

2024 BC Building & Plumbing Code Changes

General overview of New 2024 BC Code changes

Purpose

The following information is provided as general outline to inform registered professionals, developers, builders, subcontractors, designers, suppliers and homeowners, of the new 2024 edition of the BC Building Code (BCBC) and Plumbing Code (PCBC).

For a more comprehensive list of all Code changes, please review the BOABC website – <https://boabc.org/2024-code-update-handouts-of-changes/>

New Code Education courses can be found here – BOABC - <https://boabc.org/online-building-plumbing-code-update-training/>

The new BC Codes and legislation can be reviewed via [2024 BC Codes link](#). Please note that the current online version of the 2024 Code does not specify changes and is static format similar to the 2020 NBC.

Implementation

The 2024 BC Building and Plumbing Codes will be in effect as of Friday **March 8, 2024** and will bring a number of changes for new building construction and building alteration permits. However, a few Code items noted below relating to adaptable and seismic requirements will take effect a year later on March 10, 2025.

Applicants will have the following two options for BCBC compliance based on the date of permit application:

Prior to Effective date - 2018 BC Building & Plumbing Codes - All permits submitted to the Building Department, in person, before 4:00 pm on Thursday March 7 2024 or online prior to midnight (12:00am), shall be compliant with the 2018 edition of the BCBC. As part of the application the building code edition must be clearly specified on the drawings. Incomplete applications will not be accepted and will be rejected, requiring to be re-submitted under the 2024 requirements. Please review to City's application checklists.

After Affective Date – 2024 BC Building and Plumbing Codes - All applications submitted at or after 08:00 am on Friday **March 8, 2024** are required to be designed and constructed under the new 2024 BCBC requirements. As part of the application the building code edition must be clearly specified on the drawings.

Please note that applications currently under Planning permit reviews (Development Permits and or Variances), must ensure they meet the new Code requirements if the building permit is to be applied for after **March 7, 2024**. **Developments with multiple phases before and after the effective date will be required to meet the applicable Code at the time of application.**

New Code requirements

The following are examples of notable changes in the 2024 BCBC. This does not include all changes, so the Code should be reviewed in detail to determine how the changes may impact each specific project.

Please note: Building Bulletins are prepared to provide convenient information for customers, and should not be considered a replacement for reviewing the bylaw or associated legal documents. If there is any contradiction between this guide and relevant municipal bylaws and/or applicable codes, please refer to the bylaws and/or codes for legal authority.

Division A - Compliance, Objectives and Functional Statements

Part 1

- Requirement for reinforcement for Grab Bars has now been included for secondary suites in existing buildings.
- Sentence 1.1.1.1.(7) (2018 BCBC) has been deleted, therefore encapsulated mass timber construction can now be constructed throughout BC.
- Terms - Many Amendments to 1.4.1.2 – some examples:
 - Adaptable Dwelling Unit - revised
 - Coordinating Registered Professional – not listed as a defined term
 - Owner (back within defined terms) - means any person, firm or corporation controlling the property under consideration during that period of the application of Sentence 1.1.1.1.(1) of this Code.
 - Vapour barrier includes reference to Note A-1.4.1.2.(1).

Part 2 – Objectives

- Sentence (5) Objective OA, Accessibility, (including Objectives OA1, Accessible Path of Travel, and OA2, Accessible Facilities), at this time Clause (a) has been reserved.

Part 3 – Functional Statements

- Sentence (4) Functional Statement F75, at this time Sentence (4) has not been included.

Division B – Acceptable Solutions

Part 1 – General

- 1.1.2.1. Attributions to Acceptable Solutions Sentence (1) has been amended to identify several additional Sections.
- Climatic and Seismic Value
 - 1.1.3.1.(5) The outside summer design temperatures determined from Appendix C shall be those listed for the July 2.5% dry values.

Referenced Documents

- A number of referenced standards have been updated to newer versions (dates).
 - Significant changes for design/installation of NFPA 13, 13R & 13D systems

Part 2 - Reserved

Part 3 - Fire Protection, Occupant Safety and Accessibility

Refer to BOABC Code change list of revisions

- Combustible Construction (3.1.4.)
 - Adjustments to allowable more combustible elements, including windows and sashes
- **Added - 3.1.6. Encapsulated Mass Timber Construction** – for all jurisdictions
 - Relocated tents and air-supported structures from Subsection 3.1.6 to Subsection 3.1.18 and encapsulated mass timber from Subsection 3.1.18 to Subsection 3.1.6.
- **Fire Separations & Closures (3.1.8) – significant changes to harmonize with NBC**
 - New reference to new Sentence 3.1.8.3.(5) and new requirement to maintain the continuity of a fire separation where it abuts another fire separation or a floor or roof assembly or an exterior wall using a firestop as described in (3).
 - New requirement to maintain the continuity of a fire separation where it abuts another fire separation or a floor or roof assembly or an exterior wall using a firestop having an FT rating not less than the fire resistance rating of the abutting fire separation when tested to CAN/ULC S115.
 - New Sentence to allow transitions between combustible and non-combustible DVW pipping with firestops.

- **Building and Fire Safety (3.2)**
 - Restructuring of numbering to harmonize with NBC
 - New reference to specific Articles 3.2.2.25., 3.2.2.30, and 3.2.2.32. Divided sentence into multiple clauses/subclauses for clarity.
 - New requirements to waive the fire-resistance rating for mezzanines.
 - New sentence clarifying that smoke detectors used in lieu of smoke alarms do not sound an alarm in the remainder of the building.
 - New provision for use of NFPA13D in townhouses with limits on up/down suites
 - Fire Alarm and Detection Systems (3.2.4) – many changes and renumbering
 - Title changed from 'Visible Signal Devices and Visible Warning Systems' to 'Visible Signals' with adjustments to required lighting levels and locations
- **Safety in Floor Areas (3.3)**
 - Title changed from 'Accessible Floor Area' to 'Floor Area with an Accessible Path of Travel'
 - New Article 'Tactile Walking Surface Indicators' added.
 - New Article Safety Glazing - requires safety glazing conforming to Class A of CAN/CGSB-12.1 Safety Glazing when installed in individual fixed or operable panels of doors and windows.
- **Exits (3.4)**
 - Renumbered and restructured articles to match NBC
 - Change to describe traditional exit signs as providing 'visual information.
 - New permission to use non-swing exit (exterior) doors at self storage buildings.
 - Change to signage requirements to include visual information sign complying with Subsection 3.8.3 and remove reference to letter height and stroke.
 - New requirement for exit stair designation signage
- **Vertical Transportation (3.5)**
 - Re-organized Sentences - info previously in Sentence (3) now in Sentence (2), removed reference to devices under CAN/CSA-B355 'Lifts for Persons with Physical Disabilities' as Article addresses Elevator.
- **Service Facilities (3.6)**
 - Change in Article name from 'Combustible Refuse Storage' to 'Storage of Combustible Refuse and Recycling' – 3.6.2.5. Adjustments to fire separations as well.
- **Health Requirements (3.7)**
 - New Sentence (1) confirming occupant load for purpose of calculating water closets is derived from Subsection 3.1.17.
 - Former Article 3.7.2.4 deleted 'Mobile Home Facilities'.
- **Accessibility (3.8 + 9.5.2) – significant changes throughout 3.8.**
 - Modified to become more aligned with the National Building Code requirements.
 - Changed title from 'General' to 'Exceptions'. Removed exceptions: (b) for apartments and condominium buildings, (e) public toilet buildings and (g) two-storey buildings.
 - New requirement for compliance with Sentence 3.8.5.1.(2) (backing for future grab bars) in detached houses, duplexes, houses with secondary suites, triplexes, townhouse, row houses, and boarding houses.
 - Minimum accessible room requirements in hotels/motels have doubled.
 - Accessible path of travel minimum width has been reduced to 1,000mm and bump-out dimensions reduced to 1,700 x 1,700mm
 - Space on push side of door increased to 1,500mm and controls height min. reduced to 400mm.
 - Increased sleeping room turning area to 1,500 x 1,700 mm and added clear area at closet and kitchen.

Part 4 – Structural Design

- General Structural Design requirements have been changed for dead, live, snow, and wind loads.
- Addition of Solar panel design for snow drifting and wind loads
- Seismic Design values have changed throughout the province, and some requirements have become more stringent.
- Steel Storage Racks now require full structural engineering involvement and will require a Building Permit and must comply with the BC Fire Code.

Part 5 – Environmental Separation

- New materials standards added for asphalt-coated glass base sheets, Exterior Gypsum panels, Glass spandrels and Flat Wall insulating Concrete forms (ICF).
- Air leakage requirements are revised to establish performance classes for air-barrier assemblies
- Radon provisions clarified in soil gas control requirements.
- New BC variation for where limited water doors may be used.

Part 6 – Heating, Ventilation and Air-Conditioning

- Heating, Ventilating and Air-conditioning Legionella Requirements for evaporative equipment and drain pans are revised to minimize the growth and transmission of Legionella and other bacteria.
- Planning – sentences added:
 - j) ASHRAE Guideline 12, “Minimizing the Risk of Legionellosis Associated with Building Water Systems.”
 - 2) Indoor design temperatures for residential buildings shall be those established in Article 9.33.3.1.
- Single dwelling with self-contained heating-season mechanical ventilation to comply with Part 9.32.3. (no longer able to use Part 6).
- Review radon requirements in Notes.

Part 7- Plumbing Services

- Reference to the BCBC Code Book II (Plumbing Systems) is being removed completely and now Part 7 directly references the 2020 National Plumbing Code.
 - 1) Every plumbing system shall be designed and installed in conformance with the British Columbia Building Code Book II (Plumbing Systems), that being the National Plumbing Code of Canada.
- Refer to Plumbing Code further below.

Part 8 - Safety Measures at Construction and Demolition Sites

There are no changes within Part 8.

Part 9 – Housing and Small Buildings (major changes noted in bold)

- **Accessibility**
 - Additional measures throughout Part 9 to harmonize with changes in Section 3.8
 - Moves apartment building accessibility exceptions from 3.8.2 to 9.5.2.3.
 - Better clarification on guard requirements.
 - Visible signal devices and lighting changes
 - ~~Grab bar backing requirements for washrooms in single family dwellings~~ *Deferred to 2025*
- Specified Loads (9.4.2)
 - Snow drift accumulation calculations added.
- Required Guards (9.8)
 - Changes to 9.8.8.1.(4)(b) – clear unobstructive opening.
 - Increase from 450mm to 900mm for openable window sill to finished floor. 9.8.8.1.(5)(a)
 - New sentence added (2) – vertical elements in 9.8.8.2. Loads on Guards

- **Fire Protection (9.10)**
 - Change to reference in calculation methods for mezzanines not considered a storey – review Appendix notes.
 - Restructuring of many Sections to harmonize with NBC and Part 3 for fire separations and penetrations in fire separations.
 - Spatial - Accessory buildings moved to 9.10.14
 - Portable fire extinguishers - Wording added to match NBC for allowance of provincial or territorial regulations or municipal bylaws or the Fire Code.
- **Radon (9.13)**
 - Added more specific requirements and increased Radon area to include full Province for rough-in of radon-extraction system.
 - Now included reference to Canadian Standards - CAN/CGSB149.11 (free access online), including – pipe and fittings as well as external exhaust locations.
- **Footings & Foundations (9.15)**
 - Minimum foundation wall thickness 150mm
 - Added ICF to 9.15.4.3 and Modified reinforcing information.
- **Masonry and Insulating Concrete Form Walls Not In Contact with the Ground (9.20)**
 - ~~Changes to earthquake requirements (9.20.1.2) Deferred to 2025~~
 - Changes to materials and sizes have been added to the Clauses and the straps are required to be pre-bent and pre-drilled or prepunched prior to being hot-dipped, zinc-coated galvanizing.
- **Framing (9.23)**
 - ~~Regions outside the lower mainland now require lateral and wind load designs. Deferred to 2025~~
 - New - 9.23.2.4. Connections to Preservative-Treated Wood
 - Changes to fastener Tables – nails and screws
 - ~~Changes to Anchorage of Braced Wall Panels – New Tables Deferred to 2025~~
 - Modification to existing Sentences on hot water tank and mechanical equipment anchorage in seismic zones
- **Heat Transfer, Air Leakage, & Condensation Control (9.25)**
 - Clarifications and changes to align with NBC, and requirements to insulate full height of foundation walls for basement or heated crawlspace (9.25.2.3.(4))
- **Roofing (9.26+ 9.27)**
 - Revised asphalt shingles for 1:6 slope roofs
 - Added insulated vinyl siding and vinyl soffits.
- **Cladding (9.27)**
 - Inclusion of above-ground Insulated Concrete forms (ICF) – 9.27.1.1.(5)
 - New table for Attachment of Cladding to Flat Wall ICF Units where the 1-in-50 HWP \leq 0.60 kPa – 9.27.5.4.(b)
 - Section name altered to 9.27.12. Vinyl Siding, Insulated Vinyl Siding and Vinyl Soffits
 - Added new section title. Section 9.27.13. Exterior Insulation Finish Systems of the 2018 BCBC is now relocated and renumbered to 9.27.14
- **Interior Cladding & Ceiling Finishes (9.29)**
 - New requirement for application of gypsum board to ICF
- **Overheating (9.33 + 6.2.1.1):**
 - Cooling added to - 9.33.2. Required Heating and Cooling Systems
 - Adopting cooling requirements to provide one living space that does not exceed 26°C - Energy Step Code (9.36) - 9.33.3.1. Indoor Design Temperatures – sentence (2).
 - Cooling added to 9.33.5.1. Capacity of Heating and Cooling Appliances
 - New RSI tables added, and HVAC equipment performance requirements revised.
- **Electrical (9.34)**
 - Revised outline in 9.34.1.1. Standard for Electrical Installations
- **Energy Efficiency (9.36)**
 - Refer to BOABC Code list of revisions & Code Update course.

- Greenhouse Gas Emissions (9.37)
 - New section added to limit greenhouse gas emissions (AHJ to determine if adopted)

Part 10 – refer to BOABC Code list of revisions.

- New section Greenhouse gas emissions.
- New section objective and functional statements

Division C – Administrative Provisions

- Updated Letters of Assurance – note addition of:
 - **Structural discipline - 2.5 Independent review of structural designs**

Plumbing Code – (Harmonization with National Plumbing Code)

Refer to BOABC Code list of revisions.

(63 changes involving editorial, deletions and additions, the most significant listed below)

- Updates in defined terms – deleted “soil or waste stack”, adding “stack”.
- Updates to materials and maximum design temperatures.
- **New** reference and standard for PE-RT piping (Poly Ethylene Raised Temperature), installation similar to pex.
- New reference and standard for Cellcore PVC, specific color and use in residential buildings only.
- New reference and requirements for limiting temperatures and controls to shower heads and bathtubs.
- New sizing of shower drainage based on flow (LPM).
- New reference removing the 50Pa pressure differential requirement for fire stopping for a building 3 storeys or less.
- New Sentence providing requirements for penetrations of fire separations which incorporate transitions between combustible and non-combustible DWV piping.
- Non-potable water systems revised.
- **Specific** pipe requirements for rainwater systems.
- New Clause with a new referenced document – ASHRAE Guideline 12, “Minimizing the Risk of Legionellosis Associated with Building Water Systems.”

Have questions? We’re here to help. Please contact the Building Department at 250-490-2571 or buildinginfo@penticton.ca for more information.

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