## BCBC 2024 Adaptable Dwelling Units Provisions

Presented By:

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- GHL 4 years
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- Author and illustrator of GHL's BCBC 2024 Illustrated Guide to Accessibility
- Author of the 2024 BCBC Adaptable Dwelling Unit Illustrative Design Guide developed in coordination with BSSB Staff and Public Architecture + Design Inc.

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### **Provincially Published Resources & Material**

2024 BCBC Adaptable and Seismic Space and Cost Impact Study Report



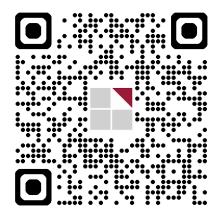
2024 BCBC Adaptable Illustrative Design Guide

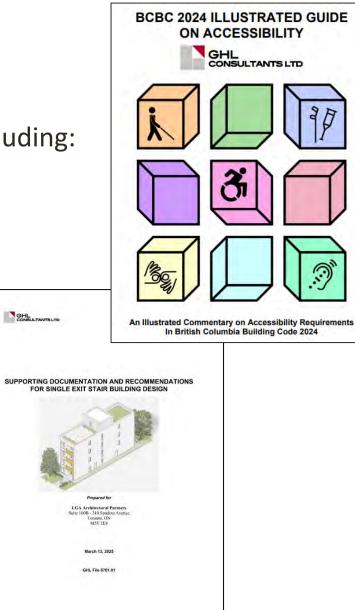


### **GHL Resources**

Presentations and resources available on <u>GHL's website</u>, including:

- BCBC 2024 Illustrated Guide on Accessibility
- BCBC 2024 Code Change Presentation
- BCBC 2024 Building Code Mass Timber Changes
- Single Exit Stair Study
- Mass Timber Fire Test Reports
- And much more...





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### Legend

- Black Text Information from the BCBC 2024
- Purple Text Information from technical bulletin and Adaptable Design Guide
- Blue Text Information found the Adaptable Design Guide
- Notes on "[Required at initial construction]" based on discussion with BSSB staff and formed part of the Adaptable Design Guide

### Agenda

When the Provisions Come Into Affect 1 Change in Percentage of Adaptable Units Required 2 3 **Components Prescribed In All Dwelling Units** Where the Adaptable Provisions Do Not Apply 4 5 Doors Path of Travel within Dwelling Unit 6 Bedroom 7 Bathroom 8 Kitchen 9 10 **Controls and Outlets** Questions 11 © Copyright GHL Consultants Ltd.

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### What Adaptable Means

Adaptable dwelling unit means a dwelling unit designed and constructed with some accessible features and which accommodates the future modification to provide more accessible features.

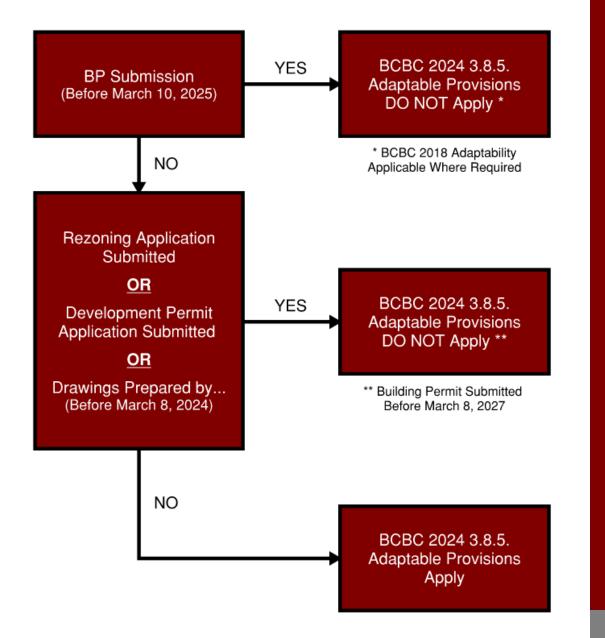


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## When 3.8.5. Provisions Come Into Affect

#### Ministerial Order No. BA 2024 04

Adaptable provisions come into effect on March 10, 2025 ... with some exceptions.



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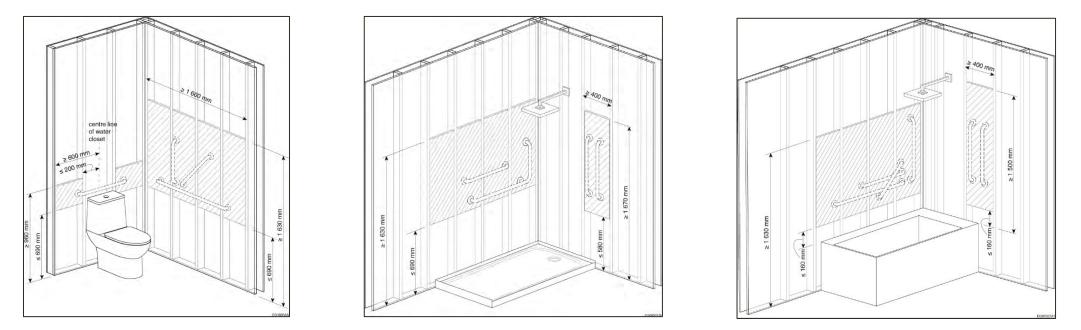
### Change in Percentage of Adaptable Units Required

Ministerial Order No. BA 2025 01 - Amendments to Article 3.8.5.1. and A-3.8.5.1.(3) 20% instead of 100% of units are to be designed as adaptable units

- Minimum one for every five <u>or part thereof</u> of dwelling units are to be adaptable.
- If you have 22 dwelling units a minimum of 5 are required to be adaptable dwelling units, not just 4.
- There is no requirement how the adaptable units need to be divided across multiple storeys.
- These changes are not present in the code but can be found in the Ministerial Order or the Adaptable Design Guide.
- This Ministerial Order does not void <u>Ministerial Order No. BA 2024 04</u> for when adaptable provision come into affect.

### Component Applicable to All Dwelling Units

- Grab bar backing in at <u>least one</u> bathroom for both the water closet and shower/tub.
- Applies to Part 3 & Part 9 buildings including single family, duplex, townhouses, etc.



Example of grab bar backing From Canadian Board for Harmonized Construction Codes (CBHCC) Proposed Changes to NBC 2020

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### Where Adaptable Provisions **DO NOT** Apply

### **Grab Bar Reinforcement Required**

- Detached houses
- Semi-detached houses
- Secondary suites
- Townhouses
- Two storey dwelling units
- Apartments with their own entry/exit to the exterior and no interior connection to the remainder of the building
- Small apartment buildings (Further discussed on the next slide)

### Grab Bar Reinforcement <u>NOT</u> Required

- Boarding houses
- Dormitories
- Hotels
- Lodging houses



### Small Apartment Buildings – Part 3 & 9

Part 3 up to 2 storeys and 600m<sup>2</sup> Part 9 up to 3 storeys and 600m<sup>2</sup>

- Entry storey required to be accessible
- Upper storey(s) are not required to be accessible unless elevator access and/or an amenity space is provided

This means in relation to adaptable dwelling units is that they are only required at levels provided with an accessible path of travel.



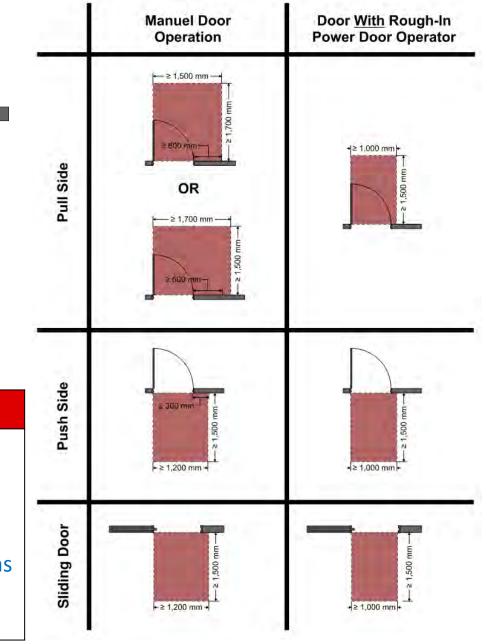
### Doors

- Clear opening width of 850mm
- Clear floor space on either side of doors
- Reduced clear floor space with a pre-wired power door operator

-≥ 850mm

#### [Required at initial construction]

Applicable	Not Applicable
<ul> <li>Suite entry door</li> </ul>	<ul> <li>Balcony</li> </ul>
<ul> <li>Door between the entry</li> </ul>	Laundry
door and	<ul> <li>Storage</li> </ul>
<ul> <li>Adaptable bedroom</li> </ul>	<ul> <li>Office</li> </ul>
<ul> <li>Adaptable bathroom</li> </ul>	• Other bed / bath / kitchens
• Kitchen	that are not adaptable
Living room	



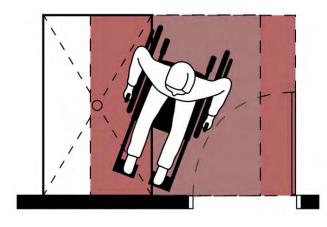
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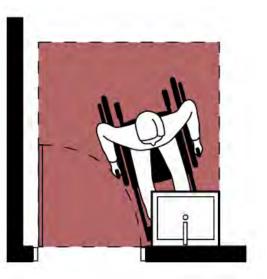
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### Doors – Clear Space

- Clear floor space may extend into:
  - A shower (with a low-profile threshold (max 13mm), provided there is no shower partition to restrict the clear space (shower curtain acceptable)).
  - A lavatory (on the wall beside the door, provided clear space under the lavatory is provided at initial construction).

No fixed counters permitted within clear floor space





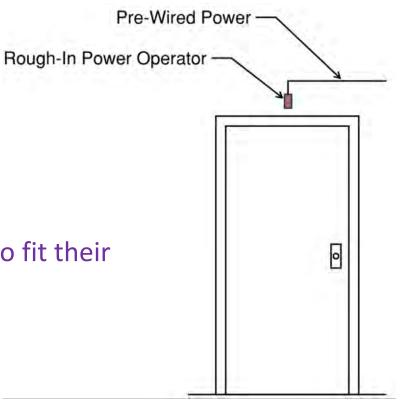
### Doors – Pre-Wired Power Door Operator

- Pre-wired power door operator only needs to consist of:
  - Electrical box located above the door
  - Pre-wired power
  - Cover plate

No other electrical boxes required for operator controls.

Based on the idea that a person can retrofit the system to fit their needs future (e.g. control buttons or remote activation).

[BC Technical Bulletin No. B24-09-R3]

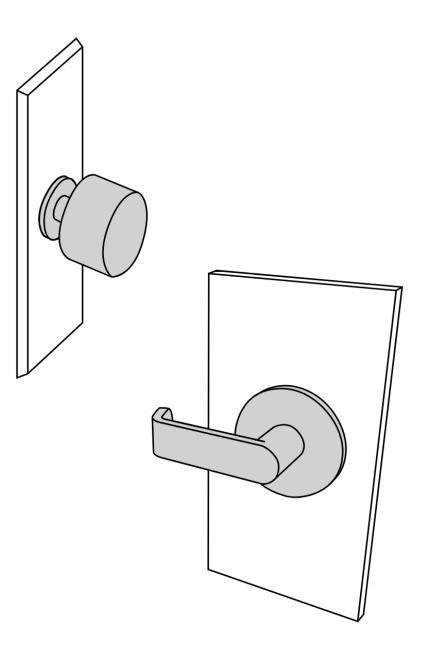


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### Doors – Hardware

Hardware that would require tight grasping or twisting of the wrist is <u>acceptable</u> at initial construction.

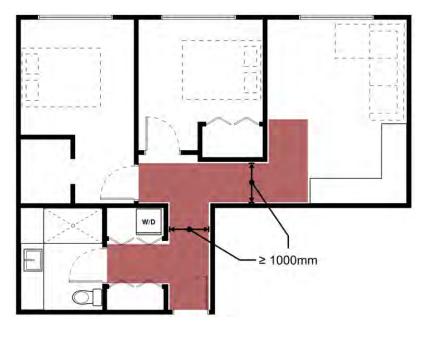
Based on the idea that a person can retrofit the hardware to fit their needs in future.



### Path of Travel Within Dwelling Unit

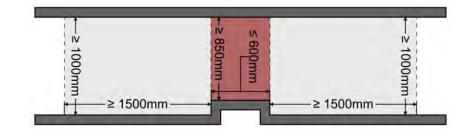
1000mm clear path from the entrance door to the:

Applicable	Not Applicable
<ul> <li>Adaptable bedroom</li> <li>Adaptable bathroom</li> <li>Living Room</li> <li>Kitchen</li> <li>Throughout Kitchen</li> </ul>	<ul> <li>Balcony</li> <li>Laundry</li> <li>Storage</li> <li>Office</li> <li>Other bed / bath / kitchens</li> </ul>
	that are not adaptable



Paths may also be reduced to 850mm for a length of 600mm.

### [Required at initial construction]



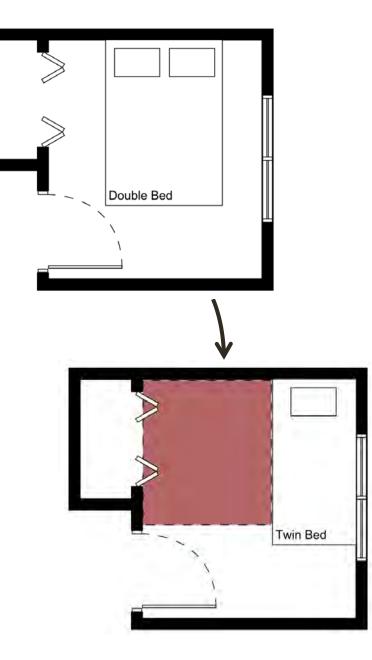
### Bedroom

At least one bedroom is to be adaptable, which includes:

- Clear floor space at the door
- Clear space adjacent the bed
- Clear space in front of the closet
- Clear opening width of the closet
- 850mm path to allow functional us of the bedroom

It is acceptable to meet the space requirements based on showing a single bed against a wall on one side. [BCBC Technical Bulletin B24-09-R3]

Where a walk-in closet is provided the clear floor space can be outside it, rather than within the closet itself. Closet door clear opening width can be 850mm.

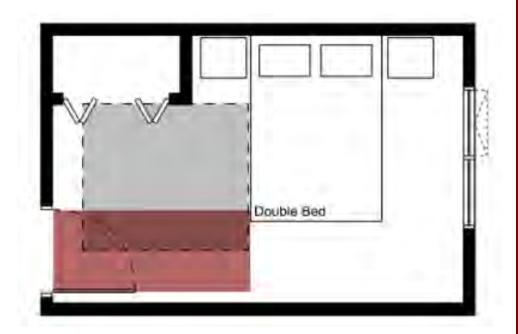


### Bedroom - Path

"Allow functional use of the bedroom"

- 850mm clear width is provided from the bedroom entrance to:
  - Clear space beside the bed
  - Clear space at the closet
  - Adaptable ensuite bathroom (if provided)

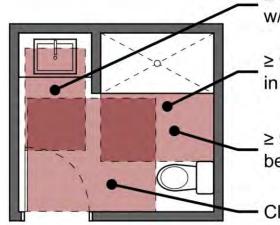
Clear path to an openable window is <u>**not**</u> required but is rather a recommendation if it is a required egress window.



### Bathroom

At least one bathroom is to be adaptable, which includes:

- Door clear floor space [Required at initial construction]
- Toilet clear transfer space \_\_\_\_\_ [Required at initial construction]
- Backing for grab bars \_\_\_\_\_ [Required at initial construction]
- Sink plumbing where it penetrates a wall [Required at initial construction]
- Sink design and clear space
- Shower/bathtub plumbing location in wall
- Shower/bathtub design and clear space



≥ 800mm by 1350mm w/ max 430mm under sink

 $\geq$  900mm by 1500mm in front of shower

≥ 900mm by 1500mm beside water closet

Clear floor space at door

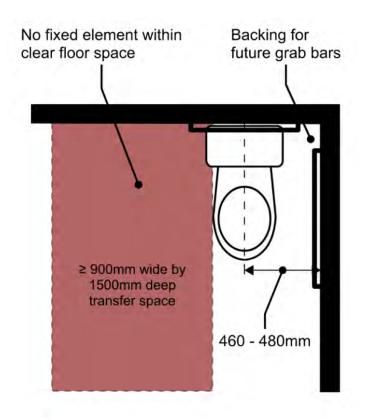
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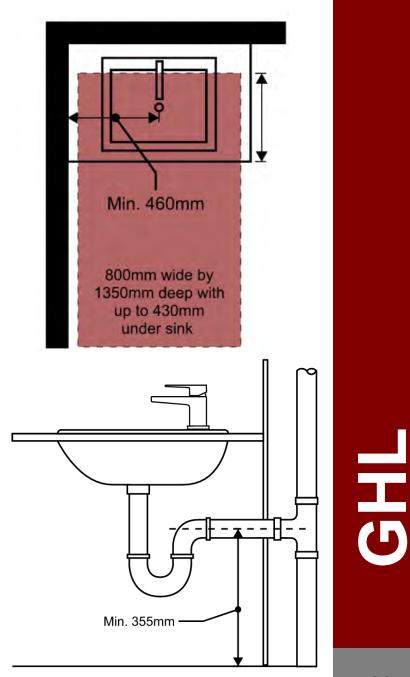
### Bathroom – Water Closet

- Clear transfer space beside water closet to be provided **<u>at initial construction</u>**. No fixed element (e.g. counter) within the transfer space.
- Centre line of toilet to be 460-480mm to adjacent wall.
- Backing for grab bars adjacent and behind toilet required at initial construction.



### Bathroom – Lavatory

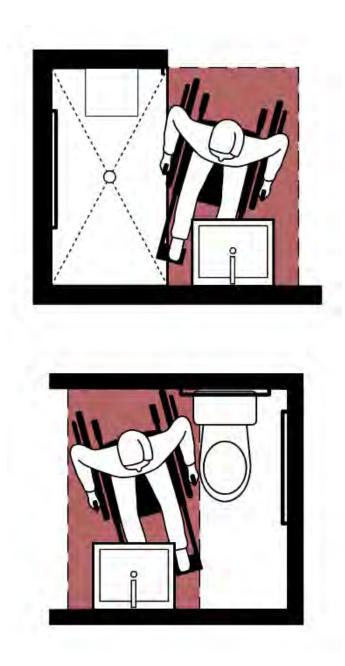
- Clear floor space does <u>not</u> need to be provided at initial construction (cabinetry can be provided)
- Centre of lavatory to wall to be min 460mm
- "Plumbing system that accommodates future installation of an accessible lavatory with clear space underneath"
  - Drainpipe leading to the drain stack to be min. 355mm above the finish floor such that the of P-trap achieves a 230mm clearance from underside of the P-trap to the finished floor.
  - So that the lavatory plumbing system does not require moving the plumbing in future.



### Bathroom – Lavatory

Lavatory can encroach into the clear floor space:

- In front of the shower, provided it is on the wall opposite the vertical grab bar. (Lavatory can have cabinetry underneath at initial construction).
- In the shower, provided it is on the side opposite the vertical grab bar and does not impede on the space of other elements (e.g. grab bars).
- Toilet transfer space, provided it is on the wall opposite the toilet and is wall hung at initial construction to provide knee clearance. [BCBC Interpretation 24-0049].



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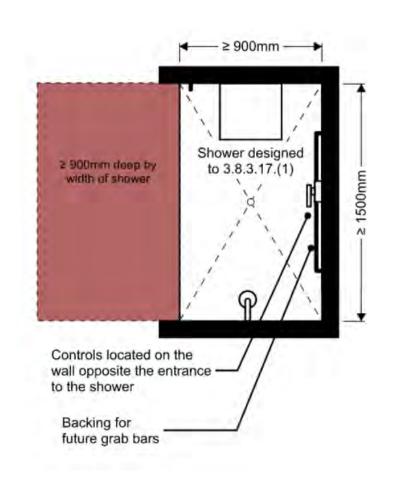
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## Bathroom – Shower / Tub

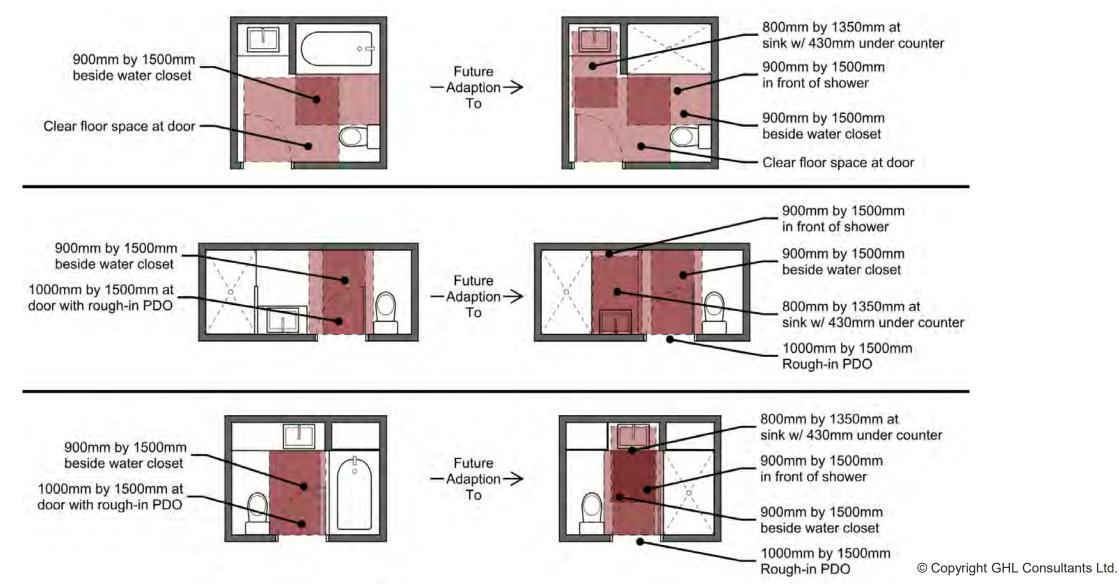
"Plumbing system that accommodates future installation of an accessible shower or bathtub"

A shower / bathtub <u>does not</u> need to be made accessible at initial construction, however, the plumbing system <u>does</u> need to <u>accommodate</u> a renovation in future.

- Plumbing system (e.g. controls & shower head) do not need to be provided at the accessible location at initial construction, provided
  - Rough-in plumbing is located behind the wall where the controls / shower head would be required
  - Plumbing system can be relocated in future



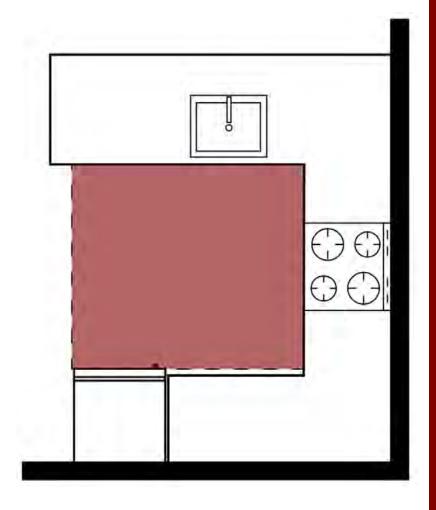
### Bathroom – Layout Examples



### Kitchen

At least one kitchen is to be adaptable, which includes:

- A continuous counter between the sink and cooktop.
- Clear turn around floor space within kitchen.
   [Required at initial construction]
- Kitchen sink plumbing system that accommodates retrofitting an accessible sink.
   [Required at initial construction]



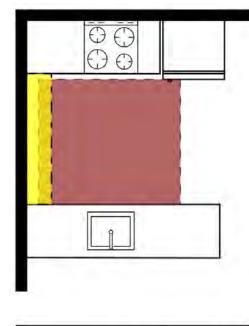
### Kitchen – Continuous Counter

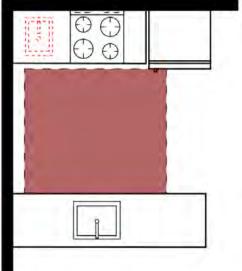
A continuous counter <u>does not</u> need to be provided at initial construction if:

• A continuous counter can be provided in future.

OR

 A plumbing rough-in for a second kitchen sink is provided, such that there is a continuous counter between the cooktop and second sink.

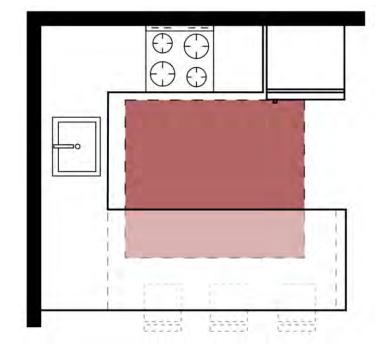




### Kitchen – Turning Area

Turning area is required at initial construction with no fixed elements located within the space.

- Turning space can extend up to 430mm under a counter provided with knee clearance <u>at initial</u> <u>construction</u>.
- Movable counters can encroach into turning area.





### Controls / Switches / Outlets

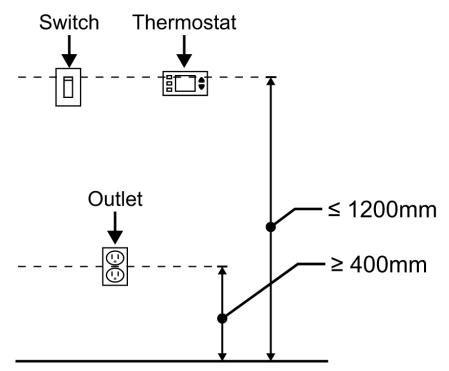
To be installed <u>at initial construction</u> between 400mm and 1200mm, where intended for frequent operation, devices including:

- Light switches
- Outlets
- Thermostat

#### Does NOT apply to:

- Hood fans
- Breaker panels
- Controls & outlets specific for appliances
- Telephone / Television / Data Outlets
- Controls for operable widows
- Controls, switches, outlets provided on decks





### **Special Outlet for Future Strobe**

To be installed **<u>at initial construction</u>** in:

- Sleeping rooms
- Living area and hallways serving living area
- Rooms closed off from living area by a door, such as:
  - Washroom (including ensuite)
  - Office
  - Den / Flex Space

Small storage closets do not require special outlets as they are not considered to accommodate prolonged usage. [BCBC Interpretation 24-0012]



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### Adaptable Unit Provisions Table – From the Adaptable Design Guide

Reference	Provision Summary	Expectation
3.8.5.1.(2)	Grab bar reinforcement	At initial construction for future adapting
3.8.5.4.(1) and (3)	Door clear opening width	At initial construction
3.8.5.4.(2), (4) and (5)	Door clear floor space	At initial construction
3.8.5.4.(5)	Pre-wired power door operator	At initial construction for future adapting
3.8.5.5.(1)	Path of travel clear width	At initial construction
3.8.5.6.(1)(a)	Clear floor space adjacent bed	At initial construction
3.8.5.6.(1)(b)	Clear path through bedroom	At initial construction
3.8.5.6.(1)(c)	Closet opening width and clear floor space at closet	At initial construction
3.8.5.7.(1)(a)	Water Closet transfer space	At initial construction
3.8.5.7.(1)(b)	Water Closet distance to adjacent wall	At initial construction
3.8.5.7.(1)(c)	Lavatory design and clear floor space	Adaptable in <b>future</b>
3.8.5.7.(1)(c)	Lavatory plumbing where it penetrates the wall	At initial construction
3.8.5.7.(1)(d)	Shower / bathtub design and clear floor space	Adaptable in <b>future</b>
3.8.5.7.(1)(d)	Shower / bathtub plumbing location in wall	Adaptable in <b>future</b>
3.8.5.7.(1)(e)	Grab bar reinforcement	At initial construction for future adapting
3.8.5.8.(1)	Kitchen continuous counter	Adaptable in <b>future</b>
3.8.5.8.(2)	Kitchen turning area	At initial construction
3.8.5.8.(3)	Kitchen sink design and clear floor space	Adaptable in <b>future</b>
3.8.5.8.(3)	Kitchen sink plumbing where it penetrates the wall	At initial construction
3.8.5.9.(1)	Control, switches, and outlet installation heights	At initial construction
3.2.4.19.(7)	Special outlet for future strobe	At initial construction for future adapting





## **Questions**?

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