

City of Cranbrook

Bulletin: 2024 BC Building & Plumbing Code Changes

Forward:

The changes to the 2024 BC Codes are based on the 2020 National Model Codes with some B.C. specific variations to reflect the province’s unique geography, climate, local government needs, industry practices and provincial priorities. These code cycle changes occur every 6 years.

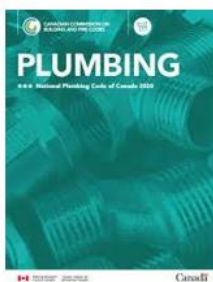
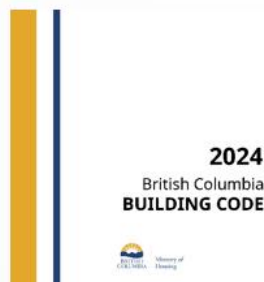
The BC Building Code, which includes the BC Plumbing Codes, regulates how new construction, building alterations, repairs and demolitions are done in BC. This code sets minimum requirements for safety, health, accessibility, fire and structural protection of buildings and energy and water efficiency.

Unlike past code updates, there isn’t a BC-specific version of the plumbing code. The BC Plumbing Code is now comprised of the National Plumbing Code 2020 (NPC) with unique BC amendments found in the BC Building Code (BCBC) Division B, Part 7.

From this (2018):



To this, 2024 BC Building Code + 2020 National Plumbing Code:



Purpose:

- To inform permit applicants when the new 2024 BC Codes comes into effect.
- Brief overview of high-level changes within the 2024 BC Codes.
- To provide a deeper dive into significant code changes.
- To provide additional resources where you can find these changes.

2024 BC Codes Enactment Date:

Our honorable Minister of Housing, Ravi Kahlon by way of Ministerial Order No. BA 2023 10 orders that on March 8, 2024, the new 2024 BC Codes become active and subsequently enforceable (except for adaptable dwellings and earthquake-design changes which will come into effect on March 10, 2025).

All building permit applications submitted to the Building Department that are received before 4:30pm on Thursday March 7, 2024, may still comply with the 2018 BC Building Code however, incomplete applications will not be considered.

All building permit applications received at 8:30am or thereafter on Friday March 8, 2024, shall comply with the new 2024 BC Codes.

2024 BC Codes Overview of Changes:

Part 3 Accessibility:

- Power-operated doors in all building entrances and universal washrooms.
- An elevator in all large two- and three-storey apartment buildings.
- Designated wheelchair spaces in event facilities.
- More inclusive signage to increase wayfinding and building safety.
- Full-size change tables in universal washrooms.
- Assisted-listening systems for people with hearing loss.

Cooling requirements:

- All new residential buildings must provide one living space that is designed not to exceed 26 C. This may require a cooling appliance in many parts of the province, depending on weather and site conditions.

Radon safety:

- Province wide adoption of a rough-in for a radon-extraction system.

Mass-timber construction:

- The Province has permitted the use of mass-timber buildings, in harmonization with the National Building Code 2020, across B.C.

Important Note:

The Province is deferring the effective date on adaptable dwellings and earthquake-design changes to March 10, 2025, to provide a one-year transition period.

Adaptable dwellings:

Adaptable dwellings are designed and built with features that can be changed to meet occupants' needs, allowing them to stay in their homes through illness, injury, and/or aging.

- *All residential suites in large residential buildings and ground-floor suites in small apartment buildings will have:*
 - *accessible clearances through doorways and along paths of travel to living spaces;*
 - *maneuvering space in a bedroom, bathroom and kitchen;*
 - *switches and other controls at an accessible height; and*
 - *reinforcement of bathroom walls to allow future installation of grab bars.*
- *Modest increases for smaller residential housing, such as single-detached homes, townhomes, and row homes, will require:*
 - *reinforcement of bathroom walls to allow future installation of grab bars.*

Earthquake design:

- *New methodologies for earthquake design for small buildings, in harmonization with the National Building Code.*
 - *These changes respond to increased earthquake risks and new national standards to protect new buildings and life safety.*
-

Significant code changes to new residential buildings:

PART 9

Stairs, Guardrails & Handrails (9.4.8.)

- Open risers are now permitted but limited to: interior and exterior stairs that serve a single-family dwelling unit or a house with a secondary suite; fire escape; stairs that are used principally for maintenance; stairs that serve service rooms; and, stairs that serve industrial occupancies (except storage garages).

Accessibility Design requirements (9.5.3.2.)

- Now required for small apartment buildings that share a common entrance and common interior space but with some exemptions for upper stories.

Firestopping (9.10.9.)

- Firestopping of joints to maintain the continuity of the fire separation now added to harmonize with Part 3.
- Firestopping of pipe penetrations and electrical (or other) outlet boxes to now harmonize with Part 3.

Spatial Separation (9.10.14.) (9.10.15.)

- Spatial separation between buildings does not apply to detached carports conforming to Section 9.35 which serve a single-family dwelling or house with a secondary suite. The previous reference only applied to garages.
- In situations where sprinklers are used to reduce the LD then all rooms on that exposing building face need to be sprinklered where previously NFPA 13D allowed sprinkler exemptions in garages, closets, bathrooms, etc.

Radon (9.13.)

- More complete and specific language for constructing extended rough-ins for radon subfloor depressurization system

Footings & Foundations (9.15.)

- Minimum foundation wall thickness increased to 150mm.
- Added ICF to 9.15.4.3 with some additional and modified reinforcing information.

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.)).

Interior Cladding & Ceiling Finishes (9.29.5.)

- New requirement for application of gypsum board to ICF.

- Conformance to CSA A82.31-M, "Gypsum Board Application" Section XVI.

Cooling Requirements/Overheating (9.33.2. & 9.33.3.)

- All new residential buildings must provide one living space that is designed not to exceed 26° C. This may require a cooling appliance in many parts of the province, depending on weather and site conditions.

Energy Step Code (9.36. & 9.37.)

- Revision 5 to the 2018 BC Building Code was introduced in May 2022 and remain in effect. These are significant revisions, a link to these revisions is included here: [Revision 5 BC Building Code](#)
- See Table A-9.36.1.3. – to review requirements for Energy Compliance Options for Part 9 Buildings. Minimum Energy Step Code 3 applies to single family dwellings with or without a secondary suite.

Table A-9.36.1.3.
Energy Efficiency Compliance Options for Part 9 Buildings
Forming Part of Note A-9.36.1.3.

Building Types and Sizes	Energy Efficiency Compliance Options			
	NBC 9.36.2. to 9.36.4. (Prescriptive)	NBC 9.36.5. (Performance)	Subsection 9.36.6. (Energy Step Code)	NECB
<ul style="list-style-type: none"> Houses with or without a secondary suite, including their common spaces Buildings containing only dwelling units with common spaces ≤ 20% of building's total floor area¹⁾ 	X	X	✓	✓
<ul style="list-style-type: none"> Buildings containing Group D, E or F Division 3 occupancies with a combined total floor area ≤ 300 m², excluding storage garages that serve residential occupancies Buildings with a mix of Group C and Group D, E or F Division 3 occupancies where the non-residential portion's combined total floor area ≤ 300 m² (excluding parking garages that serve residential occupancies) 	✓	X	X	✓
<ul style="list-style-type: none"> Buildings containing Group D, E or F Division 3 occupancies whose combined total floor area > 300 m² Buildings containing F Division 2 occupancies of any size 	X	X	X	✓
<ul style="list-style-type: none"> Log homes²⁾ 	✓	✓	X	X

- New RSI tables added, and HVAC equipment performance requirements have been revised.
- Minimum Energy Step Code 2 applicable to Part 3 buildings and, or as prescribed otherwise in Part 10.

PART 3 - Accessibility (3.8 + 9.5.2)

- Modified to become more aligned with the National Building Code requirements.
- Power-operated doors in all building entrances and universal washrooms.
- An elevator in all large two and three-storey apartment buildings.
- Designated wheelchair spaces in event facilities.
- More inclusive signage to increase wayfinding and building safety.

- Full-size change tables in universal washrooms.
- Assisted-listening systems for people with hearing loss.
- Minimum accessible room requirements in hotels/motels have doubled.
- Accessible path of travel minimum width has been reduced to 1,000mm (under specific circumstances) 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

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

PLUMBING CODE

- Reference to the BCBC Code Book II (Plumbing Systems) is being removed completely and now Part 7 directly references the 2020 National Plumbing Code. Unlike past codes the BC Plumbing Code is now comprised of the National Plumbing Code 2020.
- Plumbing systems in buildings constructed in accordance with Part 3 of Division B on the NBC shall be designed and installed to accommodate the seismic forces addressed in Subsection 4.1.8 of Division B of the NBC. (See Note A-2.1.4.1.(1))
- PE-RT New Abbreviation – “Polyethylene of raised temperature” tube and manufactured-approved fittings used in hot and cold potable water systems shall conform to CSA B137.18, “Polyethylene of raised temperature resistance (PE-RT) tubing systems for pressure applications. Use shall conform to Table 2.2.5.15
- The temperature of water discharging from a shower head or into a bathtub shall not exceed 49°C (2.2.10.7.(4))
- In healthcare facilities and seniors’ residences, water temperature from a shower head or into a bathtub shall not exceed 43°C (2.2.10.7.(5))
- New Sentence permits water closet bowls to be attached to the floor rather than the flange (2.3.3.8.(5))
- New Sentence requires a water and air tight cover for a sump or tank that receives subsurface water from a *subsoil drainage pipe* (2.4.6.3.(3))
- Table 2.4.9.3. – Size of Fixture Outlet Pipes has new sizing for shower drains based on liters per minute (LPM) flow
- There is a growing interest in Canada in using available non-potable water supplies. Non-potable water systems shall only be used to supply water closets, urinals, trap seal

primers, and directly connected underground irrigation systems. These systems shall meet good engineer practice in the design, fabrication, and installation. A Professional Engineers design analysis shall be required.

- All pipes for non-potable use must be purple in color or marked with a continuous purple stripe. CSA B128.1. Piping also needs to be marked at intervals of every 1.5 meters with “WARNING NON-POTABLE WATER DO NOT DRINK”
- Non-potable water piping cannot be located in areas where food, drink or products that are intended for human consumption are prepared, handled, dispensed or stored or and not near non-pressurized or pressurized potable water tanks.

Additional Resources:

2024 BC Building Code PDF Download: [2024 BC Building Code](#)

2020 National Plumbing Code PDF Download: [2020 National Plumbing Code](#)

2024 Building and Plumbing Codes PDF's for the following detailed code changes:

- [Preface Div. A & B](#)
- [Part 3](#)
- [Part 4](#)
- [Part 5](#)
- [Part 6](#)
- [Part 9- Accessibility](#)
- [Part 9- Fire Protection](#)
- [Part 9- Earthquake and Windloads](#)
- [Part 9- Radon](#)
- [Part 9- Footings & Foundations](#)
- [Part 9- Heat Transfer](#)
- [Part 9- Roofing & Cladding](#)
- [Part 9- Interior Finishes](#)
- [Part 9- Overheating](#)
- [Part 9- Energy](#)
- [Part- 10 Energy](#)
- [Plumbing](#)

For more information, please contact:

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[Click here to contact a member of our staff](#)