BUILDING CODES TOOLKIT

Building Codes Fact Sheet

Although you have little control over the occurrence of hazards in your community, mitigation efforts such as building code adoption and enforcement is one of the strongest strategies jurisdictions can take to protect a community against the effects of natural hazards. Mitigation increases occupant health and safety during a disaster, protects the local tax base, ensures continuity of essential services, and supports more rapid recovery from disasters.

Photo Source Jeff Markham/FEMA.

The Justine Plantation goes undamaged after Hurricane Katrina because of owner's adherence to Mandeville, Louisiana's building codes requiring that a house sit above the Base Flood Elevation.

What are Building Codes?

Building regulation in the United States began in the late 1800s when major cities began to adopt and enforce building codes in response to large fires in densely populated urban areas. The primary intent of early building codes was to reduce the fire risk, but over time, their scope has broadened. Today, building codes are sets of regulations that address structural integrity, fire resistance, safe exits, lighting, ventilation, and construction materials. They specify the minimum requirements to safeguard the health, safety, and general welfare of building occupants.

The *International Code Council (ICC) (www.iccsafe.org)* family of codes covers all aspects of construction and includes (but is not limited to):

1. International Building Code (IBC): Applies to new and existing buildings, except those residential buildings covered under the International Residential code.
2. International Residential Code (IRC): Applies to new and existing one- and two-family dwellings and townhouses of not more than three stories in height.
3. International Property Maintenance Code (IPMC): Applies to all existing buildings and addresses maintenance issues for continued safe use of buildings.
4. International Existing Building Code (IEBC): Applies to the alteration, repair, addition, or change in occupancy of existing structures.

To purchase these and all other ICC products, please visit www.iccsafe.org.

The *International Code Council (ICC) (www.iccsafe.org)* publishes updated codes every three years. In partnership with the ICC, FEMA supports the development of building codes by continuously monitoring, strengthening, and championing disaster-resistant provisions of national building codes and standards. Over the past 30 years, FEMA has worked with national building codes and standards groups as well as engineering and construction industry groups to propose and gain adoption of numerous disaster-resistant provisions for earthquake, wind, and flood hazards in the Nation's model building codes and standards. FEMA also participates in various codes and standards committees to share lessons learned from previous disasters and lend insight to code-related studies.

The development and widespread adoption of building codes is beneficial in that it has created a uniform regulatory environment in which design professionals and contractors are held to a set of standards adopted by and applicable to the jurisdiction in which they work. More importantly, building codes provide you, your family, and your community protection in the event of a natural disaster.

Photo Source: Laura Seitz/FEMA

Only one wall remained standing at this nursing home in Joplin, MO.

Adoption and Enforcement

It is the responsibility of State and local jurisdictions to adopt and enforce building codes. Today, most U.S. communities formally adopt a building code and have a system in place for building regulation. However, some rural areas in America still have not adopted a building code – and in these areas – it is legal to design and construct structures using any standards deemed appropriate by the designers and builders.

Many communities, depending on their geographic location, are at significant risk of experiencing severe damage from earthquakes, hurricanes, floods, tornados, wildland fires and other natural events. Adoption and effective enforcement of up to date building codes is the best line of defense against such severe events. Owners and local communities can also take effective steps in protecting themselves by strengthening or building tornado safe rooms and storm shelters, and taking other effective steps to protect lives, property and community.

To determine the level of building code enforcement in your community, contact your local building official and request a customized report of building code enforcement from the Insurances Service Office (ISO). It is critical that property owners, planners, designers, contractors, elected officials, emergency managers, and other decision makers understand the building code and its value as well as support the adoption, use and enforcement of codes, incorporating codes into local resilience efforts and allowing builders to construct structures to higher standards are important steps to becoming more disaster-resilient.

Permitting Process

Having an understanding of local building code requirements is critical prior to executing any construction projects. Locally adopted building codes define the details necessary for permitting, inspection, and rebuilding techniques. Most remodeling projects and all new construction require one or more building permits before work can begin.

Building permits are generally required for any alteration that changes the structure, size, safety, or use of living space. They are usually not required for projects considered to be normal maintenance such as painting or wallpapering.

Visit your local building department before you start construction to find out the type of permits that are necessary for your project. Ask if inspections are necessary and at what stage of construction. Once the work begins, an inspector should visit the site to be sure that the project is code compliant. If a building permit is not obtained for a project that requires one, the property owner may be subject to legal action. If the project is completed without a building permit and does not meet building code standards, the building department may require that additional work be done at the owner's expense. After construction is completed, any additional work to bring a building up to code will in most cases be much more expensive than if the building was originally designed and built code compliant. Designing and building to the code not only help save lives and property; in many cases it can save time, money and potential legal action.

Tools Available

Introduction to Building Codes (PowerPoint Presentation)
Building Codes Toolkit: Glossary
Basic Project Planning Template
Checklist of Questions to Ask Your General Contractor
Basic Checklist to Acquire a Building Permit
Building Codes Toolkit: Frequently Asked Questions
Building Codes Toolkit: Instructional and Testimonial Videos
Building Codes Toolkit: Other Useful Resources

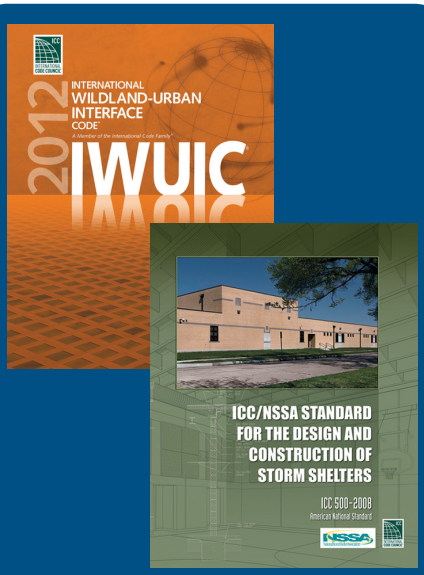
Photo Source Springfield news-Leader.

A Tornado Safe Room was not required by local building code but Tom Cook of Joplin, MO built one anyway. It probably saved his and his daughter's life. Click here to see Safe Room Testimonial Video - Tom Cook in the FEMA.gov Video Library.

Did You Know?

The regulation of building construction is not a recent phenomenon. It can be traced through recorded history for more than 4,000 years. Through time, people have become increasingly aware of ways to avoid the catastrophic consequences of building-construction failures.

[Excerpted from ICCsafe.org "Building Codes-How They Can Help You"]



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