
City of Austin Adopts New Energy Code

On November 29, 2001, Austin's City Council approved an ordinance adopting the 2000 [International Energy Conservation Code](#) (IECC) with local amendments. The code became effective on December 10, 2001.

Major changes were made concerning commercial construction. The code addresses several new areas, including complex mechanical systems; the expansion of the building envelope requirements to include all commercial buildings of any height, not just low-rise; and an update to the lighting power allowances.

The new code allows greater design flexibility and encourages the use of innovative design and new or non-standard materials and products by allowing compliance based on annual energy analysis of the entire building instead of individual building components.

The major local amendment that affects commercial building is the change from ASHRAE 90.1 - 1989 to ASHRAE 90.1 - 1999. This standard addresses multiple zone HVAC and requires all buildings, not just residential and simple commercial, to be more energy efficient. The previous code allowed only single zone HVAC.

The residential section has been expanded to include additions, alterations, and repairs (including window replacements), and incorporates the change from Shading Coefficient (SC) to Solar Heat Gain Coefficient (SHGC). The IECC uses SHGC instead of SC. Solar heat gain describes the purpose of this glass rating more clearly than shading does. IECC allows a maximum SHGC of 0.4, which equals a SC of 0.459. The former Austin code allowed a maximum SC of 0.5. In our hot climate, the lower the SHGC, the better. Also note that the 2000 IECC insulation and sealing requirements apply to any altered wall, including remodeling. If an entire window is replaced, the new window must comply with the new code.

The IECC code includes a new chapter which contains an optional and stand alone prescriptive compliance approach, similar to the Austin "orange" card. This chapter is essentially the same as Chapter 11 of the International Residential Code (IRC).

The major local Austin amendment that affects residential building concerns attic ventilation. The new code prohibits attic ventilation when it introduces unconditioned air into the thermal envelope of the building. For example, it states that if the thermal envelope of the attic is at the rafters instead of the attic floor, the attic shall not be ventilated. Additionally, crawl spaces do not have to

be ventilated under some conditions. To be constructed without ventilation, crawl space must be sealed, lined with polyethylene and conditioned air must be introduced.

The second local amendment requires the use of annual energy cost to be used in the System Analysis (Chapter 4) rather than the annual energy consumption. This allows designers and builders to be more creative and flexible because overall building performance is considered, not just the performance of individual building components.

For additional details of local code amendments or other code-related questions, email the Green Building Program's code specialist, [Larry Brinkmeyer](#) at (512) 482-5326.

Trees Fight Crime

A groundbreaking study published in the May 2001 issue of Environment and Behavior found that the amount of vegetation outside a building can predict the amount of crime occurring inside and around the building -- but not in the way you might think. The article "Environment and Crime in the Inner City: Does Vegetation Reduce Crime?" presented the methods



and findings of a two-year study by researchers Frances Kuo and William Sullivan. Kuo and Sullivan, codirectors of the Human-Environment Research Laboratory at the University of Illinois at Urbana-Champaign, used police crime reports to examine the relationship between vegetation and crime at 98 buildings in the Ida B. Wells housing project in Chicago.

The belief that vegetation promotes crime by providing concealment for criminals and criminal activity is a popular one in crime prevention circles. Accordingly, many municipalities and other authorities actively remove vegetation in an attempt to increase public safety. This latest study has found that the greener a building's surroundings are, the fewer total crimes, including property crimes and violent crimes.

Indeed, there seems to be a direct correlation between trees and public safety. The research reveals a clear negative relationship between vegetation and crime. Buildings surrounded by high levels of trees and grass had 48 percent fewer property crimes, 52 percent fewer total crimes, and 56 percent fewer violent crimes than buildings surrounded by barren ground.

The November issue of [Seventh Generation's newsletter](#) also has an article on this same study. View the complete article "[Environment and Crime in the Inner City: Does Vegetation Reduce Crime?](#)" as a pdf file.

More good news for treehuggers - [American Forests](#) has a new technology that may make it easier for local leaders and city planners to include trees in the development process. CITYgreen 4.0, a combination of high-resolution satellite imagery and computer software, analyzes ecosystems (including tree canopy percentages) in local areas, and enables the calculation of the environment's economic value in terms of air quality, reducing stormwater runoff and removing pollutants, and energy savings. CITYgreen makes it possible for cities to calculate the environmental and economic benefits provided by their existing trees and vegetation and model the effect that development will have on their community.

New Healthy Homes Website

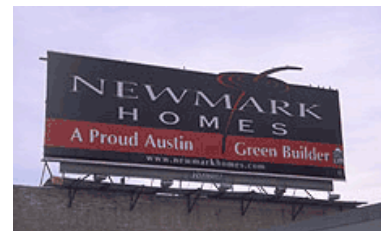
As part of its Healthy Homes Initiative, the Department of Housing and Urban Development (HUD) has a new web site. The site provides a wealth of information on housing-related health and safety issues, including lead hazards. There is also an extensive list of links to many other public and private sector organizations that provide information about building technology and public health issues. Visit the [HUD's Healthy Homes](#) site for more information

Member Bulletin Board

Kudos to Newmark Homes

This winter, Newmark Homes upgraded all of their homes to achieve a minimum three star green building rating. The Green Building Program wishes to congratulate Newmark Homes for their significant effort and great achievement for a production builder operating in competitive marketplace.

Among the new elements included in their recent upgrade are a whole house heat recovery ventilator system, programmable thermostats, return air balancing vents, four inch pleated media filters, radiant barrier roof decking, carbon monoxide detectors, low-e double-paned windows, air tight insulated can lights, a drinking water filtration system, Energy Star dishwashers, and pre-assembled engineered wall components.



All of these new elements fit perfectly within Newmark's "Healthy, Wealthy and Wise" branding strategy, and Newmark feels that their investment in green building has paid off well in increased sales, market position, and customer satisfaction.

Although Newmark tends to build similar products in all of its divisions, the Austin division has been the test market for many new ideas. The local success with green building has spurred

Newmark to seriously investigate the realities of upgrading all of their divisions throughout throughout the country to match the Austin division's specifications and practices.

Welcome New and Provisional Members

The Green Building Program would like to welcome our newest provisional members who attended the December Basics seminar **Welcome New and Provisional Members, continued**

Company Name	Contact Name	Phone Number
Odyssey Works, Inc.	Elliot Flick	512/459-6200
Echelon Construction	Gray Breeden	512/343-0845
Volz & Associates	Tracy Hirschman	512/476-0433
Morrison Homes	Greg Meir	512/328-8866
CF Smith Designs	Charlie Smith	512/894-0445
Custom Design Services	Cammi Klier	512/330-9309
Cottam-Hargrave	Mark Lind	512/225-2400
Roger L. Duck, Inc	Roger Duck	512/459-1488
L.S. Johnston Architects	Richard Hardison	512/478-4952
Dick Clark Architecture	Dick Clark	512/472-4980

City of Austin Announces WaterWise Landscape and Soil Rebate Program

The City of Austin Water Conservation Program is launching a new rebate program. The rebate will be offered to homebuilders for providing newly-constructed homes with amounts of landscaping, trees, shrubs, and soil depth well beyond the usual. Volume builders, "owner-built" new homes, or custom builders will be eligible for rebates for the additional landscaping and additional soil.

Green Building Program member, Newmark Homes, is one of the first local homebuilders participating in the rebate. The rebate amount is up to \$1000 per home-up to \$600 for additional soil, which must be composed of 25% compost, and up to \$400 for approved trees and shrubs. By encouraging builders to reduce turf areas and plant more trees and shrubs, in deeper soil, the City hopes to reduce summertime water use.

Richard Morgan, Manager of the Green Building Program for the City notes, "This new initiative from the Water Conservation Program is a natural next step for Green Builders in Austin. Not only will this effort reduce water consumption, but reducing water consumption will also reduce the

energy needed to pump that water. The Green Building Program encourages its members and all builders to take advantage of this offer and to help make Austin a more livable city."

For more information, call the Water Conservation at (512) 974-2199.