

Updates to 2024 BC Building Code & other associated codes

Overview

- In **March 2024** a new version of the **BC Building Code** (the code) came into effect¹.
- This version is more closely aligned with the **National Building Code** than in the past (same elements in play but context to BC conditions).
- Grace period of 1 year: construction pro's come to terms with how implement some of the provisions.
- Impact: Some changes will **significantly affect Replacement Value calculations** when they come into effect in March 2025.

Significant Changes

#1 - For both Residential and Commercial, increased **seismic framing requirements** based on new research indicates that the wall designs of the past couple of BC Building Code versions for Part 9 (single family up to three storeys and small building construction not exceeding 6,458 sq ft) were not robust enough to prevent collapse, especially in high seismic hazard areas. This provision will come into effect in March 2025.

This increase in framing type/size + more shear walls will have a notable “value rise-impact” on Replacement Costs. This is especially true of high value homes or commercial units with large window areas (i.e. many of which will now need to be reconstructed using steel support beams and potentially concrete walls).

¹ Updates to the 2024 BC Building Code are related to: **(a)** all new construction and **(b)** all replacement components regardless of the present age of the building during component replacements under a claim.

<https://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards/bc-codes/2024-bc-codes>.

https://www.kelowna.ca/sites/files/1/docs/homes-building/2024_bcbc_change_-_bulletin.pdf

Replacement Cost Impact #1

To provide a rough estimate under the new 2024 BC Building Code, the **cost to complete seismic framing requirements** from a builders cost, not under the higher claims sq ft pricing metric used in insurance underwriting, for a 5,000 sq ft three storey home will add about 5%-10% to the total projects hard costs which would equal \$25,000 to \$100,000 and another \$50,000 to \$150,000 for structural reinforcements (i.e, for bracing, shear walls, and foundation work). Additional costs would involve professional fees, permits and inspections². The cost of a 6,400 sq ft commercial building following the same metrics above would scope in at \$32k-\$128k for seismic upgrades and \$50k-\$200k for structural reinforcements (not including professional fees, permits, and inspections). This is builders cost not the higher claims sq ft insurance underwriting costing.³

#2 - The second change is made in concert with the **BC Energy Step Code**⁴ (Part 9 = smaller residential buildings and Part 3 = larger and more complex commercial and multi-unit family) and will also come into effect in March, 2025.

New buildings (all sizes including single family housing) will be required to show that at least part of the living space is **temperature controlled** such that the space cannot have a temperature rise above 26 degrees Celsius no matter what the outside temperature is. In practical terms this means, at the very least, use of mini-split heat pumps for cooling (if not full air conditioning [only cools, less efficient] or heat pumps [cools and heats]) needing to be installed in all new houses.

Replacement Cost Impact #2

From a replacement cost point of view after **March 2025** regardless of the current conditions new **Replacement Values** will need to factor in the cost of A/C or Heat Pumps (Heat pumps on a 4,500 sq ft home unit + install, not under the higher claims sq ft pricing metric, approximates between \$4,500 to \$8,500 for a Heat Pump or \$3,000 to \$7,000 for AC; on a 8,000 sq ft building under the same approx. parameters the cost is in scope of \$15,000 to \$30,000 for a Heat Pump and \$10,000 to \$25,000 for AC).

² <https://canada.constructconnect.com/joc/news/government/2023/11/b-c-building-code-changes-to-impact-seismic-design-increase-costs>

<https://www2.bchousing.org/research-centre/library/residential-design-construction-guides/illustrated-guide-seismic-bracing>

³ <https://www.constructioncanada.net/guide-to-b-c-seismic-bracing-requirements-available/>

⁴ <https://energystepcode.ca/requirements/>

Errata & Revisions - Province of British Columbia. <https://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards/bc-codes/errata-and-revisions>.

<https://www.vancouverisawesome.com/real-estate/why-bcs-new-building-codes-are-raising-concerns-over-housing-costs-7929199>.

Other

- There have also been changes to the **BC Plumbing Code** (which is part of the BC Building Code under Book II in Plumbing Systems within it). These changes address various drainage systems and non-potable water collection and retention that, in some circumstances, could affect Replacement Values.
- **Radon Safety:** Radon is a naturally occurring gas that's colorless, odorless, and tasteless, and can seep into buildings through foundation cracks and pipes, etc. Radon exposure can lead to lung cancer. Province-wide requirements for rough-ins for radon safety have been introduced, which may increase initial construction costs and Replacement Costs in the event of a claim.

Conclusion

The above represents a brief overview of only a few **changes** to the BC Building Code that will impact Replacement Values.

From an **insurance underwriting perspective**, claims sq ft Replacement Cost has to be factored to its **variable cost nature** on each risk. Real world cost fluctuations⁵ occur throughout the underwriting envelope and are increasing in scope and complexity.

An InspekTech® appraisal includes a site visit that collects live location components/conditions. These critical site details are then factored into claims sq ft insurance Replacement Cost calculations. **An InspekTech® appraisal report is the best way of ensuring supportable & accurate baselines for insurance underwriting results.**

Please contact InspekTech® should you require more information.

Thank you,
InspekTech® Consulting



⁵ <https://www2.bchousing.org/research-centre/library/residential-design-construction-guides/bc-energy-step-code-builder-guide>
<https://chbabbc.org/wp-content/uploads/2024/05/Adaptable-and-Earthquake-Design-Backgrounder.pdf>