

BCA Industry Sharing Session on BP/TOP Regulatory Updates 2025

GOOD DESIGN PRACTICES FOR A SAFE AND • ACCESSIBLE BUILT ENVIRONMENT

5 May 2025 • BCA Braddell Campus



Overview of the **Code on Accessibility** in the Built Environment 2025

AR. TAN JWU YIH

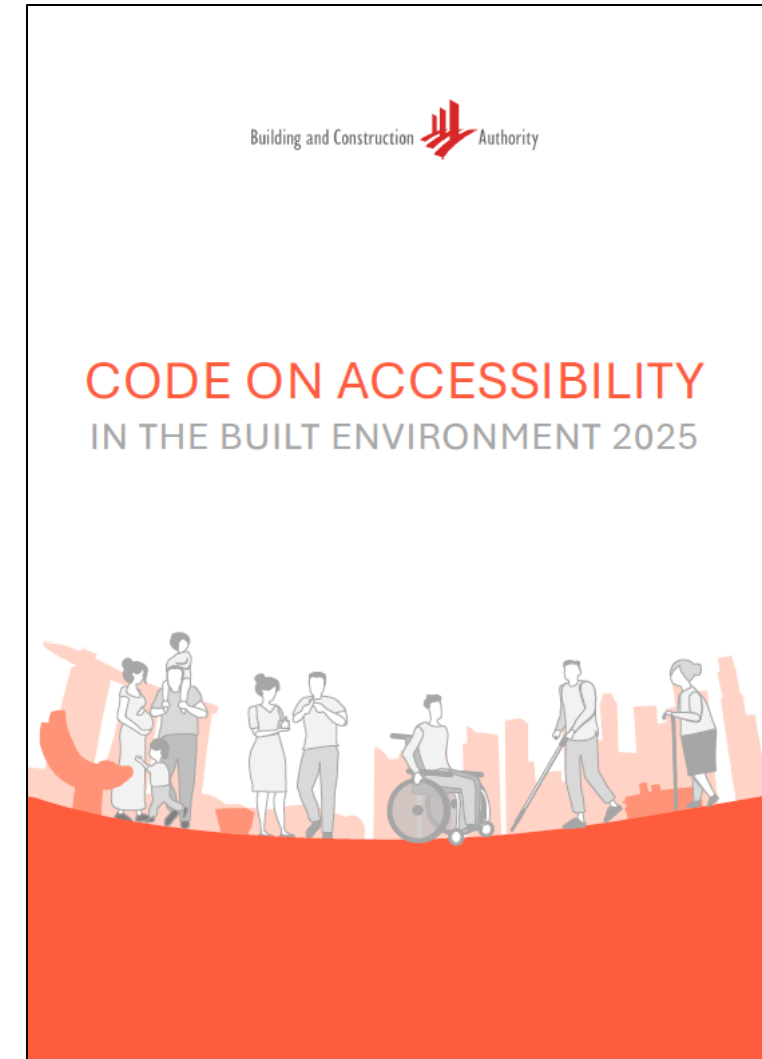
Director

BUILDING PLAN & UNIVERSAL DESIGN DEPARTMENT
BUILDING PLAN & MANAGEMENT GROUP



AGENDA

- Introduction to Code on Accessibility (“Code”)
- The Code Review Process
- Restructured Code
 - a) Reorganized chapters
 - b) Anthropometric information
 - c) Functional Intent, Acceptable Solution, Note, Advisory
 - d) Improved diagrams
 - e) Alternative solutions
- Implementation of the Code



- Baseline standards for making buildings accessible and inclusive to persons with disabilities and other users
- Regularly reviewed to ensure its standards meet the changing needs of the population



Barrier Free Accessibility

Accessibility

Universal Design

First introduction with focus on wheelchair accessibility

Enhanced requirements for elderly and persons with disabilities

Accessibility beyond the confine of buildings

Introduction of Universal Design principles and family-friendly features

Sixth revision: Restructured to emphasize performance-based outcomes while providing enhanced guidance and clarity

CODE REVIEW COMMITTEE

PUBLIC

Government Agencies

- Building and Construction Authority (Chair)
- Housing and Development Board
- Land Transport Authority
- Urban Redevelopment Authority
- National Parks Board

Institutions

- National University of Singapore
- Singapore University of Technology and Design
- Singapore Association of Occupational Therapists

PRIVATE

Industry Associations

- Real Estate Developers' Association of Singapore
- Singapore Institute of Architects

PEOPLE

Social Services Agencies

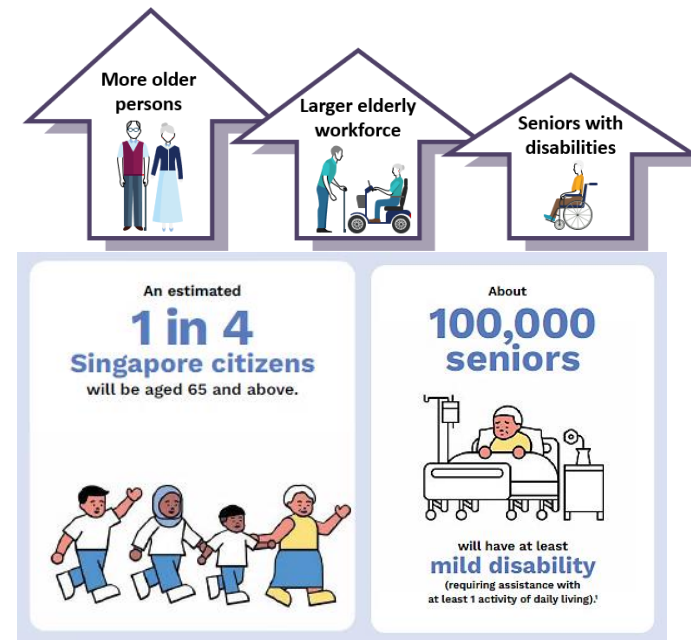
- Disabled People's Association
- Handicaps Welfare Association
- Muscular Dystrophy Association (Singapore)
- Singapore Association of the Visually Handicapped
- SPD (formerly Society for the Physically Disabled)



CODE REVIEW PROCESS

Objectives

- a) Align with national policies and address demographic trends
(ageing population, creating inclusive & family-friendly environment)
- b) Reduce regulatory burdens on businesses
(towards performance-based outcomes, calibrated standards)
- c) Balance the interests of various stakeholders



Source: 2023 Action Plan for Successful Ageing



CODE REVIEW PROCESS

Approach

- a) International benchmarking (e.g. UK, USA, Japan and Hong Kong)
- b) Analysis of recent building design and waiver trends
- c) Site visits and technical studies, such as
 - i. User trials and validations of lift car design
 - ii. White cane simulation of tactile tiles
 - iii. New products e.g. prefabricated lactation pod



OVERVIEW OF KEY CODE CHANGES

1. Reorganisation

- Functional Intents
- Anthropometric Data
- Reorganised chapters

2. Accessibility

- Improved Table 1
- Alternative provisions

3. Arriving at Building

- Key entrances
- Seats at drop-offs

4. Accessibility Around & Within Building

- Cross-fall gradient 1:40
- Accessible gantries
- Shelter over accessible routes
- Doorway recess

4. Accessibility Around & Within Building (continued)

- Contrasting colour band at ramps
- 1:16 gradient for 12 m ramp
- Curved ramps
- Warning tactile for staircases
- Lifts
 - Touchless Buttons
 - Lift car control buttons
 - Destination control system (DCS)
 - Manoeuvring space at lift lobby
 - Lift car depth
 - Mirror for visual feedback
- Platform lifts and stairlifts

5. Sanitary Provisions

- Ambulant-friendly cubicles
- Accessible shower
- Toilet signage
- Accessible changing room

6. Family-Friendly Provisions

- Lactation rooms
- Child-adaptor seat

7. Residential, Service Apartments, Hotels, Hostels & Dorms

- Sheltered drop-offs
- Bathroom for future retrofitting
- Purpose-built workers dorms

8. Signage & Wayfinding

- Directional signages

9. Components of a Building

- Hearing enhancement systems

REORGANISED CHAPTERS

Code 2019

Chapter 1	Accessibility in the Built Environment
Chapter 2	Provisions for Accessibility
Chapter 3	Arriving at the Building
Chapter 4	Accessibility Around and Within the Building
Chapter 5	Sanitary Provision
Chapter 6	Usage of Space, Facilities and Elements Within the Building
Chapter 7	Residential Development
Chapter 8	Anthropometrics and Signage
Appendix A	Design Guidelines for Family-friendly Facilities
Appendix B	Design Guidelines for Older Persons
Appendix C	Design Guidelines for Children with Disabilities
Appendix D	Design Guidelines for Persons with Visual Impairment
Appendix E	Design Guidelines for Parks and Open Spaces
Appendix F	Slip Resistance of Floor Finishes
Appendix G	Keypad Design Requirements

- **Student hostels**
- **Workers dormitories**
- **Hotels & Serviced apartments**

- **Hotels & Serviced apartments**

- **Service & info counters**

Code 2025

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Chapter 9	Components of a Building



REORGANISED CHAPTERS (cont'd)

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- **Kerb ramps**

- **Child-friendly sanitary facilities**
- **Child protection seat**
- **Diaper-changing station**
- **Family washroom**
- **Lactation room**

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- **Grab bars & Handrail details**

- **Illumination**
- **Controls and Operating Mechanisms**
- **Seating Spaces**
- **HES**

- **Warning TGSi**

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• **Anthropometrics**

Code 2025

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Non-mandatory clauses will be collated into a separate **Code Companion Guide (to be issued later) to promote best practices**

IMPROVED TABLE 1

- Provides quick reference on the key accessible facilities and features to be provided in various types of developments
- Expanded table with more building types and indication of applicable gross floor areas
- Included a wider scope of accessible and family-friendly features

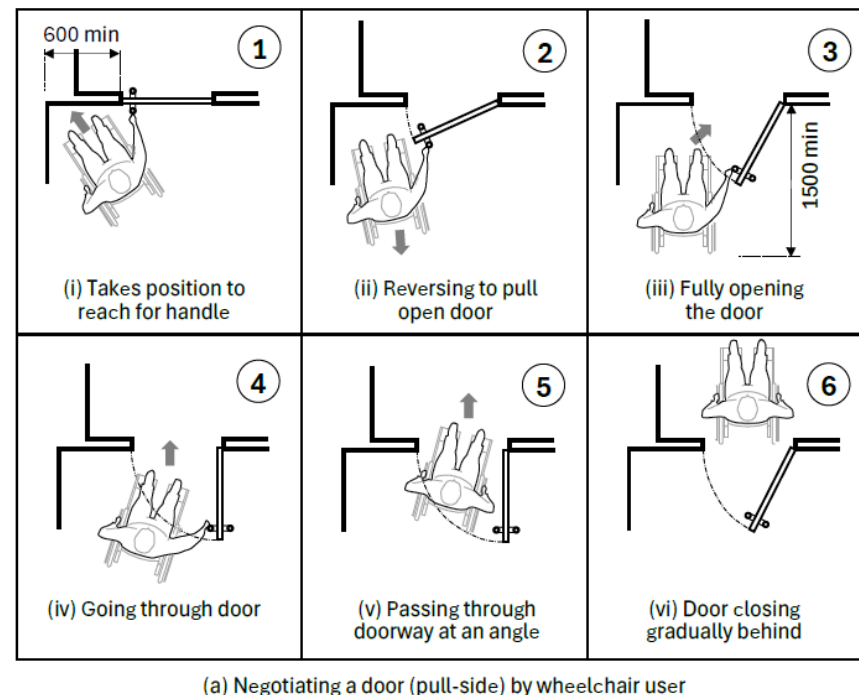
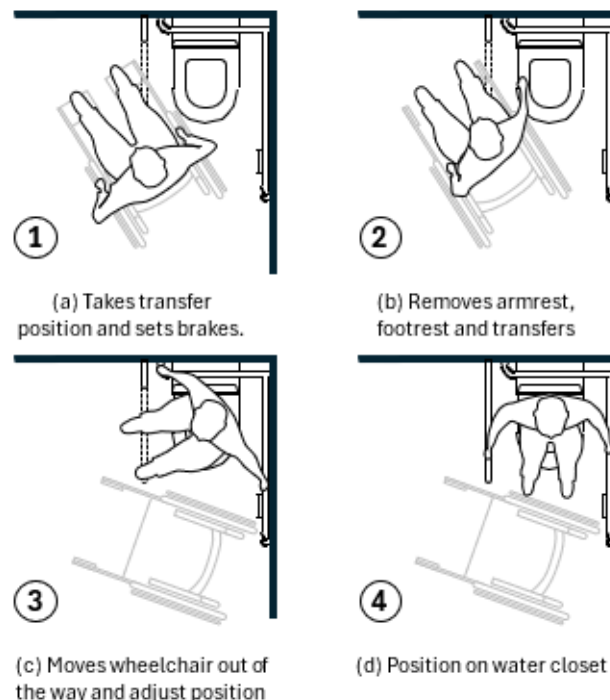
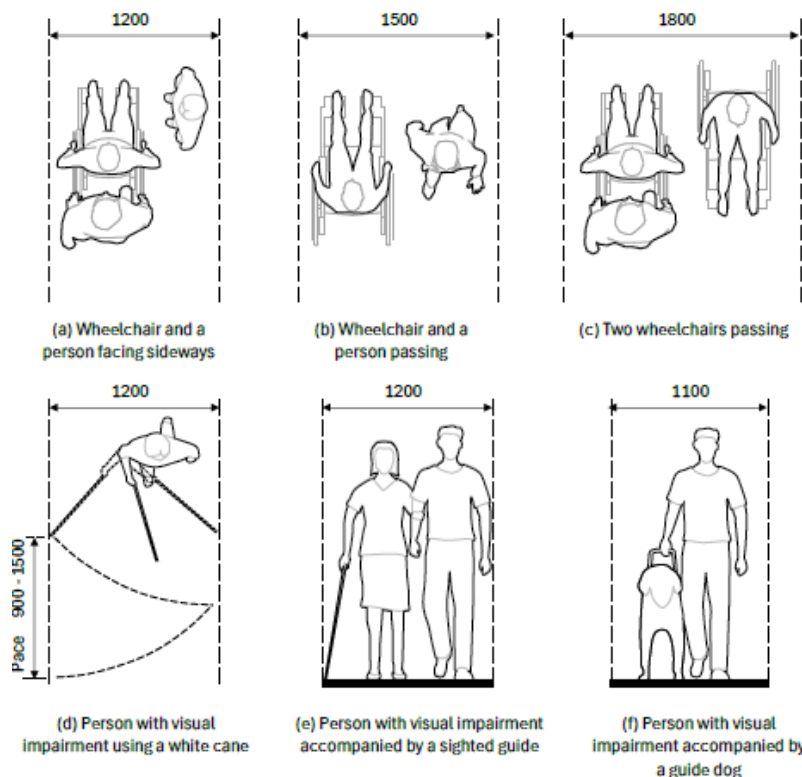
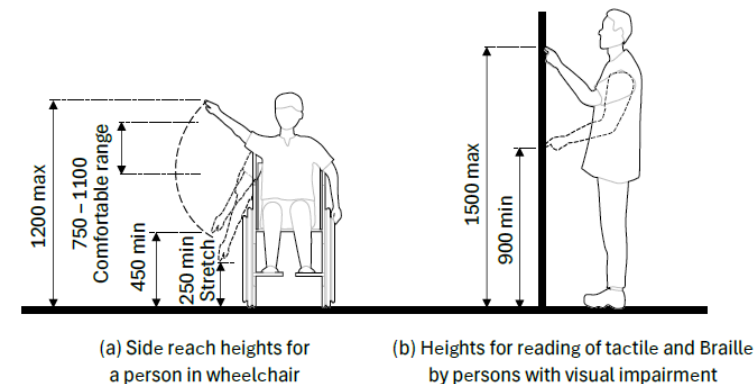
Reminder

Table 1 provides “at a glance” quick summary. QP must read the detailed requirements, the relevant clauses will take precedence

Building type	Key provisions		
	Accessible sanitary provisions	Family friendly provisions	Other provisions
1. Residential development	AWC, ASF, AMB	-	RWC, SSO
2. Shophouses with commercial use on first storey and residential use on upper storeys * Where the use on upper storeys is of non-residential use, refer to the respective building types	AWC, ASF, AMB	-	HES, TBS
3. Office buildings including business parks			
(a) GFA less than 5,000 m ²	AWC, ASF, AMB	-	HES, TBS
(b) GFA 5,000 m ² or more	AWC, ASF, AMB	LR	HES, TBS
4. Shopping centres and multi-purpose complexes			
(a) GFA less than 5,000 m ²	AWC, ASF, AMB, LWC	-	HES, TBS
(b) GFA 5,000 m ² to less than 10,000 m ²	AWC, ASF, AMB, LWC	LR	HES, TBS
(c) GFA 10,000 m ² to less than 20,000 m ²	AWC, ASF, AMB, LWC	FF, LR	HES, TBS
(d) GFA 20,000 m ² or more	ACR, AWC, ASF, AMB, LWC	FF, LR	HES, TBS
5. Hotels, boarding houses, chalets and backpacker hotels	AWC, ASF, AMB	-	AR, ER, HES, TBS, SSO
6. Serviced apartments	AWC, ASF, AMB	-	AR, HES, TBS, SSO
Legend: <div> <div> Accessible sanitary provisions ACR Accessible changing room AWC Accessible individual washroom LWC Larger accessible individual washroom ASF Accessible individual shower facility AMB Facilities for persons with ambulant mobility impairment </div> <div> Family-friendly provisions FF Family-friendly sanitary facilities and car parking LR Lactation room </div> <div> Other provisions AR Accessible guestroom ER Elder-friendly guestroom RWC Bathroom for future retrofitting HES Hearing enhancement system SSO Accessible switches and socket outlets TBS Tactile and Braille signs </div> </div>			

ANTHROPOMETRIC INFORMATION

- Anthropometric info provided at the start of the Code
 - Illustrates the physical capabilities of persons with disabilities
 - Aids accessibility planning and design
 - Provides context for acceptable and alternative solutions



UNDERSTANDING THE REQUIREMENTS

7.5 Accessible Rooms, Guestrooms and Serviced Apartments

Functional Intent

Hotels, boarding houses, chalets, serviced apartments and other similar accommodation facilities must be accessible to persons with disabilities. Accessible rooms suitable for wheelchair users and the elderly must be provided on a proportional basis. These rooms must have sufficient wheelchair manoeuvring spaces and appropriate accessible features to ensure safe and independent use.

7.5.1 The minimum width for accessible routes to all rooms and facilities must be in accordance with clause 4.2.1.

7.5.2 In hotels, boarding houses, chalets, backpacker hotels and serviced apartments, at least one in every 100 guestrooms/serviced apartments or part thereof must be accessible in accordance with clauses 7.5.4 and 7.5.5.

7.5.3 In addition, at least one in every 50 guestrooms or part thereof must be provided with elder-friendly features such as grab bars adjacent to the water closet and shower or bathtub.

Note Clause 7.5.3 does not apply to serviced apartments.

Advisory to clauses 7.5.2 and 7.5.3

- Accessible rooms, guestrooms or serviced apartments should offer a choice of locations and types, provide standard facilities equivalent to that of other rooms or units and be connectable to an adjoining room.

Functional Intent

Describes intended accessibility outcomes

Acceptable solution

“Standard” deemed-to-satisfy solution

Note

Situation where requirements need not apply or can be varied.

Advisory

Non-mandatory recommendations

FUNCTIONAL INTENT STATEMENTS

- Explains the purpose and intended function of an accessibility feature or building facility
- Describes the **intended accessibility outcomes** and **sets performance expectation** to guide design decisions and to aid evaluation of alternative solutions

EXAMPLE

4.4 Doors

Doors along an accessible route, including adjacent spaces to the doors, must **allow wheelchair users and persons with reduced dexterity to manoeuvre and pass through independently and safely.**

Location

Required space and abilities
of wheelchair users

Design of door
handles

Space and effort required by
users to operate the door

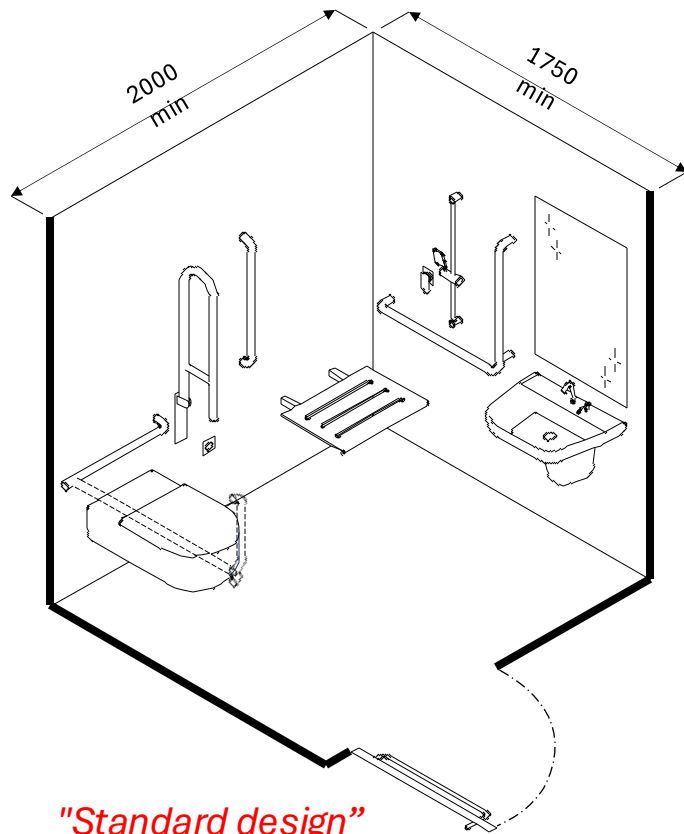
Sufficient clear width

Without assistance

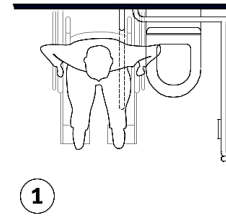
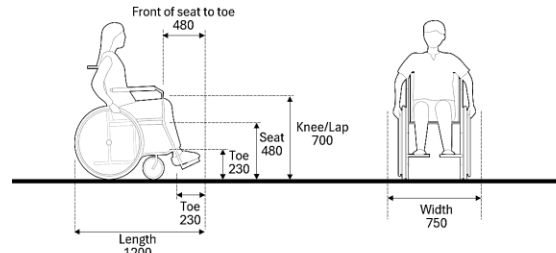
Door closing time and
space tolerances

EXAMPLE OF ALTERNATIVE SOLUTIONS

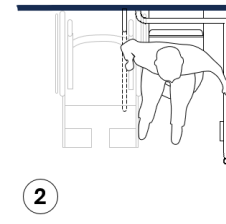
Acceptable solution with min size and placement of fittings for an accessible individual washroom with shower



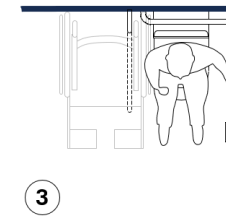
*"Standard design"
(acceptable solution)*



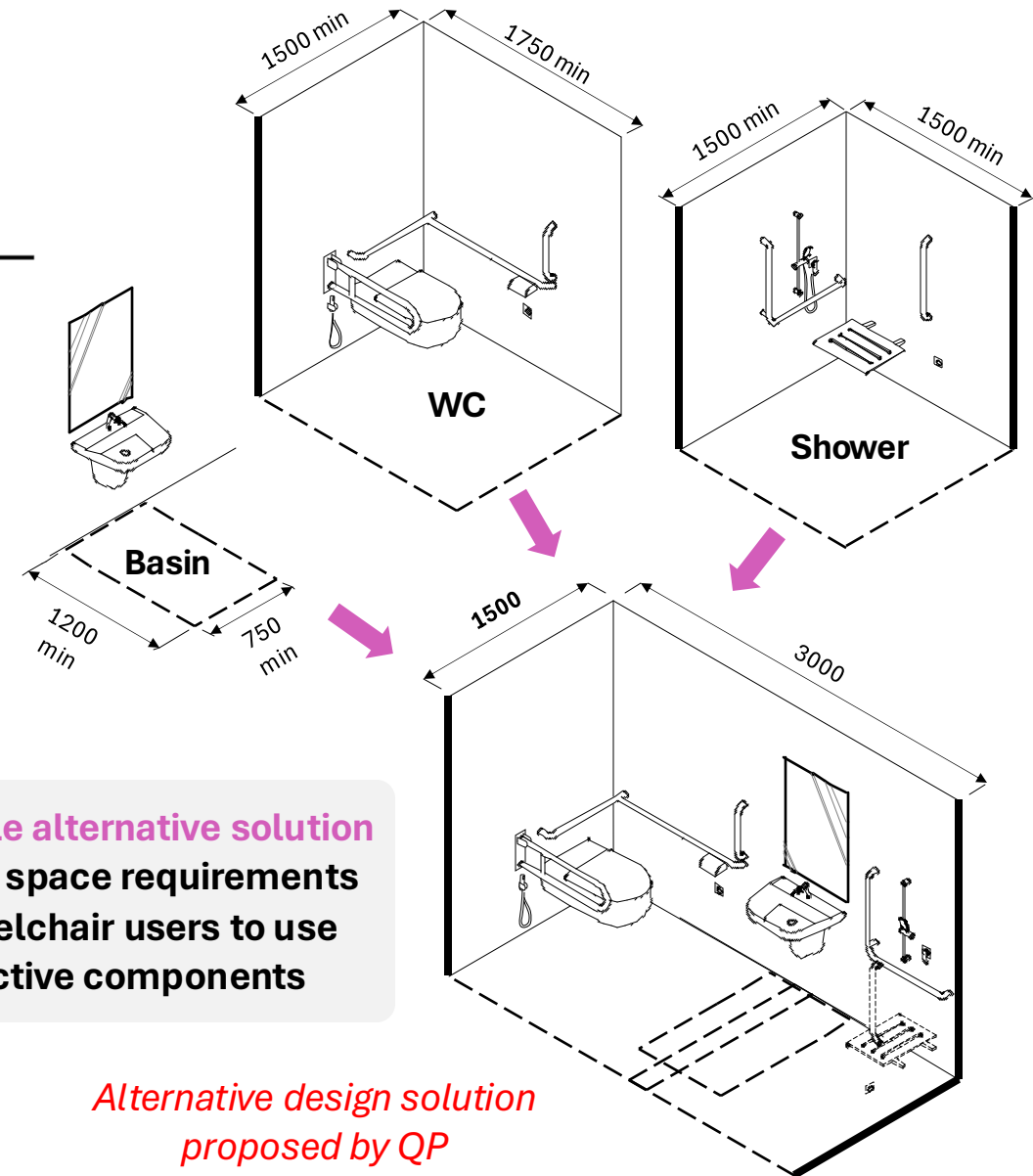
①
(a) Takes transfer position,
set brakes, remove armrest



②
(b) Transfers



③
(c) Position on water closet



Acceptable alternative solution
based on space requirements
for wheelchair users to use
respective components

*Alternative design solution
proposed by QP*

EVALUATING ALTERNATIVE SOLUTIONS

- **Principles**

Acceptable solutions in the Code are **baseline standards** and must not to be perceived as “gold standards” for QP to negotiate downwards

- a) Alternative solution must be **equivalent solution or better**
- b) Meant to accommodate **innovations and technological advances**, not design oversights; nor to circumvent regulations

- **Process**

QP is responsible for his/her proposed alternative solution

- a) Design decisions based on sound independent research and reliable data
- b) Consult disability groups/ individuals with relevant disability expertise in the process
- c) Document the effort thoroughly, including info and feedback from consulted sources

Alternative Solutions
must satisfy
accessibility objectives and
performance expectation

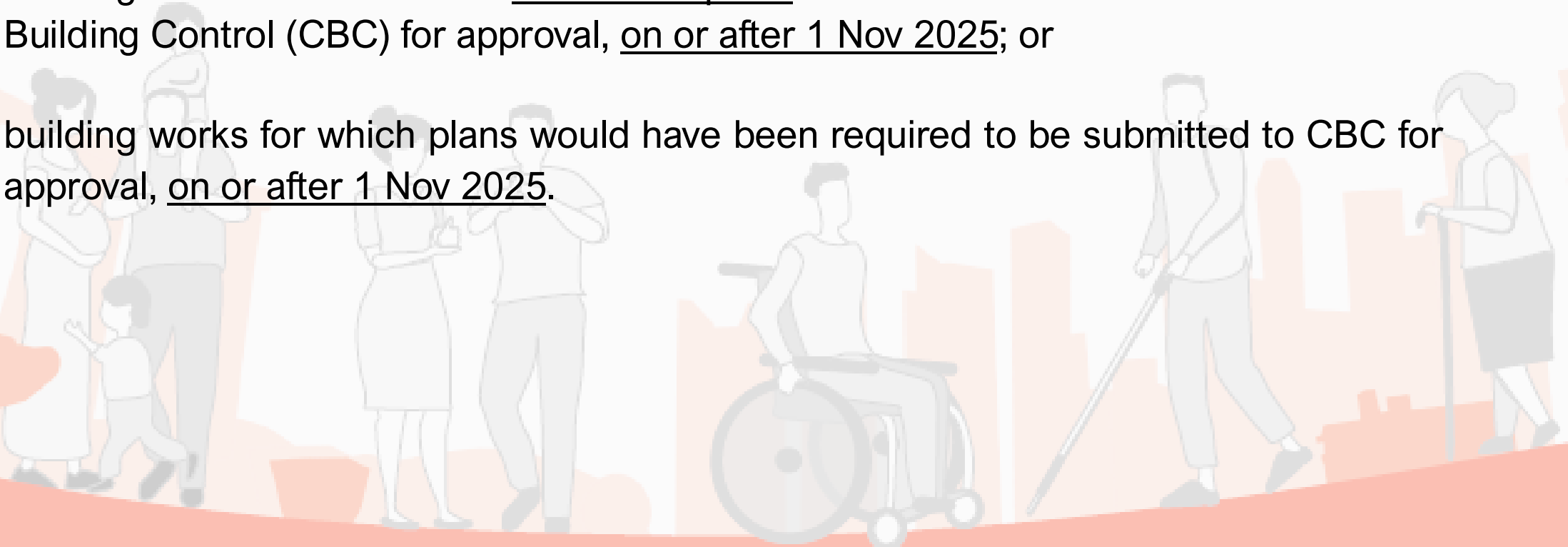
Alternative Solutions
are not waivers
*(submitted via
pre-submission consultation)*

IMPLEMENTATION OF THE CODE

- The Code on Accessibility in the Built Environment 2025 will take effect from

1 November 2025

- Provisions will apply to New buildings and Existing buildings undergoing A&A works:
 - a) building works for which the first set of plans is submitted to the Commissioner of Building Control (CBC) for approval, on or after 1 Nov 2025; or
 - b) building works for which plans would have been required to be submitted to CBC for approval, on or after 1 Nov 2025.



Access to Buildings, Signage and Other Components

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BUILDING PLAN & MANAGEMENT GROUP



AGENDA

Clause 2.3	Temporary Obstructions During Pandemic Or Crisis
Clause 3.1	Approach And Access To Building
Clause 3.2	Passenger Alighting And Boarding Points
Clause 4.2.2	Turnstiles, Gantries And Checkout Lanes
Clause 4.2.5	Exterior Walkways
Clause 4.6.8	Curved Ramps
Clause 4.4.1.1	Level Doorways
Clause 4.4.6	Manoeuvring Spaces At Manually Operated Doors
Clause 4.5.2	Changes In Levels
Clause 4.7.4	Warning Tactile Ground Surface Indicators (TGSi)
Clause 7.1.1	Residential Passenger Alighting And Boarding Points
Clause 7.1.2	Accessible routes to common facilities
Clause 7.4	Switches And Socket Outlets
Clause 7.7	Purpose-built Workers Dormitories
Clause 8.2 , 8.3	Signs Identifying Accessible Facilities, Directional Signs
Clause 8.5	Tactile And Braille
Clause 9.6	Hearing Enhancement Systems

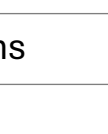
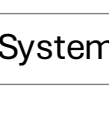
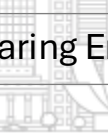
Legend

New

Enhanced

Relaxed

Clarification



PROVISIONS FOR ACCESSIBILITY



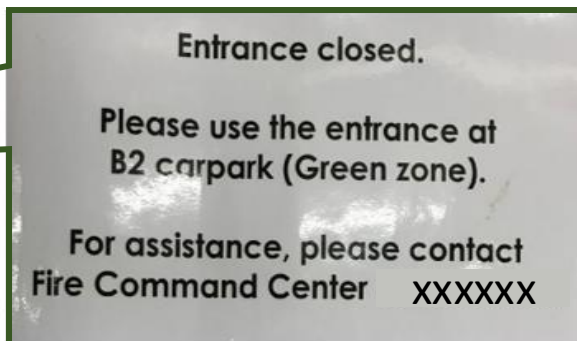
Clause 2.3 - Temporary Obstructions during Pandemic or Crisis

Clause 2.3.1

To ensure persons with disabilities have continued access and use of a building and its facilities.

- During periods of pandemic or crisis where any existing accessible approach, entrance, route, feature or facility has to be temporarily closed, obstructed or altered, an alternative must be provided.
- Signage must be provided to direct users to this alternative.

Observation: Protocols taken during the pandemic created accessibility barriers and inconvenience for persons with disabilities.



Lift Lobby closed
To call for assistance

Entrance restrictions during COVID pandemic created accessibility barriers and inconvenience for PWDs



PWDs faced challenges scanning QR codes as scanners were placed at inaccessible areas/height at entrances

BARRIER-FREE INTERCONNECTIVITY



Clause 3.1 - Approach and Access to Building

Clause 3.1.2

To ensure that commonly used entrances in buildings are accessible to persons with disabilities.

- Where there are other entrances that connect to adjacent buildings, commuter facilities, park connectors or covered linkways, all such entrances and connections must be made accessible.



Side gate access with steps



to linkway



to park connector

ALIGHTING AND BOARDING POINTS

Clause 3.2 - Passenger Alighting and Boarding Points



Wheelchair Users



Elderly Persons

Clause 3.2.1

Passenger alighting and boarding points must be safe and accessible for persons with disabilities

- Where Passenger Alighting and Boarding Point is provided, it must be:
 - Sheltered;
 - Accessible and connected to an accessible route; and
 - NEW** ○ Provided with seats that do not impede the movement of a wheelchair user.



ALIGHTING AND BOARDING POINTS



Wheelchair Users



Elderly Persons

Clause 3.2 - Passenger Alighting and Boarding Points

Clause 3.2.3

Where there is **no level difference**, **warning TGSIs must be provided** and must:

- extend across the full length of the passenger alighting and boarding points for a depth of 600 mm;
- be set back 300 mm away from the vehicular way; and
- be contrasting in colour with the surrounding floor material.

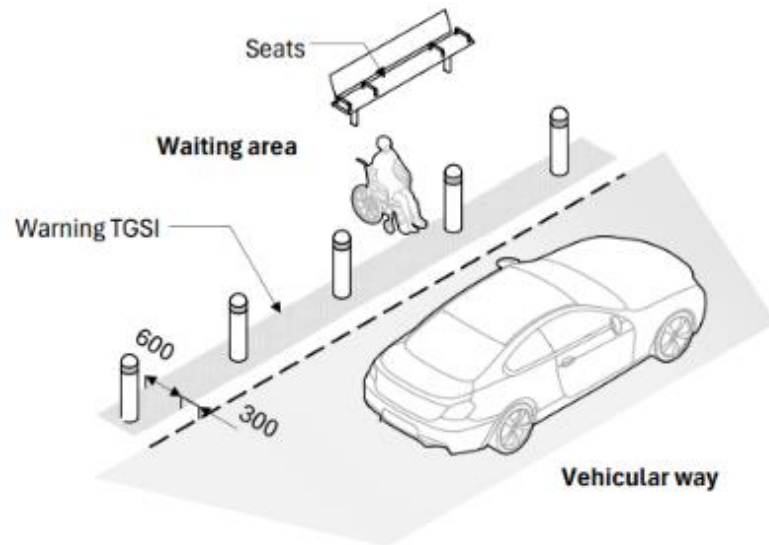


Figure 11

Passenger Alighting and Boarding Point with no Level Difference



Warning TGSi must be provided



ALIGHTING AND BOARDING POINTS



Wheelchair Users



Elderly Persons

Clause 3.2 - Passenger Alighting and Boarding Points

Clause 3.2.4

Where there is a **level difference**, a passenger alighting and boarding point must:

- provide an access aisle of at least 1200 mm wide by 4500 mm long adjacent and parallel to the vehicle pull-up space;
- have a permanent contrasting colour band at the kerb; and
- have at least one kerb ramp or two kerb ramps where it is a taxi shelter.

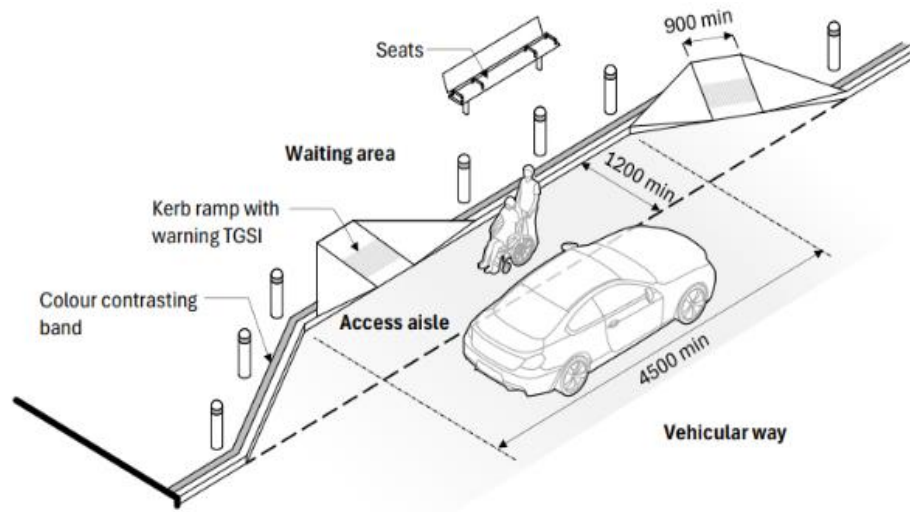


Figure 12
Passenger Alighting and Boarding Point with Level Difference



Examples of alighting and boarding point with kerb ramp and access aisle



ACCESSIBILITY WITHIN BUILDING



Clause 4.2.2 - Turnstiles, Gantries and Checkout Lanes

Clause 4.2.2

To ensure gantries with turnstiles and checkout lanes can accommodate wheelchair access

- Where turnstiles, gantries, checkout lanes are provided, at least one accessible gate or gantry with a **minimum width of 900 mm** must be available.
- Entry and exit controls such as keypads, card readers and biometric identifiers must enable independent and safe use by persons with disabilities.
- Such installations be placed at a height of between 900 mm and 1200 mm from the floor level.

Examples of accessible gates, gantries, checkout lanes



SHELTER FOR ACCESSIBLE ROUTES



Clause 4.2.5 - Exterior Walkways

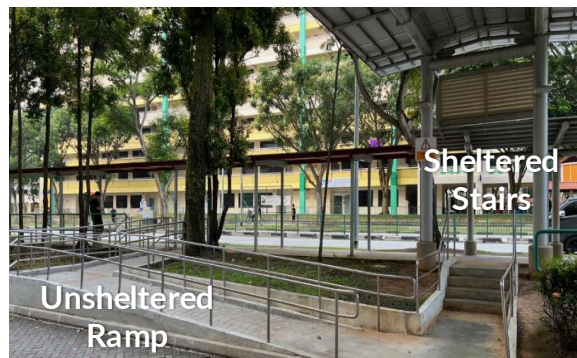
Clause 4.2.5.1

To ensure equitable provision for persons with disabilities.

- Where shelter is provided over exterior walkways, the accessible route must be provided with shelter.



- Steps in covered walkway in building, accessible ramp adjacent and outside the building / canopy line
- Shelter over stepped route, with no shelter over accessible route



- Shelter over both accessible and stepped routes
- No shelter over both accessible and stepped route
- Shelter over accessible route (usable by all), no shelter over stepped approach



ACCESSIBLE ROUTES



Clause 4.6.8 - Curved Ramps

Clause 4.6.8.1

To address design trends and define accessibility standards for curved ramps.

- Curved ramps must:
 - have gradient equal to 1:16 or gentler;
 - where there is cross-fall, it must be towards the centre of curvature;
 - cross-fall gradient no steeper than 1:40 for surface water drainage.



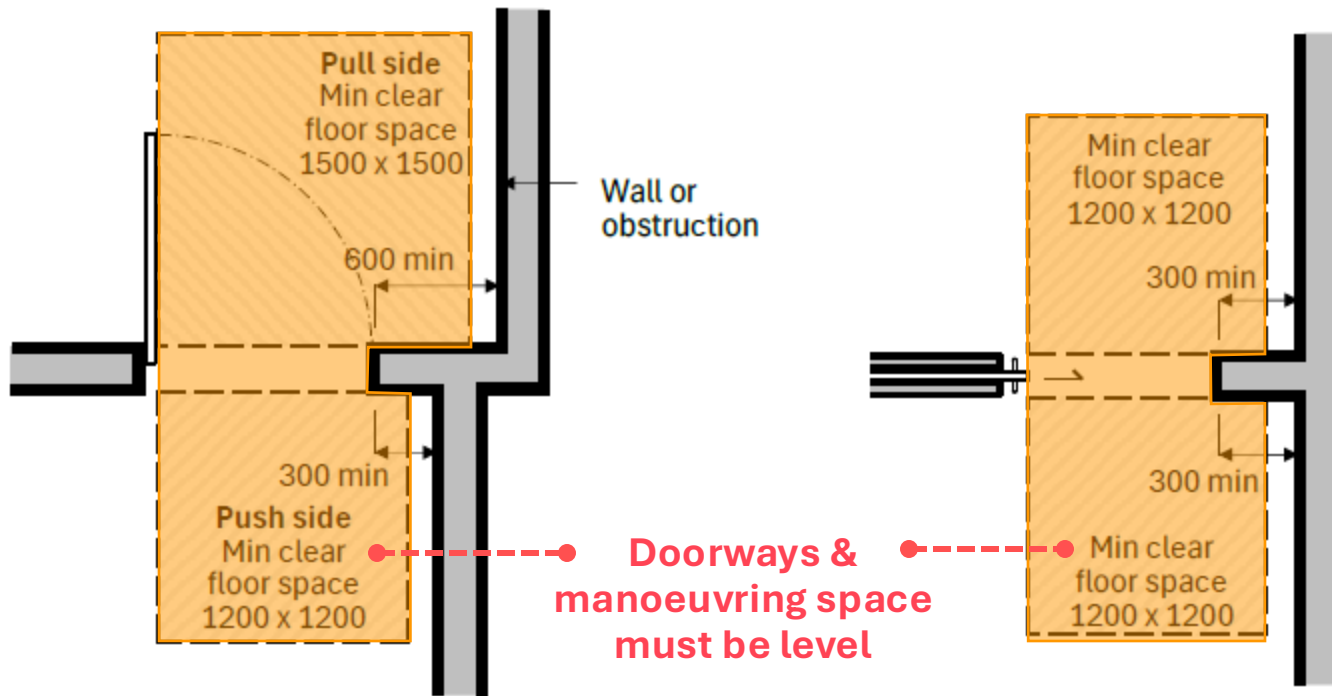
ACCESSIBLE DOORWAYS



CLAUSE 4.4.1.1 - Level Doorways

Clause 4.4.1.1

Doorways and the required manoeuvring spaces must be level.



Examples of not level doorways



ACCESSIBLE DOORWAYS



Wheelchair Users

CLAUSE 4.4.6 - Manoeuvring Spaces at Manually Operated Doors

Clause 4.4.6.2

To provide design flexibility.

- The leading edge of the door leaf:
 - **must not be set more than 250 mm away from the surface of any obstruction on the push side;**
 - must not be set more than 150 mm away from the surface of any obstruction on the pull side.

Structural or architectural wall treatments may create deeper recesses

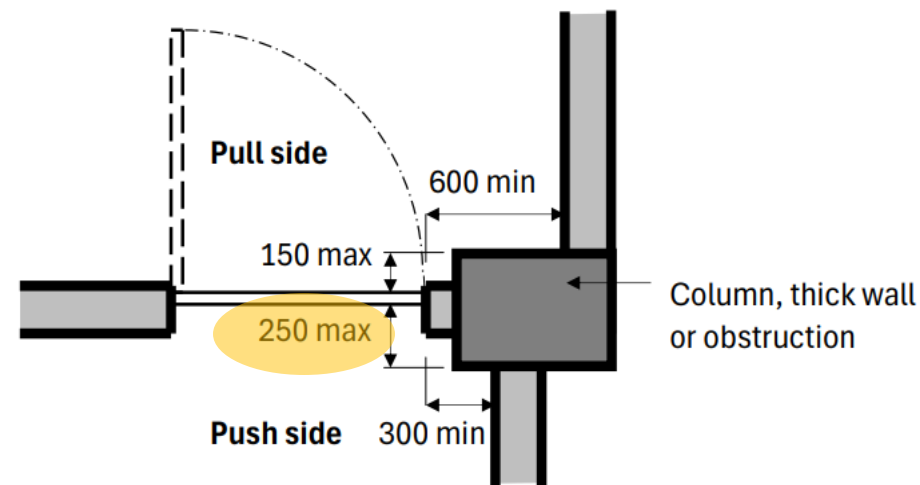


Figure 25

Minimum Distance Between Leading Edge of Door Leaf and Wall Surface

Use of automatic doors at doorway can be considered an alternative solution



STANDARDISED USE OF CONTRASTING COLOUR BANDS AT RAMPS

Clause 4.5.2 - Changes in Levels



Persons with Visual Impairment

Relaxation

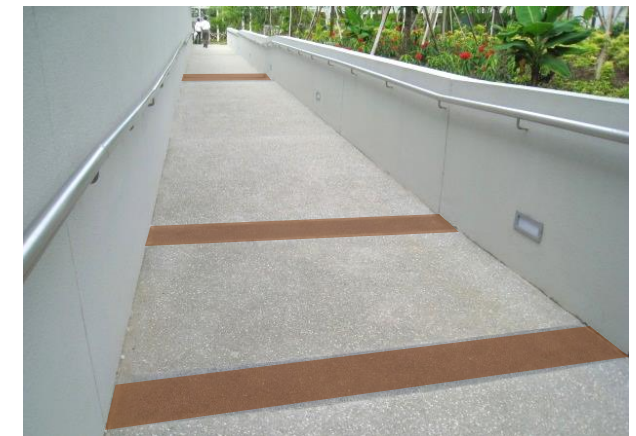
Clause 4.5.2

To standardise the use of colour bands at accessible ramps.

- Where the change in vertical rise is 15 mm or more:
 - the ramp must be in permanent **contrasting colour against the landings**; or
 - **a band of at least 300 mm depth** in permanent contrasting colour that contrasts against the surrounding flooring material at the top and bottom levels of the ramp/slope.



Colour Contrast



Coloured Bands

STANDARDISED USE OF TACTILE FEATURES AT STAIRCASES



CLAUSE 4.7.4 - Warning Tactile Ground Surface Indicators (TGSI)

Clause 4.7.4

To standardise the use of TGSI at stairs to improve the safety for persons with visual impairments.

Warning TGSI must:

- be provided at the **top, bottom and intermediate landings** leading to another path of travel;
- extend the full width of the stairs for a **depth of 600 mm commencing 300 mm back from the stairs**; and
- be **contrasting in colour** with the surrounding flooring material.

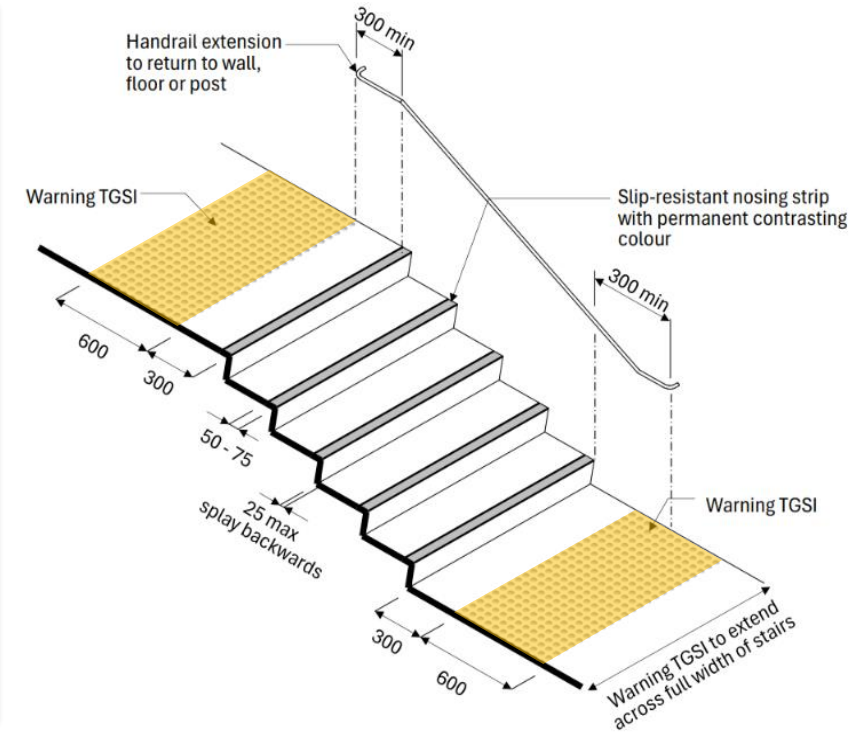


Figure 36
Staircase



RESIDENTIAL DEVELOPMENTS

Clause 7.1.1 - Passenger Alighting and Boarding Points



Wheelchair Users



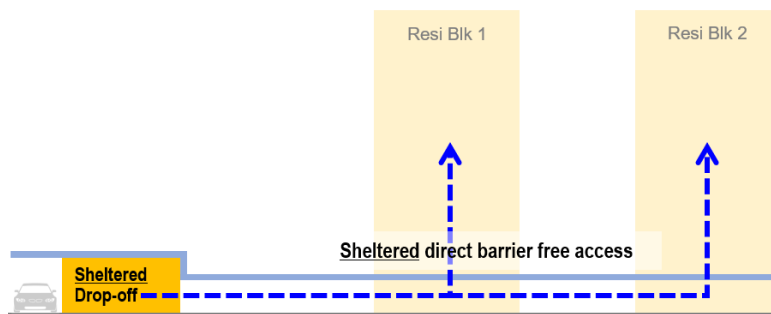
Elderly Persons



Clause 7.1.1

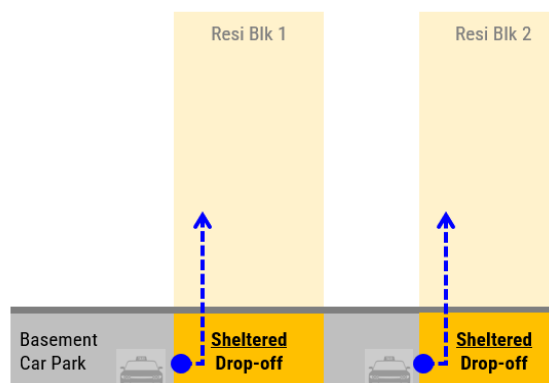
Accessible and sheltered passenger alighting and boarding point must be provided:

- with direct **sheltered access** to every block of the residential development;
- **with seats** that do not impede the movement of the wheelchair user.



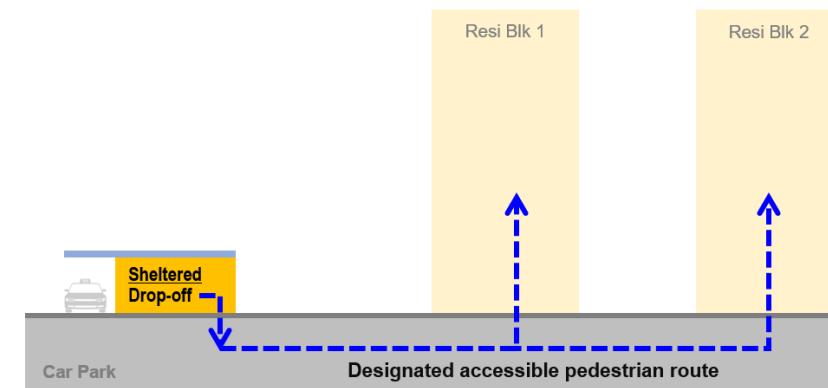
Scenario 1 (diagrammatic section)

Example of sheltered direct access via covered walkway (street level)



Scenario 2 (diagrammatic section)

Example of sheltered direct access (drop off points within car park)



Scenario 3 (diagrammatic section)

Example of sheltered direct access via designated accessible route at car park level

RESIDENTIAL DEVELOPMENTS



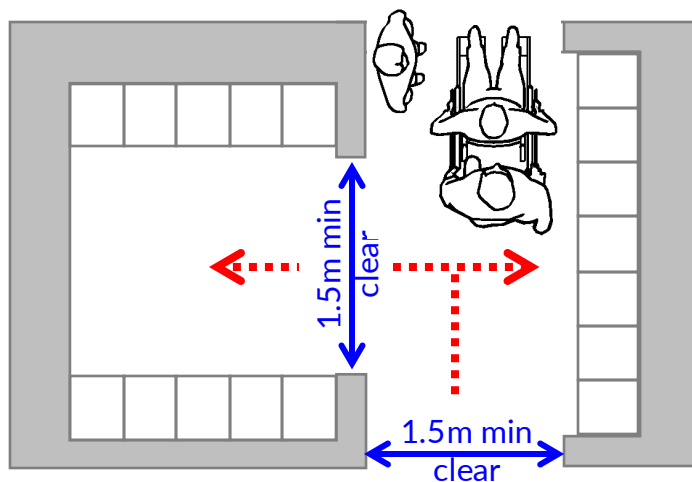
Wheelchair Users

Clause 7.1.2 – Access to common facilities

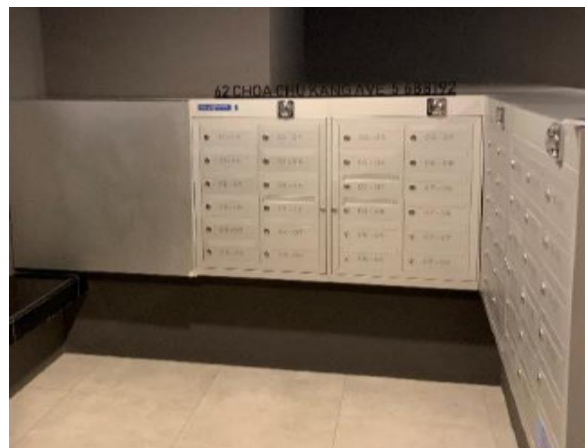
Clause 7.1.2

The minimum width for accessible routes to all common facilities must be **at least 1500 mm**.

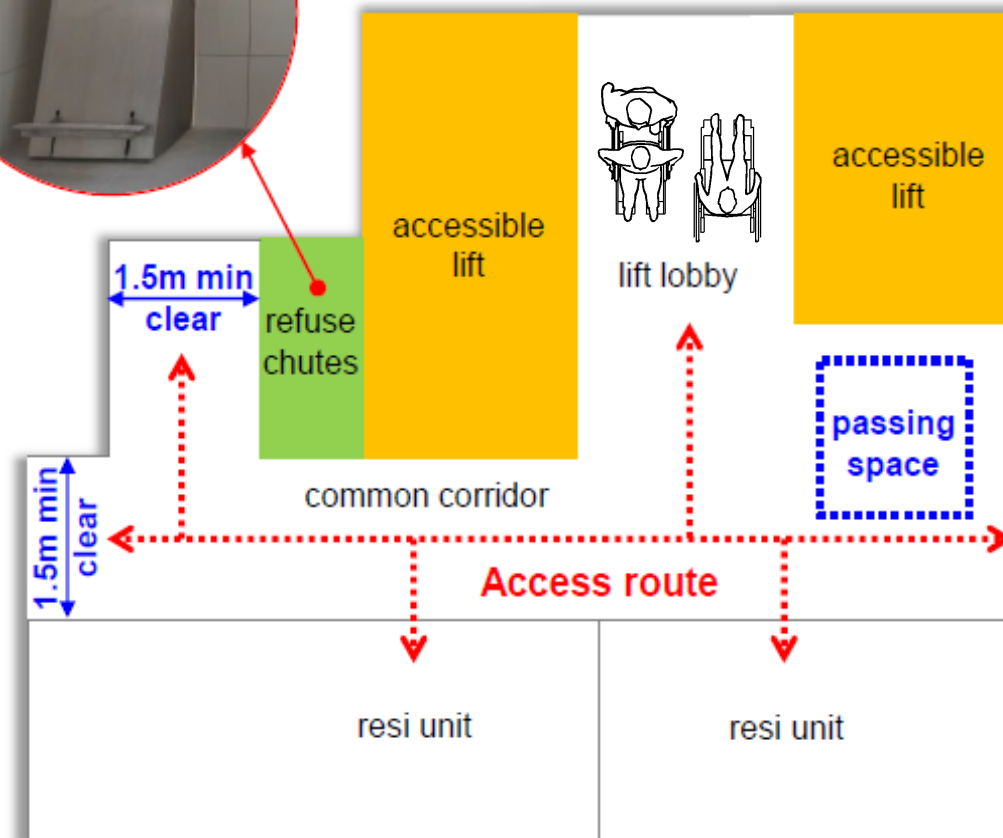
- This includes the areas leading to and in front of refuse/recyclable chutes; letterboxes etc.



Example of Letterbox Area (diagrammatic plan)



The width of corridor leading to common facilities like refuse chute must be min. **1.5m clear**, without hopper's pedal encroaching into the accessible route



Example of Residential Corridor (diagrammatic plan)

SWITCHES AND SOCKET OUTLETS



Wheelchair Users

Clause 7.4

Requirements under clause 7.4.1 applies to Residential units and Accessible rooms

Clause 7.4.1

Switch and socket outlets (SSO) are to be within the reach ranges for wheelchair users to facilitate easy reach and ease of use.

- Requirements to provide at height of between 450mm to 1200 mm from FFL (preferred max height at 1100 mm)
- Measured to centre of switch and socket outlet

Examples of SSO installed at accessible heights, such as charging points, light switches etc.



Not applicable to SSO for appliances in kitchen area and within household shelters



Typical Household shelter



Typical Kitchen

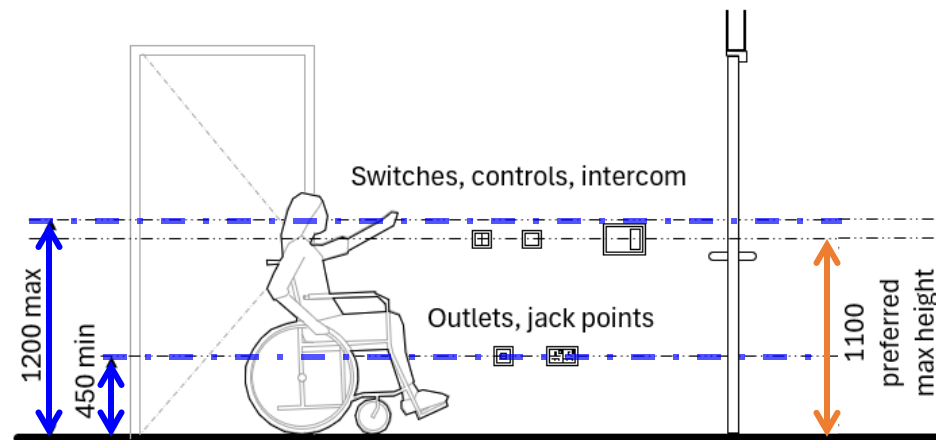


Figure 75 - Controls and Operating Mechanism

PURPOSE-BUILT WORKERS' DORMITORIES



Clause 7.7

Clause 7.7

- The minimum width for accessible routes to the accessible room and common facilities must be at least 1500mm.
- At least one room must be accessible, and accessible sanitary and shower facilities must be provided.



Requirements under clause 7.7 applies for purpose-built workers dormitories only

- Factory-converted dormitories and other similar workers' quarters within industrial buildings shall follow the accessibility requirements for industrial buildings.
 - Provision of an accessible room with accessible sanitary and shower facilities is not mandatory.



SIGNAGE AND WAYFINDING

Clause 8.2 - Signs Identifying Accessible Facilities

AT DESTINATIONS / FACILITIES

Symbol of Access

(white symbol on blue background in accordance with international convention)



*Universally recognisable symbol
that works across language barriers*

Use to mark accessible facilities, e.g. entrances, accessible individual washrooms, lifts, etc.

- Allow persons with disabilities to identify facilities designed for their use

SIGNAGE AND WAYFINDING

Clause 8.3 - Directional signs

DIRECTIONAL / WAYFINDING



(a) To accessible facility



(b) To accessible ramp/route



(c) To accessible lift



(d) To accessible parking



(e) To accessible individual washroom



(f) To toilet facilities with accessible washroom

For directional signages to accessible facilities, **information on the type of facility must be incorporated**

- Help persons with disabilities and caregivers identify and navigate to the appropriate facilities

TACTILE AND BRAILLE



Persons with Visual Impairment

Clause 8.5

Clause 8.5.1

Tactile & Braille signs must:

- Have raised tactile **characters**, graphical **symbols** or **pictograms** that:
 - Have a **raised relief** of at least 1 mm; and
 - **Between 16 mm and 50 mm high**
- Be **uplicated in Braille** in accordance with clause 8.5.2



Printed
"fake"
tactile
sign



Not printed

Must be detectable and readable by touch while being durable enough for regular use

TACTILE AND BRAILLE

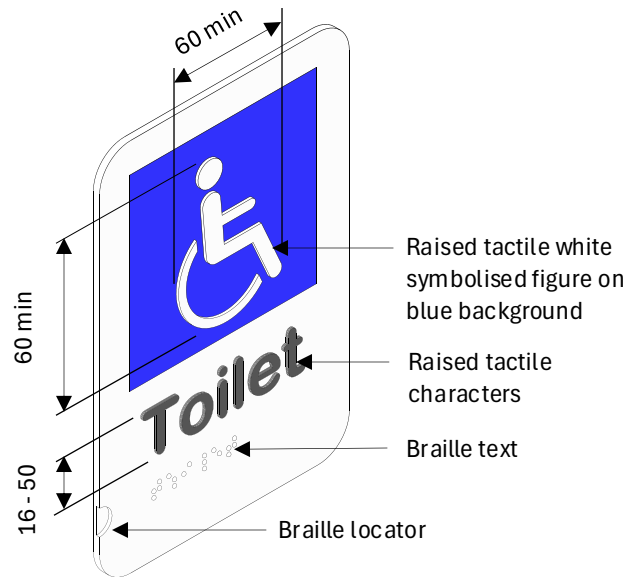


Persons with Visual Impairment

Clause 5.8.11 - SIGNS TO SANITARY FACILITIES

Clarification

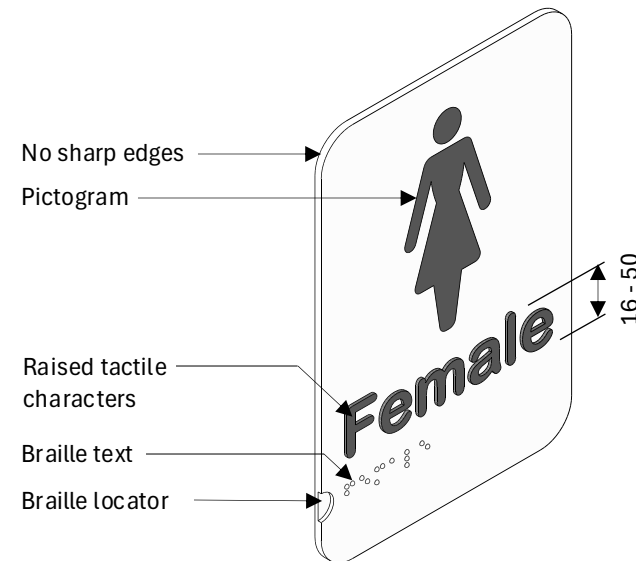
ACCESSIBLE SANITARY FACILITIES



Clause 5.8.11.2

- Tactile symbol of access
- Tactile characters
- Corresponding Braille

MALE / FEMALE TOILETS



Clause 5.8.11.3

- Tactile pictogram OR characters
- Corresponding Braille



Example of tactile characters with corresponding braille

HEARING ENHANCEMENT SYSTEMS



Hard of Hearing

Clause 9.6

Enhanced

Clause 9.6.1

A hearing enhancement system (HES) must be provided:

- NEW** • in any space or room with a floor area more than 75 m² used for conferences, meetings, lectures, classes, presentations, performances or films and the like; and
- at the **main public information/service counters**, including reception desk, information points and the like.

Requirements for Various Type of HES

Induction loop systems

Clause 9.6.2(a) **NEW**

- Have an area of coverage **not less than 75%** of the floor area of the room.

Receiver/Portable systems

Clause 9.6.2(b) **NEW**

- Have an area of coverage **not less than 75%** of the floor area of the room.
- Provide **at least two receivers** for the first 100 persons; and
- Provide **one additional receiver for every subsequent 50 persons** or any part thereof

HEARING ENHANCEMENT SYSTEMS



Hard of Hearing

Clause 9.6

Clause 9.6.3

- Where HES is provided, the International Symbol of Access for persons who are hard-of-hearing must be conspicuously displayed.
- Signage for HES system that operates with telecoil must incorporate the “T” with the symbol of access to inform persons who are hard-of-hearing to activate their telecoil function.



Symbol of Access for persons who are hard-of-hearing

NEW



Hearing enhancement system that operates with telecoil

Figure 80

Symbol of Access for Persons who are Hard-of-hearing



Examples of HES signage

Accessible Lifts, Platform Lifts and Stairlifts

AR. YAP SHAN MING

Senior Architect

BUILDING PLAN & UNIVERSAL DESIGN DEPARTMENT
BUILDING PLAN & MANAGEMENT GROUP



AGENDA

Clause 4.8 Passenger Lifts

Clause 4.9 Lifts Designated for Wheelchair Users

Clause 4.10.2 Platform Lifts

Clause 4.10.3 Wheelchair Stairlifts



PASSENGER LIFTS

Clause 4.8.1.4	Audible and Visible Feedback for Lifts
Clause 4.8.1.5	
Clause 4.8.2.2	Lift Landing Buttons and Lift Car Call Buttons
Clause 4.8.2.3	Force Activated and Non-Force Activated Lift Buttons
Clause 4.8.2.4	Tactile Markings
Clause 4.8.2.6	Lift Button Arrangement
Clause 4.8.2.7	Destination Control System (DCS)
Clause 4.8.2.8	Keypad for DCS
Clause 4.8.3.1	Grab Bars

Legend

New

Enhanced

Relaxed

Clarification



PASSENGER LIFTS

Functional Intent

All passenger lifts must be designed with accessible controls and safety features, incorporating tactile, audio and visual information to ensure ease of use for

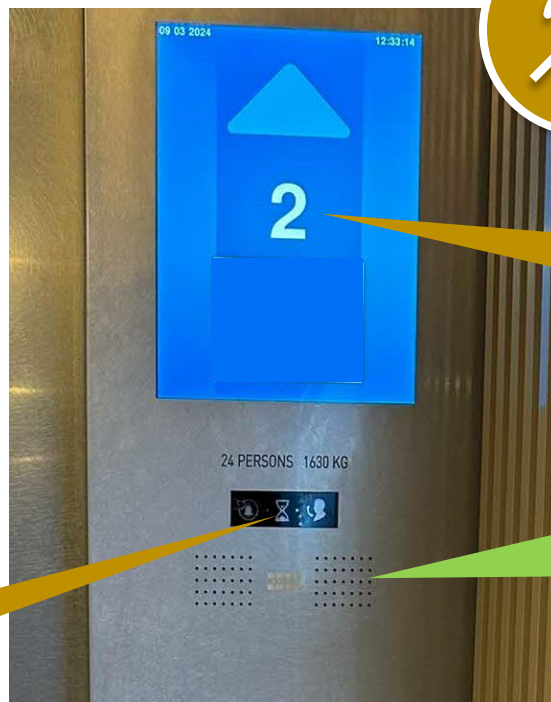
- **persons with ambulant mobility impairment**
- **persons with sensory impairment**



Grab bar to provide support for elderly and persons with mobility impairments



Safety Feature
Emergency Blinking Light

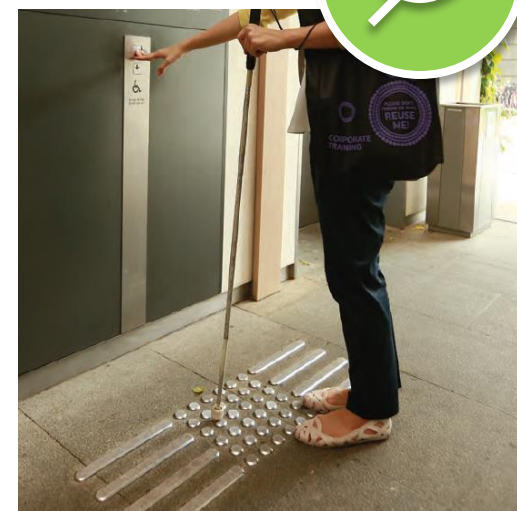


Visual Information
Lift Position,
Emergency Notice

Audio Information
Lift Position, Door Closing,
Emergency Announcement

Tactile Markings

Braille Markings



PASSENGER LIFTS

Clause 4.8.1 General Requirements



Persons with
Visual Impairment



Hard of Hearing



Elderly Persons

Clause 4.8.1.4

To alert lift car's arrival and guide people to the correct lift car, lift lobby must have

- **visible signals** and
- **audible signals** or voice announcements



Lift Lobby

Visible Signal
Lift Hall Lantern

**Audible Signal or
Voice Announcements**
of Lift Arrival

Visible Signal
Lift Landing Call Station
with Floor Indicator

Clause 4.8.1.5

Lift car must have

- **visible signals** indicating its position and
- **voice announcements** of the floor level reached



Lift Car

Visible Signal
Lift Position

Voice Announcements
Floor Reached

Audible Signal
Lift Door Closing
(Cl 4.8.1.6)

PASSENGER LIFTS

Clause 4.8.2 Lift Landing Call Buttons & Lift Car Control Buttons



Persons with
Visual Impairment



Hard of Hearing

Clause 4.8.2.2

Lift landing call buttons and lift car control buttons must

- have an **audible signal** for each call registered
- have a **colour that contrasts with the background** of the lift control panel or wall finish
- provide **tactile and Braille markings**



PASSENGER LIFTS



Persons with
Visual Impairment

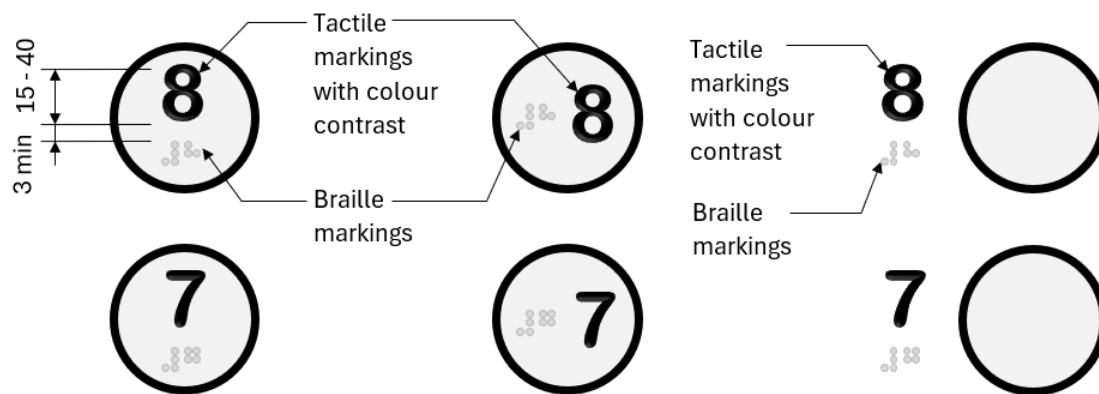
Clause 4.8.2 Lift Landing Call Buttons & Lift Car Control Buttons

Clause 4.8.2.3

A) Force/ Pressure-activated

NEW

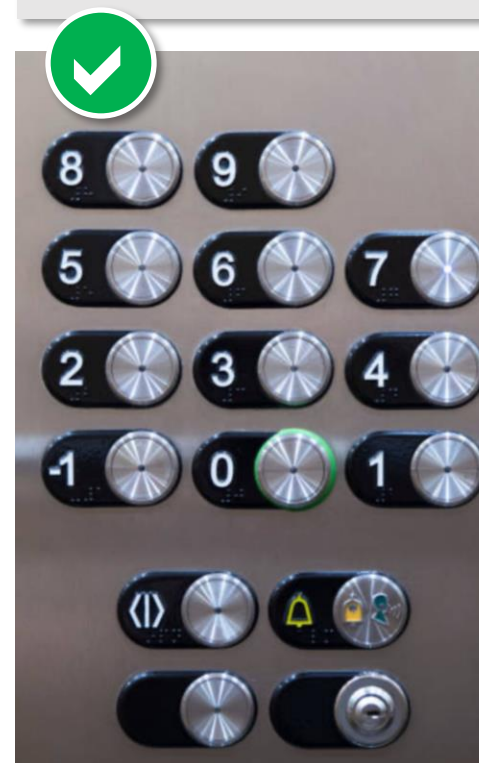
- a minimum activation force of **2.5 N to 5.0 N**
- tactile and Braille markings provided
 - on the buttons; or
 - to the left of the buttons** NEW



Acceptable tactile & Braille markings for force-activated buttons

B) Non-force/Non-pressure-activated

- tactile and Braille markings provided to the left of the buttons



Tactile and Braille markings must be provided to the **left** of touchless buttons to minimise false activation

PASSENGER LIFTS



Persons with
Visual Impairment

Clause 4.8.2 Lift Landing Call Buttons & Lift Car Control Buttons

Relaxation

Clause 4.8.2.4

Tactile markings

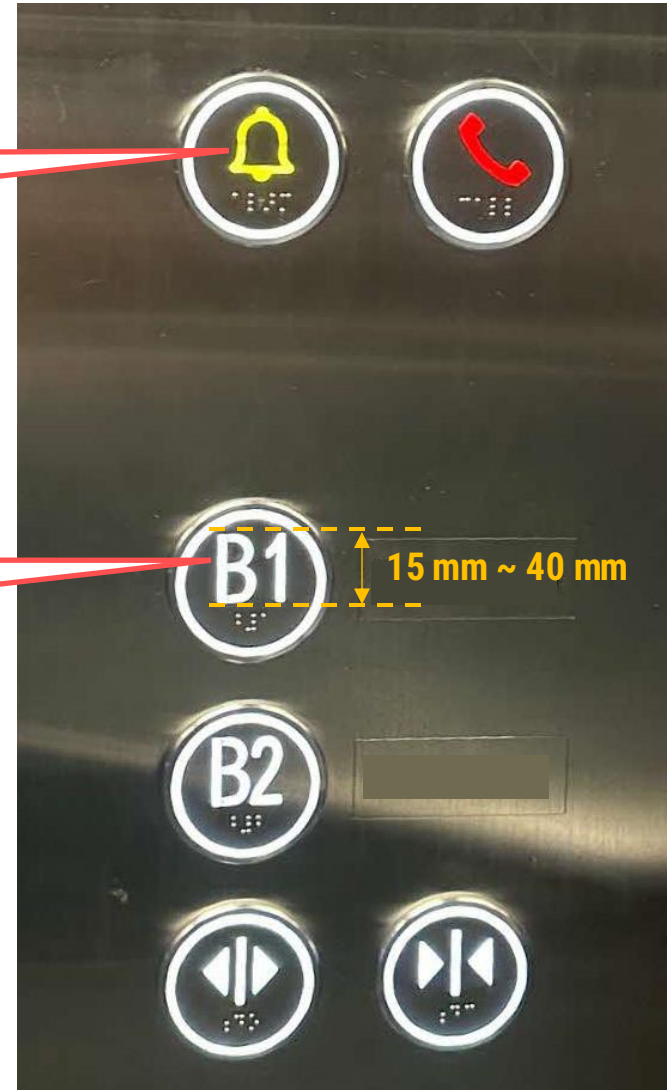
- be in Arabic numerals or symbols
- Height between **15 mm and 40 mm** **NEW**
- be raised at a min of 1 mm
- high contrasting colour to the background.

Tactile symbols

Tactile Arabic numerals

raised at min 1 mm

contrasting colour



Poor colour
contrast

PASSENGER LIFTS



Persons with
Visual Impairment

Clause 4.8.2 Lift Landing Call Buttons & Lift Car Control Buttons

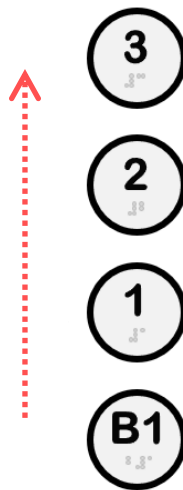
Clause 4.8.2.6

Lift car control buttons for floor selection must be arranged

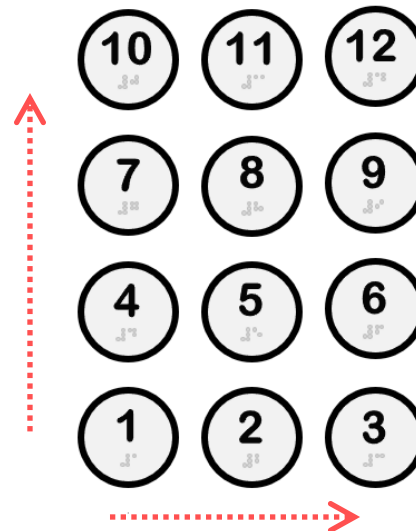
- a single horizontal row from left to right
- a single vertical row from the bottom to top;
- for multiple vertical rows from left to right and then from bottom to the top



Single Horizontal Row



Single Vertical Row



Multiple Vertical Row



PASSENGER LIFTS

Alternative Solutions

High Rise Development with Alternative Lift Control Panel



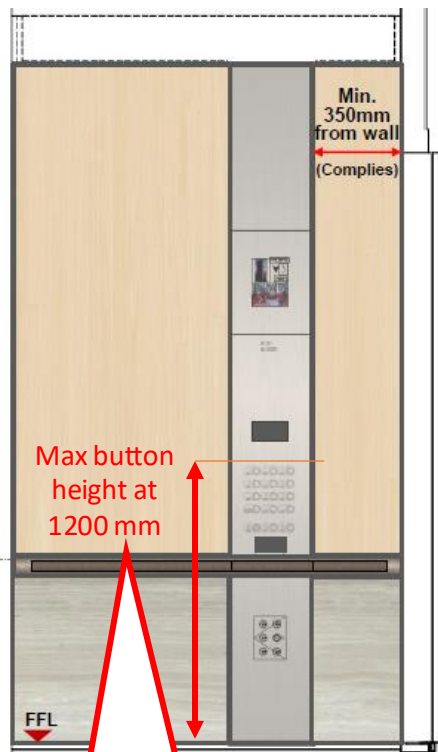
Wheelchair Users



Persons with
Visual Impairment



Hard of Hearing



Lift button height is no more than 1.2 m

Tactile and Braille markings to the **left** of lift buttons

Card Reader within **acceptable height range**

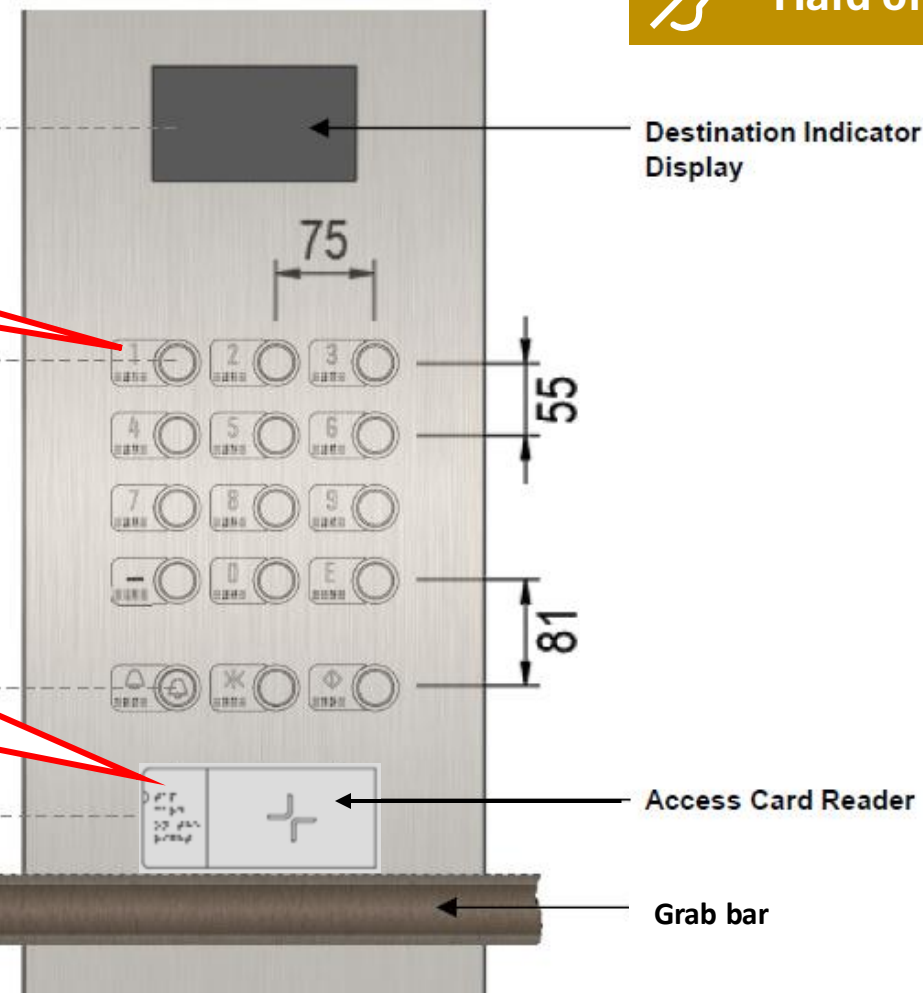
Provision of **Braille** to facilitate Persons with Sensory Impairments

FFL +1376mm

FFL +1193mm

FFL +850mm

FFL +800mm



PASSENGER LIFTS



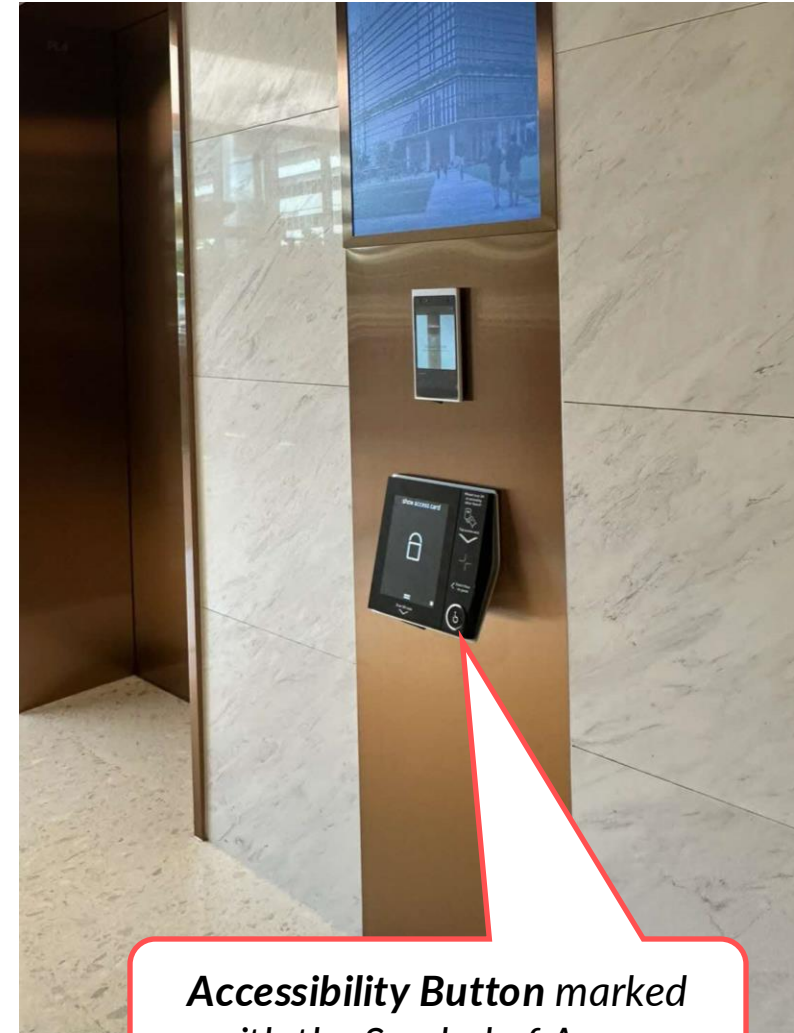
Persons with
Visual Impairment

Clause 4.8.2 Destination Control System (DCS)

Clause 4.8.2.7

Where DCS is used, the control device must have

- an accessibility button marked with the **Symbol of Access**
 - **integrated into or placed next** to the control device
 - to activate **visual and voice announcements** for the selected floor and allocated lift.



Examples of DCS Control Device with Accessibility Buttons

PASSENGER LIFTS

Clause 4.8.2 Destination Control System



Persons with
Visual Impairment

New

Clause 4.8.2.8

Where keypads are used for floor selection:

Keypad Size

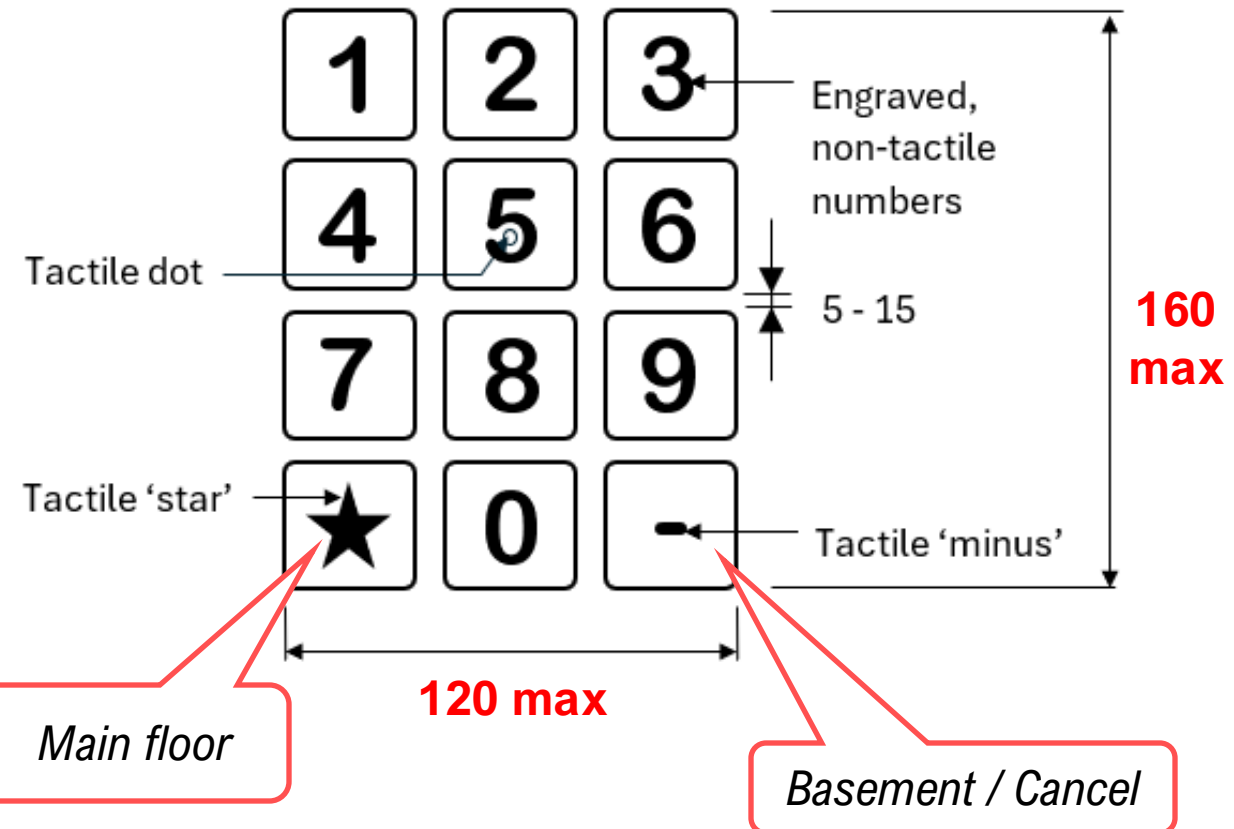
- maximum width of **120 mm**
- maximum height of **160 mm**

Buttons

- buttons are arranged in the same way as a telephone keypad
- 5 mm to 15 mm between push buttons
- numbers are **engraved, without Braille**

Tactile Provision

- a single raised dot on the number '5' key
- tactile **"star" (main floor)**
- tactile **"minus" (basement/cancel)**



PASSENGER LIFTS

Clause 4.8.3 Grab Bars



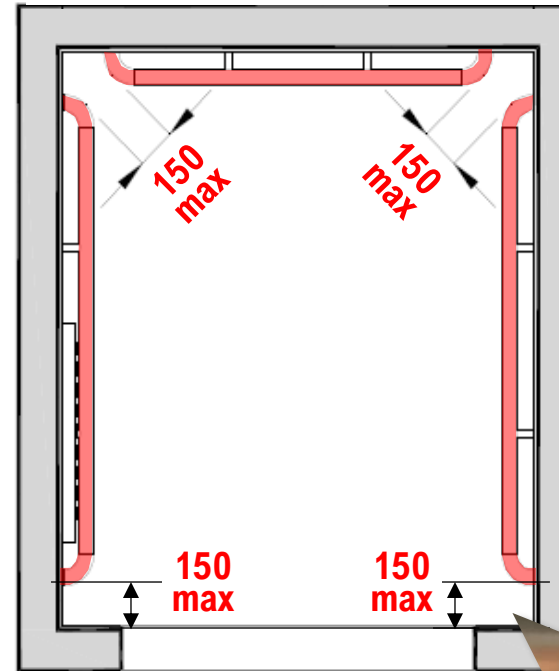
Elderly Persons

Clarification

Clause 4.8.3.1

Grab bars must

- be in accordance with clause 9.4
 - not sharp / abrasive
 - resist a force of at least 1.3 kN
 - Grab bar diameter
 - 32 mm to 45 mm
 - Sufficient gripping surface
- 800 mm ~ 900 mm from floor
- be continuous on all sides **except where the lift doors are**
- where the grab bars are not continuous at corners, the gap between grab bars **must not exceed 150 mm**

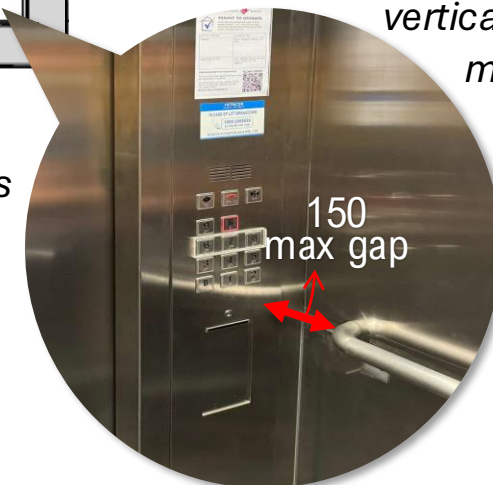


Lift Door

Any gaps between grab bars must not exceed **150 mm**.



Grab bar need not extend across a vertical COP if it obstructs maintenance access.



LIFTS DESIGNATED FOR WHEELCHAIR USERS

Clause 4.9.1.3	Lift Lobby Clear Floor Space
Clause 4.9.2.1	Lift Car Size
Clause 4.9.2.2	Lift Car Mirror
Advisory	Door Dwell Time
Clause 4.9.5.1	Lift Car Control Buttons
Advisory	Lift car control button height
Clause 4.9.5.2	Lift Car Control Panels

Legend

New

Enhanced

Relaxed

Clarification

Advisory



LIFTS DESIGNATED FOR WHEELCHAIR USERS

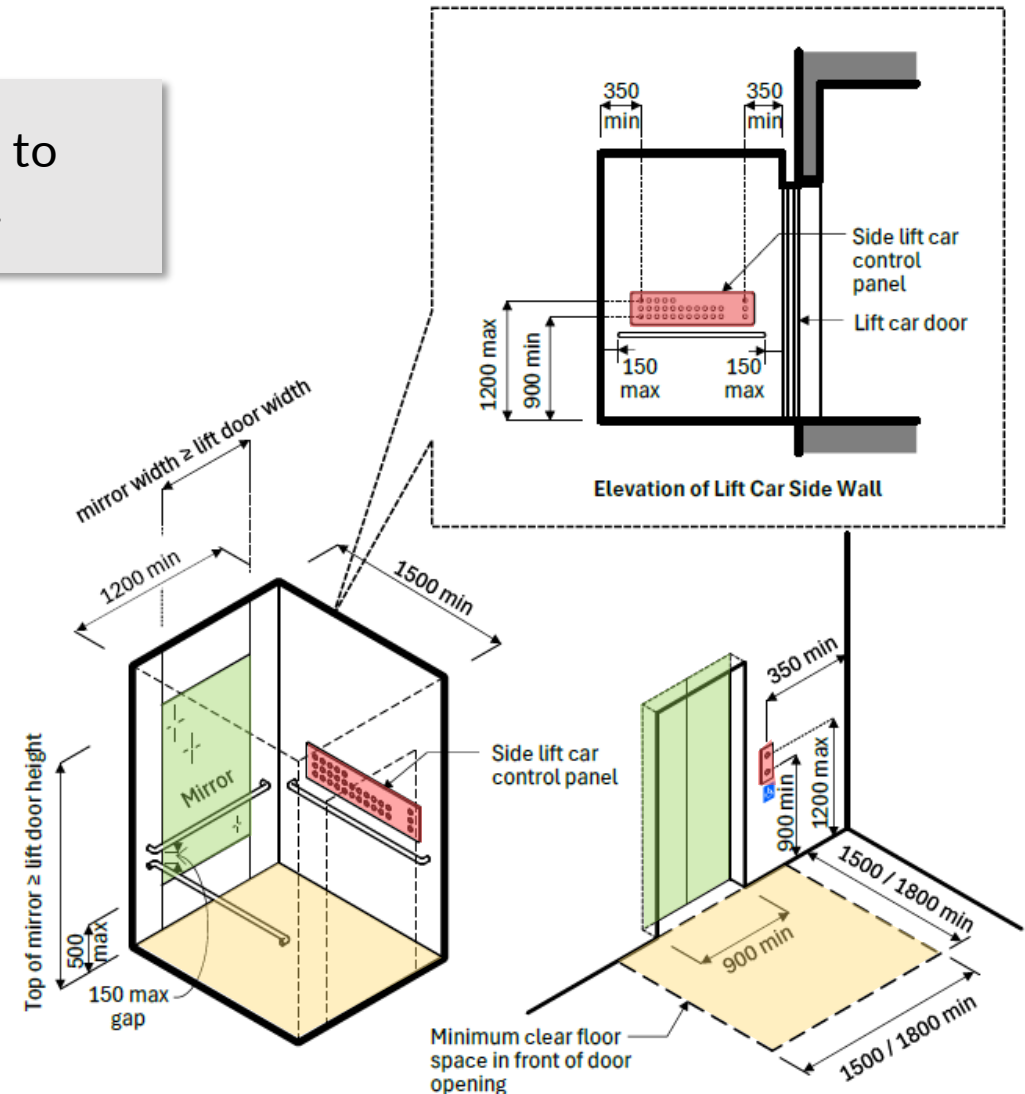
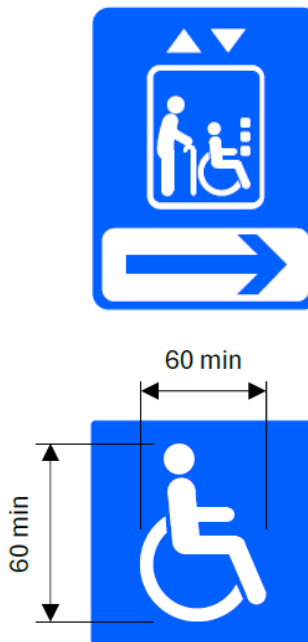


Functional Intent

Wheelchair users must be able to approach and use a lift to **access all levels** intended for access by wheelchair users.

The lift and lift lobby must be provided with

- *clear signage and information*
- *adequate manoeuvring space*
- *accessible controls*
- *safety features*



(a) Accessible lift car

(b) Accessible lift lobby

LIFTS DESIGNATED FOR WHEELCHAIR USERS



Wheelchair Users

Clause 4.9.1 General Requirements

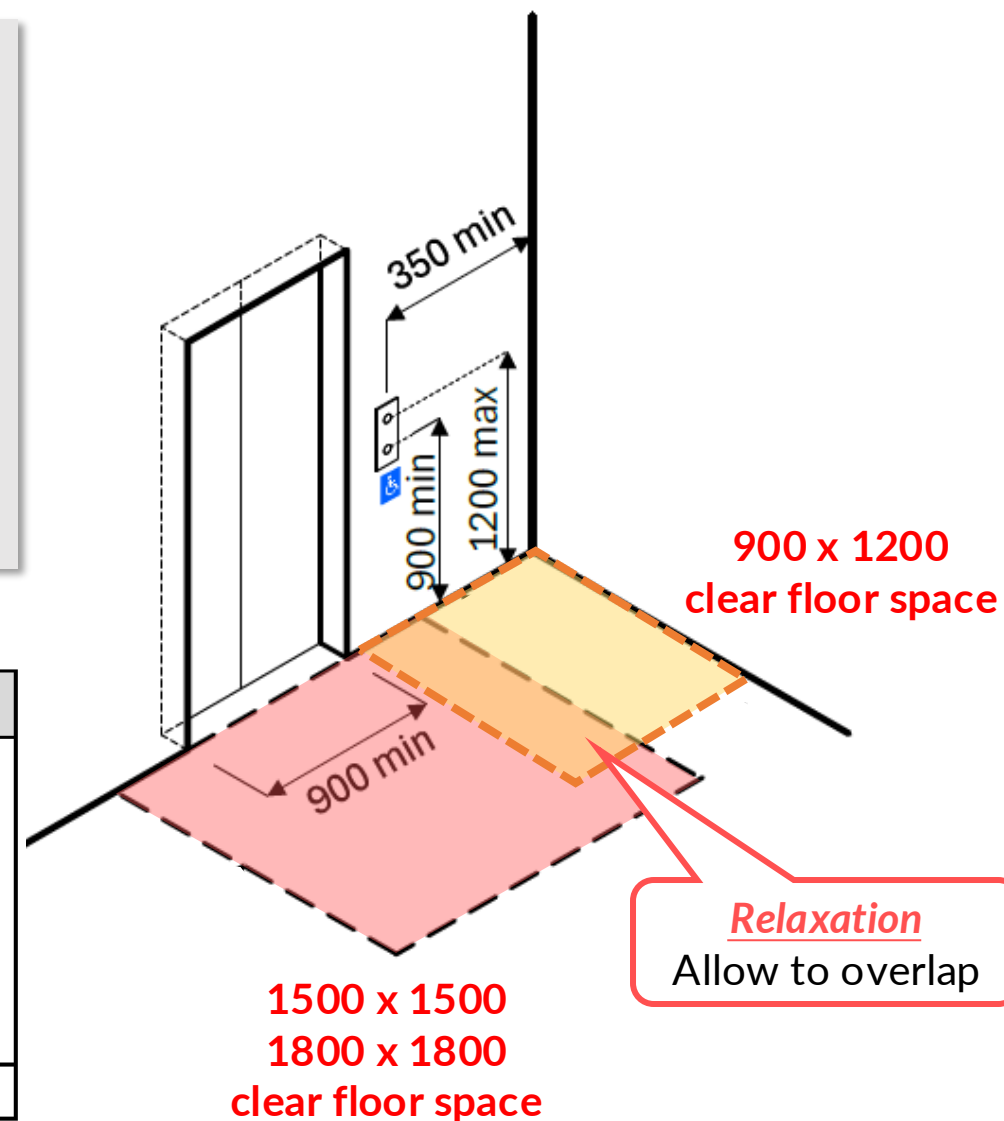
Clause 4.9.1.3

Lift lobby space must have a **clear floor space in front of the lift door**.

- The minimum clear floor space must be
 - NEW** ▪ 1500 mm by 1500 mm or 1800 mm by 1800 mm
 - based on the building types and the required clear width as prescribed in Table 3

Table 3
Accessible Route Widths

Building type	Minimum width of primary accessible route
Residential; Office buildings, including business parks; Hotels, boarding houses, chalets and backpacker hotels; Serviced apartments; Hostels, halls of residence or dormitories; Preschools, primary and secondary schools; Factories, workshops, industrial buildings, warehouses; Purpose-built workers' dormitories	1500 mm* *Passing spaces in accordance with clause 4.2.1.2 must be provided.
All other uses	1800 mm



LIFTS DESIGNATED FOR WHEELCHAIR USERS



Clause 4.9.2 Lift Car

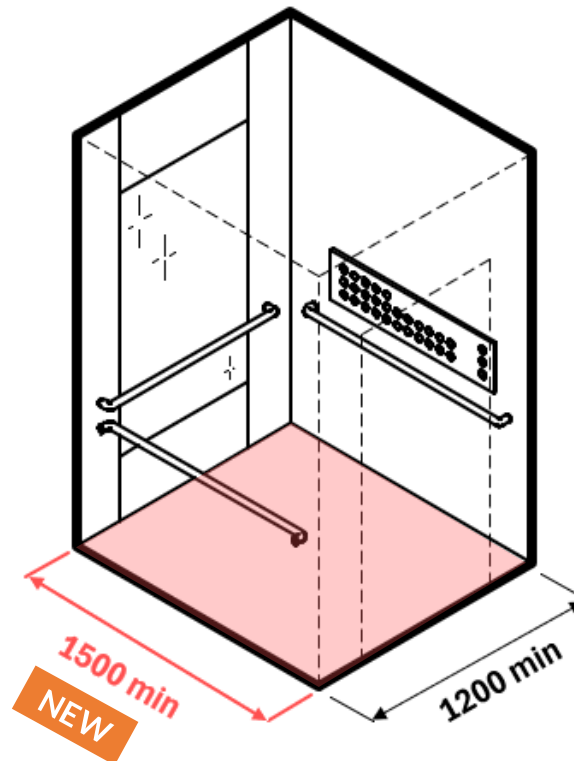
Clause 4.9.2.1

The minimum internal lift car size must be 1200 mm wide by **1500 mm deep** **NEW**

Enhanced



Examples of motorised wheelchair and PMA



Motorised wheelchair user maneuvering within lift car

LIFTS DESIGNATED FOR WHEELCHAIR USERS



Wheelchair Users

Clause 4.9.2 Lift Car Requirements

Enhanced

Clause 4.9.2.2

Safety glass mirror / mirror-like finish surfaces must be provided

Position of Mirror

- on the wall **directly opposite** the lift door
- max height of 500 mm** from floor level

NEW

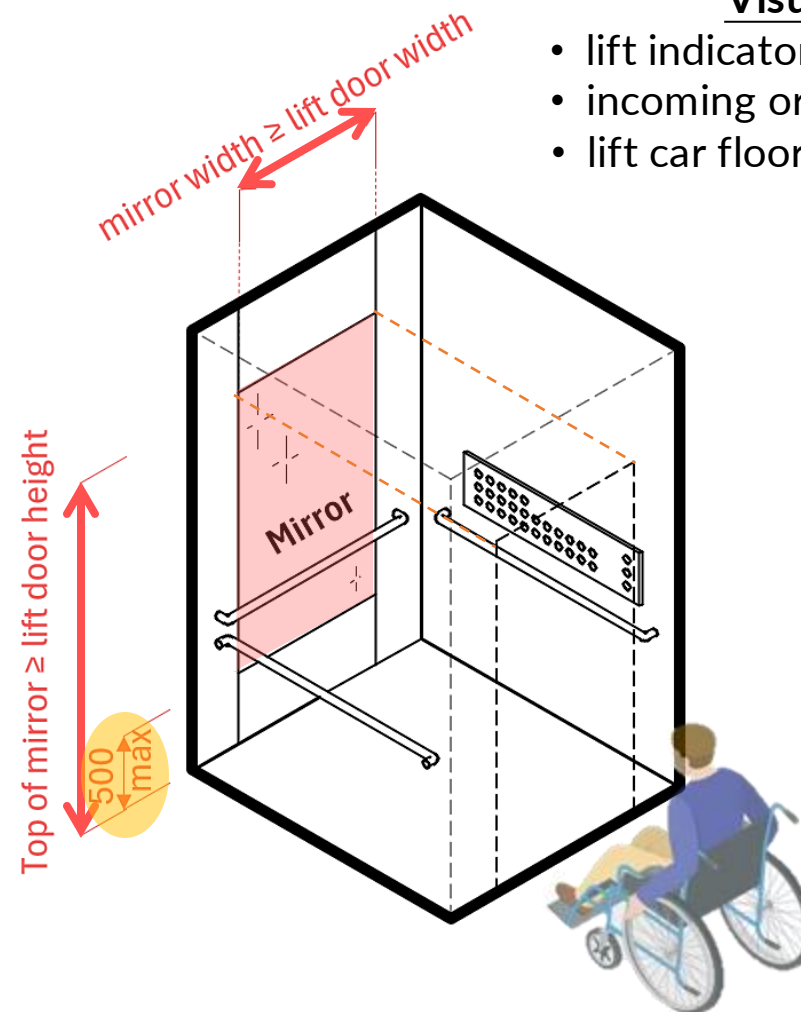
Size of Mirror

- at least the height of lift door
- at least the width of the lift door opening

Mirror facilitates wheelchair user to back in or out of the lift safely without having to turn, preventing injury and damage to wheelchair

Visual feedback

- lift indicator showing lift position
- incoming or outgoing passengers
- lift car floor levelled with landing



LIFTS DESIGNATED FOR WHEELCHAIR USERS



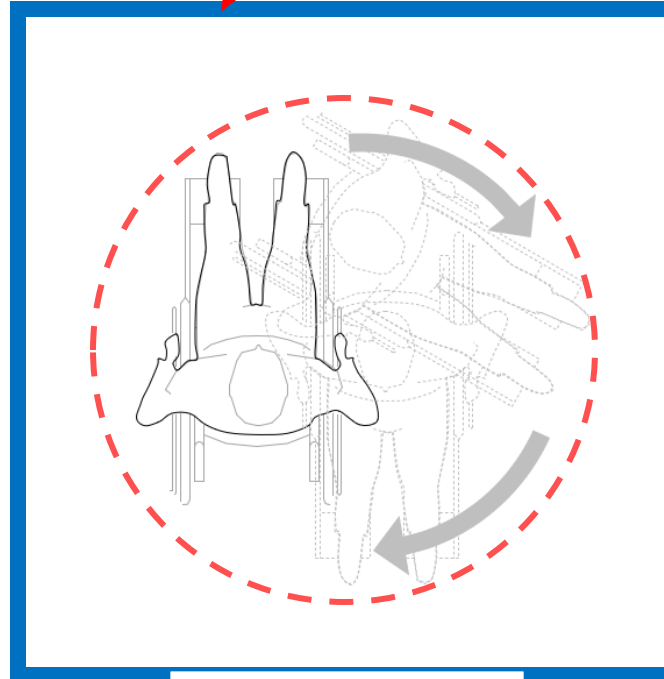
Alternative Solutions

Making Glass Lifts Accessible



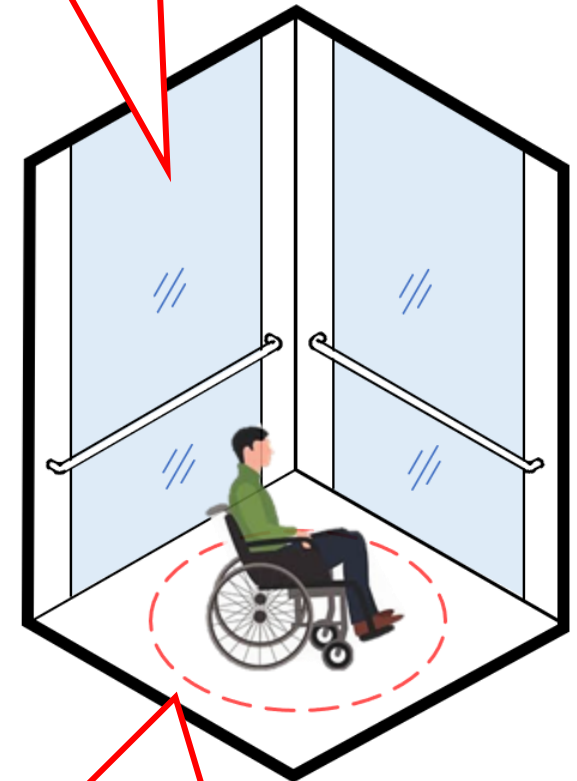
Image Credit : Schindler Elevator Corporation

Glass lift enclosure



The minimum clear floor space for a wheelchair to turn within a confined space is **1500 mm.**
(CI 1.3.4.2)

Glass lift without rear mirror



Alternative solution
provide sufficient
maneuvering space to turn freely

LIFTS DESIGNATED FOR WHEELCHAIR USERS

Clause 4.9.3 Lift Car Door



Wheelchair Users



Elderly Persons

Advisory

Door dwell time / Lift door closing delay

A door dwell time (lift door closing delay) of at least **6 seconds** is recommended for lifts designated for wheelchair users.



Why Extended Door Dwell Time Matters?

- Ensures safe access for wheelchair users
- Provides adequate time for manoeuvring in/out of lift
- Reduces anxiety and stress for users with mobility needs
- Prevents door-related incidents and injuries

LIFTS DESIGNATED FOR WHEELCHAIR USERS

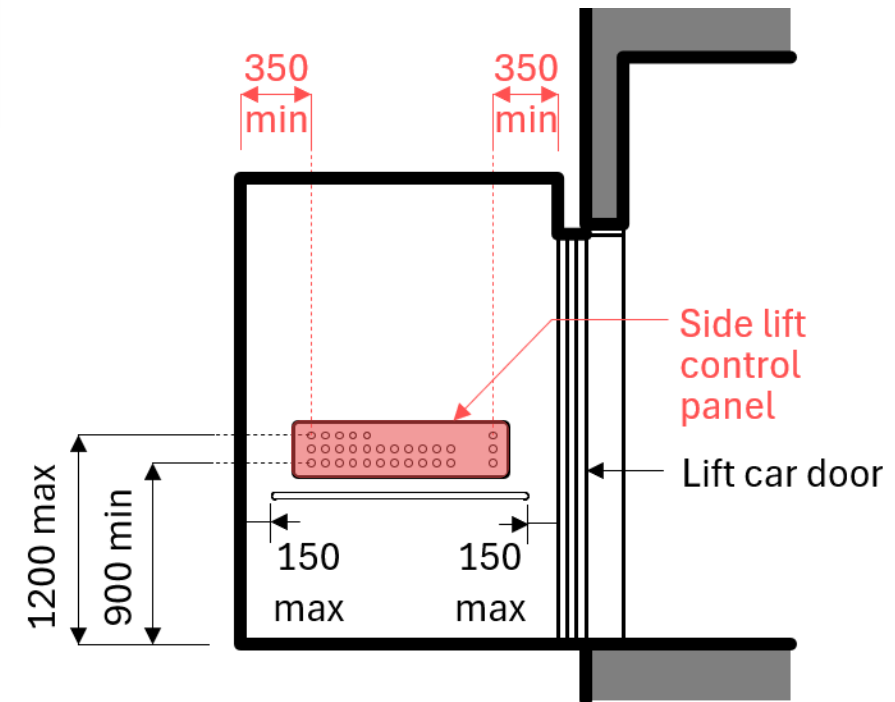
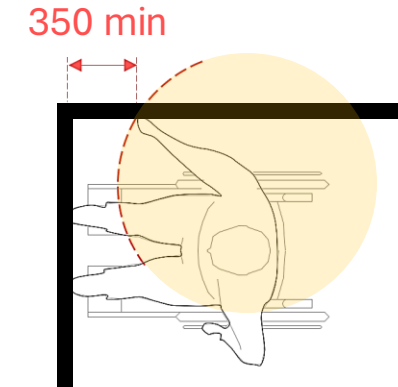


Clause 4.9.5 Lift Car Control Buttons

Clause 4.9.5.1

At least **one set** of lift car control buttons located inside the lift must:

- have its control panel placed on the **side wall**;
- be located at **350 mm or more** from any **NEW** internal corner of the lift car.



Examples of side lift control panel

LIFTS DESIGNATED FOR WHEELCHAIR USERS



Wheelchair Users

Clause 4.9.5 Lift Car Control Buttons

Clause 4.9.5.1

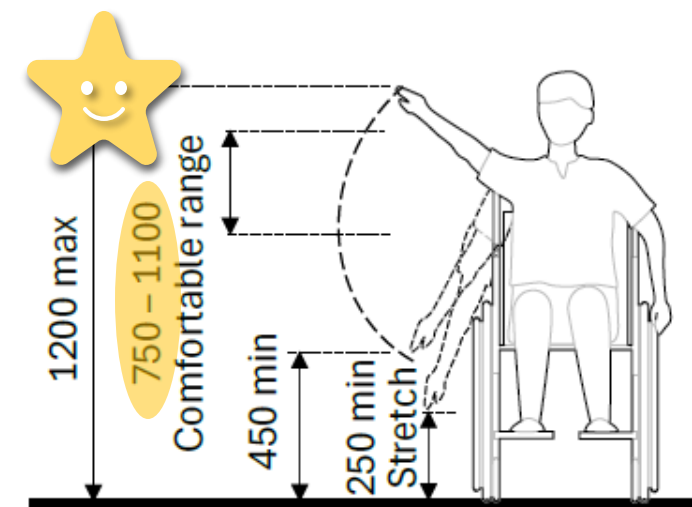
At least one set of lift car control buttons:

- placed at a height of between 900 mm and 1200 mm from the floor level



Lift car control button height

Lift car control buttons for wheelchair users are recommended to be placed at a height not exceeding 1100 mm from the floor level and on the right-hand wall when entering the lift.



LIFTS DESIGNATED FOR WHEELCHAIR USERS

Clause 4.9.5 Lift Car Control Buttons



Wheelchair Users



Persons with
Visual Impairment



Hard of Hearing

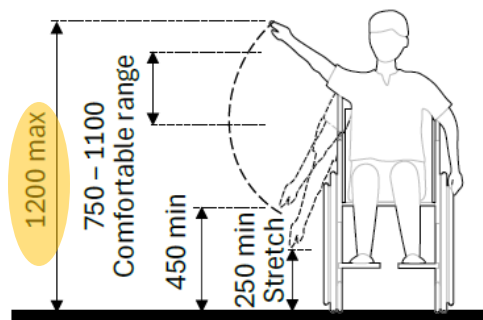
Clause 4.9.5.2

Where there are two control panels inside the lift car, there must be

- one control panel serving wheelchair users in accordance with clause 4.9.5.1, and
- one control panel at eye level serving persons with sensory impairment.

Clarification

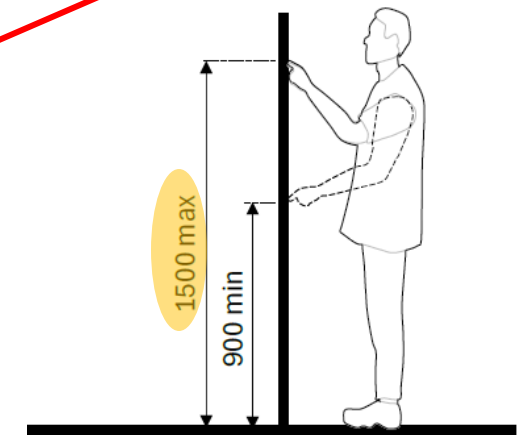
Control panel for
Wheelchair Users



(a) Side reach heights for a person in wheelchair



Control panel for
Persons with Sensory Impairment



(b) Heights for reading of tactile and Braille by persons with visual impairment

PLATFORM LIFTS AND WHEELCHAIR STAIRLIFTS

Legend

New

Enhanced

Relaxed

Clarification

Clause 4.10.2.1	Platform Lift – Door Size and Clear Floor Space
Clause 4.10.2.2	Platform Lift – Platform Size
Clause 4.10.2.3	Platform Lift – Enclosure and Safety Requirement
Clause 4.10.2.4	Platform Lift – Door Handle
Clause 4.10.2.5	Platform Lift – Lift Landing Call Buttons and Lift Control Buttons
Clause 4.10.2.6	Platform Lift – Grab Bar
Clause 4.10.3.1	Wheelchair Stairlift – General Requirements
Clause 4.10.3.2	Wheelchair Stairlift – Platform Size
Clause 4.10.3.3	Wheelchair Stairlift – Clear Floor Space
Clause 4.10.3.4	Signage



PLATFORM LIFTS AND WHEELCHAIR STAIRLIFTS



Functional Intent

In exceptional cases, platform lifts and wheelchair stairlifts may substitute for passenger lifts and ramps. These must be provided with :

- adequate wheelchair manoeuvring space
- accessible controls and safety features
- clear signage and information must be displayed



Passenger lifts and ramps are the **MOST SUITABLE** form of access



Ramp



Passenger Lift

Only under **EXCEPTIONAL CIRCUMSTANCES**

Can only be considered for
existing building



Wheelchair Stairlift



Platform Lift

PLATFORM LIFTS AND WHEELCHAIR STAIRLIFTS



Clause 4.10.2 Platform Lift



Grab bar profile



No signage to identify lift



Obstructed lift button



'Pinching' handle



Door handle profile

PLATFORM LIFTS AND WHEELCHAIR STAIRLIFTS

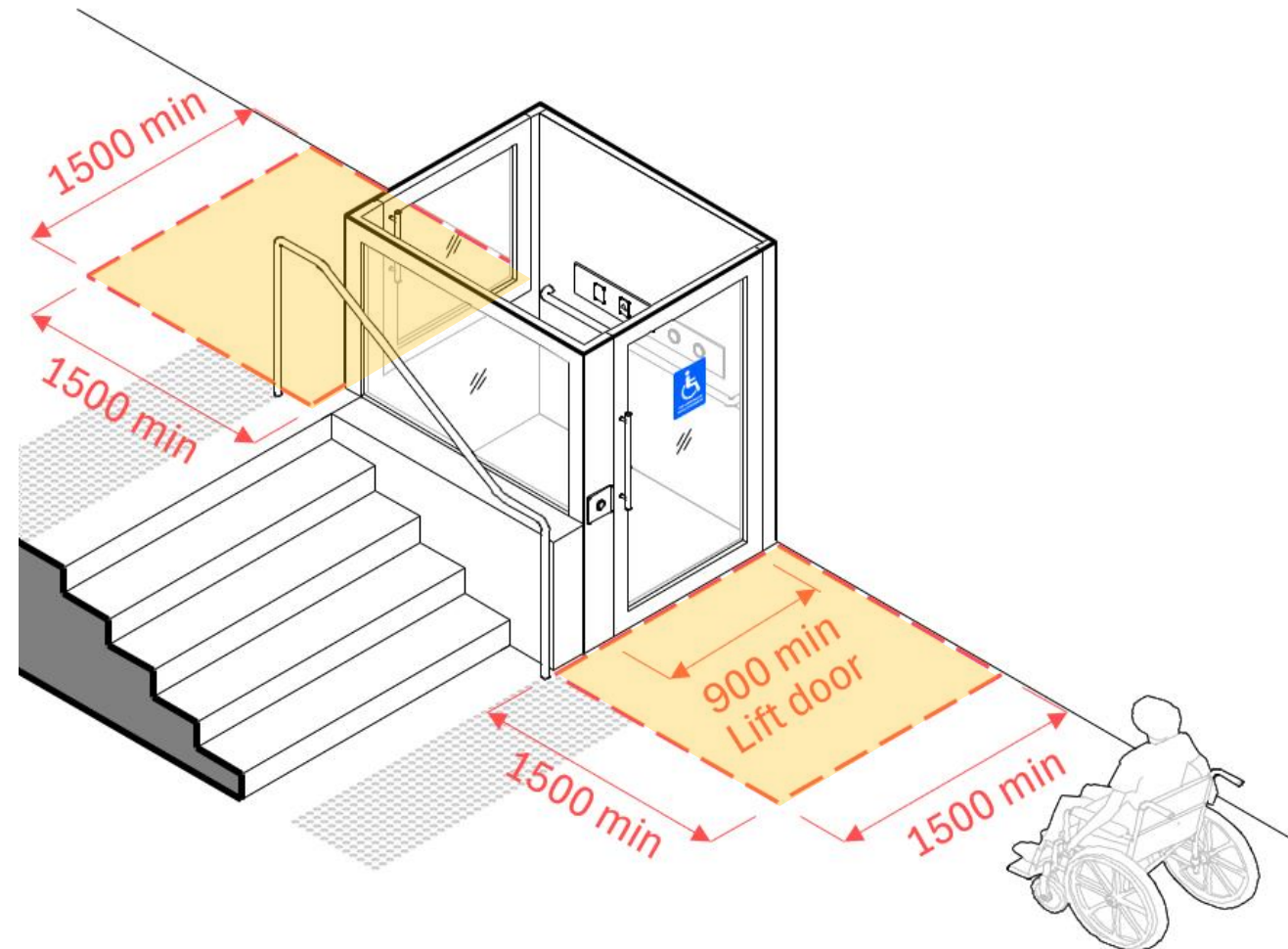


Clause 4.10.2 Platform Lift

Clause 4.10.2.1

A platform lift must have:

- min clear door opening of **900 mm**
- min clear floor space of **1500 mm by 1500 mm**;



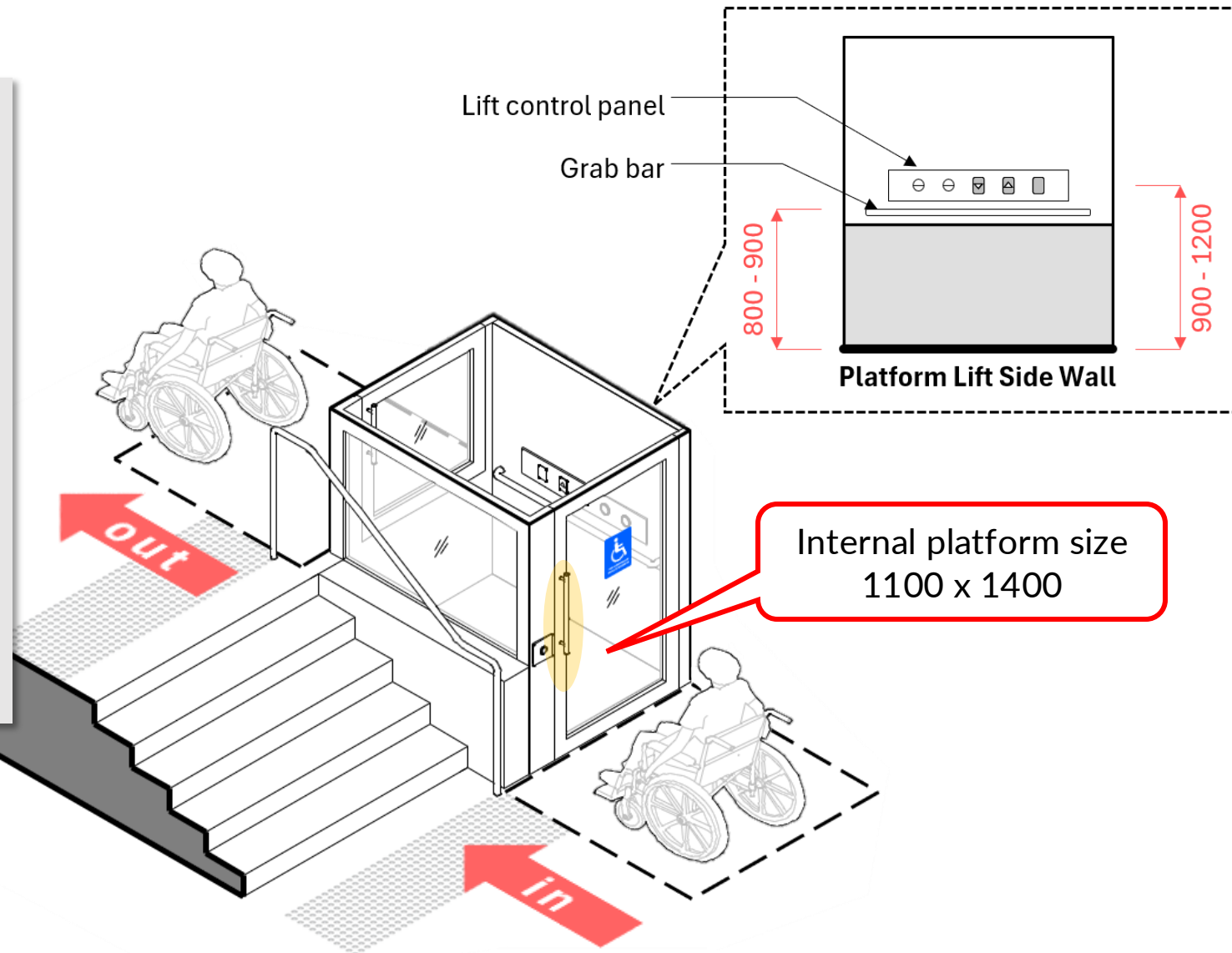
PLATFORM LIFTS AND WHEELCHAIR STAIRLIFTS



Clause 4.10.2 Platform Lift

Clause 4.10.2.2 to Clause 4.10.2.6

- minimum internal size:
1100 mm wide by 1400 mm deep
- to allow a person in a wheelchair to
enter and exit without turns
- **lift door handle**
(comply with cl 4.4.8)
- **lift landing & lift car buttons**
(comply with cl 4.8.2, 4.9.4 & 4.9.5)
- at least **one grab bar** on one side
(comply with cl 9.4)



PLATFORM LIFTS AND WHEELCHAIR STAIRLIFTS

Clause 4.10.2 Platform Lift

Clause 4.10.2.3

The platform lift must have an enclosure in accordance with the requirements of

EN81-41 – “Safety rules for the construction and installation of lifts – Special lifts for the transport of persons and goods - Vertical platforms intended for use by persons with impaired mobility”



Platform lift without enclosure



Unsheltered platform lift

PLATFORM LIFTS AND WHEELCHAIR STAIRLIFTS



Clause 4.10.3 Wheelchair Stairlifts

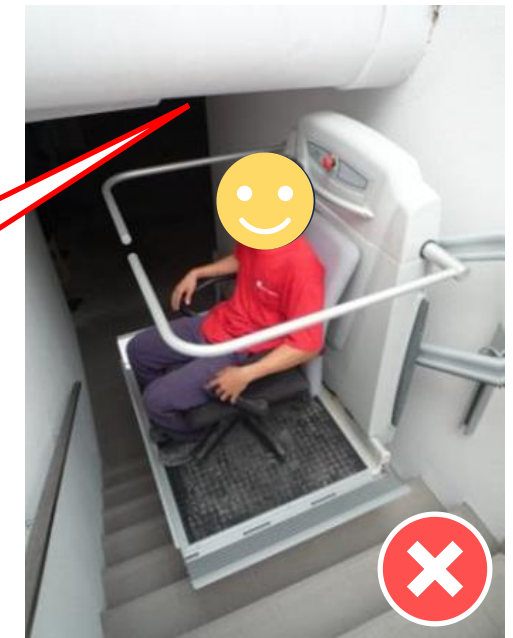
Clause 4.10.3.1

Wheelchair stairlift may be considered:

- Where it is impracticable to provide a passenger lift, a ramp or platform lift in an existing building; and
- Difference in level between spaces of up to one storey



Insufficient
headroom



Examples of Wheelchair Stairlift

PLATFORM LIFTS AND WHEELCHAIR STAIRLIFTS



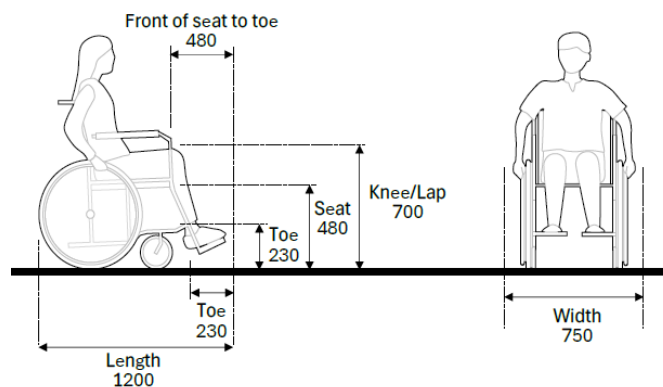
Clause 4.10.3 Wheelchair Stairlifts

Clause 4.10.3.2 & Clause 4.10.3.3

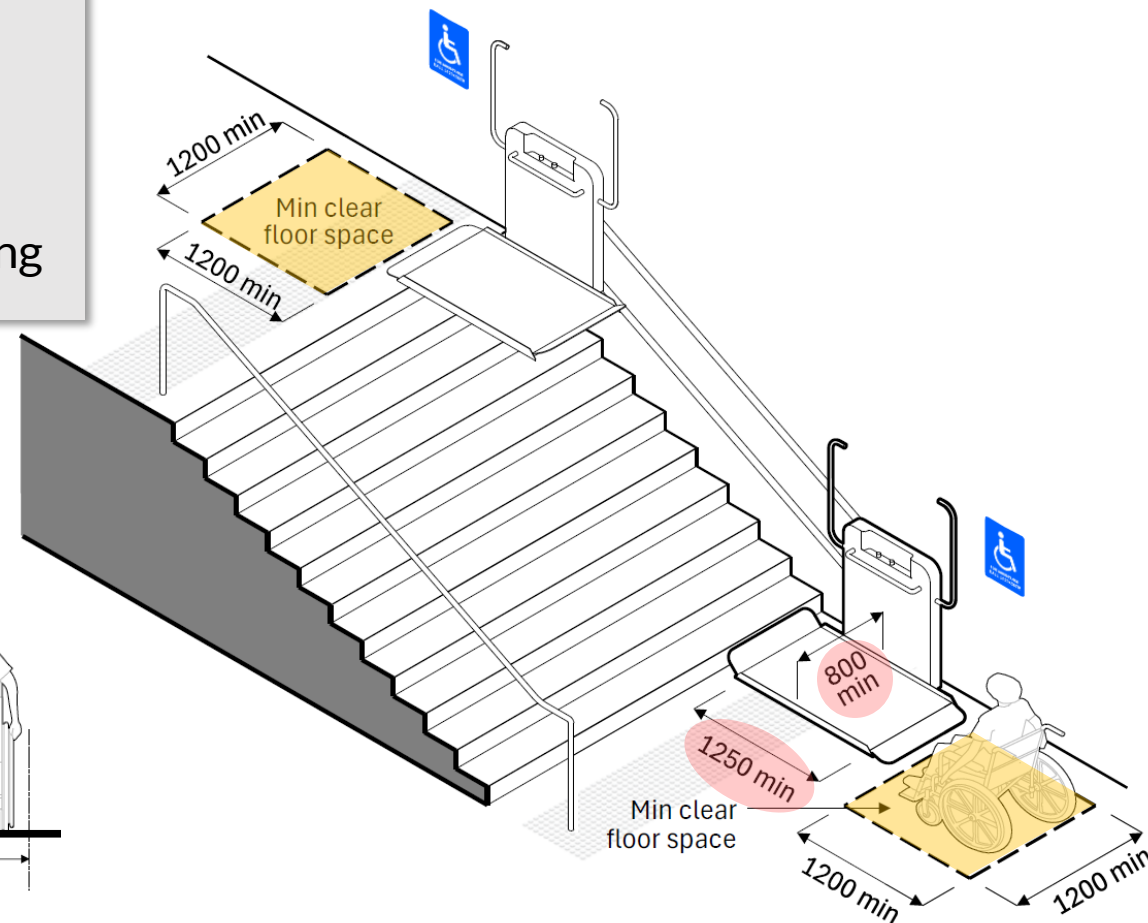
- internal size of the platform
800 mm wide by 1250 mm deep
- minimum clear floor spaces
1200 mm by 1200 mm at the top and bottom landing



Stairlift adjacent glass door



Stationary Wheelchair and Occupant



Example of Wheelchair Stairlift

PLATFORM LIFTS AND WHEELCHAIR STAIRLIFTS



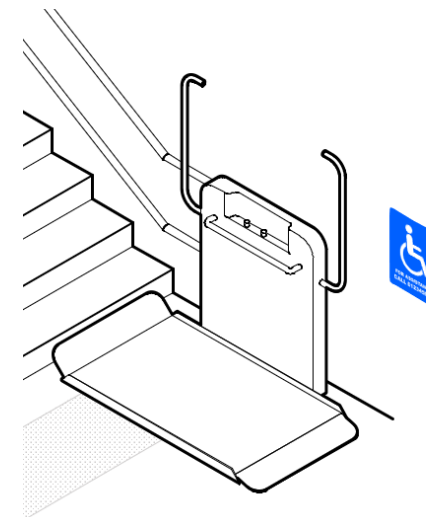
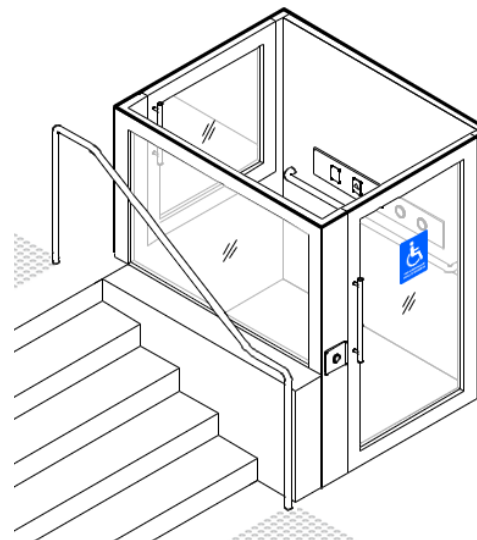
Clause 4.10.3 Platform Lifts and Wheelchair Stairlifts

Clause 4.10.3.4

- **Signage bearing the Symbol of Access**
 - to identify the location of platform lifts and wheelchair stairlifts
- **Provide contact information** to seek assistance from
 - building management
 - Town Council
 - the relevant authority

Contact information

Signage bearing Symbol of Access



Sanitary and Family-Friendly Provisions

AR. MAGGIE CHU

Executive Architect

BUILDING PLAN & UNIVERSAL DESIGN DEPARTMENT
BUILDING PLAN & MANAGEMENT GROUP



AGENDA

SANITARY PROVISIONS

Clause 5.1.5	Ambulant-Friendly Toilets
Clause 5.1.8 & 5.1.9	Accessible Shower
Clause 5.1.11	Tactile and Braille Signage at Toilet Entrances
Clause 5.1.7 (Note)	Accessible Changing Room(ACR)
Clause 5.3.2	Accessible Changing Room(ACR)
Clause 5.7.2	Bathtub for Wheelchair Users
Clause 5.8.6	Accessible Water Closet
Clause 7.3.3	Doorways of Retrofit Bathrooms
Clause 7.3.4	Requirement for Retrofit Bathrooms

Legend

New**Enhanced****Relaxed****Clarification**

Ambulant Friendly Toilets

Clause 5.1 - General

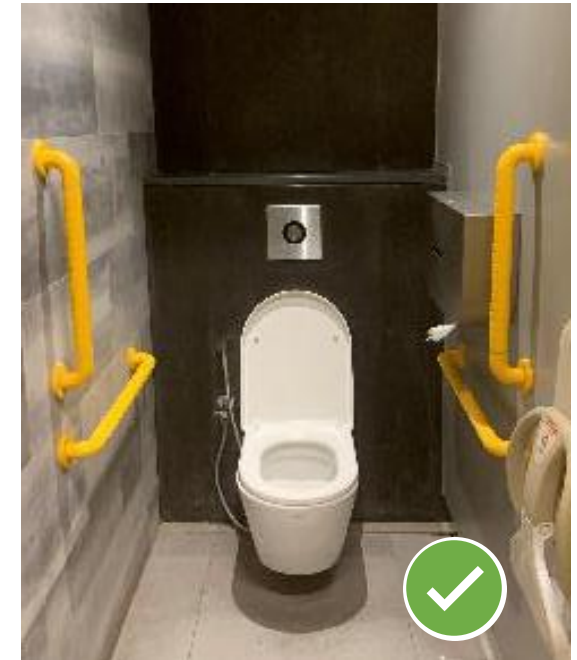
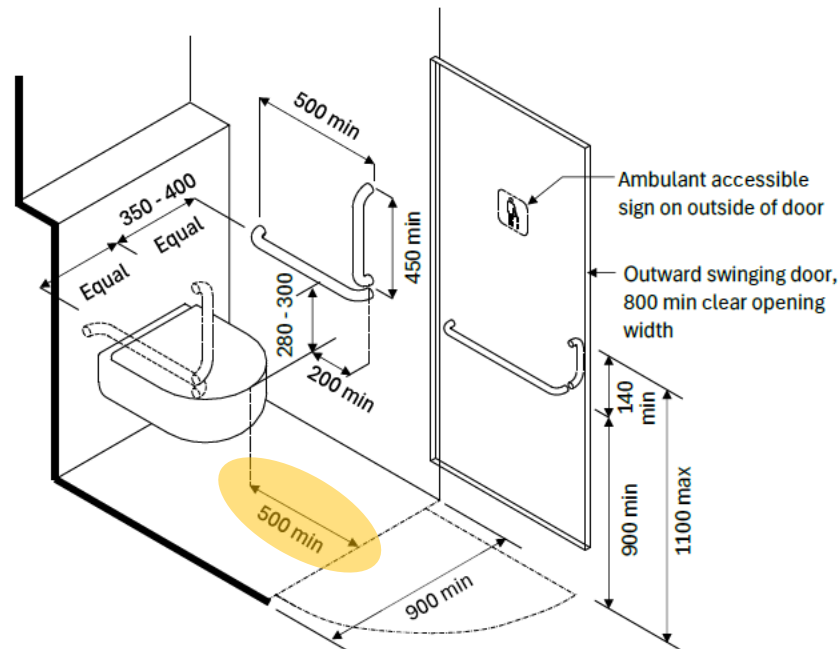


Elderly and Ambulant Persons

Clause 5.1.5

For every four water closet cubicles provided, at least one must be designed for persons with ambulant mobility impairments.

- Increased number of ambulant disabled cubicles catering to an ageing population and workforce.
- Required in all building types, except children's toilet and purpose-built workers' dormitories.
- Improved clarity in diagrams on distance between water closet and cubicle door.



Example of ambulant-friendly WC cubicle

ACCESSIBLE SHOWER

Clause 5.1 - General



Wheelchair Users

Clause 5.1.8 and 5.1.9

Where shower facilities are provided, at least one accessible individual shower facility must be provided for equitable use.

- Provide an individual accessible shower per toilet cluster
- Where there are multiple clusters on the same level, an accessible shower cubicle in male/female areas can substitute the individual facility, if one exists on the same floor.

- Does not apply the following building types:

- Children's toilet
- Hospital wards
- Nursing homes
- Homes for the aged, welfare homes
- Living quarters of workers' dormitories

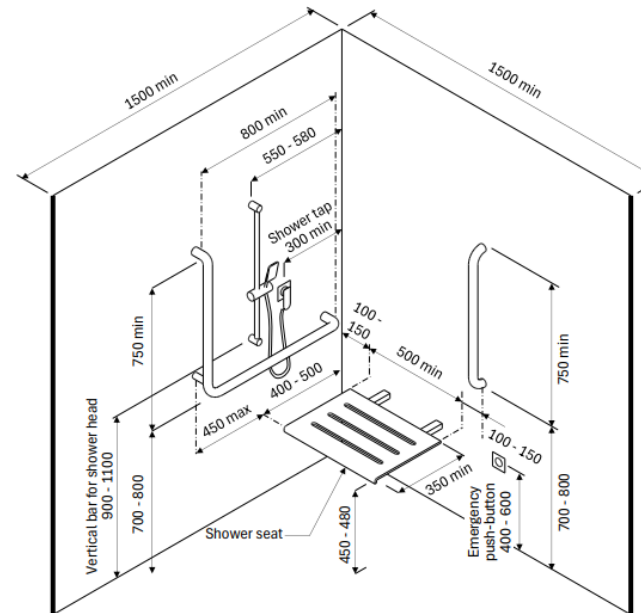
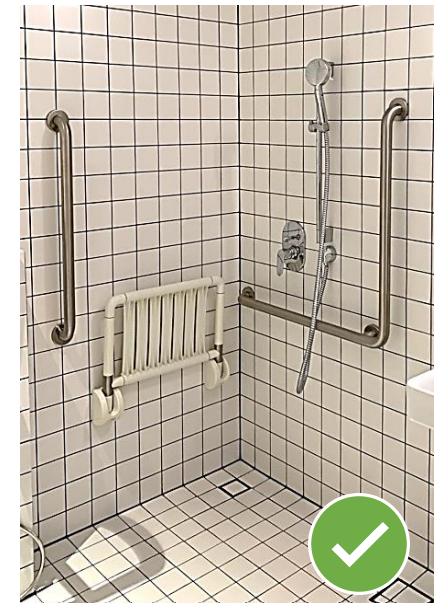


Figure 51
Accessible Shower Facility for Wheelchair Users



Example of accessible shower for wheelchair users

TACTILE AND BRAILLE SIGNAGE AT TOILET ENTRANCE



Persons with Visual Impairment

Clause 5.1.11 - General

Clause 5.1.11

Tactile and Braille signs must be provided at entrances to male and female toilets.

- Improved clarity in diagrams for positioning of signage placement to leading edge of the door.

- Does not** apply to following building types:

- Residential developments
- Pre-schools, Primary and Secondary Schools including their hostels
- Halls of residence and dormitories
- Nursing homes
- Homes for the aged, welfare homes
- Factories, workshops, warehouses and industrial buildings
- Purpose-built workers' dormitories

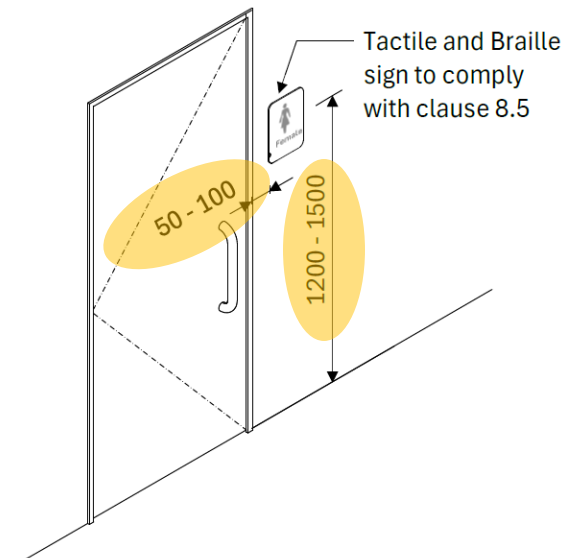


Figure 58
Signs to Toilets



ACCESSIBLE CHANGING ROOM (ACR)



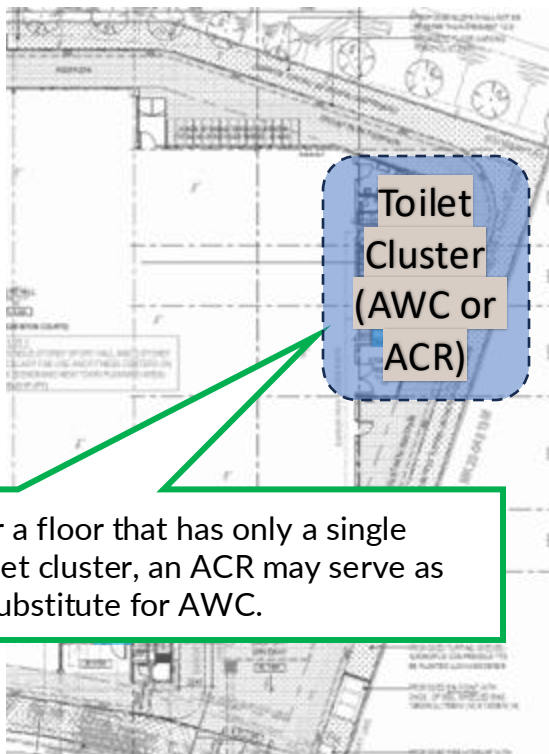
Wheelchair Users

Clause 5.1.7 – Accessible Changing Room

Clause 5.1.7 (Note)

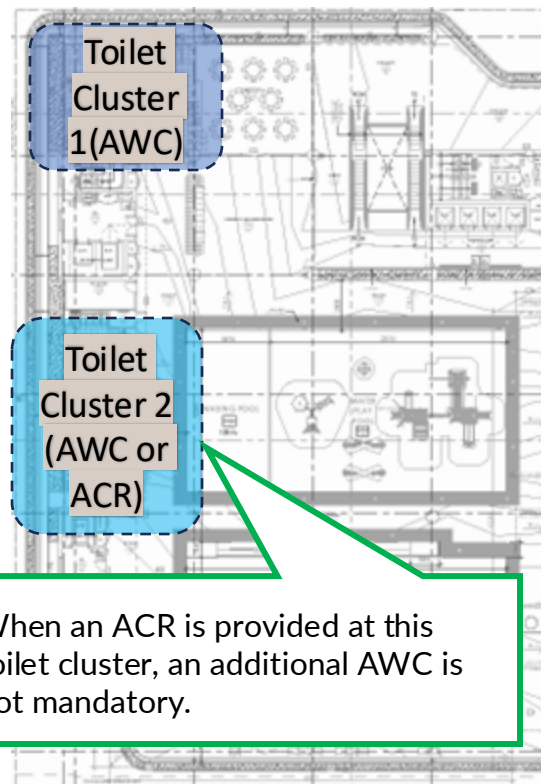
- In developments where accessible changing room is required, ACR can be provided in lieu of an accessible individual toilet (AWC).

Scenario 1

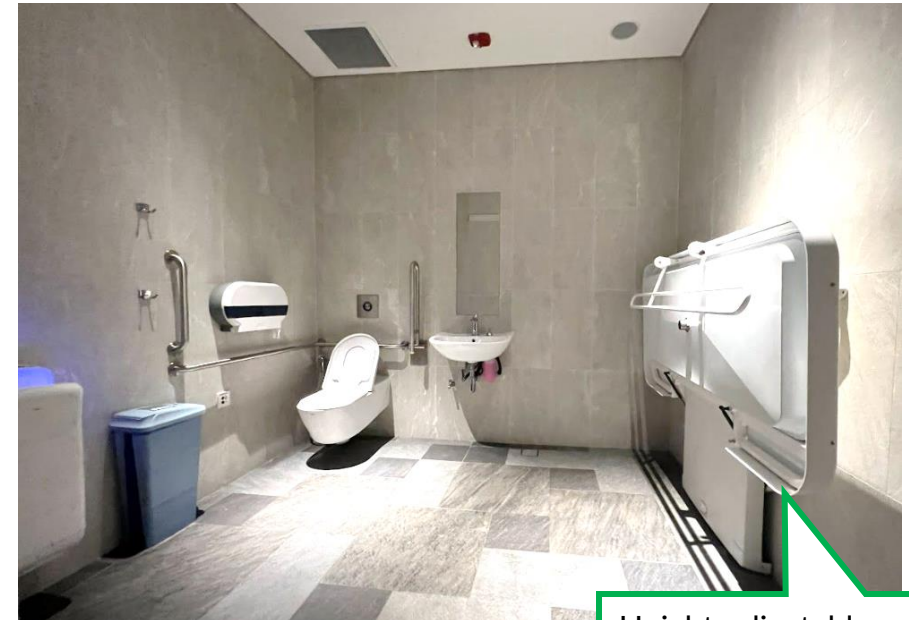


For a floor that has only a single toilet cluster, an ACR may serve as a substitute for AWC.

Scenario 2



When an ACR is provided at this toilet cluster, an additional AWC is not mandatory.



Example of Accessible Changing Room

Height-adjustable changing bed for adult person with disability

ACCESSIBLE CHANGING ROOM (ACR)



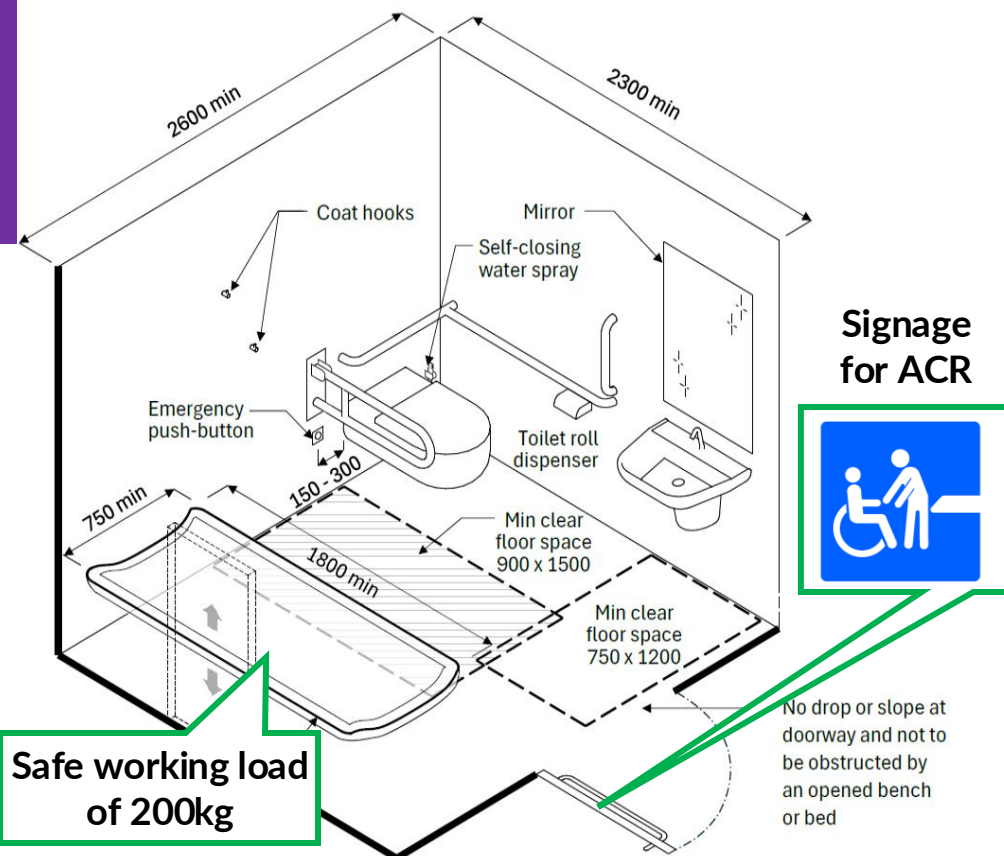
Wheelchair Users

Clause 5.3 – Accessible Changing Room

Clause 5.3.2

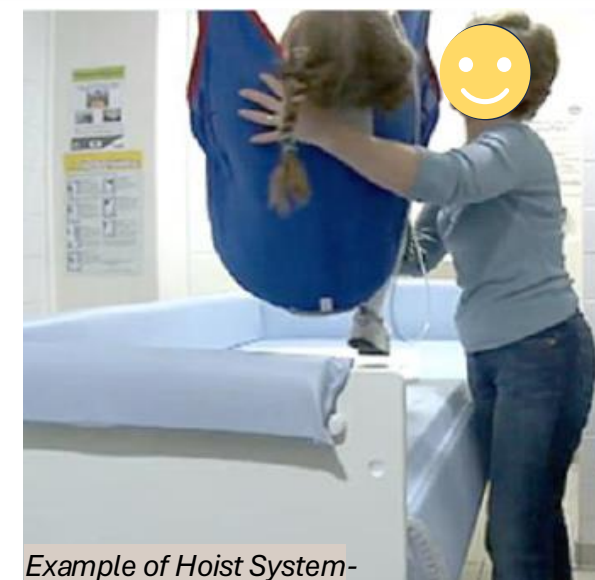
Changing bed within the Accessible Changing Room supports safe working load of 200kg.

- To ensure the changing bed within the ACR caters to disabled adults.



Example of Adult Changing Bed

Image taken from www.healthcaredesignmagazine.com



Example of Hoist System-

Image taken from Changing Places, Australia

Advisory: Install ceiling-mounted hoist systems where feasible to assist caregivers in transferring persons with disabilities, thereby reducing physical strain.

BATHTUB FOR WHEELCHAIR USERS



Wheelchair Users

Clause 5.7-Accessible Shower and Bath Facilities

Clause 5.7.2.4

Improved clarity in diagrams where two bathtub configurations are shown in a similar way.

- Bathtubs must have seat for transfer

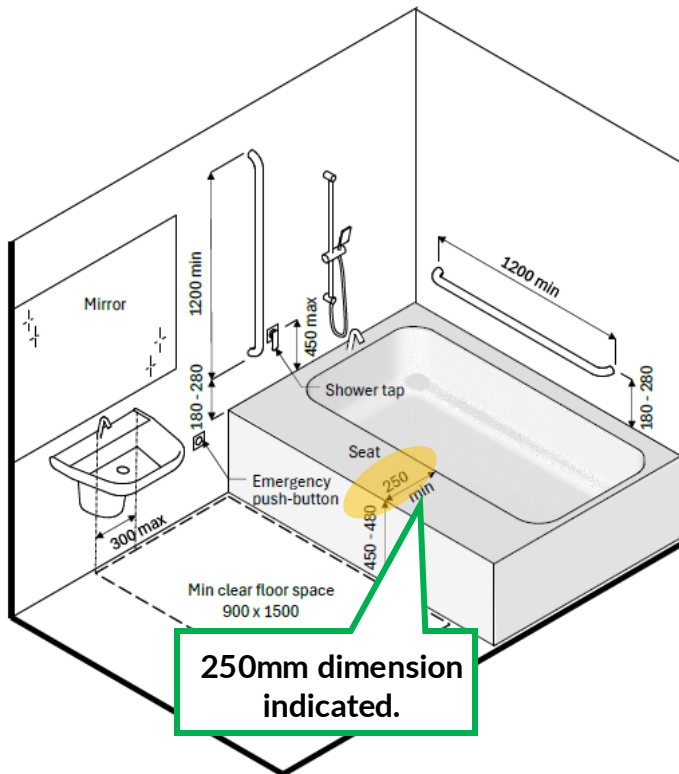


Figure 53
Bathtub for Wheelchair Users

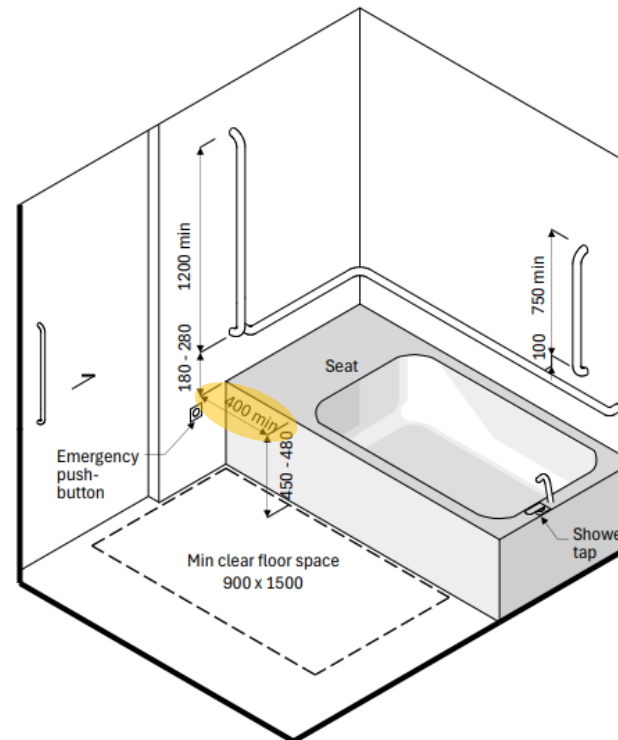


Figure 54
Alternative Bathtub Configuration for Wheelchair Users



Example of additional temporary seat over bathtub

Recommendation: Bathtub for wheelchair users should be able to accommodate a temporary seat or ledge to assist with bathing.

ACCESSIBLE WATER CLOSET



Wheelchair Users

Clause 5.8- Components in the Accessible Sanitary Facilities

Clause 5.8.6.2

Inclusion of built-up wall (to meet 750mm depth) not to extend beyond sides and top of accessible water closet.

- Not to impede wheelchair approach with WC

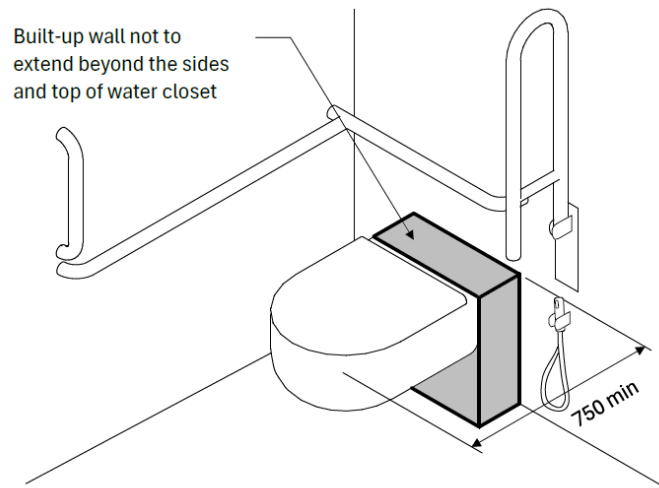
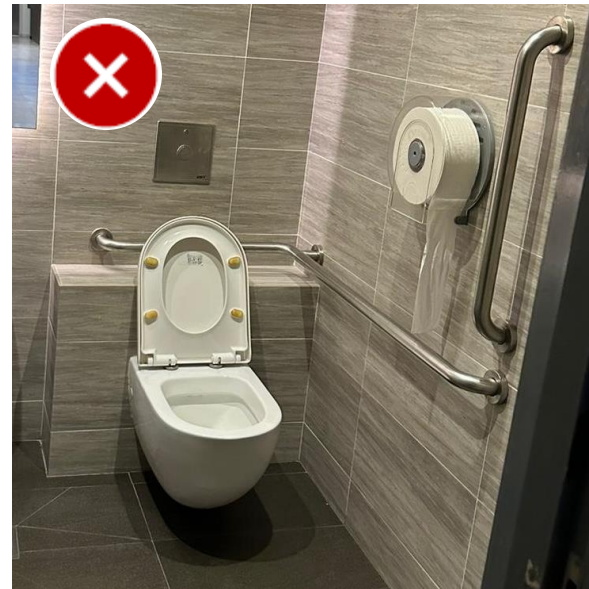


Figure 57
Water Closet with Built-Up Wall

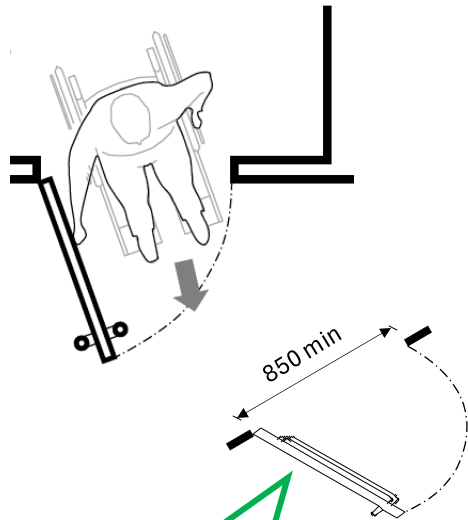


LARGER ACCESSIBLE WASHROOM

Alternative Solution



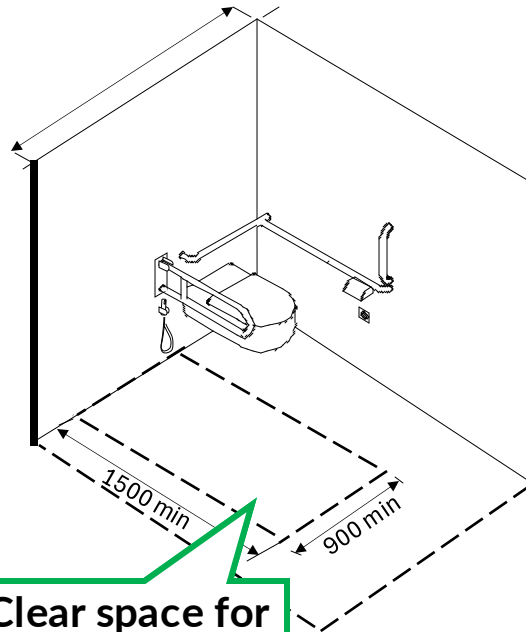
Wheelchair Users



Accessible doorway

Accessible Door to washroom

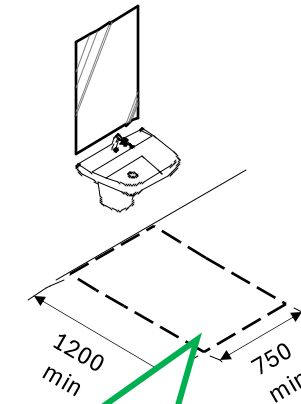
+



Clear space for wheelchair transfer

Clear space of 900 x 1500mm beside water closet

+



Clear space for wheelchair maneuvering

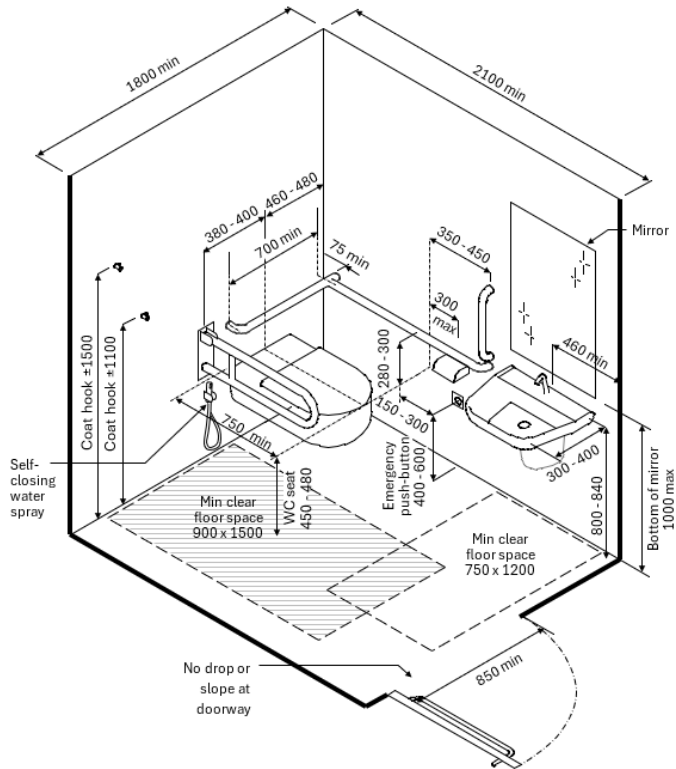
Clear space of 750 x 1200mm at wash basin

LARGER ACCESSIBLE WASHROOM

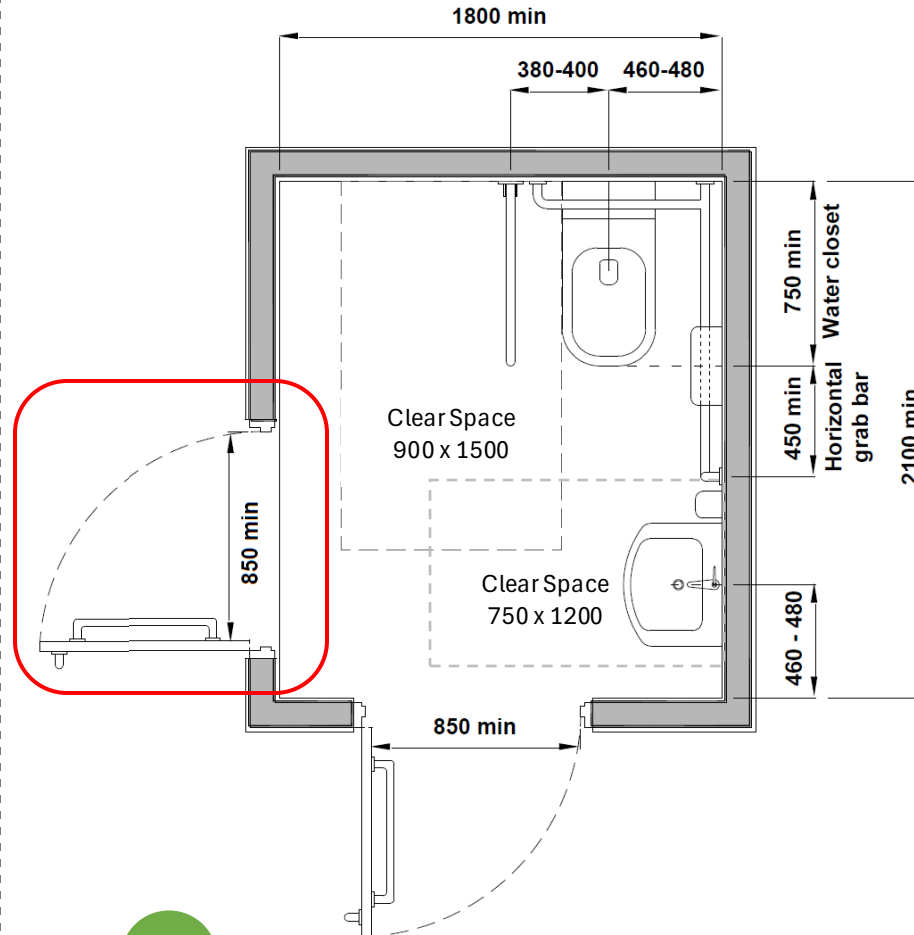
Alternative Solution- Layout



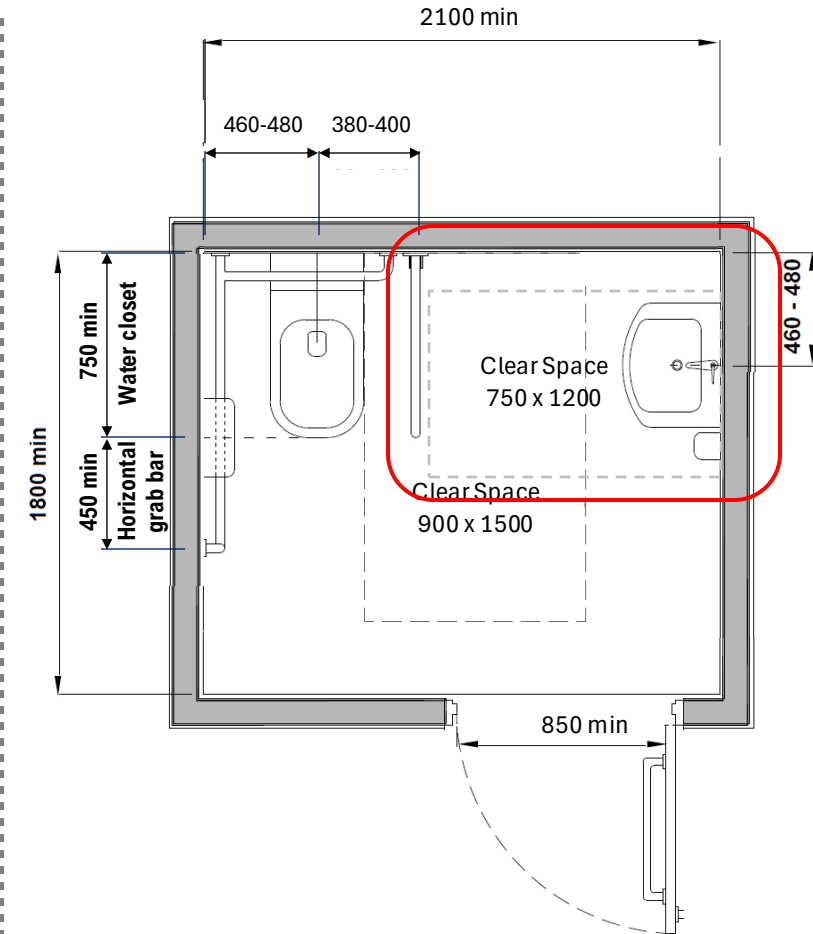
Wheelchair Users



“Standard Design”
Acceptable Solution



Example of possible outcome
Alternative Door Location



Alternative Wash Basin
Location

DOORWAYS FOR RETROFIT BATHROOMS



Wheelchair Users

Clause 7.3- Bathrooms for Future Retrofitting in Residential Units

Clause 7.3.3

Simplified wheelchair manoeuvring space requirement to provide greater design flexibility.

- The doorway of the bathroom and the clear space in front of the doorway must be in accordance with the dimensions in Table 7.

Table 7 - Minimum Clear Space at Door Openings in Residential Units

Clear width of doorway (mm)	Minimum clear space outside door, centred to doorway (mm)
900 or wider	1000 x 1000
850	1100 x 1100
800	1200 x 1200

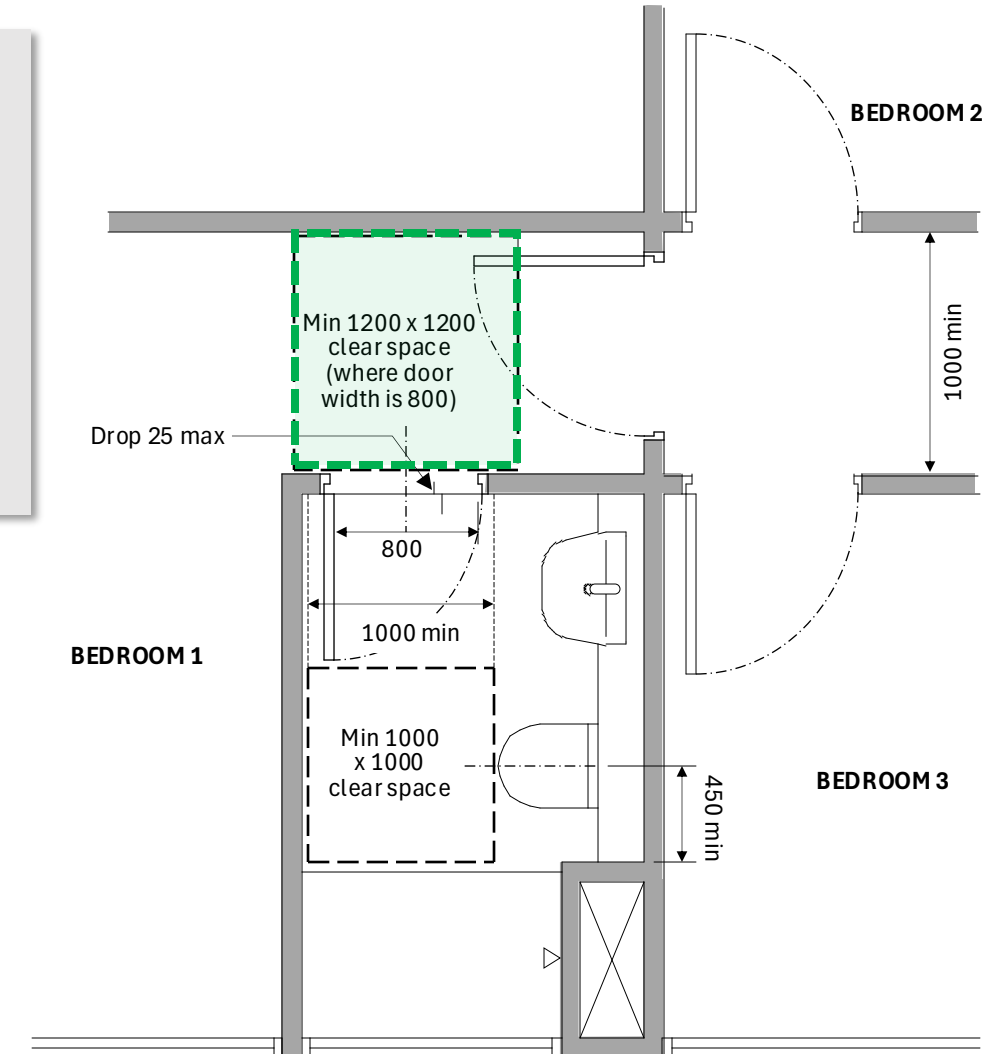


Figure 68

Clear Floor Spaces Along Route to Bathroom for Future Retrofitting

REQUIREMENT FOR RETROFIT BATHROOMS



Wheelchair Users

Clause 7.3- Bathrooms for Future Retrofitting in Residential Units

Clause 7.3.4

Clarification to ensure bathroom design allows for easy retrofitting and supports ageing-in-place.

- The bathroom must provide **at least 450 mm clear space on one side of the water closet**, measured from its centre to any obstruction to **accommodate future installation of grab bars**.



Wall to center of WC

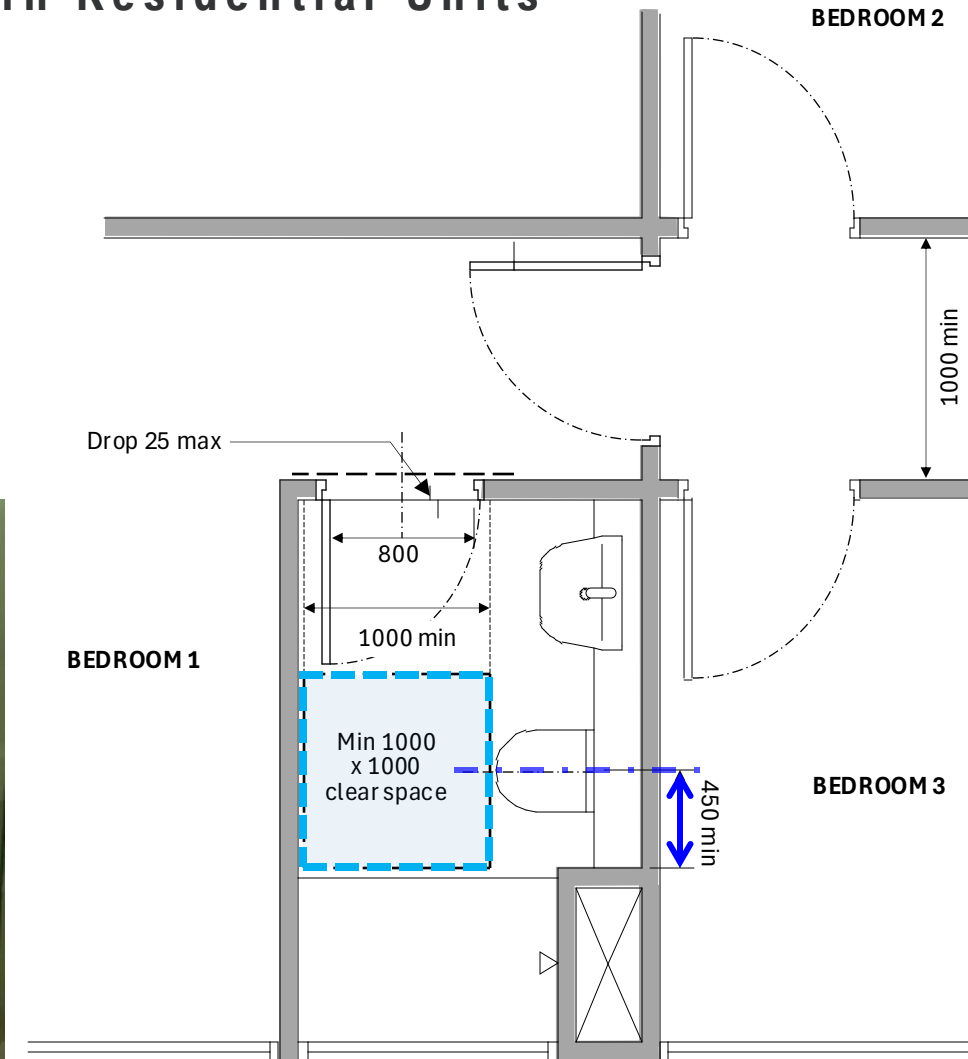


Figure 68

Clear Floor Spaces Along Route to Bathroom for Future Retrofitting

AGENDA

FAMILY-FRIENDLY PROVISIONS

Clause 6.1.2	Family Friendly Provision
Clause 6.2.1	Family Car Park Lot
Clause 6.3.2 & 6.4.2	Child Friendly Facilities
Clause 6.5.2, 6.5.3 & 6.6	Child-friendly Sanitary Facilities
Clause 6.5.3 (Note 1)	Child-friendly Sanitary Facilities
Clause 6.7.1(Note) & 6.7.2	Combined Individual Family Washrooms & Accessible Washrooms
Clause 6.8.2	Location of Lactation Room
Clause 6.8.3	Increase in Lactation Room Provision
Clause 6.8.3	Lactation in New Building Type
Clause 6.8.4	Mandatory Features within Lactation Room
Advisory	Lactation Rooms

Legend

New
Enhanced
Relaxed
Clarification
Advisory

FAMILY FRIENDLY PROVISIONS



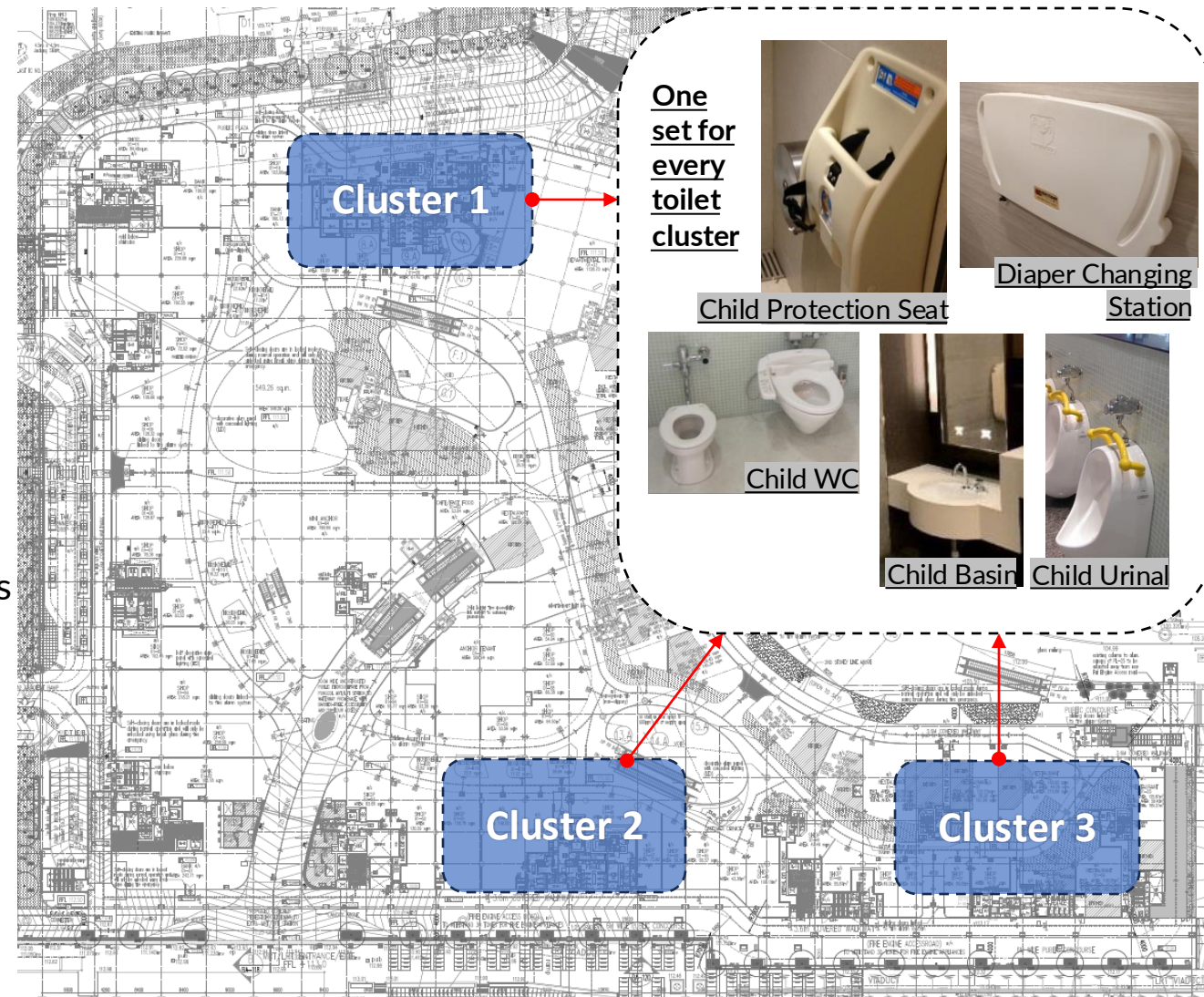
Families and Young Children

Clause 6.1 - General

Clause 6.1.2

Family-friendly sanitary facilities for young children and their caregivers must be provided **at every** toilet cluster.

- Improved clarity on family friendly facilities to be provided **per cluster**.
- Applies to building types frequented by families:
 - Shopping centres and multi-purpose complexes of 10,000 m² or more in gfa
 - Sports facilities and public swimming pools
 - Theme parks, amusement centres and community clubs
 - Transport terminals and stations



EXAMPLE 1: Shopping centre

FAMILY CAR PARK LOT

Clause 6.2 Family Car Parking



Families and Young Children

Clause 6.2.1

To have mandatory one family car park lot to be near accessible entrance and lift lobby.

- To cater to families not only for young children but elderly family members.
- No mandatory colour scheme; however, colours and signs used must be contrasting and legible.



Building entrance or
lift lobby

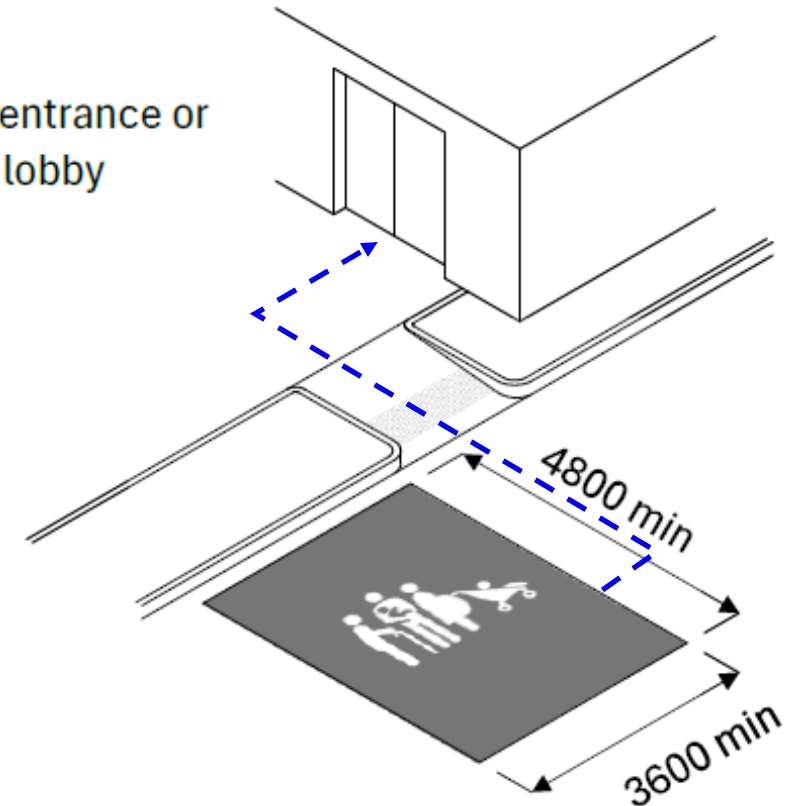


Figure 60
Family Car Parking Lot

CHILD FRIENDLY FACILITIES



Families and Young Children

Clause 6.3– Diaper Changing Station & 6.4- Child Protection Seat

Clause 6.3.2

Specified maximum weight capacity of commercial diaper changing stations to support a child for up to 22kg.

- To provide equivalent safety features to safety straps to prevent risk of fall.



Example of Diaper Changing Station-
Image taken from www.ameraproducts.com

Clause 6.4.2

Specified maximum weight capacity of commercial child protection seat to support a seated child for up to 22kg.

- To provide equivalent safety features to safety straps to prevent risk of fall.



Example of Child Protection Seat -
Image taken from www.koalabear.com

CHILD-FRIENDLY SANITARY FACILITIES



Families and Young Children

Clause 6.5 – Child-sized Wash Basin and Water Closet & 6.6 – Child-friendly Urinal

Clause 6.5.2

Child-sized wash basins

- Specified tap reach to **NEW** not be more than 350mm

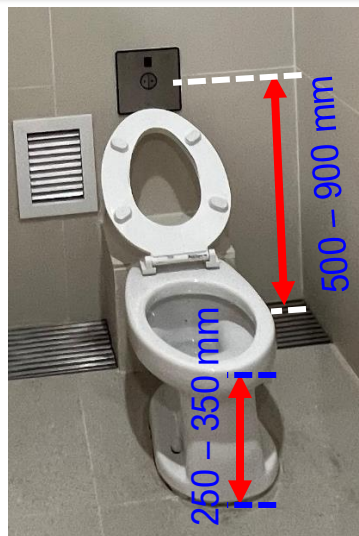
- Specified mounting height from top edge to floor level does not exceed 550 mm



Clause 6.5.3

Child-sized water closets

- Water closet seat with height installed between 250 mm and 350 mm from the floor level
- Have flush controls at a height between 500 mm and 900 mm from the floor level



Clause 6.6

Child friendly urinals

- Specified mounting height of child-friendly urinal does not exceed 400mm
- Located either in **common male toilet** or **standalone children's toilet**



New

Clarification

CHILD-FRIENDLY SANITARY FACILITIES



Families and Young Children

Clause 6.5 – Child-sized Wash Basin and Water Closet

Clause 6.5.3 (Note 1)

For renovation works to existing toilets with space constraints, a child-adapter seat on an adult sized water closet may be provided in-lieu of a child-sized water closet (WC).



Existing toilets with space constraints



For new building, providing the child-friendly WC within an adult WC cubicle is acceptable

COMBINED FAMILY AND ACCESSIBLE WASHROOMS



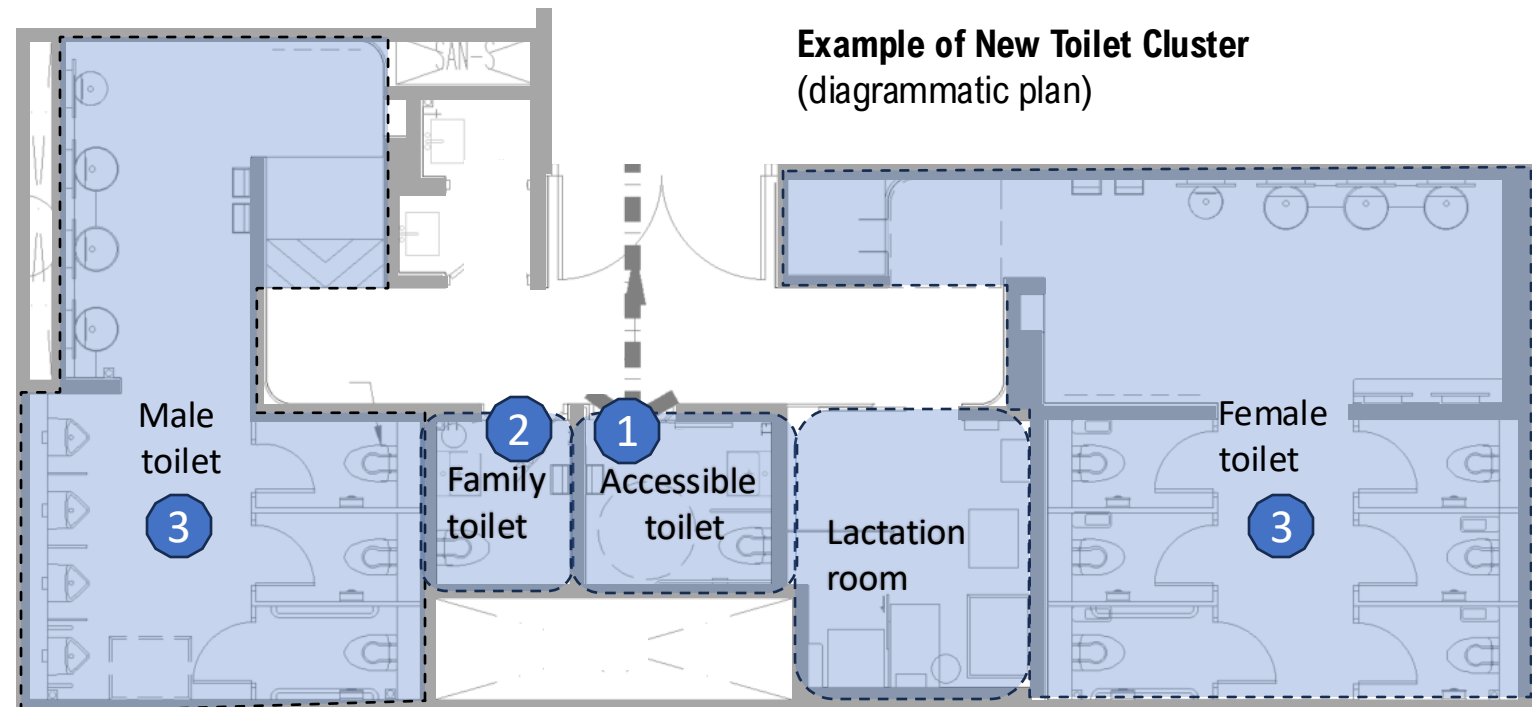
Families and Young Children

Clause 6.7- Individual Family Washroom

Clause 6.7.1

Note: To ensure unimpeded access for persons with disabilities, family-friendly facilities should be kept separate from wheelchair-accessible facilities like accessible individual washrooms, accessible changing rooms or accessible shower facilities.

- 1 New toilet clusters must have an Accessible Individual washroom.
- 2 Accessible Individual washroom should not be combined with other family friendly facilities.
- 3 Child friendly facilities should be provided in male and female toilet, alternatively at standalone children toilets or standalone family toilets.



COMBINED FAMILY AND ACCESSIBLE WASHROOMS



Families and Young Children

Clause 6.7- Individual Family Washroom

Clause 6.7.2

In exceptional cases of toilet renovations, a family washroom may combine with an accessible washroom; the combined facility must measure at least **2500mm by 2300mm** internally.

- Acceptable for:
 - A&A works to toilet clusters
 - Where there is space constraint due to existing conditions
- Not acceptable for:
 - New buildings/developments
 - Separate family and accessible facilities can be planned and designed for upfront

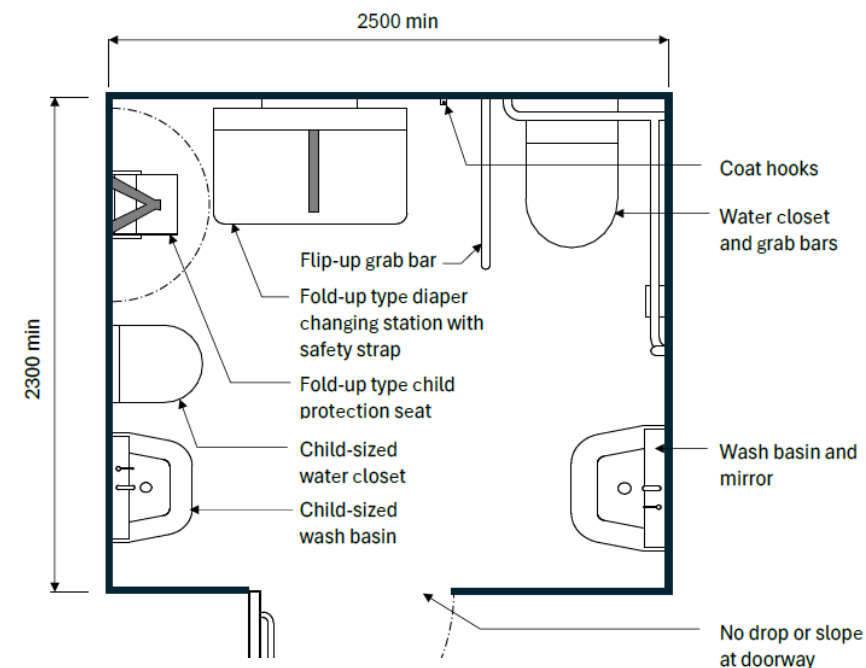


Figure 64

Example of Individual Accessible Family Washroom in Existing Buildings

SUMMARY OF CHANGES FOR LACTATION ROOM



Families and Young Children

Clause 6.8- Lactation Rooms

New

	Category	Code 2025
1	Location	To be located within <u>common area</u> .
2	Increase number of Lactation Rooms in buildings	<ul style="list-style-type: none"> • Increased number of Lactation Room based on <u>size of building</u>. • More lactation rooms required <u>as the building area increases</u>.
3	Building Types	<ul style="list-style-type: none"> • Sport complexes & public swimming pools • Community clubs , theme parks & purpose-built family amusement centres • Large scale shopping & multi-purpose complexes where GFA $\geq 10,000\text{m}^2$ • Hospitals, health-care centres & polyclinics • Offices and Business Parks where GFA $\geq 10,000\text{m}^2$ • Mixed development where GFA for **non-residential component $\geq 10,000\text{m}^2$ • Schools $\geq 5,000\text{m}^2$ [NEW]
4	Mandatory Features of the Lactation Room	<ul style="list-style-type: none"> • be a private space <u>with a lockable door</u>. • be well-illuminated and ventilated. • <u>not be</u> located within toilets. • Size of <u>1200 mm by 1500 mm</u> for single user. • appropriate seat for nursing. • sockets at table height. • have a table or ledge. • have a fixed mirror.

LOCATION OF LACTATION ROOM



Families and Young Children

Clause 6.8 – Lactation Rooms

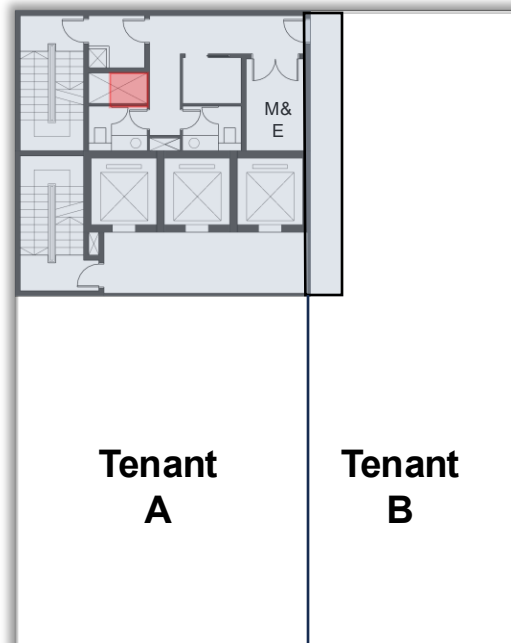
Clause 6.8.2 & 6.8.4(c)

Lactation rooms must be provided at appropriate locations within common areas to serve intended users.

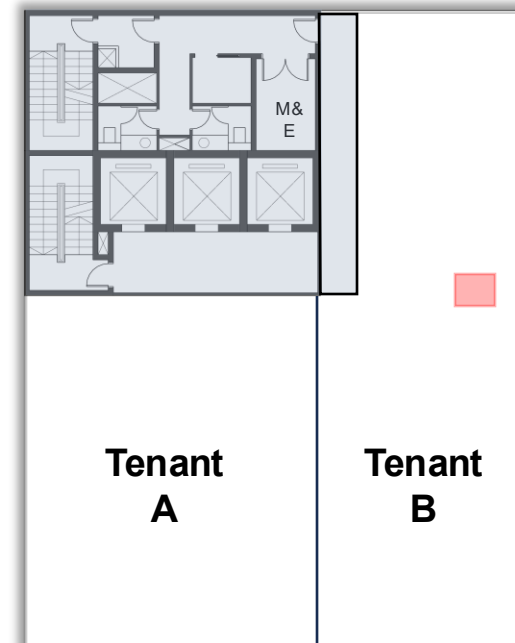
- Not to be located within toilets.

- For ease of access and near to washing up facilities for nursing mothers
- Cost and maintenance form part of common facilities
- Greater flexibility without affecting tenancy space

Example of Lactation Room within Common Area
(diagrammatic plan)



Example of Lactation Room within Tenanted unit
(diagrammatic plan)



Legend

 Lactation Room

INCREASE IN LACTATION ROOM PROVISION



Clause 6.8 – Lactation Rooms

Enhanced

Clause 6.8.3

- **Increased number of lactation rooms** for public buildings and workplaces, such as shopping malls, offices, and business parks, to provide more lactation rooms for nursing mothers.
- A mandatory minimum number of lactation rooms provided according to Table 6.

Table 6 – Provision of Lactation Rooms

Type of Use	Gross floor area	Minimum number of lactation rooms required
Office and Business Parks; Shopping centres and multi-purpose complexes; Other non-residential components in mixed developments not listed in this table.	From 5,000 m ² to 20,000 m ²	1
	Every subsequent 20,000 m ² or part thereof	1 additional lactation room
Hospitals; Polyclinics, health-care centres and specialist outpatient clinics; Transport terminals and stations; Sports facilities and public swimming pools; Theme parks, amusement centres and community clubs	First 20,000 m ²	1
	Every subsequent 20,000 m ² or part thereof	1 additional lactation room

INCREASE IN LACTATION ROOM PROVISION

Mixed-Use Development Example



Enhanced

Advisory

- Each non-residential component in a mixed development will require their own lactation room provision according to table 6
- Advisory:** In large buildings, position lactation rooms strategically throughout different floors and zones to minimise travel distances for nursing mothers

Table 6 – Provision of Lactation Rooms

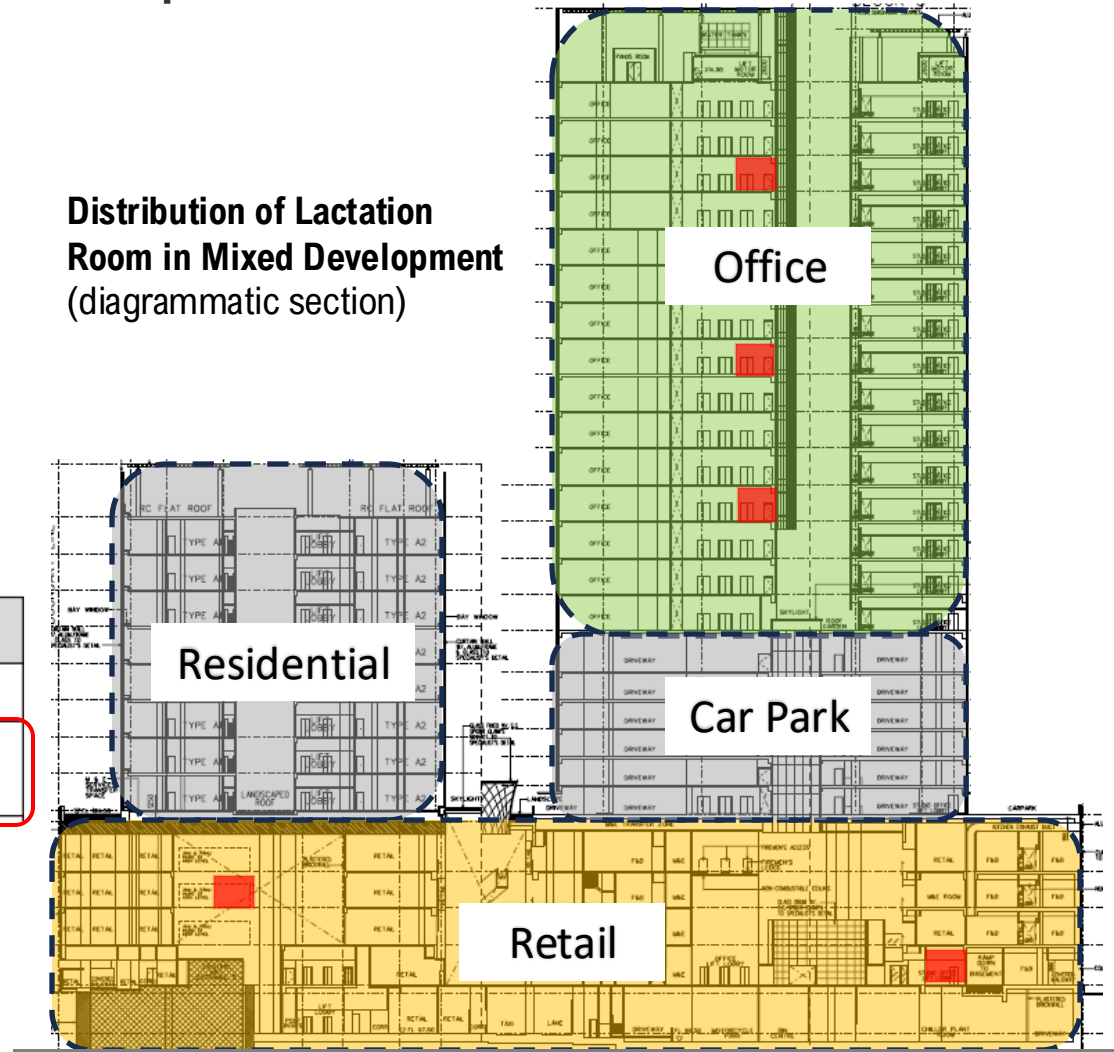
Type of Use	Gross floor area	Minimum number of lactation rooms required
Office and Business Parks; Shopping centres and multi-purpose complexes;	From 5,000 m ² to 20,000 m ²	1
Other non-residential components in mixed developments not listed in this table.	Every subsequent 20,000 m ² or part thereof	1 additional lactation room

Lactation Rooms(LRs) Required:
Retail GFA: 25,000sqm will require 2 LRs
Office GFA: 43,000sqm will require 3 LRs

Legend

■ Lactation Room

Distribution of Lactation Room in Mixed Development (diagrammatic section)



LACTATION ROOM IN NEW BUILDING TYPE



Clause 6.8 – Lactation Rooms

New

Clause 6.8.3

- **New requirement** to have lactation room in schools, universities, and other learning institutions.
- For educational campus with several buildings, the number of lactation rooms will be evaluated according to the size and number of buildings within the development.

Table 6 – Provision of Lactation Rooms

Type of Use	Gross floor area	Minimum number of lactation rooms required
Schools, including preschools, primary and secondary school, colleges, universities and other institutions of learning	5,000 m ² or more	1

MANDATORY FEATURES WITHIN LACTATION ROOM



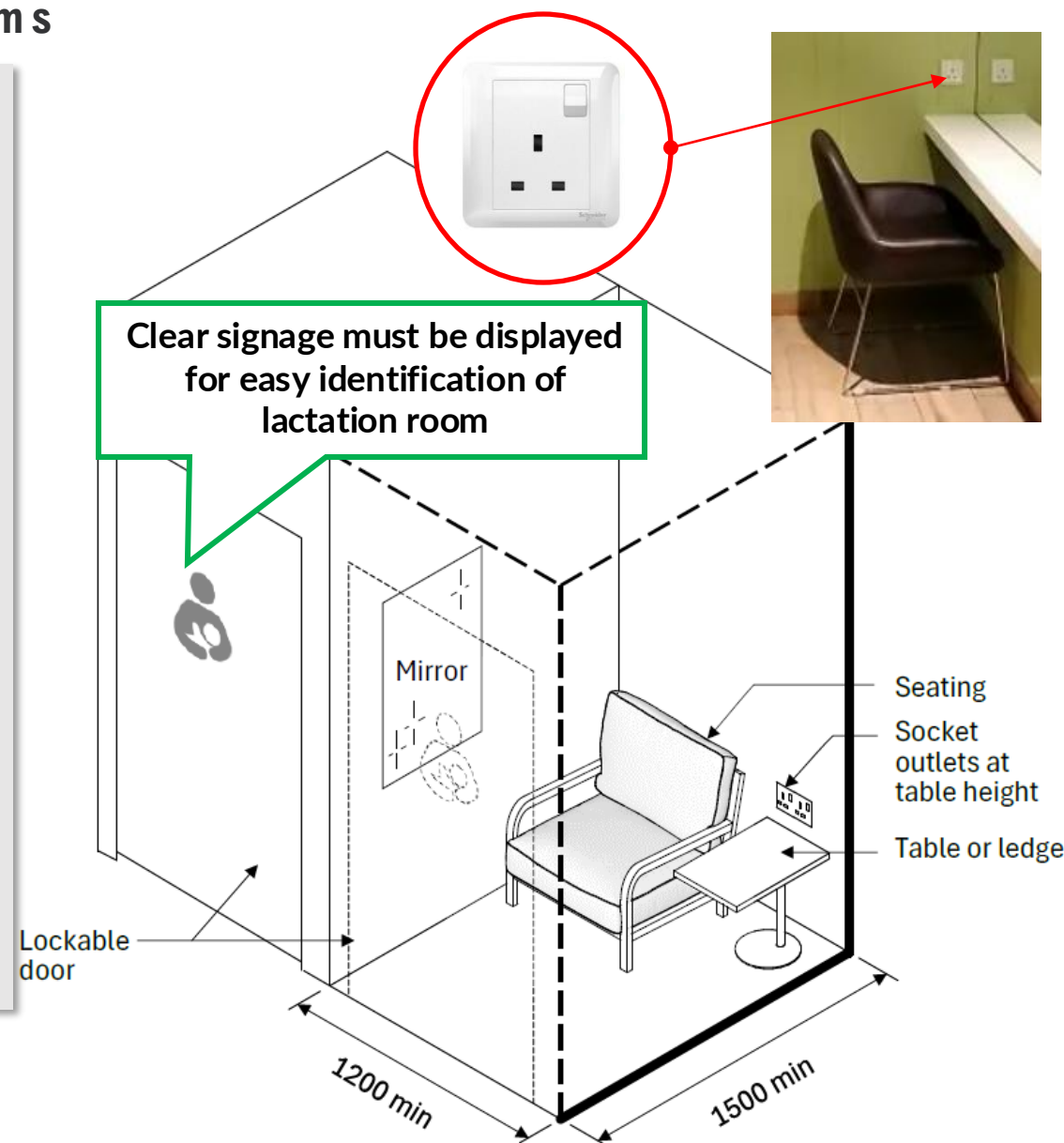
Families and Young Children

Clause 6.8 – Lactation Rooms

Clause 6.8.4

A single user lactation room must have the following:

- A room with a lockable door
- Be well-illuminated and ventilated
- Each lactation room to have internal dimensions of at least 1200 mm by 1500 mm
- Equipped with socket outlets located at table height
- Have an appropriate seat for nursing
- Have a table or ledge to place breast pumps and personal items
- Have a fixed mirror for adjusting attire



LARGE LACTATION ROOMS

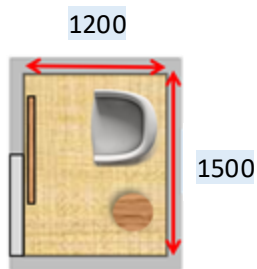
Clause 6.8 – Lactation Rooms



Families and Young Children

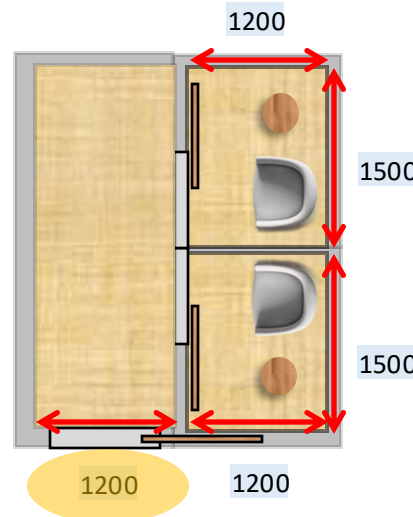
Advisory

- Where appropriate, large lactation room with multiple stations is acceptable
- Light partition/curtain screening between stations is acceptable if main door of lactation room is lockable (restricted access)

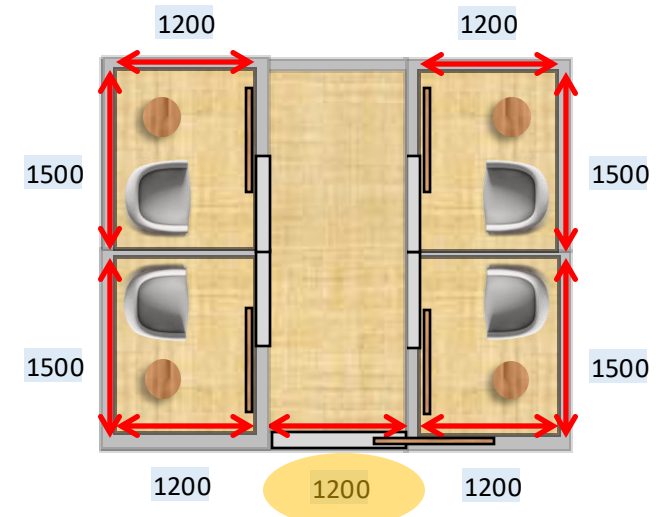


Example of Standalone Lactation Room
(diagrammatic plan)

Example 1:
*Large
lactation room
with 2
Lactation
cubicles and
sufficient
access
corridor*



Example 2:
*Large
lactation room
with 4
Lactation
cubicles.*



LACTATION ROOMS

Advisory



Families and Young Children

- Clear wayfinding signage must be displayed to help users easily locate lactation rooms.
- Measures should be taken to segregate lactation rooms that are near diaper changing to contain any unpleasant odours.
- Lactation room should be designed with sound attenuation, to prevent noise transfer to adjacent spaces.



PREFABRICATED LACTATION POD

Alternative Solution



Families and Young Children

Prefabricated Lactation Pod

- Compact and purpose made
- Considered an equivalent/alternative solution
- Must be made permanent within the building
- Applicable for existing and new buildings

Prefabricated Lactation pod is an alternative solution to a lactation room.



Image taken from
www.bostonglobe.com



Image taken from
<https://myofficepods.com/>



Thank You



@BCASingapore

