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The 2005 National Construction Codes: What's New For Builders?

By Martin Thériault

Published in Home Builder, September 2005, page 38.

This article introduces home builders to the recently published National Construction Codes and outlines some of the key code changes affecting them.

The 2005 editions of the National Construction Codes will be published and released by the National Research Council of Canada at the end of September 2005 in a new "objective-based" format.

Since 1995, all three of the National Construction Codes – the National Building Code (NBC), the National Fire Code (NFC) and the National Plumbing Code (NPC) – have undergone extensive reviews and changes and offer many improvements over the 1995 editions, including technical updates, but also new information to help users understand what must be done to satisfy code provisions.

This new information will make the codes clearer, easier to apply to existing buildings and more accommodating to innovation by assisting designers (architects and engineers) in proposing "alternative solutions" to code requirements if they wish to do so.

Although the 2005 Codes will facilitate the work of designers and help regulators determine conformity, most users such as builders should experience little change from the way they previously used the codes. For their day-to-day work the 2005 Codes have essentially remained the same: builders will find the same code provisions – now referred to as "acceptable solutions" – as they found in the 1995 editions, updated with technical changes.

What's New?

In order to accommodate this new information, the 2005 NBC, NFC and NPC will have a new organizational layout. Each code will comprise three divisions: **A, B and C**. Of the three, Divisions A and B are of greater interest for users, with Division B looking most like the 1995 editions.

Division B is where code users will find the code provisions, which are essentially the same as in the previous editions. For most projects, code users will likely rely upon the acceptable solutions in Division B because they are familiar with and satisfied with the acceptable solutions that have been in effect and proven to work for many years. Also, most of the code structure and vocabulary that users are familiar with will remain in place.

Division A will include compliance options and new components called "objectives" and "functional statements". Most provisions in Division B will be linked to at least one

objective and one functional statement to help users better understand the reason why a particular provision must be met and to help them evaluate alternative solutions.

Finally, **Division** C will contain administrative provisions, which have all been consolidated into this one place from the 1995 Codes.

All in all, close to 1,300 technical changes have been incorporated in the 2005 National Construction Codes to address the many technological advances and health and safety concerns raised since the 1995 editions were published. Here are some of the most significant changes for builders:

2005 NBC

solutions.

Part 9: Housing and Small Buildings

Application of Part 4 versus Part 9 structural requirements. Changes have been made to clarify when Part 9 applies, when Part 9 loads can be used for design under Part 4, and when the design must be done under Part 4.

Simplified snow load calculation. The application of the simplified calculation has been expanded beyond wood-frame construction to include other structures with a high degree of redundancy created by closely spaced, repetitive members. An additional limit on application is that the roof area of the structure does not exceed that permitted for Part 9 buildings, regardless of whether the building is constructed with firewalls or not. **Support of decks.** Several changes were made to clarify the requirements for foundations and lateral bracing for decks, and to identify exceptions and acceptable

Insulated concrete form (ICF) walls. Prescriptive requirements for engineered insulated concrete form walls for small houses have been added. These requirements apply to both foundations and above-ground walls.

Precipitation protection. In order to better protect residential buildings from rain and snow, a new climatic indicator, the moisture index, has been adopted to identify regions of high moisture loads. It is now explicitly stated in which locations across the country cladding is required to be installed over a capillary break (open rainscreen principle). In addition, new requirements for flashing were introduced to describe the constructions in more detail and in which cases they apply.

Beginning in December, NRC, in coordination with the provinces and territories, will present seminars across Canada explaining the most significant technical changes in the 2005 NBC, NFC and NPC.

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