



**DisasterSmart**  
LEADERSHIP FOR A RESILIENT FUTURE

## **Building Code FAQs**

### **What are building codes?**

Simply put, building codes are minimum requirements for the construction of buildings. They regulate the design, construction, alteration, and maintenance of structures to safeguard the health, safety, and welfare of building occupants. Building codes are an essential safety measure for communities. Imagine if we built buildings without any minimum requirements! Unfortunately, in places across the U.S., this is what is happening.

Building codes have been in use in the U.S. for more than 100 years when major cities began to adopt and enforce building codes in response to large fires in densely populated urban areas. While early building codes were in place to reduce fire risk, today's building codes are the minimum acceptable standards to protect the health, safety, and general welfare of building occupants.

Building codes are “prescriptive” or “performance” based. Performance-based codes provide a technical objective which leaves the method of achieving the objective up to the architect/engineer and builder. Prescriptive codes specify the method for designers and builders to achieve the objective. Some model codes, like the International Residential Code (IRC) developed by the [International Code Council](#) (ICC), have both prescriptive and performance-based provisions, although the IRC is a prescriptive-oriented code.

### **What is the process and timeframe for developing model building codes?**

There are several available model building codes, and among these are the codes and standards developed by the [National Fire Protection Association](#) (NFPA), as well as the I-Codes, developed by the ICC through a governmental consensus process. The ICC revises the I-Codes every 18 months and publishes new editions every three years. Most United States jurisdictions that adopt building codes adopt at least some of the I-Codes, sometimes with amendments. For more information about jurisdictions that have adopted the I-Codes, see the ICC's [website](#).

Model building codes developed by the ICC establish minimum regulations for construction. They are a starting point—not a guarantee that a structure is impervious from natural disaster. Modern, model building codes reflect the best available minimum building materials and practices; nonetheless, communities should consider certain building materials and practices beyond these minimum standards for optimal resiliency.

### **Why are building codes important?**

Modern building codes that are consistently enforced by well-trained professionals are important steps to becoming a disaster-resilient community. Modern building codes protect the public health and safety. Structures built to modern building codes will have the advantage of better wall bracing, improved roof tie-downs, and overall stronger connections. For example, wind-

resistant building practices like those included in the 2012 IRC can dramatically improve building performance during hurricanes and tropical storms.

Moreover, according to the National Institute of Building Sciences, for every \$1 spent to make buildings stronger, the American taxpayer saves \$4 in federal disaster assistance. The increased burden from weak building codes or lax enforcement falls on taxpayers through property losses, higher insurance premiums, and lost economic opportunities.

### **Who is responsible for adopting and enforcing building codes?**

It is the responsibility of state and local jurisdictions to adopt and enforce building codes. Many communities are at risk of severe damage from floods, hurricanes, tornados, wildfires, and other disasters. Adoption and effective enforcement of building codes creates a crucial line of defense against severe weather events.

### **Does it cost more to build to modern building codes?**

The most cost-effective and efficient means of strengthening buildings is at the time of new construction. Modern building codes ensure that new construction takes advantage of continuous innovation in building design, products, methods, and technologies. Often, there is only a marginal increase in costs to build better. Communities that adopt modern codes also compete more effectively for large employers who bring jobs, economic vitality, and an overall stronger business climate. One recent study, [\*Economic Effectiveness of Implementing a Statewide Building Code: The Case of Florida\*](#), found that the cost-benefit of the Florida Building Code is 4.8 dollars in losses prevented to every one dollar spent on new construction, with an approximate 10-year payback period for the investment in stronger codes.

### **What is BCEGS?**

Communities with modern codes that are well-enforced experience less damage and lower insured losses from severe weather events and rank better on the Building Code Effectiveness Grading Scale (BCEGS®). BCEGS, a program of the Insurance Services Office, Inc. (ISO), is a tool used to measure the effectiveness of a jurisdiction's building code enforcement. The BCEGS program assesses the adoption and enforcement of a community's building codes with a special emphasis on mitigation of losses from natural hazards. ISO collects information regarding the administration of building codes, building plan review, field inspections, and other underwriting data. This information is used to determine a "class" based on a 1 to 10 scale. The lower the class number is, the more favorable the rating. A BCEGS Class 99 rating may be assigned for several reasons: the properties were developed before the initial BCEGS evaluation, the jurisdiction does not meet the participation requirements of the BCEGS program, or the jurisdiction declines participation in the BCEGS program. ISO's [BCEGS website](#) contains more program details.

Communities benefit from a favorable BCEGS classification. For example, a favorable BCEGS classification may positively impact jurisdictions in one or more of the following ways:

- Result in better homeowners and commercial insurance rates
- Allow the community to apply for a better class rating in the Community Rating System (CRS), which may, in turn, result in lower insurance premiums
- Reflect and further incentivize better building practices that strengthen a community's resilience against disasters

### **Why is building code enforcement essential?**

Adoption and effective enforcement of building codes creates the first line of defense for a community against severe weather events. Residents deserve strong, safe, and resilient homes for the protection of their families and financial security.

State and local jurisdictions have the opportunity—and in some cases, the obligation—to adopt updated building codes and enforce them. However, the adoption of modern building codes is only half of the equation. A jurisdiction's adoption of a building code can be rendered meaningless without effective enforcement. Furthermore, professional and ongoing training and certification of building officials are essential to effective enforcement.

### **How can I support adoption of model building codes and standards in my community?**

Contact your local building or permitting office to learn how to support adoption of modern building codes and standards in your community.

## **Disaster Mitigation Incentives FAQs**

### **What types of policy options exist for federal leaders to drive resilience?**

Existing and proposed legislation and federal policies give federal leaders many opportunities to incentivize disaster mitigation across the public and private sector. A National Institute of Building Sciences publication, [Developing Pre-Disaster Resilience Based on Public and Private Incentivization](#), comprehensively addresses stakeholder incentivization for decision makers, especially at the federal level. The publication states,

*The most cost-effective manner to achieve resilience is through a holistic and integrated set of public, private, and hybrid programs based on capturing opportunities available through mortgages and loans; insurance; finance; tax incentives and credits; grants; regulations; and enhanced building codes and their application.*

Recent proposed federal legislation has focused on incentivizing resilience through enhanced pre-disaster dollars and post-disaster relief for communities with modern building codes in place as well as beneficial tax policies to promote individual disaster mitigation activity and home retrofitting.

### **What types of policy options exist for state leaders to drive resilience?**

Examples include:

- Property insurance credits and/or discounts for dwellings with resilient construction features, including Alabama, [California](#), [Florida](#), [Louisiana](#), [Maryland](#), [Mississippi](#), [New York](#), South Carolina, and [Texas](#)
- Grants and loans to retrofit older homes built to pre-code construction standards, including [South Carolina Safe Home Program](#) (and former My Safe Florida Home Program); [California Residential Mitigation Program](#); and [Mississippi](#)
- Community grants for building departments to underwrite training, enforcement, and overall operation
- Consumer protection through information dissemination
- Tax incentives/disincentives, including property tax appraisal policies exempting mitigation-related retrofits and improvements and emergency preparation sales tax holidays (e.g., [Florida](#), [Texas](#))

- Disaster-resilient building code appendices, for example, the state of Georgia’s [disaster-resilient building code appendices](#) to the Georgia-adopted versions of the IBC and IRC

**What types of policy options exist for local leaders to drive resilience?**

Local governments bear the majority of human and societal costs from natural disasters, and they also often have authority to drive disaster resilience through policymaking, including building codes and standards, land use planning, and zoning. A strong building code system is one of, if not the single most important thing a community can have in place to lessen the impacts of natural disasters.

For a comprehensive review of methods to develop pre-disaster resilience from public and private incentivization, see the National Institute of Building Sciences’ [Developing Pre-Disaster Resilience Based on Public and Private Incentivization](#). One innovative approach by a local jurisdiction was the action taken by [Moore, Oklahoma](#) to enhance its building code post-disaster.

**Sources:**

2015 International Residential Code for One- and Two- Family Dwellings® (International Code Council, Inc., 2014).

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National Institute of Building Science. [Developing Pre-Disaster Resilience Based on Public and Private Incentivization](#). Oct. 29, 2015.