

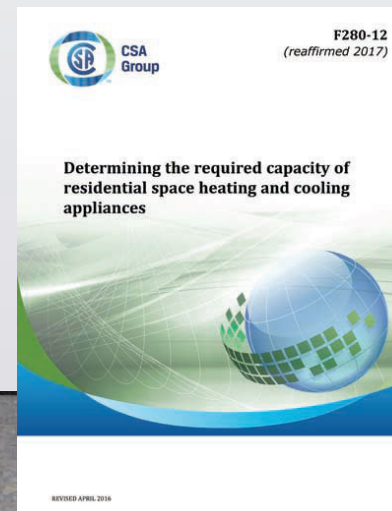
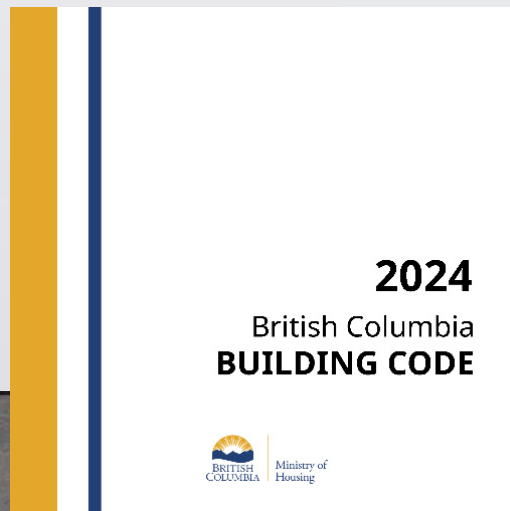


2024 BC Building Code Changes

Effective March 10th 2025

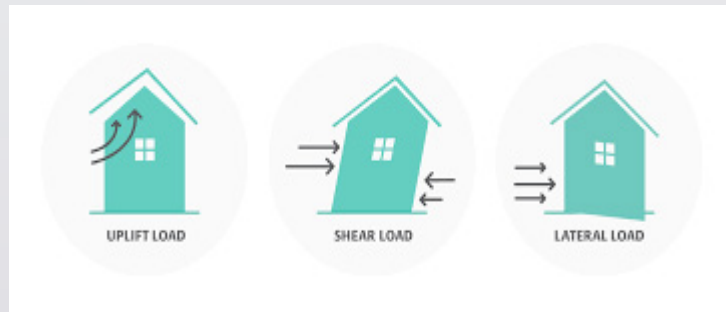
Overview of 2024 BCBC Changes (March 2025)

- Seismic and lateral loads (wind) for structural design (**March 10th 2025**)
- Adaptable dwelling units (**March 10th 2025**)
- Zero Carbon Step Code – EL-1 (Emissions Level) (**March 10th 2025**)
- **CSA F280** “*Determining the required capacity of residential space heating and cooling appliances*” (**March 10th 2025**). Heating and cooling load calculations required in addition to BC ESC reports.



BCBC Changes – March 10, 2025

- Lateral loads – Seismic/wind-adopting national provisions to improve earthquake design changes for housing and small buildings with high seismic hazard values. (S_{max} vs S_{a02})
- Adaptable Dwelling Units – 100% in large condominium apartment buildings and first floor dwelling units in new small apartments and condominiums
- Reinforcement of bathroom walls to allow future installation of grab bars (backing)





Adaptable Dwelling Units

- BSSB Bulletin **B24-09 R2 – “Adaptable Dwellings Units Frequently Asked Questions”**
- “A dwelling unit designed and constructed with some accessible features, and which accommodates the future modification to provide more accessible features”
- Mostly applies to large Part 3 buildings -one storey dwelling unit served by an accessible interior public corridor and accessible entrance. Also common spaces including roof top occupancies.



Adaptable Dwelling Units – BCBC Part 9

9.5.2 Accessible Design

9.5.2.1. General

- 1) Except as provided in Articles 9.5.2.3. and **3.8.2.1.**, every building shall be designed in conformance with Section 3.8.

3.8.2.1 Exceptions

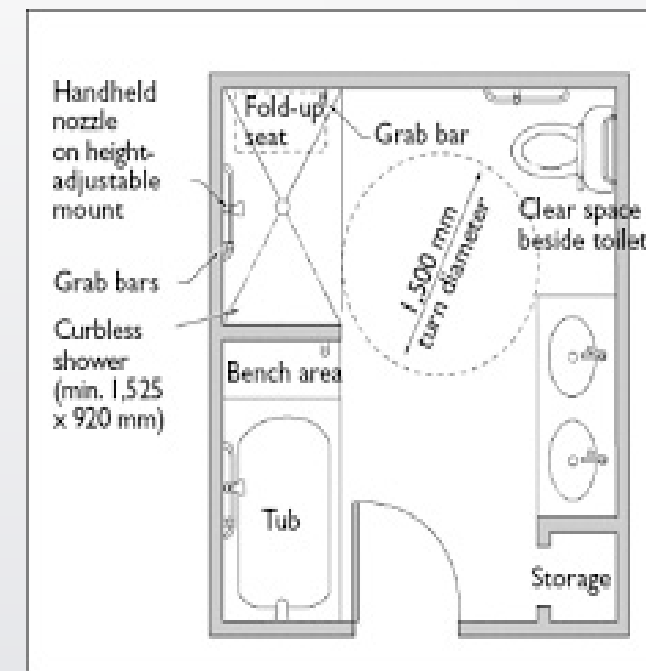
- 1) Except as required by sentence (2), the requirements of this section apply to all buildings except
 - (a) detached house, semi-detached houses, houses with a secondary suite, duplexes, triplexes, townhouses, row houses and boarding houses.

3.8.5.1 Adaptable Dwelling Units

Building 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)

Adaptable Dwelling Units –Part 9

- BCBC Pathway:
- 9.5.2.1 -> 3.8.2.1 -> 3.8.5.1 -> 3.8.5.7 -> 3.8.3.12 & 3.8.3.17
- 3.8.5.7(1)(e) walls adjacent the water closet and shower or bathtub location **reinforced** to accommodate the future installation or grab bars conforming to
 - i. Clause 3.8.3.12 (1)(f) and (g) for water closets, and
 - ii. Clause 3.8.3.17. (1)(f) for showers or Clause 3.8.3.18(1)(f) for bathtubs
 - iii. * Layout and design for **1** washroom with stand alone toilets may require some modification.



Reinforcement

- CSA B651 Standard “*Accessible design for the built environment*”
- “Using 19-mm (¾-in.) plywood on all the walls of the bathroom is the most universal solution”.
- 6.2.5.2 **Structural Strength** -A grab bar shall be installed to resist a force of at least 1.3 kN (292 LB-force) applied in any direction.
- Backing required in walls at all grab bar locations.
 - (2x material between studs or ¾” plywood to full walls. (Framing Inspection)



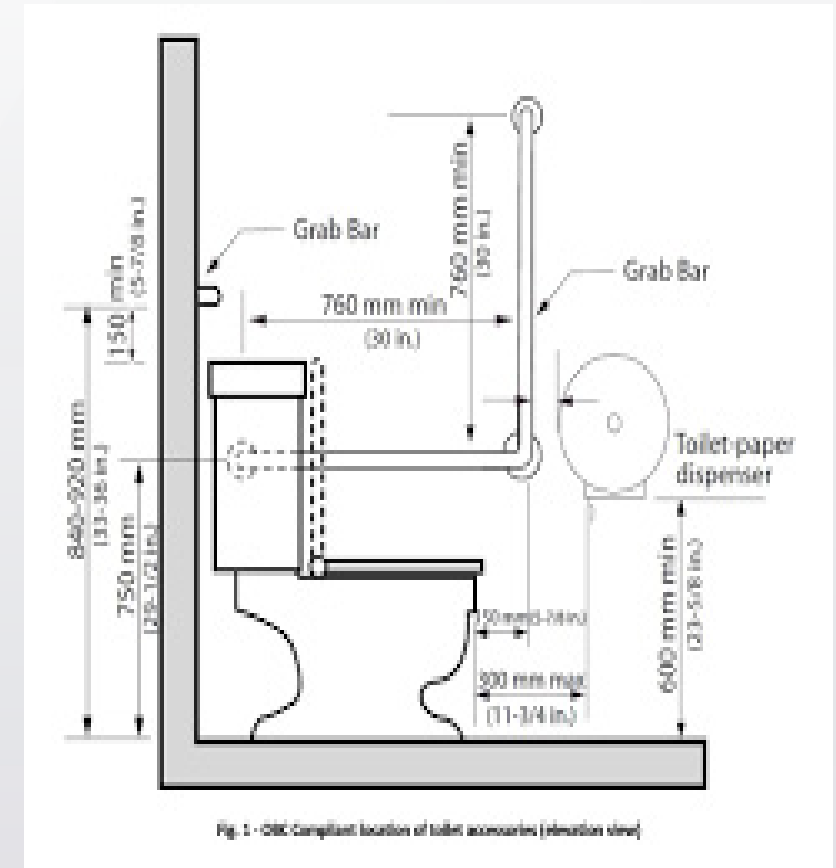
Grab Bar Placement & Blocking


For The
Aging-In-Place
Bathroom



Reinforcing for Toilets

- Clause 3.8.3.12 (1)(f) and (g) for toilets, **2 locations required**.
- **1** -L-shaped grab bar on the side wall closest to the toilet.
Horizontal and vertical components that are at least 760 mm (30") long.
 - a) horizontal component 750 (29.5") to 850 mm (33.5") above the floor and adjacent to the toilet
 - b) vertical component is 150 mm (6") in front of the toilet.
- **2** -horizontal grab bar mounted on the rear wall ;
 - a) centered over the toilet;
 - b) not less than 600 mm (24") long or 2 grab bars at least 300mm (12") long



Reinforcing for Showers

- Clause 3.8.3.17. (1)(f) for showers
- Showers: **2 locations required.**
 - **1** = 1000mm (39") long on side wall (2-3" from clear space) and 600mm to 650 mm above floor (24 -26")
 - **2** = L-shape, horizontal member 1000mm long, 750mm to 850 mm above floor. Vertical member 750mm long, 400mm to 500mm from side wall

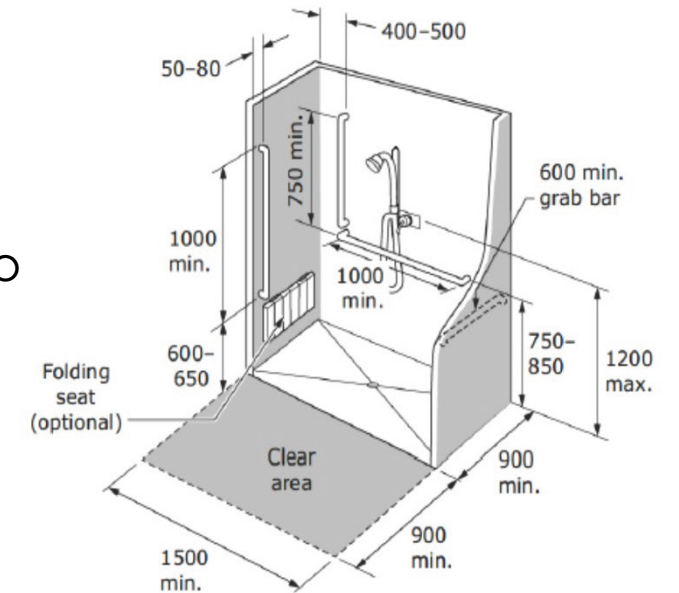
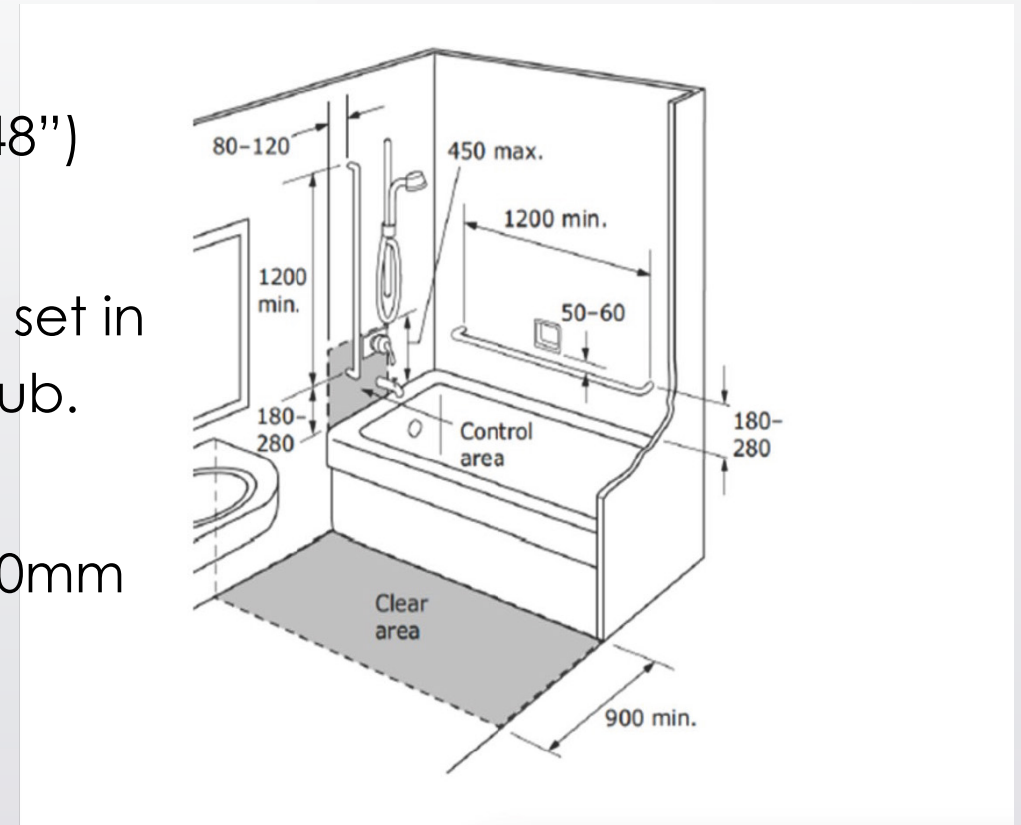


Figure 1 - CSA/ASC B651 Accessible Shower

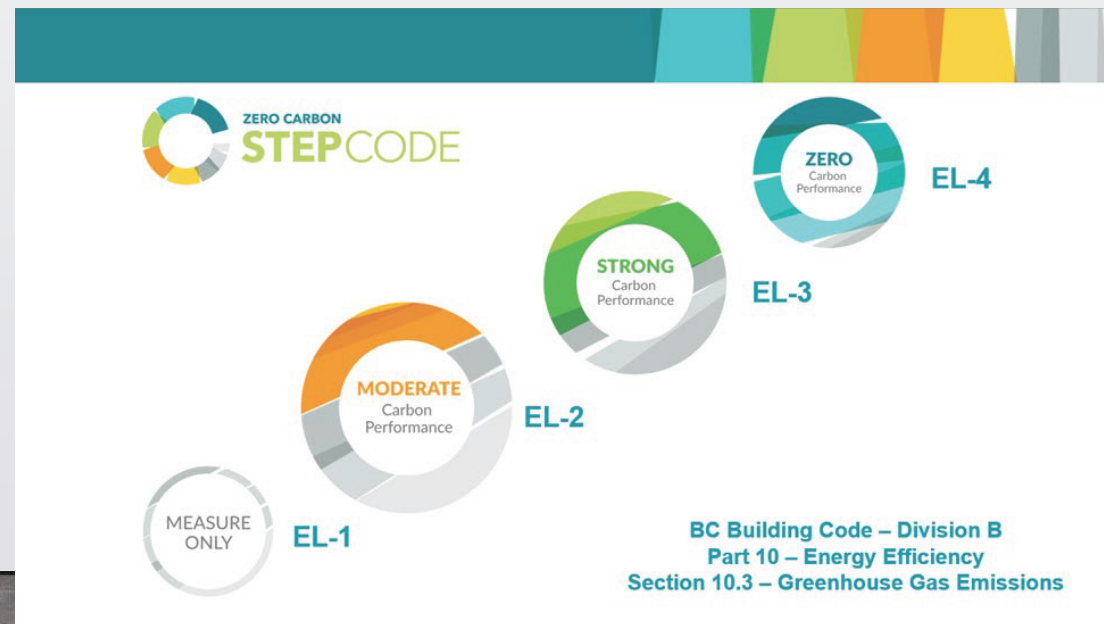
Reinforcing for Bathtubs

- Clause 3.8.3.18(1)(f) for bathtubs
- **3 locations required** Not less than 1200mm (48") long.
- **2** located vertically at each end of bathtub, set in 80mm-120mm (3"-6") from outside edge of tub. Lower end 180mm-280mm above rim of tub.
- **1** horizontally along length of tub, 180mm-280mm (7"-11") above tub rim.
- Tub Surrounds?



Zero Carbon Step Code

- Buildings shall conform to the requirements of any of GHG Emission Levels EL-1, EL-2, EL-3 or EL-4 and shall be designed and constructed to conform to one of the GHG emission compliance options in Table 9.37.1.3.
- BCBC minimum EL-1 = “Measure Only” – no GHGI limit, just reporting actual emissions





Cooling Requirements –Section 9.33

- Except where determination according to Article 9.33.5.1. (**CSA F280**) or good engineering practice according to Article 6.2.1.1. can show it to be unnecessary, dwelling units intended for use in the summer months on a continuing basis shall be equipped with cooling facilities conforming to this Section. (See Note A9.33.2.1.(2).)
- A-9.33.2.1.(2) Cooling. Passive cooling designs can also be used to help reduce cooling loads to achieve the indoor design temperature specified in Sentence 9.33.3.1.(2). (Architect or Engineer design required)
- At the outside summer design temperature (31°C), required cooling facilities shall be capable of maintaining an indoor air temperature of not more than 26°C in at least one living space in each dwelling unit.

9.33.5.1 – Capacity of Heating and Cooling Appliances

- 1) The required capacity of heating and cooling *appliances* located in a *dwelling unit* and serving only that *dwelling unit*, shall be determined in accordance with **CSA F280**, “Determining the required capacity of residential space heating and cooling appliances,” except that the design temperatures shall conform to Subsection 9.33.3.

