

Building and Safety Standards Branch

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2024 Editions of the British Columbia Building, Plumbing, and Fire Codes

This bulletin provides information about the 2024 editions of the British Columbia Building, Plumbing, and Fire Codes (BC Codes). This bulletin discusses changes applicable to all BC Codes but is primarily focused on changes in the British Columbia Building Code (Building Code) 2024 from the 2018 edition. More information on the British Columbia Plumbing Code (Plumbing Code) can be found in <u>Bulletin P24-01</u> and more information about the British Columbia Fire Code (Fire Code) can be found in Bulletin F24-01 soon to be released. The Building Code 2024 and Plumbing Code 2024 apply to projects for which a building permit is applied for on or after March 8, 2024. The Fire Code 2024 became effective March 8, 2024.

Background

The BC Codes 2024 are substantially based on the model National Codes 2020 (includes building, fire, and plumbing), which are developed by the National Research Council with collaboration from provinces and territories. The National Codes are updated approximately every five years. B.C. is committed to harmonizing with the national requirements and will continue to do so for subsequent editions of the BC Codes. Changes to the model National Codes, and subsequently the BC Codes, are processed through the Canadian Board for Harmonized Construction Codes' Code Change Request webpage.

Getting the BC Codes 2024

The **Building Code 2024** is available free <u>online</u>. Print publications will be available for purchase online from <u>King's Printer</u> later in 2024.

British Columbia will not be producing a consolidated Plumbing Code 2024 or a consolidated Fire Code document. <u>Bulletin P24-01</u> provides information on how to obtain the **Plumbing Code 2024** and Bulletin F24-01 provides information on how to obtain the **Fire Code 2024**.

Code users are encouraged to <u>Sign up for BC Codes updates</u> and check often for new <u>Technical Bulletins</u>. Previous versions of the BC Codes are available from <u>King's Printer</u>.

Existing unique-to-B.C. Provisions

This bulletin discusses some noteworthy historical unique-to-B.C. provisions that have either been continued in the BC Codes 2024 or have changed.

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B.C.'s historical provisions are continued for:

- Energy efficiency following B.C.'s Energy Step Code¹,
- Operational emissions following B.C.'s Zero Carbon Step Code² which are further described in Bulletin B23-03,
- Alternate compliance methods for heritage buildings³ and for alterations to existing buildings to add a secondary suite⁴,
- Expanded requirements for carbon monoxide alarms in more building types⁵,
- Roof-top enclosures and the calculation of building height⁶,
- Small residential care homes permitted to be classified as a residential occupancy⁷
 (B.C.'s historical provisions for small residential care homes are continued in place of new NBC 2020 provisions for home-type care occupancies which are not adopted),
- **Group A, Division 2, low occupant load occupancies** (not exceeding 30 persons) are permitted to be classified as Group D occupancies⁸ when conditions are met,
- Designing and constructing a secondary suite⁹,
- Ventilation systems serving single dwelling units¹⁰, and
- All *farm buildings* shall comply with the National Farm Building Code of Canada 1995 (B.C. did not adopt the new NBC 2020 provisions for large farm buildings)¹¹.

B.C.'s historical provisions that are updated in the Building Code 2024 include:

- Definition of post-disaster building alignment with the Notes of the NBC 2020¹²; authorities having jurisdiction may still exempt certain types of buildings from the category of post-disaster buildings, and the change permits them to apply the category of post-disaster buildings should they consider the building necessary for essential services to the public in the event of a disaster,
- Definition for registered professional to align with the Professional Governance Act¹³,

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¹ See Subsections 9.36.6. and 10.2.3. of Division B.

² See Sections 9.37. and 10.3. of Division B.

³ See Sentence 1.1.1.1.(5) and Table 1.1.1.1.(5) of Division A.

⁴ See Sentence 1.1.1.1.(6) and Table 1.1.1.1.(6) of Division A.

⁵ See Subsection 6.9.3. and Article 9.32.4.2. of Division B.

⁶ See Articles 3.2.1.1., 3.2.2.14., 3.3.1.3., 9.9.7.1., and 9.10.4.4. of Division B.

⁷ See Sentences 3.1.2.5.(2) and 9.10.2.2.(6) of Division B.

⁸ See Articles 3.1.2.7. and 9.10.2.5. of Division B.

⁹ See the definition of "secondary suite" in Article 1.4.1.2. of Division A and Part 9 of Division B.

¹⁰ See Section 9.32. of Division B.

¹¹ See Sentence 1.1.1.1.(4) and the definition of "farm building" in Article 1.4.1.2. of Division A.

¹² See the definition of "post-disaster building" in Article 1.4.1.2. as well as Note A-1.4.1.2. of Division A.

¹³ See the definition of "registered professional" in Article 1.4.1.2. of Division A.



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- No minimum requirement for a percentage of the building perimeter of mid-rise combustible buildings to face a street¹⁴; requirements for exterior cladding of mid-rise combustible buildings are found in Article 3.1.4.8. of Division B and address situations where a building may face only a single street or access route (10 percent of cladding permitted to be combustible on an exterior wall that faces a street or access route),
- Reference to the Safety Standards Act and its pursuant regulations to clarify that recognition of enforcement of the Act and its regulations is included,
- Letters of Assurance reflecting the new definitions for registered professionals and owners, clarifying independent review of structural design as an applicable item on Schedule B, and providing a field for email addresses,
- **Encapsulated mass timber construction** which was permitted for participating jurisdictions is enabled province-wide and the distance between the first storey floor and the uppermost floor level is increased¹⁵ from 42 metres to 50 metres to account for typical floor-to-floor distances,
- Calculations for *mezzanines* for the purposes of determining building height are adopted from the NBC 2020¹⁶, replacing B.C.'s historical calculations as the outcomes were very similar; mezzanines are permitted to be exempted from consideration as a storey in building height if they occupy not more than 40 percent of the open area of the room and the space above the mezzanine is open,
- Calculations for **street frontage** as a relationship between building perimeter and location required for consideration as facing one street is deleted¹⁷ and replaced by limits and conditions for combustible cladding as a relationship between building face and the distance to a street¹⁸,
- Requirements for *tactile walking surface indicators* are adopted from the NBC 2020¹⁹, replacing B.C.'s historical requirements; locations required to have tactile walking surface indicators are similar to B.C.'s historical requirements, however the design is required to conform to CSA B651-18, "Accessible design for the built environment," which requires truncated domes as opposed to B.C.'s historical strips,
- **Fenestration** (windows, doors, and skylights) provisions to allow greater design options and flexibility which are further described in <u>Bulletin B24-04</u>,
- Radon rough-ins for subfloor depressurization systems required in all houses and which is further described in Bulletin B24-03,

¹⁴ Sentence 3.2.2.10.(3) of Division B of the NBC 2020 is "reserved" in the BCBC 2024.

¹⁵ See Sentences 3.2.2.48.(2) and 3.2.2.57.(2) of Division B.

¹⁶ See Articles 3.2.1.1. and 9.10.4.1. of Division B.

¹⁷ Sentence 3.2.2.10.(3) of Division B is deleted and shown as "reserved".

¹⁸ See Sentence 3.1.4.8.(2) of Division B.

¹⁹ See Articles 3.3.1.19. and 9.8.1.5. of Division B.



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- B.C.'s variation to apply Subsection 9.10.15. of Division B to **spatial separation for accessory buildings** is repealed and the NBC 2020 requirement that spatial separation for accessory buildings shall comply with Subsection 9.10.14. of Division B is adopted,
- Accessibility requirements such as for more visible alarms, more universal washrooms, more access to more storeys and spaces, and more accessible sleeping rooms and bed spaces in hotels and motels are updated based on adoption of NBC 2020 requirements and which will be further described in a bulletin expected soon, and
- As of March 10, 2025, large new condominium and apartment buildings will require 100 percent *adaptable dwelling units* and first floor units of smaller apartment buildings must be adaptable, also the design and construction requirements for adaptable dwelling units are revised based on recent anthropometric data; these changes are further described in <u>Bulletin B24-01</u> with another bulletin expected soon.

New Requirements in the Building Code 2024

This bulletin discusses some noteworthy provisions that are new to the Building Code 2024 either as new unique-to-B.C. variations to the National Building Code of Canada (NBC) 2020, or that are adopted from the NBC 2020 into the Building Code 2024.

New unique-to-B.C. provisions include:

- Protection from overheating in dwelling units by requiring one living space in each dwelling unit to be capable of maintaining an indoor upper temperature limit of 26 degrees Celsius to be further described in another bulletin expected soon, and
- Free-standing **steel pallet storage rack** design is permitted to be designed to CSA A344.2-05, "Standard for the design and construction of steel storage racks," provided the design achieves the required level of performance.

New provisions adopted and/or adapted from the NBC 2020 include:

- The term "owner" is defined and further clarified by B.C. as the entity controlling the
 property during the period of design and construction when the Building Code applies,
 decoupling a current owner from future or retroactive responsibilities,
- Updates to accessibility requirements to reduce barriers such as clear path of travel
 revisions based on recent anthropometric data, providing power-operated doors at all
 building entrances, more visual and tactile signage, illumination of paths of travel,
 designated wheelchair spaces and adaptable seating in assembly occupancies, and
 adult-sized changing tables and spaces in universal washrooms of large occupancies,
 and many more changes to be further described in a bulletin expected soon,
- Updates to seismic (earthquake) requirements come info force March 10, 2025, these changes are further described in <u>Bulletin B24-02</u> with another bulletin expected soon,

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- Changes to the *climatic data* in Table C-2 of Appendix C based on data researched and analyzed by Environment and Climate Change Canada, with a notable example of Degree-Days Below 18°C values for Comox, Courtenay, Hope, Ladysmith, Nanaimo, Parksville, and Qualicum Beach, effectively changing from climate zone 5 to climate zone 4 (as in previous editions, Table C-2 is used when the authority having jurisdiction has not established climatic or seismic values),
- Specific requirements for **self-service storage buildings** in Part 3 of Division B are further described in Bulletin B24-06, and
- Design requirements for *evaporative equipment* used in air duct systems are revised to minimize the growth and transmission of Legionella and other bacteria.

References and editorial updates

The BC Codes 2024 include many updates to newer editions of referenced documents that are not discussed in this bulletin. Updates to editions of referenced documents can be found in Section 1.3. of Division B of each of the Building Code 2024, the Plumbing Code 2024, and the Fire Code 2024.

The organization and numbering of the Building Code 2024 more closely resembles the model National Building Code of Canada 2020 (NBC). Building Code users will find some unique-to-B.C. provisions relocated in order to follow the structure and numbering of NBC provisions. The convention "reserved" is used to preserve the numbering of NBC provisions. (NBC content that is "reserved" is not adopted and does not form part of the BC Codes.)

The BC Codes 2024 include a number of minor editorial changes that are not discussed in this bulletin. These changes are to help inform consistent interpretation and application of the provisions of the Codes and are considered clerical changes rather than technical changes.