Renovation Design Handbook

For Accessibility

33 Talbot St S.
Essex, ON N8M 1A8
t 519 776 7336
f 519 776 7171
www.essex.ca

Renovation Design Handbook

For Accessibility

Town of Essex

TABLE OF CONTENTS

Section Page

Contents

Part 1 - Introduction

This document is intended to protect Essex residents from experiencing discrimination and remove future barriers that would prevent access to services in public areas and local businesses. This Essex Accessibility Standards Handbook sets out the standards that must be followed during a renovation to a building that the public has access to. *This document is intended as a guideline only and the Ontario Building Code (as amended) should always be referenced for more in-depth detail and specifications.* There is no legal requirement for an existing building to update the facility to the current standards unless significant renovations to the building are being done.

Definition of Significant Renovation These Guidelines will apply to renovations or changes to structures where 50% of the floor space is affected. However, all businesses are encouraged to implement these standards into their businesses. These renovations would require a building permit from the Town of Essex Building Department.

This manual abides by the follow legislation:

- The Ontarians with Disabilities Act, 2001
- The Accessibility for Ontarians with Disabilities Act (AODA, 2005)
- The Ontario Human Rights Code (OHRC)
- The Ontario Building Code (OBC, 2012)

The Town of Essex has a duty to ensure that services are accessible for all. New renovations made must be up to code according to the standards explained below.

For any questions or inquires please contact: info@essex.ca .

Message From the Mayor Sherry Bondy

On behalf of the Town of Essex, we are proud to present this Renovation Design Handbook for Accessibility. This comprehensive resource reflects our ongoing commitment to ensuring that every resident and visitor can participate fully in every aspect of our community. By removing barriers and designing with accessibility at the forefront, we are building a Town that is welcoming, inclusive, and equitable for all.

Message From the Town of Essex Accessibility Advisory Committee

The Accessibility Committee is dedicated to helping our community grow in ways that ensure equal access for everyone. This handbook provides clear guidance to help property owners, builders, and business operators understand how accessibility can be integrated into renovation projects. On behalf of the accessibility committee, we would like to thank you for your commitment to building a more inclusive Essex and a welcoming and caring community for all.

Tables, Figures and Graphics

Throughout these Standards, several tables, figures, and graphics are provided to assist the user with understanding the application of the accessibility criteria and design issues under consideration.

Dimensions

The dimensions for specific accessibility criteria are stated in millimeters (mm) or metres (m) throughout this document, under the metric system of units, rounded up to the nearest multiple of five. Dimensions that are not marked as "maximum" or "minimum" are absolute,

unless otherwise indicated. All dimensions for construction purposes are subject to conventional industry tolerances.

Part 2- Entrance

Provision

a. at least one main or primary entrance into a facility is required to be accessible (e.g., via level, sloped or ramped accessible routes),

b. at least 50% of the total number of building entrances are required to be accessible, rounding up to the nearest whole number, and

c. locate entrance 30 meters or less from designated accessible parking or passenger loading or drop-off zones.

Main or Primary Entrance Features

a. Where an entrance is designated as a main or primary accessible entrance into a facility: a. locate as part of an accessible path of travel, including exterior level landing area of 1670 mm by 1670 mm (minimum),

b. provide power door operator and mark door with International Symbol of Accessibility (Figure 1 Main or Primary Entrance Features),

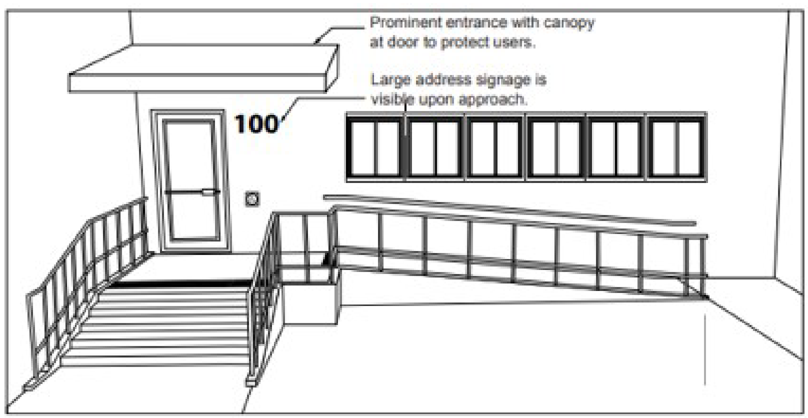


Figure 1: Main or Primary Entrance Features

c. provide directional signage at strategic points to guide users from accessible parking areas, drop-off and loading zones, and site access points to the accessible entrance,

d. ensure clear door width of 860 mm (minimum),

e. where an entrance vestibule is provided, ensure:

   i. the distance between the two doors in series is 1500 mm (minimum), plus the width of the door swinging into the space, or

   ii. a turning space of 1500 mm (minimum) diameter is provided where doors do not align, and f. where overhead protection (e.g., canopy) at pedestrian entrance and passenger loading or drop-off zones adjacent to the entrance is provided, ensure the height clearance is 2750 mm (minimum) or 3600 mm (preferred).

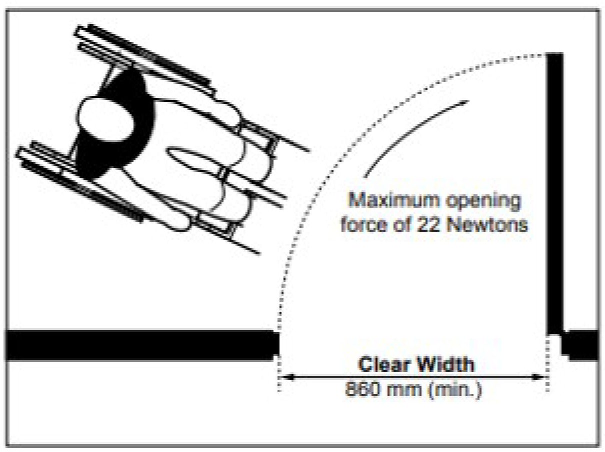
Door and Doorways

Clear Width

For interior and exterior doors and doorways along an accessible route:

a. provide a clear width of 860 mm (minimum), measured when the door is open 90 degrees from the face of door (and / or exit door hardware that projects into the path of travel) and the opposite door stop (Figure 2 Clear Width of Doors - Plan and Elevation Views), and

b. where there is a projection into clear opening width, ensure it is 100 mm (maximum), no lower than 865 mm high above floor.



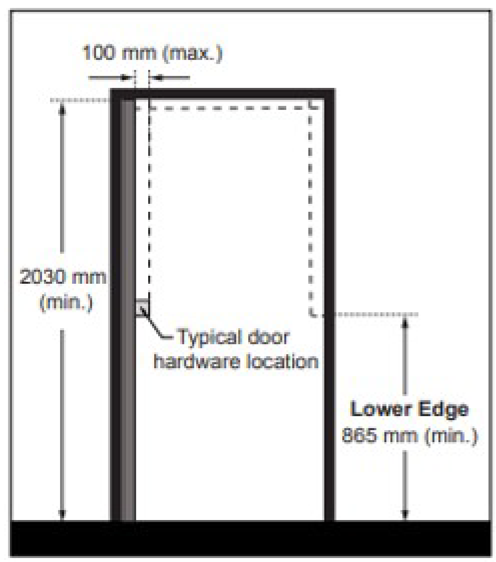


Figure 2: Clear Width of Doors- Plan and Elevation Views

Opening Force

The maximum opening force required for push / pull is:

a. 38 Newtons (8.5 pounds) for exterior hinged doors,

b. 22 Newtons (5 pounds) for interior hinged doors, and

c. 22 Newtons (5 pounds) for sliding or folding doors.

Closers

a. adjust closers so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds (minimum).

Tonal Contrast of Doors and Frames

a. provide high tonal contrast to differentiate doors and / or door frames from the surrounding environment.

Thresholds

a. provide bevel at maximum slope of 1:2 (50%), where transition is between 6 mm and 13 mm high, and

b. ensure threshold at door is not more than 13 mm high.

Door Hardware

Door hardware includes, but is not limited to, handles, pulls, latches and locks, with the following features:

a. mount between 900 mm (minimum) and 1100 mm (maximum) high from finished floor or ground surface,

b. hardware must be usable with closed fist and operable with one hand,

c. ensure tight grasping of hands, pinching of fingers or twisting of wrists are not required to operate hardware, and

d. ensure high tonal contrast hardware finishes are provided when compared to mounting surface.

Automatic Doors

Where automatic doors are provided, which are sliding or swinging doors activated by infrared sensors:

a. ensure sensors are suitably placed to detect users approaching, and

b. ensure timing allows safe passage through doors.

Power-Assisted Doors

Power-assisted doors have two different types of operation:

a. automatically activated by a motion detector or a floor pad sensor, and

b. manually activated by pushing a control.

Doors that open automatically are considered a preferred option where possible, since they do not require manual activation and address the needs of a wide range of users. This recognizes that manual power-assist controls may be difficult to locate and activate for people with limited vision, strength, manual dexterity, reach or users that may have multiple types of disabilities. Power-assisted swing doors that are activated by pushing a control are required at the main entrance(s) and accessible washrooms of a facility. Based on the overall design, the level of use of interior spaces and where swing doors are provided throughout a facility, power-assisted swing doors that are activated by pushing a control are also commonly provided at:

a. interior doors along accessible routes and / or connecting accessible routes,

b. doors into reception areas,

c. doors into highly used functional spaces (e.g., larger multi-purpose rooms, meeting or board rooms), and

d. doors leading to accessible exits and designated “Areas of Refuge”.

Where power-assisted swing doors activated by pushing a control are provided:

a. mark accessible doors with International Symbol of Accessibility and other signage

(e.g., “Caution” decals to warn of door swing),

b. ensure a force of no more than 66 Newtons is required to stop door movement,

c. in case of power failure, ensure power-assisted doors can be opened manually,

d. ensure door remains fully open for 5 seconds (minimum),

e. ensure doors take 3 seconds (minimum) to move from a closed to fully open position, when activated, and

f. provide power door operator controls on both sides of doors, for use when entering or leaving, with the following criteria:

   i. mount in clearly visible location for easy identification upon approach on the latch side,

   ii. ii. ensure the dimension of the power door operator control is 150 mm

   (minimum) in diameter where it is circular or 150 mm wide by 915 mm long

   (minimum) where it is a vertical extended power door operator,

   iii. ensure high tonal contrast is provided between power door operator control and mounting surface,

   iv. ensure they project less than 100 mm from mounting surfaces,

   v. mark with International Symbol of Accessibility,

   vi. ensure controls are operable with a closed fist,

   vii. mount at height of 900 mm to 1100 mm from ground or floor surface (Figure 3c Circular Power Door Operator Control - Elevation View),

   viii. where rectangular extended power door operator controls are provided, mount so that they extend from not more than 200 mm and not less than 900 mm high above the floor (Figure 3b Vertical Extended Power Door Operator - Elevation View),

   ix. mount between 600 mm and 1500 mm, on a level wall surface or separate post, beyond the door swing where the door opens towards the control (Figure 3a Power Door Operator Control Mounting Location - Plan View), and

   x. provide a minimum clear floor space of 1675 mm by 1675 mm in front of power door operator control.

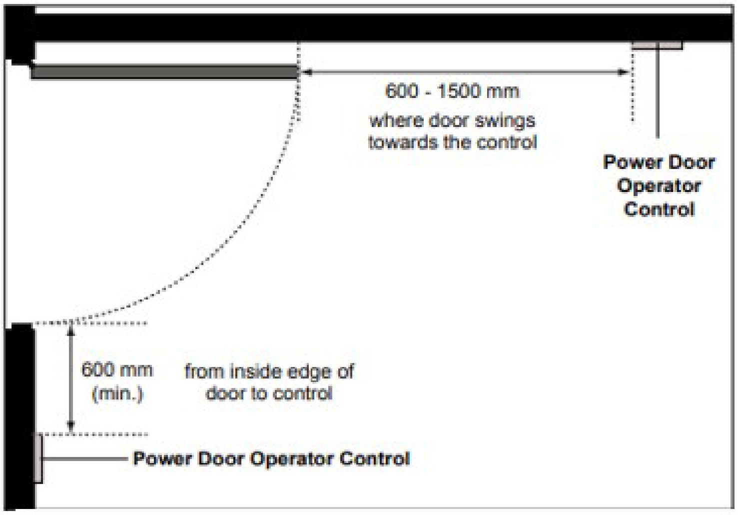
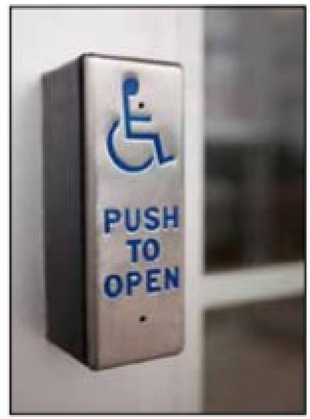


Figure 3a: Power Door Operator Control Mounting Location- Plan View



Example of rectangular shaped power door operator control to be used for retrofit situations only.

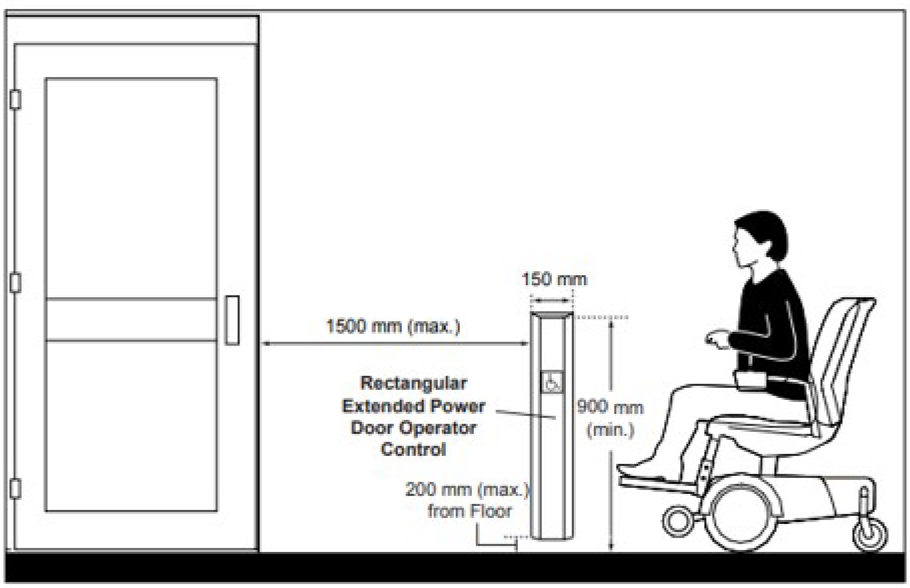
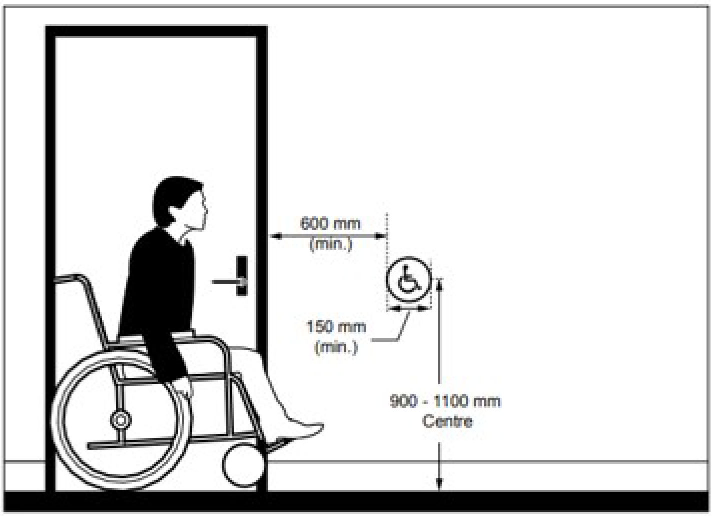


Figure 3b: Vertical Extended Power Door Operator - Elevation View

Example of large vertical extended power door operator control.



Example of circular power door operator control.

Figure 3c: Circular Power Door Operator Control-Elevation View

Approach Clearances at Doors

Table 1: Minimum Clearance at Doors

Context	Floor Space Required in mm		
	Depth (min.)	Width (min.)	Space Beside Latch
***Side-Hinged Door - Front Approach* (Figure 43c)**			
Pull side	1525	1600	600
Push side	1370	1250	300
***Sliding Door* (Figure 43d)**			
Front approach	1370	1100	300
Side approach	1370	1550	600
***Side-Hinged Door - Hinge Side Approach* (Figure 43e)**			
Pull side	1600	1600	600
Push side	1370	1830	450
***Side-Hinged Door - Latch Side Approach* (Figure 43f)**			
Pull side	1370	1600	600
Push side	1370	1525	600
Folding Door			
Front approach	1220	n/a	n/a
Side approach	1220	n/a	n/a
***Recessed Door - Front Approach* (Figure 43a and b)**			
Pull side	1525	n/a	450
Push side	1220	n/a	300
Doorways Without Doors			
Front approach	1220	n/a	n/a
Side approach	1065	n/a	n/a

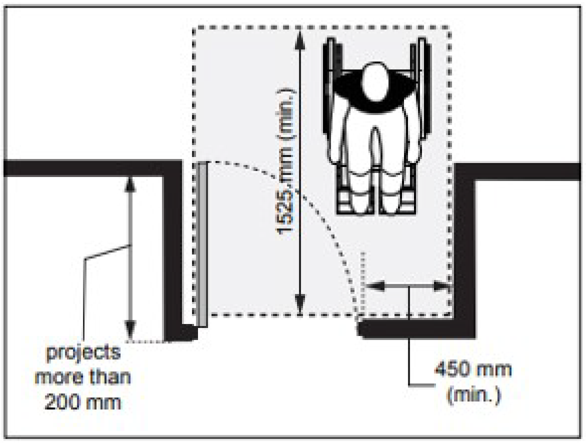


Figure 4a: Pull Side Approach at Recessed Side-Hinged Door – Plan View

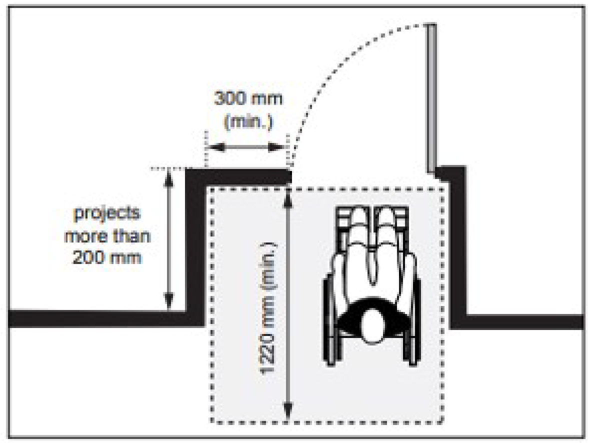


Figure 4b: Push Side Approach at Recessed Side-Hinged Door – Plan View

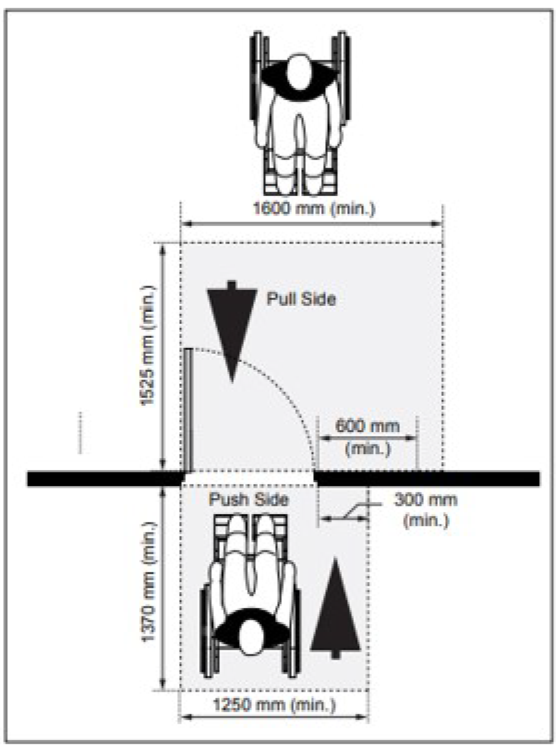


Figure 4c: Front Approach at Side-Hinged Door – Plan View

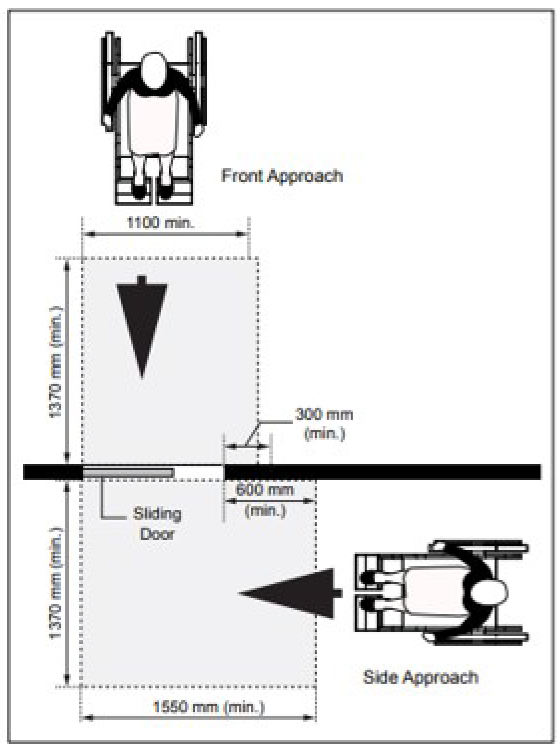


Figure 4d: Front and Side Approach at Sliding Door – Plan View

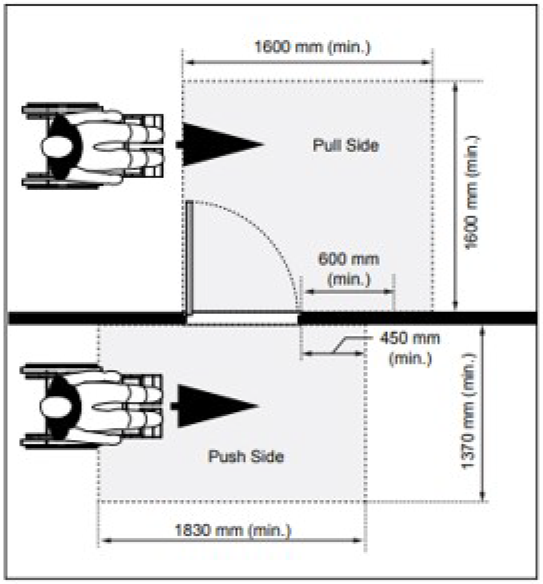


Figure 4e: Hinge Side Approach at Side –Hinged Door- Plan View

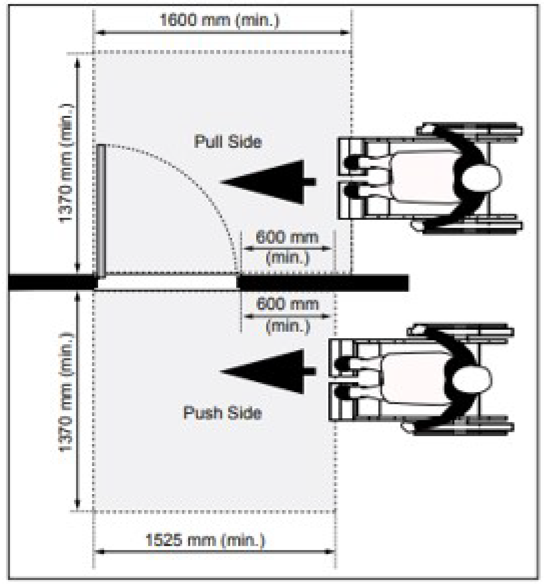


Figure 4f: Latch Side Approach at Side –Hinged Door- Plan View

Part 3 -Ramps

Design Features

a. provide a clear width of 1100 mm (minimum),

b. ensure individual ramp sections are no longer than 9000 mm (Figure 8 Ramp Design Features),

c. provide landings:

   i. at top and bottom of ramp,

   ii. where there is any directional change, and

   iii. between each ramp section where overall length of ramp exceeds 9000 mm (Figure 5 Typical Ramp Configurations),

d. provide lighting in accordance with the Ontario Building Code Lighting requirements, as applicable,

e. provide handrails on both sides of the ramp (Figure 10 Handrail Design and Features - Section View), and

f. provide a wall or guard on both sides of the ramp (Figure 6 Guard Provision at Ramp - Section View).

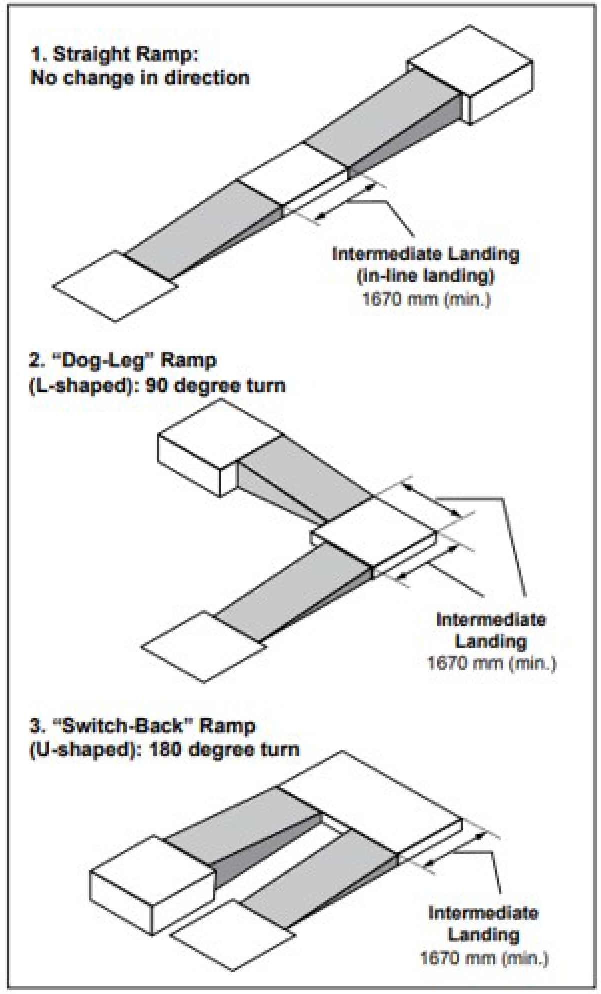


Figure 5: Typical Ramp Configurations

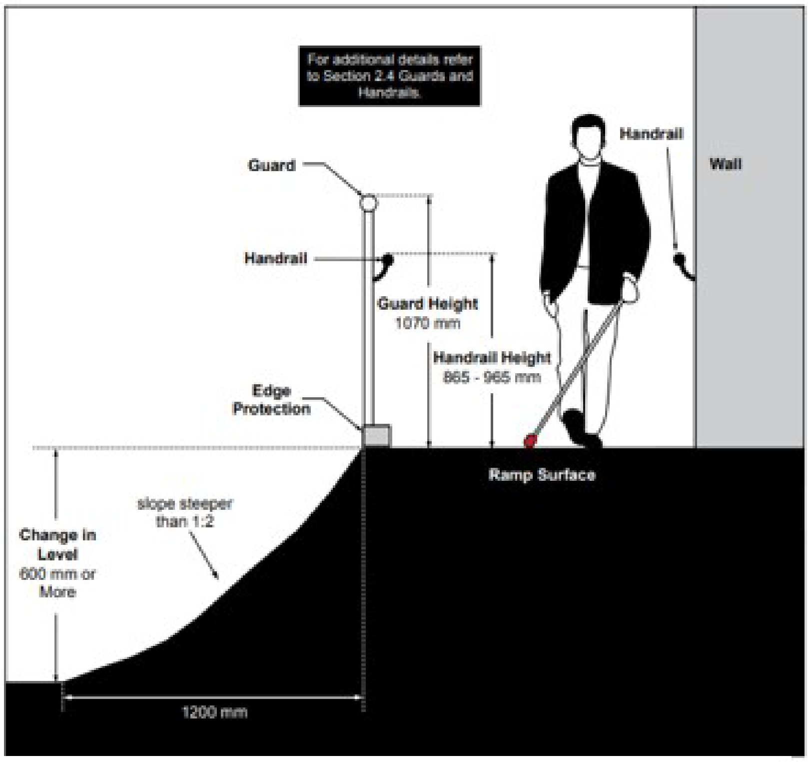


Figure 6: Guard Provision at Ramp- Section View

Running Slope

a. ensure maximum gradient of 1:15 (6.67%) (Figure 8 Ramp Design Features)

Cross Slope

a. ensure maximum gradient of 1:50 (2%).

Edge Protection

Provide edge protection along ramps and landings:

a. with a curb at least 75 mm high (minimum) high, where no solid enclosure or solid guard is provided (Figure 7a Curb Protection - Cross Section), and

b. with railings or other barriers that extend to within 50mm of the finished ramp surface (Figure 7b – Solid Barrier Protection – Cross Section & 7c Rail Protection – Cross Section).

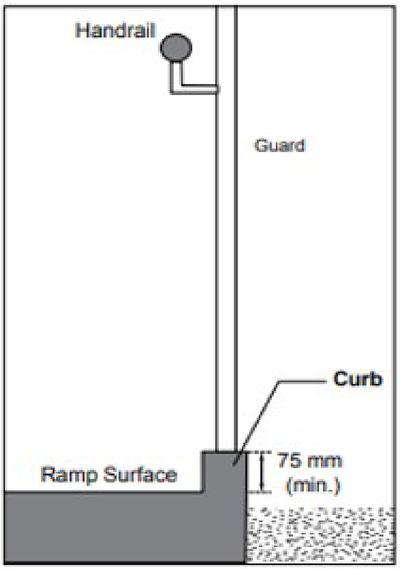


Figure 7a: Curb Protection-Cross Section

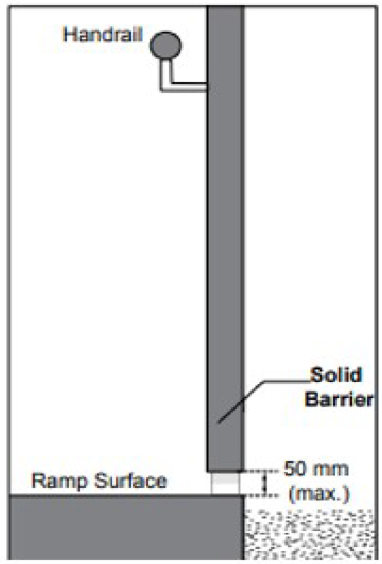


Figure 7b: Solid Barrier Protection- Cross Section

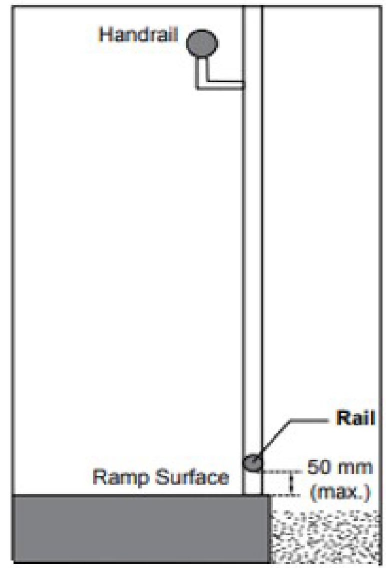


Figure 7c: Rail Protection-Cross Section

Colour Contrasting Strip

a. provide a colour contrasted and slip-resistant strip at the beginning and end of ramp, and where landings meet a slope change (Figure 8 Ramp Design Features), and

b. ensure strips are 50 ± 10 mm wide, extending along the width of the ramp.

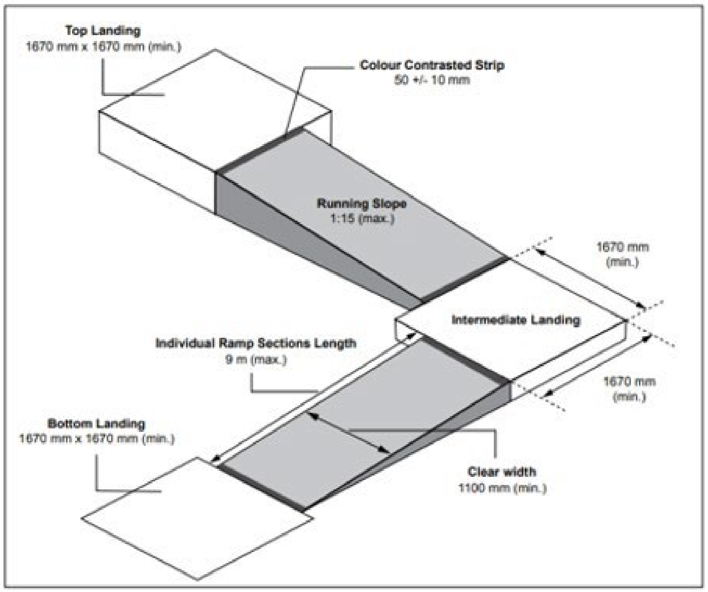


Figure 8: Ramp Design Features

Landings

a. ensure landings are level and have a cross slope that is not steeper than 1:50 (2%),

b. provide clear space of 1670 mm by 1670 mm (minimum) at top and bottom landings and where there is an abrupt change in direction (Figure 8 Ramp Design

   Features),

c. provide clear space of 1670 mm (minimum) long and at least the same width as the ramp for an in-line landing,

d. where overall length of ramp exceeds 9000 mm, provide intermediate landings, and

e. where a door swings into ramp landing, ensure length of landing is extended:

   i. 600 mm beyond the latch side of the door opening, when the door swings towards the ramp landing (Figure 9a Door Swings into Ramp Landing - Plan View), and

   ii. 300 mm beyond the latch side of door opening, when door swings away from the ramp landing (Figure 9b Door Swings Away From Ramp Landing - Plan View).

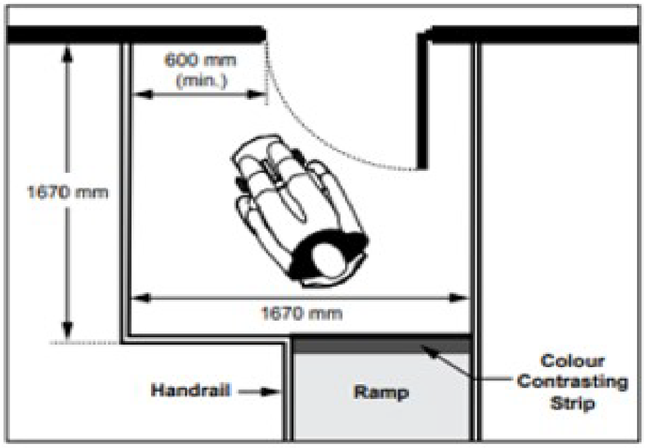


Figure 9a: Door Swings into Ramps Landing- Plan View

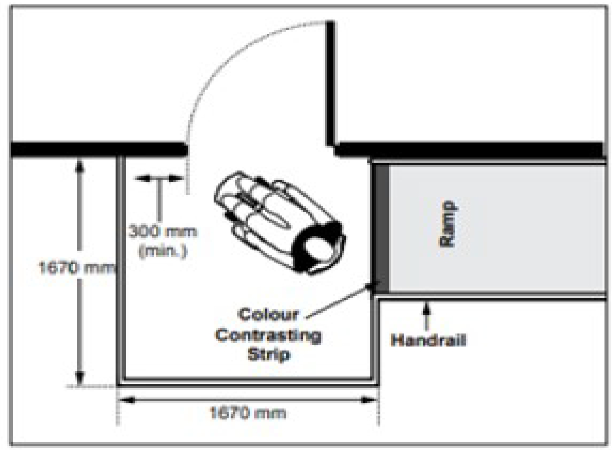
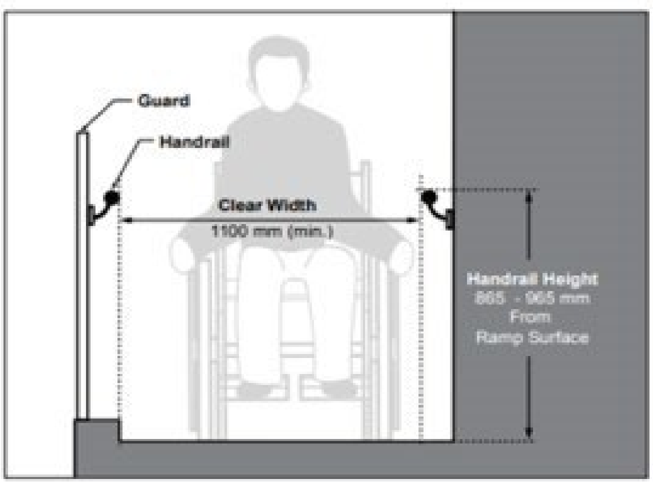


Figure 9b: Door Swings Away From Ramps Landing- Plan View

Handrails

a. mount continuously on both sides of ramp, including landings, at consistent height between 865 mm and 965 mm, measured vertically from the surface of the ramp (Figure 10 Handrail Design and Features - Section View),



Ensure handrail extensions do not obstruct path of travel or create hazards.

Figure 10: Handrail Design and Features- Section View

b. provide clear width of 1100 mm (minimum) between handrails and / or any projections into the ramp surface,

c. provide intermediate handrails where exterior ramps are more than 2200 mm wide, with a maximum of 1650 mm between handrails,

d. ensure high tonal contrast is provided between handrails and mounting surfaces, and

e. provide extensions with the following criteria (Figure 11a Handrail Returns to Guard or Rail and 11b Handrail Returns to Wall):

   i. extend horizontally 300 mm (minimum) at top and bottom landings,

   ii. design to return to the guard / rail or wall, and

   iii. ensure handrails are terminated in a manner that will not obstruct pedestrian path of travel or create potential bumping hazards.

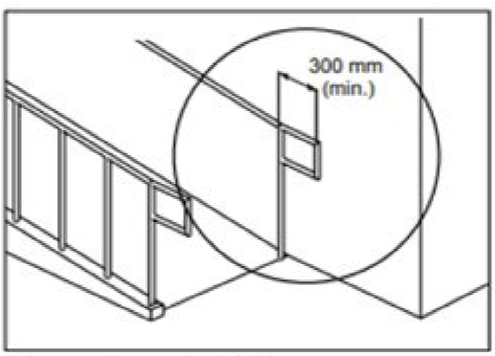


Figure 11a: Handrail Returns to Guard or Rail

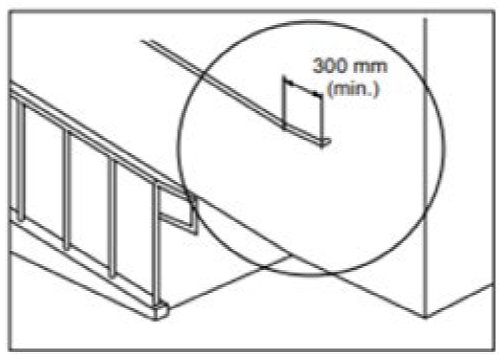


Figure 11b: Handrail Returns to Wall

Guards

Where walls or guards are required:

a. mount at 1070 mm (minimum) high, measured vertically to the top of the guard from the ramp surface (Figure 6 Guard Provision at Ramp - Section View), and

b. ensure that no member, attachment or opening located between 140 mm and 900 mm high above the ramp surface will facilitate climbing.

For ramps under the jurisdiction of the IASR, the ramp must have a wall or guard on both sides. While OBC Section 3.8.3.4 requires a wall or guard on both sides of the ramp, there are conditions in OBC Section 9.8.8.1 that only require a guard if the difference in elevation is more than 600 mm or the adjacent surface within 1200 mm has a slope steeper than 1:2.

Part 4- Washrooms

Table 2: Minimum Number of Universal Washrooms per Building

Number of Storeys in Building	Minimum number of Universal Washrooms per Building
1-3	1
4 - 6	2
Over 6	3, plus 1 for each additional increment of 3 storeys in excess of 6 storeys

Table 3: Minimum Number of Water Closet Stalls Required to be Accessible

Number of Water Closets per Washroom	Minimum Number of Accessible Water Closet Stalls per Washroom
1-3	0, where a universal washroom is provided on the same floor level within 45 m of the washroom, or 1, where a universal washroom is not provided on the same floor level within 45 m of the washroom
4 - 9	1
10 - 16	2
17 - 20	3
21 -30	4
Over 30	5, plus 1 for each additional increment of 10 water closets per washroom in excess of 30 water closets per washroom

Multiple Occupancy Washrooms

For multiple occupancy washrooms with accessible water closet stalls:

a. identify clearly with signage, indicating male or female where applicable, with other accessibility features (e.g., braille, tactile, International Symbol of Accessibility),

b. where doors are provided at washroom entrance, provide a clear width of 860 mm (minimum), when the door is in the open position and equip with power door operators,

c. ensure lighting level is evenly distributed in accordance with the Ontario Building Code Lighting requirements, as applicable,

d. ensure minimum clearance of 1700 mm between the inside face of an in-swinging entrance door and the outside face of an adjacent water closet stall,

e. ensure minimum clearance of 1400 mm between outside wall of stall and any wall-mounted fixtures or other obstructions (Figure 12 Example of Multiple Occupancy Washroom Layout),

f. provide a clear floor space of 1500 mm by 1500 mm (minimum) in front of the accessible water closet stall,

g. ensure a clear turning diameter of 1500 mm (minimum) is provided inside washroom circulation area, 500 mm (maximum) of which may be under the lavatory to allow users of mobility aids to make a 180° turn (Figure 12),

h. ensure floor surfaces are slip-resistant, with a maximum slope of 1:50 (2%),

i. provide accessible lavatories with washroom amenities, as identified in this section,

j. provide accessible water closet stalls with suitable clear floor space, as identified in this section,

k. install audible and visual fire alarm system, and

l. install any drains out of the path of travel.

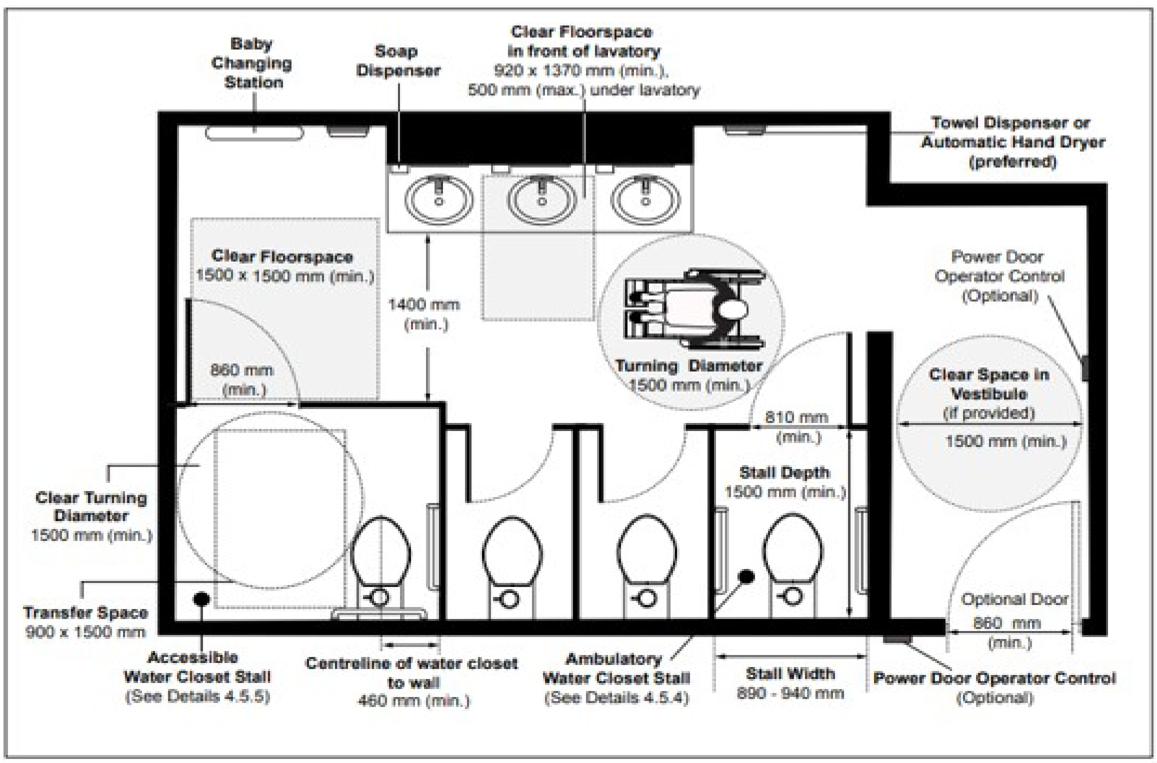


Figure 12: Example of Multiple Occupancy Washroom Layout

Universal Washrooms

Where universal washrooms are provided:

a. locate in the same vicinity as other washrooms (e.g., Men's & Women's multiple occupancy washrooms) along the shortest accessible route,

b. identify clearly with bilingual signage, including unisex pictogram (e.g., Male and Female) and the International Symbol of Accessibility,

c. provide accessible entrance door:

i. with clear width of 860 mm (minimum), when the door is in an open position,

ii. equip with power door operator,

iii. provide locking mechanism that can be locked from the inside and released from the outside, in case of emergency,

iv. mount graspable operating and locking mechanisms 900 to 1000 mm above floor,

v. if it is an outward swinging door, provide door pull 140 mm long (minimum), located on the inside so that its midpoint is between 200 mm and 300 mm from the latch side of the door, and

d. ensure internal dimension between walls is no less than 1700 mm (2500 mm preferred),

e. ensure a clear turning diameter of 1700 mm (minimum) is provided inside the universal washroom (Figure 13 Universal Washrooms),

f. ensure floor surface is firm, stable and slip-resistant,

g. provide one accessible lavatory with other washroom amenities including but not limited to mirror, soap dispenser, paper towel dispenser, automatic hand dryer (preferred), coat hook, and toilet paper dispenser as identified in this section,

h. provide one accessible water closet with suitable rear and side grab bars (e.g., horizontal, L-shaped and fold-down grab bars) as identified in this section,

i. provide motion sensor for automatic illumination of interior,

j. provide lighting in accordance with the Ontario Building Code Lighting requirements, as applicable,

k. install audible and visual fire alarm systems,

l. where installed, ensure baby changing stations and / or adult-size change tables adhere to the requirements identified in sub-section,

m. provide shelf as identified in sub-section,

n. ensure drains are installed out of the path of travel, and

o. provide an emergency call system with the following features:

i. consists of visual and audible signal devices both inside and outside of the washroom that are activated by a push control device inside the washroom,

ii. includes an emergency bilingual sign that contains the words "IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE" in letters at least 25 mm high with a 5 mm stroke and that is posted above the emergency button, and

iii. where facilities have the capacity and where staff is available, ensure the call system is linked to a display panel at a reception / information counter or to a centrally monitored station (e.g., security desk).

Ambulatory Water Closet Stalls

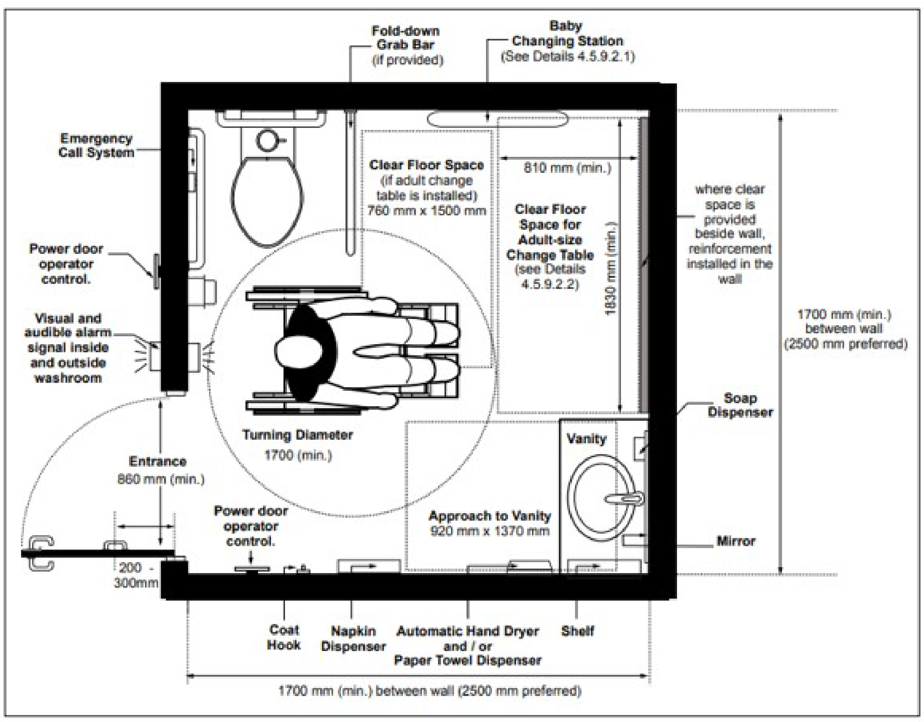


Figure 13: Universal Washrooms

Where ambulatory water closet stalls are provided for users with limited mobility who do not use wheeled mobility aids (e.g., canes or crutches):

a. ensure stall depth is 1500 mm (minimum), with 890 to 940 mm width,
b. provide a stall door:
    i. with clear width of 810 mm (minimum),
    ii. that swing outward, unless the minimum dimensions of the stall identified above are not located within the door swing,
    iii. with spring-type or gravity hinges so that the door closes automatically,
    iv. capable of being latched from the inside and released from the outside in case of an emergency,
    v. with a door pull on both sides of the door, near the latch side of the door, located at a height not less than 900 mm and not more than 1000 mm above the finished floor,
c. equip with a water closet located so that its centre line is centred between the partition walls (Figure 51),
d. install L-shaped grab bars, as identified in this section, on each side of the water closet,
e. provide a sign on the door that indicates that the stall is suitable for users who may require grab bar assistance,
f. install a coat hook as identified in this section

Accessible Water Closet Stalls

Where accessible water closet stalls are provided in multiple occupancy washrooms:

a. mark accessible water closet stall with International Symbol of Accessibility,

b. provide a clear turning space of 1500 mm diameter (minimum) (Figure 14 Water Closet Stall- Space Requirements), and

c. provide an emergency call system with the following features:

i. consists of visual and audible signal devices both inside and outside of the washroom that are activated by a push control device inside the washroom,

ii. includes an emergency bilingual sign that contains the words "IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL

ACTIVATE" in letters at least 25 mm high with a 5 mm stroke and that is posted above the emergency button, and

iii. where facilities have the capacity and where staff is available, ensure the call system is linked to a display panel at a reception / information counter or to a centrally monitored station (e. g., security desk).

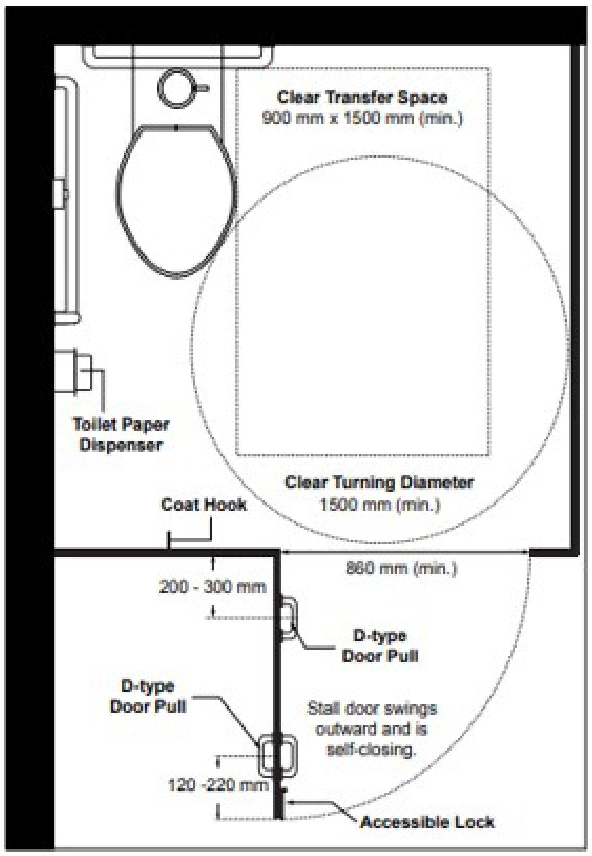


Figure 14: Water Closet Stall- Space Requirements

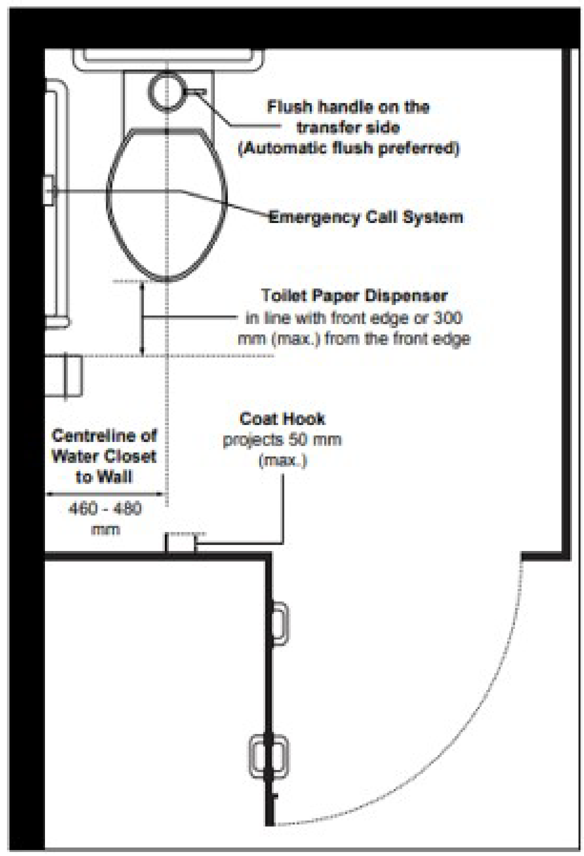


Figure 15: Water Closet Stall Features

Stall Doors

a. when door is in an open position, provide clear width of 860 mm (minimum),

b. ensure the door is aligned with water closet transfer space (e.g., door is positioned on opposite side of water closet) (Figure 15 Water Closet Stall Features),

c. ensure door swings outward, unless a clear floor area of 820 mm wide by 1440 mm long (minimum) is provided within the stall or enclosure to permit the door to be closed inside without interfering with the mobility device,

d. ensure door is self-closing with spring-type or gravity hinges, so that when at rest, the door will be ajar not more than 50 mm beyond the jamb,

e. provide accessible locking mechanisms, with stall capable of being locked from the inside by a control that is operable with a closed fist,

f. ensure door can be released from the outside in case of emergency, and

g. provide D-type door pull on inside and outside of the door (Figures 14 & 15):

h. ensure hardware provides high tonal contrast with mounting surface,

   i. provide length of 140 mm (minimum), iii. mount horizontally 900 to 1000 mm high from floor, centered 120 to 220 mm from latch side of the door, and
   ii. mount horizontally on the inside of an out-swinging door, with its centered 200 to 300 mm from the hinge edge.

Water Closets

a. mount seat between 430 mm and 485 mm high from floor (Figure 16 Horizontal Grab Bar (Water Closet with Water Tank),

b. install water closet so that:

   i. the centreline of water closet from any adjacent side wall is between 460 mm and 480 mm and an unobstructed transfer space of 900 mm wide by 1500 mm deep (minimum) is provided on the other side of the water closet (Figure 14), or
   ii. a clear transfer space of at least 900 mm wide and 1500 mm deep is provided on each side of the water closet,

c. provide a back support where there is no seat cover / lid or tank, and where there is a tank, ensure tank lid is securely attached.,

d. ensure seat is not spring activated,

e. provide internal extension guards that will not allow the seat to slide,

f. mount toilet paper dispenser below the grab bar, 600 to 800 mm high from floor, in line with front edge or not more than 300 mm from the front edge of the water closet,

g. install lever flush control or other flush control operable with a closed fist (e.g., push button control) on transfer side, and

h. install at least one coat hook mounted at 1200 mm (maximum) high from floor, on a side wall and projecting 50 mm (maximum) from mounting surface.

Grab Bars

Where grab bars are provided:

a. ensure surface is non-abrasive and slip-resistant (e.g., peened finish),

b. ensure a high tonal contrast between grab bar and mounting surfaces,

c. provide grasping surface that is circular in shape, with diameter between 35 mm and 40 mm,

d. ensure clear space of 38 mm (minimum) and 50 mm (maximum) between mounting surface and the inside surface of the grab bar,

e. mount securely to withstand a force of 1.3 Kilonewtons applied in all directions, and

f. ensure grab bar does not rotate within its fittings.

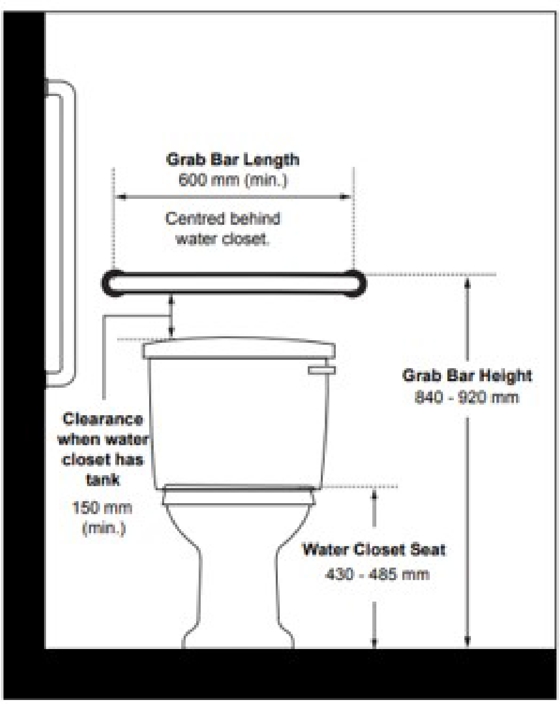


Figure 16: Horizontal Grab Bar (Water Closet with Water Tank)

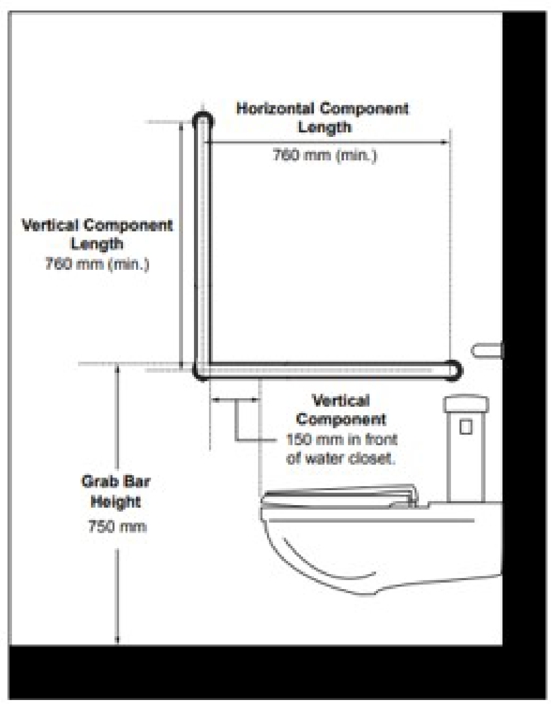


Figure 17: L-shaped Grab Bar (Wall Hung Water Closet with Flush Value)

Horizontal Grab Bars

a. ensure length of 600 mm (minimum),

b. mount between 840 and 920 mm high from floor level, centered behind water closet, and

c. where water closet has a water tank, mount grab bar 150 mm above the tank (Figure 16 Horizontal Grab Bar (Water Closet with Water Tank).

L-shaped Grab Bars

a. ensure length of 760 mm (minimum) for both vertical and horizontal components

(Figure 17 L-shaped Grab Bar (Wall Hung Water Closet with Flush Valve),

b. mount vertical component 150 mm (maximum) from front of water closet, and

c. mount horizontal component 750 mm high above floor.

Fold-Down Grab Bars

Where fold-down grab bars are provided:

a. mount on the wall behind the water closet,

b. locate on transfer space side,

c. ensure length of 760 mm (minimum),

d. mount between 390 mm and 410 mm from centerline of water closet (Figure 18a

Fold-down Grab Bar - Plan View),

e. mount with the horizontal component at 750 mm high from floor level (Figure 18b

Fold-down Grab Bar - Elevation View),

f. ensure force required to pull down grab bar is no more than 22 Newtons, and

g. where transfer space is provided on both sides of the water closet, provide a fold down grab bar on each side.

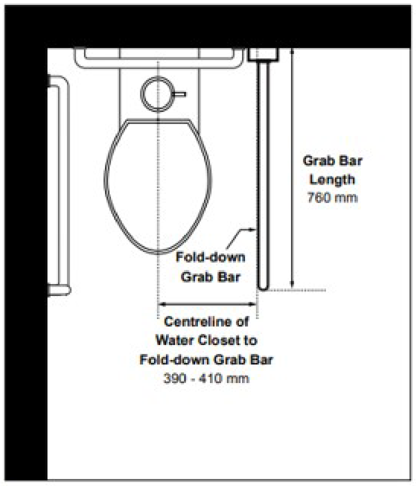


Figure 18a: Fold-down Grab Bar-Plan View

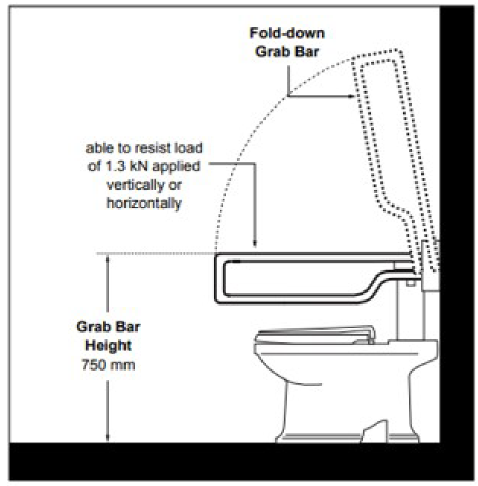


Figure 18b: Fold-down Grab Bar-Elevation View

Lavatories

Provision of at least one accessible lavatory is required in each accessible washroom facility:

a. ensure centerline of lavatory is 460 mm (minimum) from adjacent side wall,

b. ensure top surface is continuous and provides a high tonal contrast with adjacent wall surfaces, c. mount top surface of lavatory 820 to 840 mm high above floor (Figure 19a Lavatories - Section View),

c. provide clearances underneath lavatory no less than (Figure 19a Lavatories - Section View):

   i. 920 mm wide,

   ii. 735 mm high at front edge,

   iii. 685 mm high at 205 mm back from front edge, and

   iv. 350 mm toe space height from a point 300 mm back from the front edge to the wall,

d. provide automatic control or lever-type faucet without spring loading, located no more than 485 mm depth from edge of basin (Figure 19a Lavatories - Section View),

e. mount soap dispenser at 1200 mm (maximum) high above floor and 610 mm

f. (maximum), measured horizontally from the edge of the lavatory,

g. provide minimum clear floor space of 920 mm wide by 1370 mm deep (minimum), of which 500 mm depth is allowed under the lavatory (Figure 19b Lavatories - Plan View),

h. ensure water temperature is controlled to a maximum of 43°C, and

i. ensure water pipes are covered or insulated below lavatories.

Shelves

a. mount 1100 mm (maximum) high above floor,

b. ensure shelves do not project more than 100 mm from mounting surface along an accessible path of travel (Figure 19b Lavatories - Plan View), and

c. where provided at lavatory, mount 200 mm (maximum) above top surface of lavatory

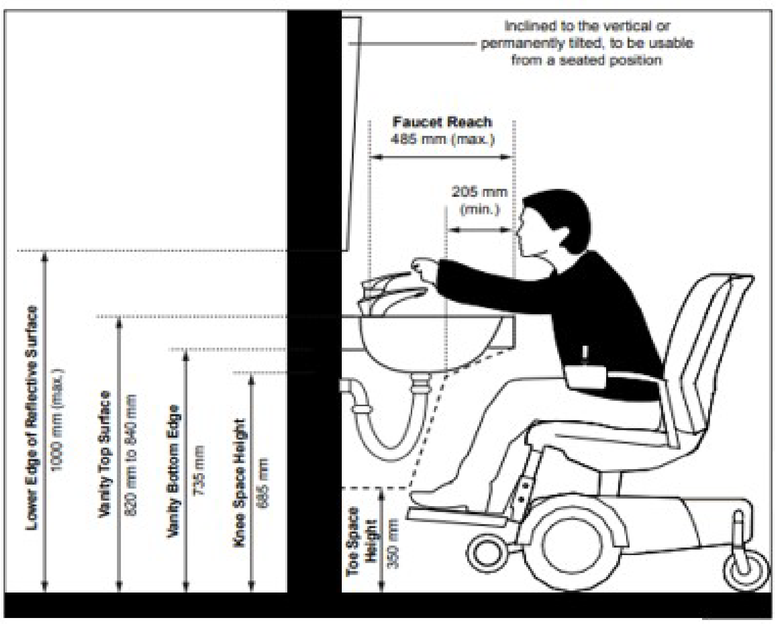


Figure 19a: Lavatories- Section View

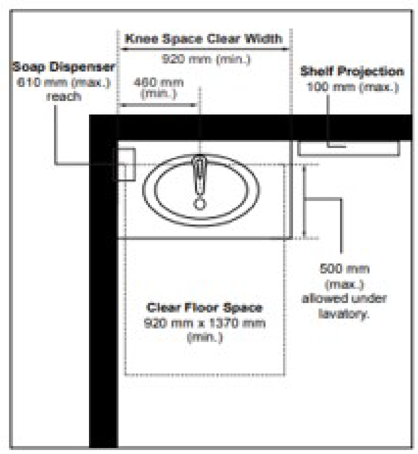


Figure 19b: Lavatories- Plan View

Washroom Amenities

Washroom amenities include, but are not limited to, hand dryers, paper towel dispensers, soap dispensers, waste bins, mirrors, changing stations and tables. Where provided:

a. ensure wall mounted amenities do not project more than 100 mm from wall along an accessible path of travel,

b. provide high tonal contrast between amenities and mounting surfaces,

c. ensure any operating controls are mounted between 900 mm and 1200 mm high above floor, operable with a closed fist (Figure 20 Typical Washroom Amenities),

d. ensure the dispensing height of washroom amenities is between 900 mm and 1200 mm,

e. where amenities are mounted at lavatories (e.g., hand dryers, paper towel dispensers, soap dispensers), install at 1200 mm (maximum) high, 610 mm

(maximum) measured horizontally from the edge of the lavatory,

f. provide minimum clear floor space of:

i. 920 mm wide by 1370 mm deep to allow front approach, and

ii. 1525 mm wide by 920 mm deep to allow side approach.

Mirrors

a. mount with the bottom edge of the reflecting surface at 1000 mm (maximum) high above floor (Figure 19a Lavatories - Section View) or inclined to the vertical to be usable from a seated position,

b. ensure lighting level over mirrors does not create reflected glare, and

c. where full length mirrors are provided, ensure they are not installed where they will reflect path of travel and cause confusion for users.

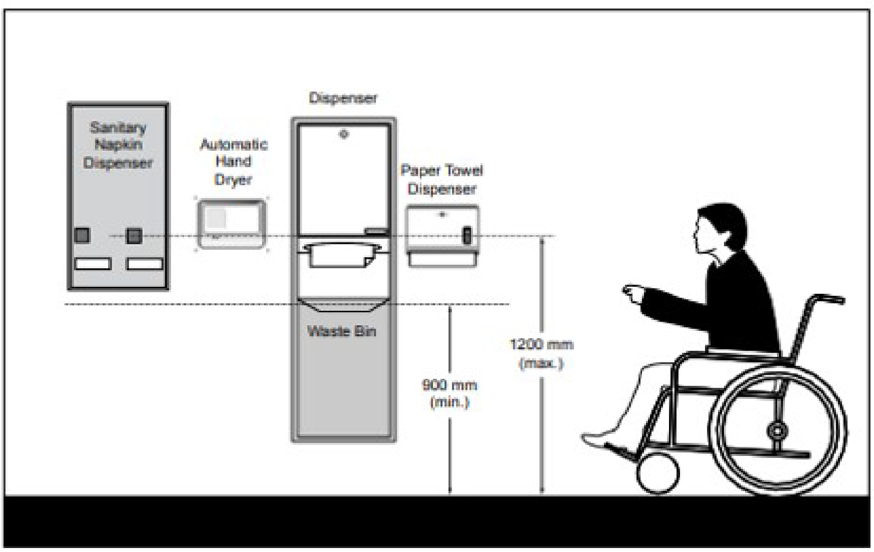


Figure 20: Typical Washroom Amenities

Baby Changing Stations

a. where provided, ensure at least one is accessible for users with disabilities, with unit placed in a location that does not obstruct adjacent paths of travel when in use and positioned in close proximity to a lavatory and waste receptacle,

b. ensure suitable clear floor space of:

   i. 920 mm wide by 1370 mm depth is provided for a forward approach,

   ii. 1525 mm wide by 920 mm depth for a side approach (whether standing or seated) in front of unit,

c. ensure the required floor clearance for changing station does not overlap with floor clearances of other fixtures, when the changing station is folded up,

d. mount with the highest edge or component of the station between 730 and 865 mm,

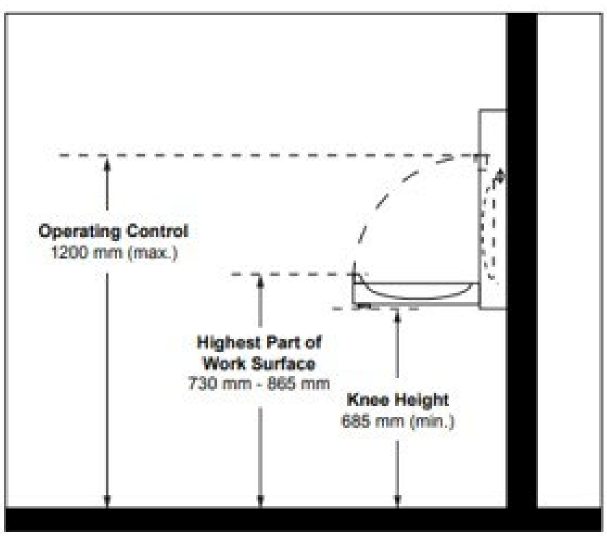
e. ensure knee clearance of 685 mm high and 480 mm depth is provided,

f. where a folding changing station is provided, ensure projection from wall of 100 mm (maximum) when in folded position and located along accessible path of travel, and

g. where a folding-type is provided, ensure operating control:

h. is mounted no more than 1200 mm (Figure 21 Folding Baby Changing Station - Section View),

i. operable with a closed fist and without tight grasping, pinching of fingers or twisting of wrist.



Example of a Baby Changing Station.

Figure 21: Folding Baby Changing Station- Section View

Urinals

Where more than one urinal is provided in men's multiple occupancy washrooms, provide at least one accessible urinal:

a. locate within accessible path of travel with no step in front of the urinal,

b. mount urinal on wall with the lower rim located 430 mm (maximum) above floor, OR provide a floor mounted urinal with the rim level with the floor level (Figure 22a Urinals - Side Elevation View),

c. ensure the upper rim is no lower than 860 mm high above floor,

d. ensure depth of 345 mm (minimum), measured from the outer face of the urinal rim to the back of the fixture (Figure 22a Urinals - Side Elevation View),

e. ensure urinal has high tonal contrast compared with back wall,

f. provide lever, automatic, or other flush control operable with a closed fist, without tight grasping, pinching or twisting of the wrist (e.g., push button control) mounted

g. 1200 mm (maximum) high above floor (Figure 22a Urinals - Side Elevation View),

h. provide clear floor space of 915 mm wide by 1370 mm deep (minimum) centered in front of urinal for front approach,

   i. provide grab bars, on each side of urinal (Figure 22b Urinals - Front Elevation View):

   ii. mount vertically, with centreline at 1000 mm high above floor,

   iii. mount 380 mm to 450 mm from centreline of urinal,

   iv. with length of 600 mm (minimum), and

   v. with high tonal contrast compared to back wall,

i. install centreline indicator for all urinals (Figure 22b Urinals - Front Elevation View):

   i. centred above the urinal 50 mm wide (maximum),

   ii. extending 1300 mm (minimum) above floor but never less than 150 mm above the upper urinal rim,

   iii. ensure indicator has high tonal contrast compared with back wall and raised 3 mm (minimum), and

   iv. where more than one urinal is provided in a washroom, provide a centerline indicator at each urinal,

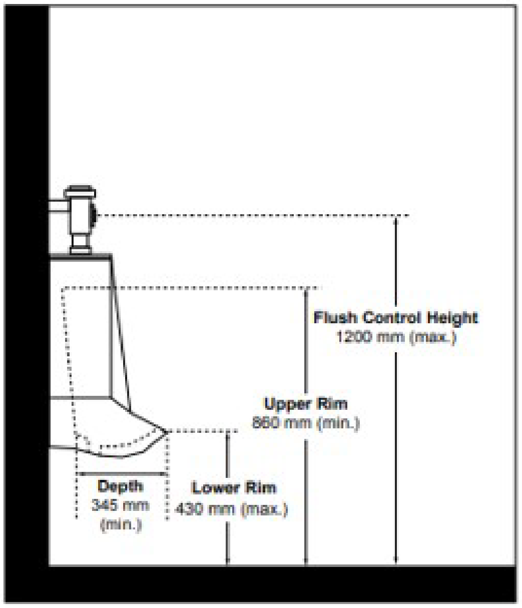


Figure 22a: Urinals- Side Elevation View

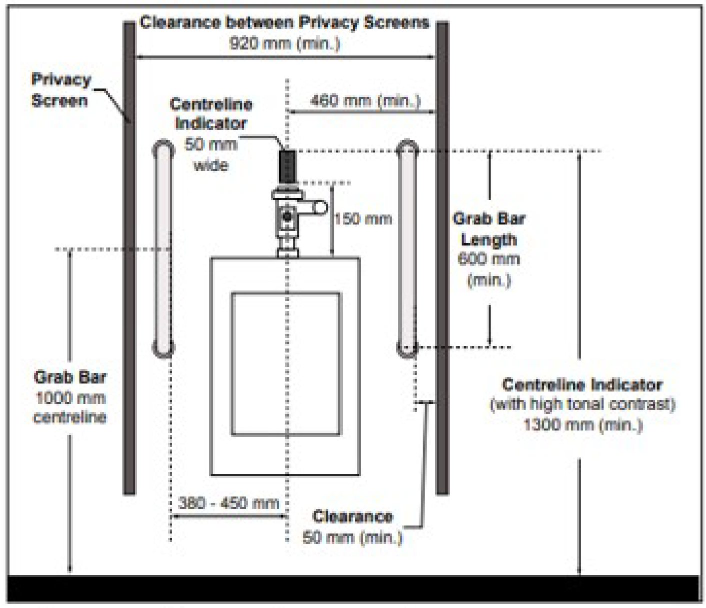


Figure 22b: Urinals- Front Elevation View

j. where privacy screens are provided (Figure 22b Urinals - Front Elevation View):

   i. provide clearance of 920 mm (minimum) between screens,

   ii. ensure a clearance of 50 mm (minimum) from the grab bars,

   iii. ensure colour contrast between screens and surrounding surfaces, and

   iv. ensure the vertical outer edge provides a high tonal contrast.