

Codes and Design Freedom



The first code book I owned was the 1983 CABO One and Two Family Dwelling Code. That now seems like a pamphlet compared with today's IRC. Even in those simpler times, the carpenters I worked with were nearly universal in their resentment of the code. In part, that was because of having to deal with the bureaucracy of permitting and inspections, and that's utterly understandable. From the standpoint of most builders, getting a

permit and then waiting for inspections costs time and money while adding zero value to the job.

That said, projects such as the "Deck Built to Fail" (September/October 2011; deckmagazine.com) happen, and every year there are deck collapses. But whether deck collapses are the epidemic some claim is an open question. *PDB* contributing editor Kim Katwijk tracks online news feeds about deck collapses. According to him, in 2011 there were 25 reported deck collapses, which resulted in 79 injuries and two deaths (one of which occurred on a deck under construction). I haven't verified Katwijk's

numbers, but if they are even close, considering the millions of decks and the hundreds of millions of people in the United States, that's an outstanding safety record.

At DeckExpo, I spent a lot of time talking with deck builders. Codes were a common topic. The requirements for lateral attachment of decks and railing post strength topped the list, with one of the most common questions being, "How strong is strong enough?" Honestly, I'm not sure we really know the answer. If

Glenn Mathewson is right in this issue's article about lateral attachment (see page 40), there is no published data on the required lateral load resistance for a deck. It follows that the code requirement for lateral attachment of decks is based on a guess.

When I've asked building researchers for their take on this, the response is usually something like: "Absent data, the code has to take a conservative approach." When I relay that to deck builders, their typical response is something like: "I've built hundreds of decks and not one has fallen down." There are no surprises here — researchers work in a scientific environment, and unless they have hard numbers to base a design on, they're very conservative. Builders work in an empirical world, and they base their designs not so much on numbers but on what has worked in the past.

Both sides have good points. Personally though, I wonder if we'll ever view the codes as being sufficient. The 2009 IRC is 50 percent thicker than the 2006 version, and the 2012 version adds another 50 pages or so. Yet I recently visited a deck I built 25 years ago under the 1983 CABO code, and it's in fine fettle. I'm not sure that a deck built under the 2012 code would have been much, if any, better, but I am sure it would have cost more. The ICC exists to write new codes, and there's always impetus to add some new provision. It's hard to oppose the addition of something that might "save one life" without seeming callous, cavalier, or simply greedy. Consequently, code books become thicker and thicker as the requirements ratchet ever tighter. Are we headed to a building world where, to quote English author T. H. White's description of life in an anthill, "Everything not forbidden is compulsory"? I hope not, but I'm not at all certain.

A handwritten signature in black ink that reads "Andy Engel". The signature is stylized and fluid.

Andy Engel
Editor

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While it's nice to hear about what we're doing right, it's more interesting to hear about what we're doing wrong. If you saw something you loved or hated, or if you've got a tip that could help out other readers, we want to know.

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