



Scottsdale's Progress in Integrating Green Building into the Building Regulatory Process

by Anthony Floyd, AIA

In 1998, the City of Scottsdale, Arizona, established a voluntary Green Building Program to encourage environmentally responsible home building in the context of the Sonoran Desert. Incentives include pre-review project qualification, expedited plan review, jobsite signage and architect/builder participation listing on the city's web site.

By the fall of 2002, Scottsdale began reviewing and inspecting projects for conformance to the city's Green Building Program criteria. In the fall of 2003, Scottsdale adopted the 2003 *International Building Code*[®] (IBC[®]), *International Residential Code*[®] and *International Energy Conservation Code*[®] with amendments to create consistency with its green building energy provisions. Since then, what was once only a part of the green building criteria has become required for all projects.

Following are some of the continuing challenges Scottsdale faces with the integration of green building into the city's building regulatory process.

Staff Green Building Specialist

The intended effects of any prescriptive approach can be compromised if careful consideration is not given to the whole: one component can either positively or negatively affect another. Prescriptive energy codes, for example, provide an easy method to account for the pieces but do a poor job in accounting for the integrated performance of the whole. Performance-based standards are a superior approach but require more thorough analysis on the parts of both designers and building department staff (fortunately, an increasing number of software tools are becoming available to simplify this task). In addition, maintaining a proactive attitude toward the acceptance of alternative building materials and methods requires a thorough understanding of the intents of the building code and green building guidelines in order to minimize conflicts. As such, having a green building and/or energy specialist on staff would be of significant value to the city.

Inspections

Green building and energy code training is a continual process and should be done more regularly as part of the inspectors' weekly meetings. In addition, we have found that having at least one inspector with prior green building knowledge and experience contributes to the education of the others as a result of their daily interactions. In terms of testing and submittals (i.e., energy performance, recycled content, volatile organic compounds), a qualified third-party inspector or special inspection certification will be considered as an alternative to city inspection.

Scottsdale's green building inspections have been integrated into its existing inspection request process—builders must call designated inspection request numbers for their green building inspections. There are currently 14 categories of green building inspections along with 26 mandatory items (prerequisites). Besides the mandatory items, the total number of required green building inspections depends on the rating level approved during plan review. We will continue to refine this process by looking to reduce the number of designated green building inspections.

National Versus Local Standards

A locally derived green building rating checklist is sensitive to regional environmental conditions and related issues, but keeping such checklists relevant, accurate and up-to-date requires significant time and professional resources. Along with being able to draw from a much larger pool of expertise, research and experience, a green building rating checklist developed and maintained by a national body facilitates consistency, measurability and compatibility, but is not always in tune with regional environmental conditions.

With the recent release of the National Association of Home Builders *Green Home Building Guidelines*, the development by the U.S. Green Building Council (USGBC) of a LEED for Homes rating system and other national efforts, there will soon be a much greater range

of options for local jurisdictions to evaluate with respect to residential construction. Scottsdale's program will continue to grow, learn and adapt to both local conditions and evolving national green building models and standards. Our residential green building checklist is currently in the process of being reviewed and updated by the Scottsdale Green Building Advisory Committee, which serves under the City Council-appointed Environmental Quality Advisory Board.

Adoption of Green Building Standard for City Facilities

On March 22, the Scottsdale City Council passed a resolution requiring all new, occupied (as defined by the IBC) city buildings to be designed, contracted and built to achieve the LEED Gold certification. This action makes Scottsdale the first city in the nation to adopt a LEED Gold policy and will serve as a model for the regional development community. There will be an emphasis on water efficiency and renewable energy in response to the context of Scottsdale's Sonoran Desert environment. USGBC will serve as the certification agency with support material provided by the project design professionals and third-party inspectors.

The new Scottsdale Senior Center will be the city's first LEED Gold project, with at least three more projects

coming on-line over the next year. The greatest challenges foreseen will be coordination and collaboration within the city capital project and facility operation/maintenance process. Training has begun and will continue in the years ahead. The ultimate goal is to institutionalize green building within the culture and operation of the city. ♦

Anthony Floyd, AIA, is a registered architect and LEED Accredited Professional, and currently serves as City of Scottsdale Green Building Program Manager in the capacity of Energy Code and Sustainable Building Specialist. In addition to overseeing Scottsdale's Green Building Program, he qualifies green residential projects and serves as coordinator for the design and construction of LEED Gold certified city facilities.

Floyd is a Past President of the Arizona Chapter of the International Conference of Building Officials and Past Chairman of the Maricopa Association of Governments Building Codes Committee. He holds a civil engineering and architecture degree from Penn State University and a master's degree in public administration from Arizona State University.

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