



Oakville Universal Design Standards v2.1

for town facilities



Preface

This is the electronic update, Version 2.1 edition, of the Oakville Universal Design Standards (OUDS) and supersedes the previous editions of Version 1 published in 2015 and Version 2 published in 2018. This edition of the Standard has been updated for the Ontario Building Code 2020 changes and administration.

The OUDS is aligned with the Town of Oakville's Multi-Year Accessibility Plan for the Design of Public Spaces and Procurement Policy By-law. When procuring or acquiring goods, services or facilities, accessible design, criteria and features will be considered in addition to all other legislation and applicable code.

Accessibility for Ontarians with Disabilities Act (AODA), 2005, Ontario Regulation 191/11 Integrated Accessibility Standards, Part IV.1 Design of Public Spaces Standards (DOPS) and Ontario Building Code (OBC) regulates the minimum accessibility features within building and on a site. The OUDS often go above the minimum requirements of the OBC and the AODA DOPS creating Town facilities which are inclusive and user-friendly for residents and visitors of all abilities. This procedure reflects the requirements of the OUDS, where applicable.

The Town of Oakville would like to acknowledge and thank members of staff and the Oakville Accessibility Advisory Committee for their input and suggestions; the City of London for the use of the City of London 2007 Facility Accessibility Design Standards as one of the foundation documents and the starting point of the Town's OUDS; and Human Space, a division of Quadrangle Architects Limited, for their guidance and work in updating the document.

The Town of Oakville guidelines for the design of accessible facilities have been implemented into the design our space since 2008.

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Introduction

The Town of Oakville is welcome to all. Our vision is to be the most livable town in Canada.

Here in Oakville, we are committed to promoting a culture of inclusion by providing accessible and equitable programs, services and facilities to residents and employees. As an organization, we will champion inclusion through increased opportunities and meaningful engagement to support a workplace and community where all feel respected and welcome. Staff and design consultants working on projects for the Town are expected to review [Oakville's Inclusion Lens](#) so inclusion is thoughtfully considered in the design of all our spaces. The Oakville Universal Design Standards (OUDS) was developed to help realize these commitments when planning for construction and renovation with a detailed approach.

A made-for-Oakville standard, the OUDS is mandatory for all construction projects at Town owned, leased and operated facilities including redevelopment plans, new construction, additions, renovations and capital replacements. Unless otherwise noted, all requirements are to be applied to both interior and exterior elements. As a municipal standard, the OUDS is intended to be used in addition to the Ontario Building Code, CSA, Accessibility for Ontarians with Disabilities Act – Integrated Accessibility Standards Regulation and other legislations.

Developed to help everyone in design and construction, the OUDS contain requirements for making buildings and other environments accessible and supports the Principals and Goals of Universal Design as it applies to the built environment.

The requirements are divided into 4 Parts:

- Section 1. Common Exterior and Interior Elements
- Section 2. Interior Elements and Amenities
- Section 3. Exterior Elements
- Section 4. Facility Specific Elements

The four sections are further divided into individual building elements (e.g., Entrances, Doors, Power Door Operators, etc.), which has detailed requirements to be followed.

Design consultants must exercise professional judgement and expertise when using the document. The OUDS does not release the consultant from liability or the need for due diligence in the design and construction process. The Facilities and Construction Management department will review and/or update this document no less than every five years to reflect changes in legislation, technological advancement, work innovation and new construction practices.

The OUDS is intended to provide an inclusive, user-friendly and accessible environment throughout the Town of Oakville buildings and amenities to create a space for all to enjoy.

Screen Reader User Tips

This document has been tested and is compatible with screen reader software. Different software may not have the same functionalities and keyboard shortcuts, refer to the screen reader user guide provided with your screen reader software for additional instructions. Tips for JAWS and NVDA and commonly used keyboard shortcuts are below.

Commonly used keyboard shortcuts for JAWS include:

1. The [H] key will navigate to the next section heading;
2. The [Insert + F6] keys will provide a list of headings in the document;
3. The [Alt + ↑] key will read the prior sentence;
4. The [Alt + Numpad 5] keys will read current sentence;
5. The [Alt + ↓] key will read the next sentence;
6. The [Insert + ↓] keys will read all text from current position;
7. The [→] key will fast forward during read all text;
8. The [←] key will rewind during read all text;
9. The [T] key will navigate to the next table;
10. The [Ctrl + Alt + directional arrow] keys will select the cell to the left, right, below, or above in a table; and
11. The [Ctrl + Alt + Numpad 5] keys will read the current cell in a table.

Commonly used keyboard shortcuts for NVDA include: (note: the NVDA key is set to the [Insert] key by default, but can be changed by the user)

1. The [H] key will navigate to the next section heading;
2. The [↑] or [Numpad 7] key will read the prior line;
3. The [NVDA + ↑] or [Numpad 8] key will read the current line;
4. The [↓] or [Numpad 9] key will read the next line;
5. The [NVDA + ↓] will read all text from current position;
6. The [T] key will navigate to the next table; and
7. The [Ctrl + Alt + directional arrow] keys will select the cell to the left, right, below, or above in a table

The Principles of Universal Design

The Principles of Universal Design is to help guide the design of environments, products and communication about the characteristics of more usable products and environments

1. **Equitable Use:** the design is useful and marketable to people with diverse abilities.
2. **Flexibility in Use:** the design accommodates a wide range of individual preferences and abilities.
3. **Simple and Intuitive Use:** use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.
4. **Perceptible Information:** the design communicates necessary information effectively to the user, regardless of ambient condition or the user's sensory abilities.
5. **Tolerance for Error:** the design minimizes hazards and the adverse consequences of accidental or unintended actions.
6. **Low Physical Effort:** the design can be used efficient and comfortably with a minimum fatigue.
7. **Size and Space for Approach and Use:** appropriate size and space are provided for approach, reach, manipulation and use, regardless of user's body position, size, posture or mobility.

Note: The Principles of Universal Design were developed by NC State University, The Center for Universal Design.

The Goals of Universal Design

The Goals of Universal Design further develop and complement the Principles of Universal Design. It shifts the focus from product usability to a more people-centric lens to include human performance, health and wellness, and social participation. The Goals is an outcomes-based approach of universal design practice that can be measured within existing recourses, encompassing functional, social, and emotional dimensions through frameworks of anthropometrics, biomechanics, perception, cognition, safety, health promotion and social interaction. The Goals of Universal Design are:

1. **Body Fit:** accommodating a wide range of body sizes and abilities,
2. **Comfort:** keeping demands within desirable limits of body function and perception,
3. **Awareness:** ensuring that critical information for use is easily perceived,
4. **Understanding:** making methods of operation and use intuitive, clear, and unambiguous,
5. **Wellness:** contributing to health promotion, avoidance of disease and protection from hazards,
6. **Social Integration:** treating all groups with dignity and respect,
7. **Personalization:** incorporating opportunities for choice and the expression of individual preferences, and
8. **Cultural Appropriateness:** respecting and reinforcing cultural values, and the social and environmental contexts of any design project.

Note: The Goals of Universal Design were developed by Steinfeld and Maisel, 2012, University of Buffalo.

In addition to following the principles and goals of universal design, any changes to building and site elements must consider the intent of the Ontario Human Rights Code towards respecting the dignity of individuals with varying abilities.

“The phrase ‘respect their dignity’ means to act in a manner which recognizes the privacy, confidentiality, comfort, autonomy and self-esteem of persons with disabilities, which maximizes their integration and which promotes full participation in society.”

-Ontario Human Rights Commission

Administrative Provisions

Scope

The OUDS are procedures that apply to new construction and redevelopment of elements in owned, operated or leased facilities and maintained, designed or constructed by the Town, volunteers, agents, contractors (personnel) or any individual representing or performing any function on behalf of the Town.

Additions to existing facilities are considered to be new construction and as such must meet all of the requirements in the Design Standards section of the OUDS. The addition must be on an accessible path (interior and exterior) and have an accessible path from the accessible parking and drop-off area to existing washrooms, change rooms, meeting rooms, drinking fountains and any other amenities intended to be used.

Designing and constructing in accordance with the OUDS will be included as a mandatory requirement in all Town of Oakville procurement policies, tender documents and construction contracts. All Town departments managing construction projects must ensure compliance with this standard during the pre-planning, design, construction documents, preparation and contract administration phases.

In addition to the above, all Town departments managing construction and design consultants must ensure compliance with any other applicable Town standards including, but not limited to, Corporate Identity, Sustainability, Lighting, Signage and IT. Visit Oakville.ca for the most updated versions.

The OUDS is mandatory for use to all applicable elements unless it is found technically infeasible or financially prohibitive. When found technically infeasible or financially prohibitive, the minimum requirements in the latest edition of the OBC, AODA DOPS or other applicable code shall govern.

The term technically infeasible refers to the renovation or replacement of a building element that cannot meet the requirements of the OUDS based on the following:

- Existing structural conditions would require moving or altering a load-bearing member which is an essential part of a structural frame;
- Other existing physical or site constraints prohibit modification or addition of necessary elements, spaces or features to be non-compliant with the OUDS; and/or
- Heritage attributes would be removed or adversely impacted.

If the proposed work is technically infeasible, contact the Facility Construction Management (FCM) department for a consultation with staff members.

When conflict arises between the OUDS and other municipal, provincial or federal legislation, the requirements that will result in the most accessible and compliant environment shall be used.

Scope

Any deviation from the OUDS should be carefully assessed with an FCM staff, and Heritage Planning if applicable, to determine the validity of the application. This procedure does not require forced changes into retrofits of existing building or renovations to meet the standards above applicable code and does not apply to emergency repairs.

The OUDS does not apply where it is technically infeasible to comply with the requirements, or part thereof, because existing physical or structural site constraints prohibit modification or addition of elements, spaces or features.

The OUDS does not apply to building service rooms, electrical rooms, sprinkler rooms, crawl spaces, attics, etc.

The OUDS does not apply to structures that are not normally occupied by persons, such as telephone exchanges, pump houses, etc.

Heritage Properties

The use of OUDS is mandatory for renovations and replacements to Town-owned Protected Heritage Property, however, the Ontario Human Rights Code provides allowances for modifications to Heritage attributes of a Protected Heritage Property such that the renovation or replacement should not alter the essential nature of the Heritage attributes. As such, any work on a Protected Heritage Property must be assessed on an individual basis to determine the most effective and least disruptive means of renovation or replacement and the extent to which the property can be made accessible by consulting with the Heritage Planning department.

If the work is deemed to not affect Heritage attributes of the Protected Heritage Property, it should meet the requirements of the OUDS. If the main public entrance to a Protected Heritage Property cannot be made accessible without impacting the Heritage attributes of the facility, every effort must be made to provide an alternative and accessible entrance with directional signage from the main public entrance, subject to heritage approval.

It is desirable to provide a complete experience of a Protected Heritage Property. Where it is not possible to provide access to all interior facilities without impacting its Heritage attributes, alternative formats of communication or equivalent experience must be incorporated into the facility in lieu of access to the exhibit. Alternative formats may include accessible audio and visual observation kiosk. If a property cannot be made accessible, every effort must be made to provide access to as much of the facility as possible while still maintaining the Heritage attributes of the property.

Dimensions

Dimensions used in this standard are in metric units (millimetres) and shown as mm. Dimensions that are not indicated within a range (max or min) are absolute and must be met unless noted otherwise.

Defined Terms

The following defined terms and their meanings are provided for clarification. The defined terms are indicated throughout the document in italics.

Accessible: Describes design elements of the built environment that comply with the requirements of this standard.

Accessible path: A continuous unobstructed path connecting accessible elements and spaces at the exterior of a building and within the interior spaces of a building. Interior accessible paths include corridors, floors, ramps, elevators, and clear floor spaces at fixtures. Exterior accessible paths include parking access aisles, curb ramps, crosswalks, etc.

Accessible space: The design of the built environment to be useable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

Addition: Adding usable square foot area to a temporary or permanent structure or building.

A.F.F.: At Finished Floor.

Area of refuge: An area which has direct access to an exit, where people who are unable to use stairs may remain temporarily in safety to await further instructions or assistance during emergency evacuation.

Basic renovation: when existing interior walls, ceilings, floor, or roof assemblies are maintained during construction by the reuse, relocation, or extension of the same or similar materials or components of the building.

Building: A structure occupying an area greater than ten square meters and consisting of walls, roof, and floor or other types of structures designated as buildings under the Ontario Building Code.

Clear floor space: The minimum unobstructed floor or ground space required to accommodate a person in a wheelchair, scooter, or other mobility aid.

Colour / tonal contrast: A significant contrast (minimum 70%) in colour or tone between an element and its surrounding environment.

Cross slope: The slope that is perpendicular to the direction of travel. (See running slope).

Curb ramp: A short ramp cutting through a curb or built up to a curb to provide access from a driveway / parking area to a sidewalk.

Depressed curb: A continuous and gradual ramp through a curb or built up to a curb to provide access from a driveway / parking area to a sidewalk.

Defined Terms

Elevated platforms: Elevated platforms include, but not limited to, stage areas, speaker podiums and other raised areas.

Extensive renovation: Defined in the Ontario Building Code as to when existing interior walls, ceilings, floor, or roof assemblies are substantially removed and new interior walls, ceilings, floor, or roof assemblies are installed.

Forward approach: Where a person must make use of a feature, amenity or element of the built environment by positioning their body and/or mobility aid directly in front of and facing the feature, amenity or element.

Heritage attributes: The principal features or elements that contribute to a protected heritage property's cultural heritage value or interest, and may include the property's built, constructed or manufactured elements, as well as natural landforms, vegetation, water features, and its visual setting (e.g., significant views or vistas to or from a protected heritage property).

Max: Maximum.

Max to min illuminance ratio: a ratio to measure the brightest location to the dimmest location to determine the distribution of light across a platform.

Min: Minimum.

Mobility aids: Refers to a range of assistive equipment used by persons with disabilities to assist with mobility. Examples include crutches, manual or powered wheelchairs, scooters, walkers, and canes.

New construction: Site preparation for, and construction of, entirely new structures or buildings and including adjacent and surrounding site area whether or not the site was previously occupied. Development classified as new construction is subject to the full compliance with the latest version of OUDS.

Operable portion: A part used to insert or withdraw objects, or to activate, deactivate, or adjust the equipment or appliance (for example coin slot, push button, handle).

Power door operator: A power operated mechanism that allows a door to open by activating a push button, bar or automatic sensor.

Primary path: An accessible path designed to accommodate two persons in mobility devices. The path is utilized by a frequent flow of people throughout the course of a day.

Protected Heritage Property: Property designated under Parts IV, V or VI of the Ontario Heritage Act; property subject to a heritage conservation easement under Parts II or IV of the Ontario Heritage Act; property identified by the Province and prescribed public bodies as provincial heritage property under the Standards and Guidelines for Conservation of Provincial Heritage Properties; property protected under federal legislation and UNESCO World Heritage Sites.

Public spa: Identified in the Ontario Building Code as hydro-massage pool, commonly referred to as a 'hot tub'.

Ramp: A sloped surface that provides an accessible connection between changes in ground elevation. The ramp includes all elements and features necessary to provide an accessible path as described in this standard.

Renovation: Construction or modifications to existing buildings or site elements but that retains some parts of the existing structure or layout or finishes. The renovation may or may not impact the existing character, structural uniqueness, cultural heritage value, or aesthetic appearance of all or part of the building. Material alterations to walls, ceilings and floors are considered to be a renovation.

Replacement: Construction, modification or material alteration of a building element.

Running slope: A slope that is parallel to the direction of travel. (See cross slope).

Screen reader: A software application that convey the visual information (for example text, pictures, charts) to the user in a non-visual manner (for example text-to-speech, sound icons, Braille device).

Secondary path: An accessible path designed to accommodate one person using a mobility device and one ambulatory person. The path is considered a main access path for the building; however, the flow of people using the path is not constant, nor is it considered a high traffic route.

Service Areas: Areas within the building that include service rooms, elevator machine rooms, janitor rooms, service spaces, crawl spaces, attic or roof spaces.

Signage: Displayed verbal, symbolic and tactile, information and pictorial illustrations.

Storey(s): That portion of a building included between the upper surface of a floor and the upper surface of the floor next above. If such portion of a building is not designed to be occupied, it is not considered a storey for the purposes of this standard. There may be more than one floor level within a storey, as in the case of a mezzanine or mezzanines.

Tactile: Describes an object that can be perceived using the sense of touch.

Tactile Attention Indicators (TAI): A surface feature consisting of truncated domes designed to warn persons of an upcoming hazard.

Defined Terms

Tactile Direction Indicators (TDI): A surface feature consisting of elongated bars designed to help persons navigate the built environment.

Tactile Walking Surface Indicators (TWSI): A standardized surface feature built into or applied to walking surfaces or other elements to warn persons with a visual impairment of hazards on a circulation path. There are two types of TWSI which include Tactile Attention Indicators and Tactile Direction Indicators.

Text telephone (TTY): Machinery or equipment that employs text-based communication through the transmission of coded signals across the standard telephone network. Text telephones can include, for example, devices known as TDDs (telecommunication devices for persons with hearing impairments) or computers with special modems. Text telephones are also called TTY, an abbreviation for teletypewriter.

TTY: Teletypewriter. (See text telephone)

Design Standards

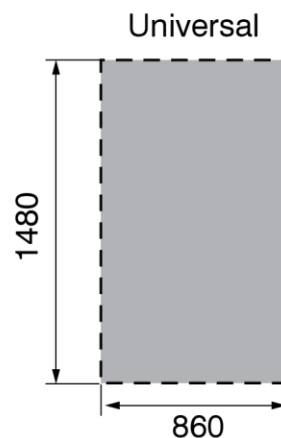
Common Exterior and Interior Elements

1. Space and Reach Requirements

The following dimensions and diagrams represent space and reach requirements for persons using mobility devices, to assist in the planning stages of construction projects.

1.1 Clear Floor Space

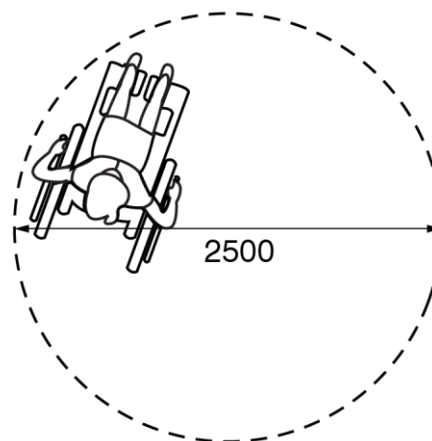
An **860 mm x 1480 mm** clear floor space [Diagram 1.A] is recognized as the universal mobility device size that would accommodate 95% of mobility devices utilized in Canada. Unless otherwise specified, the clear floor space must be provided in areas that require access to wall mounted controls, power door operators, tactile signage, information counters, workstations, or under any table tops, and under lavatories, sinks, or drinking fountains. For clear space requirements specific to the various building elements, refer to the appropriate part in the **Design Standards** section.



[Diagram 1.A] Clear Floor Space

1.2 Turning Circles

A **2500 mm** turning circle is recognized as the dimension that would accommodate 95% of mobility devices. Unless otherwise specified, a **2500 mm** turning circle must be provided throughout the building [Diagram 1.B]. For turning circle requirements specific to the various building elements, refer to the appropriate part in the **Design Standards** section.

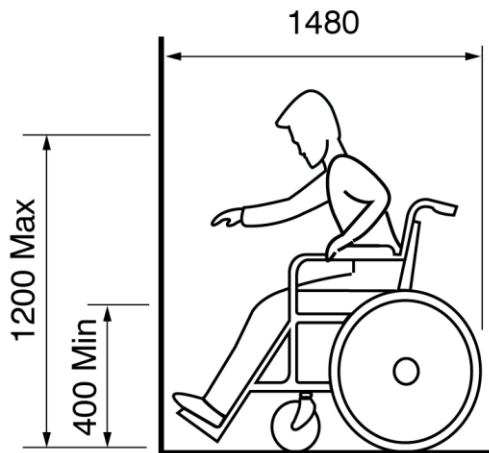


[Diagram 1.B] Turning Circle

1. Space and Reach Requirements

1.3 Forward Reach Range

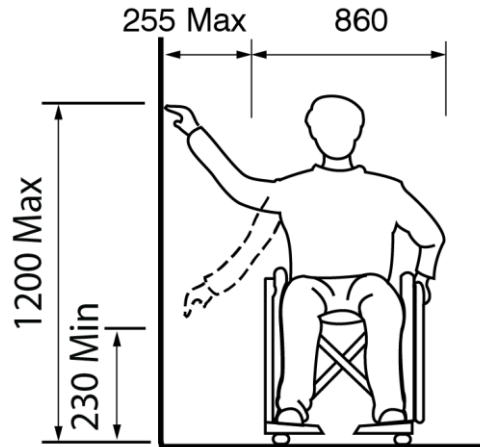
For a front approach to an object or item; the forward reach range requires the object to be between **400 mm** and **1200 mm** AFF [Diagram 1.C].



[Diagram 1.C] Forward Reach Range

1.5 Side Reach Range

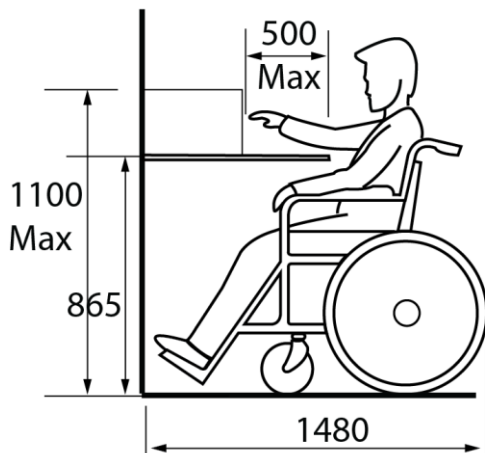
For a side approach to an object or item, the side reach range requires the object to be between **230 mm** and **1200 mm** AFF. [Diagram 1.E].



[Diagram 1.E] Side Reach Range

1.4 Forward Reach Range over an Obstruction

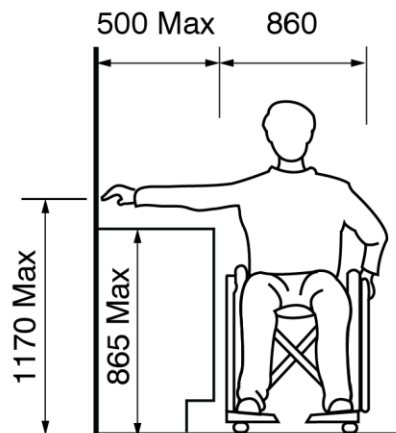
For a front approach to an object or item over an obstruction with a max of **865 mm** in height, the forward reach requires the object to be max **500 mm** deep and max **1100 mm** AFF [Diagram 1.D].



[Diagram 1.D] Forward Reach over an Obstruction

1.6 Side Reach Range over an Obstruction

For a side approach to an object or item over an obstruction with a max of **500 mm** in width and **865 mm** in height, the side reach range requires the object to be between **865 mm** to **1170 mm** AFF [Diagram 1.F].



[Diagram 1.F] Side Reach Over Obstruction

2. Interior Accessible Paths

Interior accessible paths are continuous unobstructed paths that connect accessible elements and spaces of a building or structure.

2.1 Path Widths

1. Accessible paths are required throughout new construction, additions and renovations.

2. For paths specific to the various building elements, refer to the appropriate part in the **Design Standards** section. General paths must comply with the following:

- a) Primary accessible path min **1800 mm** clear floor space [Diagram 2.A],
- b) Secondary accessible path min **1300 mm** clear floor space [Diagram 2.B],
- c) Accessible path between workstations min **1100 mm** clear floor space,
- d) For 90 degree turns, min **1300 mm** clear floor space [Diagram 2.C], and
- e) For 180 degree turns, min **2000 mm** clear floor space [Diagram 2.D].

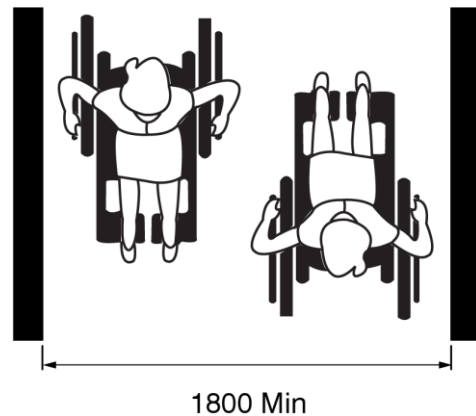
3. For requirements relating to exterior accessible paths, refer to section [38. Exterior Paths].

2.2 Path Slope

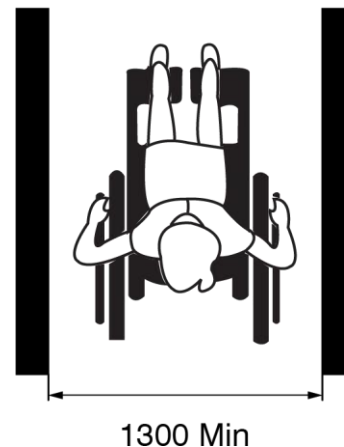
1. Slopes are required to conform to the following:

- a) Running slope of max **1 in 25 (4%)**, and
- b) Cross slope of max **1 in 50 (2%)**.

2. Accessible paths with a running slope more than **1 in 25 (4%)** must be designed as ramps and meet criteria in section [5. Ramps].

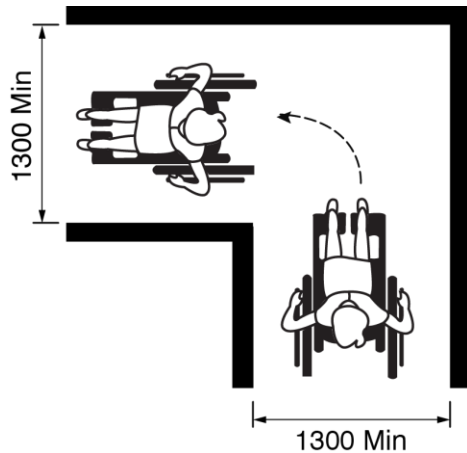


[Diagram 2.A] Primary Path

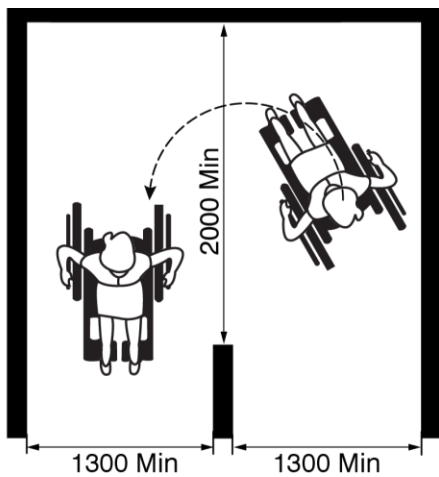


[Diagram 2.B] Secondary Path

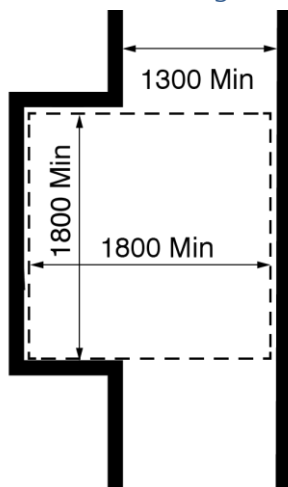
2. Interior Accessible Paths



[Diagram 2.C] 90 Degree Turn



[Diagram 2.D] 180 Degree Turn



[Diagram 2.E] Passing Areas

2.3 Passing Area

1. Where the path of travel is less than **1800 mm**, provide passing areas that are:

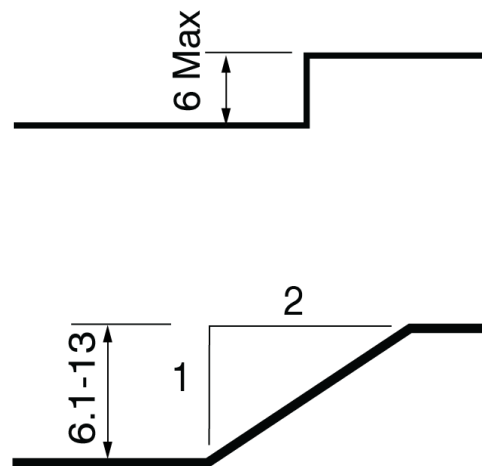
- Min **1800 mm x 1800 mm**, and
- Located every **30 m** on an accessible path [Diagram 2.E].

2.4 Changes in Level

1. [Table 2.6] identifies the required edge treatment based on the vertical rise of the ground or floor surface [Diagram 2.F].

[Table 3.6] Vertical Rise and Required Edge Treatment

Vertical Rise	Edge Treatment
0 mm to 6 mm	Vertical – does not require a slope
6.1 mm to 13 mm	Bevelled – max slope 1 in 2 (50%)
Greater than 13 mm	Must be treated as a slope



[Diagram 2.F] Changes in Level and Thresholds

2. Edge protection must be provided at changes in level between **200 mm** and **600 mm**; except at stairs, performance areas, or loading docks.
3. Changes in level greater than **600 mm** or within **1500 mm** of a drop off greater than **600 mm** must be protected by a guard on both sides.
4. Edge protection must consist of a curb min **75 mm** on the edge with min **70%** colour / tonal contrast.
5. Refer to section [5.8. Edge Protection] for edge protection requirements in the interior environment and section [38. Exterior Paths] for edge protection requirements in the exterior environment.

2.5 Exceptions

1. Accessible paths are not required in the following locations:
 - a) Service areas or high-hazard industrial occupancies,
 - b) Within portions of a floor area with fixed seats in an assembly occupancy not part of an accessible path to spaces designated for mobility device use, or
 - c) Within a suite of a residential occupancy.

3. Ground and Floor Surfaces

3. Ground and Floor Surfaces

Ground and floor surfaces are to be continuous with high visual colour and tonal contrast from surrounding surfaces.

3.1 Surface

1. Ground and floor surfaces must:
 - a) Be level, firm and stable, and
 - b) Allow for the easy movement of mobility devices.
2. Where possible, include heating cables on ground surfaces where ice may accumulate at main or service entrances.

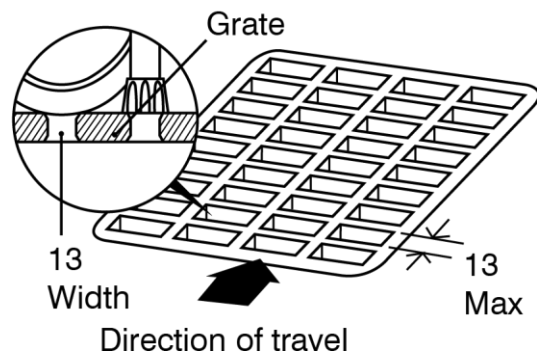
3.2 Carpets

1. Carpets must:
 - a) Be a max height of **13 mm**,
 - b) Be securely fixed to the floor,
 - c) Have a firm, low level loop,
 - d) Have a firm cushion, pad or backing,
 - e) Have **10 or 12 gauge** non-static fiber, and
 - f) Have a non-zipper, cut or uncut pile.

3.3 Gratings and Floor Drains

1. Gratings and floor drains must:
 - a) Be max **13 mm** wide, and
 - b) Have openings in one direction and perpendicular to the dominant direction of travel [Diagram 3.A].

Openings larger than 13 may catch wheelchair wheels or canes



[Diagram 3.A] Gratings

3.4 Finishes and Materials

1. Finishes and materials must:
 - a) Have high visual colour / tonal contrast, min **70%**, between floor surfaces, the surrounding environment and any changes in level, and
 - b) Not incorporate disruptive or large-scale patterns or designs.

3.5 Floor Mats

1. Floor mats must have min **70%** colour / tonal contrast from surrounding surfaces.
2. Pedimat and floor mats placed in a depression that is level with the surrounding floor are preferred over mats placed on top of the finished floor.
3. If floor mats are placed on top of the finished floor, it must:
 - a) Have a max height of **13 mm**,
 - b) Have a bevelled edge,
 - c) Be non-slip between underside of mat and the floor finish, and
 - d) Be weighted or securely fixed.

4. Headroom - Overhanging and Protruding Objects

4. Headroom - Overhanging and Protruding Objects

When headroom is reduced, a cane detectable guard at floor level helps persons with low or no vision detect an obstruction.

4.1 Clear Width

Protruding objects must not reduce the clear width of an accessible path to less than required in sections [2. Interior Accessible Paths] and [38. Exterior Paths].

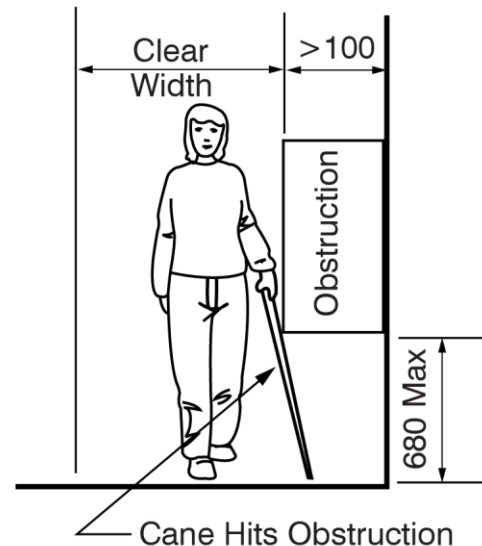
4.2 Protruding Objects

Objects protruding on accessible paths must not protrude more than **100 mm** unless they are cane detectable at or below **680 mm** AFF [Diagram 4.A].

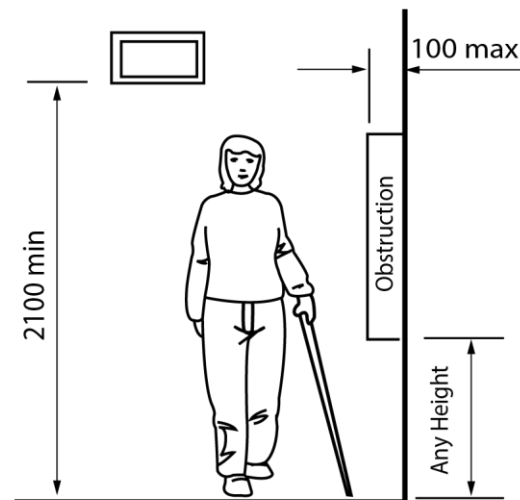
4.3 Headroom

1. Headroom must:

- a) Have a min **2100 mm** clear height AFF [Diagram 4.B], and
- b) Be cane detectable at or below **680 mm** where headroom is less than **2100 mm** [Diagram 4.C].

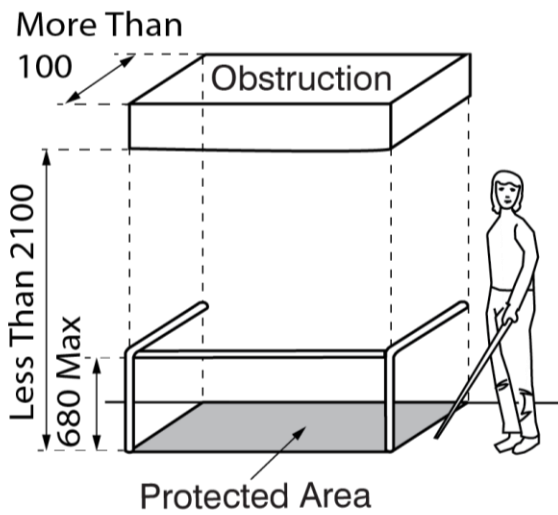


[Diagram 4.A] Protruding Objects



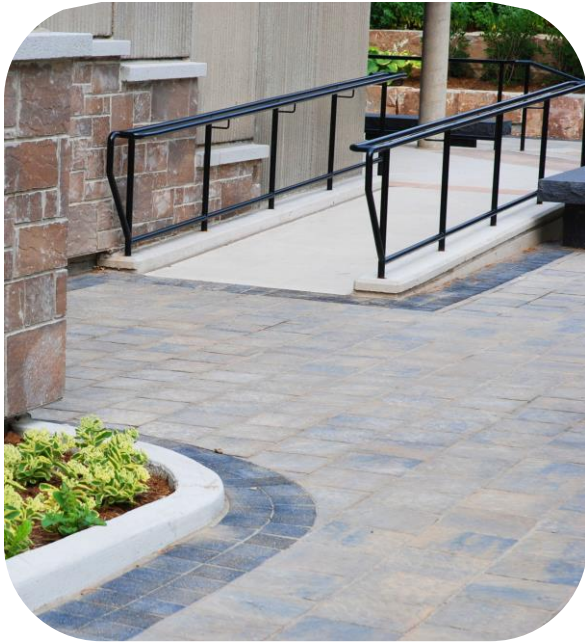
[Diagram 4.B] Overhead Obstruction and an Acceptable Protruding Obstruction

Headroom - Overhanging and Protruding Objects 4.



[Diagram 4.C] Cane-detectable Guard for Overhead Obstruction and Protruding Obstruction

5. Ramps



5. Ramps

Walkways and paths of travel with a slope steeper than 1 in 25 (4%) must be designed as ramps.

5.1 Clear Width

Ramps must have a min **1100 mm** clear width [Diagram 5.A].

5.2 Slope

1. Ramps must have a:
 - a) Max running slope of **1 in 20 (5%)** [Diagram 5.A], and
 - b) Max cross slope of **1 in 50 (2%)**.

5.3 Surface

The ramp surface must meet criteria in subsections [3.1. Surface], [3.3. Gratings], and [3.4. Finishes and Materials].

5.4 Colour Contrast

A visual contrasting strip, which can be a change of material, painted strip, or non-skid tape with min **70%** colour / tonal contrast must be used to demarcate the beginning and end of a ramp.

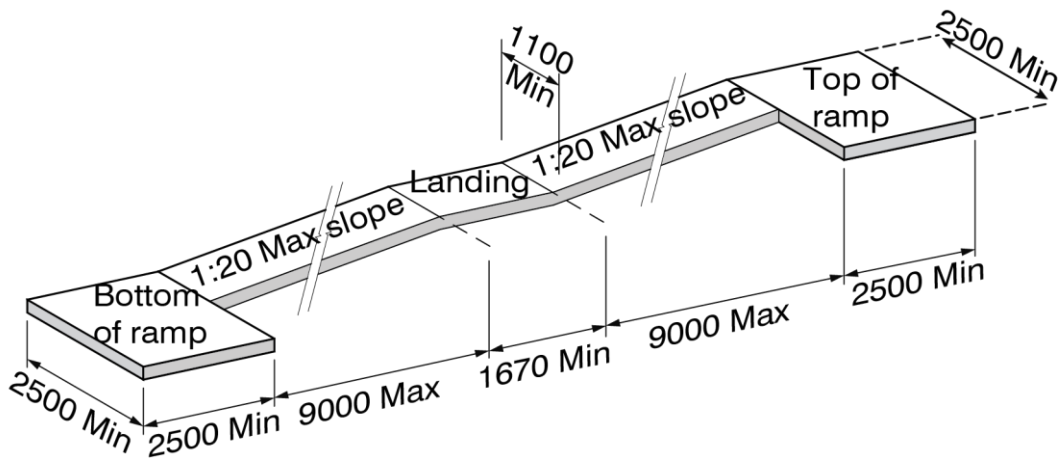
5.5 Landing Location

1. Landings must be provided:
 - a) At least every **9000 mm** [Diagram 5.A],
 - b) At the top and bottom of the ramp, and
 - c) At any change of direction on the ramp.

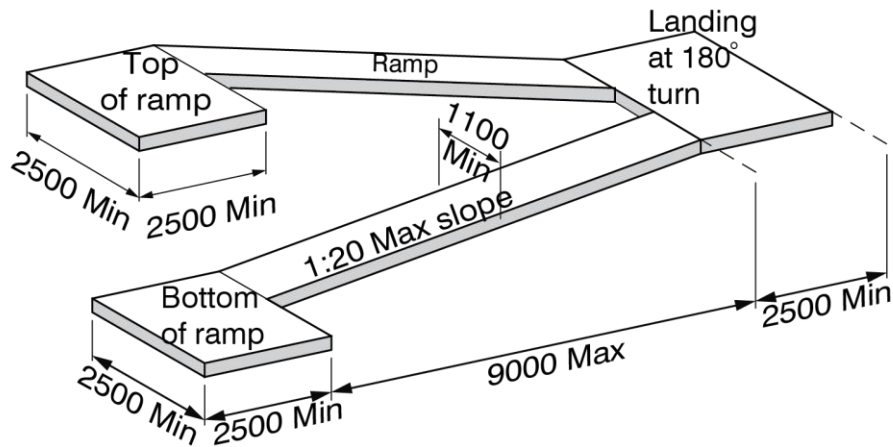
5.6 Landing Design

Landings must be:

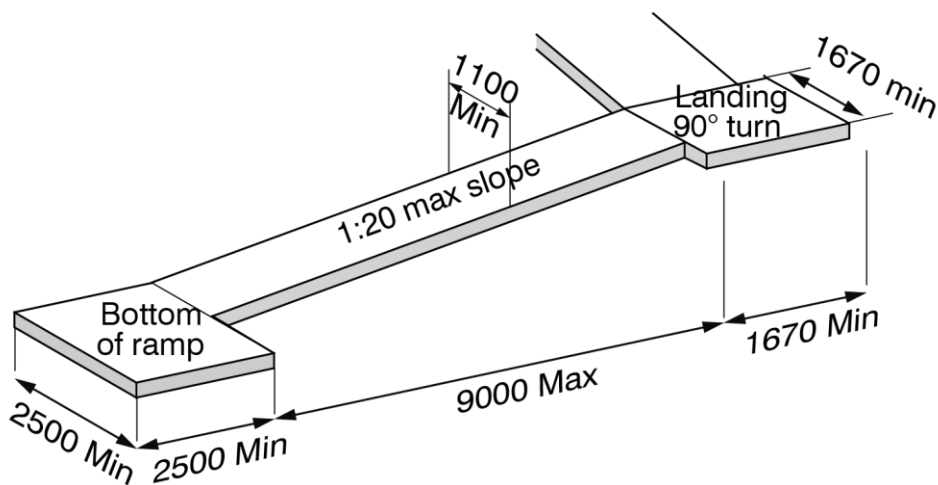
- a) Min **2500 mm x 2500 mm** at the top and bottom of the ramp and at intermediate landings with a **180** degree turn [Diagram 5.B],
- b) Min **1670 mm x 1670 mm** at **90** degree turns [Diagram 5.C], and
- c) Min **1670 mm** in length for inline landings [Diagram 5.A].



[Diagram 5.A] Landings Required at Every 9 Metres

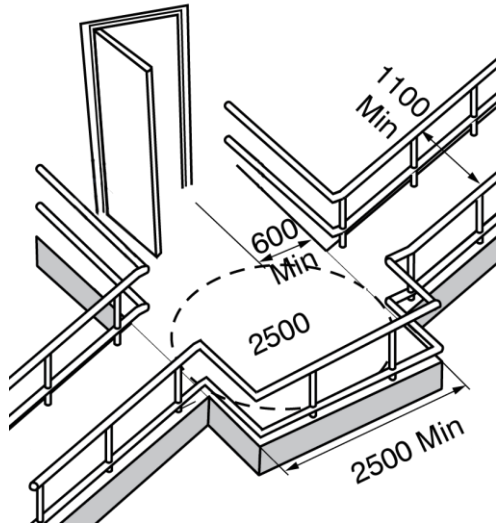


[Diagram 5.B] 2500 mm x 2500 mm Landings at Top, Bottom and at 180 Degree Turns



[Diagram 5.C] 1670 mm x 1670 mm Landings 90 Degree Turns

5. Ramps



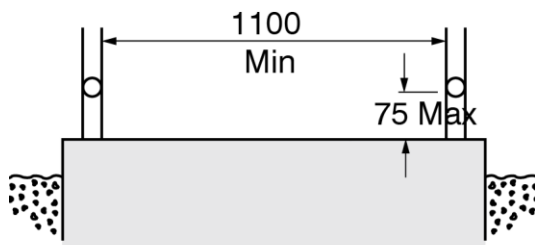
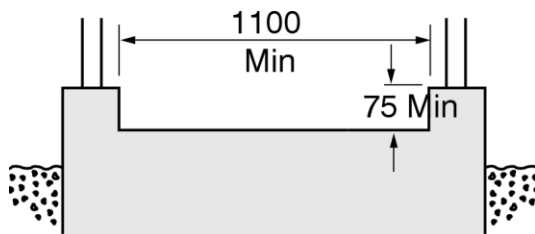
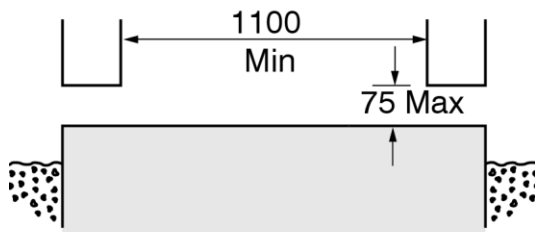
[Diagram 5.D] Doors on Landings

5.7 Doors on Landings

Where doors swing into the landing space, there must be a min **2500 mm** x **2500 mm** of clear floor space [Diagram 5.D].

5.8 Edge Protection

Edge protection is required where ramp surfaces are not at grade or protected with a wall or a guard on both sides. Edge protection must be min **75 mm** height. Alternatively, guards can extend to the bottom of the rail to within **75 mm** of the ramp surface [Diagram 5.E].



[Diagram 5.E] Edge Protection for Ramps

5.9 Handrails

Handrails are required on both sides of a ramp and must meet requirements in section [7. Handrails].



6. Stairs

Cues warning a person with no or low vision of an upcoming set of stairs is vitally important and is provided by *tactile walking surface indicators (TWSI)*.

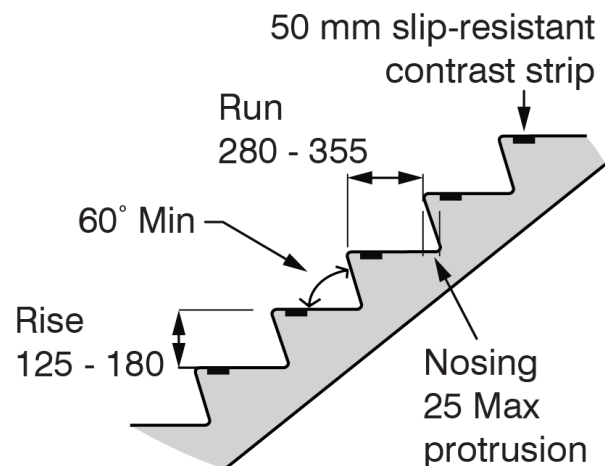
6.1 Treads and Risers

1. Treads and risers must:
 - a) Be uniform in tread depth and riser height [Diagram 6.A],
 - b) Be made of closed risers,
 - c) Have a rise between **125 mm** and **180 mm**, and
 - d) Have a run between **280 mm** and **355 mm**.

2. Risers must be uniform in height in any one flight with a max tolerance of **5 mm** between adjacent treads or landings and **10 mm** between the tallest and shortest risers in a flight.

3. Treads must be uniform in depth in any one flight with a max tolerance of **5 mm** between adjacent treads and **10 mm** between the deepest and shallowest treads in a flight.

4. The cross slope on treads must not exceed **1 in 50**.



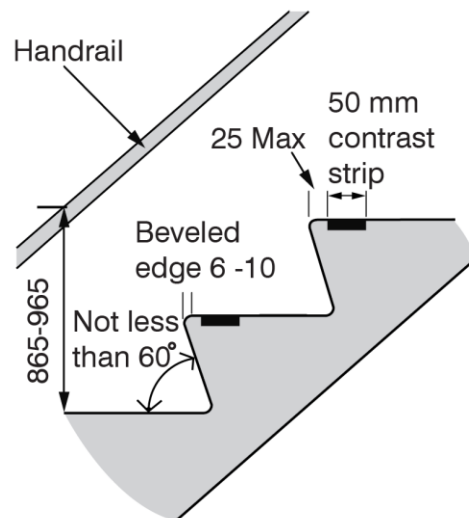
[Diagram 6.A] Treads, Risers and Nosing of Stairs

6. Stairs

6.2 Nosing

The nosing must have:

- Max **25 mm** projection, sloped at an angle greater than **60 degrees** to the horizontal,
- 6 mm to 10 mm** beveled tread edge, and
- 50 mm** slip-resistant colour / tonal contrast strip, extending the full width of the tread starting max **25 mm** from leading edge of tread. A visual contrasting strip can be a change of material, painted strip, or non-skid tape with min **70%** colour / tonal contrast from the rest of the stair surface [Diagram 6.B].



[Diagram 6.B] Contrast Strip on Tread

6.5 Tactile Attention Indicator (TAI)

TAI must:

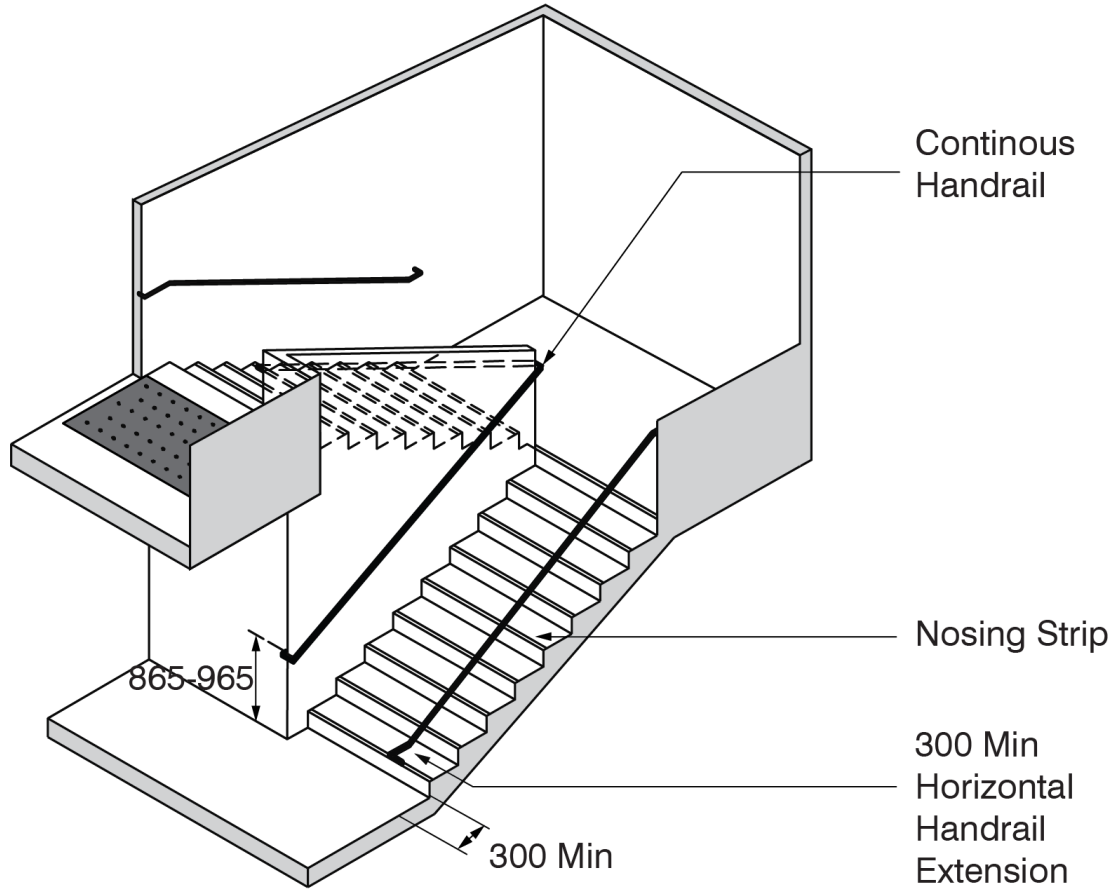
- Be between **300 mm** to **610 mm** deep (**610 mm** preferred),
- Be located one tread depth back from the first stair at the top and at any intermediate landings where doors open onto the landing, and
- Meet the criteria provided in section [8. Tactile Walking Surface Indicators – Attention and Direction].

6.3 Guards

Guards are required on both sides of a stair where the elevation change is greater than **600 mm**.

6.4 Handrail Location & Design

Handrails must be provided on both sides of a stair and must meet the criteria in section [7. Handrails] [Diagram 6.B].



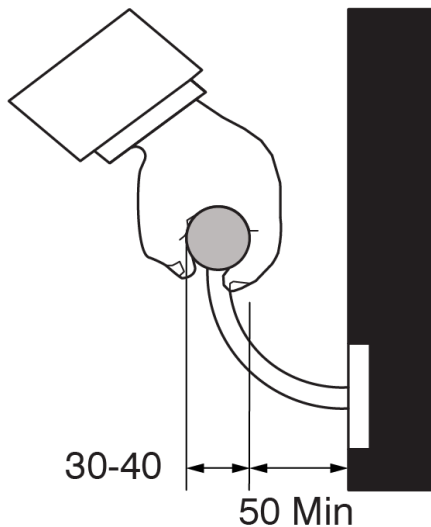
[Diagram 6.C] Stair Design Criteria

7. Handrails

Handrails help people to avoid tripping or falling down stairs or ramps.

7.1 Handrail Locations

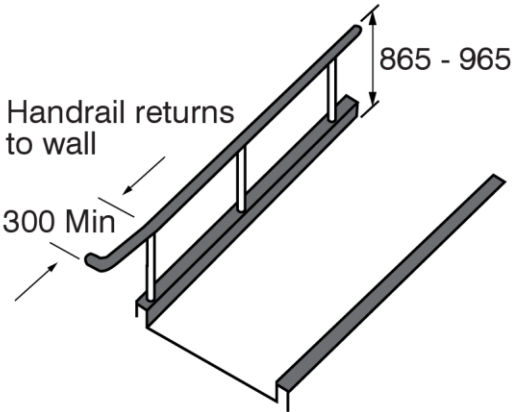
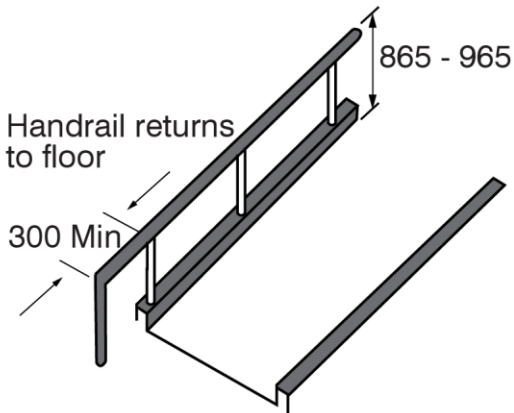
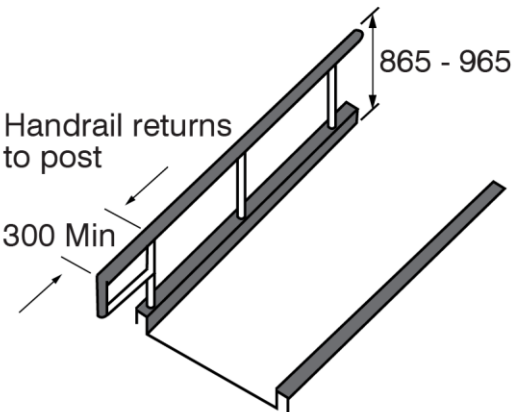
1. Handrails are required on both sides of a ramp or stair.
2. Intermediate handrails are required where stairs or ramps are wider than **2200 mm**. The clear width between the intermediate handrail and one set of handrails must be at least **900 mm** [Diagram 7.C].



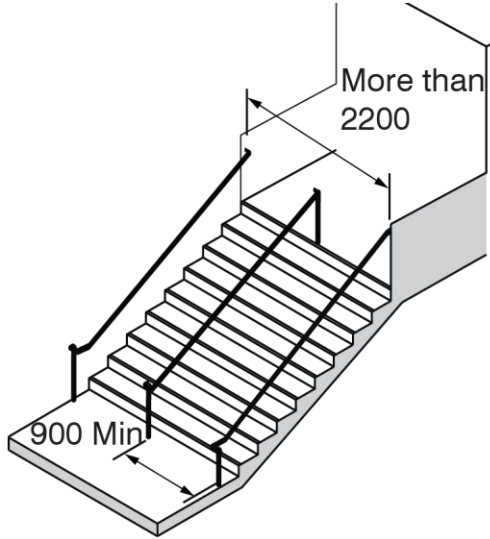
[Diagram 7.A] Handrail Diameter and Distance to Wall

7.2 Handrail Design

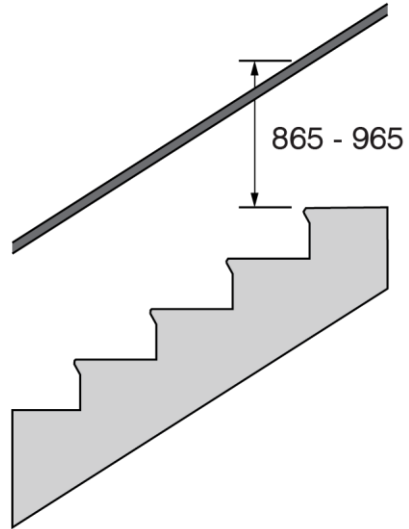
1. Handrails must be designed to:
 - a) Be continuously graspable along entire length,
 - b) Have a circular cross-section with an outside diameter between **30 mm** and **40 mm** [Diagram 7.A],
 - c) Have a min clearance of **50 mm** between the handrail and any wall immediately adjacent or **60 mm** where adjacent wall is a rough surface [Diagram 7.A],
 - d) Be uniform in height ranging **865 mm** to **965 mm** above surface, measured from the leading edge of the stair nosing to the top of the rail [Diagram 7.D],
 - e) Have a continuous inside handrail on switch back stairs [Diagram 6.C],
 - f) Extend horizontally **300 mm** beyond the top and bottom and return to the post, floor or wall [Diagram 7.B], and
 - g) Have colour / tonal colour between handrail and surrounding wall.
2. Loading properties for the guard and handrail design must meet the latest edition of the OBC requirement and sustain a concentrated load min **0.9kN/m** and a uniform load min **0.7kN/m**.



[Diagram 7.B] Horizontal Handrail Extensions



[Diagram 7.C] Intermediate Handrail



[Diagram 7.D] Height of Handrail over Tread

8. Tactile Walking Surface Indicators – Attention and Direction

8. Tactile Walking Surface Indicators – Attention and Direction

Applying paint to a concrete surface is not appropriate for a *Tactile Walking Surface Indicator (TWSI)*.

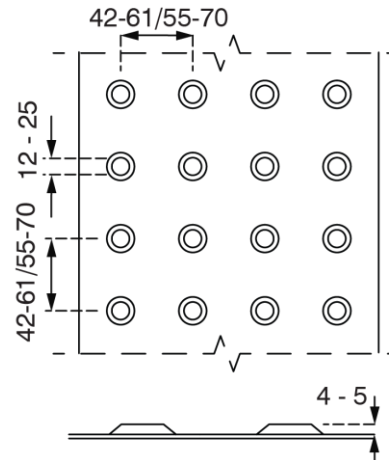
8.1 TWSI Design

All TWSI must meet the requirements in ISO 23599:2019.

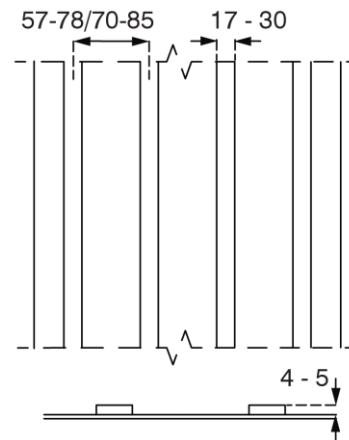
8.2 Types of TWSI

1. TWSI are used to inform persons who are walking over them of two possible situations:

- a) Tactile attention indicators (TAI), consisting of truncated domes, signal a need for caution at a change in elevation or the location of a vehicular route [Diagram 8.A], and
- b) Tactile direction indicators (TDI), consisting of linear bar surface, facilitate wayfinding in open areas and indicate a possible path that may be taken [Diagram 8.B].



[Diagram 8.A] Tactile Attention Indicators



[Diagram 8.B] Tactile Direction Indicators

2. Refer to ISO 23599 for detailed information on spacing and sizing of both TAI and TDI.

8.3 Locations for Tactile Direction Indicators (TDI)

TDI should be considered to facilitate wayfinding to major destinations and along the primary path within a building and throughout the site.

8.4 TDI Surface

TDI must:

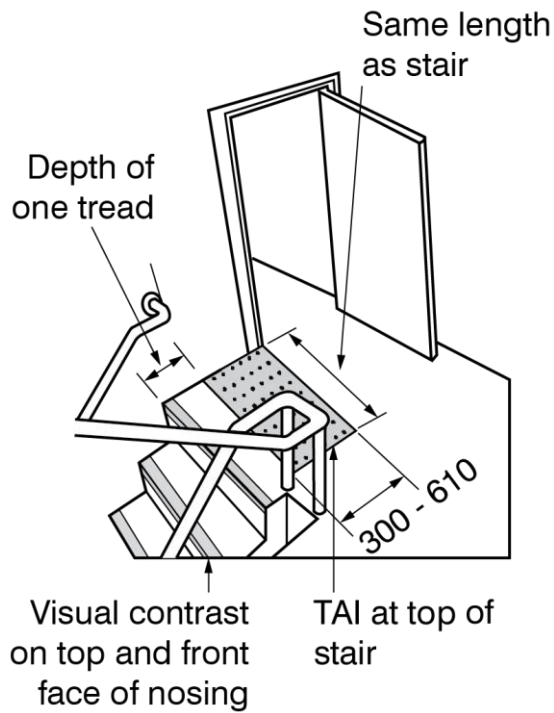
- a) Be consistently used throughout a facility,
- b) Be slip-resistant,
- c) Not exceed a glare factor of **15**-matte finish,
- d) Have a min **70%** colour / tonal contrast from adjoining surfaces,
- e) Be detectable when walked upon by being different in texture from adjoining surfaces,
- f) Have edges bevelled or level with the surrounding surface, and
- g) Be installed in a manner that avoids interference from an irregular walking surface, does not create a tripping hazard, and is slip-resistant.

8.5 Locations for Tactile Attention Indicators (TAI)

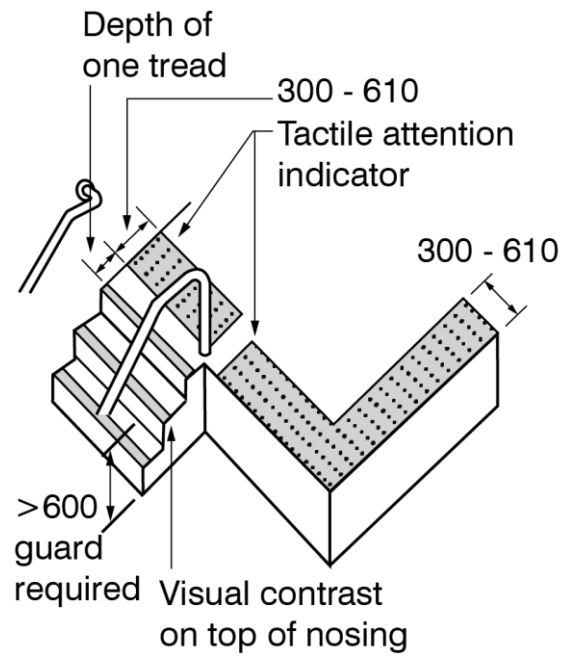
TAI must be installed:

- a) At the tops of all stairs and escalators, and on landings where a door opens onto the landing. TAI must extend the full width of the stair or escalator and be **300 mm** to **610 mm** deep (**610 mm** preferred), commencing one tread depth back from the stair or escalator edge [Diagram 8.C],
- b) At curb ramps and depressed curbs identified in section [39. Curb Ramps and Depressed Curbs]. TAI must extend the full width of the curb ramp or depressed curb and be **610 mm** deep commencing **150 mm** to **200 mm** back from the edge of the curb [Diagrams 39.A to F], and
- c) At elevated platforms not protected by a guard with the TAI being **300 mm** to **610 mm** deep (**610 mm** preferred), flush from the open edge [Diagram 8.D].

8. Tactile Walking Surface Indicators – Attention and Direction



[Diagram 8.C] TAI on Stairs



[Diagram 8.D] TAI on an Elevated Platform



9. Operable Controls and Mechanisms

Examples of elements with controls and mechanisms that must be made *accessible* include (but are not limited to): electrical switches, remote controls, intercom switches, window operating devices, wall outlets, alarm pulls, thermostats, door hardware, faucets, and vending and ticket machines.

9.1 Operable Controls and Mechanisms

1. Controls must be accessible and intuitive. Where possible, operating controls must have multiple forms of feedback (audible, visual, tactile, etc.).
2. Electrical outlets and receptacles must be min **400 mm** AFF measured at the base of the outlet [Diagram 9.A].

3. Operable portions must be between **900 mm** and **1100 mm** AFF [Diagram 9.A] with the exception of thermostats and manual pull stations which must be **1200 mm** AFF measured at the centerline of the operable portion.

4. Reach requirements to any operable controls must consider section [1. Space and Reach Requirements].

5. Emergency alert controls must be linked to a central and staffed monitoring location and have a visual and audible signal indicating help is on the way.

9.2 Clear Floor Area

A clear floor space min **860 mm** wide x **1480 mm** long must be maintained adjacent and centred to controls.

9.3 Hand Operated Mechanisms

1. Hand operated mechanisms must:
 - a) Be capable of operation with one closed fist hand,
 - b) Not require tight grasping, pinching or twisting of the wrist,
 - c) Require a max force **22N**, and
 - d) Have min **70%** colour / tonal contrast from their surrounding environment.

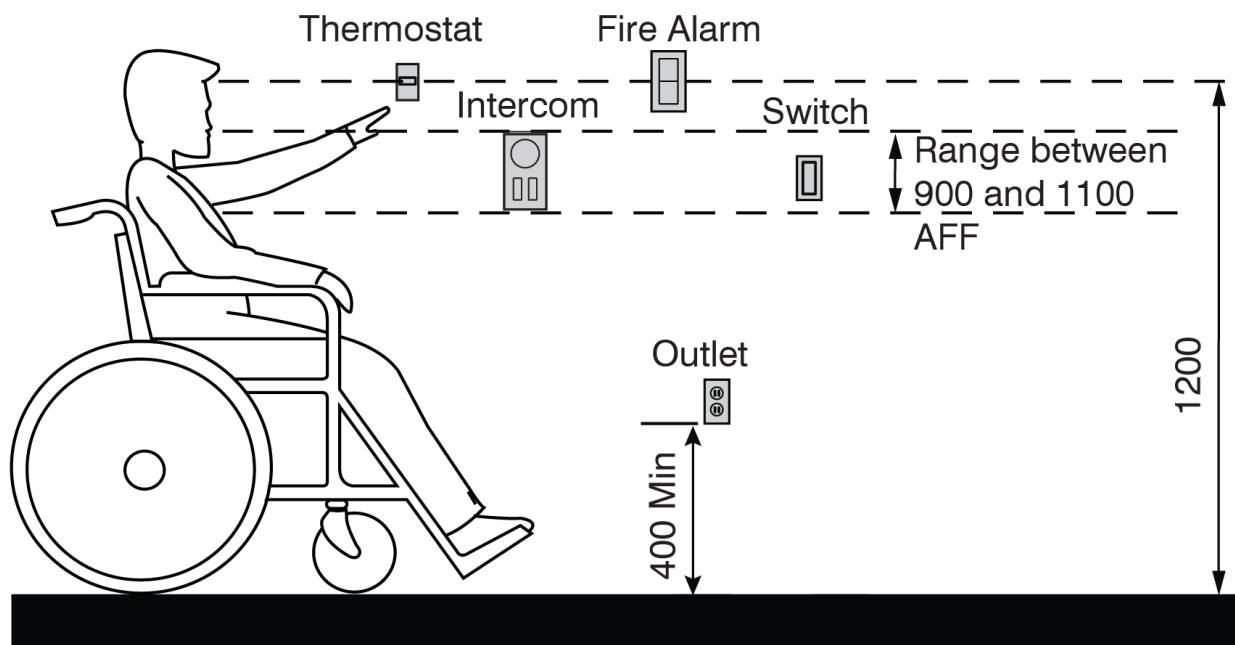
9. Operable Controls and Mechanisms

Automatic sensors at controlled access points are preferred rather than systems requiring contact, dexterity, or close physical presence to operate.

9.4 Encoded-Entry/Exit or Card-Entry Systems

Encoded or card entry/exit systems must:

- Have operable portions **900 mm** to **1100 mm** AFF,
- Have operable features such as card slots, key pads, or buttons illuminated or have min **70%** colour / tonal contrast from the mounting plate to surrounding wall, and
- Be distinctive in colour, texture, or raised graphic lettering. If numerals or letters are required, they must be tactile and raised.



[Diagram 9.A] Required Range for Mounting Heights

10. Lighting, Light Sources and Glare

Lighting levels are to be measured at floor or ground level unless otherwise required in Tables 10.3 or 10.4. Caution must be taken to avoid light pooling and shadows.

10.1 Lighting Design

1. Provide even light distribution at floor level for all occupied floor areas, including at the leading / trailing edge of stairs, ramps, and escalators.
2. Reduce pools of light and areas of shadow.
3. Fixtures must shield light sources.
4. Lighting in meeting rooms and assembly areas must be adjustable.
5. Provide lighting that will comply with light trespass by-law.
6. Exterior lighting must direct light only where needed to minimize disruption to nocturnal animals.

10.2 Reflective Glare

1. Any frosting applied to glass must not enhance the reflective properties of the glass.
2. Consideration must be given to avoid creating a reflective glare of surfaces.

10.3 Exterior Illumination Levels

[Table 10.3] identifies the required min exterior lighting levels for the specified locations. Exterior lighting must be uniform with a max to min illuminance ratio is no greater than **10 to 1**.

[Table 10.3] Required Lighting Levels – Exterior Locations

Location	Lighting Level (Lux)
General Parking Areas and Circulation Driveways	10
Main Driveway	30
Secondary Entrances, Service Doors, and Fire Exits; Accessible Paths (walkways, stairs, ramps); Accessible Parking; Accessible Path from Accessible Parking; and Passenger Drop-Off Area.	50
Main Entrance	100 below canopy or within 3 m of the door, whichever distance is greater
Exterior Signage (building sign, directional and traffic)	General area lighting + 30 measured at the sign face

10. Lighting, Light Sources and Glare

10.4 Interior Illumination Levels

[Table 10.4] identifies the min required interior lighting levels along a min **80%** of the floor area, unless otherwise indicated, for specified locations. Locations not identified in [Table 10.4] must accommodate a min lighting level as prescribed by Illuminating Engineering Society of North America (IESNA) or OBC, whichever requires the higher level of lighting.

[Table 10.4] Required Lighting Levels – Interior Locations

Location	Lighting Level (Lux)
Entrance; Elevator Lobby; Elevator Cab; and Operating Controls.	100
Areas of Refuge; Interior Paths; Ramps; Waiting / Rest Areas; Meeting Spaces; Lounges; Offices; Washrooms; Dressing Rooms; Locker Rooms; Shower Rooms; and Kitchen / Kitchenette.	200

Location	Lighting Level (Lux)
Stairs and Escalators; and Storage Rooms, Dressing Rooms, Sanitary Facility, and Service Areas serving food preparation areas.	300
Signage.	General area lighting + 30 (min 200) at the sign face
Operating Controls.	200 at the operating control where reading is required
Public Telephone.	200 at keypad, directory, and shelf
Library Stacks; and Storage Shelving.	200 at front face at the bottom of the shelves
Computer Workstations; and Study Carrels.	300 at work surface
Office Workstation.	350 at work surface
Reception, Service Counters, and Help Desks.	500 at counter surface
Kitchen / Kitchenette.	500 at counter surface



11. Signage and Information Systems

Signage must be simple, uncluttered and incorporate plain language. The use of graphic symbols is helpful for individuals with limited literacy or those who speak a different language.

11.1 Accessible Signage

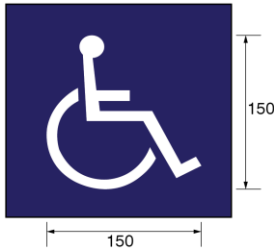
1. Signage at town facilities must meet the requirements of the "Town of Oakville Interior Sign Standard" available through the Facilities and Construction Management department.
2. Signs that provide direction to or information about functional spaces must meet the requirements in this section.
3. Temporary signs do not need to comply.

11.2 International Symbol of Access

1. Spaces or elements that require the International Symbol of Access [Diagram 11.A] are:

- a) Parking spaces, designated as reserved for individuals with disabilities,
- b) Accessible passenger-loading zones,
- c) Accessible ramps located on an accessible path serving a building entrance,
- d) Accessible entrances when not all are accessible. Entrances that are not accessible must have directional signage to indicate the path to the nearest accessible entrance,
- e) Accessible toilet (accessible washroom door and accessible stall door) and bathing facilities,
- f) Accessible change rooms and accessible change stalls,
- g) Accessible telephones,
- h) Accessible elevators and other elevating devices,
- i) Accessible service counters, and
- j) Accessible means of egress and areas of refuge.

11. Signage and Information Systems



[Diagram 11.A] International Symbol of Access

11.3 Design Requirements

- Letters and numbers on signs must
 - Be Frutiger font,
 - Have Arabic numbers,
 - Have a width-to-height ratio between **3 in 5** and **1 in 1**, and
 - Have a stroke-width-to-height ratio between **1 in 5** and **1 in 10**.
- The character height of lettering is dependent on the viewing distance of character. Refer to [Table 11.4] for information on minimum character heights based on viewing distance.

[Table 11.4] Character Height Requirements

Min character height, mm.	Max viewing distance, mm.
200	6000
150	4600
100	2500
75	2300
50	1500
25	750

11.4 Location of Room Signs

- Signs must be located with bottom edge at **1200 mm** AFF, mounted on the wall at **150 mm** from the leading vertical edge to the door frame adjacent to the latch side. Where there is no wall space on the latch side of the door, including at the double leaf doors, signs must be placed on the nearest adjacent wall.

11.5 Tactile Sign Requirements

- Permanent rooms or spaces must have permanent wall mounted signs that include tactile characters, tactile numbers and Braille.
- Where signs are required to be tactile, the text must be:
 - Raised min **0.8 mm**,
 - 16 to 50 mm** tall,
 - Smooth edged,
 - Frutiger font, and
 - Accompanied by Grade 2 Braille.

11.6 Sign Finishes

Signs must have:

- A matte or glare-free finish for characters symbols and backgrounds,
- Min **70%** colour / tonal contrast, and
- Either light characters on a dark background or dark characters on a light background.

The most visible colours on signs are white or yellow on black, charcoal, dark blue, dark green or purple. Black lettering on white is also acceptable, although less readable as white lettering on black.

11.7 Pictograms

1. Pictograms must be a min **150 mm** tall and accompanied with equivalent visual and tactile text and placed directly below the pictogram [Diagram 11.C].
2. Refer to the “Town of Oakville Interior Sign Standard” for details on pictograms.

11.8 Electronic Signage

1. Alternate formats must be provided for any type of electronic signage. For example, video display terminals must provide alternative formats, such as audio, Braille and min **16 pt** large-text print on highly contrasting background. Consideration must be given to the future use and requirements, such as wire drops of infrared and digital audible signs.
2. Touch screens and any buttons must be mounted **900 mm to 1200 mm** AFF, be clearly identifiable by colour from background, where required have tactile text and meet requirements in section [9. Operable Controls and Mechanisms].



Washroom



Family Washroom



Universal Washroom



Accessibility



Men's Washroom



Women's Washroom



Accessible Men's Washroom



Accessible Women's Washroom

[Diagram 11.C] Pictograms

12. Materials and Finishes

Appropriate selection of finishes can aid in the physical, visual, and auditory navigation of the built environment. Bright colours should be used to assist with wayfinding strategies.

12.1 Finishes

1. Tiles must be laid flush.
2. Design joints in walking surfaces must be no greater than **6 mm** wide, with variations in level not more than **3 mm**. Exterior joints must be laid to prevent the accumulation of rainwater.
3. Hard surfaces must be non-glare, firm and finished with a non-slip material.
4. Provide wayfinding through the use of colour contrast and TDI for primary paths and public spaces.
5. Carpets must be a low-level loop of **10** or **12 gauge** non-static fibre, non-zippered, and anti-microbial. Carpets must be directly glued to the subfloor.
6. Floor patterns must not be visually confusing.

12.2 Texture and Colour

Heavy or distinct patterns can cause visual confusion. Simple, repetitive, non-directional patterns that use monochromatic or low-colour contrast must be used.

12.3 Colour Contrast

1. Min **70%** colour / tonal contrast is required for signage, see section [11. Signage and Information Systems].
2. Min **70%** colour / tonal contrast must be used as a safety measure to define edges or boundaries of objects. Examples include, but is not limited to:
 - a) Jogs in walls to adjacent wall;
 - b) Floor to wall,
 - c) Door/door frame to wall, and
 - d) Furniture from surrounding surfaces.
3. End or return walls in long corridors must have visual definition at the end of the space to also identify a change in direction.

4. Black must be avoided on large surfaces as it can be interpreted as voids or holes in walls and floor surface.

12.4 Textural Cues

Textural cues on floors, as noted in section [8. Tactile Walking Surface Indicators – Attention and Direction] or a change in materials can help define the junction between spaces.

12.5 Acoustics

1. The sound transmissions of different areas can be used as an orientation cue and help to navigate a space.
2. Floor, wall, and ceiling surfaces must aid in reducing unnecessary sound levels within a space.

3. It is recommended that accessible paths in large facilities vary materials used for primary and secondary paths so they can be differentiated by feel and sound.
4. When designing spaces, consideration must be given to the acoustic requirements of the space in order to reduce echoing and sound distortion.

12.6 Wayfinding - Using Materials and Finishes

Wayfinding strategies must be considered when selecting exterior and interior finishes. Texture, colour, and acoustics are elements that can aid in wayfinding.

Hard surfaces such as marble or terrazzo amplify sounds, such as footsteps, and add another level of confusion for persons who are hearing or visually impaired.

Interior Elements and Amenities



13. Entrances

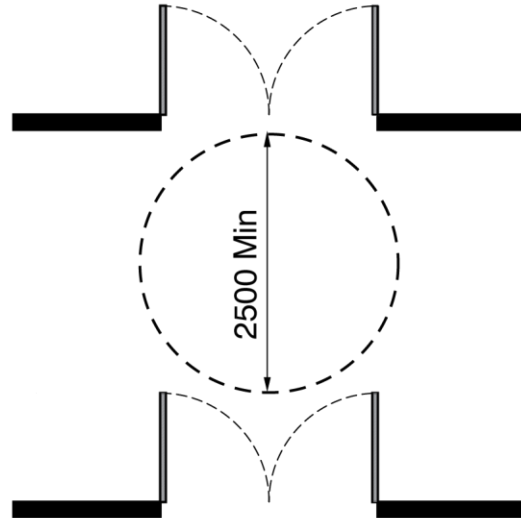
An entrance is any access point into a building or facility used for the purposes of entering.

13.1 Entrance Requirements

1. **100%** of entrances for buildings must be accessible.
2. The main entrance must be located as close as possible to accessible parking and to passenger loading zones.

13.2 Vestibules

Entry vestibules must have a min **2500 mm** clear turning circle plus the width of the door swing [Diagram 13.A].



[Diagram 13.A] Vestibules

13.3 Ground Floor Entrances

At least **1 in 2 (50%)** but not less than one accessible entrance must be provided to every space or suite located on the ground floor.

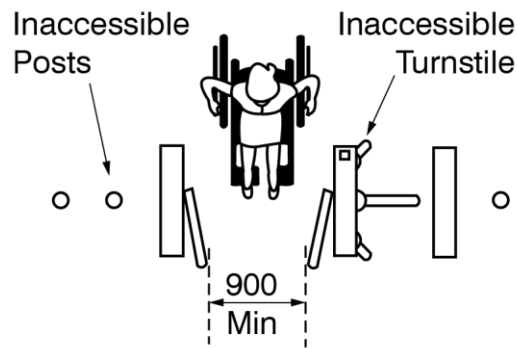
13.4 Gates

Gates must have a min clear width of **900 mm** [Diagram 13.B].

13.5 Controlled Entrances

Turnstiles, mullions, revolving doors, or other barriers used to control access must have an adjacent accessible gate or door. The clear width for the adjacent accessible gate or door must be min **900 mm** [Diagram 13.B].

13. Entrances



[Diagram 13.B] Accessible Gates

13.6 Other Access Points

1. Provide an interior accessible path to entrances and exits within a building and an exterior accessible path leading away from the exits at grade. The exterior path must meet the requirements in section [38. Exterior Paths] and must lead to a public thoroughfare.
2. Where access is provided for pedestrians from a pedestrian tunnel, walkway or pedestrian bridge, at least one entrance to the facility from each tunnel, walkway, or bridge must be accessible.
3. Loading docks are not considered an entrance and are not required to be accessible.
4. If the only entrance to a facility or tenancy is a service entrance, that entrance must be accessible.
5. Accessible paths must be provided from transit stops, parking lots, or pedestrian paths to all accessible entrances of a building.

13.7 Signage

1. Signage must:
 - a) Have directions indicating the nearest accessible entrance where building entrances and exits are not accessible, and
 - b) Comply with section [11. Signage and Information Systems].



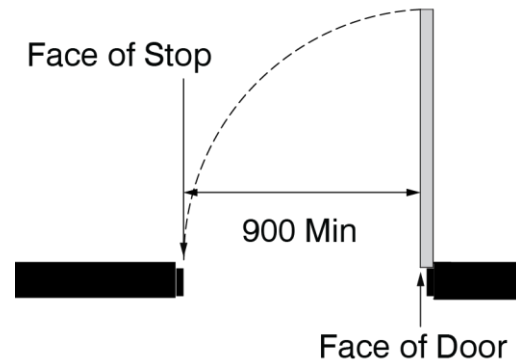
14. Doors

Revolving doors are not considered an accessible means of entry into a building.

14.1 Door Specifications

1. All doors in a building must:
 - a) Have a min **900 mm** clear width [Diagram 14.A], and
 - b) Have min **70%** colour / tonal contrast to differentiate the door frame from the adjacent wall. The door and the door frame can be the same colour. If there is no closer provided on the door, the edge of the door must have min **70%** colour / tonal contrast from the door face.
2. Doors not requiring full user passage, such as shallow closets, must have a min **510 mm** clear width and meet all space and reach requirements.

3. Where panic hardware is provided on a door, the clear width must be measured from the face of the panic hardware to the face of the door stop.



[Diagram 14.A] Clear Door Width

14.2 Maximum Opening Force of Doors

1. Max opening force of **38N** for exterior doors.
2. Max opening force of **22N** for interior doors and sliding doors.

14.3 Latch Side Clearances

1. Sliding doors must have **300 mm** latch side clearances on both sides of the door.
2. Swing doors must have latch side clearances meeting the requirements in [Table 14.3] [Diagram 14.D].

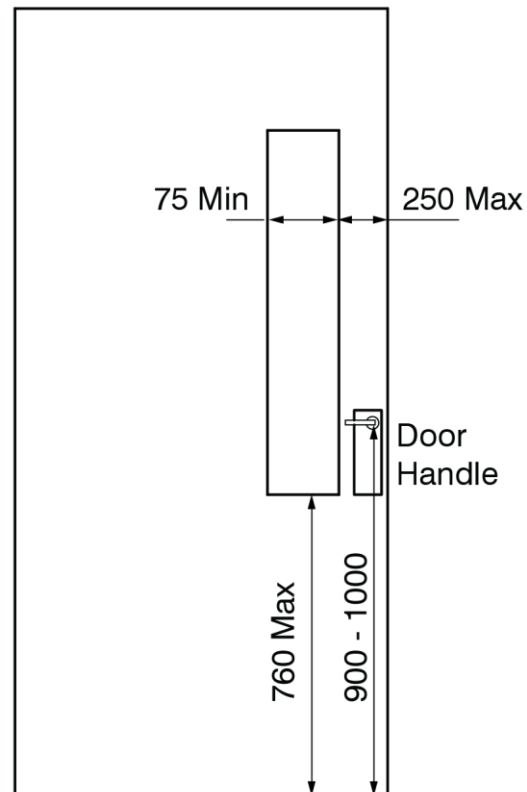
[Table 14.3] Latch Side Clearances

	Min Latch Side Clearances	Min Manoeuvring Space at Doors
Push Side	300 mm	1300 x 1300 mm
Pull Side	600 mm	1600 x 1600 mm

14. Doors

14.4 Vision Panels in Doors

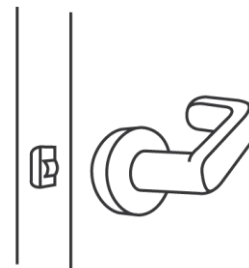
1. Vision panels must:
 - a) Be min **75 mm** wide,
 - b) Have the bottom edge of the panel max **760 mm** AFF,
 - c) Have the side edge of the panel max 250 mm from latch side [Diagram 14.B], and
 - d) Where part of a wall assembly requiring fire resistance (e.g., Area of Refuge), comply with the requirements in the latest edition of OBC for fire resistance.



[Diagram 14.B] Vision Panel in Doors

14.5 Door Hardware

1. Door hardware must:
 - a) Be operable by a closed fist [Diagram 14.C],
 - b) Not require fine finger control, tight grasping, pinching, or twisting of the wrist, such as lever hardware, and
 - c) Be mounted **900 mm** to **1000 mm** AFF.
2. Min **70%** colour / tonal contrast must be used to differentiate the door operating mechanism from the door itself.



Lever type hardware is acceptable

[Diagram 14.C] Door Hardware

14.6 Guards for Doors

1. Where doors swing into a path of travel, a cane detectable guardrail or other warning barrier must be located at right angles to the wall containing the door, extending **300 mm** beyond the full length of the door [Diagram 14.E].

2. Door guards shall have a height of **865 mm** to **965 mm** AFF with a portion of the guard located at max **680 mm** AFF for cane detection.

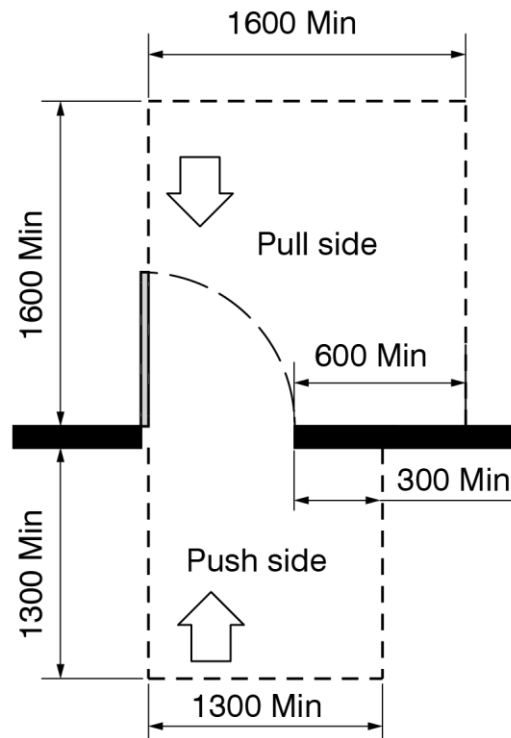
14.7 Door Closers

Closing period for a door must not be less than **3 seconds**, measured when the door is in an open position of **70 degrees** to the doorway to when the door reaches a point **75 mm** from the closed position.

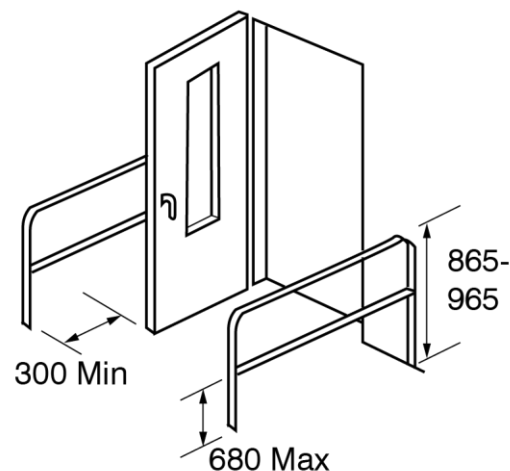
14.8 Glass Doors & Vision Strips

1. When frameless glass doors are provided, a min **70%** colour / tonal contrast strip is required on the full height of the outer edge of the door.

2. Vision strips are required on glass doors and must meet the criteria in subsection [16.1. Vision Strips].



[Diagram 14.D] Latch Side Clearances and Manoeuvring Space

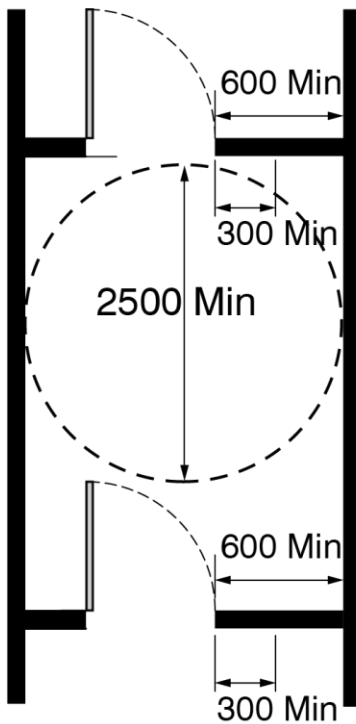


[Diagram 14.E] Guards for Doors

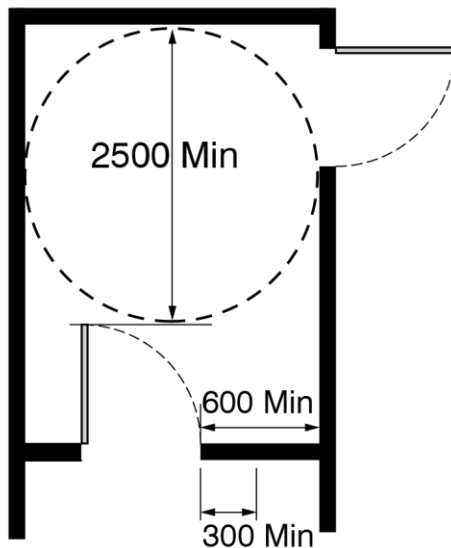
14. Doors

14.9 Doors in Series

Where there are two doors in series, they must be designed to accommodate a clear floor space at least **2500 mm** [Diagrams 14. F and G].



[Diagram 14.F] Doors in Series, Straight Run



[Diagram 14.G] Doors in Series, 90 degree turn



15. Power Door Operators

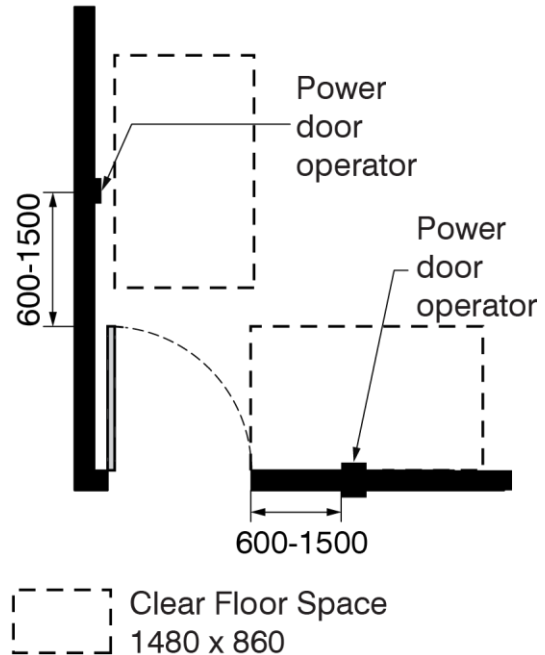
Power door operators increase the level of accessibility of an entire building, enabling all to enter.

15.1 Types

1. There are two types of power door operators:
 - a) An elongated single activation device (push panel) min **150 mm** x **750 mm** [Diagram 15.B], and
 - b) A circular device (push button) min **150 mm** in diameter [Diagram 15.C].
2. In high traffic areas provide automatic sliding doors.

15.2 Required Locations

1. Power door operators must be installed at:
 - a) All accessible entrances,
 - b) Interior doors along accessible paths, except for doors with an electromagnetic hold-open device,
 - c) Doors entering into accessible washrooms and change rooms,
 - d) Doors entering into all public meeting rooms,
 - e) **10%** of staff utilized meeting rooms, and
 - f) Doors entering into publicly accessed reception areas.



[Diagram 15.A] Locations of Power Door Operators and Required Clear Floor Space

15. Power Door Operators

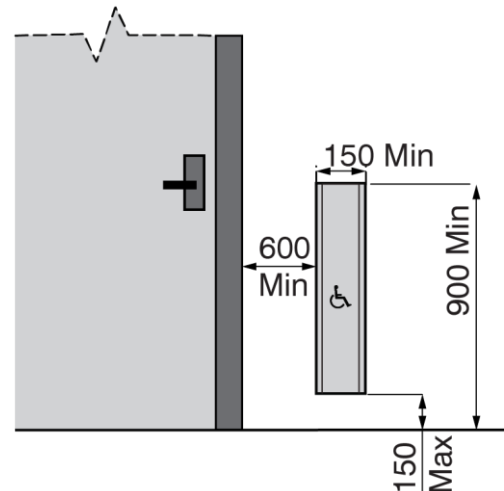
15.3 Placement

- Power door operators must be:
 - Clearly visible on the push and pull side of the door,
 - Located on the latch side of the door,
 - Located min **600 mm** from any inside corner or door [Diagram 15.A], and
 - Located max **1500 mm** beyond the door swing [Diagram 15.A].
- If an elongated power door operator panel is installed, it must be located with the bottom edge max **150 mm** AFF and the top edge min **900 mm** AFF [Diagram 15.B].
- If a circular power door operator is installed it must be located between **900 mm** to **1100 mm** AFF [Diagram 15.C].

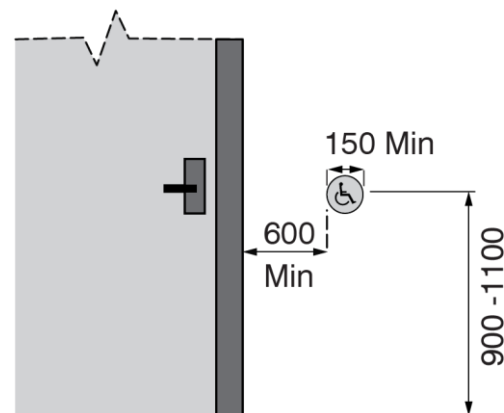
15.4 Additional Design Requirements

- A clear floor space of **860 mm x 1480 mm** must be maintained in front and centred on the power door operator [Diagram 15.A]. Refer to [Diagram 14.D] for latch side clearance and maneuvering space and [Diagram 14.E] for doors opening into an accessible path.
- The power door operator (button or panel) must incorporate the International Symbol of Access.
- Each power door operator must have min **70%** colour / tonal contrast from its surroundings.

- It must take the power door operator a max of **3 seconds** to move from the closed position to a fully open position.
- A max force of **66N** is required to stop door movement.
- Where door operators are activated by proximity scanning sensors or pressure mats, they must be capable of detecting individuals using mobility devices.
- Wireless power door operator must be used for window mullions. Batteries must be replaced annually or as required.



[Diagram 15.B] Elongated Power Door Operator (push panel)



[Diagram 15.C] Circular Power Door Operator (push button)

16. Windows and Glazing

Design consideration for windows and glazing allows for viewing by all building occupants.

16.1 Vision Strips

1. Where glazing starts below **680 mm** AFF, windows, glazed screens or vision panels must be marked with vision strips that has min **70%** colour / tonal contrast with the surrounding environment [Diagram 16.A].

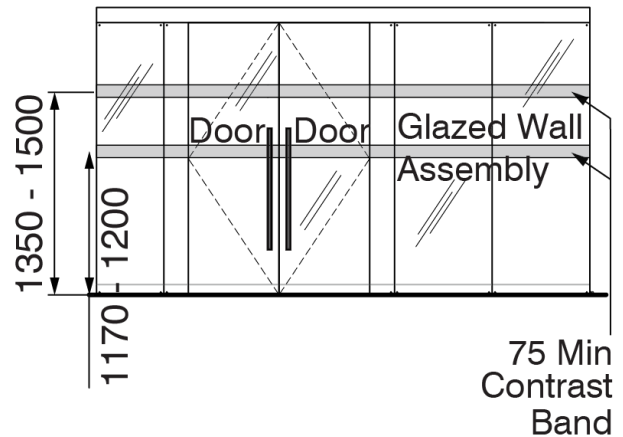
2. Vision strips must:

- a) Be located at **1350 mm** to **1500 mm** and at **1170 mm** to **1200 mm** AFF,
- b) Span across the full length of the glazed area,
- c) Be min **75 mm** wide,
- d) Be primarily solid, and
- e) Have min **70%** colour / tonal contrast.

16.2 Sill Height

Windows must:

- a) Have bottom sill edge max **680 mm** AFF, and
- b) Not have horizontal transoms located between **1060 mm** to **1220 mm** AFF.



[Diagram 16.A] Vision Strips

16.3 Glazed Vision Panels

Where provided, full height glazed vision panels must meet criteria in subsection [14.4. Vision Panels in Doors].

16.4 Operable Windows

1. Operable windows must:

- a) Have opening hardware mounted **400 mm** to **1200 mm** AFF, and
- b) Be operable using one hand.

2. It is recommended to provide hardware that does not require fine finger control, tight grasping, pinching, or twisting of the wrist.

17. Passenger Elevators and Escalators



17. Passenger Elevators and Escalators

Passenger lifts are not considered accessible, as they generally cannot be operated independently.

17.1 Elevator Design

This section is adopted from the CSA B651-18 Annex E and includes only some of the requirements within the CSA standard. For a complete understanding of all requirements for the design of passenger elevators refer to the CSA Standard, the latest edition of the OBC and Technical Standards & Safety Authority.

17.2 Elevator Doors

Elevators doors must:

- a) Have a min **915 mm** clear width [Diagram 17.A],
- b) Slide horizontally only,
- c) Have a matte finish to reduce glare,
- d) Be capable of operating independently, and
- e) Open and close automatically.

17.3 Door Reopening Device/Sensor

1. The elevator car door must automatically open if an object or a person obstructs the door.
2. Physical contact with an obstruction is not required for the doors to reopen automatically.
3. Reopening devices located **125 mm ± 25 mm** to **735 mm ± 25 mm** AFF.
4. If door closes it must reopen automatically if an object or person is still in the doorway.

17.4 Door and Signal Timing

Door and signal timing must be:

- a) Min **5 seconds** hall call notification time, and
- b) Min **10 seconds** for elevator doors to remain open.

17.5 Elevator Cab Design

1. Cabs must be min **2030 mm x 1295 mm** cab size with a centre door or **1725 mm x 1295 mm** cab size with an off-centre door.
2. Handrails must be on the cab interior wall except where the elevator door is located, and meet requirements in section [7. Handrails].
3. Mirrors must be provided on the wall opposite the door, angled downwards at the top of the cab. Mirrors must not be used elsewhere within the elevator cab.
4. The cab interior must have a glare free finish.
5. Floor surface must be firm, level, and slip resistant.

17.6 Colour Contrast in Elevator Cabs

1. Min **70%** colour / tonal contrast must be provided:
 - a) Between control buttons and control panel,
 - b) Between floor surface and elevator car walls, and
 - c) Between elevator lobby floor and car walls and floor.

17.7 Manoeuvring Space in Elevator Lobbies

1. Provide a min clear floor space of **2500 mm x 2500 mm** in front of elevator doors.
2. Elevator lobbies must be connected to an accessible path.

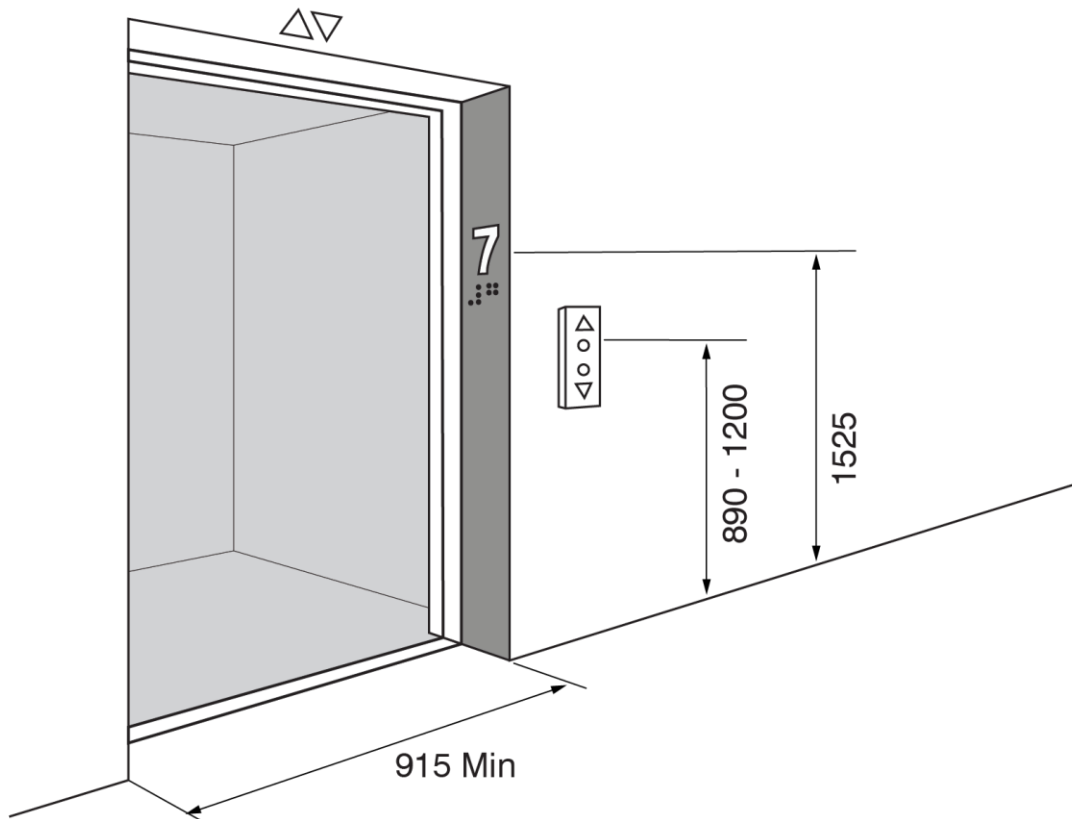
17.8 Elevator Signage

1. Elevator signage must be:
 - a) Placed on door jamb **1525 mm** above floor to the centre of number [Diagram 17.A],
 - b) Min **50 mm** high, and
 - c) Repeated in Braille [Diagram 17.B].
2. The main floor level must be indicated by a raised "star" symbol [Diagram 17.B].

17.9 Visual & Audible Signals

1. Audible and visual signals must be provided in the elevator cab interior and every elevator lobby and must:
 - a) Indicate which elevator car is answering the call,
 - b) Indicate the direction of travel,
 - c) Be visible within the elevator lobby,
 - d) Be located above the elevator door in the elevator lobby, and
 - e) Have voice annunciation [Diagram 17.B].
2. Audible signals must be a min **10%** above the ambient noise level to max **80dBA**.

17. Passenger Elevators and Escalators



[Diagram 17.A] Elevator Cab and Elevator Lobby

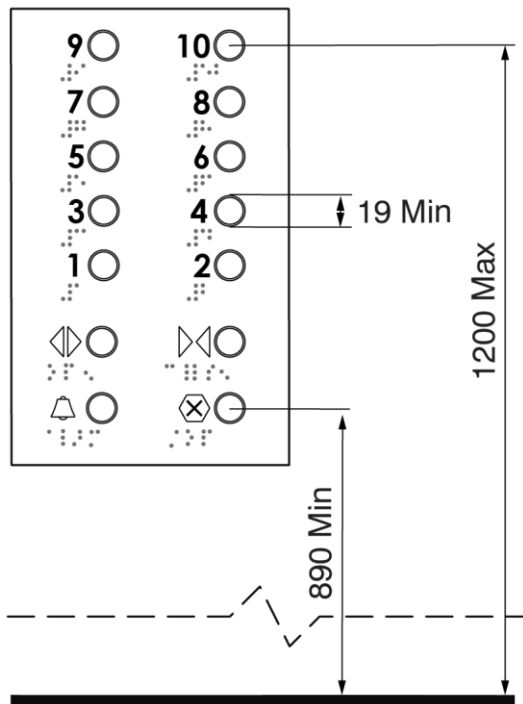
17.10 Elevator Operation and Levelling

Elevator operation and level must be automatic. The elevator cab must be equipped with an automatic self-levelling device to maintain a max floor level difference of **13 mm**.

17.11 Elevator Car Control Buttons

1. Elevator car control buttons must:

- a) Have numbers arranged in ascending order from left to right on panel,
- b) Be located **890 mm** to **1200 mm** AFF, [Diagram 17.B]
- c) Be min **19 mm** in diameter,
- d) Have a raised collar surrounding button min **1.5 mm**,
- e) Have raised tactile characters,
- f) Have Braille located immediately adjacent to which they apply,
- g) Have an alarm button located at the bottom of the panel, directly connected to monitor system,
- h) Have operable portions of card access readers located **900 mm** to **1100 mm** AFF,
- i) Have visible signals that show when a call has been registered, and
- j) Provide hands free emergency signaling and communications.



[Diagram 17.B] Elevator Car Control Buttons

In addition to escalators, consideration must be given to install elevators or ramps to floor levels as persons utilizing mobility devices, or persons pushing children in strollers may not be able to navigate an escalator.

17.12 Escalator Requirements

1. Escalators are not considered accessible; therefore, where escalators are used, an alternative accessible path of travel must be provided.
2. The path of travel must be conveniently located adjacent or near the escalator and signage must clearly identify access to the accessible path.

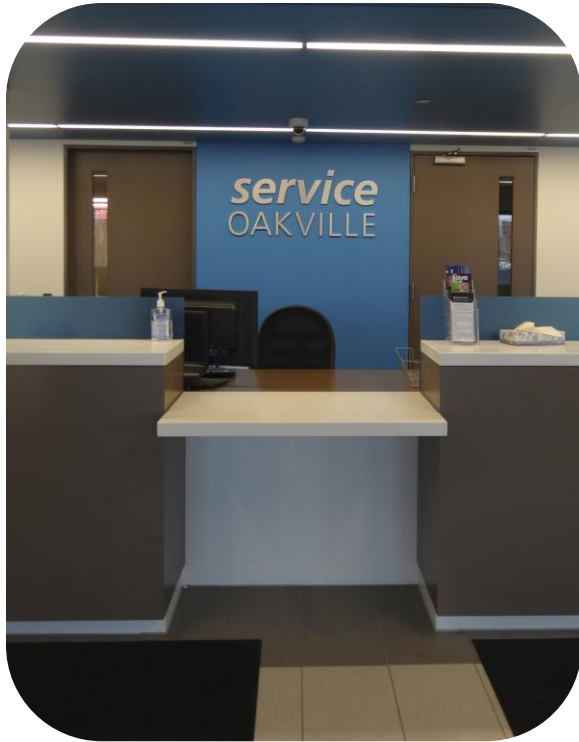
17.13 Escalator Contrast and Finish

1. Tread edges, nosing and handrails must have min **70%** colour / tonal contrast from their surrounding environment.
2. Matte finish must be used to minimize reflected glare.

17.14 Tactile Attention Indicators (TAI) Location

Escalator landings must have TAI at the top and bottom of the escalator and must meet the requirements in section [8. Tactile Walking Surface Indicators – Attention and Direction].

18. Service Counters and Related Areas



18. Service Counters and Related Areas

Tables, counters, and work surfaces must accommodate the needs of a range of users for both employees and the public.

18.1 Service Counters

1. At least **10%**, but not less than one, of every type of service counter must be accessible and must:
 - a) Be clearly identified with tactile signage including Braille and the International Symbol of Access,
 - b) Be located on an accessible path, and

- c) Have a min **860 mm x 1480 mm** clear floor space where a max of **500 mm** can be below counter if front approach is required [Diagram 18.B and C].

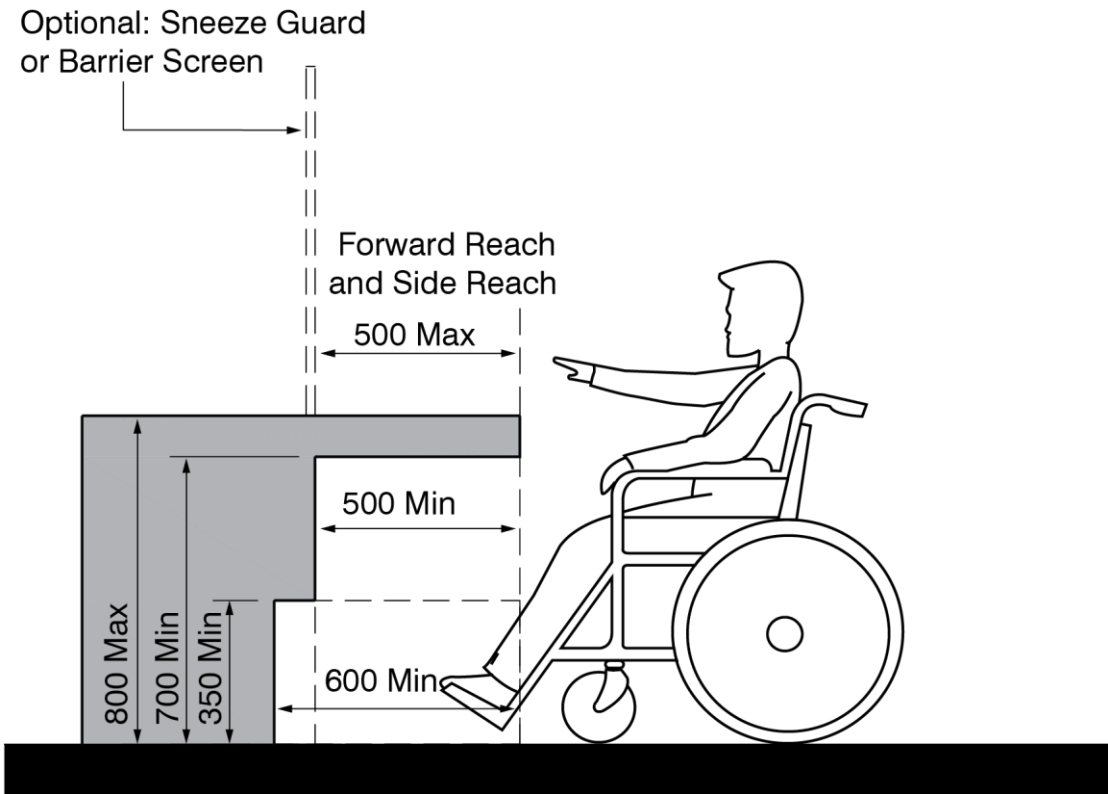
18.2 Accessible Service Counter Dimensions

1. Accessible service counters must:
 - a) Have a max **800 mm** height to the counter surface [Diagram 18.A],
 - b) Have a knee space that is **700 mm** tall x **900 mm** wide x **500 mm** deep, and
 - c) Have a toe space that is **350 mm** tall at a min **600 mm** from the front edge of the desk for toe clearance.
2. Ensure any design features available are designed in accordance with section [1. Space and Reach Requirements].

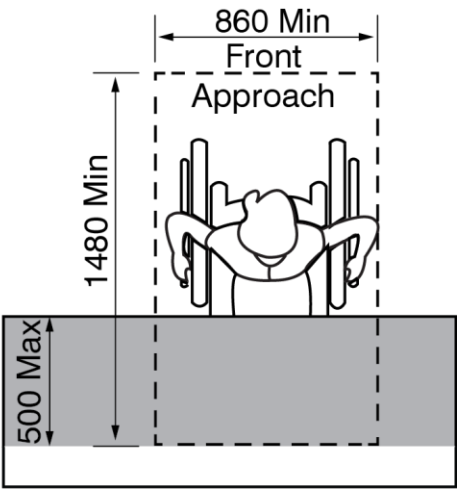
18.3 Assistive Listening System

Consideration must be given to providing an audio induction loop assistive listening system. When an assistive listening system is provided, it must be identified with signage incorporating the International Symbol of Access for Hearing Loss with the addition of text/symbol indicating the type of service provided. Signage must comply with section [11. Signage and Information Systems].

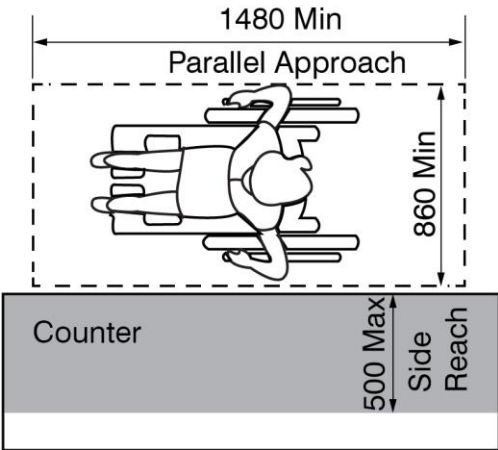
Service Counters and Related Areas 18.



[Diagram 18.A] Clear Floor Space at Service Counters



[Diagram 18.B] Clear Floor Space at Service Counters (Front Approach)



[Diagram 18.C] Clear Floor Space and Reach Range at Service Counters (Side Approach)

18. Service Counters and Related Areas

18.4 Sneeze Guards and Barrier Screens

1. Where sneeze guards or barrier screens are provided, they must:
 - a) Have lighting that optimizes visual communication, lipreading and/or speechreading,
 - b) Have lighting that minimizes reflection on glazed component,
 - c) Allow lines of sight from a sitting or standing position,
 - d) Have lowered speaking ports if any speaking port is provided. The lowered speaking port must have the open portion between **1000 mm** to **1050 mm** AFF. A second speaking port at **1400 mm** AFF should be provided for standing use, and
 - e) Consider provision of a microphone to amplify low vocal volume where surrounding acoustics can mask the interaction.

18.5 Waiting Areas

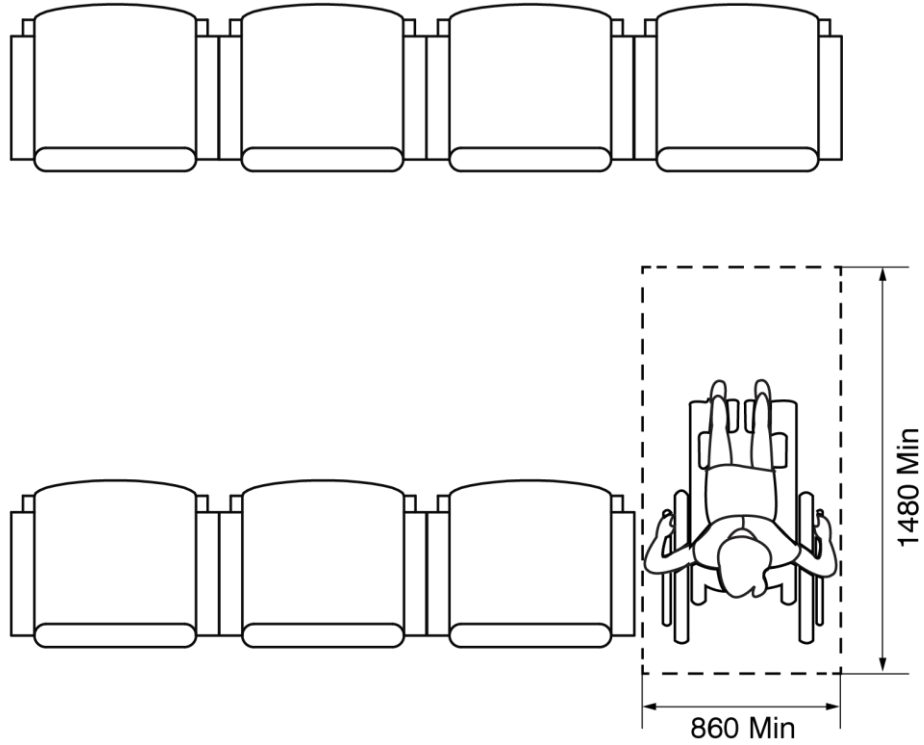
1. At least **10%** of waiting area spaces must accommodate a person using a mobility device.
2. Accessible waiting areas must be located on an accessible path, with a min **860 mm x 1480 mm** clear floor space, located outside the path of travel and integrated into the seating [Diagram 18.D].

18.6 Queuing Guides

1. A clear width min **1100 mm** must be provided between fixed queuing guides such as ropes, bars, or solid barriers. Guides must be laid out in parallel lines [Diagram 18.E].
2. Queuing guides must have min **70%** colour / tonal contrast to surroundings.
3. Directional indicating TWSI meeting the requirements of section [8. Tactile Walking Surface Indicators – Attention and Direction] are required if queuing guides are permanent.
4. Provide a clear floor space of **2500 mm** x **2500 mm** at points where there is a change in direction [Diagram 18.E].
5. Visual and auditory signals must be provided at service counters to indicate when service is available and at what location.

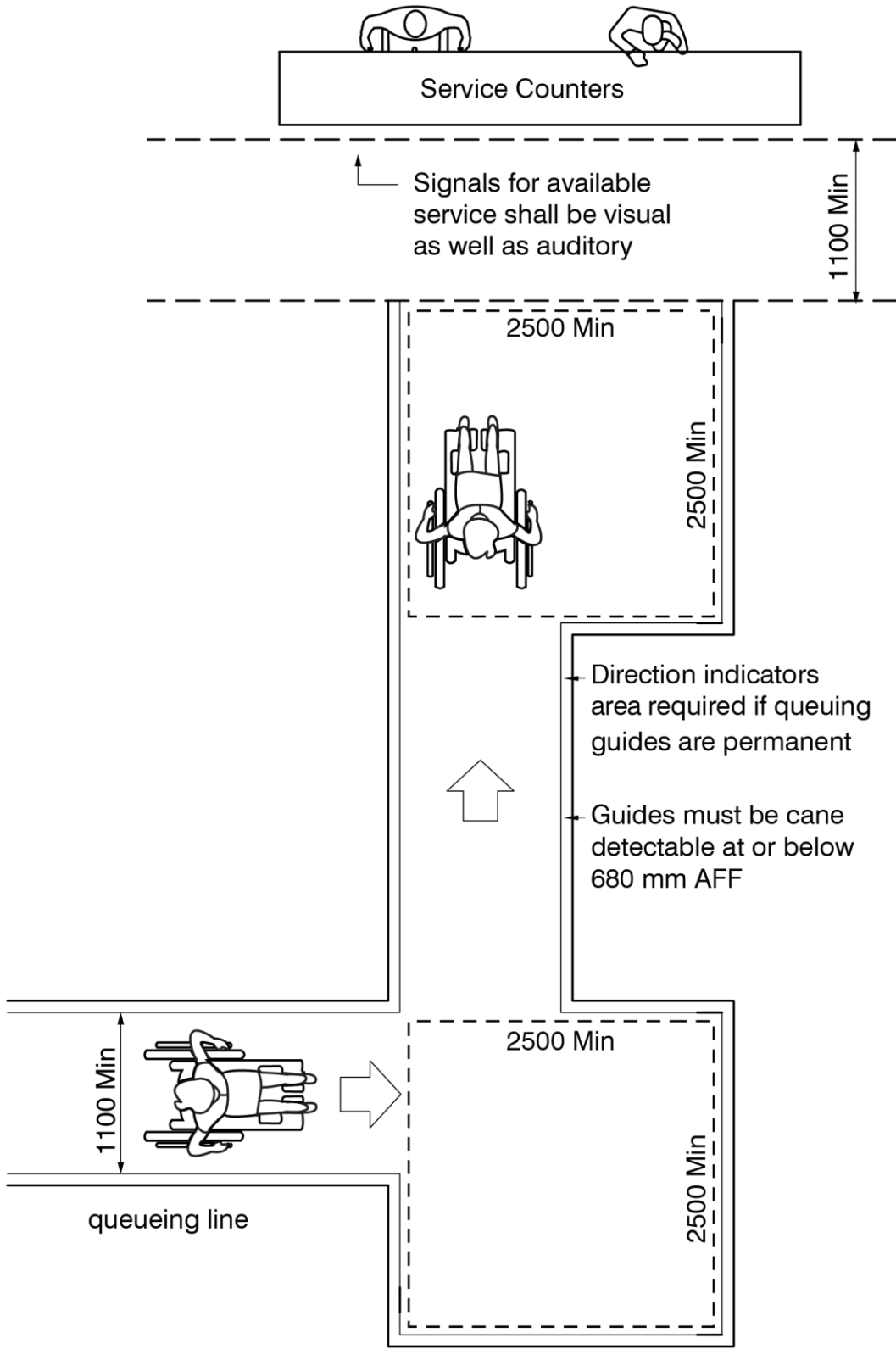
Service Counters and Related Areas 18.

Waiting Area



[Diagrams 18.D] Rear Access Waiting Area

18. Service Counters and Related Areas



[Diagrams 18.E] Clear Floor Space at Queuing Guides

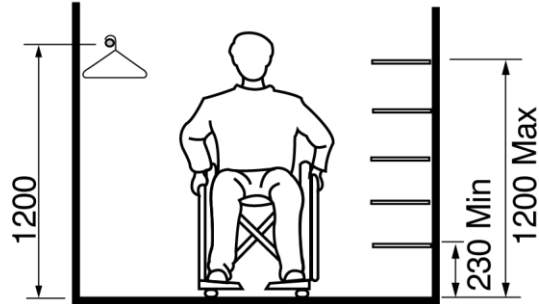
19. Millwork, Storage and Shelving

If fixed or built-in storage units such as cabinets, closets, shelves and drawers, are provided in *accessible spaces*, at least one of each type provided must be *accessible*.

19.1 Accessible Storage, Shelving and Display Units Design Requirement

1. Accessible storage, shelving, and display units must meet the following:

- a) **860 mm x 1480 mm** clear floor space for forward or parallel approach,
- b) Max **1200 mm** AFF for collapsible hooks or closet rods [Diagram 19.A],
- c) **230 to 1200 mm** AFF for shelves [Diagram 19.A], and
- d) Touch latches or u-shaped pulls must be used. Any hardware used must meet criteria in section [9. Operable Controls and Mechanisms].



[Diagram 19.A] Accessible Storage and Shelving

20. Multi-Stall Washrooms

20. Multi-Stall Washrooms

Accessible multi-stall washrooms and accessible universal washrooms are required on each floor.

20.1 Amount of Accessible Water Closet Stalls

1. The number of accessible water closet stalls is required to comply with [Table 20.1].

[Table 20.1] Number of Accessible Water Closets Required

Number of Water Closet Stalls	Number of Accessible Water Closet Stalls Required
1-9	1
10-16	2
17-20	3
21-30	4
Greater than 30	5 + 1 for every additional 10 water closet stalls

20.2 Accessible Water Closet Stall Door

1. Stall doors for accessible water closet stalls must:

- Be min **900 mm** in clear width [Diagram 20.B],

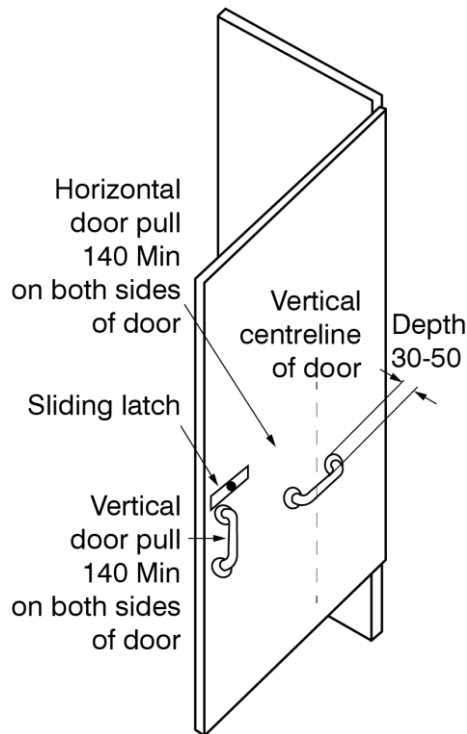
- Identified with the International Symbol of Access,
- Swing outward,
- Have **300 mm** latch side clearance on push side and **600 mm** latch side clearance on pull side, and
- Be equipped with gravity and lift off hinges.

2. All stall doors (including accessible and non-accessible water closet stalls) must have min **70%** colour / tonal contrast from the stall partitions.

20.3 Accessible Stall Door Hardware

1. Accessible stall door hardware must:

- Have "D type" door pulls
- Be min **140 mm** long and have a depth between **30 mm** to **50 mm**,
- Have door pull mounted on both sides vertically with the centreline **120 mm** to **220 mm** from the latch,
- Have door pull mounted on both sides horizontally with the centreline on the vertical centre of the door,
- Be mounted **900 mm** to **1000 mm** AFF, and
- Have locks operable with a closed fist hand and not require fine finger control, tight grasping, pinching, or twisting of the wrist [Diagram 20.A].



[Diagram 20.A] Accessible Water Closet Stall Door

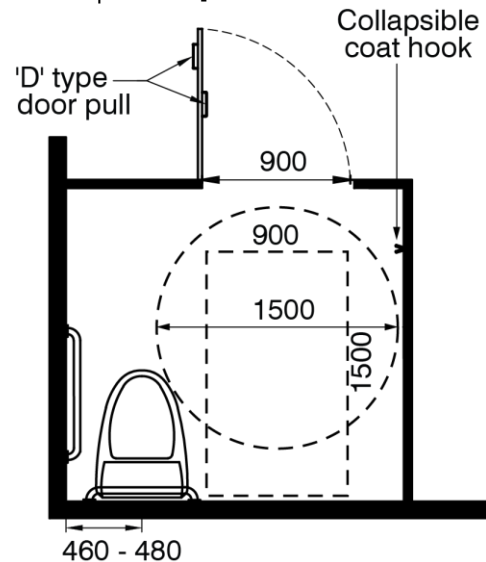
2. Collapsible coat hooks must be provided, projecting a max **50 mm** outward, with a height between **900 mm** and **1200 mm** AFF.

20.4 Accessible Water Closet Stall

Where required, the accessible water closet stall must:

- Have min **1500 mm** turning circle [Diagram 20.B]. In a change area where a universal change room is not provided, have min **2500 mm** turning circle,
- Have min **900 mm x 1500 mm** clear transfer space on one side of the water closet and be unobstructed by accessories (e.g., shelves, sanitary napkin disposal, etc.) [Diagram 20.B],

- Have a water closet conforming to subsection [20.6. Accessible Water Closets], and
- Have grab bars and toilet paper dispensers conforming to section [21. Grab Bars and Toilet Paper Dispensers].



[Diagram 20.B] Accessible Water Closet Stall

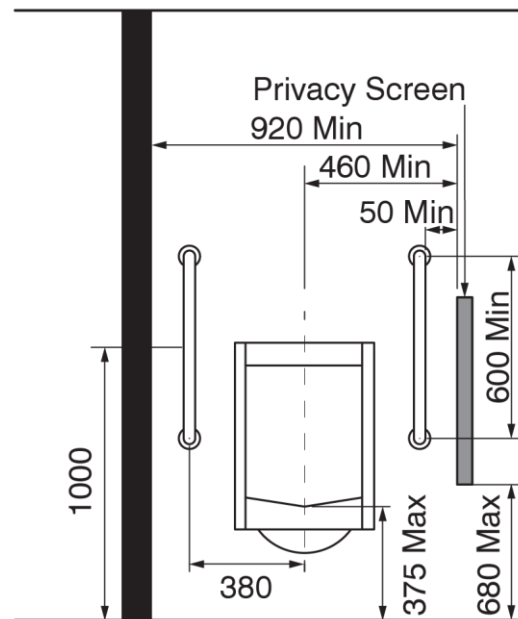
20.5 Accessible Urinals

Provide at least one accessible urinal where urinals are provided. Accessible urinals must:

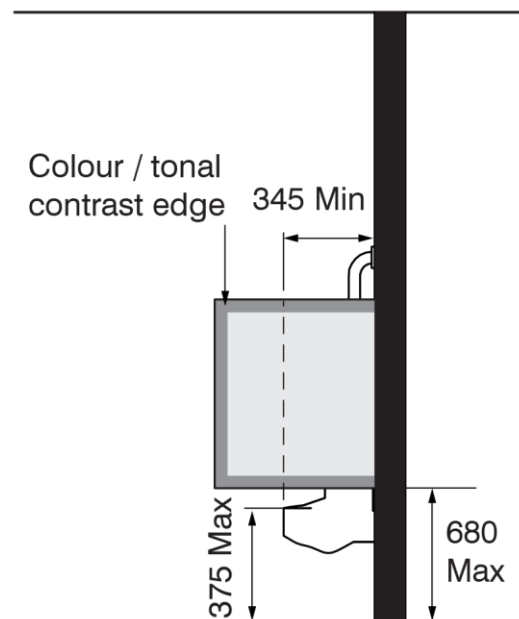
- Have a **860 mm x 1480 mm** clear floor space, without any steps, in front of and centred on the accessible urinal [Diagram 20.C],
- Have min **920 mm** clearance between privacy screens or walls,
- Be max **375 mm** AFF to the urinal rim or located on the floor [Diagram 20.C],
- Have min **345 mm** depth [Diagram 20.D],

20. Multi-Stall Washrooms

- e) Have automatic flush controls, mounted **900 mm – 1100 mm** AFF,
- f) Privacy screens must be min **460 mm** from the centre line of the urinal, min **50 mm** from the leading edge of the grab bar and have a min **70%** colour / tonal contrast edge [Diagram 20.C], and
- g) Have grab bars meeting criteria in subsection [21.4. Urinal Grab Bars] [Diagram 20.C].



[Diagram 20.C] Accessible Urinal Front Elevation



[Diagram 20.D] Accessible Urinal Side Elevation



Measure the width of the clear transfer space from the edge of the water closet bowl or tank (whichever protrudes further) to adjacent obstruction.

20.6 Accessible Water Closets

1. The accessible water closet must be **460 mm** to **480 mm** from the centreline of the water closet to the adjacent wall [Diagram 20.B].
2. The seat of an accessible water closet must be located **430 mm** to **460 mm** AFF, must be securely mounted and not spring activated [Diagram 20.E].
3. Where a seat cover or tank style water closet is not provided, a back support must be installed.

4. Flush controls must be automatic or operated with a push button or lever. Automatic sensors must be located such that when the seat cover is open, it will not block the sensor. Operable flush controls must be located on the transfer side and operable using a closed fist with minimal effort and max force of **22N**.

20.7 Multi-Stall Washroom

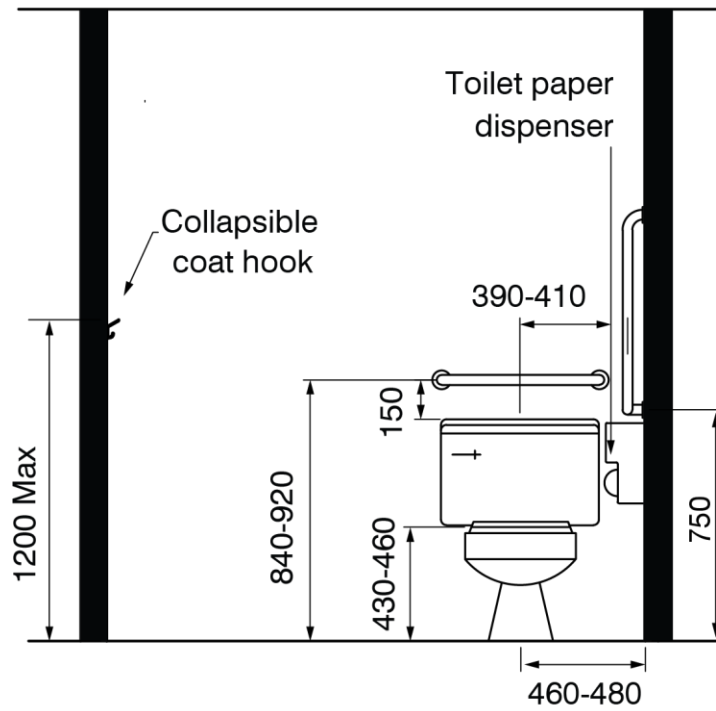
Accessible multi-stall washrooms must:

- a) Incorporate a clear floor space of **1800 mm x 1800 mm** [Diagram 20.G],
- b) Have min **1700 mm** clearance between the outside face of an accessible stall to the inside face of an in-swinging entrance door,
- c) Have min **1400 mm** clearance between the outside face of an accessible stall and any wall-mounted fixture or obstruction, and
- d) Have min **1500 mm x 1500 mm** clear floor space in front of the accessible water closet stall [Diagram 20.G].

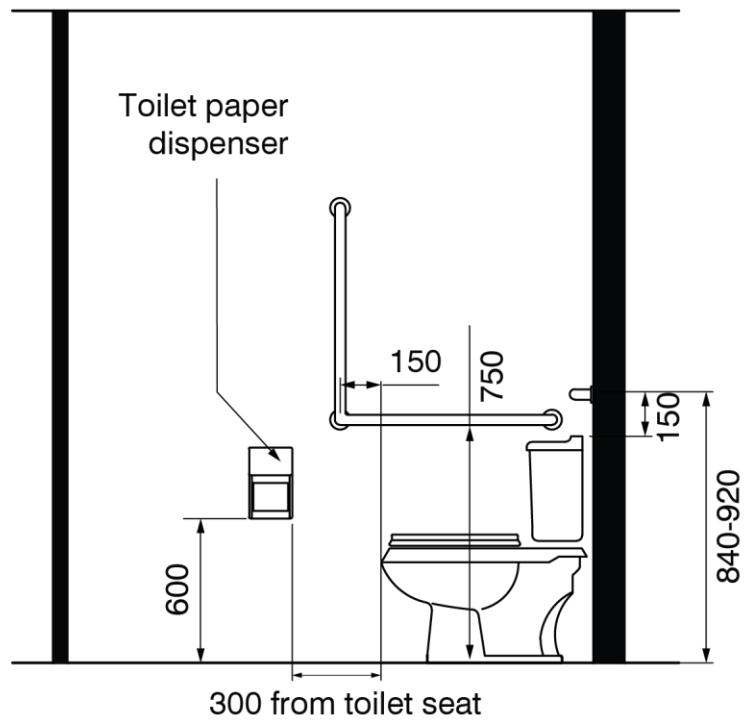
20.8 Signage

Where accessible water closets are not provided in a gender specific washroom and the universal washroom is not visible from the entrance to the common or multi-stall washroom, directional signage must be provided and meet requirements in section [11. Signage and Information Systems].

20. Multi-Stall Washrooms

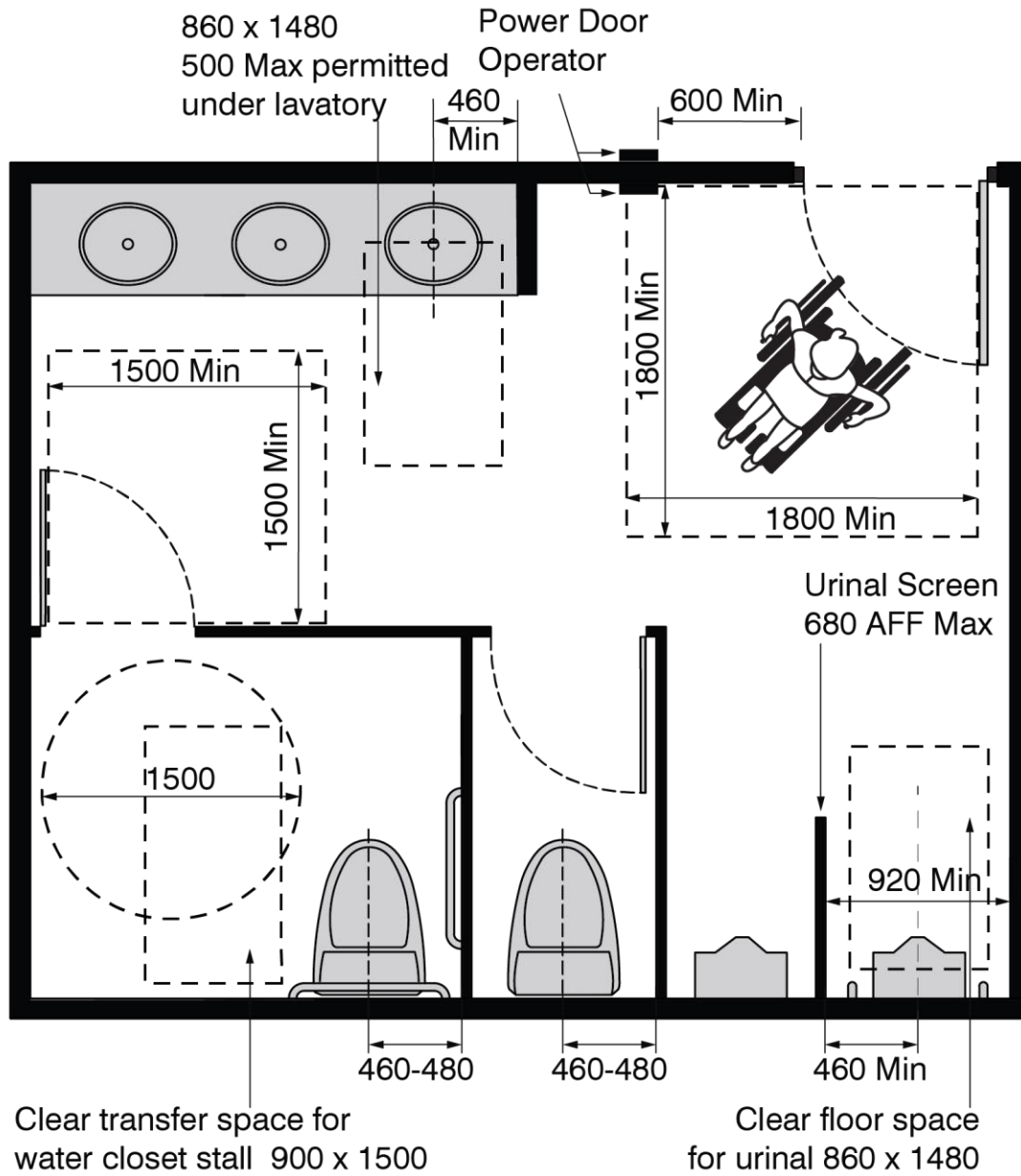


[Diagram 20.E] Accessible Water Closet and Grab Bars Front Elevation



[Diagram 20.F] Accessible Water Closet and Grab Bar Side Elevation

Multi-Stall Washrooms 20.



[Diagram 20.G] Washroom Dimensions

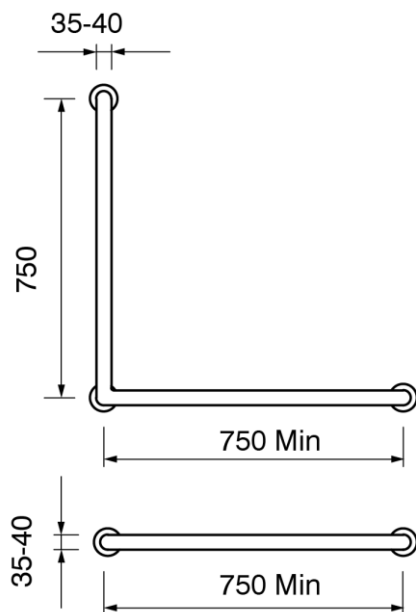
21. Grab Bars and Toilet Paper Dispensers

21. Grab Bars and Toilet Paper Dispensers

Every *accessible* water closet and *accessible* urinal must have grab bars, which must be securely attached to the wall to support the weight of a person.

21.1 Grab Bar Dimensions

1. Grab bars must have:
 - a) A diameter between **35 mm** and **40 mm** [Diagram 21.A],
 - b) A **50 mm** clearance between the grab bar and the wall,
 - c) No sharp or abrasive elements, and
 - d) A slip-resistant surface.



[Diagram 21.A] Grab Bar Dimensions

21.2 Water Closet Grab Bars

1. Two grab bars are required to be mounted adjacent to an accessible water closet. They are as follows:
 - a) One **750 mm** long grab bar mounted behind toilet, between **840 mm** and **920 mm** AFF. Where a water tank is provided, mounted **150 mm** above the tank [Diagram 20.E and 21.A], and
 - b) One **750 mm** by **750 mm** L-shaped grab bar on the wall beside the water closet, with the horizontal component mounted **750 mm** AFF, and the vertical component located **150 mm** from edge of water closet [Diagram 20.F and 21.A].

21.3 Toilet Paper Dispenser

1. The toilet paper dispenser must
 - a) Be located below the grab bar,
 - b) Be **300 mm** in front of toilet seat to the closest edge of the toilet paper dispenser, and
 - c) Have bottom edge between **600 mm** and **800 mm** AFF [Diagram 20.F].

21.4 Urinal Grab Bars

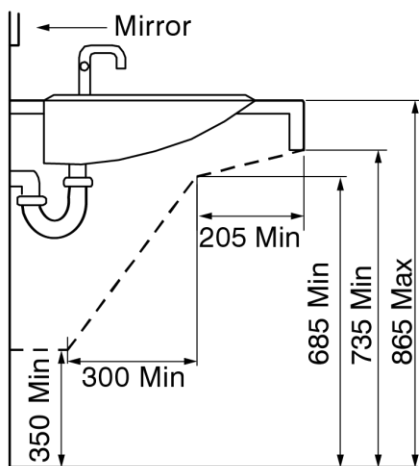
Accessible urinals require two grab bars on each side of the urinal min **600 mm** long, vertically mounted **380 mm** from the centreline of the urinal, mounted **1000 mm** AFF from centreline of the grab bar [Diagram 21.C].

22. Lavatories

If consistency is intended in design, provide all lavatories at an *accessible* height with clear knee and toe space.

22.1 Application

Provide at least one accessible lavatory in every accessible washroom.



[Diagram 22.A] Lavatory Design

22.2 Knee and Toe Clearance

1. Knee and toe clearance must be provided for every accessible lavatory and conform to the following:

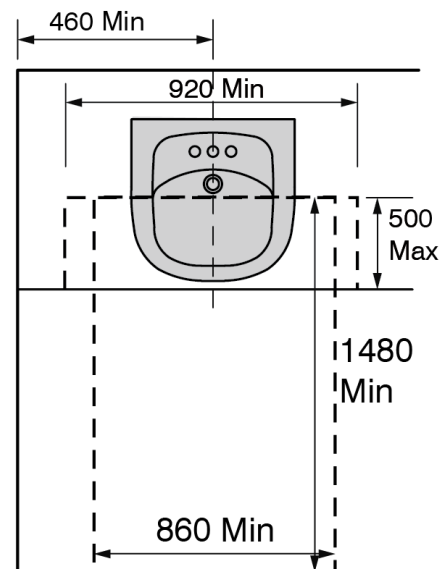
- a) Max **865 mm** AFF to top of vanity [Diagram 22.A],
- b) **920 mm** wide x **500 mm** deep x **735 mm** high at the front edge from the underside of the lavatory,
- c) Have a knee space that is **685 mm** high at min **205 mm** from the front edge of lavatory, and

- d) Have a toe space that is **350 mm** high at min **300 mm** from the knee space.

22.3 Lavatory Clear Floor Space and Location

1. Min **860 mm** x **1480 mm** clear floor space in front of and centred on the lavatory, where max **500 mm** can be below the lavatory [Diagram 22.B].

2. Lavatory must be min **460 mm** from the centreline of the lavatory to the adjacent wall [Diagram 22.B].



[Diagram 22.B] Accessible Lavatory Plan

22. Lavatories

22.4 Other Design Considerations

1. Faucet handles must be lever type or automatic sensors.
2. Exposed pipes must be insulated to prevent burns or the water temperature must be limited to max **43°C**.
3. Soap dispensers must be located max **500 mm** from the front edge of the lavatory and meet criteria in section [23. Washroom Accessories].
4. Towel dispensers must be located max **610 mm** from the front edge of the lavatory and meet criteria in section [23. Washroom Accessories].
5. Consider providing plumbing trim in finishes darker and less mirror-like than polished chrome to which can be more easily seen.

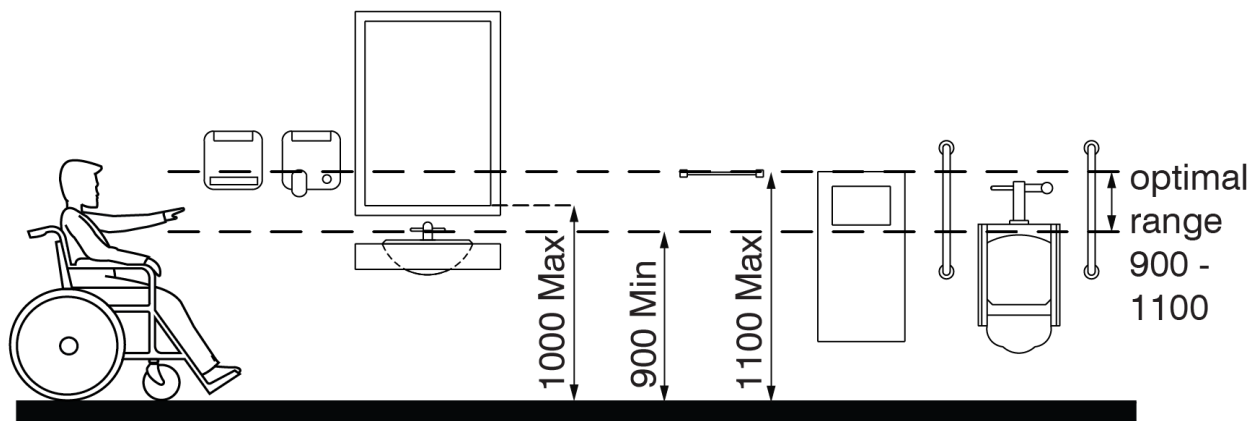
23. Washroom Accessories

Washroom accessories include (but are not limited to): paper towel dispensers/disposal receptacles, shelves, hand dryers, paper towels, soap dispensers, and vending machines.

Grab bars and toilet paper dispensers have specific mounting requirements and can be found in section [21. Grab Bars and Toilet Paper Dispensers]

23.1 Washroom Accessories

1. A clear floor space of **860 mm x 1480 mm** is required in front of controls and operating mechanisms for washroom accessories.
2. The dispensing height and operable portion of washroom accessories must be between **900 mm** and **1100 mm** AFF [Diagram 23.A].
3. A max of **100 mm** can protrude into the accessible path within the washroom, otherwise, the item must be cane detectable at max **680 mm** AFF.
4. Accessories must be automatic or operable with one closed fist applying max force of **22N** to operate.
5. Waste receptacles must be open topped, and located out of the accessible path.
6. Mirrors must be max **1000 mm** AFF and not be inclined/tilted. Full length mirrors must start max **175 mm** AFF.



[Diagram 23.A] Washroom Accessory Mounting Heights

24. Universal Washroom



24. Universal Washroom

Universal washrooms benefit persons with attendants of opposite gender, families, and persons who prefer alternatives to multi-stall washrooms.

24.1 Amount

At least one universal washroom must be provided on every floor in addition to any accessible multi-stall washrooms and no further than **30 m** from multi-stall washrooms.

24.2 Clear Floor Space

1. Min **2500 mm** turning circle, clear of obstruction [Diagram 24.B]
2. Min **900 mm x 1500 mm** clear transfer space on one side of the water closet.
3. Clear floor spaces must not impede on the floor area when the adult change table is in the operational position.

4. Provide min **1000 mm x 2000 mm** space for an adult change table with an **860 mm x 1500 mm** clear floor space parallel to the long side of the adult change table and meet the requirements in subsection [24.5. Adult Change Table].

24.3 Washroom Door

1. The door must be equipped with a power door operator that must coordinate with an automatic locking system.
2. The door must be capable of being locked from inside and must be able to be released from the outside in case of emergency.

24.4 Fixtures

1. Provide at least one collapsible coat hook, max **1200 mm** AFF and max projection **50 mm** from the wall.
2. Provide a shelf max **1200 mm** AFF and located not to create an obstruction.
3. An optional fold-down grab bar min **750 mm** in length, mounted **390 mm** to **410 mm** from the centreline of the water closet on the transfer side, **750 mm** AFF.
4. The following sections and subsections also apply to the Universal Washroom:
 - a) Subsection [20.6. Accessible Water Closets],
 - b) Section [21. Grab Bars and Toilet Paper Dispensers],
 - c) Section [22. Lavatories], and
 - d) Section [23. Washroom Accessories].

24.5 Adult Change Table

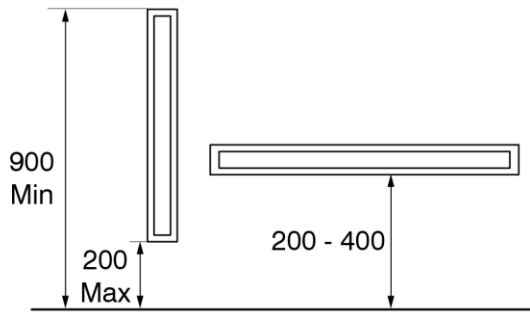
1. Min **1** adult change table must be provided in a building and must:
 - a) Be a min **810 mm x 1830 mm** in size inclusive of the motor for height adjustment,
 - b) Change table surface be electrically adjustable with a height from **450 mm AFF** to **900 mm AFF**,
 - c) Have a reinforced wall to sustain a load of **1.33 kN**, and
 - d) Change table controls with operable portions max **1100 mm AFF**.
2. Where space is provided for the future installment of an adult change table:
 - a) Wall reinforcement supports must be installed, and
 - b) A **110 volt** electrical outlet or rough-in must be provided between **600 mm** and **800 mm AFF** in proximity to the space for the future installment of an adult change table for electric powered height adjustment.

24.6 Emergency Call System

1. A visual and audible signal device must be located inside and outside of the universal washroom located directly above the washroom door and connected to a central monitoring location (e.g., occupied reception or security desk.).

2. Signage must be provided to read "In the event of an emergency, push emergency call button or strip and audible and visual signal will activate and notify a person at the central monitoring location." Letters must be min **25 mm** tall, with a **5 mm** stroke that is posted above the emergency call button or strip. Tactile and Braille signage must also be provided and meet the criteria in section [11.5. Tactile Sign Requirements].
3. The emergency call system must consist of a call button located within reach of the water closet but not be located to be accidentally pushed when reaching for the toilet paper or using any grab bars. The button must be mounted between **900 mm** and **1100 mm AFF**.
4. A vertical emergency call strip can be provided in lieu of the call button. A horizontal emergency call strip can be provided in addition to a call button or vertical call strip. An emergency call strip allows the activation of the call system for a person who has fallen. Verify the proposed call system prior to specifying or installing the components with the Building Department for approval. The call strip must be activatable by pushing anywhere along its length and mounted:
 - a) Vertically with the lower edge max **200 mm** AFF and with the upper edge min **900 mm** AFF [Diagram 24.A], or
 - b) Horizontally with the lower edge **200 mm** to **400 mm** AFF [Diagram 24.A].

24. Universal Washroom

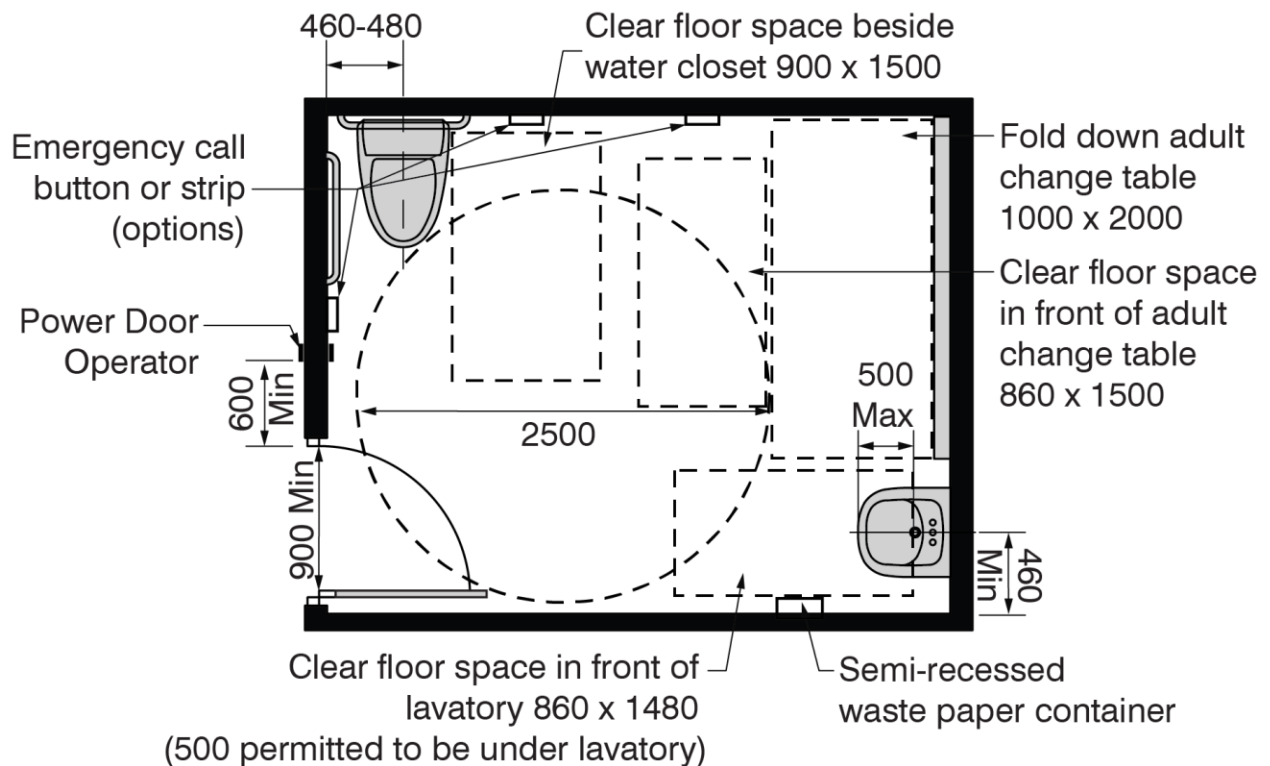


[Diagram 24.A] Vertical and Horizontal Emergency Call Strip

24.7 Occupied Notification

The occupied signal must:

- Be located on the outside of the universal washroom, mounted between **900 mm** and **1200 mm** AFF, and
- Be illuminated when the “Push to Lock” button on the inside of the universal washroom is activated to verify that the room is occupied.



[Diagram 24.B] Universal Washroom

25. Accessible Shower

Any additional enclosures for the shower stall must not obstruct transfer from a mobility device onto the shower seat.

25.1 Showers

1. **1** in every **7** showers but no less than one must be accessible.
2. The interior shower space must be a min **1500 mm** wide x **900 mm** deep. [Diagram 25.A]. The clear floor space in front of the shower must be min **900 mm** deep and the same width as the shower.
3. The threshold for the roll-in shower must be leveled or bevelled max **13 mm** high.

25.2 Shower Accessories and Controls

1. A shower seat must be provided that is **450 mm** wide x **400 mm** deep, mounted **460 mm** to **480 mm** AFF, designed and installed to carry load of **1.3kN** [Diagram 25.A].
2. Controls must be automatic, lever type or both, and must be accessible from the seated position max **500 mm** from the edge of the shower seat and max **1000 mm** AFF. Consideration must be given to the primary users of the space and provide controls that are accessible to the users. Automatic sensor provides ease of access but may not be suitable for children or little persons when mounted at higher heights.

3. Shower controls must be a pressure equalizing or thermostatic mixing valve.
4. **2** shower heads and a shower diverter must be provided:
 - a) The first shower head must be hand held with a flexible hose min **1800 mm** long, reachable from the shower seat, mounted **1200 mm** AFF, and located max **500 mm** away from seat, while not obstructing the L-shape grab bar [Diagram 25.A],
 - b) The second fixed shower head must be mounted above the first shower head at **2030 mm** AFF, and
 - c) A shower diverter mounted **900 mm** and **1100 mm** AFF, reachable from the shower seat, to switch between the two shower heads and meet the requirements in section [9.3 Hand Operated Mechanisms].
5. Provide a recessed soap holder located within reach of the seat, mounted with the centreline between **900 mm** and **1100 mm** AFF.

6. Ensure all shower accessories meet the requirements in section [1. Space and Reach Requirements].



26. Change Rooms

Accessible change rooms allow for social inclusion and all individuals can equally access all amenities pre and post activities.

26.1 Clearances and Clear Floor Space

1. A primary accessible path, min **1800 mm**, must be maintained throughout the space and must meet criteria in sections [4. Headroom - Overhanging and Protruding Objects] and [14. Doors].

26.2 Lockers and Storage

1. A min **10%** of all lockers (full height and half height) must be accessible, identified with the International Symbol of Access, and dispersed throughout the room when there are more than **2** accessible lockers.

2. Each accessible locker must have at least one shelf with a height **400 mm** to **1200 mm** AFF.

3. Locks, hooks and any operable portions of lockers must be **900 mm** to **1200 mm** AFF.

4. Any storage racks must be max **680 mm** AFF and have a continuous min **70%** colour / tonal contrast strip on the edge.

5. Numbers or names on lockers must be tactile surfaces mounted on a min **70%** colour / tonal contrast background.

6. A min **860 mm** x **1480 mm** clear floor space must be provided in front of accessible lockers. Fixed benches must not overlap the clear floor space.

26.3 Additional Requirements

1. Shower facilities must meet the criteria in section [25. Accessible Shower].

2. Water closet and lavatory facilities must meet criteria in sections [20. Multi-Stall Washrooms] and [22. Lavatories].

3. Dressing stalls must meet criteria in section [28. Accessible Dressing Stalls].

4. Fixed hair dryers must be located in a separate room or an alcove that meets the requirements in section [1. Space and Reach Requirements]. Hair dryers must be in close proximity to mirrors and electrical outlets. Shelves must be provided for personal grooming equipment.

5. Full length mirrors must start max **175 mm** AFF.

6. Handrails can be used along circulation routes from change rooms to activity areas and meet the criteria in section [7. Handrails].

7. Flooring must be slip resistant and meet criteria in section [3. Ground and Floor Surfaces].

27. Universal Change Room

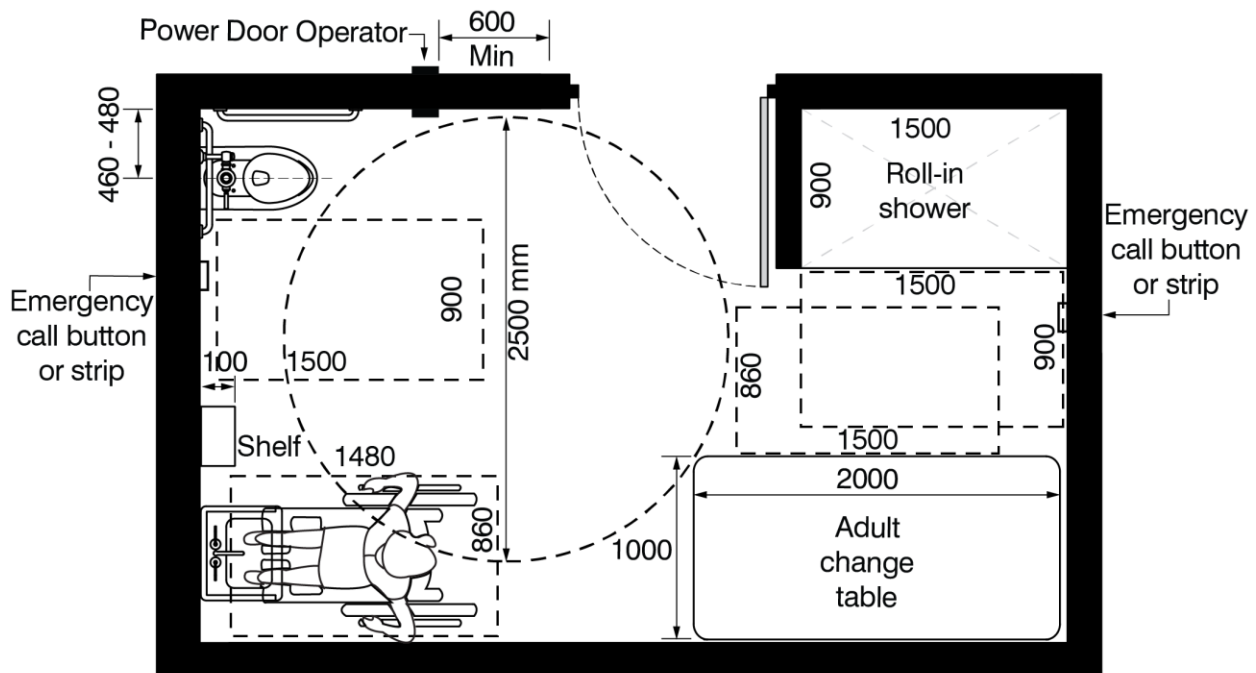
27. Universal Change Room

Universal change rooms are **accessible, gender neutral, single use spaces that accommodate for privacy and assistance from persons of the opposite gender.**

27.1 Design

1. At least one universal change room should be provided in a team, family, or gender specific change area. The change area must provide the following rooms, in close proximity to each other, and must not require users to leave the enclosed change area to access all rooms:

- Universal change room designed to meet the requirements in section [24. Universal Washroom] and section [25. Accessible Shower] [Diagram 27.A],
- A minimum of **3** accessible lockers provided outside of and in close proximity to each universal change room that meet the requirements in subsection [26.2. Lockers and Storage],
- Accessible washroom stall in the change area that meet the requirements of subsection [20.4. Accessible Water Closet Stall], and
- Accessible dressing stall in the change area that meet the requirements of section [28. Accessible Dressing Stalls] except that the clear turning circle can be designed as **1800 mm to 2500 mm**.



[Diagram 27.A] Universal Change Room

2. If a universal change room is not provided in a team, family, or gender specific change area. The change area must provide the following rooms, in close proximity to each other, and must not require users to leave the enclosed change area to access all rooms:

- a) Accessible dressing stalls that meet the requirements in section [28. Accessible Dressing Stalls], and
- b) Accessible washroom stalls that meet the requirements in subsection [20.4. Accessible Water Closet Stall] except that the turning circle in the stall must be designed with a min **2500 mm** clear turning circle.

3. The following sections and subsections also apply to the universal change room: [11. Signage and Information Systems], [15. Power Door Operators], [20.6. Accessible Water Closets], [21. Grab Bars and Toilet Paper Dispensers], [22. Lavatories], [23. Washroom Accessories], [24.2 Clear Floor Space], [24.5. Adult Change Table], and [24.6. Emergency Call System].

28. Accessible Dressing Stalls

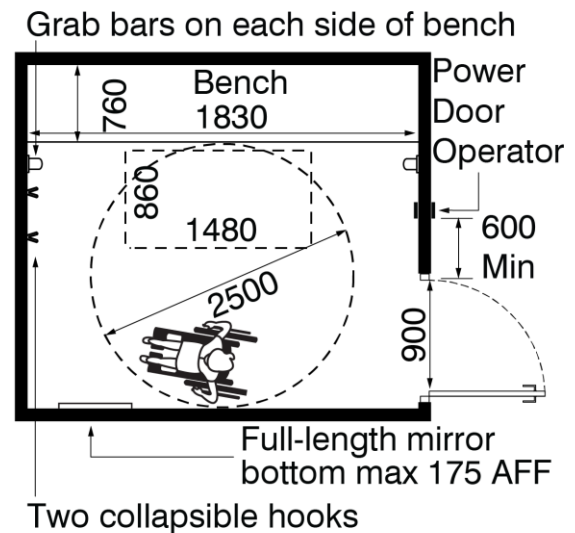


28. Accessible Dressing Stalls

An *accessible* dressing stall is intended to accommodate two people and a mobility device, along with benches and accessories.

28.1 Amount

At least **10%** but never less than one private accessible dressing stall must be provided in accessible change rooms.



[Diagram 28.A] Accessible Dressing Stall (Plan)

28.2 Accessible Dressing Stall Door

Private accessible dressing stall door must meet criteria in section [20.2. Accessible Water Closet Stall Door] and [20.3. Accessible Stall Door Hardware]. When the door is a full height door, a power door operator must be provided.

28.3 Accessible Dressing Stalls

1. Accessible dressing stalls must have a clear turning circle of **2500 mm**. In a change area where a universal change room is provided, can have a clear turning circle of **1800 mm to 2500 mm** [Diagram 28.A].

28.4 Bench and Other Accessories

1. An accessible dressing stall must have a bench that meets the following requirements:

- a) Min **760 mm x 1830 mm**, mounted **450 mm to 500 mm** AFF [Diagram 28.A],
- b) Designed to carry a min load of **1.33 kN**, and
- c) Min **860 mm x 1480 mm** clear floor space adjacent to the bench.

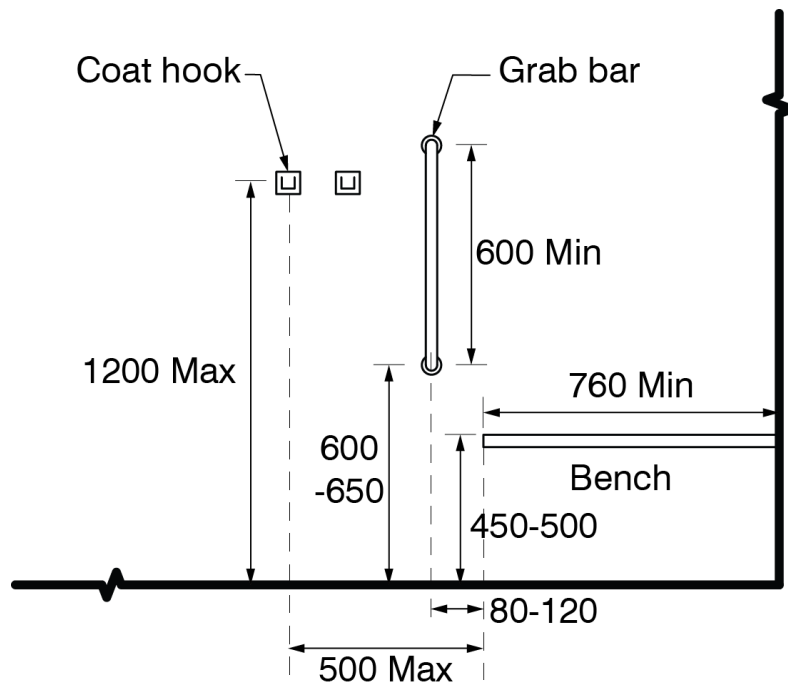
2. Two coat hooks must be provided that are collapsible-style, projecting not more than **50 mm**, mounted max **1200 mm** AFF and max **500 mm** from the bench [Diagram 28.B].

3. Mirrors must be full length, mounted with the bottom at **175 mm** AFF.

4. Provide two vertical grab bars min **600 mm** long on each side of the bench, located **80 mm to 120 mm** from the outside edge of the bench mounted **600 mm to 650 mm** AFF [Diagram 28.B].

28.5 Surfaces

Accessible dressing stalls near wet areas must have slip resistant floors that must also prevent the accumulation of standing water.



[Diagram 28.B] Accessible Dressing Stall, (Elevation)

29. Public and Staff Kitchens and Kitchenettes

29. Public and Staff Kitchens and Kitchenettes

A forward approach to work surfaces and appliances is preferred, with the exception of refrigerators.

29.1 Kitchen Design

1. Min **1800 mm** clear width for galley or L-shaped kitchens [Diagram 29.A] [Diagram 29.B].
2. Min **2500 mm x 2500 mm** clear floor space in a U-shaped kitchen [Diagram 29.C], and min **2500 mm** turning circle at dead end conditions.
3. A min of **50%** of shelf space in for kitchens must be accessible.

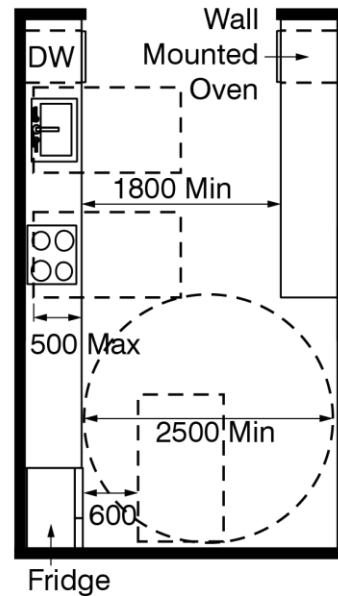
29.2 Colour and Tonal Contrast

Min **70%** colour / tonal contrast must be provided:

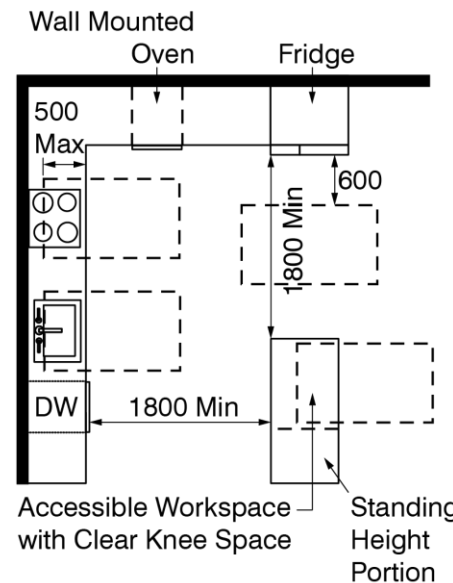
- a) Between counter tops and cabinets and walls [Diagram 29.D], and
- b) Between operable hardware on cabinets and cabinet surfaces.

29.3 Dishwashers

When provided, a dishwasher door in the open position must not obstruct the clear floor space for the cooktop or the sink. A clear floor space of **860 mm x 1480 mm** must be provided in front of the dishwasher when in the open position [Diagram 29.C].



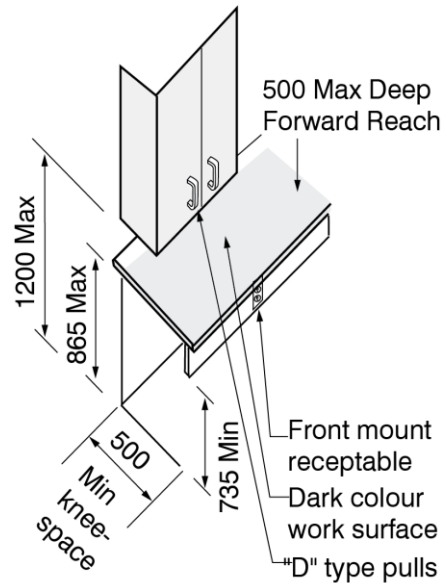
[Diagram 29.A] Galley Kitchen



[Diagram 29.B] L-Shaped Kitchen

29.4 Cabinet Hardware, Faucets and Appliance Controls

1. Any operable portions on cabinetry or appliances must be mounted **900 mm to 1200 mm** AFF and must meet criteria in section [9. Operable Controls and Mechanisms] [Diagram 29.D].
2. Faucet handles must be lever type or automatic.
3. Max **500 mm** from the centre line of the faucet basin to front edge of sink [Diagram 29.C].
4. Exposed pipes must be insulated to prevent burns or the water temperature must be limited to max 43°C.

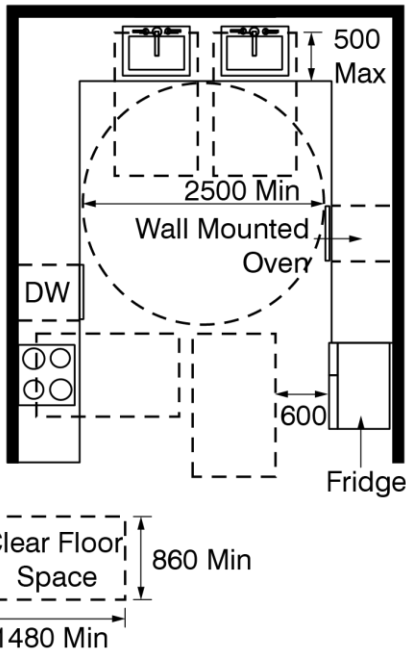


[Diagram 29.D] Cabinet and Countertop

29.5 Sink and Countertop Knee Clearances

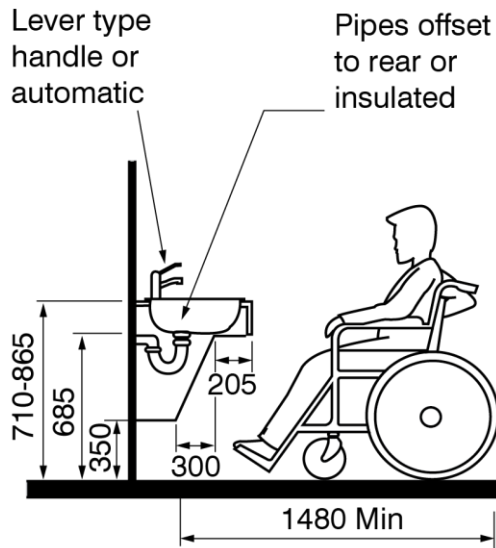
1. Clear knee space must be provided for both the sink and countertop. They must be:
 - a) **710 mm to 865 mm** AFF to top of counter [Diagram 29.E],
 - b) **920 mm** wide x **500 mm** deep [Diagram 29.F],
 - c) **735 mm** high at the front edge [Diagram 29.D],
 - d) Knee space of **685 mm** high at **205 mm** from the front edge of counter [Diagram 29.E], and
 - e) Toe space of **350 mm** high at **300 mm** from the knee space [Diagram 29.E].

2. Where two sinks are provided, one for prep and one for sanitary purposes, both sinks must be accessible as they serve different purposes [Diagram 29.C].

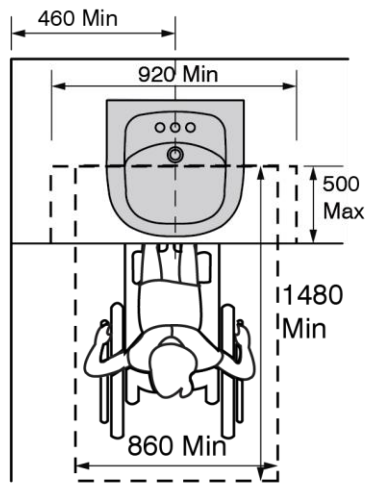


[Diagram 29.C] U-Shaped Kitchen

29. Public and Staff Kitchens and Kitchenettes



[Diagram 29.E] Sink and Counter Top Access



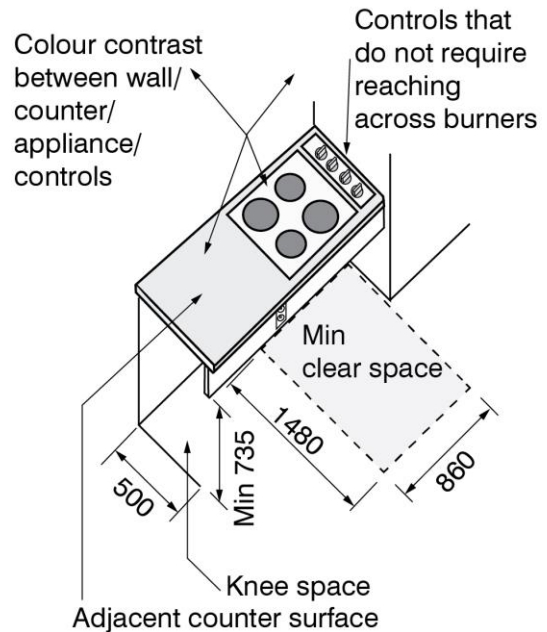
[Diagram 29.F] Sink Floor Plan

29.6 Ranges

1. Ranges selected must be appropriate to prevent burns, abrasions, or electrical shock. Controls must not require user to reach across burners.

2. Knee clearances must meet criteria in subsection [29.5. Sink and Countertop Knee Clearances] [Diagram 29.G].

Safety switches must be provided to deactivate appliance controls for ranges, cooktops, and ovens in facilities with children's programs.



[Diagram 29.G] Range Access

29.7 Ovens

1. Provide a side-hinged door oven with an adjacent work surface positioned to the latch side of the door, at a max height of **1200 mm** AFF.

2. Controls must be mounted no higher than **1200 mm** AFF.

3. Incorporate a pull-out shelf below the oven for easy removal of hot items [Diagram 29.H].

A parallel approach to the countertop is accepted where there is no cook top provided.

29.8 Refrigerators and Freezers

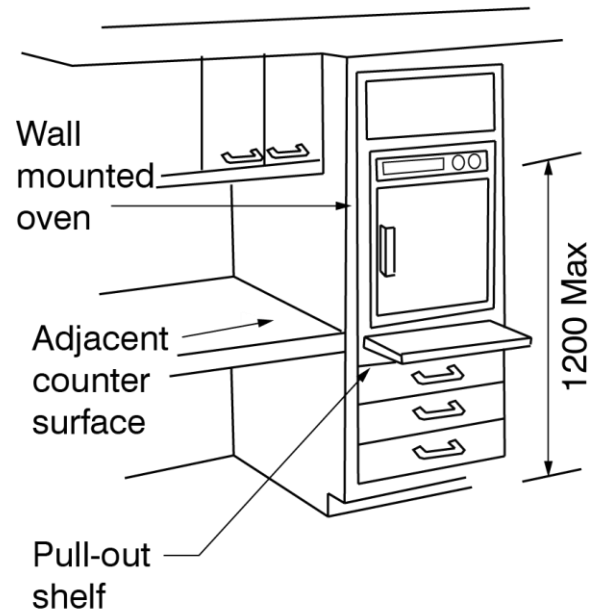
1. Refrigerators and freezers in accessible kitchens must be configured with a min of **50%** of shelving max **1200 mm** AFF. This is typically accommodated by a side-by-side fridge / freezer or a fridge with a freezer drawer located on the bottom.

2. An **860 mm x 1480 mm** clear floor space must be provided for parallel approach offset **600 mm** from the front face of the refrigerator [Diagram 29.I].

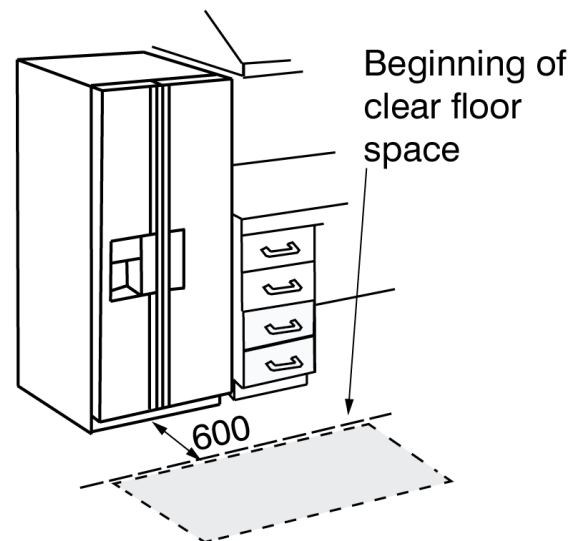
29.9 Additional Requirements

Kitchens must also comply to the following:

- Section [1. Space and Reach Requirements],
- Section [3. Ground and Floor Surfaces],
- Section [9. Operable Controls and Mechanisms],
- Section [10. Lighting, Light Sources and Glare], and
- Section [12. Materials and Finishes].



[Diagram 29.H] Ovens



[Diagram 29.I] Clearances in Front of Refrigerator or Freezer

30. Drinking Fountains and Bottle Filling Stations

30. Drinking Fountains and Bottle Filling Stations

Provide *accessible* drinking fountains and *accessible* bottle filling stations in close proximity to each other.

30.1 Amount

There must be at least one accessible drinking fountain and bottle filling station in every building.

30.2 Drinking Fountains or Bottle Filling Locations

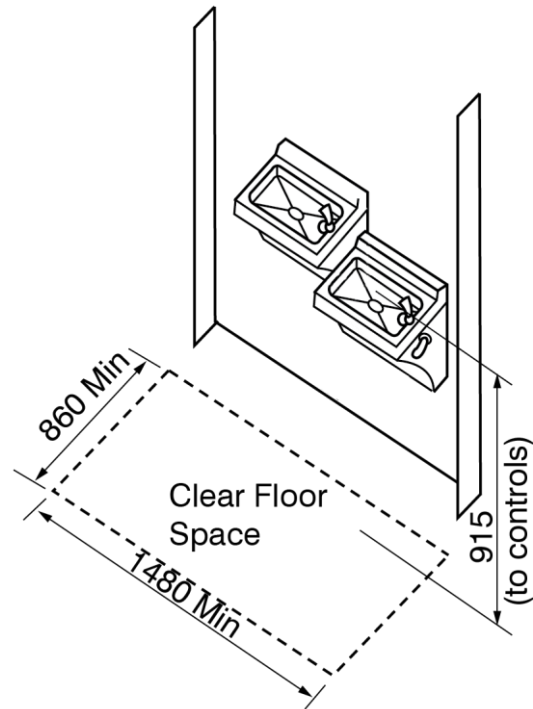
1. When non-recessed drinking fountains project into the accessible path more than **100 mm**, cane detection must be provided to a max of **680 mm** AFF.

30.3 Clear Floor Space

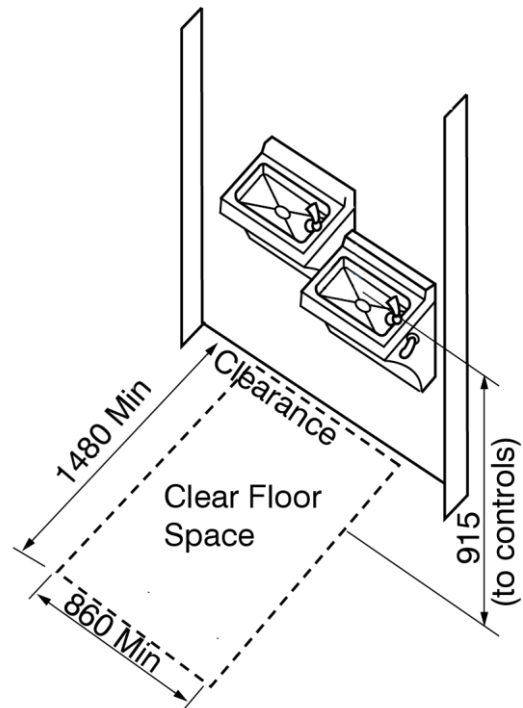
1. Clear floor space of **860 mm** x **1480 mm** must be provided centered on the drinking fountain and bottle filling stations.

2. Clear floor space must not overlap the min space requirements of the accessible path and must be:

- Min **1480 mm** wide x **860 mm** long with one unobstructed side adjoining an accessible path for side approach [Diagram 30.A], or
- Min **860 mm** wide x **1480 mm** long for forward approach [Diagram 30.B].



[Diagram 30.A] Clear Floor Space for a Water Fountain (Side Approach)



[Diagram 30.B] Clear Floor Space for a Water Fountain (Forward Approach)

Drinking Fountains and Bottle Filling Stations 30.

30.4 Knee and Toe Clearance

1. Drinking fountains are required to be provided with clear knee space. Bottle filling stations do not require clear knee space, provided the max reach required to access the bottle filling station is not more than **600 mm**. Knee and toe clearances for drinking fountains must be:

- a) Min **735 mm** AFF and **900 mm** wide x **500 mm** deep below fountain [Diagram 30.C and D],
- b) Have a knee space that is min **735 mm** AFF, **205 mm** from the front edge of the fountain [Diagram 30.C], and
- c) Have a toe space that is min **350 mm** high at min **300 mm** from the knee clearance.

2. The clear floor space requirements can overlap with knee and toe clearance below a drinking fountain.

30.5 Water Spout

1. The water spout must be

- a) Max **915 mm** AFF,
- b) Max **125 mm** from front of fountain, and
- c) Project water min **100 mm** high.

2. Water stream must be provided at either an angle of **30 degrees** max where water spouts are located less than **75 mm** from the front or **15 degrees** max where water spouts **75 mm** to **125 mm** from front edge.

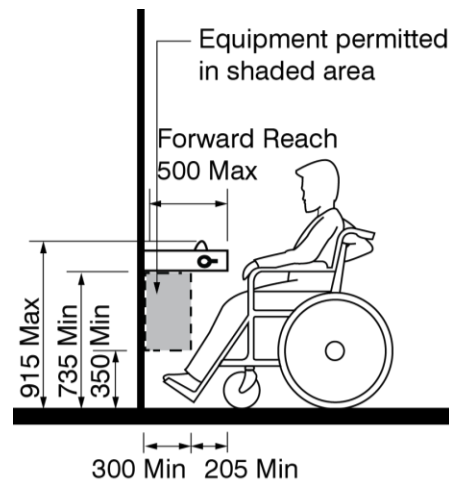
30.6 Contrast

The water fountain must have min **70%** colour / tonal contrast from the background.

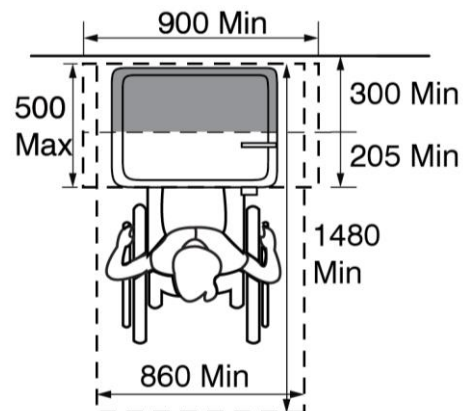
30.7 Controls

1. Controls must be

- a) Max **915 mm** AFF,
- b) Located in front of fountain,
- c) Not foot operated, and
- d) Automatic or require max force of **22N** to activate.



[Diagram 30.C] Knee and Toe Clearance (Elevation)



[Diagram 30.D] Knee and Toe Clearance (Plan)

31. Public Telephones



31. Public Telephones

31.1 Amount of Accessible Phones

1. Where public telephones are provided, at least one telephone unit must be accessible and must meet [Table 31.1].
2. A min of **one** TTY telephone must be provided where interior accessible phones are located.
3. All accessible phones and a min **25%** of all phones must be equipped with volume control.

[Table 31.1] Number of *Accessible* Telephones Required

Number of telephones provided on each floor	Number of <i>accessible</i> telephones required
1 or more single units	1 per floor
1 bank	1 per floor
2 or more banks	1 per bank

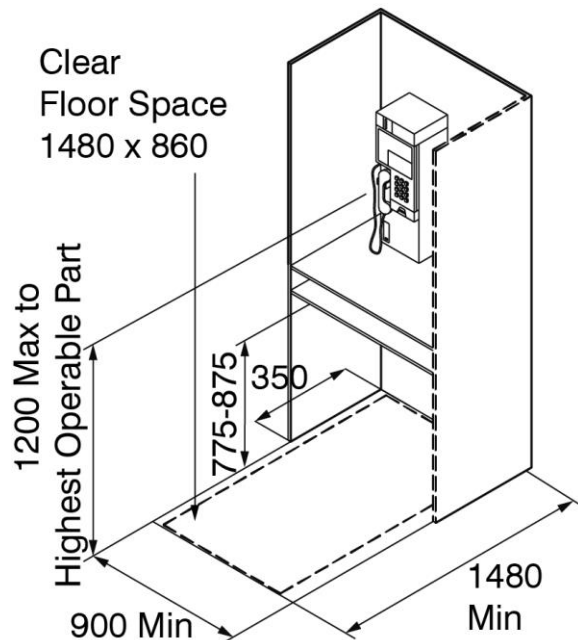
One bank of telephones = 2 or more telephones.

31.2 Dimensions

1. Public telephones must have:
 - a) Min **2100 mm** clear height above telephone area,
 - b) Max **1200 mm** AFF to operable portions [Diagram 31.A and B], and
 - c) Min **1000 mm** handset cord length.

31.3 Knee and Toe Clearance

Provide knee and toe clearance for the accessible phone that is min **735 mm** AFF and **860 mm** wide [Diagram 31.A and C].



[Diagram 31.A] Accessible Public Telephone

31.4 Clear Floor Space

1. Provide a clear floor space centred in front of every accessible telephone that is:

- a) Min **860 mm** wide x **1480 mm** long for forward approach [Diagram 31.A and C], or
- b) Min **1480 mm** wide x **860 mm** long with one unobstructed side connected to an accessible path for parallel approach [Diagram 31.A and C].

2. The clear floor space must not overlap the min space requirements of accessible path for the building.

3. Centre the clear floor space within counter section.

31.5 Shelf

1. Provide a shelf at every accessible telephone that complies with the following:

- a) Min **900 mm** wide x **350 mm** deep,
- b) **775 mm** to **875 mm** AFF, and
- c) Min **250 mm** clear space above [Diagram 31.B].

31.6 Signage

1. The accessible telephone must be identified with the International Symbol of Access [Diagram 31.B].

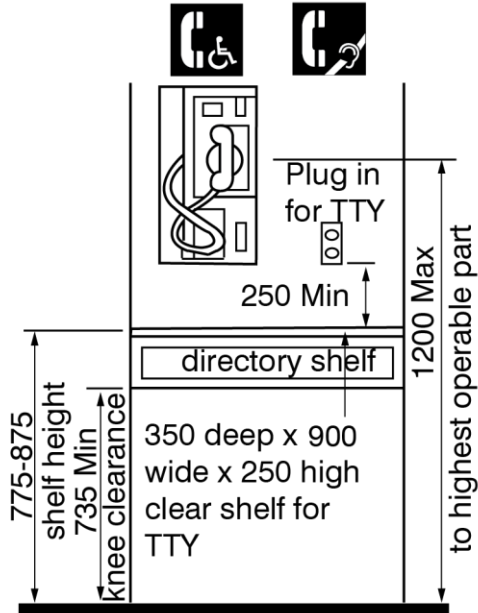
2. Signage must be provided when the accessible telephone is not visible from the bank of telephones.

31.7 Text telephones (TTY)

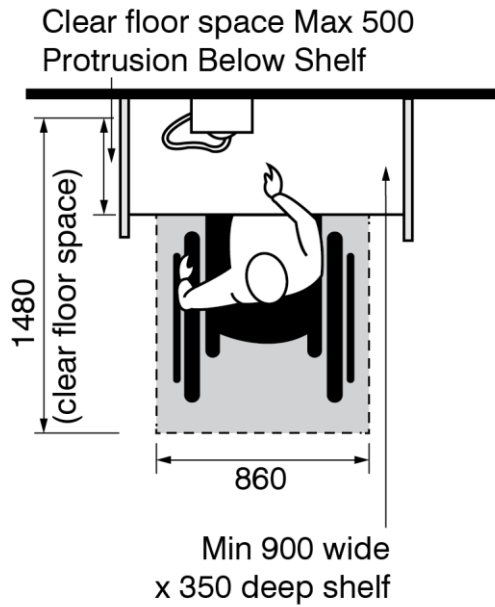
1. TTY phones must be provided for public phones and must be:

- a) Independent from phones used for individuals using wheeled mobility devices,
- b) Identified with the International Symbol of Access for Hearing Loss [Diagram 31.B], and
- c) Permanently affixed within or adjacent to the telephone enclosure.

31. Public Telephones



[Diagram 31.B] Public Telephone Elevation



[Diagram 31.C] Public Telephone Floor Plan

32. Interior Elevated Platforms

All interior *elevated platform* areas must be *accessible* and meet the requirements below.

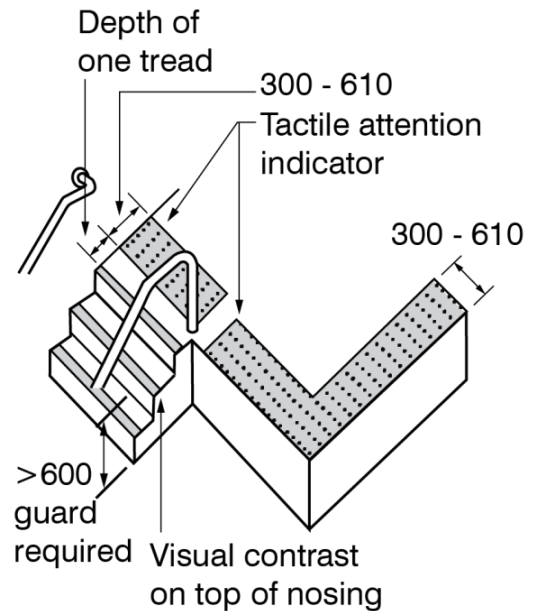
32.1 Design

Elevated platforms must:

- a) Be located on an accessible path,
- b) Illumination must meet requirements in section [10. Lighting, Light Sources and Glare],
- c) Be sized to safely accommodate mobility devices in compliance with section [1. Space and Reach Requirements], and
- d) Have TAI as specified in section [8. Tactile Walking Surface Indicators – Attention and Direction] along the perimeter of open platform edges [Diagram 32.A].

32.2 Temporary Platforms

Where possible, temporary platforms must meet the requirements in subsection [32.1. Design].



[Diagram 32.A] Elevated Platform Requirements

33. Accessible and Adaptable Fixed Seating

33. Accessible and Adaptable Fixed Seating

Adaptable seating is designed to accommodate persons who require flexibility within a fixed seat, along a barrier-free path of travel. Accessible seating is a clear floor space capable of accommodating a mobility device.

33.1 Number of Adaptable and Accessible Seating

Areas with fixed seating must provide the number of accessible and adaptable seating identified in [Table 33.1.].

[Table 33.1] Number of Accessible and Adaptable Seating Spaces

Number of Fixed Seats in Seating Area	Min Number of Accessible Spaces	Min Number of Adaptable Spaces
Up to 20	2	1
21-40	2	2
41-60	2	3
61-80	2	4
81-100	3	5
Over 100	3% of the seating capacity	5 seats or 5% of the aisle seating capacity

33.2 Location

1. Adaptable and accessible spaces must be located on an accessible path without infringing on the egress of other seating spaces.

2. Adaptable and accessible spaces must be provided at the front, middle, and top of the public seating areas to allow for a choice of admission prices and sight lines [Diagram 33.A].

33.3 Signage

Signage must be located at the ticket office to notify patrons of the availability of accessible and adaptable seating and must meet criteria in section [11. Signage and Information Systems].

Accessible and Adaptable Fixed Seating 33.

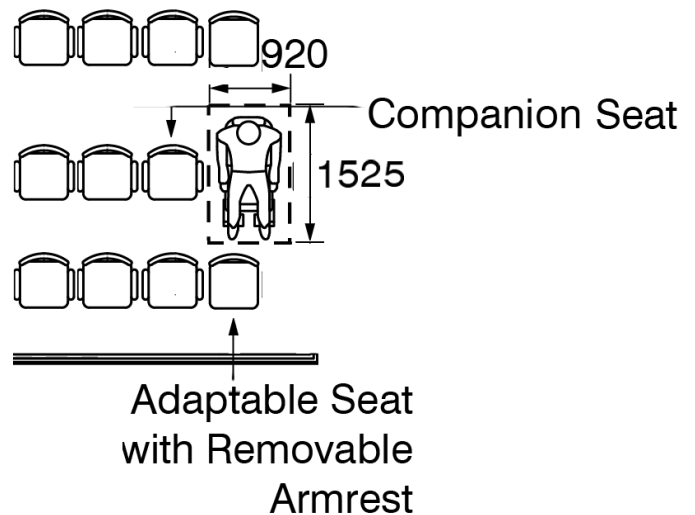
33.4 Adaptable Seating

1. Adaptable seating must consist of a fixed aisle seat with no armrest on the aisle side or must have a removable or folding armrest on the aisle side and the ability to remove the seat adjacent to the adaptable fixed seat.
2. At least two storage spaces that are min **860 mm x 1480 mm** are required in close proximity to the accessible seating spaces. This can be achieved by providing an alcove outside the path of travel or by the provision of a separate storage room that is close to the seating area.

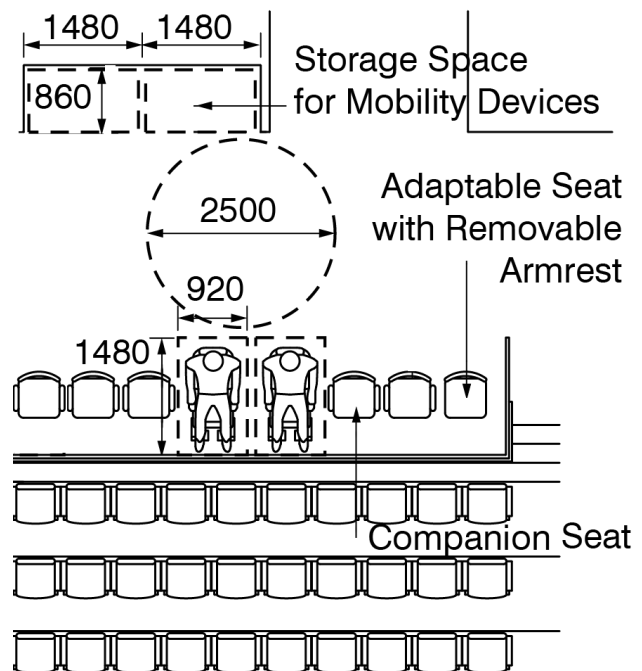
33.5 Accessible Seating

1. Accessible seating must have the following:
 - a) Min **920 mm** wide x **1525 mm** long for side approach entry [Diagram 33.A], or
 - b) Min **920 mm** wide x **1480 mm** long for front or rear entry [Diagram 33.B].
2. For front or rear entry accessible seating, a **2500 mm** diameter clear floor space must be provided in front or behind the accessible seat.
3. At least one companion seat must be provided adjacent to every accessible space.

The companion seating is to be calculated in addition to the required number of *accessible* seating spaces



[Diagram 33.A] Side Entry Accessible Seating



[Diagram 33.B] Rear Entry Accessible Seating

34. Office Areas and Meeting Rooms

A quiet acoustic environment would benefit all persons but particularly those with a hearing impairment. Background noise from mechanical equipment such as fans should be minimized with sound absorbing wall or ceiling tiles.

34.1 Circulation and Clear Floor Space

1. An accessible path must be provided throughout the office area.
2. A primary and secondary accessible path must be provided throughout the office areas. Refer to section [2. Interior Accessible Paths].
3. A min **1100 mm** accessible path is required between workstations and meeting access requirements as specified in sections [2. Interior Accessible Paths], [4. Headroom - Overhanging and Protruding Objects], and [14. Doors].
4. A **2500 mm x 2500 mm** clear floor space must be provided at main access points.

34.2 Office Furniture & Equipment

1. Accessible office furniture must have a max **800 mm** height to the countertop and a **700 mm** tall x **900 mm** wide x **500 mm** deep knee clearance.
2. An **860 mm x 1480 mm** clear floor space must be centred and in front of all equipment, such as photocopiers.
3. Storage and shelves must be accessible and meet criteria in section [19. Millwork, Storage and Shelving].

34.3 Meeting Rooms

1. **10%** of all meeting rooms but not less than one in every department must be accessible.
2. A min **1100 mm** accessible path around the perimeter of the accessible meeting room table is required.
3. A **2500 mm x 2500 mm** clear floor space must be provided at the main access point of the meeting room.
4. In all meeting rooms, use wall or ceiling finishes that dampen sound and aid the reduction of ambient noise.

Tables with adjustable heights provide flexibility to users who require different height levels of table top surfaces.

35. Fire and Life Safety Systems

Fire safety elements and systems must be useable by any individuals with disabilities in emergency situations.

Signals intended to notify the public must consist of both visual and audible components.

35.1 Locations of Visual and Audible Fire Alarm Devices

1. This section applies to buildings required by the OBC to have a fire alarm system.

2. Locate visual and audible fire alarm devices in:

- a) A building or portion of a building intended for use primarily by persons with hearing loss,
- b) Public corridors and all general use areas such as lobbies, offices, meeting rooms and all washrooms, including single use washrooms, and
- c) Mechanical rooms where there is a concern with noise levels.

35.2 Mounting of Visual Fire Alarm Strobes

1. Visual fire alarm strobes must be placed so that the signal from at least one device is visible throughout the floor area or compartment where they are installed.

2. Mounting heights of fire alarms must meet the requirements in the OBC and the Ontario Fire Code, as amended.

35.3 Signal Requirements of Visual Fire Alarm Strobes

1. Visual signalling components must conform to the requirements in the OBC.

2. Signals must meet the requirements in the latest edition of the OBC and the Ontario Fire Code, as amended.

35.4 Eye Wash Stations

1. Where eye wash stations are provided they must be accessible and located at a max height of 850 mm AFF.

2. Eye wash stations must meet the requirements found in section [1. Space and Reach Requirements].

35.5 Fire Safety Plan and Emergency Evacuation Maps

1. Fire Safety Plans must meet the requirements in the Ontario Fire Code and must be:

- a) Provided at the annunciator panel,
- b) Identify all areas of refuge, and
- c) List persons whom have identified themselves as requiring assistance for first responders.

2. Emergency evacuation maps must meet the requirements in the Ontario Fire Code and must be:

- a) Located max **1100 mm** AFF,

35. Fire and Life Safety Systems

- b) Provided at accessible building entrances and on each floor area in an easily accessible and prominent area,
- c) Identify the accessible evacuation path to accessible exits and areas of refuge, and
- d) Consideration should be provided to supplementing emergency evacuation maps with raised tactile profiles, characters, and Grade 2 Braille that meet the requirements in section [11. Signage and Information Systems].

3. Directional signage must be provided along the main accessible path to direct occupants to the nearest exit or area of refuge.

35.6 Areas of Refuge

1. Within a sprinklered or non-sprinklered building, and where there is an accessible path of travel above or below the first floor entrance level, areas of refuge must be provided on the following floors:

- a) Floor levels above and below the entrance level served by an accessible path, and
- b) At the entrance level without accessible exits connecting to an exterior accessible path.

2. On floors that require areas of refuge, they must be:

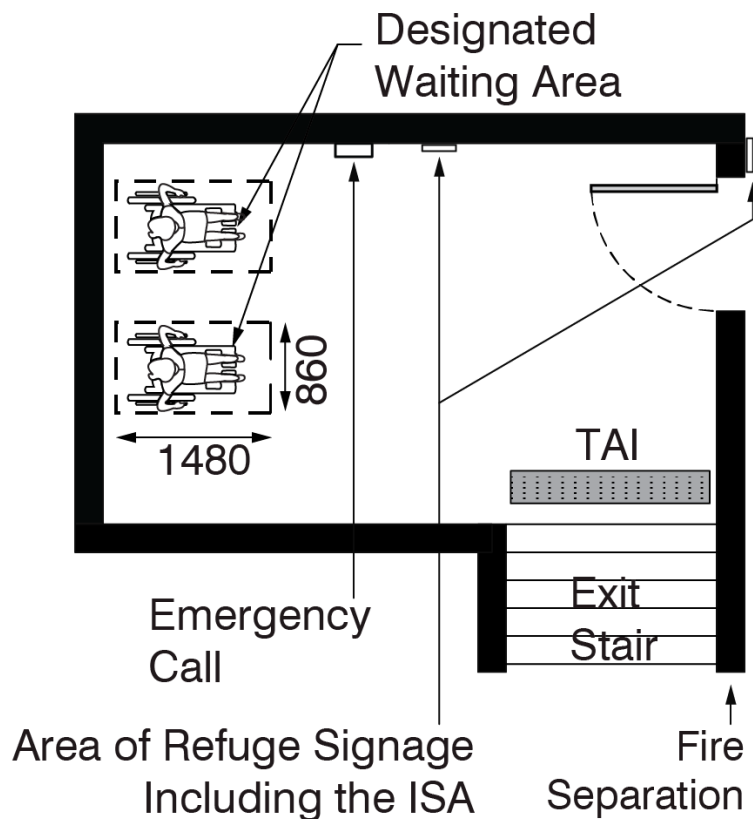
- a) Located on an accessible path,
- b) Equal to the number of exits, and
- c) Meet one of the following:

- I. Have a direct connection to an exit stair [Diagram 35.A], or
- II. Located in a room immediately adjacent to an exit stair, with a door connecting to the corridor and a door connecting to the exit stair, incorporating a vision panel and sidelight of Georgian wire glass and must meet the requirements in the latest edition of the OBC [Diagram 35.B and C], or
- III. Have a direct connection to a fire fighter's elevator.

3. Each area of refuge must meet the following requirements:

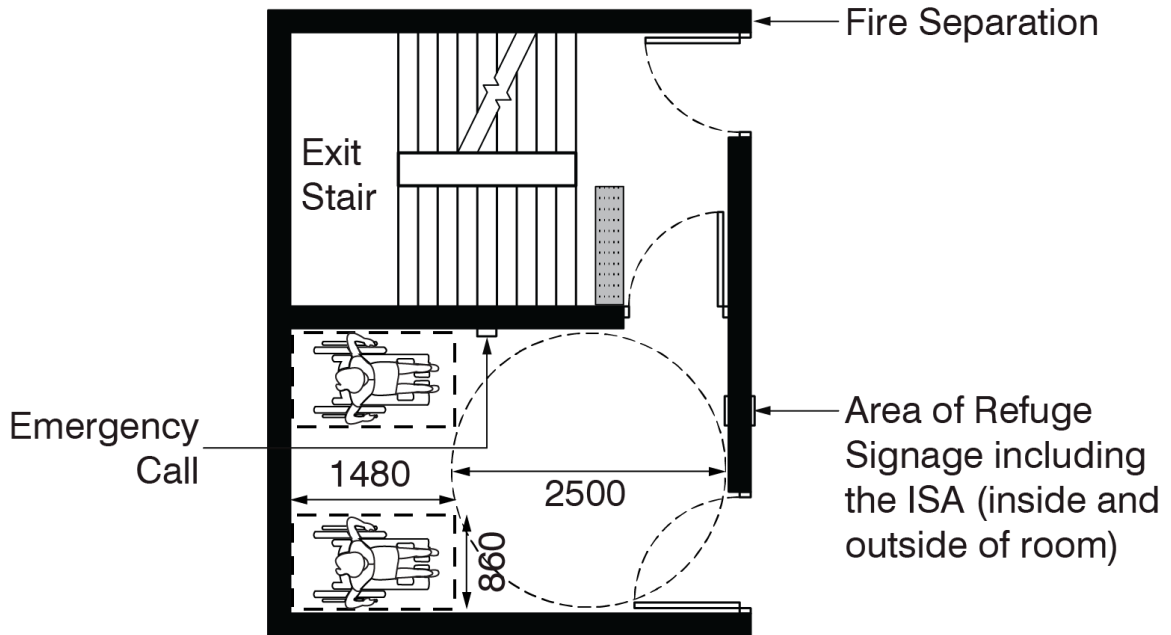
- a) Have doors equipped with a fire-rated self-closing device matching to that required for an exit, designed to return the door to the closed position,
- b) Min clear floor space of **860 mm x 1480 mm** per non-ambulatory occupant on the floor, but no less than two [Diagram 35.A],
- c) Must be separated from the floor area by a fire separation having a fire-resistance rating at least equal to that required for an exit,
- d) Incorporate a 2-way voice communication system, mounted between **900 mm** and **1100 mm** AFF connected to a central monitoring location (e.g., occupied reception or security),
- e) Designated as an area of refuge for persons with disabilities on the facility fire safety plan,

- f) Provide signage indicating the location of the area of refuge,
- g) Identified with signage that must meet criteria in section [11. Signage and Information Systems], and
- h) If the area of refuge is located in a room immediately adjacent to an exit stair, provide signage that contain the words "This room is an Area of Refuge and must not be repurposed for storage".

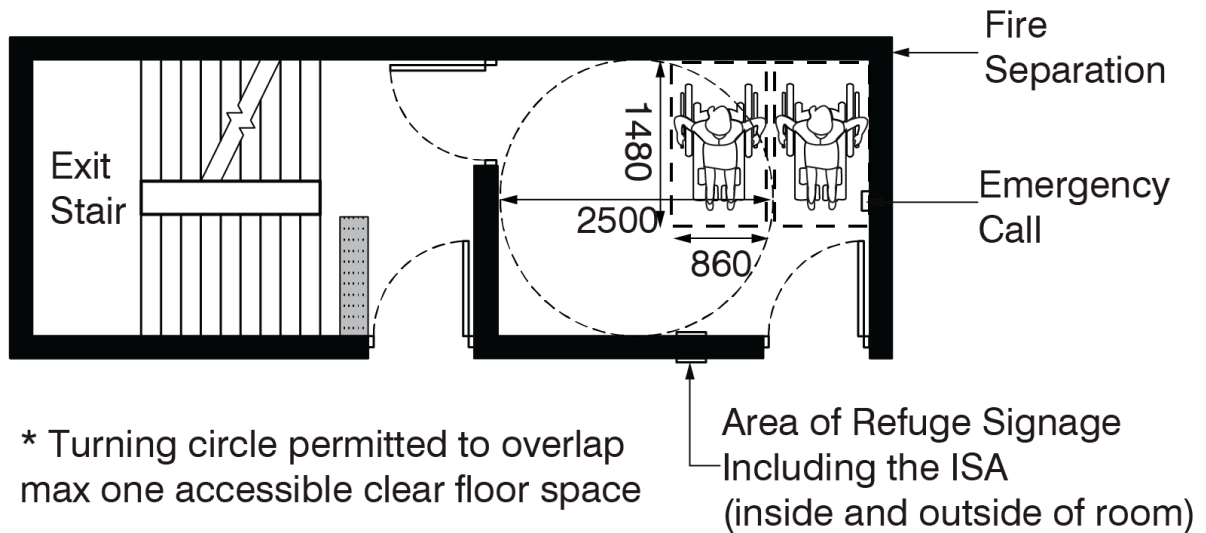


[Diagram 35.A] Area of Refuge with Direct Connection to Exit Stair

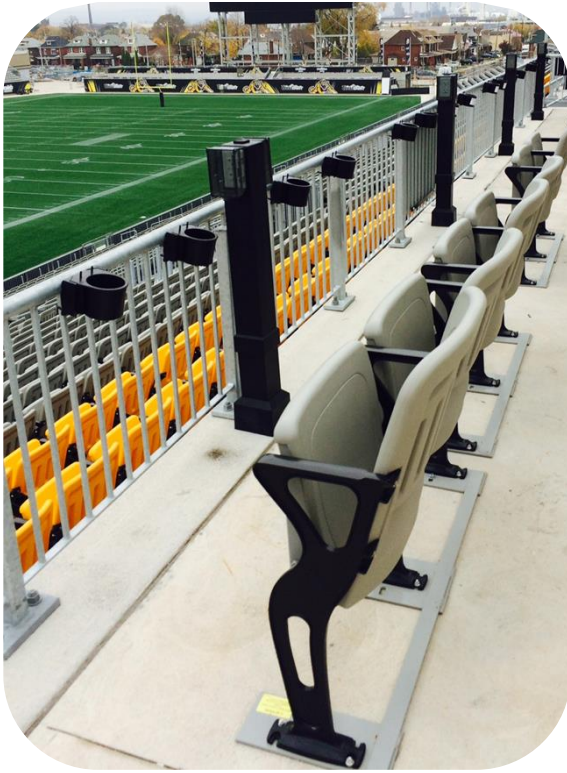
35. Fire and Life Safety Systems



[Diagram 35.B] Area of Refuge in Room Adjacent to Exit Stair (option 1)



[Diagram 35.C] Area of Refuge in Room Adjacent to Exit Stair (option 2)



36. Assistive Listening Devices

Assistive Listening Devices (ALDs) are an important design feature in areas where audible communication is integral to the use of the space.

36.1 Assembly Areas

For areas where audible communication is integral to the use of the space, provide assistive listening devices (ALDs). Concert theatres, meeting rooms, classrooms and auditorium are examples of rooms where ALDs are required.

36.2 Locations

1. Permanently installed listening systems/ALDs must be included for:
 - a) Rooms that accommodate at least **50 persons**,
 - b) Rooms that have audio amplification systems greater than **100 square metres**, or
 - c) Rooms that have fixed seating.

36.3 Portable Assistive Listening Devices

1. Rooms must provide access to electrical outlets or supplementary wiring to support a portable device.
2. A min **4%** of the total number of seats, but no less than two, shall have receivers.

36.4 Types of Assistive Listening Systems

Audio induction loop, infrared systems, and FM radio frequency systems are acceptable types of ALDs. Audio induction loop system is preferred.

36.5 Design Requirements

1. Where an FM loop system or other ALDs exist, portable headsets that are compatible with personal hearing aids must be made available.
2. Where an audio induction loop system is utilized, **100%** of the seating area shall be encompassed.

36. Assistive Listening Devices

3. Where ALDs serve individual seats, these seats must be within **15 m** viewing distance of the stage.
4. Signage incorporating the International Symbol of Access for Hearing Loss with the addition of text/symbol indicating the type of service provided, must be provided and comply with section [11. Signage and Information Systems].

36.6 Interference with Assistive Listening Systems

1. Please note the following:
 - a) Dimmer switches or any controls with transformer coils can interfere with the audio induction loop, and
 - b) Overhead incandescent lights can cancel out the infrared signal at the receiver.
2. These items should be located where they cannot interfere with the transmission of sound of the ALDs.

37. Public Address Systems

Public address systems must be easy to hear above the ambient background noise and there must be no distortion or feedback.

37.1 Location

1. Public address systems must be mounted meeting the requirements in section [4. Headroom - Overhanging and Protruding Objects].
2. Mount in common use areas such as: corridors; offices, assembly and meeting rooms; recreational and entertainment facilities, training areas, washrooms, and any other common areas.

37.2 Controlled Broadcast

1. Public address systems must be zoned to allow for targeted broadcast and serve the entire facility.
2. Paging systems for staff or other key persons must be discreet and low volume.
3. Paging must be targeted to devices or locations where such persons might be expected to be located.

Exterior Elements



38. Exterior Paths

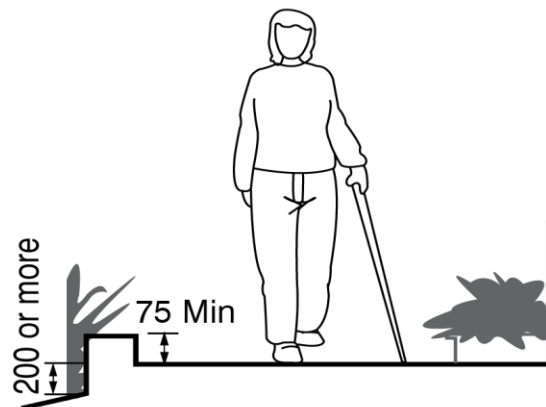
All exterior paths, excluding paths to maintenance doors, serving a building must be accessible. Unit pavers are accessible if they meet the requirements of section [3. Ground and Floor Surfaces]. Permeable pavers are not accessible and do not provide an accessible path.

38.1 Clear Path Width

1. Primary and secondary exterior paths require a clear width min **1500 mm**.
2. Where the path of travel is less than **1800 mm** provide passing areas min **1800 mm x 1800 mm** and located every **30 m** on an accessible path.

38.2 Exterior Edge Protection

1. Exterior edge protection is required at changes in grade between **200 mm** and **600 mm**, except at stairs [Diagram 38.A].
2. Exterior edge protection is not required where there is no change in adjacent ground level for a min of **1500 mm** wide [Diagram 38.B].
3. Must be min **75 mm** high and **50 mm** wide. Ensure width does not allow for someone to walk along edge protection.
4. Must have min **70%** colour / tonal contrast from the walkway surface. Contrast must be on the edge and not on the walkway surface.
5. The path surface must be designed to allow drainage.
6. A change in level greater than **600 mm** on exterior paths must be protected by a guard meeting criteria in the latest edition of the OBC.
7. Exterior gates must maintain a clear width of **900 mm** and meet the requirements in subsection [13.4. Gates].



[Diagram 38.A] Exterior Edge Protection

38. Exterior Paths

38.3 Alternative Accessible Paths

Where stairs are located on exterior paths, an alternative accessible path must be provided immediately adjacent to the stairs. This may include either a ramp or another accessible means of negotiating an elevation change.

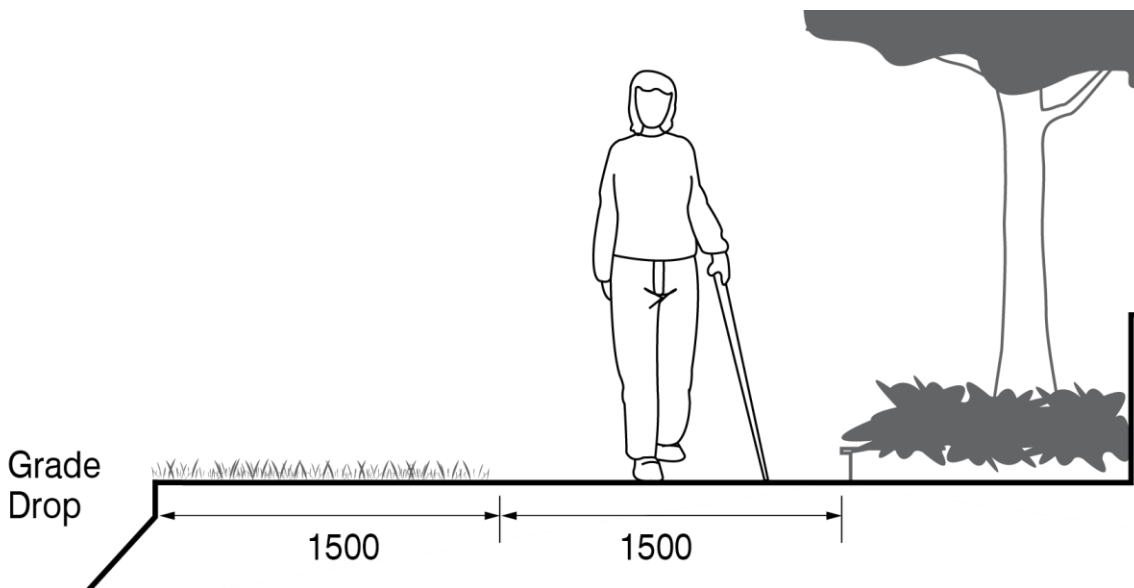
38.4 Path Slope

1. The running slope must be max **1 in 20 (5%)**.
2. The cross slope must be min **1 in 50 (2%)** but need not exceed the running slope.

38.5 Additional Requirements

For additional requirements, refer to the following:

- a) Section [1. Space and Reach Requirements],
- b) Section [3. Ground and Floor Surfaces],
- c) Section [4. Headroom - Overhanging and Protruding Objects],
- d) Section [5. Ramps],
- e) Section [6. Stairs],
- f) Section [8. Tactile Walking Surface Indicators – Attention and Direction],
- g) Section [10. Lighting, Light Sources and Glare], and
- h) Section [12. Materials and Finishes].



[Diagram 38.B] Edge Protection Not Required

39. Curb Ramps and Depressed Curbs

Curb ramps and depressed curbs must be designed to minimize water accumulation on the accessible path.

39.1 Clear Width

1. Exclusive of flared sides, the min width of a curb ramp is **1500 mm** [Diagram 39.B].
2. Depressed curbs do not have a min width.

39.2 Ground Surface

1. Exterior paths must meet the criteria in section [3. Ground and Floor Surfaces].
2. TAI must meet the criteria in section [8. Tactile Walking Surface Indicators – Attention and Direction].

39.3 Running Slope

1. Slope of curb ramps must be:
 - a) Max **1 in 8 (12.5%)** where elevation is less than **75 mm**, and
 - b) Max **1 in 10 (10%)** where elevation is **75 mm to 200 mm** [Diagram 39.C].
2. Slope of depressed curb must be max **1 in 20 (5%)** [Diagram 39.D].

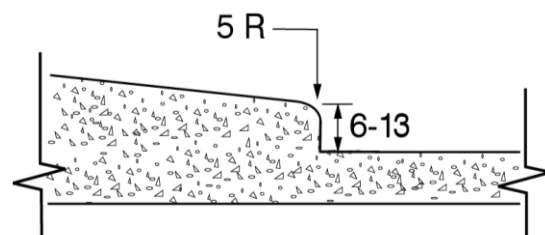
39.4 Cross Slope

1. Min slope required for drainage must not exceed the ratio of **1 in 50 (2%)** on paved surface or **1 in 20 (5%)** on unpaved surfaces.

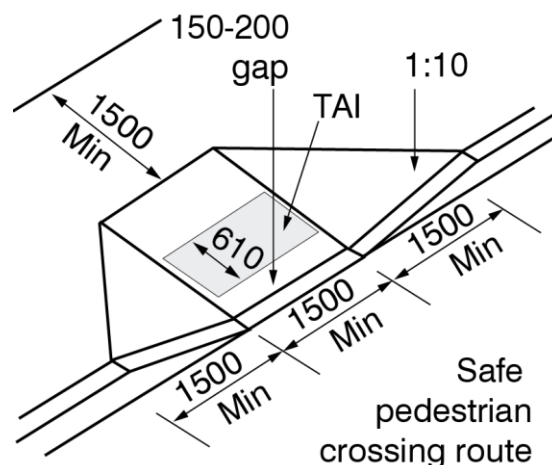
2. Max difference between a curb ramp or depressed curb and all surrounding surfaces must not be more than **10%**.

39.5 Slope

1. Slope of flared sides of a curb ramp must be max **1 in 10 (10%)** [Diagrams 39.B].
2. Counter slope of gutters and road surfaces immediately adjacent to the bottom of the curb ramp or depressed curb max **1 in 20 (5%)**.
3. Min **70%** colour / tonal contrast must be used on the outside of the return curbs.

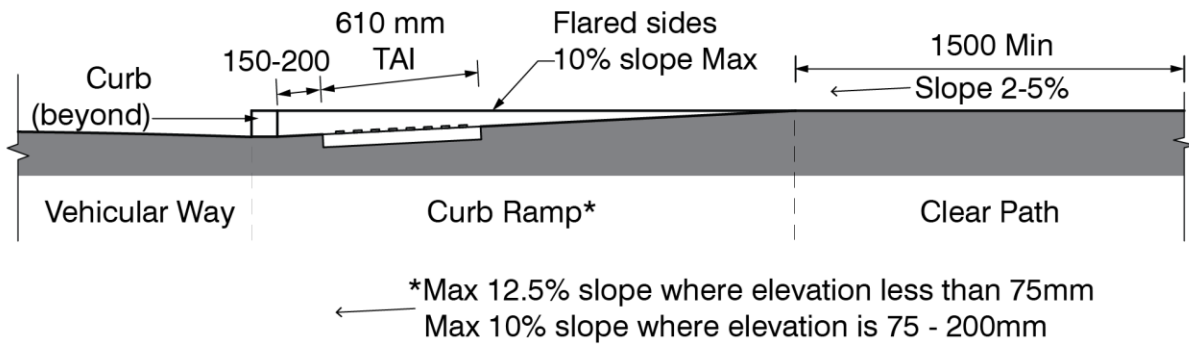


[Diagram 39.A] Curb Ramp Transition at Pavement

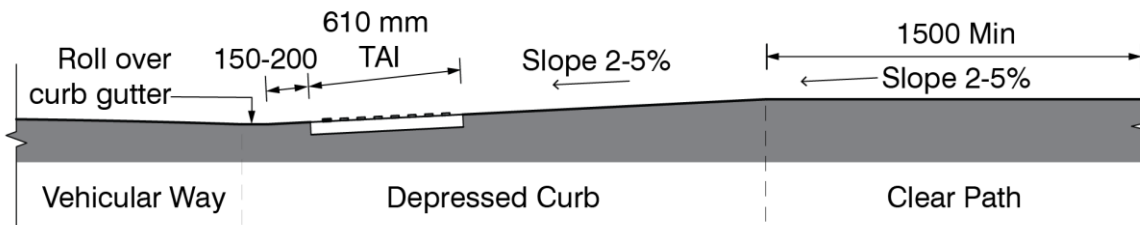


[Diagram 39.B] Curb Ramp at Mid-Block Crossing

39. Curb Ramps and Depressed Curbs

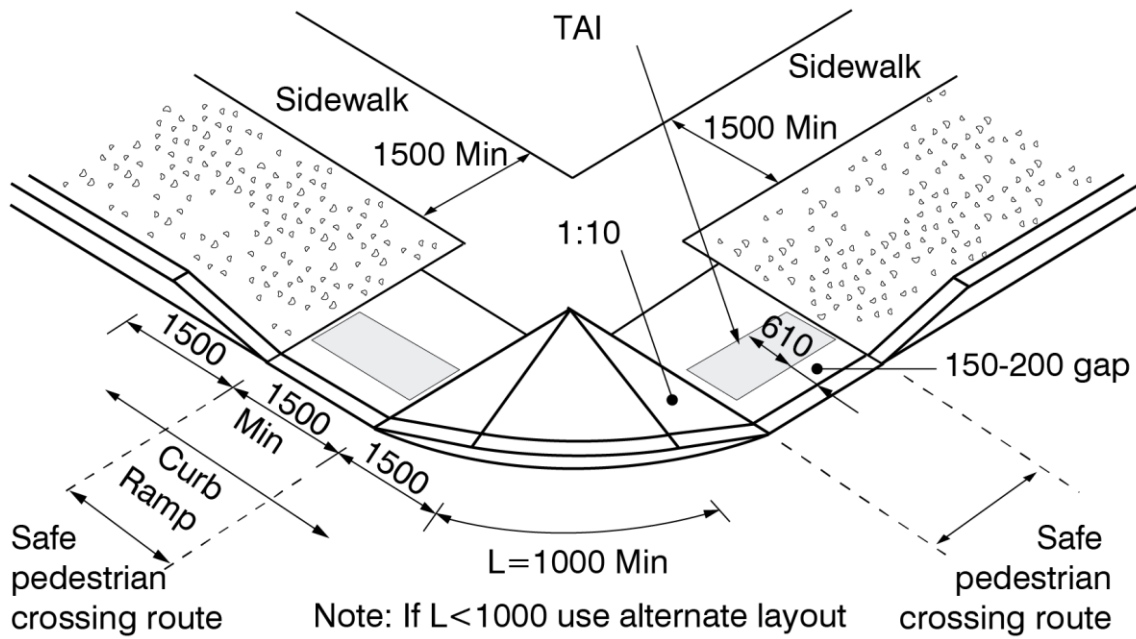


[Diagram 39.C] Curb Ramp (Section)

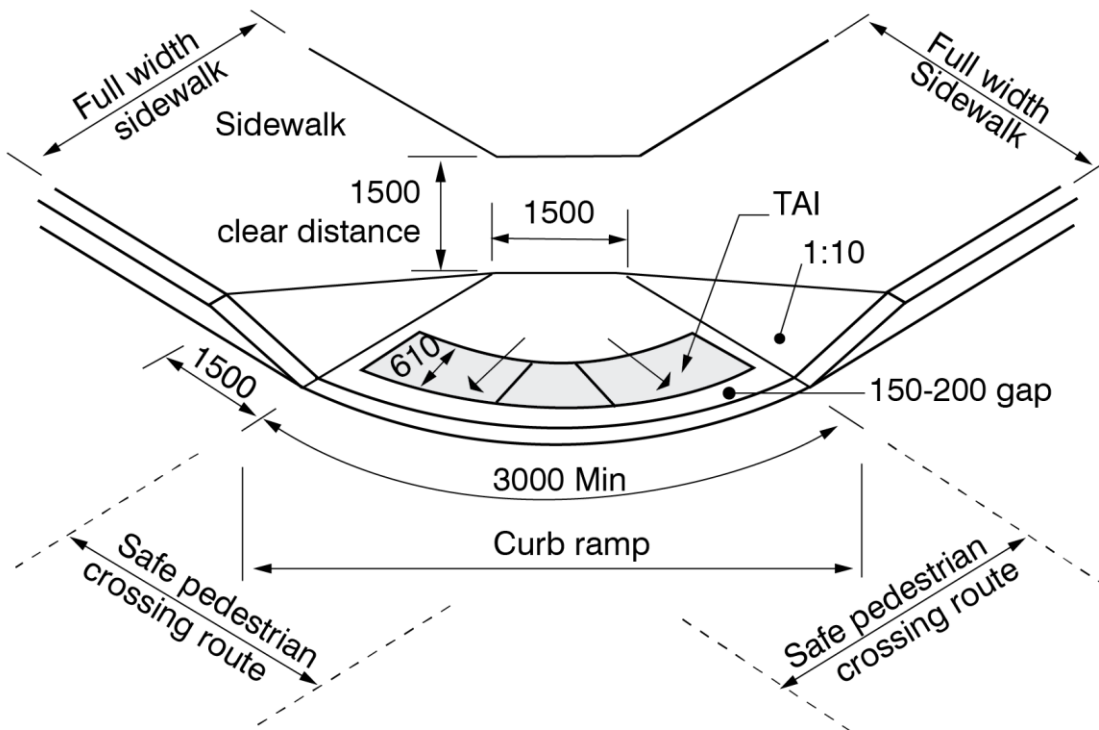


[Diagram 39.D] Depressed Curb (Section)

Curb Ramps and Depressed Curbs 39.

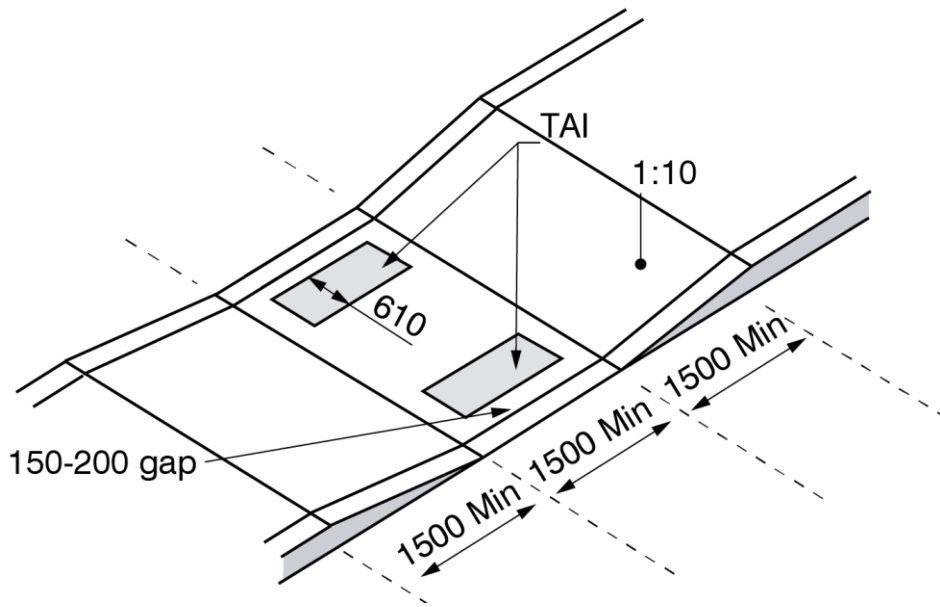


[Diagram 39.E] Standard Curb Ramp

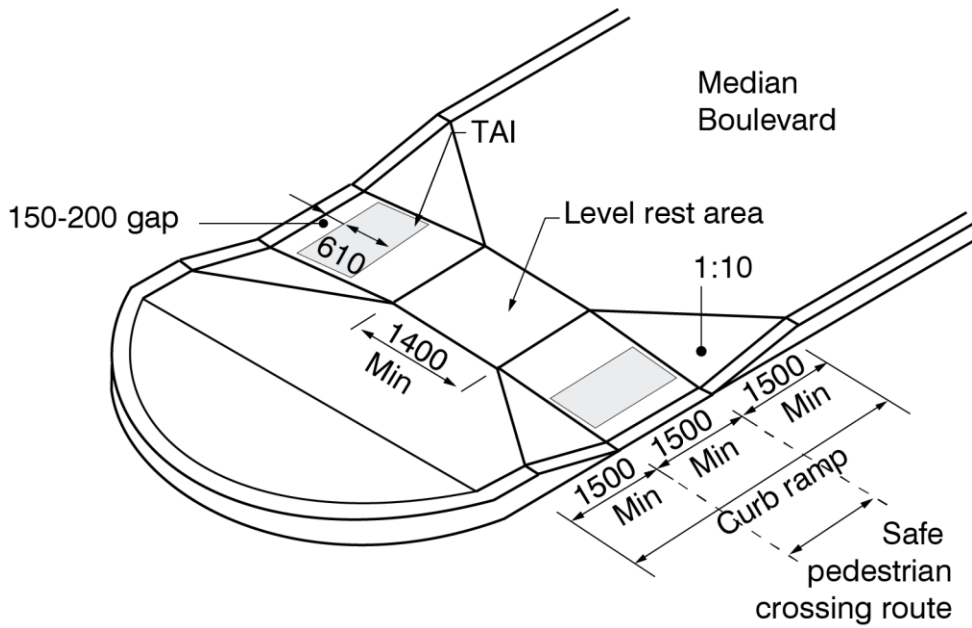


[Diagram 39.F] Alternate Curb Ramp

39. Curb Ramps and Depressed Curbs



[Diagram 39.G] Curb Ramp at Narrow Sidewalk



[Diagram 39.H] Curb Ramp at Wide Median Sidewalk Crossing

40. Passenger Loading Zones

Passenger-loading zones must be provided when passengers transfer from vehicles or Para-transit to a pedestrian area. Bus stops and bus shelters are not considered passenger-loading zones.

40.1 Location of Passenger Loading Zones

Passenger Loading Zones must be:

- a) Located on an accessible path,
- b) Designed with a depressed curb that meets the criteria in [39. Curb Ramps and Depressed Curbs], and
- c) As close as possible to the main entrance.

40.2 Vehicle Pull Up Space

1. Vehicle pull up space must:

- a) Be min **3200 mm** wide x **5700 mm** long [Diagrams 40.A],
- b) Not overlap vehicular route / flow of traffic, and
- c) Have a sign indicating "Passenger Pick-up/ Drop-off only" and must also meet the requirements in section [11. Signage and Information Systems].

40.3 Access Aisle

1. Access aisle must be marked with yellow diagonal hatching.
2. A min **2440 mm** wide x **7400 mm** long access aisle must be provided adjacent and parallel to the vehicle pull up space [Diagrams 40.A].
3. A clear path of travel min **1500 mm** wide must connect to an accessible exterior path that meets the criteria in section [38. Exterior Paths] adjacent to the access aisle [Diagram 40.A].

40.4 Height Clearance

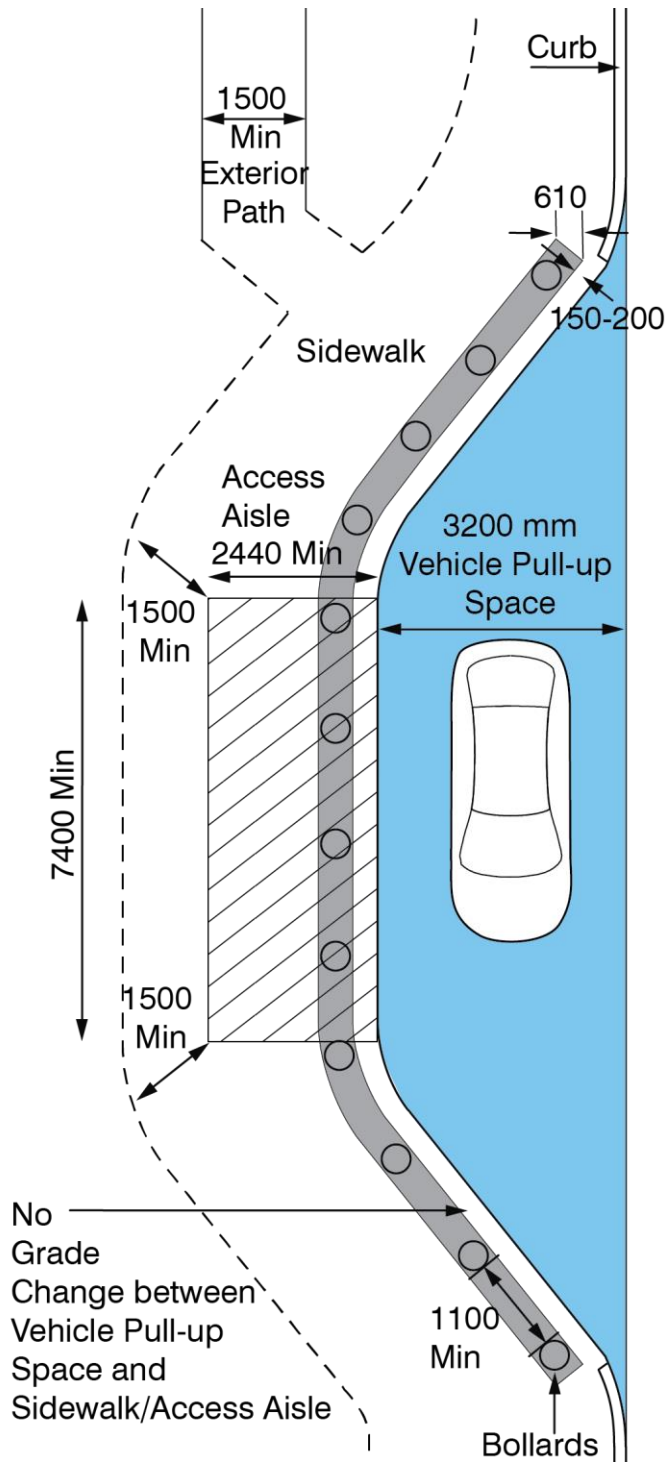
A min vertical clearance of **3600 mm** is required for the passenger loading zone and the vehicle access path leading to it.

40.5 Additional Requirements

Passenger Loading Zones must also meet the requirements in the following:

- a) Section [3. Ground and Floor Surfaces],
- b) Section [4. Headroom - Overhanging and Protruding Objects],
- c) Section [8. Tactile Walking Surface Indicators – Attention and Direction],
- d) Section [10. Lighting, Light Sources and Glare],
- e) Section [11. Signage and Information Systems],
- f) Section [12. Materials and Finishes],
- g) Section [38. Exterior Paths], and
- h) Section [39. Curb Ramps and Depressed Curbs].

40. Passenger Loading Zones



[Diagram 40.A] Passenger Loading Zone

41. Accessible Parking

There are three types of accessible parking spaces:

Type A Parking: Van Accessible

Type B Parking: Car Accessible

Type C Parking: Courtesy/Limited Mobility and Caregiver Parking

41.1 Dimensions

Accessible parking spaces must be

- a) Type A min width **3650 mm** [Diagram 41.A],
- b) Type B min width **2700 mm** [Diagram 41.A],
- c) Type C min width **3200 mm** [Diagram 41.A],
- d) Min height clearance **2750 mm** for exterior and **2590 mm** for interior, and
- e) Min length of **5700 mm**.

41.2 Accessible Parking Routes

1. Accessible parking must be provided as close to the accessible entrance as possible with a direct view of the entrance. Where a direct view is not provided, provide signage to direct to the accessible entrance.
2. Accessible paths must be provided from the accessible building entrance to the accessible parking.
3. The path must not enter vehicle traffic and should be as short as possible.

4. Curb ramps or depressed curb must be provided if there is a change in level to the sidewalk or accessible path and must meet the requirements in section [39. Curb Ramps and Depressed Curbs].

41.3 Amount

1. The amount of accessible parking must be **50%** Type A and **50%** Type B. Wherever an uneven amount of parking is required, the remaining spot is permitted to be a Type B parking space. The required number of accessible parking spaces are identified in [Table 41.3].
2. Type C - Courtesy/Limited Mobility and Caregiver parking must also be provided as outlined in [Table 41.3].
3. Ensure parking meets the Town's Zoning By-law requirements.

41.4 Access Aisle Design

1. Access aisles must be:
 - a) A min width **2000 mm** [Diagram 41.A and B],
 - b) A min width of **2000 mm** for parallel spaces plus a **2000 mm** access aisle,
 - c) Connected to an accessible path and must be clearly marked,
 - d) A full length extension of the parking space it serves, and
 - e) Must not cross a vehicular route.

41. Accessible Parking

2. Access aisles are not required for Type C Parking [Diagram 41.A and B].

[Table 41.3] Required Number of Type A,B, and C Parking Spaces

Total Number of Parking Spaces	Amount of Accessible Parking Spaces Required Type A and B	Amount of Courtesy /Limited Mobility and Caregiver Parking Type C
Less than 12	1 Type A	1
13 to 100	4% of total	2
101 to 200	3% of total plus 1	2
201 to 1000	2% of total plus 2	4 plus 1 (for each 100 over 201)
Greater than 1000	1% of total plus 11	4 plus 1 (for each 100 over 201)

41.5 Parking Surface

1. Accessible parking spaces, access aisles and the accessible path to the building must:

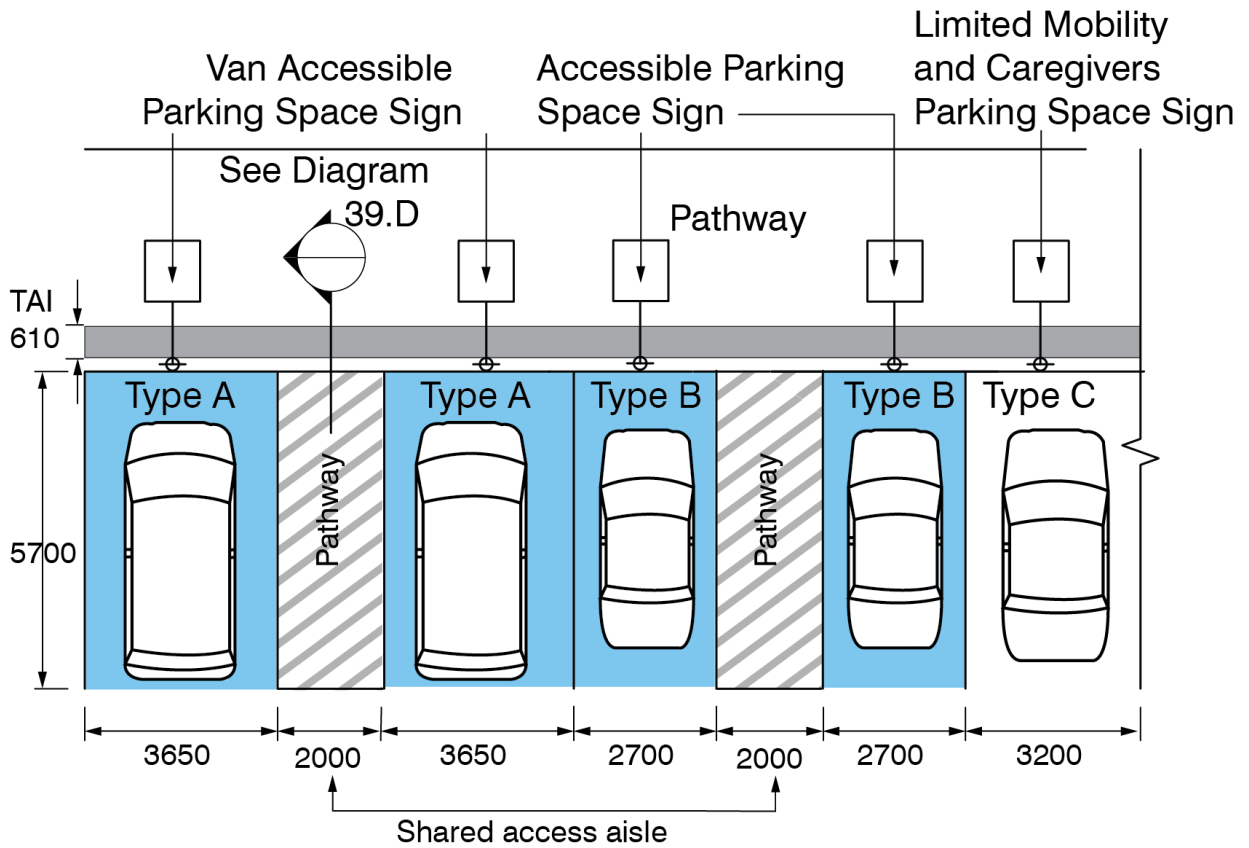
- a) Be on a firm, stable and slip-resistant surfaces and must meet criteria in subsection [3.1. Surface], [3.3. Gratings], and [3.4. Finishes and Materials],
- b) Have a running slope max **1 in 20 (5.0%)**, and
- c) Have a cross slope max **1 in 50 (2.0%)**.

2. The ground surface of Type A and Type B parking spaces must:

- a) Have the entire parking space painted blue,
- b) Have the International Symbol of Access painted in white measuring min **1560 mm** tall by **1290 mm** wide [Diagram 41.C], and
- c) Have access aisles painted with yellow diagonal hatching.

3. Paint used on ground surfaces must be slip-resistant. Contact FCM or Tech Services for paint and colour specifications or supplier information.

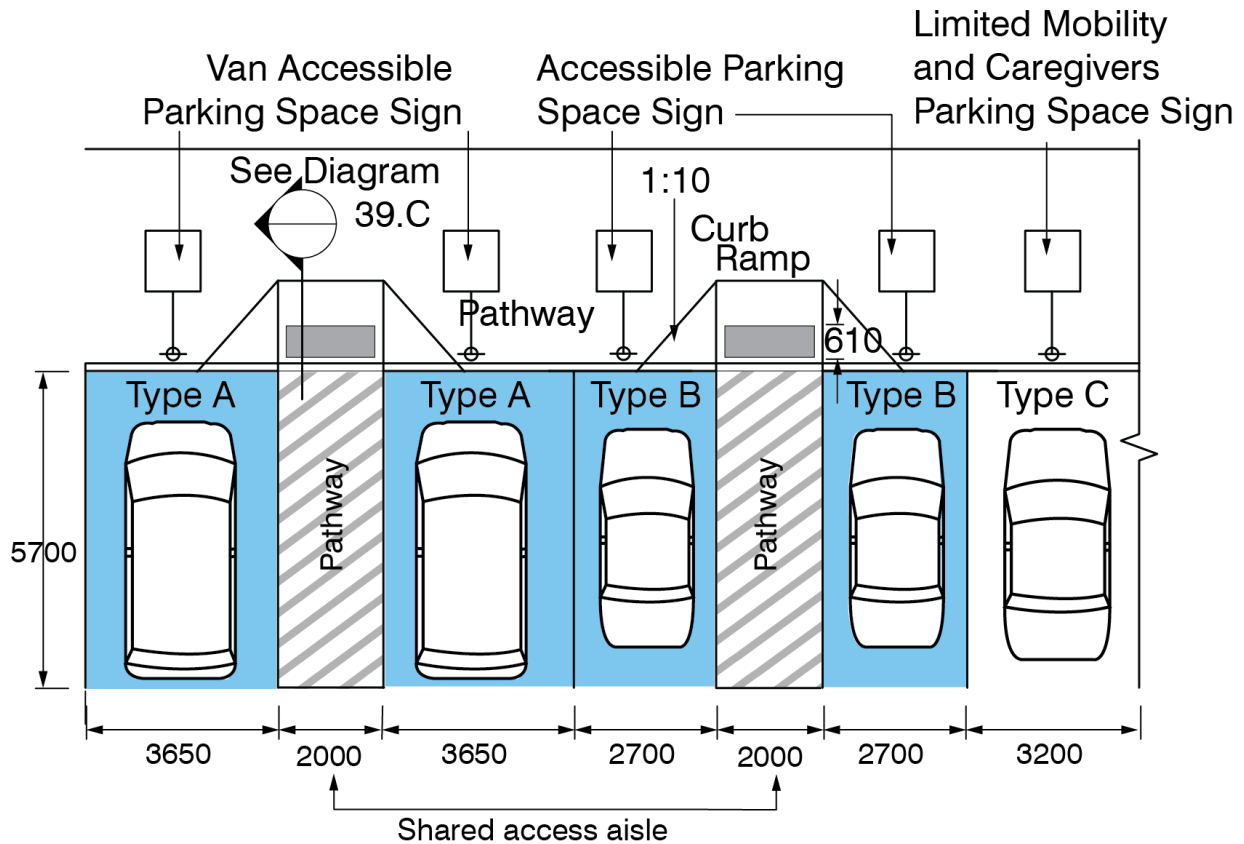
Accessible Parking 41.



[Diagram 41.A] Accessible Parking with Depressed Curb

41. Accessible Parking

In a renovation where a depressed curb is technically infeasible, provide curb ramp at shared access aisle

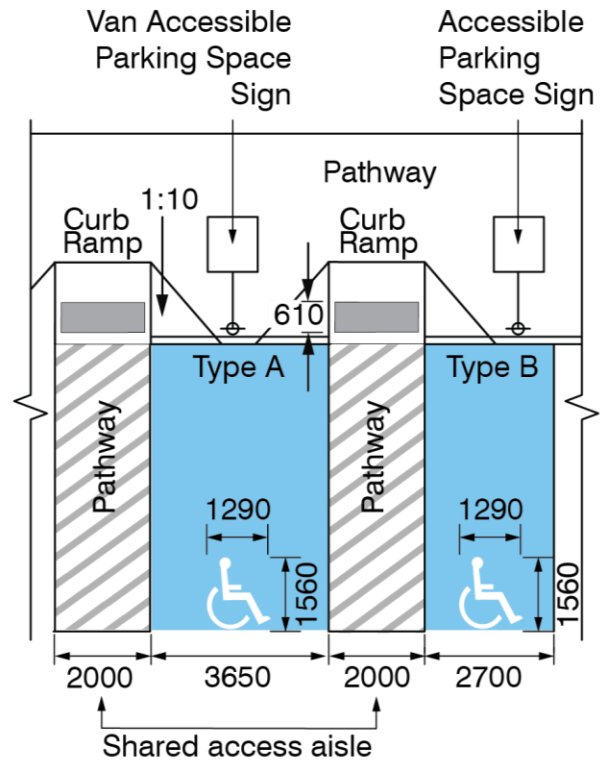


Note: where there is a curb directly in front of the type "A" & "B" barrier-free parking spots a curb ramp will be required at the shared access aisle

[Diagram 41.B] Accessible Parking with Curb Ramps

41.6 Accessible Parking Signage

1. Signage must be mounted **2000 mm** from the top of sign to ground surface and in front of each accessible parking space and meet the requirements in section [11. Signage and Information Systems].
2. Type C parking spaces must include parking signage indicating Limited Mobility and Caregivers [Diagram 41.D].
3. Type A parking spaces must include **2** parking signages, one indicating by Permit Only and the second indicating Van Accessible [Diagram 41.E].
4. Type B parking spaces must include parking signage indicating by Permit Only [Diagram 41.F].



[Diagram 41.C] Type A and B Parking Size Requirements

41.7 Additional Requirements

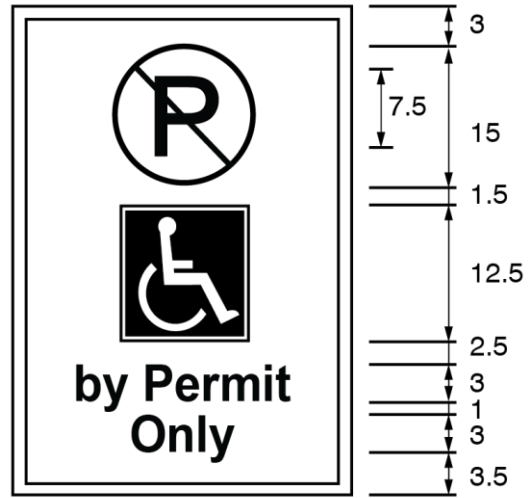
Parking lots must also meet the requirements in the following:

- a) Section [3. Ground and Floor Surfaces],
- b) Section [4. Headroom - Overhanging and Protruding Objects],
- c) Section [8. Tactile Walking Surface Indicators – Attention and Direction],
- d) Section [10. Lighting, Light Sources and Glare],
- e) Section [12. Materials and Finishes],
- f) Section [38. Exterior Paths], and
- g) Section [39. Curb Ramps and Depressed Curbs].

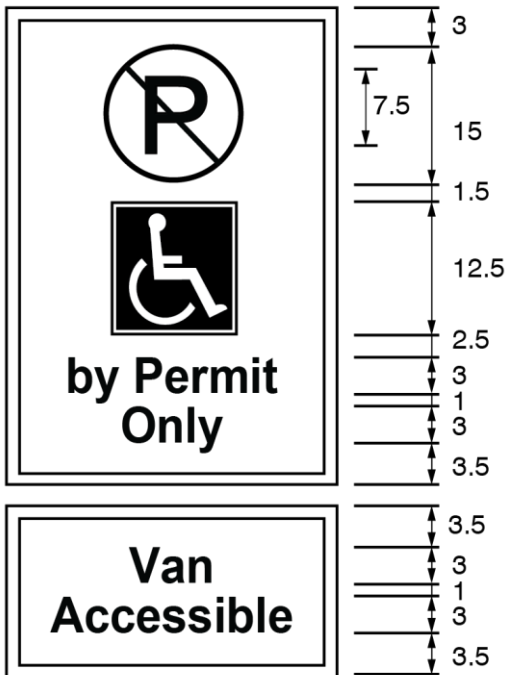
41. Accessible Parking



[Diagram 41.D] Courtesy Parking/Limited Mobility and Caregivers Parking Signage



[Diagram 41.F] Type B Parking Signage



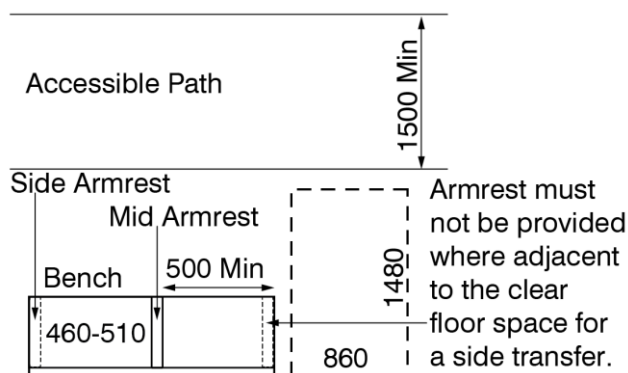
[Diagram 41.E] Type A Parking Signage

42. Site Furniture

Site furniture includes, but is not limited to, waste receptacles, light standards, signs, planters, mailboxes, vending machines, picnic tables and any furniture located outside of facilities.

42.1 General

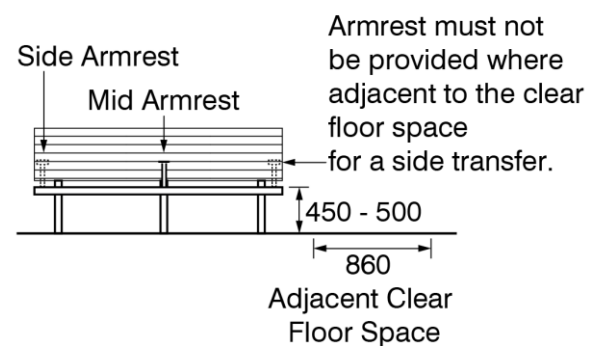
1. Site furniture must be cane-detectable and have min **70%** colour / tonal contrast from the surrounding environment.
2. Furniture must be securely mounted to firm, stable ground and must meet criteria in section [2. Interior Accessible Paths].
3. Furniture must not reduce the width of an accessible path and must meet criteria in sections [2. Interior Accessible Paths] and [4. Headroom - Overhanging and Protruding Objects].
4. Any operable controls must meet criteria in section [9. Operable Controls and Mechanisms].



[Diagram 42.A] Bench and Adjacent Clear Floor Space (plan)

42.2 Benches

1. **20%** of benches must be accessible with no less than 1. Accessible benches must be located adjacent to an accessible path and must meet the criteria in section [38. Exterior Paths].
2. Accessible benches must have a clear floor space of **860 mm x 1480 mm** for a mobility device to rest adjacent to the bench. For accessibility, the armless side of the bench must be adjacent to the clear floor space [Diagram 42.A].
3. The seat of a bench must be **450 mm** to **500 mm** from the ground and have a seat dimension between **460** and **510 mm** deep by min **500 mm** wide [Diagram 42.B].
4. Accessible benches must have a back and must vary between having arm rests and being armless.
5. Accessible benches must have min **70%** colour / tonal contrast from the adjacent ground surface.

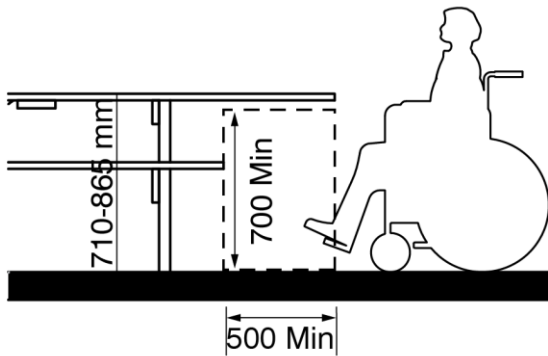


[Diagram 42.B] Accessible Bench

42. Site Furniture

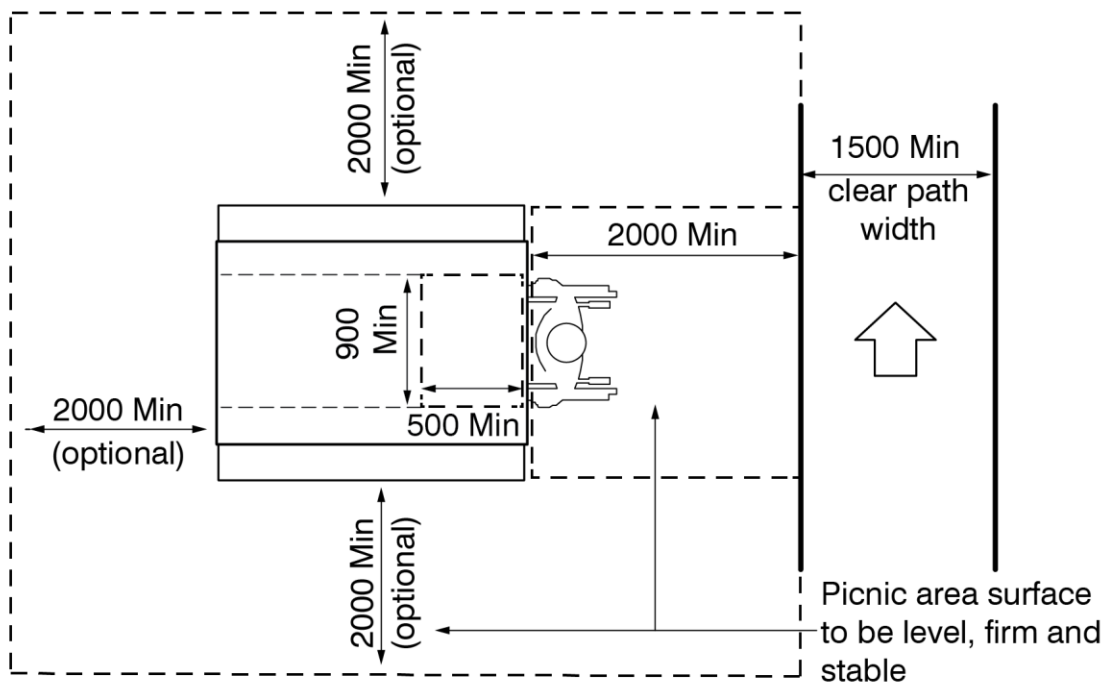
42.3 Picnic Tables

1. At least **20%** of picnic tables must be accessible, but not less than one for each group of picnic tables.
2. Accessible picnic tables must be located on an accessible path and must meet the criteria in section [38. Exterior Paths].



[Diagram 42.C] Accessible Picnic Tables

3. Knee space must be provided under the accessible picnic table and must be min **900 mm** wide, **500 mm** deep and **700 mm** high [Diagram 42.C and D].
4. The picnic tabletop surface must be located between **710 mm** to **865 mm** above the ground surface.
5. Accessible picnic tables must have min **70%** colour / tonal contrast from the adjacent ground surface.
6. The ground floor surface should extend a min **2000 mm** where accessible space is provided at the picnic table and must meet criteria in section [3. Ground and Floor Surfaces] [Diagram 42.D].



[Diagram 42.D] Clear Floor Surface for an Accessible Picnic Table

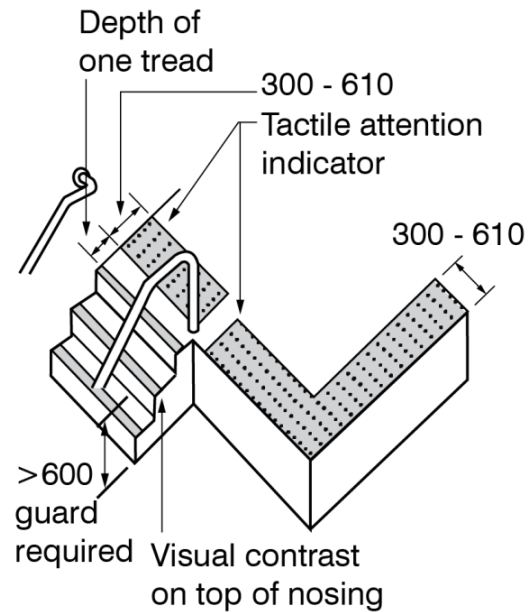
43. Exterior Elevated Platforms

Exterior *Elevated platforms* include, but are not limited to, stage areas, speaker podiums and other raised areas.

43.1 Design

1. Elevated platforms must:
 - a) Be located on an accessible path,
 - b) Illumination must meet requirements in section [10. Lighting, Light Sources and Glare],
 - c) Be sized to safely accommodate mobility devices in compliance with section [1. Space and Reach Requirements], and
 - d) Have TAI as specified in section [8. Tactile Walking Surface Indicators – Attention and Direction] along the perimeter of open platform edges [Diagram 43.A].

2. Where possible, temporary elevated platforms must meet the requirements above.



[Diagram 43.A] Elevated Platform Requirements

44. Porches, Balconies, Terraces and Patios

Porches, balconies, and terraces must be designed to be accessible to all.

44.1 Design Porches, Balconies, Terraces and Patios

1. Porches, balconies, terraces, and patios must be located on an accessible path and have a min depth of **2500 mm**.
2. Publicly used porches, balconies, and terraces should also be equipped with power door operators to improve access to the space.
3. Porches, balconies, terraces, and patios must meet the requirements in the following sections and subsections: [3. Ground and Floor Surfaces], **Error! Reference source not found.**[13. Entrances], and [38. Exterior Paths].

44.2 Railings and Guards

Guardrails protecting occupants from heights greater than **600 mm** above grade must meet criteria in the OBC. The railing must have min **70%** colour / tonal contrast with the adjacent floor / ground surface.

44.3 Exterior Seating

Any site furniture used must meet criteria in section [42. Site Furniture].

45. Landscaping and Community Gardens

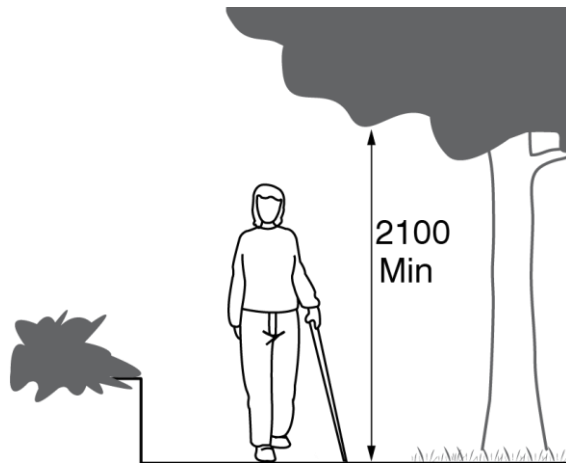
Landscape materials must be selected with a variety of users in mind. A variety of fragrances and contrasting colours provide cues to an individual with visual impairment.

45.1 Landscaping

1. Shrubs and thorns and sharp edges must be planted min **920 mm** away from the accessible path and seating areas.
2. Tree branches along an accessible path must be cut to a min height of **2100 mm** from the ground [Diagram 45.A].
3. Trees that drop large seed pods must not overhang or be positioned near accessible paths.
4. Any paths circulating landscaping must meet the requirements in section [38. Exterior Paths].

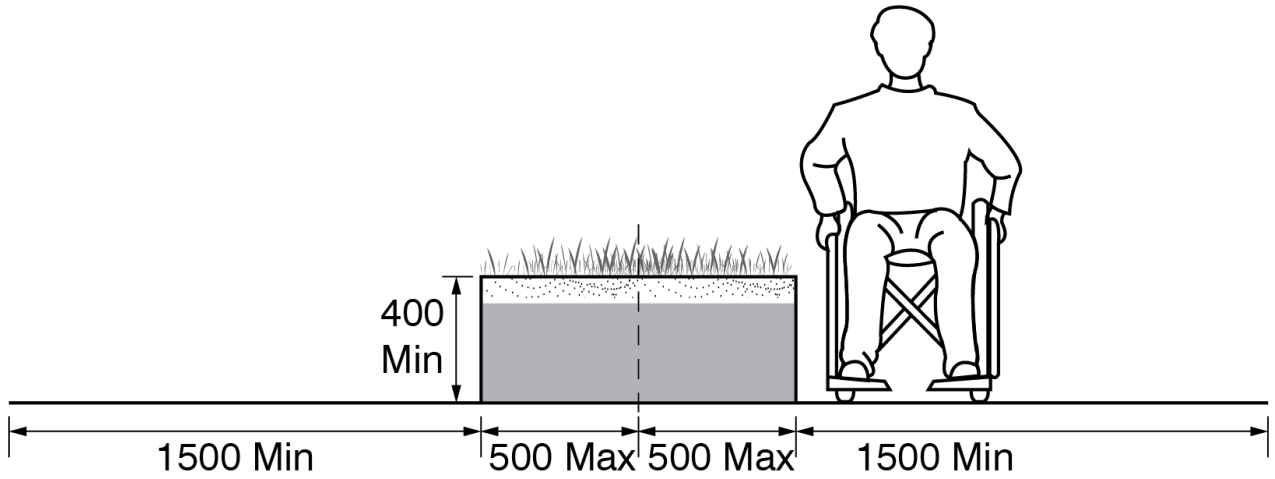
45.2 Accessible Plant Beds at Community Gardens

1. **10%** of community garden plots in an area, but not less than one must be accessible.
2. Accessible plant beds must be **1000 mm** wide and **400 mm** AFF [Diagram 45.B and C] and follow the guidelines in sections [1. Space and Reach Requirements] and [38. Exterior Paths].

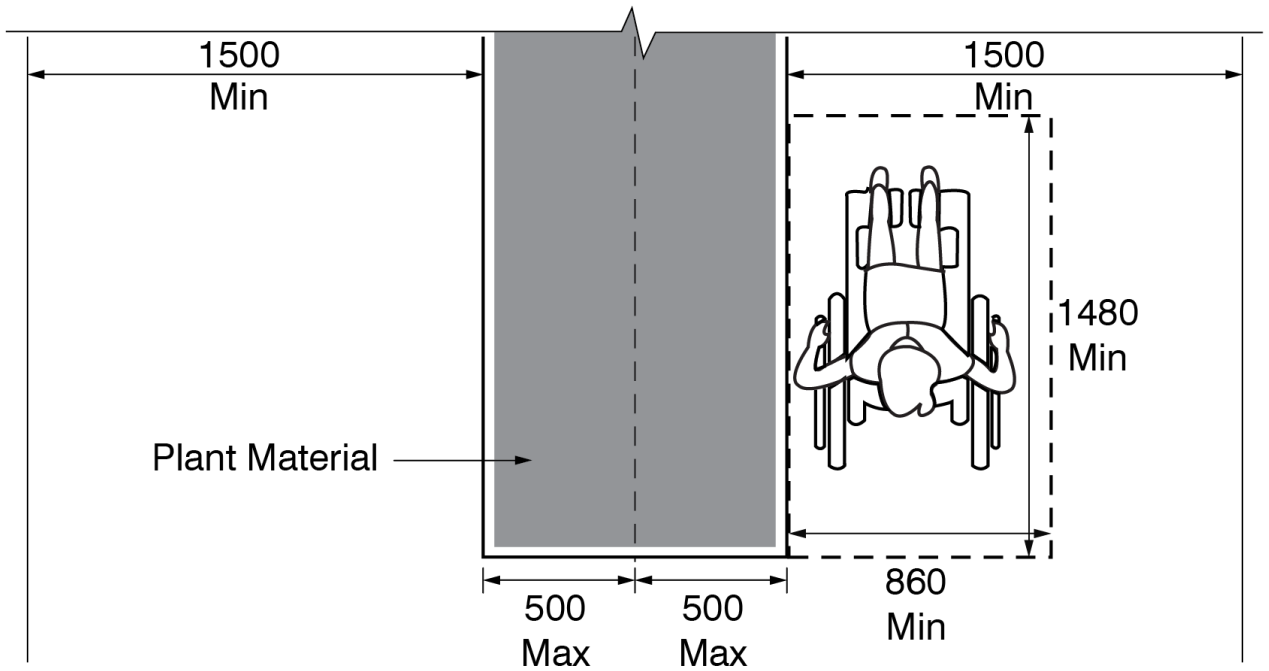


[Diagram 45.A] Clearance Height for Branches]

45. Landscaping and Community Gardens



[Diagram 45.B] Accessible Plant Bed (Elevation)



[Diagram 45.C] Accessible Plant Bed (Plan)

Facility Specific Requirements

46. Libraries

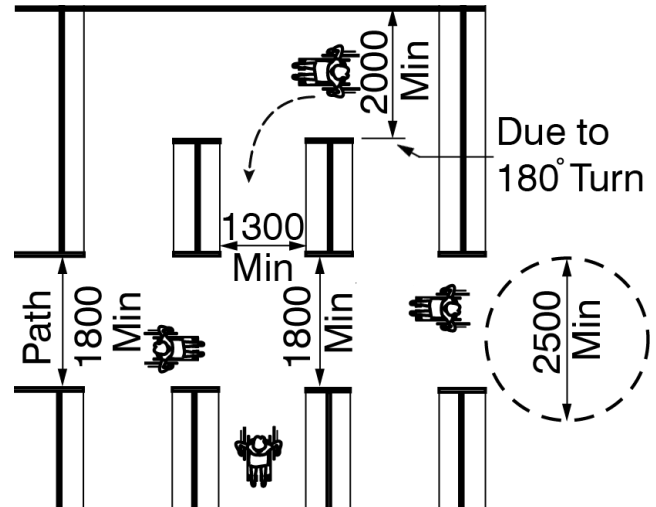
Libraries must provide flexible, accessible spaces for people to read, write, meet and focus.

46.1 Accessible Paths

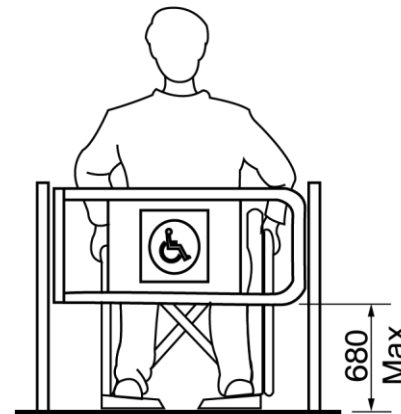
1. Accessible paths to and within the library must meet criteria in sections: [1. Space and Reach Requirements], [2. Interior Accessible Paths], [3. Ground and Floor Surfaces], and [4. Headroom - Overhanging and Protruding Objects].
2. Min of **1800 mm** must be provided for primary paths and card catalogues / computer catalogues.
3. Min of **1300 mm** must be provided between stacks is required [Diagram 46.A].
4. Min of **1100 mm** must be provided between fixed seating, tables, and study carrels.
5. Min of **2000 mm** must be provided wherever **180 degree** turns occur, following the requirements in section [2.1. Path Widths].
6. Security gates must be min **900 mm** wide and meet the requirements in subsection [13.4. Gates] [Diagrams 46.B and C].

46.2 Accessible Libraries

1. **50%** of fixed seating, tables, and study carrels provided must be accessible.
2. One moveable chair must be provided at every information service counter, computer catalogue, or workstation.

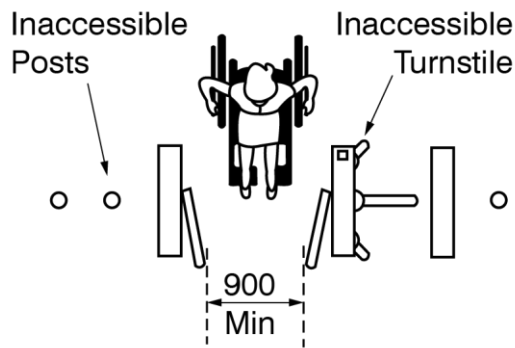


[Diagram 46.A] Accessible Paths in Libraries



[Diagram 46.B] Accessible Gate in Elevation

46. Libraries



[Diagram 46.C] Accessible Gate in Floor Plan

46.3 Study Carrels and Work Stations

1. Study carrels and workstations must have:

- Max **800 mm** to the height of the surface,
- Max **915 mm** of table depth,
- Knee clearance of **700 mm** tall x **900 mm** wide x **500 mm** deep, and
- Toe clearance of **350 mm** tall at a min **600 mm** from the front edge of the desk.

2. Ensure any design features available to the user must consider section [1. Space and Reach Requirements].

3. An electrical outlet must be provided within the study carrels and must be at max **400 mm** above the study carrel desktop.

46.4 Shelving

50% of shelving must be located **400 mm** to **1200 mm** AFF [Diagram 46.D].

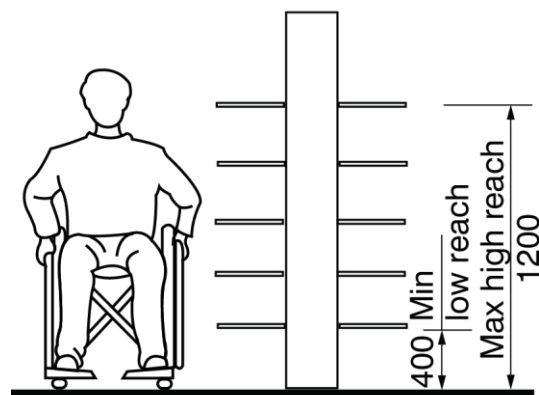
46.5 Book Drop Slots

Book drop slots must:

- Be located on an accessible path,
- Have clear floor space of **2500 mm** by **2500 mm**,
- Be operable using one hand, and
- Be located **900 mm** to **1100 mm** AFF.

46.6 Lighting Requirements

Lighting must meet min requirements in section [10. Lighting, Light Sources and Glare].



[Diagram 46.D] Accessible Shelving in Libraries]

46.7 Acoustics

1. Acoustic quality must be designed to minimize unnecessary background noise to allow for comprehension by persons with limited hearing.
2. Where CD's, tapes, talking books etc. are available as part of the library resource materials, or for loan purposes, a separate space should be provided for reviewing this material without disturbing other library users.

46.8 Additional Requirements

1. Libraries must also meet the requirements in the following:
 - a) Section [1. Space and Reach Requirements],
 - b) Section [2. Interior Accessible Paths],
 - c) Section [3. Ground and Floor Surfaces],
 - d) Section [4. Headroom - Overhanging and Protruding Objects],
 - e) Section [9. Operable Controls and Mechanisms],
 - f) Section [10. Lighting, Light Sources and Glare],
 - g) Section [12. Materials and Finishes],
 - h) Section [16. Windows and Glazing], and
 - i) Section [18. Service Counters and Related Areas].

47. Public Swimming Pools, Spas and Saunas

47. Public Swimming Pools, Spas and Saunas

Ensure public swimming pools, public spas, and wading pools meet the requirements in the latest edition of the OBC.

47.1 Access

1. Access to the public pool deck and public spa must be provided by means of a primary accessible path through the change rooms and onto to the pool deck. The path must meet requirements of section [2. Interior Accessible Paths].

2. Accessible access into a public pool must be provided either by a ramp or a pool lift meeting the requirements in the latest edition of the Ontario Building Code.

3. Accessible access into a public spa must be provided by a transfer wall, a ramp or a pool lift meeting the requirements in the latest edition of the Ontario Building Code.

47.2 Pool Deck

1. The pool perimeter must be clearly delineated by a tactile attention indicator that meet the requirements of section [8. Tactile Walking Surface Indicators – Attention and Direction].

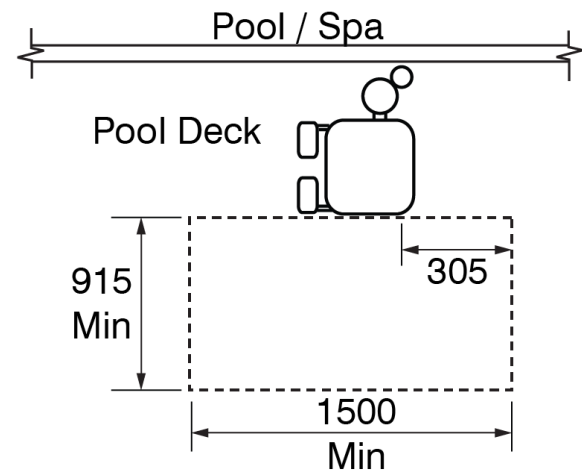
2. Any headroom protrusions greater than **2100 mm** above floor must meet criteria in section [4. Headroom - Overhanging and Protruding Objects].

3. The pool deck surface must be firm and slip-resistant.

4. Diving boards, pool and lane markers, signage, starting blocks, life guard chairs, slides and other pool related structures must have min **70%** colour / tonal contrast from their surrounding environment and not create a tripping hazard.

47.3 Pool / Spa Lifts

The clear deck space located parallel with the seat and on the side of the seat opposite the water must be at least **915 mm** wide and extend forward min **1500 mm** from a line located **305 mm** behind the edge of the seat.



[Diagram 47.A] Pool / Spa Lift Clear Floor Space

47.4 Wading Pools

Wading pools must be safe and gradual with a slope of **1 in 20** so that a child with a disability can be assisted into the water easily and/or use a mobility device to enter.

47.5 Public Spas

Public spas must meet all the requirements for emergency provisions as set out in the latest edition of the OBC under subsection 3.12.5. Emergency Provisions for All Public Spas.

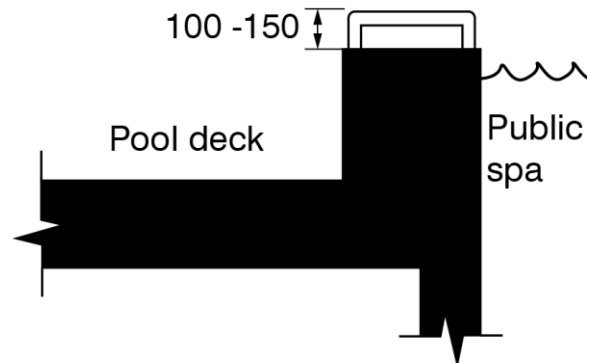
47.6 Transfer Wall

1. A transfer wall from the pool deck into the spa must have **two** grab bars that are perpendicular to the spa [Diagram 47.B and C].

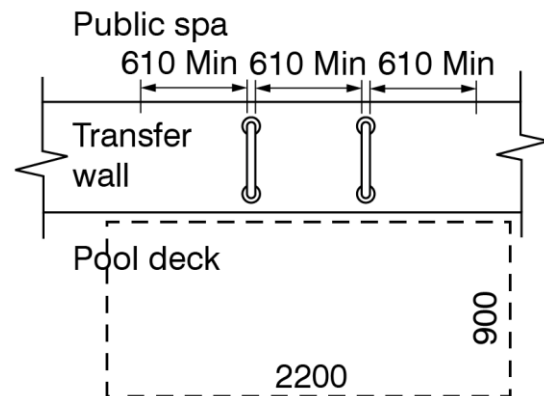
2. The transfer grab bars must be:

- a) Located **100 mm to 150 mm** above the transfer wall,
- b) Min **610 mm** clearance between the grab bars and on each side,
- c) Extend the full width of the transfer wall,
- d) **35 mm to 40 mm** in diameter, and
- e) Installed in strict accordance with the manufacturer recommended installation guidelines.

3. A min **900 mm x 2200 mm** clear deck space to make a lateral transfer, that is outside and adjacent to the accessible path, must be provided with a max **1 in 50 (2%)** slope at the base of the transfer wall surface [Diagram 47.C].



[Diagram 47.B] Transfer Wall Sectional View for a Public Spa



[Diagram 47.C] Transfer Wall Plan View for a Public Spa

47. Public Swimming Pools, Spas and Saunas

47.7 Saunas

1. Saunas must:
 - a) Be connected to an accessible path and meet the requirements of section [2. Interior Accessible Paths],
 - b) Have a door that swings outwards meeting the requirements in section [14. Doors],
 - c) Have a threshold at the door that is flush with the remainder of the floor,
 - d) Have a min **2500 mm** turning circle within the sauna,
 - e) Provide a clear floor space of **860 mm** by **1480 mm** within the seating area,
 - f) Have benches with smooth edges that have min **70%** colour / tonal contrast to the adjacent surroundings,
 - g) Have an emergency call system located on the interior of the sauna that meet the requirements of section [24.6. Emergency Call System], and
 - h) Have min **70%** colour / tonal contrast between the walls and floor.
2. At least one bench within the sauna must be accessible and:
 - a) Be between **610 mm** to **762 mm** deep,
 - b) Be a min **1100 mm** wide,
 - c) Be **430 mm** to **482 mm** AFF,
 - d) Have a backrest,
 - e) Have an armrest within the middle of the bench, and
 - f) Have an adjacent clear floor space of **860 mm** by **1480 mm**.

48. Arenas

Every person should have equal access to participate in recreational sporting activities.

48.1 Accessible Paths

1. Arenas must be provided with an accessible primary path to all main activities with a min clear width of **1800 mm**.
2. The threshold between the rink and the arena floor surface can be max **13 mm** beveled at a slope of **1 in 2**.

48.2 Additional Requirements

1. **10%** of change rooms but no less than 1 type of each change room (team change room, family change room, and referee change room) must be accessible and meet the requirements in subsection [28.3. Accessible Dressing Stalls].
2. At least one universal change room must be provided in every arena building in close proximity to the team / gender specific change rooms and meet the requirements in section [27. Universal Change Room].

3. Arenas must meet the requirements in:

- a) Section [1. Space and Reach Requirements],
- b) Section [2. Interior Accessible Paths],
- c) Section [3. Ground and Floor Surfaces],
- d) Section [4. Headroom - Overhanging and Protruding Objects],
- e) Section [5. Ramps],
- f) Section [6. Stairs],
- g) Section [8. Tactile Walking Surface Indicators – Attention and Direction],
- h) Section [9. Operable Controls and Mechanisms],
- i) Section [10. Lighting, Light Sources and Glare],
- j) Section [12. Materials and Finishes],
- k) Section [13. Entrances],
- l) Section [16. Windows and Glazing],
- m) Section [18. Service Counters and Related Areas], and
- n) Section [33. Accessible and Adaptable Fixed Seating].

