



HOMEOWNER TIP

Never make assumptions about building codes related to your home. Always be sure your source of information is credible. When in doubt, contact your local code enforcement officer (CEO) or visit your local municipal Web site, where you will usually find plenty of accurate information about the building codes applicable to your home.

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BUILDING CODES – MYTHS AND REALITIES

What is a building code? Is it a law? Or a guideline? Or a voluntary standard?

What do building codes mean to my home?

Perhaps you will find it useful to review how building codes affect your home, both the theory and the reality.

First, what are they? Most municipalities have building codes and zoning ordinances to regulate construction within that community. Building codes regulate the actual construction and renovation of buildings, whereas zoning ordinances regulate what can be built where and how a building can be used. Both are, essentially, legal obligations, and significant violations will result in punishment as defined by the ordinances of that community.

The following is the stated purpose of the 2003 edition of the International Residential Code (IRC):

The purpose of this code is to provide minimum requirements to safeguard the public safety, health and general welfare, through affordability, structural strength, means of egress facilities, stability, sanitation, light and ventilation, energy conservation and safety to life and property from fire and other hazards attributed to the built environment.

Until just a few years ago, there were three major building codes in the U.S. that affected residential construction:

1. Uniform Building Code (UBC) – common in most western and midwestern states
2. Standard Building Code (SBC) – common in the southeastern states and administered by the Southern Building Code Congress International

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EIGHT MYTHS ABOUT CODES...

Myth #1 – It doesn't meet code. That is a broad, sweeping statement that is often inaccurate, since the subject in question may not even be required to meet code. See Myth #2.

Myth #2 – All homes must comply with current building codes. In fact, a home need only comply with the building codes that were applicable when the home was built or when substantial renovations were undertaken, not current codes. And there may not have been any codes when the house was built.

A good example is ground fault circuit interrupter (GFCI) devices. Many pre-purchase home inspectors like to say that the absence of such devices "does not meet code." While that may be true of a new house, it wasn't until the 1970s that these devices began to be required and not until the 1990s that the current standards fully evolved. A house built before 1970, without any major renovations and without GFCIs, does not violate code.

Myth #3 – Code compliance is mandatory and absolute. In fact, as reflected in the IRC reference above, the local code enforcement officer (CEO, or building inspector, etc.) has some flexibility in how he or she enforces the code.

Myth #4 – All homes must comply with a building code. In fact, many municipalities throughout the country have not adopted a building code.

Myth #5 – There is only one building code. In the last several years, the three major building codes, UBC, BOCA and SBC, have been consolidated into one code, the IBC, with its residential companion, the IRC. However, not all municipalities have adopted these codes. Furthermore, any new home must also comply with many other applicable codes.

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3. Building Officials Code Administration International (BOCA) – common in the northeastern states.

In Canada, there are:

- National Building Code of Canada (NBCC) – which has jurisdiction throughout Canada
- Provincial Building Codes, such as the Ontario Building Code (OBC) and the British Columbia Building Code (BCBC)
- Local metropolitan building codes such as the Vancouver Building By-Law (VBBL)

The Canadian Mortgage and Housing Corporation has prepared a comparison of U.S. and Canadian building codes, which can be found at: http://www.cmhc-schl.gc.ca/en/hoficlincl/cmhc/in/suexin/inre/inre_008.cfm.

A major effort to consolidate these codes resulted in the creation of the International Code Council (ICC), which then produced and published the International Building Code (IBC) and the IRC. The IRC applies to one- and two-family homes. It consists of 42 chapters, 12 appendices and numerous references to other codes. It is extensive and comprehensive and is becoming the prevailing building code for residential construction in both the U.S. and Canada.

In addition to the building code with its stated purpose (as above for the IRC), there are other codes that may apply to your home, depending on the municipality in which you live. Some of these are also covered by specific standards and/or referenced in the IRC. These other categories include:

- Local plumbing code requirements, especially for private wastewater systems
- Electrical codes such as the National Electric Code (NEC), as published by the National Fire Protection Agency (NFPA)
- Solid fuel (wood & coal) appliances
- Life safety codes such as published by NFPA

In total, in a mature, well-organized community, there are literally thousands of pages of codes that would apply to the construction of a single-family home.

Updates for each code are published regularly, usually on a 3- to 5-year cycle, depending on the code. Thus, it is a challenge not only to know all the codes but to update that knowledge on a regular basis. Codes change in response to tragedies, technological advances and industry/public pressures.

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Myth #6 – Building codes cover all aspects of construction. In fact, the primary building codes (IRC, NBCC, UBC, BOCA, etc.) cover only certain aspects of construction, mostly to do with life safety (smoke alarms, emergency egresses, stairs and stair railings, etc.), fire safety (sprinklers, fire walls, etc.) and structural soundness (adequate framing, foundations, etc.).

Myth #7 – Building code compliance ensures quality. In fact, building codes do not address many quality-related characteristics of construction. Proper window installation, roof installation, siding installation, deck construction, etc., to ensure quality construction and minimize water intrusion are not covered by most building codes. While these broad topics are examined and some guidelines established, the details specific to good workmanship and installation for a particular product are not covered. To do so would be impractical for such a document, considering the range of products available.

For example, while the IRC discusses window performance standards, it does not provide much guidance for flashing around windows, which is critical to prevent water intrusion. For that information, one must turn to such documents as the best practices manuals published by the Journal of Light Construction (JLC).

Myth #8 – If my home doesn't "meet code," it must be unsafe. That depends on the violation. In most cases, non-compliance is minor, more a technicality than a functional concern. However, in some cases, non-compliance can mean a hazard. If you have a concern, you should talk to the local CEO.

As examples, a stair without a railing is a code violation (even for older codes) and is a hazard. The absence of a proper vent on a gas appliance is a code violation and is a hazard. However, the use of non-compliant subflooring is not a hazard.

Second, what building codes apply to your home? For a code to apply to your home, the municipality must first adopt it. This process varies widely throughout the country. In most cases, the local municipality has the authority and jurisdiction to adopt a code. Most do, but not all. And those that do may not adopt one of the major codes. When we last checked, nearly 50% of the municipalities in the U.S. had not adopted a comprehensive building code.

Third, how are building codes enforced? In any municipality, the adopted building codes are administered and enforced by the local CEO, sometimes referred to as the building inspector. In addition to enforcing the provisions of the applicable building code, the CEO is responsible for issuing building permits, occupancy permits and other administrative activities necessary for the regulation of construction in that municipality. In all, his or her job is complex, far-reaching and challenging. He or she has both a lot of authority and some discretion. Administering the building codes is not a black-and-white, absolute activity.

From the 2003 IRC:

The building official is hereby authorized and directed to enforce the provisions of this code. The building official shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures shall be in conformance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code.

Thus, the CEO does, legally, have some discretion. That is necessary. To do otherwise would ignore the reality of construction.

Fourth, what do building codes mean, really? As noted above, the purpose of the IRC is to ensure safety and, to a somewhat lesser degree, energy efficiency. Building codes do not specifically address construction quality, however.

Building codes are important. And, in most cases, building codes are reasonably well administered and enforced. Building codes help ensure a safe and sound home. Here are a few important characteristics of your home that are regulated by building codes:

1. The height, configuration and strength of railings on balconies and stairs, so you have an adequate railing you can rely on when you need it and that it is high enough that you won't fall over it while standing at the edge of a balcony or deck
2. The maximum size opening through a railing to ensure that your child can't climb through it

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3. The minimum size of at least one window in each bedroom to ensure that you can get out in an emergency
4. The presence of an appropriate fire-resistant barrier between your garage and living space to slow the spread of a fire that starts in the garage
5. The uniformity of riser height on your stairs, so you don't stumble
6. The use of safety glass in impact-vulnerable locations to minimize your risk of injury
7. Three different safety devices for your garage door opener to minimize the risk of a child being caught under a closing door
8. The location and type of smoke and carbon monoxide detectors to be used to warn you of a hazard with enough time to get to safety
9. The strength of the wall, floor and roof framing to ensure it will withstand the forces unique to your area such as wind and snow

And here are a few things that are not addressed in most building codes:

1. Water intrusion performance of windows
2. Water intrusion performance of roof systems
3. Finish details for interior walls, floors and ceilings
4. Installation details for various types of siding
5. Transition details from one material to another

Being familiar with, administering and enforcing building codes is a **huge challenge**. Most officials work hard at their jobs, and most builders do their best to comply. Even at that, however, the probability of finding a home that perfectly complies with all building codes applicable at the time of construction is virtually zero. Even though different inspectors are typically responsible for the enforcement of individual codes, ultimately, the bulk of the work falls to one person and it is just not possible for one person to be conversant with all the applicable code provisions.

Does that mean that most of our homes are not built well? **No**. Reasonable compliance with most of the important code provisions usually prevails, and most homes are functionally adequate and structurally sound and safe.

However, if you are buying a new home, you would be wise to find out more about the applicable building codes, the enforcement process and the status of all required permits and approvals of your home.

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1-800-242-1969

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