

## Appendix A

# Supplementary Material for Building Rating System: An instrument for Building Accessibility Measurement for Better Indoor Navigation by Blind People

This supplementary material is produced for the article “Building Rating System: An instrument for Building Accessibility Measurement for Better Indoor Navigation by Blind People” by Watthanasak Jeamwatthanachai

## A.1 Entrance

<b>Entrance Space - Conformance A</b>		
<b>Categories</b>	<b>Provisions: Mush-have items</b>	
Entrance	E.1	The main entrance is clearly visible when approaching the building
	E.2	The entrance doors are recessed or guarding is provided
	E.3	Appropriate lighting is provided for people entering the building
Entry System (if provided)	E.4	The position of the entry system is clearly identified using visual contrast
Surface	E.5	A surface on the entrance area must be smooth, flat and slip-resistant
Change in Level	E.6	The maximum threshold upstand is 15 mm with chamfered or rounded edges
	E.7	No ramp is provided at the entrance door
Entrance Door	E.8	The minimum clear operating width through one leaf is 750 mm to 800 mm
	E.9	The swing area is protected adequately to prevent collisions
Glass Doors (if provided)	E.10	If glass doors are provided, the frame contrasts with the surrounding wall/screen OR the presence of the doors is differentiated from the rest of the wall/screen
	E.11	Edges of doors are clearly visible when held in the open position
	E.12	Door furniture is distinguishable in terms of visual contrast with the door
	E.13	Manifestations are provided at 850-1000 mm and 1400-1600 mm above from floor level (where possible)
	E.14	Manifestation is effective at all times the building is in use
Automatic Doors (if provided)	E.15	Automatic doors are provided with either manually or automatically operated control mechanism
	E.16	Warning of the presence of the automatic doors is provided
	E.17	Warning of the direction of opening of the automatic doors is provided
	E.18	Opening and closing door speed is appropriate

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**Entrance Space - Conformance A**

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<b>Categories</b>	<b>Provisions: Mush-have items</b>
	E.19 Doors are main open for an appropriate time
	E.20 Appropriate safety arrangements are provided to prevent doors closing if there is an obstruction
Revolving Doors (if provided)	E.21 If a revolving door is provided, there is an accessible entrance
	E.22 The accessible entrance is provided with an automatic opening device
	E.23 The accessible entrance is operational at all times when the revolving door is in use
Flooring systems (if provided)	E.24 Flooring systems must not present a tripping hazard
	E.25 Flooring systems must be securely fixed on the surface
Lobbies (if provided)	E.26 The minimum space between two hinged doors or pivoted doors in a series shall be 1200 mm plus the width of the door swinging into that space

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**Entrance Space - Conformance AA**

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<b>Categories</b>	<b>Provisions: Should-have items</b>
Entrance	E.27 Appropriate signage is provided from the boundary of the property to identify the location of the main entrance
	E.28 The location of the main accessible entrance (if this not the main entrance) is clearly signposted from the boundary of the site and the main entrance
Entry System (if provided)	E.29 Entry systems are suitable for use by visually impaired people
	E.30 The position of the entry system is logical
Entrance Door	E.31 There is a 300 mm clear space beside the leading edge.
	E.32 The maximum pressure needed to open the door is as follows
	E.33 Delayed action closers are provided
	E.34 If the door open outwards, they are recessed (if door open inwards, please circle pass)

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**Entrance Space - Conformance AA**

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<b>Categories</b>	<b>Provisions: Should-have items</b>
	E.35 Vision panels with a visibility zone extending between 500 mm and 1500 mm above from floor level are provided
Glass Doors (if provided)	E.36 Door handles can be reached, gripped and used with minimum effort

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**Entrance Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>
Entrance	E.37 A canopy providing adequate shelter is provided over the entrance doors
Entry System (if provided)	E.38 Swipe card entry systems are appropriately positioned 750 mm to 1000 mm above from floor level
	E.39 The top operational button of the entry is 1200 mm above from floor level or less
	E.40 Appropriately designed signage is provided with instructions on how to use the entry system
	E.41 Appropriately designed signage is provided with instructions on how to get assistance if a disabled person cannot use the entry system

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## A.2 Foyers

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### Foyer Space - Conformance A

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Categories	Provisions: <b>Mush-have items</b>	
Approaching	R.1	The approach to the reception area is smooth and level
Reception Desk	R.2	The reception desk is logically placed
	R.3	The position of the reception desk is identifiable from the entrance to the building
	R.4	Lighting at the desk is appropriate to allow the face of the receptionist to be clearly seen
	R.5	Reflective glass screen is not provided at the reception desk
Lighting	R.6	Lighting to the reception area is appropriate to allow easy communication and comfort for users
	R.7	The minimum average illuminance at floor level in the reception area is 300 lux

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### Foyer Space - Conformance AA

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Categories	Provisions: <b>Should-have items</b>	
Approaching	R.8	Directional signage to identify the position of the reception area is appropriate in terms of provision and design
Reception Desk	R.9	There is sufficient maneuvering space in front of the reception desk
	R.10	Lighting at the desk is sufficient to enable the completion of any forms, etc.

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### Foyer Space - Conformance AAA

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Categories	Provisions: <b>Could-have items</b>	
Reception Desk	R.11	Lighting provides a minimum illuminance at reception desk level of 500 lux
	R.12	Illuminance at the desk is controllable

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**Foyer Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>
Seating	R.13 A variety of seating in terms of seat height and with and without arms is provided
	R.14 Seating is sufficiently robust to allow someone to use the arms as assistance when sitting or standing
	R.15 Seating contrasts visually with all backgrounds against which it will be viewed

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### A.3 Horizontal Circulation

<b>Horizontal Circulation Space - Conformance A</b>		
<b>Categories</b>	<b>Provisions: Mush-have items</b>	
Corridors and Passageways	H.1	Corridors have a minimum clear width of 1200 mm
	H.2	Doors along the corridors must not open into circulation routes OR Otherwise they must be recessed
	H.3	Corridors are splayed or rounded at corners
Surfaces	H.4	The floor surface finishes are firm
	H.5	The floor surface is matt OR low reflectivity
	H.6	The Floor surfaces are slip-resistant, especially when wet
	H.7	The floor surfaces are not shiny and potentially slippery
	H.8	The pattern of any floor covering is plain or with a subtle pattern
Wall	H.9	Junctions between finishes are level and firmly fixed
	H.10	Appropriate visual contrast is provided at the junction of the floor with the wall
Glazed walls screens and doors	H.11	Wall surfaces are smooth to touch
	H.12	Appropriately designed manifestation is provided to glass screens
	H.13	Manifestation contrast with the background against which it is viewed, both from inside and outside, in all lighting situations
Internal Doors	H.14	The minimum clear opening width of all internal doors is 750 mm
	H.15	If double doors are provided, the minimum clear opening width of one leaf of the doors is 750 mm
	H.16	There is swing protection for all doors that open into the circulation routes OR Otherwise, the doors are recessed
	H.17	All door furniture (handles, kicking plates and finger plates) contrasts visually with the surface of the door
	H.18	The internal door is capable of being operated in manual, powered and/or power-assisted mode
	H.19	Internal doors are clearly identifiable in terms of visual contrast with the surrounding wall

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**Horizontal Circulation Space - Conformance A**

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Categories	Provisions: <b>Mush-have items</b>
	H.20 The leading edge of all internal doors is visually contrasted and is clearly visible when open
	H.21 For glass doors that may be held open, they are protected with appropriate guarding to prevent people from colliding with the leading edge
	H.22 Glass door (within a glazed screen) are clearly differentiated from the adjacent glazed screen by a visually contrasting strip to the top and both sides of the door
	H.23 For glass doors that may be held open, they are protected with appropriate guarding to prevent people from colliding with the leading edge
Lobbies	H.24 Internal lobbies are apparently designed to allow easy maneuverability (1200 mm minimum space is preferred)
lighting	H.25 The minimum illuminance at floor surface level is 100 lux
Acoustics	H.26 The surfaces to the floor or walls must not adversely affect the acoustics

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**Horizontal Circulation Space - Conformance AA**

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Categories	Provisions: <b>Should-have items</b>
Corridors and Passageways	H.27 The a series of double doors of unequal width are provided along the circulation routes, the wider leaf is on the same side of the corridor throughout its length
Glazed walls, screens and doors	H.28 The manifestation is located at two levels: lower area: 850 mm - 1000 mm above from floor level upper area: 1400 mm - 1600 mm above from floor level
	H.29 Manifestation on glass doors is in the form of a logo or sign at least 150 mm high and repeated on adjacent screens  OR Manifestation is provided in the form of a decorative feature such as broken lines or continuous bands at least 50 mm high

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**Horizontal Circulation Space - Conformance AA**

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<b>Categories</b>	<b>Provisions: Should-have items</b>	
Internal Doors	H.30	There is a minimum 300 mm clear space beside the leading edge
	H.31	Door handles are lever style
	H.32	Door and side panels wider than 450 mm are provided with minimum zones of visibility (vision panels) that extend between 500 mm and 800 mm above from floor level, and between 1150 and 1500 mm above from floor level

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**Horizontal Circulation Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>	
Handrails	H.33	A handrail is provided along the length of the corridors
Internal Doors	H.34	Delayed action door closers are provided

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## A.4 Vertical circulation - Stair

<b>Vertical circulation - Stair Space - Conformance A</b>	
<b>Categories</b>	<b>Provisions: Mush-have items</b>
Stairs	VS.1 The stairs are made up for a straight flight or flights of stairs
	VS.2 All of stairs are not spiral or contain a section which has winders
	VS.3 The stairs do not have open risers
	VS.4 Underside stair is protected to prevent user colliding with the stair
	VS.5 The minimum surface width of the stairs is 900 mm
	VS.6 The minimum width between handrails is 900 mm
	VS.7 No change in level is provided by a single step
	VS.8 There is a tactile warning surface or a change of floor color and texture at the head and foot of the stair that give adequate warning of the presence of the stairs
	VS.9 There is a clear landing of 900-1200 mm at the top of each flight
	VS.10 There is a clear landing of 900-1200 mm at the bottom of each flight
	VS.11 There is no door swing encroaches onto the landing area
	VS.12 The risers on each step are the same dimension
	VS.13 The thread on each step are the same dimension
	VS.14 The height of the risers are between 150 - 190mm
	VS.15 The going of each step is between 280 - 400 mm
	VS.16 The minimum headroom on stairs giving access between levels is 2000 mm
Handrail	VS.17 A handrail is provided to each side of the stair
	VS.18 The surface finish to handrails is not reflective
	VS.19 The handrail extends horizontally at least 300 mm beyond the first and last nosing in the flight
	VS.20 The handrail is continuous around landings (including intermediate landings)
	VS.21 The handrails are securely fixed to the supporting wall
Nosing	VS.22 There is no projecting nosing on the steps OR Nosing on 25 mm is acceptable

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**Vertical circulation - Stair Space - Conformance A**

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<b>Categories</b>	<b>Provisions: Mush-have items</b>
	VS.23 The nosing are in good order and securely fixed on the steps
	VS.24 The nosing must not present a tripping hazard or are in poor condition
Contrast	VS.25 The nosing on each step are visually contrasted
	VS.26 The contrast to the nosing can be seen when ascending and descending the stairs
Lighting	VS.27 Illuminance at tread/floor level is a minim of 100 lux
	VS.28 The lighting is not provided is in the riser of the steps
	VS.29 The lighting to the stairs is even
	VS.30 The lighting to the stairs must not cause glare or disorientation to users

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**Vertical circulation - Stair Space - Conformance AA**

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<b>Categories</b>	<b>Provisions: Should-have items</b>
Stairs	VS.31 A flight has no more than 16 risers
Handrail	VS.32 The handrail is between 32 mm - 50 mm diameter OR The handrail is oval with dimensions between 50 mm wide and 39 mm deep
	VS.33 The handrail can be easily gripped along its full length (meaning that it is smooth, no rough surface)
	VS.34 The handrail is made with easy and comfortable to grip, slip-resistant and smooth
	VS.35 On a wide flight of stairs (> 2000 mm), a central handrail is provided
	VS.36 There is a clear space 50 mm - 75 mm between handrail and the adjacent wall
	VS.37 There is a clear space of at least 50 mm between the underside of the handrail and any supporting wall
	VS.38 The top of the handrail is 900-1000mm above the nosing
Nosing	VS.39 Nosing extends between 50-65 mm on the treads
	VS.40 Nosing extends between 30-55 mm on the risers

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**Vertical circulation - Stair Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>
Tactile Information	VS.41 Tactile information indicating floor levels is provided on the handrails
	VS.42 Tactile information indicating floor destination is provided on the handrails

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## A.5 Vertical circulation - Ramp

In this space, the conforming alternate version is applied. If the ramp is designed with an alternative stepped approach, this space will acquire the Conformance AAA as the alternative stepped approach is mainly designed for people with people with visual impairment.

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### Vertical circulation - Ramp Space - Conformance AAA

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Categories	Provisions: Must-have items
Alternative Steps	VR.39 Alternative stepped approach is provided when there is change in level served by the ramp that is more than 300mm
	VR.40 Alternative stepped approach is designed in accordance with the "Vertical Circulation - Stairs"

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### Vertical circulation - Ramp Space - Conformance A

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Categories	Provisions: Should-have items
Slope	VR.1 The gradient of the ramp does not exceed 1:20 for the length of the ramp is less than 10m
	VR.2 The gradient of the ramp does not exceed 1:15 for the length of the ramp is less than 5m
	VR.3 The gradient of the ramp does not exceed 1:12 for the length of the ramp is less than 2m
Surfaces	VR.4 The surface to the ramps is smooth
	VR.5 The surface of the ramps is slip-resistant when wet
	VR.6 The surface of the ramps is in a color that contrast visually with that of the landings
	VR.7 Surface pattern (cross stripes, etc.) must not be used that could visually appear as steps
Width	VR.8 The minimum surface width of the ramp between walls, upstands or kerbs is 1200mm
	VR.9 There is a clear unobstructed view along the whole length of the ramp
Handrails	VR.10 A handrail is securely installed on the supporting wall
	VR.11 The surface finish to handrails is not reflective

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**Vertical circulation - Ramp Space - Conformance A**

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<b>Categories</b>	<b>Provisions: Should-have items</b>
Landings	VR.12 There is a landing at least 1200mm long at the top of the ramp
	VR.13 There is a landing at least 1200mm long at the bottom of the ramp
	VR.14 There is no door swing encroaches onto the landing area
	VR.15 All landings are level
	VR.16 All landings will not allow water to stand on the surface
Lighting	VR.17 Illuminance on the floor surface of the ramp is minimum of: 100 lux in general environment 200 lux in transport environments
	VR.18 The lighting to the ramp is even
	VR.19 The lighting to the ramp must not cause glare or disorientation to users
Protections	VR.20 Appropriate guarding is provided for ramps and landings with an open side to prevent falling
	VR.21 A kerb of 100mm minimum high is provided
	VR.22 The kerb contrast visually with the ramp and the landing
	VR.23 The minimum clear headroom to ramps and landings is 2m
Detectable Warning Surface	VR.24 Detectable warning surface is provided at top with the full width of ramp and depth of 600 mm, commencing back from the ramp 300 mm
	VR.25 Detectable warning surface is provided at bottom with the full width of ramp and depth of 600 mm, commencing back from the ramp 300 mm
	VR.26 If intermediate landing is present, detectable warning surface is provided at intermediate with the full width of ramp and depth of 600 mm, commencing back from the ramp 300 mm

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**Vertical circulation - Ramp Space - Conformance AA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>
Handrails	VR.27 A handrail is provided on both sides of the ramp
	VR.28 If a very wide ramp is provided, there is a central handrail
	VR.29 The handrail is between 32 mm - 50 mm diameter OR The handrail is oval with dimensions between 50 mm wide and 39 mm deep
	VR.30 The handrail can be easily gripped along its full length (meaning that it is smooth, no rough surface)
	VR.31 The handrail is made with easy and comfortable to grip, slip-resistant and smooth
	VR.32 There is a clear space 50 mm - 75 mm between handrail and the adjacent wall
	VR.33 There is a clear space of at least 50 mm between the underside of the handrail and any supporting wall
	VR.34 The handrail is continuous around landings
	VR.35 The top of the handrail is 900-1000mm above the nosing
	VR.36 The top of the handrail is 900-1100mm above the nosing
Landings	VR.37 There is an intermediate landing provided at each change of direction of the ramp
	VR.38 If an intermediate landing is provided, there is at least 1500mm long
Surfaces	VR.39 The different surface finishes are used on the ramp, landings and approach paths, the coefficients of friction of all surfaces are similar
Width	VR.40 The minimum surface width of the ramp between walls, upstands or kerbs is 1500mm

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## A.6 Vertical circulation - Lifts

<b>Vertical circulation - Lifts Space - Conformance A</b>		
<b>Categories</b>	<b>Provisions: Mush-have items</b>	
Lift Cars	VL.1	The entrance door to the lift has a clear opening width of at least 800mm
	VL.2	The floor surface inside the lift is firm
	VL.3	The floor surface inside the lift is slip-resistant
	VL.4	Flooring to the lift is light in color which is visually contrasted
Calling the lift	VL.5	The position of the lift landing and car doors are distinguishable visually from the adjoining walls
Using the lift	VL.6	The door remain open for at least 5 seconds
	VL.7	The door reactivating device operates on infrared or photo eye sensors
	VL.8	Audible warnings of the doors opening and closing are provided
Contrast and Lighting	VL.9	The position of the lift is adequately identified using visual contrast and is well-illuminated
	VL.10	Minimum illuminance within the car is 100 lux
General	VL.11	The surface finishes used within the lift are not highly reflective
	VL.12	The surface finishes used within the lift do not create an unacceptable acoustic environment

<b>Vertical circulation - Lifts Space - Conformance AA</b>		
<b>Categories</b>	<b>Provisions: Should-have items</b>	
Lift Cars	VL.13	A handrail is provided on three sides inside the lift
	VL.14	The handrail can be easily gripped (32-50mm diameter or 50mm wide and 39mm deep)
	VL.15	The handrail is located at 900mm above from floor level
Calling the lift	VL.16	The position of the buttons to call the lift is logical
	VL.17	The call panel is clearly distinguishable in terms of visual contrast from its background
	VL.18	The buttons illuminate when pressed

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**Vertical circulation - Lifts Space - Conformance AA**

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<b>Categories</b>	<b>Provisions: Should-have items</b>
	VL.19 The buttons are place between 900mm and 1100mm above from floor level
	VL.20 The buttons are placed at least 500mm from any return wall
	VL.21 Lift arrival indication is given by using a text or a symbol
	VL.22 Lift arrival indication is given by appropriate use of audible sound
Using the lift	VL.23 The volume and clarity of the message is appropriate
	VL.24 The floor level arrived at is announced audibly and visually
Control within the lift	VL.25 The control panel is situated logically within the lift
	VL.26 Call or control buttons are located between 900mm and 1200mm above from floor level and at least 400 mm away from any return wall
	VL.27 Call buttons illuminate when pressed
	VL.28 Call buttons are not touch-sensitive
Braille and Tactile information	VL.29 The information on the buttons is appropriately embossed (e.g. tactile)

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**Vertical circulation - Lifts Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>
Calling the lift	VL.28 The information on the buttons is appropriately embossed (e.g. tactile)
Using the lift	VL.29 Audible warnings of the doors opening and closing are provided
	VL.30 Floor level indicators can be seen when the lift is full
	VL.31 Tactile and visual floor level indicators are provided outside the lift with clear visibility to user when the life door opens

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**Vertical circulation - Lifts Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>
Control within the lift	VL.32 Information on the call buttons is provided in Braille embossed at 1 mm

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## A.7 Ambulant Disable WCs

<b>Ambulant Disable WCs Space - Conformance A</b>		
<b>Categories</b>	<b>Provisions: Mush-have items</b>	
Number of accessible toilet	AD.1	There is at least one ambulant accessible compartment in each standard male/female toilet
Layout	AD.2	The internal dimensions of the compartment allow at least 750mm activity space in front of the WC clear of door swings
Door	AD.3	The door to the cubicle opens outwards OR If the door opens inwards, it can be opened outwards or removed easily in case of emergency
Lighting	AD.4	The minimum average illuminance at floor level is 100 lux
	AD.5	The light must not produce glare
Visual contrast	AD.6	The sanitary fittings and facilities provided adequate visual contrast with their background
	AD.7	Visual contrast is provided at between the wall and floor junction

<b>Ambulant Disable WCs Space - Conformance AA</b>		
<b>Categories</b>	<b>Provisions: Should-have items</b>	
WC	AD.8	The WC is placed centrally across the width of the WC
	AD.9	The flush is a spatula type OR operated by a proximity sensor
Grab rails	AD.10	There are two horizontal grab rails (each 600mm long) placed 680mm above from floor level with their center line 650mm from the rear wall of the cubicle
	AD.11	There is a 600mm grab rail placed vertically on one side wall. The bottom of the rail is 800mm above from floor level
	AD.12	Grab rails protrude less than 90mm into the cubicle space

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**Ambulant Disable WCs Space - Conformance AA**

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<b>Categories</b>	<b>Provisions: Should-have items</b>
	AD.13 If a urinal is provided for use by ambulant disabled people (including people with visual impairment), a 500 mm grab rail is provided both sides of the urinal

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**Ambulant Disable WCs Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>
Other essential items	AD.14 A coat hook is provided at 1050mm and 1400mm above from floor level

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## A.8 Accessible Washroom

<b>Accessible Washroom Space - Conformance A</b>	
<b>Categories</b>	<b>Provisions: Mush-have items</b>
Layout	AW.1 The maximum travel distance (combined horizontal and vertical) to an accessible washroom with an appropriate transfer side is 40m
Door	AW.2 Door opens outwards, and it must not encroach into the accessible route OR Door opens inwards, and it must be removed easily in case of emergency
WC	AW.3 The space between the WC and the wall is kept clear to allow a carer to assist if required AW.4 The seat is securely fixed and is of good quality
Lighting	AW.5 A white pull cord for the light is provided adjacent to the door OR A device is installed which automatically switches on the light when the toilet door is opened AW.6 A lighting is not activated by a passive infrared (PIR) motion detector AW.7 The lighting provided a minimum 100 lux at floor level AW.8 The lighting must not produce glare
Visual contrast	AW.9 The sanitary fittings and facilities provided adequate via contrast with their background AW.10 Visual contrast is provided at between the wall and floor junction
Other essential features	AW.11 The floor covering is slip-resistant AW.12 Wall tiles or finishes are non-reflective AW.13 Facilities for disposable items are provided in a manner that does not impinge upon the clear space (transfer and maneuvering) within the WC

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**Accessible Washroom Space - Conformance AA**

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<b>Categories</b>	<b>Provisions: Should-have items</b>
Accessibility	<p>AW.14 Signage indicating the route to, and position to the toilet facilities is adequate</p> <p>AW.15 Accessible washroom is provided at every location where standard toilet facilities are provided</p> <p>AW.16 The accessible washroom is unisex toilet facility that can be accessed independently of other toilet accommodation</p> <p>AW.17 The accessible washroom is able to be locked by lever type</p>
Layout	AW.18 There is minimum clear space of 1750mm by 1750mm
WC	<p>AW.19 The flush is a spatula type</p> <p>AW.20 The flush is on the open transfer side</p>
Dispensers	AW.21 There is a single-sheet toilet paper dispenser within easy reach of the WC
Grab rails	<p>AW.22 There is a drop-down rail that is easy to operate from the seated position place 350mm from the center line of the WC</p> <p>AW.23 There is a vertical grab rail that extends between 800mm and 1400mm above from floor level and is placed to the open side of the WC, its center line 470mm from the center of the WC</p> <p>AW.24 There is a grab rail on the wall adjacent to the WC that is 600mm long and is placed 680mm above from floor level. One end of the grab rail is 250 mm away from the wall supporting the WC</p> <p>AW.25 There is a grab rail on the door at a height that will enable user to pull the door closed</p> <p>AW.26 The diameter of all grab rails is between 32mm and 35mm, and they are easy to grip even when wet</p>
Washing and drying hands	<p>AW.27 There is a wall-supported wash hand basin provided with the top of the basin 720-740mm above from floor level</p> <p>AW.28 The basin is 140-160mm away from the WC</p>
Alarm	AW.29 An emergency assistance alarm should be provided with a pull cord reachable from the bath or shower and adjacent floor area

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**Accessible Washroom Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>
WC	AW.30 There is a low-level cistern that could be used as a backrest OR A backrest with padded section has been provided 680mm above from floor level
Dispensers	AW.31 There is a dispenser for hand wipes within easy reach of the WC
Grab rails	AW.32 There are two vertical grab rails placed both side of the wash hand basin, which extend between 800mm and 1400mm above from floor level
Washing and drying hands	AW.33 A single-leave mixer tap is provided AW.34 A soap dispenser is provided AW.35 The temperature of the water is controllable AW.36 A manually operated or automatic proximity warm-air dryer with the activation button at 1200mm above from floor level is provided adjacent to the hand basin
Other essential features	AW.37 Coat hooks are provided at 1050mm and 1400mm above from floor level AW.38 A mirror is provided above the hand basin

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## A.9 Bathrooms and Shower

<b>Bathrooms and Shower Space - Conformance A</b>		
<b>Categories</b>	<b>Provisions: Mush-have items</b>	
Layout	BS.1	For bathroom, the minimum clear space of 900 mm by 1500 mm is provided
Surface	BS.2	Bath should have a flat, slip-resistant base, a transfer seat, a rim height of 480mm and a horizontal or angled support rail
	BS.3	Flooring in bathrooms and shower rooms should be slip-resistant when both dry and wet
Lighting	BS.4	A white pull cord for the light is provided adjacent to the door OR A device is installed which automatically switches on the light when the toilet door is opened
	BS.5	A lighting is not activated by a passive infrared (PIR) motion detector
	BS.6	The lighting provided a minimum 100 lux at floor level
	BS.7	The lighting must not produce glare
	Visual contrast	BS.8
BS.9		Visual contrast is provided at between the wall and floor junction

<b>Bathrooms and Shower Space - Conformance AA</b>		
<b>Categories</b>	<b>Provisions: Should-have items</b>	
Accessibility	BS.10	Signage indicating the route to, and position to the shower facilities is adequate
Shower Space	BS.11	The accessible bathroom provides either a bathtub or a shower space
Grab rails (if bathtub is provided)	BS.12	grab rail is equipped with at least 1200 mm long located horizontally and 180-280mm above from the bathtub rim

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**Bathrooms and Shower Space - Conformance AA**

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<b>Categories</b>	<b>Provisions: Should-have items</b>
	BS.13 Grab rail is equipped with at least 1200 mm located vertically at the control end of the bathtub with 180-280mm above the bathtub rim
Washing and drying hands	BS.14 There is a wall-supported wash hand basin provided with the top of the basin 720-740mm above from floor level BS.15 The basin is 140-160mm away from the WC BS.16 There is a paper towel dispenser that can be reached while seated on the WC
Emergency	BS.17 An emergency assistance alarm should be provided with a pull cord reachable from the bath or shower and adjacent floor area

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**Bathrooms and Shower Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>
Shower Space	BS.18 The accessible bathroom should contain a shower stall BS.19 Shower should be fitted with a tip-up seat, grab rails and a shower curtain enclosing the seat and a shelf for toiletries
WC	BS.20 An accessible bathroom contains a WC BS.21 The WC is with accordance of WC provisions
Washing and drying hands	BS.22 A single-leave mixer tap is provided BS.23 A soap dispenser is provided BS.24 The temperature of the water is controllable BS.25 A manually operated or automatic proximity warm-air dryer with the activation button at 1200mm above from floor level is provided adjacent to the hand basin
Other features	BS.26 Coat hooks are provided at 1050mm and 1400mm above from floor level

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## A.10 Bedroom

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### Bedroom Space - Conformance A

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Categories	Provisions: Mush-have items
General	B.1 Accessible bedroom should be located on accessible routes that are direct and obstruction-free
Bed	B.2 Sufficient space is provided around the room and transfer to one side of the bed
Door	B.3 A clear opening width at minimum of 750mm is provided
Lighting	B.4 Sufficient lighting is provided at minimum of 100 lux
	B.5 There is an even level of light throughout the room and no dark areas
	B.6 Lighting is well-positioned to prevent shadows from objects or from people moving around the room
	B.7 Table and Floor lamps are positioned to avoid trailing wires and risk of trips or bumps
Storage and Wardrobes	B.8 Wardrobe and cupboard doors do not cause obstructions when used

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### Bedroom Space - Conformance AA

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Categories	Provisions: Should-have items
Sanitary	B.9 Sanitary accommodation is satisfied with accordance to the WC and bathroom provisions at least Level AA
Door	B.10 Door handle should be easy to grip and operate by people with visual impairment, and should contrast visually with the door
Emergency	B.11 Accessible bedroom is fitted with an emergency assistance alarm operated by a pull cord that can be reached from the bed and from an adjacent floor area

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**Bedroom Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>	
Sanitary	B.12	People with visual impairment should be able to gain access to all the facilities in the room and sanitary accommodation
Door	B.13	Electronic card-activated locks or electrically powered openers for bedroom entrance doors is provided with clear visibility and audible indication
Emergency	B.14	Telephone is provided next to an electrical socket suitable for lighting and connection of call system or tele-care equipment
Lighting	B.15	Lights are individually switched and can be dimmed
	B.16	Task lighting is available wherever it may be required (e.g., over drawer, dressing tables, beside bed and at desks)
	B.17	Vertical blinds are provided in order to reduce glares
Other features	B.18	Accessible bedroom has a connecting door to an adjacent room for a companion or assistant
	BS.19	Wardrobes and large cupboards have interior lights that are operated by an accessible switch or automatically turned on and off after a short period

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## A.11 General space

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### General space Space - Conformance A

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Categories	Provisions: <b>Mush-have items</b>	
General	G.1	Circulation routes around the room are free of obstacles
	G.2	Most furniture is against the walls in order to provide a clear space in the center of the room
Lighting	G.3	Sufficient lighting is provided at minimum of 100 lux
	G.4	There is an even level of light throughout the room and no dark areas
	G.5	Table and Floor lamps are positioned to avoid trailing wires and risk of trips or bumps
	G.6	Lighting is well-positioned to prevent shadows from objects or from people moving around the room
Sockets, Controls, and Equipment	G.7	There are sufficient and suitable placed electrical sockets for all equipment to be used without trailing wires

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### General space Space - Conformance AA

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Categories	Provisions: <b>Should-have items</b>	
General	G.8	People with visual impairment should be able to gain access to all the facilities in the room
Lighting	G.9	Lights are individually switched and can be dimmed
Sockets, Controls, and Equipment	G.10	All sockets and controls for heating, windows, lights and electrical equipment can be used without moving furniture

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### General space Space - Conformance AAA

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Categories	Provisions: <b>Could-have items</b>	
Lighting	G.11	Task lighting is available wherever it may be required (e.g., over drawer, dressing tables, beside bed and at desks)
	G.12	Vertical blinds are provided in order to reduce glares

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**General space Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>
Sockets, Controls, and Equipment	G.13 Tactile is provided on the controls and equipment
Emergency	G.14 Telephone is provided next to an electrical socket suitable for lighting and connection of call system or telecare equipment
Guide dog	G.15 There is sufficient space for a guide dog's bed and equipment

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## A.12 Utility spaces

<b>Utility Space - Conformance A</b>	
<b>Categories</b>	<b>Provisions: Mush-have items</b>
General	KU.1 The layout is logical (e.g., a sink and cooker are close together)
	KU.2 There is clear space for people to move around and between different areas and there are free of obstacles and hazards
Surface	KU.3 Surface in this space must be smooth, flat and slip-resistant
Cupboards	KU.4 Cupboard doors do not cause any hazards when opened
Lighting	KU.5 Sufficient lighting is provided at minimum of 100 lux at the floor surface
	KU.6 There is an even level of light throughout the room and no dark areas
	KU.7 Lighting is well-positioned to prevent shadows from objects or from people moving around the room
<b>Utility Space - Conformance AA</b>	
<b>Categories</b>	<b>Provisions: Should-have items</b>
Cupboards	KU.8 Contrasting colors differentiate equipment or appliances and cupboard from floors, surfaces and walls
	KU.9 Shiny or reflective surfaces is minimized
Lighting	KU.10 Sufficient lighting is provided at minimum of 300 lux at the kitchen surface
	KU.11 Lights are individually switched
Sockets, Controls, and Equipment	KU.12 There are clear and distinct controls and indicators that contrast with their background
	KU.13 Control settings is understandable by sound or touch

**Utility Space - Conformance AAA**

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<b>Categories</b>	<b>Provisions: Could-have items</b>
Lighting	KU.14 Task lighting is available wherever it may be required (e.g., kitchen counter) KU.15 Vertical blinds are provided in order to reduce glares
Sockets, Controls, and Equipment	KU.16 Tactile is provided on the controls and equipment

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## A.13 Hall and stadium

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### Hall and stadium Space - Conformance A

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Categories	Provisions: <b>Mush-have items</b>	
Accessible Route	L.1	Routes is accessible and of sufficient width to allow visually impaired people with a guide dog to circulate
	L.2	Handrails are provided to stepped and ramped routes

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### Hall and stadium Space - Conformance AA

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Categories	Provisions: <b>Should-have items</b>	
Seating	L.3	People with visual impairment should have access to the full range of seating locations and be able to sit alongside a disabled or non-disabled companion

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### Hall and stadium Space - Conformance AAA

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Categories	Provisions: <b>Could-have items</b>	
Guide dog	L.4	Space for the guide dog is provided adjacent to seating and clear of circulation routes
Emergency	L.5	Emergency egress procedures should take account of the needs of all people who need assistance, whether they are seated in designated areas or not

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