



Public Review

Vancouver Building By-law (VBBL)

Proposed change to Adaptable Dwelling Unit Requirements

Topic: Adaptable Dwelling Units requirements

Code change number: 24-0008

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

Description of the proposed change

Harmonization of Adaptable Dwelling Units requirements.

Justification

The 2024 BCBC has introduced mandatory adaptability for Apartment/Condo dwelling units, and limited adaptability for ground-oriented (lower density) dwelling units. These requirements are not fully consistent with existing VBBL requirements for adaptability. Council have asked staff to explore harmonization options for the Building By-law, considering both the city's leadership in key areas, and considering the urgent need for housing.

As directed by City Council in May of 2024, city staff are seeking to integrate the BCBC 2024 adaptability requirements and existing City of Vancouver adaptability requirements. This will allow Vancouver to gain the benefits of harmonization of a single standard for adaptability with respect to apartment/condo type constructions, and maintain Vancouver's leadership position with respect to equity and inclusiveness with respect to adaptability in lower density forms of housing.

The current BCBC 2024 requirements provide for mandatory adaptability pertaining to two types of dwelling unit:

1. Apartment/Condo type units – requiring full adaptability, and
2. Ground-oriented (lower density) housing – requiring only reinforcement/backing in the walls of the bathroom.

The key concern with this approach are two-fold:

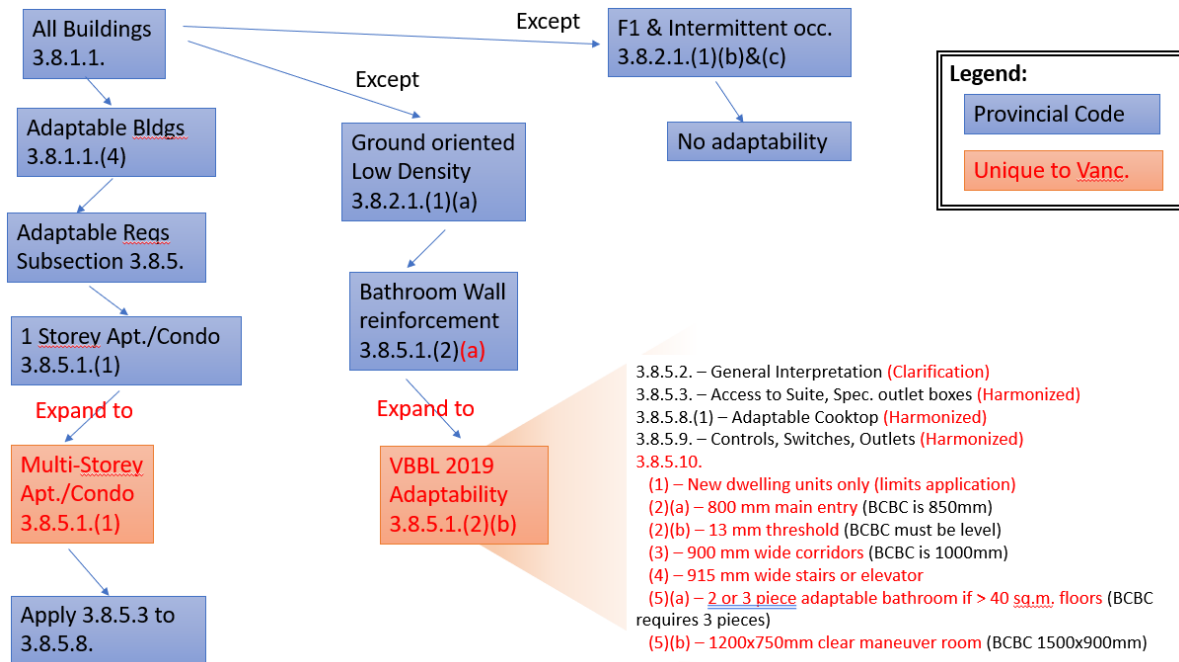
1. For apartment/condo housing, the provisions go further in terms of the space requirements and extent of their application, within forms of housing that are already severely space constrained and highly price sensitive; and

- For ground-oriented forms of housing, this is a step backwards with respect to what the VBBL 2019 has been requiring, in forms of housing that are typically less space constrained.

Further to this, for apartment/condo type units, the application of adaptability requirements in the BCBC applies only to single storey units. Multi-storey units are not subject to adaptability. This does not appear to be consistent with the goals of adaptability or equitable given that these are less common, less space constrained, and likely less price sensitive.

Over the last 10 years, the industry has become somewhat accustomed to Vancouver’s adaptability requirements. Inspectors and plan reviewers are reporting a generally high level of success in multifamily projects, and there is general uptake on lower density forms of housing, although with room for improvement. Interestingly, it does appear that anecdotally the remaining resistance appears to be from the larger and more expensive detach housing projects.

Given the above, it is proposed that the adaptability requirements of the 2024 BCBC and a harmonized variation of the 2019 VBBL be blended with the resultant following structure.



This approach will maximize standardization opportunities to the benefit of industry, and further Vancouver’s inclusivity and equity objectives.

The intent of these changes is that all apartment/condo type dwelling units will be adaptable, in a manner fully consistent with the 2024 BCBC, and that for ground-oriented forms of housing, that these will incorporate enhancements aligned with the prior 2019 VBBL adaptability requirements, but harmonized with the 2024 BCBC standard where reasonable.

Council has already recognized adaptability to be an important need for persons with disability, and for preparing the City for an aging population. Without mandating adaptability (and more broadly accessibility) for all, it is quite possible that builders would provide almost no adaptable or accessible units.

It is acknowledged that this is a difficult balance of needs that is to be achieved, as it touches on issues of importance for all Vancouverites. Adaptability is already required for all new units in Vancouver as of April 2014. This proposal seeks to adapt Vancouver's existing provision to harmonize with the 2024 BCBC, which generally only impacts apartment/condo typologies.

Proposed VBBL content

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
 - 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
 - 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
 - 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).
 - 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.

3.8.5.2. Construction Requirements

- 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

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

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).

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

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).

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

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

- 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),
 - 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
 - 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)).

3.8.5.8. Adaptable Dwelling Unit Kitchens

- 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

- 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).

3.8.5.10. Adaptable Ground Oriented Housing

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,

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.

5) At least one bathroom in a dwelling unit that includes a floor level exceeding 40 m² 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 m² 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 m² 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.