

# Public Review



## Vancouver Building By-law (VBBL)

### Proposed change to Adaptable Dwelling Unit Requirements

**Topic:** Adaptable Dwelling Units requirements – Supplemental Information

**Code change number:** 24-0008

**Code reference:** Book I, Div. B, Subsection 3.8.5.

## Supplementary Information

This document provides supplementary information related to proposed changes to adaptability proposed as code change 24-0008, which seeks to harmonize the new 2024 BCBC Adaptability requirements with the existing 2019 VBBL adaptability requirements.

The following table provides a simplified breakdown of the adaptability requirements provided in the various categories presently supported under the 2019 VBBL, used as the baseline case for comparison.

<b>Service Area</b>	<b>2019 VBBL (baseline for comparison)</b>	<b>2024 BCBC</b>	<b>New 2025 VBBL</b>
<b>Application</b>	All new dwelling units with exceptions for commercial and short stay uses	Single storey apartment and condominium units, plus reinforcement for handrails for lower density forms of housing	All new dwelling units with exceptions for commercial and short stay uses
<b>Unit Entry Doors</b>	865 mm wide entry door (typically between 825 mm to 850 mm clear width once door stops are considered)	850 mm wide	Harmonized with BCBC
<b>Visitor Identification</b>	Two Peepholes at 1067 mm and 1524 mm	No requirement	Harmonized with BCBC.
<b>Clear space</b>	600 mm in-swing/450 mm out-swing clearance	Clear space of 1500mm x 1200mm adjacent to out swinging door or	Harmonized with BCBC

	at latching side of door jamb <u>or</u> prewire for power door operator	1700mm x 1500mm clear space for in swinging door, <u>or</u> prewire for power door operator	
<b>Interior Circulation</b>	900 mm corridors, 800 mm wide doors, 915 mm stairs	1000 mm wide corridors, 850 mm doors, does not address stairs	Harmonized with BCBC, and For lower density housing: 900 mm corridors, 800 mm wide doors, 915 mm stairs
<b>Bathrooms</b>	3 piece washroom with manoeuvring room (1200mmx900mm), May defer the accessible shower/bath provided adequate space has been allotted, backing for future handrails, and Offset shower controls	Installation of watercloset, provisions for future installation of accessible lavatory, accessible shower and manoeuvring room (1200mmx900mm), and backing for future handrails	Harmonized with BCBC, plus for low density housing: 3 piece washroom with manoeuvring room (1200mmx900mm), May defer the accessible shower/bath provided adequate space has been allotted, backing for future handrails, and Offset shower controls
<b>Kitchen</b>	Lever faucet and offset drain, and Provision for future continuous countertop between sink and stove	Provision for future continuous countertop between sink and stove, and future accessible lavatory, and 1700 mm x 1700mm manoeuvring space	Harmonized with BCBC, For low density housing: Lever faucet and offset drain, and Provision for future continuous countertop between sink and stove
<b>Controls, Switches, Outlets, Signaling Devices</b>	Outlets between 455 mm to 1200 mm Switch and controls at 1200 mm, One receptacle at stair for future chairlift, and	Outlets between 400 mm to 1200 mm Switch and controls at 1200 mm, and Special outlet box for fire alarm signal	Outlets between 455 mm to 1200 mm Switch and controls at 1200 mm,

	Special outlet box for fire alarm signal		One receptacle at stair for future chairlift, and Special outlet box for fire alarm signal
<b>Living Room</b>	One window with sill no higher than 800 mm	No requirement	One window with sill no higher than 800 mm for low density housing
<b>Bedroom</b>	No requirement	Manoeuvring room of 1700mm x 1500mm, 1700mm x 1500mm on one side of a closet, 850 mm wide clear pathway through room	Harmonized with BCBC

Further to this, a detailed commentary is provided below with respect to the specific Code language being proposed.

# Proposed VBBL content [Commentary in Red]

## Legend

Black Text – 2019 Vancouver Building By-law content

Underlined Black Text – Proposed modification to Vancouver Building By-law content

### **3.8.5. Adaptable Dwelling Units**

#### **3.8.5.1. Application**

1) Except as provided in Sentences (2) and (3), this Subsection applies to

[This is a consequent administrative change to accommodate Vancouver changes to broaden the application of adaptability requirements to all forms of new housing.]

a) ~~one-storey~~ dwelling units served by an accessible interior public corridor and an accessible common building entrance, as required to be accessible by Articles 3.8.2.2. and 3.8.2.3., and

[This change expands the application from single storey dwelling units to multi-level dwelling units. Together with the below changes that expand adaptability to lower density housing, this harmonized the enhanced accessibility requirements of the 2019 VBBL.]

b) common spaces and facilities intended for use by the residents of the dwelling units described in Clause (a) including common rooftop occupancies.

2) Buildings described in Clause 3.8.2.1.(1)(a) including ~~secondary suites~~ ancillary residential unit and all other dwelling units to which this Section applies shall

[This is an administrative change to align with Vancouver’s definition – this does not result in a difference in the application of adaptability requirement with respect to ancillary or subsidiary buildings use for housing that are subordinate to a principle dwelling unit.]

- a) as required by Sections 3.7. and 9.31., provide at least one bathroom with walls reinforced in accordance with Clause 3.8.5.7.(1)(e), and
- b) comply with the requirements of Articles 3.8.5.2., 3.8.5.3., 3.8.5.9. and .3.8.5.10., and Sentence 3.8.5.8.(1).

[This change expands the application of adaptability to lower density forms of housing. This directs code users to the requirements carried forwards from the 2019 VBBL, and certain requirements harmonized with the BCBC (specifically 3.8.5.2., 3.8.5.3., and 3.8.5.9.).]

- 3) This Subsection need not apply to
  - a) hotels, motels, single room accommodation and similar commercial occupancies,
  - b) boarding houses, lodging homes, dormitories and similar facilities, or
  - c) dwelling units subsidiary to non-residential uses.

[This Sentence is carrying forwards the optional exception for application of adaptability requirements from the 2019 VBBL. This generally aligns with the exemptions provided in the 2024 BCBC.]

### 3.8.5.2. Construction Requirements

[The requirements of this Article are adopted from the 2024 BCBC, and generally align with the provision of the 2019 VBBL. Sentences (2) and (3) clarifies the intended application allowing the sharing of spaces, and this is understood to be generally consistent with what is permitted under the alternative accessible standard CSA-B651]

- 1) The construction of *adaptable dwelling units* and the *building* in which they are located shall conform to the requirements of this Subsection and, as required by this Subsection, to *access* requirements for *buildings of residential occupancy* elsewhere in this Code By-law.
- 2) Unless otherwise required, clear areas and spaces required in this Subsection are permitted to overlap with other clear area and space requirements.
- 3) This Subsection does not require an *adaptable dwelling unit* be provided with a living space, a bedroom, a bathroom or a kitchen, but when provided, those spaces and the paths connecting them shall conform to the applicable requirements of this Subsection.

### 3.8.5.3. Building Access Requirements

[The requirements of this Article are adopted from the 2024 BCBC, and generally align with the provision of the 2019 VBBL.]

- 1) Common areas, spaces and facilities and all common exterior and interior paths of travel serving *adaptable dwelling units* shall be *accessible* in accordance with Subsection 3.8.2. with *floor areas* protected in conformance with Article 3.3.1.7.
- 2) Common corridors and passageways serving *adaptable dwelling units* shall be equipped to provide illumination, measured at floor or tread level, of not less than 50 lx.

3) Each *adaptable dwelling unit* shall be provided with special outlet boxes and cover plates as described in Sentences 3.2.4.19.(7).

4) Unless otherwise required by this Section, common spaces and paths of travel that are not intended to serve the residents of *adaptable dwelling units* need not be *accessible*.

#### 3.8.5.4. Adaptable Dwelling Unit Doorways

**[The requirements of this Article are adopted from the 2024 BCBC, and generally aligned with the provision of the 2019 VBBL. Notably, the 2024 BCBC does not include requirements for door hardware that does not require tight grasping or twisting of the wrist. Conceptually, this is equipment that is readily changed at relatively low cost, and this had previously generated significant negative feedback from the public when Vancouver first included this in 2014.]**

1) The principal entrance door to *adaptable dwelling units* shall have a clear width of not less than 850 mm when the door is in the open position. (See Note 3.8.5.4.(1))

2) Except as provided in Sentence (5), there shall be a clear floor space in accordance with Sentences 3.8.3.6.(14) and (15) adjacent to and on both sides of the *adaptable dwelling unit* entrance door described in Sentence (1).

3) Within an *adaptable dwelling unit*, every doorway along a path of travel connecting the entrance door described in Sentence (1) with a living space, adaptable bedroom, adaptable bathroom, and adaptable kitchen shall have a clear width of not less than 850 mm when the door is in the open position.

4) Except as provided in Sentence (5), there shall be a clear floor space in accordance with Sentences 3.8.3.6.(14) and (15) adjacent to and on both sides of the doorways described in Sentence (3).

5) Doorways provided with power door operators, or provided with a special outlet box and cover plates that are designed, located and wired specifically to accommodate the future installation of a power door operator, may provide the clear floor space described in Sentence 3.8.3.6.(16).

**[The option to provide a power door operator in lieu of meeting prescriptive clear space allocations are consistent with the existing enhanced accessibility requirements in the 2019 VBBL.]**

#### 3.8.5.5. Adaptable Dwelling Unit Hallways, Corridors, and Stairs

**[The requirements of this Article are adopted from the 2024 BCBC, and generally aligned with the provision of the 2019 VBBL. Specific stair dimensions are not presently stated – but conceptually these form part of the path of travel between living spaces, bedrooms, and other spaces required to be adaptable.]**

1) Hallways and corridors in *adaptable dwelling units* forming a path of travel connecting the entrance door described in Sentence 3.8.5.4.(1) with a living space, adaptable bedroom, adaptable bathroom and adaptable kitchen shall have a clear width conforming to Sentences 3.8.3.2.(1) and (2).

**[The clear width required under 2024 BC is larger than what was required under the 2019 VBBL. (1000mm vs. 800mm)]**

2) *Buildings* described in Clause 3.8.2.1.(1)(a) including *secondary suites* and all other *dwelling units* to which this Section applies shall, as required by Sections 3.7. and 9.31., provide at least one bathroom with walls reinforced in accordance with Clause 3.8.5.7.(1)(e).]

#### 3.8.5.6. Adaptable Dwelling Unit Bedrooms

**[The requirements of this Article are adopted from the 2024 BCBC, and extend beyond the provision of the 2019 VBBL. The proposed harmonization in the VBBL 2025 is currently only proposed to be applied to new apartment and condo type construction. A broader application is not contemplated at this time.]**

- 1) At least one bedroom or sleeping space in an *adaptable dwelling unit* shall have
  - a) a floor area that permits a turning area of not less than 1 700 mm in diameter, or not less than 1 700 mm by 1 500 mm, that could be adjacent a bed,
  - b) a pathway clearance of not less than 850 mm wide, that could be unobstructed by a bed, to allow functional use of the bedroom, and
  - c) at least one closet that provides
    - i) a clear opening width of not less than 900 mm, and
    - ii) a clear floor space, that need not be separate from the turning areas required in Clause (a), of not less than 1 700 mm in diameter or 1 700 mm by 1 500 mm on at least one side of the closet. (See Note A-3.8.5.6.(1).)

### **3.8.5.7. Adaptable Dwelling Unit Bathrooms**

**[The requirements of this Article are adopted from the 2024 BCBC, and generally aligned with the provision of the 2019 VBBL. Notably, the 2024 BCBC does not includes requirements for fixtures with level handles. Conceptually, this is equipment that is may be changed by the suite owner at relatively low cost.]**

- 1) At least one bathroom in an *adaptable dwelling unit* shall be designed to be adaptable for use by *persons with disabilities* by providing
  - a) a clear lateral transfer space adjacent a water closet conforming to Clause 3.8.3.12.(1)(b),

**[The clear space in in the 2024 BCBC proposed to be adopted is a larger space than previously required under the 2019 VBBL (1500mm x 900m vs 1200mm x 750mm).]**

- b) a distance between the centre line of the water closet and the wall on one side of 460 mm to 480 mm,
  - c) a *plumbing system* that accommodates the future installation of a lavatory with a clear space in accordance with Clauses 3.8.3.16.(1)(a) to (f) that does not impede the space for or use of other fixtures described in this Article (see Note A-3.8.5.7.(1)(c) and (d)),
  - d) a *plumbing system* that accommodates the future installation of a
    - i) shower described in Sentence 3.8.3.17.(1) that does not impede the space for or use of other fixtures described in this Article, or

**[The specific requirements for shower design differ from the 2019 VBBL, but provide broadly comparable functionality. Both the 2024 BCBC and the VBBL have emphasized the minimum need for space allocation at the time of construction to allow for the future modification or installation of facilities to suite the need of the occupant.]**

- ii) bathtub described in Sentence 3.8.3.18.(1) that does not impede the space for or use of other fixtures described in this Article (see Note A-3.8.5.7.(1)(c) and (d)), and

e) walls adjacent the water closet and shower or bathtub location reinforced to accommodate the future installation of grab bars conforming to

i) Clauses 3.8.3.12.(1)(f) and (g) for water closets, and

ii) Clause 3.8.3.17.(1)(f) for showers or Clauses 3.8.3.18.(1)(f) for bathtubs (see Note A-3.8.5.7.(1)(e)).

**[The specific dimension for handrails differs from the 2019 VBBL but conceptually lead to similar results. As a result, it was proposed to simply harmonize with the 2024 BCBC as a single standard to reduce confusion for designers and trades.]**

### **3.8.5.8. Adaptable Dwelling Unit Kitchens**

**[The requirements of this Article are adopted from the 2024 BCBC, and generally aligned with the provision of the 2019 VBBL.]**

1) The kitchen in an *adaptable dwelling unit* shall be designed so that the *cooktop* and sink are adjacent or can have a continuous counter between them.

2) A clear floor space shall be provided in the kitchen area that is not less than 1 700 mm in diameter or 1 700 mm by 1 500 mm.

3) The *plumbing system* serving the kitchen shall accommodate the future installation of a kitchen sink that could be installed in accordance with the requirements for the installation of a lavatory as described in Clauses 3.8.3.16.(1)(b) to (f). (See Note A-3.8.5.7.(1)(c) and (d).)

### **3.8.5.9. Controls, Switches and Outlets**

**[The first two Sentences of this Article are proposed for adopted from the 2024 BCBC. This is generally consistent with the 2019 VBBL, except outlets were previously required to have a 455 mm minimum height.]**

1) Except as provided in Sentence (2), controls and switches for *building* systems and outlets in *adaptable dwelling units*, that are intended for frequent operation by occupants, shall not require activities for operation below 400 mm from the floor or above 1 200 mm from the floor.

2) Sentence (1) does not apply to controls, switches and dedicated outlets for equipment or appliances.

3) In *multi-level dwelling unit*, at least one electrical receptacle shall be provided in the vicinity of the stair serving floors levels required to be adaptable ~~required by Sentence 3.8.5.4.(3).~~

**[This is Sentence is carried forwards from the 2019 VBBL and directs designers to provide an electrical outlet to provide a source of power for a potential future stair lift.]**

### **3.8.5.10. Adaptable Ground Oriented Housing**

**[This Article generally carries forwards the adaptability requirements of the 2019 VBBL and are proposed to be applicable to lower density forms of house such as detached house, row houses, town house, and similar ground oriented housing. Note that in addition to this, the harmonized requirements of Articles 3.8.5.2., 3.8.5.3., and 3.8.5.9. will also apply. This is intended to provided functionally equivalent performance, with limited improvement where harmonization with the 2024 BCBC is more easily achieved. Comments have been provided below where substantive alterations have been proposed to the existing 2019 VBBL.]**

1) New dwelling units in a building described in Clause 3.8.2.1.(1)(a), other than hotels, motels, single room accommodation and similar commercial occupancies, shall comply with the requirements of Sentence (2) to (7).

2) Doorways shall have

a) a clear width of least 800 mm,

**[The clear doorway width under the 2024 BCBC is 850 mm. It is currently proposed to carry forwards the existing 2019 VBBL requirements in order to limit the scope of changes occurring concurrently with the substantial changes happening under the 2024 BCBC as this may have an impact on suite size. It is recognized that there may be several benefits from harmonizing the requirements and this change may be pursued in future.]**

b) door opening hardware that does not require a tight grasp or twisting action of the wrist and can be opened with a force of not more than 22 N, and

c) beveled thresholds not more than 13 mm above the floor.

3) Corridors shall have a clear width of at least 900 mm.

4) At least one set of stairs providing access between floor levels shall have a minimum width of 915 mm., except for

a) interior stairs in an ancillary residential building, or

b) floor levels accessible by a private elevator.

**[This Clause is proposed to be added to extend the 2019 VBBL requirements to acknowledge that private elevators may also provide an accessible path between floors.]**

5) At least one bathroom in a dwelling unit that includes a floor level exceeding 40 m<sup>2</sup> shall

a) have a washbasin,

b) have a toilet,

c) have either a bathtub, shower, or be configured to accommodate the future installation of a low barrier shower and shall be constructed with

i) the addition of structural reinforcement of framed construction to accommodate the subsequent change in load, or the removal or reduction of the capacity of structural elements to facilitate the future installation of a low barrier shower,

ii) pre-plumbing of a drain connection to the greatest extent permitted by this By-law to facilitate the future installation of a low barrier shower where it passes through a concrete floor or floor topping, or

iii) alternative measures to the satisfaction of the Chief Building Official where it can be demonstrated that the future installation of a low barrier shower can be installed without substantial changes to the building structure or layout,

d) be arranged so as to provide a minimum clear floor space of 750 mm by 1200 mm in front of a washbasin, toilet, bathtub or shower required by Clause (c),



f) bath and shower controls required for a bath or shower required by Clause (5)(c) shall be

i) easily accessible from an open floor space or offset which does not require entry into the bath or shower to operate, and

ii) equipped with lever-type controls or hardware that does not require a tight grasp or twisting action of the wrist.

g) be located on

i) the principal floor exceeding 40 m<sup>2</sup> contain living space with level access to an entry at the adjacent ground level, or

ii) a floor provided with features that in the opinion of the *Chief Building Official* can readily be modified to facilitate future use by persons with limited mobility (see Note A-3.8.5.5.(1)).

6) The washroom required by Sentence (5) shall be located on

a) the principal floor exceeding 40 m<sup>2</sup> contain living space with level access to an entry at the adjacent ground level, or

b) a floor provided with features that in the opinion of the *Chief Building Official* can readily be modified to facilitate future use by persons with limited mobility (see Note A-3.8.5.5.(1)).

7) All washbasins shall be equipped with lever-type faucets or hardware that does not require a tight grasp or twisting action of the wrist.