

ADAPTABLE DESIGN GUIDELINES

Adaptable design creates liveable residences for a wider range of persons than current building codes require. By considering design features that can be easily and inexpensively incorporated at a future time, adaptable design also allows flexibility for residents whose needs may change over time.

The three levels of the **Adaptable Design Guidelines** are in addition to the Barrier-Free requirements of the current Building Code. **Level One** consists of basic design and features, and is required in all multiple unit buildings with common corridors (MUB). **Level Two** and **Level Three** elements provide for a greater range of adaptability. Level Two adaptable design is intended to provide persons who require a mobility aid with the ability to move easily in and out of the building, common areas and individual units. The degree of adaptability increases in Level Three Units, providing full access in all unit spaces.

The **Adaptable Design Policy (originally adopted in 1998)** was updated in January 2013 as follows:

- 25 percent units in a MUB must achieve Level Two;
- for each Level Two unit, 1.86 m² will be excluded from floor area calculations;
- for each Level Three unit, 4.19 m² will be excluded from floor area calculations.

In applying the Guidelines, the City will recognize that new developments and technology may result in equivalents that meet the intent of a specific requirement.

The Adaptable Design Guidelines are presented in two charts:

1. The **Design Elements Checklist** contains items related to initial design and construction phases.
2. The **Fixtures & Finishes Checklist** consists of items which are added during the finishing of a residential building or dwelling unit.

Drawings are available which illustrate the priority features of adaptable design to guide the design process.

Please note the following:

- * The 25 percent requirement for Level 2 Adaptable Design must include a mix of unit types;
- * Flooring examples for building entry and Level 2 and Level 3 kitchen and bathrooms must be provided;
- * One workable example of each adaptive device (window opener, pocket door latching hardware, etc.) must be provided;
- * Architectural drawings must include the following:
 - List of adaptable design elements under Level 1, Level 2, Level 3;
 - Project Summary Sheet to include information as per attached forms (AD Unit List; Residential Unit Summary, Adaptable Design Unit Calculation, Parking Calculation);
 - Door and Window schedules with specific Adaptable Design elements listed;
 - Cross-sections or details of transition from interior floor onto patio/balcony;
 - Scaled drawing of areas where ramps would be installed in future;
 - Cross-section of detail of curbs and ramps;
 - Illustration of future wheel-in shower installation;
 - Notations on drawings to label each unit (unit type, adaptable design level type 1, 2 or 3, sq. footage);
 - Unit plans prepared at ¼" to 1-0" foot or 1:50 (metric) for each adaptable design unit type, with critical dimensions provided.

Please refer to the 2014 Building Access Handbook for details on accessibility elements.

ADAPTABLE DESIGN GUIDELINES

DESIGN ELEMENTS

City of North Vancouver Zoning Bylaw, 1995, No. 6700 Amendment Bylaw No. 2005, No. 7721 - Figure 5 - 1

	LEVEL ONE	LEVEL TWO	LEVEL THREE
BUILDING ACCESS	Outside stairs – maximum degree of colour contrast on nosing of each stair	Outside stairs – maximum degree of colour contrast on nosing of each stair	Outside stairs – maximum degree of colour contrast on nosing of each stair
BUILDING ACCESS	Curb cuts have tactile and visual cues	Curb cuts have tactile and visual cues	Curb cuts have tactile and visual cues
BUILDING ACCESS	Unobstructed access to main building entrances from street/sidewalks	Unobstructed access to main building entrances from street/sidewalks	Unobstructed access to main building entrances from street/sidewalks
BUILDING ACCESS		Unobstructed internal access: <ul style="list-style-type: none"> - from parking levels containing accessible parking (5' or 1520mm corridors; 2' or 610mm clear wall space adjacent to door latch) * - garbage and recycling receptacles and storage lockers - no stairs within building circulation including corridors on residential levels - accessible storage lockers for each unit 	Unobstructed internal access: <ul style="list-style-type: none"> - from parking levels containing accessible parking (5' or 1520mm corridors; 2' or 610mm clear wall space adjacent to door latch) * - garbage and recycling receptacles and storage lockers - no stairs within building circulation including corridors on residential levels - accessible storage lockers for each Level 3 unit
BUILDING ACCESS	Canopy over main building entrances (3' or 915mm) and enterphone	Canopy over main building entrances (3' or 915mm) and enterphone	Canopy over main building entrances (3' or 915mm) and enterphone
BUILDING ACCESS		Provide automatic door opener for at least one building entry door at ground level as well as doors leading into the building on each underground parkade level where disability parking is provided	Provide automatic door opener for at least one building entry door at ground level as well as doors leading into the building on each underground parkade level where disability parking is provided
BUILDING ACCESS	Disability Parking provided in accordance with Zoning bylaw Figure 9-4 as attached	Disability Parking provided in accordance with Zoning bylaw Figure 9-4 as attached.	Disability Parking provided in accordance with Zoning bylaw Figure 9-4 as attached
BUILDING ACCESS		3' or 915mm building and suite entry doors	3' or 915mm building and suite entry doors
BUILDING ACCESS	Flush thresholds throughout the building (maximum ½" or 13mm height)	Flush thresholds throughout the building (maximum ½" or 13mm height)	Flush thresholds throughout the building (maximum ½" or 13mm height)
BUILDING ACCESS	Accessible building enterphone, call buttons and, where provided, suite door bells *	Accessible building enterphone, call buttons and, where provided, suite door bells *	Accessible building enterphone, call buttons and, where provided, suite door bells *

* Illustrations available

** Options considered

COMMON AREAS		Accessible mailboxes for all AD Level 2 units, and 5' or 1520mm turning radius in front *	Accessible mailboxes for all AD Level 3 units, and 5' or 1520mm turning radius in front *
CIRCULATION	Corridors minimum 4' or 1220mm wide (except for service access areas) *	Corridors minimum 4' or 1220mm wide (except for service access areas) *	Corridors minimum 4' or 1220mm wide (except for service access areas) *
CIRCULATION		Provide 5' or 1520mm turning radius inside and outside the entry corridor of each dwelling unit *	Provide 5' or 1520mm turning radius inside and outside the entry corridor of each dwelling unit *
SUITE CIRCULATION		Provide wiring for an automatic door opener for the suite entry door	Provide wiring for an automatic door opener for the suite entry door
SUITE CIRCULATION		Provide 2' or 610mm clear wall space adjacent to door latches where door swings toward user (pocket doors acceptable for bathrooms and bedrooms)*	Provide wiring for an automatic door opener for the suite entry door. Provide 2' or 610mm clear wall space adjacent to door latches where door swings toward user (pocket doors acceptable for bathrooms and bedrooms)*
DOORS		Minimum one bathroom, minimum one bedroom and storage room doors 2'-10" or 860mm clear opening"	Minimum one bathroom, minimum one bedroom and storage room doors 2'-10" or 860mm clear opening
PATIOS & BALCONIES		Minimum one door 2' - 10" or 860mm clear door opening	Minimum one door 2 - 10" or 860mm clear door opening
PATIOS & BALCONIES		Minimum one patio or balcony doorsill with maximum ½" or 13mm threshold**	Minimum one patio or balcony doorsill with maximum ½" or 13mm threshold **
PATIOS & BALCONIES		Minimum 5' or 1520mm turning radius on patio / balcony	Minimum 5' or 1520mm turning radius on patio / balcony
WINDOWS		Opening mechanism maximum 46" or 1168mm above floor (provide notation on window schedule)	Opening mechanism maximum 46" or 1168mm above floor (provide notation on window schedule)
WINDOWS		Provide minimum 6-0' or 1800mm horizontal windows in living room, dining room and minimum one bedroom where sills are not more than 2'- 6" or 750mm above the floor	Provide minimum 6-0' or 1800mm horizontal windows in living room, dining room and minimum one bedroom where sills are not more than 2'- 6" or 750mm above the floor
KITCHEN		Continuous counter between sink and stove*	Continuous counter between sink and stove*
KITCHEN			Sink cabinet minimum 2'8" or 810mm wide
KITCHEN			Provide sufficient space for future installation of cooktop and wall oven
KITCHEN			Provide for potential 2'8" or 810mm wide undercounter workspace
KITCHEN			Lower edge of upper cupboards 4'6" or 1350mm above floor

* Illustrations available

** Options considered

KITCHEN			Minimum 4' or 1220mm floor space between base cabinets / walls (possible with removal of sink cabinet) *
MIN. ONE BATHROOM		Toilet located adjacent to wall (min 3' or 915mm length) *	Toilet located adjacent to wall (min 4'6" or 1370mm length) *
MIN. ONE BATHROOM		Provide turning radius within bathroom (may result from removal of vanity cabinet)*	Provide turning radius within bathroom (may result from removal of vanity cabinet)*
MIN. ONE BATHROOM		3' or 915mm clearance along full length of tub *	3' or 915mm clearance along full length of tub *
MIN. ONE BATHROOM		Tub control valve placed at outer edge of tub, with tub spout remaining in central position *	Tub control valve placed at outer edge of tub, with tub spout remaining in central position *
MIN. ONE BATHROOM		Accessible storage *	Accessible storage*
MIN. ONE BATHROOM			Provide pocket door or door swing out *
MIN. ONE BATHROOM			Space under sink minimum 2'8" or 810mm wide *
MIN. ONE BATHROOM			Provide for the possible future installation of an accessible shower stall, sized at least 3'-0" x 5'-0" or 910mm x 1500mm - refer to the 1998 BC Building Access Handbook for details
MIN. ONE BEDROOM			Sufficient manoeuvring room between closet and double bed *
MIN. ONE BEDROOM			Provide 3' or 915mm access to window opening *
LAUNDRY FACILITIES			Provide front loading side-by-side washer / dryer in-suite or in common area
LAUNDRY FACILITIES			4' or 1220mm manoeuvring space in front of washer / dryer

S:\COMMUNITY PLANNING\Adaptable Design\Handouts\Design Elements Handout.doc

* Illustrations available

** Options considered

Figure 9 – 4

Disability Parking Requirements
for Medium Density, High Density, and Accessory Apartment Residential Uses

REQUIRED number of Disability Parking Spaces to be provided for Level 1 Adaptable Design Dwelling Units		REQUIRED number of Disability Parking Spaces to be provided for Level 2 or 3 Adaptable Design Dwelling Units	
Total Required Parking Spaces	Required number of Disability Parking Spaces for Level 1 Adaptable Design Dwelling Units	Total Required Parking Spaces	Required number of Disability Parking Spaces for Level 2 and 3 Adaptable Design Dwelling Units
1 – 25	1	1 – 25	2
26 – 50	2	26 – 50	4
51 – 100	3	51 – 100	6
101- 150	4	101 – 150	8
151 – 200	5	151 – 200	10
201 –250	6	201 – 250	12
251– 300	7	251 – 300	14
301 – 350	8	301 – 350	16
351 – 400	9	351 – 400	18
401 – 450	10	401 – 450	20

- Calculation of Disability Parking Spaces is based on the required number of parking spaces rather than the total parking spaces provided.

Figure 9 - 5

Disability Parking Spaces Requirements for all other non-residential Uses:

Total Number of Required Parking Spaces	Required Number of Disability Parking Spaces
0-25	1
26-50	2
51-100	3
101-150	4
151-200	5
One Disability parking Space per 50 required parking spaces over 200 spaces.	

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FIXTURES AND FINISHES

	LEVEL ONE	LEVEL TWO	LEVEL THREE
BASIC	Easy to read building address numbers (min. 4" or 100mm high in contrasting colours)	Easy to read building address numbers (min. 4" or 100mm high in contrasting colours)	Easy to read building address numbers (min. 4" or 100mm high in contrasting colours)
BASIC	Lighting levels to a minimum of 100 lux outside and inside main building entries and suite entries	Lighting levels to a minimum of 100 lux outside and inside main building entries and suite entries	Lighting levels to a minimum of 100 lux outside and inside main building entries and suite entries
BASIC	No polished finish on building entry flooring (provide flooring samples)	No polished finish on building entry flooring (provide flooring samples)	No polished finish on building entry flooring (provide flooring samples)
BASIC	Except for pocket doors, sliding doors, or doors equipped with openers, lever door handles are required on all doors (provide notation on door schedule)	Except for pocket doors, sliding doors, or doors equipped with openers, lever door handles are required on all doors (provide notation on door schedule)	Except for pocket doors, sliding doors, or doors equipped with openers, lever door handles are required on all doors (provide notation on door schedule)
BASIC	Signage throughout common areas has well contrasted colours	Signage throughout common areas has well contrasted colours	Signage throughout common areas has well contrasted colours
BASIC	Elevators have well contrasted control buttons	Elevators have well contrasted control buttons	Elevators have well contrasted control buttons
CIRCULATION		Slip resistant flooring	Slip resistant flooring
CIRCULATION		Colour contrasting exit doors	Colour contrasting exit doors
BUILDING MEETING / AMENITY ROOMS		Provide carpet and drapes to absorb sound and decrease echoes	Provide carpet and drapes to absorb sound and decrease echoes
UNIT ENTRIES		Adjustable door closers to reduce force to open door to maximum 22N or 5 lbs.	Adjustable door closers to reduce force to open door to maximum 22N or 5 lbs.
UNIT ENTRIES		Door handle at 40" or 1000mm above the floor, with deadbolts placed immediately above or below	Door handle at 40" or 1000mm above the floor, with deadbolts placed immediately above or below
UNIT ENTRIES			Two door viewers: 3'5" or 1050mm and 5' or 1520mm
UNIT FLOORING		Non-slip flooring in kitchen and minimum one bathroom (provide flooring samples)	Non-slip flooring in kitchen and minimum one bathroom (provide flooring samples)
UNIT FLOORING		High density, low level loop carpet and underlay maximum ½" or 13mm height	High density, low level loop carpet and underlay maximum ½" or 13mm height
PATIOS AND BALCONIES		Outdoor light fixture provided	Outdoor light fixture provided
PATIOS AND BALCONIES		Electrical outlet provided	Electrical outlet provided

* Illustrations available

	LEVEL ONE	LEVEL TWO	LEVEL THREE
ELECTRICAL		Switches, controls, thermostats and the highest breaker in the suite panel, to be installed no higher than 46" or 1170mm above finished floor	Switches, controls, thermostats and the highest breaker in the suite panel, to be installed no higher than 46" or 1170mm above finished floor
ELECTRICAL		Electrical outlets, cable outlets, telephone jacks not lower than 18" or 450mm above floor	Electrical outlets, cable outlets, telephone jacks not lower than 18" or 450mm above floor
ELECTRICAL	Within suites a duplex outlet is required within 8" or 200mm of a telephone jack	Within suites a duplex outlet is required within 8" or 200mm of a telephone jack	Within suites a duplex outlet is required within 8" or 200mm of a telephone jack
ELECTRICAL	Wiring for visual alarm system in living room and minimum one bedroom, connected to fire alarm system	Wiring for visual alarm system in living room and minimum one bedroom, connected to fire alarm system	Wiring for visual alarm system in living room and minimum one bedroom, connected to fire alarm system
ELECTRICAL		Rocker switches	Rocker switches
ELECTRICAL			Double bulb ceiling fixtures
ELECTRICAL			Provide wiring for automatic door opener and strike at unit entry
WINDOWS		Easily grasped and operated mechanism for opening and locking windows	Easily grasped and operated mechanism for opening and locking windows
KITCHEN		Task lighting of at least 100 lux level at sink, stove and work areas in addition to general overhead lighting	Task lighting of at least 100 lux level at sink, stove and work areas in addition to general overhead lighting
KITCHEN		Pull-out work boards at 2'8" or 810mm height *	Pull-out work boards at 2'8" or 810mm height *
KITCHEN		Lever handle faucets and cabinet handles which can be easily used with an open hand eg. "D" or "J" cabinet handles	Lever handle faucets and cabinet handles which can be easily used with an open hand eg. "D" or "J" cabinet handles
KITCHEN		Adjustable shelves in all cabinets	Adjustable shelves in all cabinets
KITCHEN			Drawer storage in key areas*
KITCHEN			Provision for removal of sink cabinet and lowering of counter height
KITCHEN			Provision in water supply and drain to allow for a 4" (100mm) drop in sink height (offset plumbing)
KITCHEN			Provision for the future installation of at least one counter receptacle in front of cabinets
KITCHEN			Where regular refrigerator installed initially, provide adequate space for side by side model
KITCHEN			Contrasting knobs on stove / cook top

* Illustrations available

	LEVEL ONE	LEVEL TWO	LEVEL THREE
MIN. ONE BATHROOM	Solid blocking provided in walls of tub / shower and toilet areas, and behind towel bars *	Solid blocking provided in walls of tub / shower and toilet areas, and behind towel bars *	Solid blocking provided in walls of tub / shower and toilet areas, and behind towel bars *
MIN. ONE BATHROOM	Pressure balanced tub / shower valves	Pressure balanced tub / shower valves	Pressure balanced tub / shower valves
MIN. ONE BATHROOM		Provision in water supply and drain to allow for a 4" (100mm) drop in vanity height (offset plumbing)	Provision in water supply and drain to allow for a 4" (100mm) drop in vanity height (offset plumbing)
MIN. ONE BATHROOM		Provision for vanity sink removal	Provision for vanity sink removal
MIN. ONE BATHROOM		Adjustable height shower head or hand-held shower head on adjustable bracket*	Adjustable height shower head or hand-held shower head on adjustable bracket *
MIN. ONE BATHROOM			Water temperature regulator on tub / shower faucet
LIVING ROOM		One switched electrical outlet	One switched electrical outlet
BEDROOMS		Three-way switched outlet at bed area and doorway	Three-way switched outlet at bed area and doorway
BEDROOMS		Provide light fixture in or adjacent to closet	Provide light fixture in or adjacent to closet
BEDROOMS	Telephone jack	Telephone jack	Telephone jack
IN-SUITE STORAGE		Provide light and electrical outlet	Provide light and electrical outlet

FIXTURES & FINISHES

RESIDENTIAL UNIT SUMMARY									
Level	Floors	Unit/Flr	Total Units	1 BR	1 BR + DEN	2 BR	2BR+ DEN	3 BR	3BR+ DEN
Total:									
%			100%	%	%	%	%	%	%
Area (SF)									

Note: All areas and calculations are preliminary and approximate.

Adaptable Design Unit Calculation						
Level	Floors	Unit/Flr	Total Units	AD Level 1	AD Level 2	AD Level 3
Lobby/Entry						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
Total Provided						
%			100%	%	%	%
Total Required				%	%	%

Note: All areas and calculations are preliminary and approximate.

PARKING CALCULATION

RESIDENTIAL: _____ Per Dwelling Unit = _____ (Total Est'd. # ____)

COMMERCIAL: _____ Per Square Foot = _____ (Total Est'd. # ____)

Level	RESIDENTIAL			COMMERCIAL			Total Residential	Total Commercial
	Full-Size	Small Car	Disability Parking Space	Full Size	Small Car	Disability Parking Space		
P1								
P2								
P3								
P4								
P5								
P6								
TOTAL								

PROJECT TOTAL	Total #'s	Percentage
Full Size		%
Small Car		%
Disability Parking Spaces		%
Visitors		%
Bicycle		
Storage Lockers		
Loading		