



Driving Innovation in Housing Technology

May 18, 2012

City Clerk
 City of Rockville
 30 Courthouse Square
 Suite 100
 Rockville, Maryland 20850

RE: 2012 Proposed Chapter 5, Buildings and Building Regulations Amendment

Dear Rockville City Clerk:

On behalf of the NAHB Research Center, I write to request written confirmation that compliance with the National Green Building Standard ICC 700 ("Standard") is considered an alternative compliance path for all residential buildings, including multifamily buildings of all sizes. While the National Green Building Standard was not specifically listed in **Sec. 5-311. Administration**, it seems that the City of Rockville deems it equivalent in **Sec. 5-316. Definitions**.

Further, the Research Center requests that the National Green Building Standard be explicitly listed in **Sec. 5-311. Administration** in conjunction with the LEED rating system to avoid confusion and misinterpretation. We believe that the Building Regulations Amendment would be unambiguous if this clarification was added. Listing the Standard as an equivalent only in the Definitions Section may lead to two unfortunate circumstances. First, builders or developers may not realize that the City of Rockville has deemed the Standard as an equivalent green rating system. Second, it gives the perception that the Standard is a "lesser" alternative than LEED. In fact, the Standard is more rigorous as to its requirements for green building practices in every category of green building practices. Moreover, as the only ANSI-approved green building rating system for all residential development, it is uniquely suited to produce high-performance, green residential buildings in a credible and cost-effective manner. Below is further support to support our request.

Overview of National Green Building Standard

The National Green Building Standard is the first and only residential green building rating system to undergo the full consensus process and receive approval from the American National Standards Institute (ANSI). ANSI-accreditation of any standard is important because it ensures balance, representation, openness, consensus, and due process in the standard's development process. The Consensus Committee that developed the National Green Building Standard was comprised of 42 individuals representing a variety of government agencies, municipalities, home building industry stakeholders, and non-profit organizations. For example, representatives from the U.S. Department of Energy and the U.S. Environmental Protection Agency were among the federal agencies represented. The U.S. Green Building Council was represented; and ten state or local municipalities participated. Three members were builders. Diverse representation of stakeholders serves to ensure that the Standard is both practicable, achievable, and yet will achieve the performance desired. Over 2,000 public comments were considered as part of the Standard's development process.

The Standard was intended to be a voluntary, above code green program. For a home or multifamily building to be certified, the building must contain all mandatory practices in the Standard. The home or multifamily building must also contain enough practices from each of the six categories of green building practices to meet the required threshold points (see page 12 in the Standard). The six categories of green practices are:

- Lot & Site Development
- Resource Efficiency
- Energy Efficiency
- Water Efficiency
- Indoor Environmental Quality
- Homeowner Education

Under the Standard, homes and multifamily buildings can attain one of four potential certification levels: Bronze, Silver, Gold, and Emerald. The Standard stands alone among green building rating systems in that it was specifically designed so that no one category of green practices was weighted as more important than another. One of the Standard's requirements that sets it apart from every other green building rating system is the rigorous requirement that all projects must achieve a minimum point threshold in every category of green building practice to be certified. A project can't merely obtain all or most of their points in a few categories. This requirement makes the Standard the most rigorous green building rating systems available at this time.

The Standard has few mandatory provisions, although all of them must be met for certification at any level, but instead is an expansive point-based system that requires a project to include many green practices. Builders and developers get to "customize" their projects by the practices they select to earn the points necessary for the "Additional Points" category. This provides flexibility for builders and developers to customize their green projects to best meet their geographic location, their climatic region, their cost constraints, and the type of project they are constructing.

As an ANSI-approved standard, the National Green Building Standard is subject to regular reviews and periods of public comment. Development of the next version (2012) of the National Green Building Standard is now officially underway. The Research Center will again act as the secretariat, or administrator, of the standard development process. Once completed, the updated standard will again be submitted to ANSI for approval. Information about the revision process can be found here: <http://www.nahbrc.com/technical/standards/ngbs2012.aspx>

Certification Program

The NAHB Research Center serves as Adopting Entity and provides certification services to the Standard. The Research Center is a 47-year-old internationally-recognized, accredited product testing and certification laboratory located in Upper Marlboro, Maryland. We are an independent subsidiary of the National Association of Home Builders; however, we are completely separate from NAHB. Our accreditations as a third-party lab are demonstrable proof of our work being independent of outside influence and NAHB has no operational control over our business. We have an independent and separate Board of Directors that oversees our management. Our mission is to improve the affordability, performance, and durability of housing. Our core competency is as an independent, third-party product testing and certification lab. Thus we are uniquely suited to administering a green certification program for residential buildings.

Two Mandatory Inspections

To be certified to the Standard, every green project is subject to two independent, third-party verifications. There is no self-certification in this program. Builders must hire an independent,

Accredited Verifier who is responsible for visual inspection of every green building practice in the home or dwelling unit. The Verifier must perform a rough-inspection before the drywall is installed so that he can observe the wall cavities and a final inspection once the project is complete. The required verification provides a level of rigor and quality assurance to the program and to the projects that are certified.

The NAHB Research Center qualifies, trains, and accredits building professionals to provide independent verification services for builders. Verifiers must first demonstrate that they possess experience in residential construction and green building before they are qualified to take the Verifier training. Many verifiers are HERS raters and/or LEED raters. Potential Verifiers must complete thorough training on exactly how to verify every practice in the National Green Building Standard before they can award the project any points. After the training is completed, Verifiers must pass a written exam and demonstrate that they carry sufficient liability insurance before the Research Center will accredit them. Verifiers must have their accreditation renewed yearly. They serve as our in-field staff to verify buildings are built in compliance with the Standard.

The Research Center reviews every rough and final inspection to ensure national consistency and accuracy in the verification reports. Further, we regularly audit our verifiers and the verifications that they perform as part of our quality assurance program.

Credibility and Rigor

Several studies have been completed to demonstrate the affordability and/or rigor of the Standard. [Green Home Building Rating Systems - A Sample Comparison](#) evaluates the costs and technical requirements of bringing two sample code-compliant production houses in different climate zones into compliance at one point in time with the National Green Building Standard and LEED for Homes. AIA Cincinnati published a [report comparing LEED for Homes and the National Green Building Standard](#) that found the programs to be essentially equivalent in rigor, but the Standard to be more affordable and easier to use. The Home Builders Association of Greater Chicago released an independently prepared [report](#) evaluating the additional costs of elevating three sample code-compliant, urban, residential building types in the City of Chicago into compliance with Chicago Green Homes Program (CGH), the National Green Building Standard (NGBS), and LEED for Homes (LEED-H). Last, the topic of energy efficiency equivalency often arises in discussions about green rating systems. While there are many elements of performance in green rating systems, [Multifamily Energy Performance Comparison](#) focuses on energy performance of multifamily new construction built to the National Green Building Standard ICC 700 and the LEED 2009 for New Construction and Major Renovation Rating System (LEED-NC). As you can see, at the Certified and Bronze certification levels, the energy efficiency requirements are equivalent. However, at the higher levels, the Standard is more rigorous than LEED NC with regard to energy efficiency.

Legislative and Regulatory Parity with LEED

The Standard was developed after the LEED rating systems; therefore, LEED is more commonly recognized in legislative and regulatory initiatives. However, since 2009 when ANSI approved the Standard we have found that without exception the Standard has been considered as on par or more stringent than to LEED as a green building rating system for residential projects. In New York State, for example, NYSERDA provides financial incentives for residential buildings certified to the Silver level of the Standard or the Silver level of LEED. Delaware State also provided financial incentives (the program

just ran out of money but we hope that it will be refunded) for homes built to either the Silver level of LEED or the Standard.

Within our region, the Standard has been recognized as on par with LEED by Howard, Ann Arundel, Charles, and Baltimore Counties. In Virginia, the City of Alexandria recognizes the Standard as well for its green building program. To date, not a single jurisdiction has refused to recognize the Standard as an alternative compliance path for any regulatory or incentive program where we have asked them to make an equivalency decision.

Here is a more complete listing where the Standard has been recognized:

<http://www.nahbgreen.org/Certification/IncentivesSummary.aspx>

Program Statistics to Date

The Research Center has certified approximately 4,184 projects to date including 229 multifamily buildings representing 5,226 dwelling units. Over the past year, multifamily buildings have represented the fastest growing segment of our certification program. I believe that this indicates that we have been successful in designing a green certification program that is affordable and flexible, while remaining rigorous. We have also green certified approximately 17 land development projects.

Summary

The goal of the Standard and the certification program is to recognize projects who reach exceptional levels of sustainable design. We have worked hard to develop a program that removes as many barriers as possible to high performance green buildings, such as ensuring fees are as low as possible, reducing time for interpretations and project review, significantly reducing the costs to incorporate green practices, without eliminating any of the rigor or verification necessary to ensure compliance.

I am happy to meet with staff should you require a more detailed overview of the program. I am also more than happy to send you any supplemental information that you might require that we have not provided to date. Please don't hesitate to contact Michelle Desiderio, Director, Green Building Programs directly at 301.430.6205 or mdesiderio@nahbrc.com with questions about the Standard or the program.

I look forward to working with the City of Rockville to promote green certified homes and apartments built to the National Green Building Standard.

Best,



Michael Luzier
President

cc: Robert Purkey, rpurkey@rockvillemd.gov, Inspection Services Division