4 and 5-Star Ratings). This is very economical once the testing contractor is on the site. A number of qualified testing companies now operate in the Austin area. Please call the Green Building Program for a list of approved testing companies.

Reminder:

Attach the Manual J Calculation to your Rating

It is a code requirement in the State of Texas that residential cooling equipment be sized by a [Manual J](#) calculation, based on actual house design, specifications, orientation, correct climate-zone and other standard design criteria.

New construction, built to current codes, should result in 600 square feet or more of heated and cooled space per ton of cooling, if the design is appropriate for a hot climate. The change from uncoated window glass to southern low-e alone typically allows equipment to be downsized by approximately one third. If the Manual J calculation results in a substantially lower number than 600 square feet per ton, find out why.

When equipment is too large for the cooling load, it never runs long enough to dehumidify properly or meet its rated efficiency. For example, a 12.00 SEER unit may never run more

efficiently than 8.00 SEER if the unit is oversized. If a correctly sized unit does not cool properly due to loss of conditioned air from duct leaks, fix the leaks.

New federal minimum efficiency standards for residential cooling equipment will begin in January 2006. The new minimum standard will be 13.00 SEER. [Austin Energy's Residential Home Performance Program](#) will continue to give a rebate for 13.00 SEER until the new standard goes into effect. If you are installing 12.00 SEER equipment now, why not change to 13.00 SEER and get the benefit of the rebate while it lasts?

New Green Guidelines Focus on Mainstreaming Green

Green Building is gaining national recognition as the new standard home builders must achieve to be considered leaders in their field. This is made clear by the emergence of two new sets of residential Green Building Guidelines. The National Association of Homebuilders (NAHB) recently released the new Model Green Home Building Guidelines. The United States Green Building Council (USGBC) will begin piloting the LEED Homes (LEED-H) rating system this spring and it will be available to builders in early 2006. An NAHB press release states that, "the new guidelines were designed to help mainstream home builders incorporate environmental practices into every phase of the home building process. The Guidelines are designed to move green building even further into the mainstream by providing a toolkit for builders working in locations without a green building program in place. The toolkit consists of two parts: a checklist and a user guide. The checklist includes the green home building line items along with the associated points a builder can receive for including a line item in a project. For each line item in the checklist, the corresponding user guide provides an explanation of its intent and how to implement, as well as additional resources for further information."

"The guidelines are revolutionary because they will help all builders, not just niche builders, construct more energy efficient, environmentally sensitive new homes in different price ranges and climate conditions," said [Texas Association of Builders](#) president and long time member of the Austin Energy Green Building Program, [Ray Tonjes](#). Ray is also the chair of NAHB's Green Building Subcommittee. "NAHB's Model Green Home Building Guidelines are a milestone in our efforts to provide safe, decent, affordable housing for all Americans and to help conserve our environment."

The NAHB guidelines evaluate the sustainability of homes in the areas of:

- Lot design and preparation
- Resource, energy and water efficiency
- Indoor environmental quality

- Operation, maintenance and homeowner operation
- Global Impact
- Site planning and land development

NAHB's Model Green Home Building Guidelines are available online at www.nahb.org/gbg.

The LEED-H program is being developed by the USGBC with input from local and national stakeholder groups. It is a voluntary initiative promoting the transformation of the mainstream home building industry towards more sustainable practices. It will provide a much-needed tool for homebuilders, homeowners, and local governments for building environmentally sound, healthy, and resource-efficient places to live. LEED-H standards will promote energy and water efficiency, reduction of resource use, improved land-use measures, and the safeguarding of occupant health. LEED-H will adopt the certified, silver, gold and platinum rating structure in order to recognize the varying levels of performance achieved in each of these five categories.

For questions about LEED-H, please call the USGBC at 202-828-7422 or e-mail leedinfo@usgbc.org.

Energy Efficiency Lights Up New ASHRAE Standards

After three years of work, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has developed new minimum requirements for energy efficient building design. The ANSI/ASHRAE/IESNA Standard 90.1-2004 - Energy Standard for Buildings Except Low-Rise Residential Buildings - contains new lighting power density (LPD) limits that, overall, could reduce building lighting energy on a national basis by as much as 25 percent. All building types, excluding parking garages and performance arts facilities, will experience substantial reductions in allowed LPDs. According to Maureen Scanlon, an engineer with The Green Building Program, "It will be more challenging to perform better than energy code when the new ASRAE/IESNA 90.1-2004 and IECC 2003 becomes code. USGBC's next LEED-NC Version 2.2 Green Building Rating System will reference ASHRAE 90.1-2004 as the standard to beat. The point distribution available for building energy performance beyond this standard is being adjusted to reflect AHSRAE's raising the bar."

The standard does contain guidance for HVAC designers interested in achieving points toward LEED certification. A new exterior lighting section also includes specific lighting power limits for a variety of exterior applications. Other changes included in the Standard are:

Climate Zones

The number of primary climate zones for heating and cooling was reduced to eight from 26. Each county in the United States has been mapped to a particular climate zone. As a result, building

envelope and mechanical criteria will apply on a countywide basis, and often to many adjacent counties. Reducing the number of primary climate zones resulted in a reduction of the number of tables of building envelope criteria. This reduction results in simplification while minimizing the changes in the building envelope criteria.

Mechanical

New climate zone data simplifies many of the mechanical requirements from economizer requirements to duct insulation. Energy efficiencies were increased for fans, single package vertical units and 3-phase air-cooled air conditioners.

Energy Cost Budget (ECB) Method

A reformatted table shows the symmetry between simulations of a design building model and a budget building model in the ECB method. This makes it easier to determine design efficiency.

Member Bulletin Board

Green Building Program Multi-family Contact Change

Katie Jensen has recently taken on the role of coordinating the Multi-family Program at the GBP. This role was previously filled by Dick Peterson (who is now coordinating single-family SMART Housing projects). Katie will be working closely with all residential projects over 3 family units. This will include projects that are voluntarily achieving a Green Building Program Rating as well as those that are doing so through their involvement with SMART Housing. The Multi-family Green Building team will continue to offer high quality design team consulting, construction document reviews, construction site inspections, and Green Building Program Ratings. If you have questions about a Multi-family project, contact Katie at 512-482-5407 or email her at katie.jensen@austinenergy.com.

American YouthWorks' Casa Verde Builders Awarded NAHB Gold

[American YouthWorks' Casa Verde Builders](#) is a 2005 Gold Award winner of the Energy Value Housing Award for the Affordable category in the Hot climate region by [The National Association of Home Builders Research Center](#). Casa Verde accepted the award during the City Council's meeting on Thursday, February 10. Congratulations, Casa Verde.

J-V Dirt + Loam Wins 2004 Texas Environmental Excellence Awards

Governor Rick Perry and the Texas Commission on Environmental Quality named [J-V Dirt +](#)

[Loam](#) the winner of the 2004 [Texas Environmental Excellence Awards](#) in the Small Business category. The company has been working for almost 10 years to develop better ways of controlling erosion on Texas roads and landscapes.

Habitat Suites Wins Keep Austin Beautiful Award and Goes Solar

Local green hotel, Habitat Suites, will generate about 25 kW of energy from their 108 solar panels. It won't take them off the grid, but will have these effects: 38,000 tons of CO₂ will not be emitted into the air and it is equivalent to planting 5.2 acres of trees or taking 4.3 cars off the road completely. Habitat Suites General Manager, Natalie Marquis, says, "It's a start. And we hope it will be an effective demonstration of how solar energy works and what a good alternative energy source it is." GBP Member, [Meridian Energy Systems](#) installed Habitat's system and the [Austin Energy solar rebate program](#) paid for about 50 percent of the cost. Habitat is having a ribbon cutting ceremony on Wednesday, March 16, at 1:00 pm to celebrate the PV system installation. Other Keep Austin Beautiful award winners included Paul Robbins, editor of the [Austin Environmental Directory](#), who won the Dennis Hobbs Individual Achievement Award.

ZEH Selected For EPA Clean Air Excellence Award

The Zero Energy Homes project (ZEH) has been selected for a [Clean Air Excellence Award](#) in the community development/redevelopment category. The Clean Air Excellence Awards Program is sponsored by [EPA's Office of Air and Radiation](#). The Awards Program annually recognizes and honors both individuals and organizations that have undertaken the risks of innovation, served as pioneers in their fields, and have helped to improve air quality. The award will be announced at the Clean Air Act Advisory Committee meeting in April.

Cool House Tour 2005

The [Texas Solar Energy Society \(TXSES\)](#) is once again organizing the [Cool House Tour](#). The 2005 Cool House Tour will be held on Sunday, May 15, from noon - 6:00 p.m. The Tour was wildly successful in 2004, in fact, it sold out. The Green Building Program is co-producing the event with TXSES. Nominations for the tour are now closed and the homes selected to participate will be announced in early March.

USGBC Central Texas - Balcones Chapter Announces 2005 Board Members

The following individuals have been elected to serve as the board members for the [USGBC Central Texas- Balcones Chapter](#) during the year 2005. Congratulations to all the new Board Members, especially GBP staff Katie Jensen.

Board Member	Title	Affiliation
Claire Balfour	Interior Designer/ Account Executive	Interface Flooring Systems
Martin Barrera	Regional Architect	Texas Parks and Wildlife
Heather Dalton	Interior Designer/ Associate	3D/I
Rebecca Doll	Principal Broker	Childers Commercial Group, L.L.C
Jim Estes	Principal	Field Office Associates
R.R. (Dick) Grant	Engineer/ Sales Manager	Trane
Robert Harris	Architect/ Partner	Lake/Flato Architects
Katie Jensen	Conservation Program Associate	Austin Energy Green Building Program
Kathleen Zarsky	Arch./ Dir. Sustainable Bldg Practices	The Beck Group

Final Graywater Rules From Texas Commission on Environmental Quality (TCEQ)

Click here for TCEQ's [final graywater rules](#) and, if you had your graywater system installed prior to Jan 6, 2005, here's some information on the "grandfathered" [clothes washer exemption](#): Adopted §210.83(e) adds language to allow homeowners who disposed of wastewater from residential clothes-washing machines before the effective date of the adopted rules to continue to dispose directly onto the ground surface as long as the homeowners meet certain conditions. The commission has adopted this provision to limit the impact that the adopted rules will have on homeowners who currently dispose of laundry graywater.

greenGoat's Demolition Debris Sculpture Contest

[greenGoat](#), a New England-based demolition consultant, has announced that they are conducting a nationwide search for artists who will create works of art out of demolition materials. Artists from all media are invited to submit ideas, but only when the project site is open will the artist know what materials are on hand. Check the [greenGoat website](#) for more information.

High-Quality Digital Photographs Needed

We have an ongoing need for high-quality photos of rated projects (300 dpi in 8"x10" size) to use on our website and in PowerPoint presentations, exhibits, and advertisements. We would like exterior, interior, and detail shots. Photos should be well-composed, well-lit, with debris and clutter removed. Pictures of projects with established landscapes are particularly needed. Please e-mail them to your Green Building Program staff representative.