



THE INTERNATIONAL GREEN CONSTRUCTION CODE PROVIDES COLLEGES AND UNIVERSITIES A VIABLE OPTION FOR SUSTAINABLE CONSTRUCTION

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Higher education is one area where green construction practices are making a splash. In fact, [the Princeton Review's Guide to 322 Green Colleges: 2012 Edition](#) profiles higher education institutions in the United States and Canada that demonstrate notable commitments to sustainability in their academic offerings, campus infrastructure, activities and career preparation.

In 2009, the International Code Council (ICC) launched development of a model code to address green building design and performance. The *International Green Construction Code* (IgCC), subtitled "Safe and Sustainable: By the Book," was the outcome of this effort. The 2012 IgCC, published in March, is now available for adoption and use by jurisdictions internationally, though there have been early adopters for some of its previous Public Versions. The IgCC is also a perfect fit for colleges and universities that have established goals for energy efficiency, conservation and environmental sustainability for their new building projects and facility renovations, as well as for the operation and maintenance of, and alterations and additions to, existing buildings.

The Code Council has a long and successful record of creating model codes that ensure the safety and general welfare of a building's owner and occupants. For more than 30 years, the ICC has consistently and increasingly introduced green building standards into its codes. Along with water conservation measures in the *International Plumbing Code*® (IPC) and air quality measures in the *International Mechanical Code*® (IMC). Dating back to 1977, the first-ever energy conservation code, dubbed the *Code for Energy Conservation in New Building Construction*, served as a roadmap for future green model codes. Over several adaptations,

this document was called the *Model Code for Energy Conservation* and later the *Model Energy Code*. Finally, in 1998 the model code was reintroduced by ICC as the *International Energy Conservation Code* (IECC), a code that exists to this day and is a cornerstone of sustainable building practice. The IECC sets the baseline for energy conservation measures while the IgCC builds upon the IECC for higher performing buildings.

The IgCC is the first model code that takes a broad approach to a building's construction and operations with regard to sustainability. This approach builds upon existing measures such as water and energy conservation and incorporates other provisions such as use of recycled material that reduce the negative impact of buildings on the environment. As a code, the IgCC establishes a foundation of green building measures that offers a clear and uniform path to sustainability in the built environment.

The IgCC addresses the key elements of green construction design that affect the building and the site. These include items such as storm water management, heat island mitigation, recycling of construction material, moisture control, water conservation, graywater and reclaimed water systems, pollutant control measures, energy conservation and building commissioning.

The IgCC is a model code; not a rating system. Because the IgCC is written as enforceable code language, qualified building and fire officials can perform the essential plan review, inspection and building commissioning for the IgCC requirements while ensuring the safety requirements found in the other I-Codes. However, an important element of the IgCC is its flexibility. The code creates minimum standards for adoption, but also provides a set of jurisdictional electives and project elec-

tives that can be incorporated into a local ordinance for jurisdictions that want to go beyond the established minimum. These baseline requirements and electives are also applicable to building design goals established by college and universities for their construction programs. Many communities have sustainability initiatives relating to their local needs and desires that can vary significantly from others. The flexibility of the IgCC provides the necessary tools to meet these varying goals. The Code Council also supports the use of green rating systems and standards, including but not limited to, the Green Building Initiative (GBI) and U.S. Green Building Council (USGBC) programs that push the sustainable provisions beyond the IgCC threshold.

Another key measure was the coordination of the IgCC with the other International Family of Codes (I-Codes). During its development, every effort was taken to ensure that the IgCC was well coordinated with the architectural and safety measures published in the other International Codes (I-Codes). The IgCC is intended to act as an overlay to the I-Codes and not reduce the health and safety provisions that have historically been at the center of ICC's code development process. Section 101.5 states in relevant part that the IgCC is "*not intended to abridge or supersede safety, health, or environmental requirements under other applicable codes or ordinances.*" With many colleges and universities currently utilizing the I-Codes for the design of their buildings, the IgCC provides a seamless fit as a correlated overlay code to reach sustainability goals and initiatives.

Thus, the IgCC is designed with the intent to avoid potential conflicts with green construction practices that may be of concern to the fire service and campus fire officials such as vegetated roofs, photo voltaic installations, cluster development, safety rating of sustainable construction materials, and firefighter access. While the IgCC doesn't specifically address many of these items, it does not conflict with the requirements of other codes, allowing most green practices to be effectively used to meet the objectives of the code. The safety concerns for both firefighters and building occupants remain in the IBC and IFC and that establishes the minimum safety requirements with the IgCC sustainability provisions working as an overlay code.

The 2012 IgCC applies to all buildings and occupancies,

except that it is applicable to the following residential buildings and occupancies (through reference to the ICC 700 National Green Building Standard) only where the jurisdiction or adopting authorities such as college and universities specifically indicates so: one- and two-family dwellings and townhouses that are within the scope of the *International Residential Code*® (IRC); Group R-3 occupancies; Group R-2 and R-4 residential occupancies that are three stories or less in height; and temporary structures approved under Section 3103 of the *International Building Code*® (IBC). The IgCC also references ASHRAE 189.1 (Standard for the Design of High-Performance Green Buildings) as an alternate compliance path for owners. The ASHRAE 189.1 standard is reproduced in full as the second half of the IgCC book.

The Code Council recognizes that many of the items within the IgCC are new to the enforcement and building design communities and is coordinating and developing tools to assist in the enforcement and implementation of the code. These tools include guidelines on building commissioning, compliance forms, templates, a commentary, and other publications that can be used as part of the implementation and enforcement process. Additionally ICC is:

- educating and training its Membership on the IgCC, the IECC and the various programs available for achieving an environmentally responsible building;
- providing the latest available information to our Members so they can make informed decisions;
- reinforcing the understanding that safety and sustainability are both achievable and not mutually exclusive; and
- promoting the understanding that the *I-Codes* and the ICC safety system facilitate the application of sustainable building policy.

As part of the support infrastructure, ICC Evaluation Service (ICC-ES) and the International Accreditation Service (IAS) are responding to the increased demand for the evaluation of "green" building products and services with programs that benefit manufacturers, code officials and the design community.

The ICC-ES Environmental Program provides manufac-