



Smart Growth

Green Building Standards

American communities have more options than ever for encouraging greener building and development. Many organizations have developed model codes or rating systems that communities can use to develop green building programs or revise building ordinances. Learn about some of the major options, which are listed below. You can view a side-by-side comparison by selecting the checkboxes of options that interest you, then clicking the *Compare* button below the table.

Standard	Standard Type ¹	Mandatory/ Voluntary ²	Building Type(s)	Project Type	Subject Areas	Compare
<p>International Code Council's 2012 International Green Construction Code (IgCC)</p> <p>A model code that contains minimum requirements for increasing the environmental and health performance of buildings sites and structures. Generally, it applies to the design and construction of all types of buildings except single- and two-family residential structures, multi-family structures with three or fewer stories, and temporary structures.</p> <p>More information about 2012 IgCC</p>	<ul style="list-style-type: none"> • Model code 	<ul style="list-style-type: none"> • Mandatory 	<ul style="list-style-type: none"> • Commercial: all • Industrial: all but manufacturing systems and equipment • Mixed use: all • Residential: multi-family with more than 3 stories 	<ul style="list-style-type: none"> • New construction • Additions • Alterations 	<ul style="list-style-type: none"> • Sustainable sites • Energy efficiency • Water efficiency • Materials and resource use • Indoor environmental quality • Emissions • Operations and maintenance 	<input checked="" type="checkbox"/> Compare IgCC with other standards
<p>ANSI/ASHRAE/USGBC/IES Standard 189.1-2011: Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (ASHRAE 189.1)</p> <p>A model code that contains minimum requirements for increasing the environmental and health performance of buildings sites and structures. Generally, it applies to the design and construction of all types of buildings except single-family homes, multi-family homes with 3 or fewer stories, and modular and mobile homes.</p> <p>More information about ASHRAE 189.1</p>	<ul style="list-style-type: none"> • Model code 	<ul style="list-style-type: none"> • Mandatory 	<ul style="list-style-type: none"> • Commercial: all • Industrial: all • Mixed use: all • Residential: multi-family with more than 3 stories 	<ul style="list-style-type: none"> • New construction • Additions 	<ul style="list-style-type: none"> • Sustainable sites • Energy efficiency • Water efficiency • Materials and resource use • Indoor environmental quality • Construction and operations plans 	<input checked="" type="checkbox"/> Compare ASH with other standards

Standard	Standard Type ¹	Mandatory/ Voluntary ²	Building Type(s)	Project Type	Subject Areas	Compare
<p>ICC 700-2012: 2012 National Green Building Standard (ICC 700)</p> <p>A rating and certification system that aims to encourage increased environmental and health performance in residences and residential portions of buildings. Its criteria apply to the design and construction of homes and subdivisions.</p> <p>More information about ICC 700</p>	<ul style="list-style-type: none"> • Rating and certification system 	<ul style="list-style-type: none"> • Voluntary 	<ul style="list-style-type: none"> • Mixed use: residential space • Residential: all except institutional uses 	<ul style="list-style-type: none"> • New construction • Additions • Alterations 	<ul style="list-style-type: none"> • Sustainable sites • Energy efficiency • Water efficiency • Materials and resource use • Indoor environmental quality • Operations and maintenance • Building owner education 	<input checked="" type="checkbox"/> Compare NGBS with other standards
<p>Green Globes™</p> <p>A series of rating and certification systems that encourage improved environmental and health performance for all types of buildings except residential structures. Green Globes™ is administered in the U.S. by the Green Building Initiative.</p> <p>More information about Green Globes</p>	<ul style="list-style-type: none"> • Rating and certification system 	<ul style="list-style-type: none"> • Voluntary 	<ul style="list-style-type: none"> • Commercial: all • Mixed use: all • Residential: multi-family 	<ul style="list-style-type: none"> • New construction • Additions • Alterations • Existing buildings 	<ul style="list-style-type: none"> • Sustainable sites • Energy efficiency • Water efficiency • Materials and resource use • Indoor environmental quality • Emissions • Project/environmental management 	<input checked="" type="checkbox"/> Compare GBI with other standards
<p>US Green Building Council's Leadership in Energy and Environmental Design (LEED®)</p> <p>A series of rating systems aimed at increasing the environmental and health performance of buildings sites and structures and of neighborhoods. LEED® covers the design, construction, and operation of all types of buildings.</p> <p>More information about LEED</p>	<ul style="list-style-type: none"> • Rating and certification system 	<ul style="list-style-type: none"> • Voluntary 	<ul style="list-style-type: none"> • Commercial: all • Industrial: all • Mixed use: all • Residential: all 	<ul style="list-style-type: none"> • New construction • Existing buildings • Additions 	<ul style="list-style-type: none"> • Sustainable sites • Energy efficiency • Water efficiency • Materials and resource use • Indoor environmental quality • Emissions • Operations and maintenance 	<input checked="" type="checkbox"/> Compare LEED with other standards
<p>The International Living Future Institute's Living Building Challenge™, version 2.1 (May 2012)</p> <p>A certification system that advocates for transformation in the design, construction, and operation of buildings. In addition to encouraging improved environmental and health performance, it supports building structures that are restorative, regenerative, and an integral component of the local ecology and culture.</p> <p>More information about the Living Building Challenge</p>	<ul style="list-style-type: none"> • Certification system 	<ul style="list-style-type: none"> • Voluntary 	<ul style="list-style-type: none"> • Commercial: all • Industrial: all • Mixed use: all • Residential: all 	<ul style="list-style-type: none"> • All 	<ul style="list-style-type: none"> • Sustainable sites • Energy efficiency • Water efficiency • Materials and resource use • Indoor environmental quality • Equity • Aesthetics 	<input checked="" type="checkbox"/> Compare ILFI with other standards

[Compare](#)

¹ *In the building community, there is no consistent use or definition of the term "standard." EPA uses the term "standard" here in a broad sense to mean "something established by authority, custom, or general consent as a model or example: CRITERION" (Merriam-Webster). EPA uses it as an umbrella term to encompass model codes, rating systems, and other publications that provide criteria for the design, construction, and maintenance of buildings.*

² *Any standard can be adopted as a voluntary or mandatory program. We indicate here the intent of the authors.*

Last updated on March 15, 2016